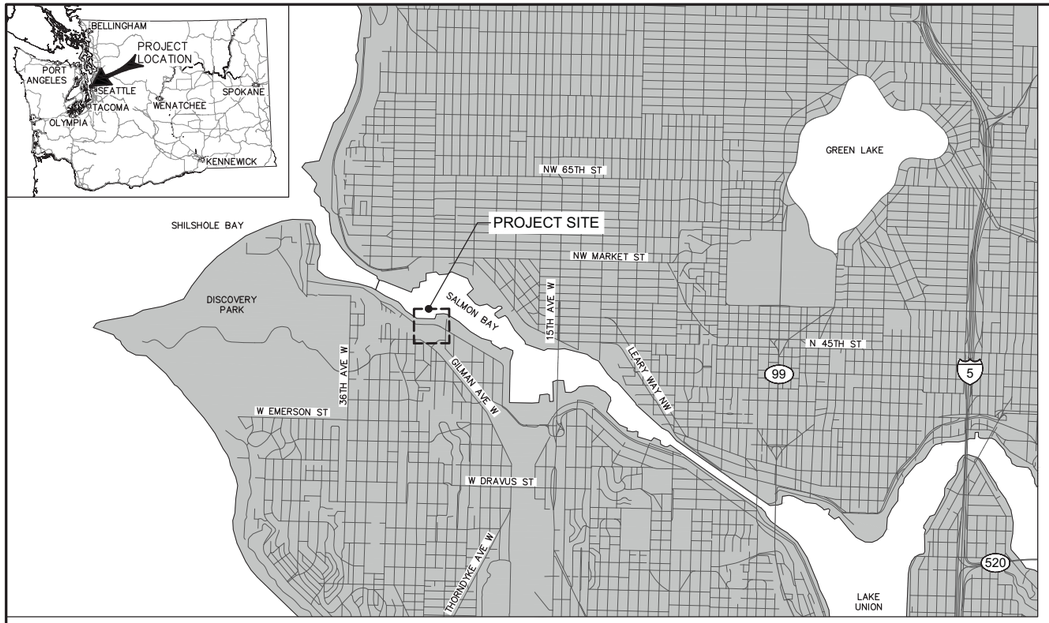
Appendix C
Copies of Permits

Time Oil Bulk Terminal Cleanup Action

SITE ADDRESS: 2750 E COMMODORE WAY



VICINITY MAP
Not to Scale

LEGAL DESCRIPTION

W 219.996 FT OF E 550 FT OF GOVT LOT 5 BTWN COMMODORE WAY & BLOCK 7 SEATTLE TIDE LANDS; TGW E 78.025 FT OF LOT 5 & ALL OF LOTS 6-9, BLOCK 7, SEATTLE TIDE LANDS ADD & TGW E 330.04 FT OF GOVT LOT 5 N OF W COMMODORE WY LESS POR PLTD LESS ST (CO 15923); TGW POR FIRST CL TD LDS ADJ LOTS 7 TO 9 & E 45 FT LOT 6 BLK 7 SEATTLE TIDE LDS IN GL 5 STR 11-25-3 DAF - BEG NE COR SD LOT 9 TH N 88-52-20 W 369 FT TH N 13-22-40 E 111 FT TH S 75 E 357 FT TH S 13-22-40 W 25 FT TO POB DNR LEASE #20-010919 SEE TL #9050t

FOR REFERENCE ONLY

PROJECT TEAM

OWNER
TOC Seattle Terminal 1, LLC
2753 West 31st Street
Chicago, IL 60608
Contact: Mike Ciserella
773-722-9200 x501

WASHINGTON DEPARTMENT OF ECOLOGY PROJECT
Cleanup Project Manager,
Toxics Cleanup Program
3190 160th Ave SE
Bellevue, WA 98008
Contact: Mark Adams
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REMEDIATION CONSULTANT
CRETE Consulting, Inc., PC
108 S. Washington St, Suite 300
Seattle, WA 98104
Contact: Jamie Stevens
206-799-2744

REMEDIATION CONTRACTOR
(TBD)

CIVIL DESIGNER
KPFF Consulting Engineers
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Seattle, WA 98101
Contact: Jenifer Clapman
206-926-0549

SURVEYOR
Axis Survey & Mapping
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GEOTECHNICAL ENGINEER
PanGEO, Inc.
3213 Eastlake Ave East, Suite B
Seattle, WA 98102
Contact: W. Paul Grant
206-262-0370

Owner:
TOC Seattle Terminal 1, LLC

Washington Department of Ecology:
Cleanup Oversight through a Prospective Purchaser Consent Decree No. 20-2-15215-3 SEA, effective November 25, 2020
Ecology Project Manager: Mark Adams 425-649-7107

Project Design Team:
CRETE Consulting, Inc., PC
Primary Contact: Jamie Stevens 206-799-2744

PROJECT SUMMARY

TOC Seattle Terminal 1, LLC purchased these parcels on November 25, 2020 and plans to clean up and develop these parcels associated with the former Time Oil Bulk Terminal facility. To address these historical contaminants TOC Seattle Terminal 1, LLC and the Washington Department of Ecology have entered into a Prospective Purchaser Consent Decree which directs TOC Seattle Terminal 1, LLC to implement the cleanup of the parcels in accordance with the Washington Department of Ecology's cleanup laws and regulations. Cleanup work completed that is required and is being performed under a Washington Department of Ecology Prospective Purchaser Consent Decree is exempt from the procedural requirements of State and local permits for on-site actions (RCW 70.105D.090(1)). The cleanup must comply with the substantive requirements of the applicable permits; therefore, engagement is needed with State and local jurisdictional authorities to obtain the substantive requirements. The main elements to the cleanup actions include the removal of soil above state cleanup levels through excavation and off-site disposal, and in situ solidification and stabilization. The cleanup action also includes elements to address groundwater contamination not covered by these permit documents. ~~Prior to the start of the cleanup work, all~~

2 All buildings have been demolished to existing grade, only foundations and footings remain. All utilities servicing the buildings have been capped and terminated.

SHEET INDEX

SHEET NO.	DWG NO.	SHEET TITLE
1	G-1	COVER SHEET, SHEET INDEX AND VICINITY MAP
2	G-2	SITE MAP
3	G-3	GENERAL NOTES (1 OF 4)
4	G-4	GENERAL NOTES (2 OF 4)
5	G-5	GENERAL NOTES (3 OF 4)
~~6~~	~~G-6~~	~~GENERAL NOTES (4 OF 4)~~
7	G-7A	SITE SURVEY (1 OF 2)
8	G-7B	SITE SURVEY (2 OF 2) 2
9	G-8	SITE ACCESS, HAUL ROUTES, AND STAGING AREAS
10	G-9	DEMO AND TESC PLAN (1 OF 2)
~~11~~	~~G-10~~	~~DEMO AND TESC PLAN (2 OF 2)~~
12	G-11	TESC NOTES AND DETAILS
13	C-1	REMEDIATION AREAS
~~14~~	~~C-3.1~~	~~CAA-1 EXCAVATION AREA PLAN AND PROFILE~~
~~15~~	~~C-3.2~~	~~CAA-2B EXCAVATION PLAN PLAN AND PROFILE~~
~~16~~	~~C-3.3~~	~~CAA-3 AND CAA-5 EXCAVATION AREA PLAN AND PROFILE~~
17	C-3.4	CAA-6 AND CAA-7 EXCAVATION AREA PLAN AND PROFILE

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Rev	Date	Description	By

Client

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Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

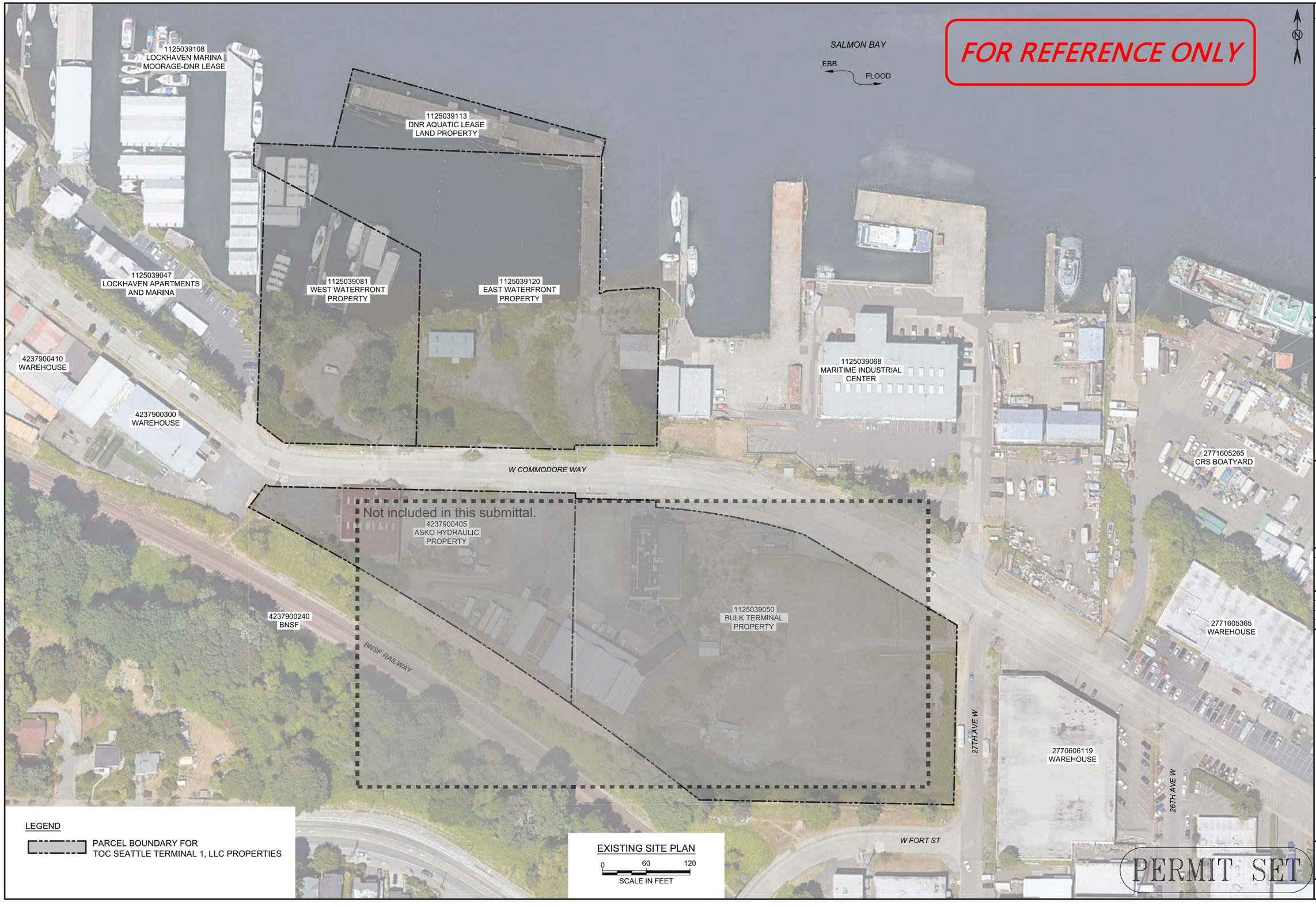
Scale	As Noted
	SCALE WARNING: Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington
Cover Sheet, Sheet Index and Vicinity Map

Drawing No. **G-1**

Sheet 1 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



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STATE OF WASHINGTON
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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

Site Map

Drawing No.
G-2

Sheet 2 of 23

GENERAL NOTES

1. THIS WORK IS BEING COMPLETED TO SATISFY A PROSPECTIVE PURCHASER CONSENT DECREE (PPCD) BETWEEN THE DEPARTMENT OF ECOLOGY AND TOC SEATTLE TERMINAL 1, LLC.

2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN DURING THE LIFE OF THE CONTRACT, ENVIRONMENTAL PROTECTIVE MEASURES IN ACCORDANCE WITH THESE PLANS. THE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, EROSION CONTROL, VEHICLE DECONTAMINATION, AND SPILL RESPONSE.

3. IT IS POSSIBLE THAT DISTURBANCE OF HISTORICAL NATIVE AMERICAN MATERIALS MAY OCCUR AS A RESULT OF EXCAVATION OPERATIONS. THE EXCAVATION CREW SHALL ATTEND A 1-HOUR ONSITE ORIENTATION HELD BY THE SITE ARCHAEOLOGIST (RETAINED BY TOC SEATTLE TERMINAL 1, LLC) WHERE PERSONNEL SHALL BE MADE AWARE OF THE POTENTIAL TO DISCOVER CULTURAL RESOURCES WITHIN THE REMOVAL AREAS. THE CONTRACTOR SHALL BE MADE AWARE OF THEIR RESPONSIBILITIES DURING MONITORING BY THE SITE ARCHAEOLOGIST AND THEIR OBLIGATIONS IN THE CASE OF AN INADVERTENT DISCOVERY. IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED DURING REMOVAL, THE CONTRACTOR SHALL CEASE EXCAVATION AND NOTIFY THE ENGINEER. CONTRACTOR SHALL ALLOW ACCESS TO WORK AREAS AS REQUESTED BY THE ENGINEER TO ALLOW INSPECTION FOR CULTURAL RESOURCES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING, MAINTAINING, MONITORING, AND SUPPLEMENTING SILT CONTROL MEASURES, STORMWATER RUNOFF CONTROL MEASURES, AND ADDITIONAL BEST MANAGEMENT PRACTICES (BMPS) FOR THE IMPLEMENTATION AND MAINTENANCE OF A COMPREHENSIVE EROSION CONTROL PLAN. THE CONTRACTOR SHALL MEET CITY OF SEATTLE REQUIREMENTS AND THE SUBSTANTIVE REQUIREMENTS OF THE CONSTRUCTION STORMWATER GENERAL PERMIT (CSWGP) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR SITE CONSTRUCTION WORK (INCLUDING APPLICABLE CONSTRUCTION WATER).

5. GRADING MUST BE STABILIZED BY OCTOBER 31ST, AND NO EXCAVATION OR FILL PLACEMENT CAN BE PERFORMED BETWEEN OCTOBER 31ST AND APRIL 1ST UNLESS AN EXTENSION IS GIVEN BY THE ENGINEER.

PERMITS/NOTICE OF INTENTS

1. THE CONTRACTOR SHALL OBTAIN CONSTRUCTION PERMITS AND APPROVALS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. CITY OF SEATTLE FIRE HYDRANT OR WATER SERVICE CONNECTION PERMIT

2. OWNER WILL OBTAIN THE FOLLOWING PERMITS OR SUBSTANTIVE REQUIREMENT DETERMINATIONS AND CONTRACTOR SHALL COMPLY WITH THESE REQUIREMENTS:
   A. KING COUNTY INDUSTRIAL WASTEWATER PERMIT FOR DISCHARGE OF TREATED SITE WATER TO THE SANITARY SEWER.
   B. CITY OF SEATTLE GRADING, ~~SHORING, AND RIGHT-OF-WAY WORK APPROVALS.~~
   C. ECOLOGY CONSTRUCTION STORM WATER NPDES PERMIT THAT WILL BE TRANSFERRED TO CONTRACTOR PRIOR TO MOBILIZATION.
   D. ECOLOGY ENGINEERING DESIGN REPORT APPROVAL.

PRE CONSTRUCTION SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT A TECHNICAL EXECUTION PLAN (PLAN) THAT DOCUMENTS THE PROPOSED APPROACHES, EQUIPMENT, MEANS, AND METHODS OF ACCOMPLISHING THE EXCAVATION AND DISPOSAL OF SOIL AND ASSOCIATED SUBSURFACE DEBRIS AS WELL AS APPROACHES, EQUIPMENT, MEANS AND METHODS TO COMPLETE THE SOIL MIXING AND THE CONSTRUCTION OF THE INFILTRATION TRENCH. THE PLAN SHALL INCLUDE THE SEQUENCING APPROACH TO COMPLETE THE WORK BASED ON THE SCHEDULE. THE PLAN SHALL ADDRESS THE SAFE HANDLING OF CONTAMINATED MATERIALS AND MAINTAINING CLOSE TOLERANCES ON THE EXCAVATION LIMITS SHOWN ON THE DRAWINGS. AT A MINIMUM THE PLAN SHALL INCLUDE THE FOLLOWING ATTACHMENTS:
   A. TRAFFIC CONTROL PLAN
   B. EXCAVATION PLAN
   C. UTILITY PROTECTION PLAN
   ~~D. ISS DESIGN~~
   E. DEWATERING SYSTEM PLAN WHICH SHALL DETAIL THE MEANS AND METHODS FOR ACHIEVING DEWATERED EXCAVATIONS THAT ENCOUNTER THE GROUNDWATER TABLE. THE METHODS FOR DEWATERING SHALL BE AT THE CONTRACTOR'S DISCRETION AND MAY BE A SYSTEM COMPRISED OF SEVERAL DIFFERENT COMPONENTS INCLUDING, BUT NOT LIMITED TO TRENCHES AND PUMPS, SHEET PILING, WELLS, AND WELL POINTS. WHILE THE CONTRACTOR WILL BE GIVEN THE DISCRETION IN ASSEMBLING, OPERATING AND MAINTAINING THE SYSTEM, PERFORMANCE OF THE SYSTEM SHALL BE MONITORED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DEWATERING SYSTEM TO ENSURE THAT OPEN EXCAVATION AREAS ARE HYDROSTATICALLY CONTROLLED AT ALL TIMES. THE ENGINEER WILL HAVE FINAL DETERMINATION AS TO ACCEPTABILITY OF THE DEWATERING SYSTEM PERFORMANCE. THE CONTRACTOR SHALL ALSO CONTROL SURFACE RUNOFF SO AS TO PREVENT ENTRY OR COLLECTION OF WATER IN EXCAVATIONS.
   F. CONSTRUCTION WATER MANAGEMENT PLAN (CWMP) - SHALL PROVIDE SUFFICIENT DETAIL TO ENSURE THAT THERE SHALL BE NO DISCHARGE OF WATER THAT DOES NOT COMPLY WITH ECOLOGY REQUIREMENTS AT ANY TIME AND UNDER ANY CIRCUMSTANCE. THE CWMP SHALL INCLUDE DETAILS ON ONSITE COLLECTION, TREATMENT, AND DISCHARGE OF WATER AND/OR COLLECTION, TRUCKING, AND OFFSITE TREATMENT OF WATER COLLECTED DURING FIELD ACTIVITIES. WATER INCLUDES SITE STORMWATER STOCKPILE DRAINAGE, DECONTAMINATION FLUIDS, AND GROUNDWATER COLLECTED DURING DEWATERING.

2. THE CONTRACTOR SHALL SUBMIT, FOR THE ENGINEER'S REVIEW AND COMMENT, A SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN. THE ENGINEER'S REVIEW OF, OR COMMENT ON, THE SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OR LIABILITY FOR THE PLAN. DELAY IN SUBMITTING A WRITTEN SITE- SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT CONSTITUTE GROUNDS FOR A CONTRACT SCHEDULE EXTENSION OR DELAY CLAIM.

3. THE CONTRACTOR SHALL IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DEVELOPED FOR THE PROJECT IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT CSWGP THAT BECAME EFFECTIVE IN MAY 5, 2017 (NOTE THIS EXPIRES DECEMBER 31, 2020, CONTRACTOR SHALL USE THE MOST RECENT VERSION WHICH EXTENDS INTO THE CONSTRUCTION WORK WINDOW). THE SWPPP SHALL INCLUDE A CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP), SPILL PLAN (SP). THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP AND THE TESC MEASURES INCLUDING MONITORING, SAMPLING, TESTING, AND REPORTING REQUIRED BY THE CSWGP.
   A. IF REQUESTED BY ECOLOGY, THE CONTRACTOR SHALL SUBMIT TO ECOLOGY PRODUCT CATALOG CUTS FOR FILTER FABRIC FENCE AND FILTER BAG INSERTS TO BE USED FOR THE WORK.
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING MONTHLY DISCHARGE REPORTS IN ACCORDANCE WITH THE CSWGP. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINES OR PENALTIES AS A CONSEQUENCE OF FAILURE TO SUBMIT MONTHLY REPORTS IN A TIMELY FASHION.

SCHEDULE

1. WEEKLY PROGRESS MEETINGS SHALL INCLUDE THE CONTRACTOR, ENGINEER, CONSULTANTS AND OTHERS AFFECTED BY DECISIONS MADE. THE ENGINEER WILL ARRANGE FOR THE TIME AND LOCATION OF THE MEETINGS. CONTRACTOR SHALL SCHEDULE, COORDINATE, LEAD AND ATTEND WEEKLY PROGRESS MEETINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COPIES OF THE CURRENT THREE WEEK LOOK AHEAD SCHEDULE TO ALL PARTICIPANTS AT EACH MEETING. THE CONTRACTOR SHALL RECORD MEETING MINUTES AND DISTRIBUTE COPIES WITHIN FIVE WORKING DAYS TO THE MEETING TO PARTICIPANTS AND TO OTHERS AFFECTED BY THE DECISIONS MADE.

2. WEEKLY PROGRESS MEETING SHALL INCLUDE THE FOLLOWING STANDARD AGENDA:
   A. REVIEW MINUTES OF PREVIOUS MEETING
   B. HEALTH AND SAFETY ISSUES
   C. REVIEW OF WORK PROGRESS
   D. FIELD OBSERVATION, PROBLEMS, AND DECISIONS
   E. IDENTIFICATION OF PROBLEMS THAT IMPEDE PLANNED PROGRESS
   F. REVIEW OF PROGRESS SCHEDULE (3 WEEKS LOOK AHEAD, 1 WEEK BACK)
   G. CORRECTIVE MEASURES TO ACHIEVE SCHEDULE MILESTONES
   H. PLANNED PROGRESS DURING SUCCEEDING WORK PERIOD
   I. COORDINATION OF PROJECTED WORK PROGRESS
   J. QUALITY AND WORK STANDARDS
   K. EFFECT OF PROPOSED CHANGES ON PROGRESS SCHEDULE AND COORDINATION
   L. DEMONSTRATION THAT THE PROJECT RECORDS ARE UP-TO-DATE
   M. OTHER BUSINESS RELATED TO THE WORK.

3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE WORK SCHEDULE SO THAT ALL WORK CAN BE COMPLETED IN A SINGLE SEASON. CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS AND LABOR AS NECESSARY TO MAINTAIN THE PROJECT SCHEDULE AND SHALL, AT NO ADDITIONAL COST, PROVIDE ADDITIONAL EQUIPMENT, MATERIALS AND LABOR TO ACCELERATE THE WORK AS REQUIRED TO REMAIN ON SCHEDULE.

4. CONTRACTOR SHALL SUBMIT WEEKLY SCHEDULE UPDATES THAT SHOW A DETAILED 3-WEEK LOOK-AHEAD SCHEDULE, AND AN OVERALL SCHEDULE THAT DEMONSTRATES COMPLETION BY THE DATES PRESCRIBED HEREIN. THIS WEEKLY SCHEDULE SUBMITTAL SHALL CLEARLY SHOW THE COMPLETION DATES AND DETAIL METHODS THAT WILL BE EMPLOYED TO ACCELERATE THE WORK AS NECESSARY TO ACHIEVE THE COMPLETION DATES.

5. THE FOLLOWING WORK RESTRICTIONS APPLY TO THIS WORK:
   A. PROJECT COMPLETION DATE IS XXXX, 20XX. ALL SITE WORK SHALL BE COMPLETED BY THIS DATE.

HEALTH AND SAFETY NOTES

1. THE CONTRACTOR SHALL COMPLY WITH THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA), INCLUDING ALL REVISIONS AND AMENDMENTS THERETO; THE PROVISIONS OF THE WASHINGTON DEPARTMENT OF LABOR AND INDUSTRIES, SAFETY AND HEALTH.

2. THE CONTRACTOR SHALL CONSIDER THAT HAZARDOUS AND/OR REGULATED MATERIAL CAN BE ENCOUNTERED IN THE SUBSURFACE AT ANY LOCATION ON THE PROJECT. THE CONTRACTOR SHALL PLAN WORK ZONE DESTINATION AND WORK HEALTH AND SAFETY AROUND THIS ASSUMPTION.

3. FORTY-HOUR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING, WITH CURRENT ANNUAL 8-HOUR REFRESHER, SHALL BE REQUIRED FOR ALL ONSITE WORKERS AND OTHER WORKERS WITH POTENTIAL FOR HANDLING OR EXPOSURE TO SITE SOIL OR GROUNDWATER, WITH THE EXCEPTION OF TRUCK DRIVERS AND SURVEYORS (UNLESS THEIR ACTIVITIES REQUIRE POTENTIAL EXPOSURE TO CONTAMINATED MATERIALS). TRUCK DRIVERS SHALL RECEIVE ORIENTATION ON THE SITE SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN; NO OTHER HEALTH AND SAFETY TRAINING SHALL BE REQUIRED, PROVIDED THAT ALL OUT-OF-CAB ACTIVITIES ARE RESTRICTED TO COVERING OF LOADS, NECESSARY VEHICLE INSPECTIONS, AND SIGNING OF MANIFESTS.

SURVEYING NOTES

1. THE CONTRACTOR SHALL ESTABLISH SUCH ADDITIONAL LINES, GRADES AND CONTROLS AS ARE NEEDED FOR CONSTRUCTION.

2. ALL WORK PERFORMED SHALL BE IN CONFORMANCE WITH THE LINES, GRADES AND DIMENSIONS INDICATED ON THE DRAWINGS. IF A DISCREPANCY IS NOTED BETWEEN THE DRAWINGS, THE SAME SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION. WHERE TOLERANCES ARE STATED, THE WORK PERFORMED SHALL BE WITHIN THOSE TOLERANCES. THE ENGINEER WILL DETERMINE IF THE WORK CONFORMS TO SUCH LINES, GRADES AND DIMENSIONS AND HIS DETERMINATION SHALL BE FINAL.

3. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR DETAILED DIMENSIONS AND ELEVATIONS MEASURED FROM PRIMARY CONTROL POINTS.

4. CONTRACTOR SHALL SUBMIT SURVEYS TO THE ENGINEER WITHIN 24 HOURS OF COMPLETING INDEPENDENT SURVEYS. INCLUDE AUTOCAD ELECTRONIC FILE, PLAN VIEW DRAWINGS WITH 1-FT CONTOUR INTERVALS AND SPOT ELEVATIONS DEPICTING HIGH AND LOW POINTS PLOTTED AT 1 INCH=50 FEET. THE AUTOCAD FILES SHALL INCLUDE A TRIANGULATED IRREGULAR NETWORK (TIN) BASED DTM. ASCII-FORMAT PROCESSED SURVEY DATA SHALL BE PROVIDED IN X,Y,Z (EASTING, NORTHING, ELEVATION) FORMAT. EACH DATA SHALL INCLUDE A DESCRIPTIVE HEADER INCLUDING, BUT NOT LIMITED TO: SOFTWARE AND EQUIPMENT INFORMATION, CLIENT, PROJECT, HORIZONTAL AND VERTICAL DATUM, UNITS, SURVEY TYPE, ALIGNMENT, AND STATIONS SURVEYED.

5. THE CONTRACTOR SHALL MAINTAIN ON SITE A COMPLETE, ACCURATE LOG OF CONTROL OF SURVEY WORK AS IT PROGRESSES.

EXISTING UTILITIES

1. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND AND ABOVEGROUND UTILITIES IN THE AREA OF THE WORK. THOSE UTILITIES WHICH ARE TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL UTILITY PROVIDERS THAT WILL BE AFFECTED BY EARTHWORK ACTIVITIES AND SHALL DESIGN SITE ACTIVITIES ~~(SHORING~~) TO ACCOUNT FOR THE UTILITIES.

2. THE CONTRACTOR SHALL PREPARE A UTILITY PROTECTION PLAN, DISCUSSED WITH THE TECHNICAL EXECUTION PLAN SUBMITTAL. UTILITIES TO BE PROTECTED INCLUDE MONITORING WELLS, SIDE SEWER CONNECTIONS AN~~D A GAS LINE AND UTILITY POL~~E

3. WELLS AND INJECTION POINTS WILL BE DECOMMISSIONED BY OWNER PRIOR TO CONTRACTOR MOBILIZATION.

CONSTRUCTION WATER MANAGEMENT

1. THE DEWATERING SYSTEM IS EXPECTED TO BE OPERATED INTERMITTENTLY THROUGHOUT THE PROJECT. WATER COLLECTION AND TREATMENT WILL BE REQUIRED FOR ALL SITE CONTACT STORMWATER, INCLUDING WATER COLLECTED WITHIN STOCKPILE AREAS, FROM OTHER DISTURBED AREAS WITHIN THE SITE WHERE STORMWATER CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL.

2. WATER GENERATED FROM THE DEWATERING PROCESS WILL BE APPROPRIATELY TREATED AND DISCHARGED TO SANITARY SEWER OR AT AN OFFSITE FACILITY PERMITTED TO DISPOSE OF CONTAMINATED WATER.

3. THE MINIMUM SYSTEM REQUIREMENTS SHALL INCLUDE OIL/WATER SEPARATION, SOLIDS REMOVAL, POLISHING WITH GRANULATED ACTIVATED CARBON, AND PH AND DISSOLVED OXYGEN TREATMENT. CONTRACTOR SHALL ADD TO THE SYSTEM TO THE DEGREE THEY BELIEVE NECESSARY TO COMPLY WITH THE DISCHARGE LIMITS.

4. ALL PROJECT WATER THAT CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL, OR THAT CONTACTS ONSITE PAVEMENT, SHALL BE TREATED ONSITE TO REMOVE ALL CONTAMINANTS OF CONCERN (COCS) BEFORE DISCHARGE TO THE CITY OF SEATTLE TREATMENT SYSTEM, OR SHALL BE TRUCKED TO AN ECOLOGY-APPROVED OFFSITE FACILITY FOR TREATMENT, OR A COMBINATION OF BOTH. THE EXCEPTION IS FOR OVER-THE-ROAD TRUCK WHEEL WASH WATER WHICH SHALL BE HANDLED SEPARATELY (OFFSITE DISPOSAL) DUE TO THE POTENTIAL FOR DIFFERENT CONTAMINANTS.

5. CONTRACTOR SHALL UTILIZE EITHER OR BOTH METHODS, WHICHEVER IS DEEMED NECESSARY TO ENSURE THAT NO DISCHARGE OF NON-COMPLIANT WATER OCCURS AT ANY TIME OR UNDER ANY CIRCUMSTANCE.

6. SUFFICIENT STORAGE SHALL BE AVAILABLE ONSITE TO PREVENT NON-COMPLIANT DISCHARGES. STORAGE CAPACITY DESIGN SHALL CONSIDER FLOW-THROUGH DISCHARGE RATES AND/OR TRUCKING CAPACITY AND TURNAROUND TIMES.

7. FOR OFFSITE DISPOSAL, TRUCK TICKETS SHALL BE PROVIDED TO THE ENGINEER WEEKLY AND WILL IDENTIFY LOCATION OF FACILITY AND VOLUME OF WATER DISCHARGED.

FOR REFERENCE ONLY

NEW SHEET

PERMIT SET

Rev	Date	Description	By

Client

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Scale As Noted

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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

General Notes (1 of 4)

Drawing No. **G-3**

Sheet 3 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

GENERAL NOTES continued...

EARTHWORK AND SUBGRADE PREPARATION NOTES

1. ALL EARTHWORK AND SUBGRADE PREPARATION WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE DRAWINGS.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS CONCEPTUAL. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION ONLY WITHIN THE LIMITS OF THE PROJECT. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE PERTINENT UTILITY LOCATIONS AND ELEVATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO FULLY UNDERSTAND AND VERIFY THE CONDITION OF ANY UTILITY SERVICE LINES, AND PROTECT THOSE LINES AT ALL TIMES DURING THE COURSE OF THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ITS ACTIONS.

3. IF DURING CONSTRUCTION, CONDITIONS ARE ENCOUNTERED WHICH DIFFER FROM THE CONDITIONS PROVIDED ON THE DRAWINGS OR LISTED WITHIN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY.

5. USE OF DUST CONTROL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO MINIMIZE DUST GENERATION. IF WORK ACTIVITIES GENERATE VISIBLE DUST AT THE PROJECT BOUNDARIES OR IN AREAS WHERE CLEAN BACKFILL HAS BEEN PLACED, ACTIVITIES SHALL BE MODIFIED OR STOPPED WHILE DUST CONTROL MEASURES ARE IMPLEMENTED. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SPRINKLING AREAS WITH WATER, CHANGING THE RATE OF EXCAVATION/BACKFILLING/HAULING ACTIVITIES, OR KEEPING DROP HEIGHTS TO A MINIMUM WHILE LOADING TRUCKS.

STOCKPILE MANAGEMENT PROCEDURES

1. STOCKPILING SHALL BE ALLOWED ONLY IN AREAS APPROVED BY THE ENGINEER. THE EDGES OF THE STOCKPILES SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE TOP OF THE BANK ALONG SALMON BAY.

2. STOCKPILES ARE REQUIRED TO BE LINED ON THE BOTTOM OR PLACED ON PAVEMENT TO PREVENT CONTAMINATION OF THE UNDERLYING SOIL, AND COVERED WHEN NOT DIRECTLY IN USE TO MINIMIZE THE DUST PRODUCTION AND TO PROTECT AGAINST PRECIPITATION.

3. STOCKPILE BOTTOM LINERS SHALL BE POLYETHYLENE, SHALL HAVE A MINIMUM THICKNESS OF 30 MILS AND SHALL BE RESISTANT TO WEATHERING AND DEGRADATION DUE TO CONTACT WITH CONTAMINATED MATERIALS FOR THE DURATION OF THE PROJECT WORK AND SUITABLE FOR THE INTENDED USE OF THE STOCKPILE AREA. THE LINER SHALL BE FURNISHED WITH PREFABRICATED SHOP WELDED SEAMS OR SEAMS WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DIMENSIONS MAY BE MAXIMIZED TO PROVIDE THE LARGEST MANAGEABLE SHEET.

4. THE LINER SHALL BE SUPPLIED IN ROLLS. LABELS ON EACH ROLL SHALL IDENTIFY THE THICKNESS OF THE MATERIAL, THE LENGTH AND WIDTH OF THE ROLL, LOT AND ROLL NUMBERS, AND NAME OF MANUFACTURER.

5. PREPARE THE AREA TO RECEIVE THE STOCKPILE LINER IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS TO PROVIDE A SMOOTH, FIRM SUBGRADE THAT SHALL BE FREE OF PROTRUSIONS AND SUITABLE TO PROTECT THE LINER DURING USE.

6. INSTALL BOTTOM LINER TO FULLY COVER THE SMOOTH GROUND SURFACE FOR EACH STOCKPILE. FIELD SEAMING, IF NECESSARY, SHALL BE COMPLETED IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS TO PROVIDE A WATER TIGHT SEAM. SIMPLE OVERLAPPING OF SEAMS WITHOUT SEALING IS NOT ALLOWED. ANCHOR THE LINER ADEQUATELY TO PREVENT DISPLACEMENT. MONITOR AND MAINTAIN LINER INTEGRITY. IMMEDIATELY REPAIR TEARS OR PUNCTURES WHERE DAMAGED.

7. STOCKPILE BERMS (OR ECOLOGY BLOCKS) SHALL BE FIRM, NON-YIELDING AND STABLE. BOTTOM LINER SHALL COVER ENTIRE BERM AND BE PLACED SUCH THAT ALL DRAINAGE FROM THE STOCKPILE IS CONTAINED WITHIN THE STOCKPILE CELL.

8. ONCE THE LINER IS IN PLACE AND THE STOCKPILE AREA READY TO RECEIVE/ STORE MATERIAL, THE CONTRACTOR SHALL INSTALL A CUSHIONING LAYER (MINIMUM 12 INCHES THICK) TO PROTECT THE LINER IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS. THIS LAYER CAN CONSIST OF ONSITE WASTE AS LONG AS IT MEETS THE LINER MANUFACTURER'S RECOMMENDATIONS FOR LINER PROTECTION. LEAVE THIS CUSHIONING LAYER OVER THE LINER DURING OPERATIONS TO PROTECT THE LINER FROM DAMAGE BY STOCKPILING AND LOADING OPERATIONS. SHOULD THE LINER BE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPAIR THE DAMAGE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND NOT ALLOW CONTAMINATED MATERIAL OR RUN-OFF TO ESCAPE THE STOCKPILE. NO CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO DRIVE DIRECTLY OVER THE LINER.

9. STOCKPILE COVERS SHALL BE 6-MIL (MINIMUM THICKNESS) BLACK OR CLEAR REINFORCED POLYETHYLENE SHEETING. THE STOCKPILE COVER SHEETS SHALL BE OF SUFFICIENT LENGTH AND WIDTH TO COMPLETELY AND FULLY COVER ALL OF EACH STOCKPILE WITH NO MORE THAN TWO SHEETS.

10. STOCKPILE COVERS AND LINERS SHALL BE FREE OF HOLES OR TEARS. DEFECTIVE MATERIAL SHALL BE IMMEDIATELY REPAIRED OR REPLACED AND NOT ALLOW LEAKAGE OR ESCAPE OF MATERIAL FROM THE STOCKPILE AREA, AS DETERMINED BY THE ENGINEER.

11. INSTALL STOCKPILE COVER IN A MANNER THAT MINIMIZES WRINKLES AND PROVIDES FOR A STRAIGHT PLACEMENT. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE AT LEAST 4 FEET OF OVERLAP OF ALL SEAMS. PLACE SANDBAGS OR OTHER PREAPPROVED CLEAN WEIGHTED OBJECTS ON THE COVER AT SUFFICIENTLY CLOSE SPACING TO PREVENT UPLIFT FROM WIND. THE TOE OF SLOPES SHALL BE TIGHTLY SECURED AND COVERED BY THE SHEETING.

12. PROTECT THE COVER FROM DAMAGE. REMOVE AND REPLACE DAMAGED POLYETHYLENE SHEETING AS NEEDED OR IF DIRECTED BY THE ENGINEER.

13. FURNISH SAND BAGS OR OTHER DEVICES AS APPROVED BY THE ENGINEER OF SUFFICIENT QUANTITY AND WEIGHT AND WITH SUFFICIENTLY CLOSE SPACING TO COMPLETELY AND FULLY HOLD THE STOCKPILE COVER IN POSITION. ONLY CLEAN, UNCONTAMINATED MATERIAL SHALL BE USED TO WEIGH DOWN THE COVERING; STOCKPILE MATERIAL SHALL NOT BE USED FOR COVER WEIGHT. IN PARTICULAR, THE EDGES OF THE STOCKPILE COVER SHALL BE ADEQUATELY ANCHORED TO COMPLETELY TRAP THE MATERIAL WITHIN.

14. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES.

15. COORDINATE STOCKPILING AND STOCKPILE MAINTENANCE WORK WITH EXCAVATION WORK.

16. LINE BOTTOM OF STOCKPILES AS OUTLINED IN THESE PLANS. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES. COVER STOCKPILES DURING LENGTHY PERIODS OF INACTIVITY WHILE ON SITE, AT THE END OF EACH WORK DAY, JUST PRIOR TO AND DURING PERIODS OF PRECIPITATION, AND AS NECESSARY TO CONTROL DUST, EROSION AND ODORS.

STOCKPILE SAMPLING

1. THE FREQUENCY OF MATERIAL SAMPLING WILL DEPEND UPON THE REQUIREMENTS OF THE WASTE DISPOSAL FACILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT AND COORDINATE ANY SAMPLING REQUIREMENTS MANDATED BY THE WASTE DISPOSAL FACILITY.

2. STOCKPILES LOCATED ON AREAS OVERLYING CLEAN SOILS SHALL MANDATE THAT SAMPLING OF THE UNDERLYING SOILS BE PERFORMED UPON STOCKPILE REMOVAL TO DEMONSTRATE THAT STOCKPILING DID NOT AFFECT CLEAN UNDERLYING SOILS. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN STOCKPILES HAVE BEEN COMPLETELY REMOVED AND THE ENGINEER WILL SAMPLE THE UNDERLYING SOILS. IF THE UNDERLYING SOILS ARE FOUND, THROUGH SAMPLING OR VISUAL OBSERVATIONS BY THE ENGINEER, TO BE CONTAMINATED BY THE CONTRACTOR'S STOCKPILING ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATING THE CONTAMINATED SOILS TO THE ENGINEER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

EXCAVATION NOTES

1. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR DEALING WITH OBSTRUCTIONS. IF OBSTRUCTIONS ARE ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING STEPS:
   A. NOTIFY THE ENGINEER.
   B. IF THE EXPOSED OBSTRUCTION IS TOO LARGE TO REMOVE, EITHER CHIP OUT THE PORTION THAT EXTENDS INTO THE EXCAVATION, OR PROVIDE FOR THE REMOVAL TO BE COMPLETED AROUND THE OBSTRUCTION. THIS DETERMINATION WILL BE MADE WITH THE ENGINEER.

FOR REFERENCE ONLY

BACKFILL NOTES

1. SUBMIT TEST RESULTS PRIOR TO IMPORTING ANY BACKFILL MATERIAL ON THE SITE, ONE TEST FOR EVERY SOURCE OF BACKFILL MATERIAL, AND EACH TIME THE MATERIAL SOURCE IS DEEMED TO CHANGE. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE. TESTING SHALL IN ACCORDANCE WITH
   A. SIEVE ANALYSES AND COMPARISON TO THE REQUIRED SPECIFICATIONS
   B. MOISTURE DENSITY CURVE FOR GRAVEL BORROW IN ACCORDANCE WITH ASTM D-1557 MODIFIED PROCTOR
   C. CHEMICAL TEST RESULTS FOR ALL ANALYTES LISTED HEREIN ALONG WITH A COMPARISON OF THE ANALYTICAL TEST RESULTS TO THE SPECIFIED LEVELS

2. IMPORTED BACKFILL MATERIAL SHALL BE NATURALLY OCCURRING OR NATURAL MATERIAL BLENDED TO ACHIEVE GRADATION REQUIREMENTS LISTED HEREIN. THE BACKFILL SHALL NOT CONTAIN RECYCLED MATERIAL OF ANY TYPE AND SHALL NOT BE FROM AN INDUSTRIAL SITE. IMPORTED GRAVEL BORROW OR OTHER CLEAN SOIL SHALL BE IN COMPLIANCE WITH ANALYTICAL TESTING SPECIFICATIONS.

3. BACKFILL SHALL BE PLACED IN 12 INCH MAXIMUM LIFT THICKNESS AND COMPACTED TO 95@ASTM D—1557 MINIMUM COMPACTION.

4. THE CONTRACTOR SHALL PLACE MATERIAL USED FOR THE CONSTRUCTION OF FILL IN ROUGHLY HORIZONTAL LAYERS UPON EARTH WHICH HAS BEEN STABILIZED OR OTHERWISE APPROVED BY THE ENGINEER FOR CONSTRUCTION. THE BACKFILL SHALL BE COMPACTED WITH MODERN, EFFICIENT COMPACTING UNITS SATISFACTORY TO THE ENGINEER.

5. FIELD TESTS TO DETERMINE IN-PLACE COMPLIANCE WITH REQUIRED DENSITIES AS SPECIFIED, SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D1557, D2167, OR D6938.

6. THE EXCAVATED AREA WITHIN THE W. COMMODORE WAY ROW SHALL ALSO BE BACKFILLED WITH CLEAN IMPORTED FILL AND RESTORED WITH A PAVEMENT SECTION MEETING CITY OF SEATTLE REQUIREMENTS.

MATERIAL SPECIFICATIONS

1.
   A. QUARRY SPALLS
      A.A. QUARRY SPALLS SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-13.6.
   B. GRAVEL BORROW
      B.A. AGGREGATE FOR GRAVEL BORROW SHALL CONSIST OF GRANULAR MATERIAL, EITHER NATURALLY OCCURRING OR BLENDED, AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GRADATION:

SIEVE SIZE (INCHES)	PERCENT PASSING
4	99 – 100
2	70 – 100
NO. 4	50 – 80
NO. 40	30 MAX.
NO. 200	7.0 MAX.*
SAND EQUIVALENT	50 MIN.

      NOTES: ALL PERCENTAGES ARE BY WEIGHT.
      * FOR BACKFILL IN WET CONDITIONS THE FINES CONTENT (MATERIAL PASSING NO. 200) SHALL BE LIMITED TO 5.0%
   C. BALLAST ROCK
      C.A. BALLAST ROCK SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-03.9(1)

2. CHEMICAL ACCEPTANCE CRITERIA: CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION TO DEMONSTRATE THAT THE PROPOSED BACKFILL IS FREE FROM ENVIRONMENTAL CONTAMINATION. BACKFILL ANALYTES, REPORTING LIMITS, METHODS, AND CRITERIA ARE:

Analyte	Unit	Analytical Method	Reporting Limit	Criteria
PCB Aroclors	µg/kg dw	EPA 8082	4	ND
Semi-volatile organic compounds (SVOCs)	µg/kg dw	EPA 8270	20[a]	ND
Dioxin/Furan TEQ	ng/kg dw	EPA 1613	1	4
Arsenic	mg/kg dw	EPA 6010	5	7.3
Cadmium			0.2	2.5
Chromium			0.5	130
Copper			0.2	195
Lead			2	225
Silver			0.3	2
Zinc			1	205
Mercury	mg/kg dw	EPA 7471	.02	0.2
Diesel range hydrocarbons	mg/kg dw	NWTPH-Dx	5	ND
Lube oil range hydrocarbons			10	

NOTES:
ND = NOT DETECTED AT REPORTING LIMIT; TEQ = TOXICITY EQUIVALENT.

[A]: MOST SVOCS, SUCH AS PAHS, HAVE REPORTING LIMITS OF 20 UG/KG DW. SOME SVOCS HAVE HIGHER REPORTING LIMITS: 2,4-DIMETHYLPHENOL – 35, 4-METHYLPHENOL – 35, BENZOIC ACID – 400, BIS(2-ETHYLHEXYL)PHTHALATE - 30, HEXACHLOROBUTADIENE – 90, DIETHYLPHTHALATE – 50, PENTACHLOROPHENOL – 200.

3. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION OF ALL IMPORT SOIL TO DEMONSTRATE THAT THE PROPOSED IMPORT MATERIAL MEETS THE CHEMICAL CRITERIA. IMPORT TESTING SHALL BE EVALUATED EITHER USING PRE-EXISTING, VERIFIABLE DATA FROM AN IMPORT SOURCE THAT WAS DEVELOPED WITHIN 180 DAYS OF THE SUBMITTAL AND IS FROM THE SAME MATERIAL SOURCE, OR BY COLLECTING SAMPLES SPECIFICALLY FOR THIS PROJECT. SAMPLES SHALL BE COLLECTED BY AN ENVIRONMENTAL PROFESSIONAL AND ALL LABORATORY TESTING SHALL BE COMPLETED BY LABS ACCREDITED BY ECOLOGY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IMPORT MATERIAL SAMPLING, TESTING AND REPORTING.

4. ALL TESTING TO DEMONSTRATE COMPLIANCE WITH SPECIFICATIONS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO PURCHASE OF THE MATERIAL. TESTING SHALL BE SUBMITTED NO LATER THAN FIVE WORKING DAYS PRIOR TO THE PLANNED DELIVERY OF MATERIALS TO THE SITE. A MINIMUM OF ONE ANALYTICAL SAMPLE SHALL BE COLLECTED FROM EACH SOURCE AND EACH MATERIAL IMPORTED.

5. THE CONTRACTOR SHALL NOT OBTAIN IMPORT MATERIAL(S) FROM INDUSTRIAL SITES. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE SOURCE AREA LAND USE AND OPERATION HISTORY WHEN PROVIDING TESTING RESULTS, TO SUPPORT THE ENGINEER'S DETERMINATION OF MATERIAL SUITABILITY.

6. THE CONTRACTOR SHALL CONDUCT ONE PHYSICAL SAMPLE FOR EACH IMPORT SOURCE PER EACH MATERIAL DELIVERED TO THE SITE FOR PLACEMENT.

NEW SHEET

PERMIT SET

Rev	Date	Description	By

Client

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108 S. Washington Street, Suite 300
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www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (2 of 4)

Drawing No.
G-4

Sheet 4 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabyn

GENERAL NOTES continued...

7. IF THE IMPORT SOURCE CHANGES DURING CONSTRUCTION, NEW TESTING SHALL BE SUBMITTED FOLLOWING THE SCHEDULE AND REQUIREMENTS LISTED IN THIS SPECIFICATION. THE OWNER MAY REQUIRE ADDITIONAL TESTS IF THERE IS AN OBSERVABLE VARIANCE IN THE PROVIDED MATERIAL, SUCH TESTS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE AND TESTING SHALL BE DONE BY A ECOLOGY ACCREDITED LABORATORY.

8. THE CONTRACTOR SHALL MONITOR IMPORT MATERIALS TO MAINTAIN CONSISTENT GRADATION AND CHEMICAL REQUIREMENTS AS SPECIFIED.

DEWATERING

1. LOCATE DEWATERING FACILITIES WHERE THEY SHALL NOT INTERFERE WITH UTILITIES AND CONSTRUCTION WORK TO BE PERFORMED BY OTHERS INCLUDING ANY FOLLOW ON CONTRACTORS. OBTAIN APPROVAL FOR FACILITY LOCATIONS FROM THE ENGINEER.

2. THE CONTRACTOR SHALL MONITOR GROUNDWATER LEVELS IN AND AROUND THE EXCAVATIONS TO ENSURE GROUNDWATER LEVELS AND HYDROSTATIC PRESSURES ARE REDUCED AS REQUIRED PRIOR TO EXCAVATION, SUCH THAT GROUNDWATER SHALL NOT PREVENT PROPER COMPLETION OF ALL WORK PERFORMED UNDER THIS CONTRACT. THE CONTRACTOR MAY USE EXISTING MONITORING WELLS.

3. ACCEPTANCE BY THE ENGINEER SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ERRORS THEREIN OR FROM THE RESPONSIBILITY FOR COMPLETE AND ADEQUATE DESIGN, MATERIALS, INSTALLATION METHODS, OPERATION METHODS, OR ADEQUATE MAINTENANCE OF THE SYSTEM.

4. THE CONTRACTOR SHALL EMPLOY MATERIALS, EQUIPMENT, AND CONSTRUCTION METHODS COMMONLY USED AND PROVEN AS SUITABLE FOR THE DURATION OF CONSTRUCTION DEWATERING AND ANY SURFACE WATER CONTROL SYSTEMS.

5. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ACQUIRING A WATER SUPPLY WITH WHICH TO INSTALL AND OPERATE ANY DEWATERING SYSTEM COMPONENTS PROPOSED IN THE DEWATERING SYSTEM PLAN.

6. THE CONTRACTOR SHALL VERIFY AND INDEPENDENTLY INTERPRET THE AVAILABLE SUBSURFACE INFORMATION PRESENTED IN THE CONTRACT DOCUMENTS AND ASSOCIATED TECHNICAL EXHIBITS AND SUPPLEMENT THE EXISTING DATA NECESSARY IN ORDER TO COMPLETE THE DESIGN AND CONSTRUCTION.

7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ADEQUACY OF THE DESIGNED DEWATERING SYSTEM TO PERFORM THE DESIRED FUNCTION.

SCREENING, HANDLING, AND DISPOSAL OF CONTAMINATED SOIL AND WATER

1. ALL SOIL REMOVED FROM EXCAVATION REMOVAL AREAS WILL BE DISPOSED OF AS SUBTITLE D SOIL IN AN ECOLOGY APPROVED LANDFILL. ALL SAMPLING REQUIRED BY THE LANDFILL SHALL BE COMPLETED PRIOR TO SHIPMENT OF SOILS.

2. ALL WATER THAT COMES INTO CONTACT WITH DISTURBED SOILS SHALL BE CAPTURED AND DISPOSED OF OFF SITE AT AN APPROVED DISPOSAL FACILITY OR TREATED AT THE ON-SITE WATER TREATMENT PLANT PRIOR TO DISCHARGE. THE ON-SITE WATER TREATMENT PLANT WILL COMPLY WITH ALL KING COUNTY INDUSTRIAL WASTEWATER TREATMENT REQUIREMENTS.

3. IF ANY WATER IS COLLECTED THROUGH DEWATERING ACTIVITIES IT SHALL BE TREATED AS CONTACT STORMWATER, DESCRIBED ABOVE.

4. GROUNDWATER DEWATERING TO COMBINED SEWERS MUST BE METERED PRIOR TO DISCHARGE. CONTACT THE SPU SUBMETER PROGRAM OFFICE AT (206) 684-5089 TO DETERMINE THE REQUIRED METER TYPE, INSTALLATION LOCATION AND BILLING INFORMATION AND TO SCHEDULE AN INSPECTION AFTER INSTALLATION.

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NEW SHEET

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GRANT HAINSWORTH
STATE OF WASHINGTON
33192
REGISTERED
PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (3 of 4)

Drawing No.
G-5

Sheet 5 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

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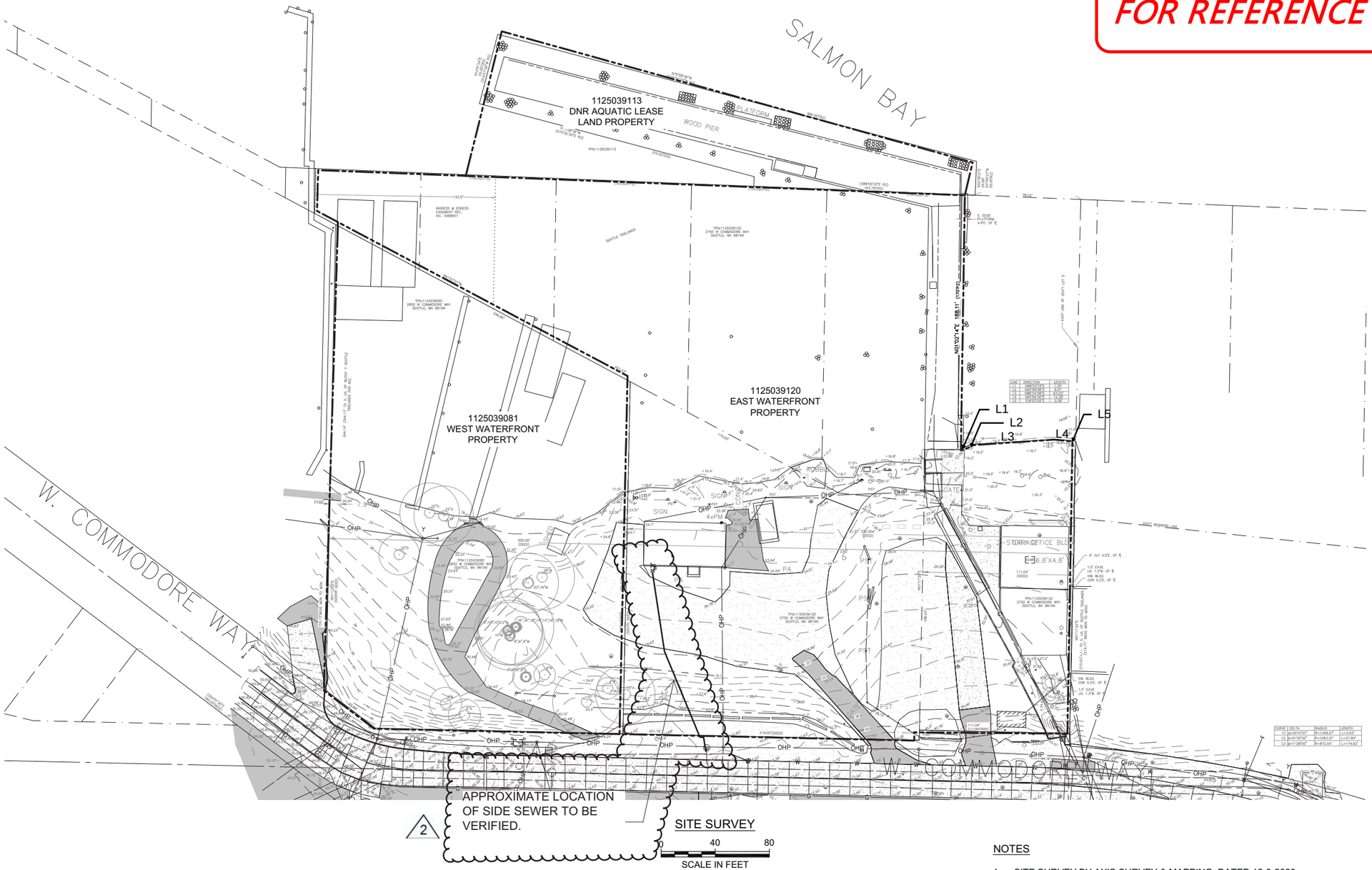

NOTES

1. SITE SURVEY BY AXIS SURVEY & MAPPING, DATED 12-9-2020.

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3/16/2021

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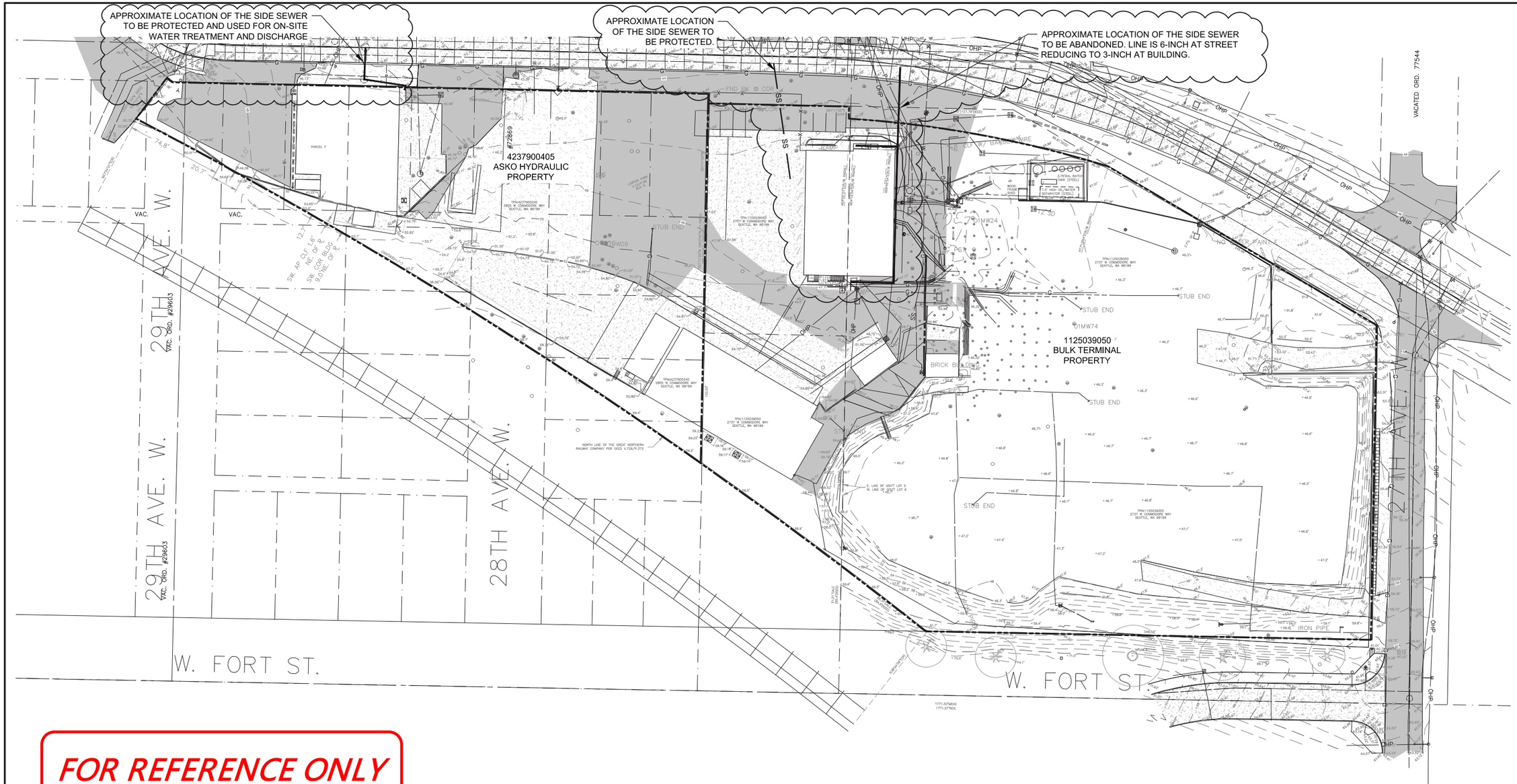
Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Site Survey (1 of 2)

Drawing No.
G-7A

Sheet 7 of 23



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SITE SURVEY

0 40 80

SCALE IN FEET

NOTES

1. SITE SURVEY BY AXIS SURVEY & MAPPING, DATED 12-9-2020.

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted

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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Site Survey (2 of 2)

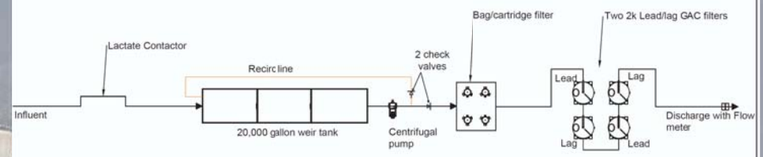
Drawing No.
G-7B

Sheet 8 of 23

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/17/2021

PROPOSED ON-SITE 100 GPM REMEDIATION DEWATERING PROCESS FLOW DIAGRAM. DETAILS OF THIS SYSTEM ARE PROVIDED IN THE KING COUNTY INDUSTRIAL WASTEWATER DISCHARGE APPLICATION. ALL ON-SITE WATER TREATMENT SHALL COMPLY WITH THE KING COUNTY PERMIT REQUIREMENTS. NO DISCHARGE TO SALMON BAY IS PERMITTED.



Groundwater dewatering to Combined Sewers must be metered prior to discharge. Contact the SPU Submeter Program office at (206) 684-5089 to determine the required meter type, installation location and billing information and to schedule an inspection after installation

1125039108
LOCKHAVEN MARINA
MOORAGE-DNR LEASE

1125039113
DNR AQUATIC LEASE
LAND PROPERTY

SALMON BA

EBB

FLO

2

1125039047
LOCKHAVEN APARTMENTS
AND MARINA

1125039081
WEST WATERFRONT
PROPERTY

1125039120
EAST WATERFRONT
PROPERTY

ENSURE CONSTRUCTION FENCING IS CONTINUOUS TO THE SHORELINE TO ISOLATE THE SITE. INSTALL NEW 5' TALL CONSTRUCTION FENCING, IF REQUIRED.

4237900410
WAREHOUSE

1125039068
MARITIME INDUSTRIAL
CENTER

4237900300
WAREHOUSE

2771605265
CRS BOATYARD

2 APPROXIMATE LOCATION OF SIDE SEWER AND SEWER MAIN FOR ONSITE DISCHARGE. SEE SHEET G-7B FOR DETAILS. ONLY PARTIAL MAIN SEWER SHOWN ON THIS SHEET

W COMMODORE WAY

SITE ACCESS

ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS REMAIN, TYP.

Not included in this submittal.

4237900405
ASKO HYDRAULIC
PROPERTY

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS WILL REMAIN, TYP.

2 APPROXIMATE LOCATION OF WATER TREATMENT SYSTEM

4237900240
BNSF

1125039050
BULK TERMINAL
PROPERTY

SITE ACCESS

2771605365
WAREHOUSE

BNSF RAILWAY

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS AND LOADING DOCK WILL REMAIN, TYP.

ISS SWELL
MANAGEMENT
AREA

27TH AVE W

2770606119
WAREHOUSE

26TH AVE W

CONTRACTOR
LAYDOWN AREA

W FORT ST

LEGEND

- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES
- BUILDINGS TO BE DEMOLISHED
- CONTRACTOR LAYDOWN AREA
- SITE ACCESS

NOTES

2. CONTRACTOR LAYDOWN AREA AND SOIL MANAGEMENT AREA (INCLUDING OVERBURDEN AND EXCAVATED SOILS) FOR THE "EAST WATERFRONT PROPERTY" SHALL BE APPROVED BY THE ENGINEER PRIOR TO MOBILIZATION.

EXISTING SITE PLAN

0 60 120

SCALE IN FEET

PERMIT SET

Rev | Date | Description | By

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GRANT HAINSWORTH
STATE OF WASHINGTON
33192
REGISTERED
PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

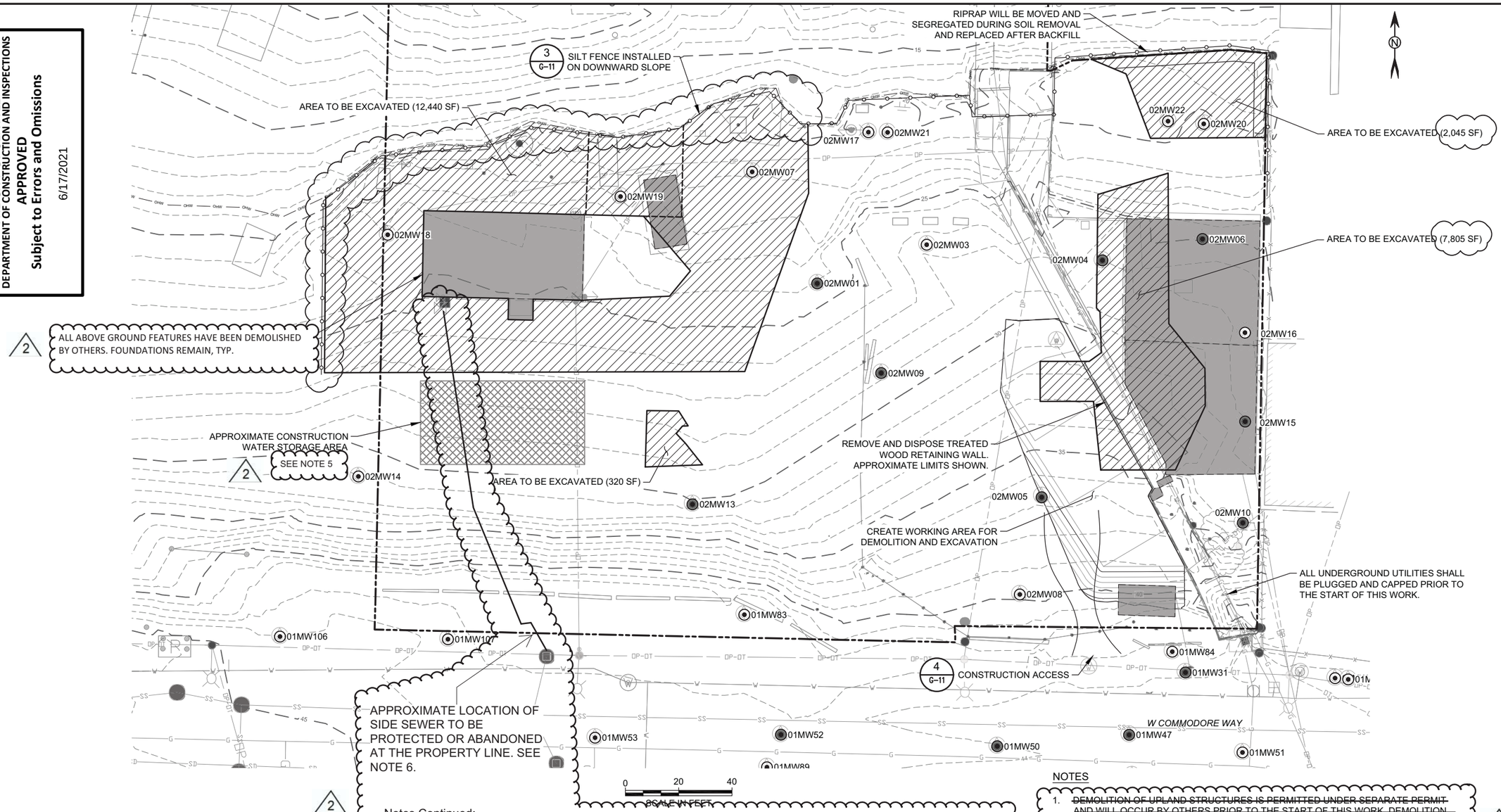
Time Oil Bulk Terminal Remediation Design Seattle, Washington

Site Access, Haul Routes, and Staging Areas

Drawing No.
G-8

Sheet 9 **of** 23

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
6/17/2021



LEGEND

- EXCAVATION / TREATMENT AREA
- ABOVE GROUND FEATURE TO BE DEMOLISHED (UNDER SEPARATE PERMIT)
- CONSTRUCTION WATER STORAGE AREA
- MONITORING WELL TO BE PROTECTED
- MONITORING WELL TO BE DECOMMISSIONED
- TEMPORARY SILT DIKE
- ORDINARY HIGH WATER
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

Notes Continued:

5. See sheet G-7B for location of on-site water treatment and discharge. All construction storm water from work in this area will collected and transferred via truck to the on-site water treatment and discharge point shown on Sheet G-7B. The Contractor shall provide sufficient storage capacity to hold and transport via truck a 2 inch storm event. Below is an estimate of the volume. The final storage volume shall be determined by the area disturbed. No discharge (including sheet flow) from disturbed areas is permitted to Salmon Bay.
Stormwater volume per day estimate:
Surface Discharge: Runoff Calculations assume a 2-inch storm event. Calculations based on the Western Washington Hydrology Model outlined in the SWMM Vol. 3. Runoff Curve Number assumed to be 80 based on existing surface characteristics. Runoff basin of 2.4 acres (the area to be disturbed by construction activities)
Qd = (P-0.2S)2 / P + 0.8S), P = 2, S = (1000/CN)-10 => (1000/80) - 10 = 2.5
Runoff Depth Qd = (2-0.2(2.5))2 / (2 + 0.8(2.5)) = 0.75 inches
Total volume of runoff is found by multiplying Qd by the area. Total Volume = 3630 (cu.ft/ac.in) X 0.75 in X 2.4 ac => 6,534 gallons per day.

6. The side sewer is located below the excavation depth in this area. The contractor shall verify the location and depth prior to excavation in this area. This may include potholing within the excavation footprint if depth is not known. If verification determines that the excavation conflicts with the side sewer, the side sewer shall be abandoned at the property boundary. If the side sewer is not in conflict with excavation, it shall be protected.

NOTES

1. ~~DEMOLITION OF UPLAND STRUCTURES IS PERMITTED UNDER SEPARATE PERMIT AND WILL OCCUR BY OTHERS PRIOR TO THE START OF THIS WORK. DEMOLITION WILL INCLUDE ALL ABOVE GRADE STRUCTURES AND ACTIVE UTILITIES ASSOCIATED WITH THE BUILDINGS~~. SELECTIVE DEMOLITION WILL BE REQUIRED TO REMOVE ASPHALT AND CONCRETE ABOVE WORK AREAS AND WILL BE COMPLETED BY THE REMEDIATION CONTRACTOR.
2. ALL CONTACT STORMWATER WILL BE COLLECTED DURING SITE CONSTRUCTION AND WILL BE DISCHARGED IN ACCORDANCE WITH PERMITS AND AS APPROVED BY THE ENGINEER.
3. WATER WILL BE COLLECTED FORM THE WATERFRONT PROPERTY AND DISPOSED OFF THROUGH THE WATER TREATMENT SYSTEM ON THE ASKO/BULK TERMINAL PARCELS OR OFF-SITE AT AN APPROVED DISPOSAL FACILITY.
4. GROUNDWATER DEWATERING TO COMBINED SEWERS MUST BE METERED PRIOR TO DISCHARGE. CONTACT THE SPU SUBMETER PROGRAM OFFICE AT (206) 684-5089 TO DETERMINE THE REQUIRED METER TYPE, INSTALLATION LOCATION AND BILLING INFORMATION AND TO SCHEDULE AN INSPECTION AFTER INSTALLATION.

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
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Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33123 REGISTERED PROFESSIONAL ENGINEER
6/16/2021

Scale As Noted
SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington
Demo and TESC Plan (1 of 2)

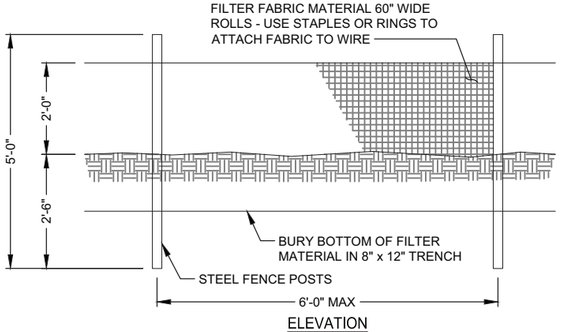
Drawing No. **G-9**

Sheet 10 of 23

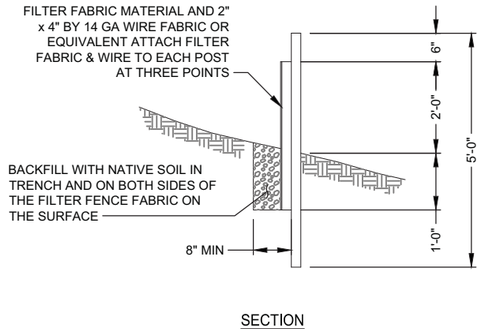
File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP) NOTES

1. SUBMIT A CONSTRUCTION STORMWATER ANO EROSION CONTROL PLAN (CSECP), TREE, VEGETATION AND SOIL PROTECTION PLAN (TVSPP), SPILL PLAN (SP), AND TEMPORARY DISCHARGE PLAN (TDP) IN ACCORDANCE WITH 8-01.3(2).
2. THE CONCEPTUAL CSEC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM BMPS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD. THESE CSEC FACILITIES MUST BE UPGRADED (E.G. ADDITIONAL CATCH BASIN FILTERS, OR ADDITIONAL STORMWATER TREATMENT MEASURES) AS NEEDED, DUE TO WEATHER OR FIELD CONDITIONS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM OR OFF-SITE AREAS.
3. THE CONTRACTOR MUST USE PROPER EROSION AND SEDIMENT CONTROL PRACTICES ON THE CONSTRUCTION SITE AND ANY ADJACENT CONSTRUCTION STAGING AREAS TO PREVENT EROSION IN AND DOWNHILL OF DISTURBED AREAS, AND TO PREVENT THE DISCHARGE OF UPLAND SEDIMENTS OR SEDIMENT- LADEN WATER INTO WETLANDS, WATER BODIES, STREETS AND LOCAL DRAINAGE SYSTEMS.
4. THE CSEC FACILITIES ON THE APPROVED PLAN WILL BE CONSTRUCTED PRIOR TO SITE DISTURBANCE TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE CONTRACTOR MUST USE BMPS (E.G. DIVERSION DITCHES, BERMS) AS APPLICABLE TO MINIMIZE OFF- SITE RUNOFF AND CLEAN STORMWATER FROM ENTERING THE PROJECT AREA.
6. THE CONTRACTOR MUST NOT DISCHARGE TURBID WATER GENERATED FROM CONSTRUCTION ACTIVITIES, DIRECTLY TO ANY STREAMS, STORM WATER SYSTEM INLETS, OR DRAINAGE DITCHES.
7. SOIL STOCKPILES MUST BE STABILI ZED FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND, WHERE POSSIBLE, LOCATED AWAY FROM STORM DRAIN INLETS.
8. THE CONTRACTOR MUST EMPLOY DUST CONTROL MEASURES AS NEEDED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES.
9. CATCH BASIN PROTECTION MUST BE INSTALLED IN ANY GRATED ROAD DRAINAGE STRUCTURES, EXISTING OR NEWLY INSTALLED, WHICH ARE LIKELY TO RECEIVE RUNOFF FROM THE DISTURBED AREAS DURING CONSTRUCTION. CATCH BASIN PROTECTION SHOWN ON THE CONCEPTUAL CSEC PLANS ARE APPROXIMATE LOCATIONS. THE CONTRACTOR MUST ADD CATCH BASIN PROTECTION AS NECESSARY TO ALL GRATED CATCH BASINS THAT RECEIVE STORMWATER RUNOFF WITHIN THE PROJECT AREA AND THAT MAY OR MAY NOT BE SHOWN ON THE CSEC PLANS.
10. SILT FENCES SHALL BE INSTALLED AND MAINTAINED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(10) AND 8-01.3(14).
11. THE CONTRACTOR SHALL PROTECT ALL DRAINAGE AND SEWER SYSTEM PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(12) AND 8-01.3(14).
12. ALL COMPOST SOCKS, COMPOST BERMS, AND STRAW WATTLES SHALL BE CONSTRUCTED, INSTALLED AND MARINATED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(13) AND 8-01.3(14).
13. BMPS (E.G. COMPOST SOCKS) MUST BE INSTALLED TO PREVENT SEDIMENT OR SEDIMENT LADEN WATERS FROM ENTERING GRATED ROADWAY INLETS WHICH HAVE NO SUMP AND MAY BE TOO SHALLOW TO EMPLOY CATCH BASIN FILTER SOCKS. OTHER BMPS, SUCH AS STREET SWEEPING AND VACUUMING MUST ALSO BE EMPLOYED AS NEEDED TO REMOVE SEDIMENT.
14. AT NO TIME MUST MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES MUST BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION MUST NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. PER CITY OF SEATTLE STANDARD SPECIFICATION SECTION 8-01.3(2)A AND THE CITY'S STORMWATER CODE, AREAS OF EXPOSED SOIL IN EXCESS OF 4,000 SQUARE FEET THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30, OR SEVEN DAYS DURING THE PER IOD FROM MAY 1 TO SEPTEMBER 30, WILL BE IMMEDIATELY STABILIZED WITH APPROVED CSEC METHODS (E.G., SEEDING, MULCHING, NETTING, CLEAR PLASTIC COVERING).
16. THE CONTRACTOR'S CERTIFIED SEDIMENT AND EROSION CONTROL LEAD (CSECL) MUST REVIEW AND MODIFY THE CSEC PLANS ON AN AS NEEDED BASIS TO REFLECT THE SITE CONDITIONS AND CONSTRUCTION METHODS USED. THE CONTRACTOR'S CSECL MUST CONDUCT SITE INSPECTIONS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24 HOURS OF ANY RUNOFF DISCHARGE FROM SITE. AFTER ANY 24- HOUR RUNOFF PRODUCING EVENT, THE CSECL WILL INSPECT CSEC MEASURES FOR INTEGRITY. ANY DAMAGED CSEC MEASURES WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND REPAIRED IMMEDIATELY.
17. CONCRETE SAWCUTTING DEBRIS AND SLURRY MUST BE CONTAINED AND MANAGED USING APPROPRIATE BMPS TO PREVENT CONTAMINATION OF SITE WATER AND MEET DISCHARGE REQUIREMENTS. FRESH CONCRETE CAN ALSO ADVERSELY AFFECT SITE WATER QUALITY. PH SAMPLING AND TESTING MUST BE IN COMPLIANCE WITH APPLICABLE DISCHARGE AUTHORIZATIONS FROM KING COUNTY DURING CONCRETE POURS AND SAWCUTTING. IF PH EXCEEDS DISCHARGE LIMITS, APPROPRIATE BMPS MUST BE APPLIED.
18. THE CONTRACTOR MUST SET ASIDE A SEPARATE AREA FOR THE WASH-OUT OF CONSTRUCTION EQUIPMENT AND TOOLS. PROCESS WATER MUST BE HAULED OFF SITE OR DISCHARGED TO SEWER IN COMPLIANCE WITH A KING COUNTY DISCHARGE AUTHORIZATION.
19. TEMPORARY TRENCH DEWATERING MUST BE DISCHARGED TO AN APPROVED LOCATION. DISCHARGES TO THE SEWER SYSTEM MUST COMPLY WITH ALL PROVISIONS OF ANY DISCHARGE AUTHORIZATIONS FROM KING COUNTY AND SPU, AS WELL AS COS SPECIFICATIONS SECTION 2- 08.3. & 8- 01.3(2)D AND E.
20. EXCAVATION SPOILS MAY BE EXTREMELY WET. CONTRACTOR MUST PREVENT MUD AND WATER FROM BEING TRACKED ALONG HAULING ROUTES BY LINING TRUCK BEDS OR BY OTHER MEANS AS NECESSARY. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
21. THE CONTRACTOR IS RESPONSIBLE FOR THE SEQUENCING AND STAGING OF ALL DEMOLITION AND CSEC ACTIVITIES AT APPROPRIATE TIMES.
22. PROTECT TREES & VEGETATION PER STANDARD SPECIFICATIONS 1 -07. 16 (2) & 8-01.3(2)B. CONTACT SDOT URBAN FORESTRY (684-8621 OR 684-5041) FOR FIELD REVIEW OF TREE, VEGETATION, AND SOIL PROTECTION PLAN PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
24. CONTRACTOR SHALL LOCATE EXISTING CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES DURING THE PROJECT. PROTECTION OF THESE CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES SHALL BE COORDINATED WITH THE WORK BY THE CONTRACTOR.

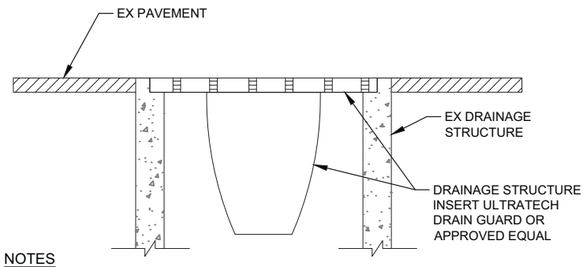


ELEVATION



SECTION

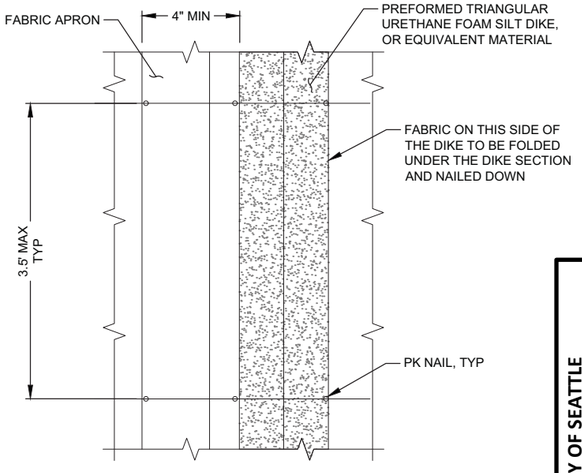
3 — TEMPORARY FILTER FABRIC FENCE - DETAIL
SCALE: NTS



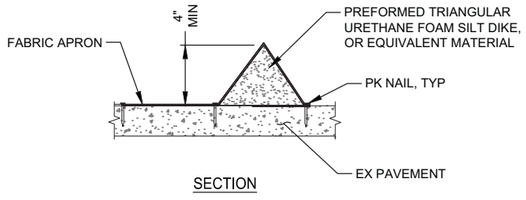
NOTES

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED. ALL SEDIMENT SHALL BE DISPOSED OF OFF-SITE.
2. ANY SEDIMENT IN THE DRAINAGE STRUCTURE INSERT SHALL BE REMOVED WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE INSERT. THE INSERT SHALL BE REPLACED MONTHLY OR AS DIRECTED BY THE ENGINEER.

1 — TEMPORARY DRAINAGE STRUCTURE INSERT - DETAIL
SCALE: NTS



PLAN VIEW

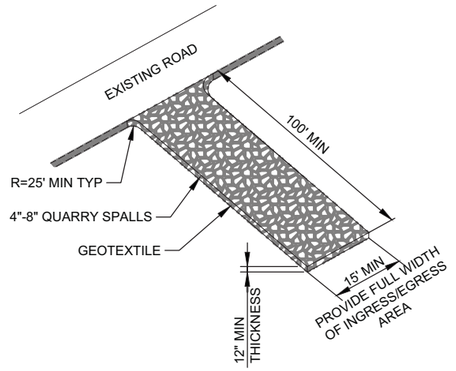


SECTION

NOTES

1. PK NAILS SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF A 7-FOOT UNIT AS SHOWN ON THE DIKE PLAN.
2. ALTERNATE APPROVED HOLD DOWN DEVICE MAY BE SUBSTITUTED FOR PK NAILS (WIRE STAPLES, ETC).

2 — TEMPORARY TRIANGULAR SILT DIKE - DETAIL
SCALE: NTS

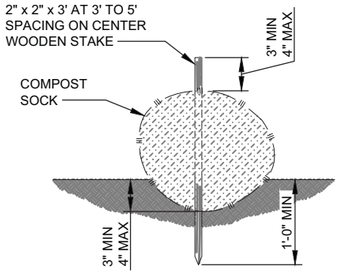


NOTES

1. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.
2. VEHICLE TIRES SHALL BE INSPECTED TO ENSURE THEY ARE FREE OF MUD BEFORE ENTERING PUBLIC ROADWAYS.
3. PROVIDE FLAGGING FOR CONSTRUCTION VEHICLES ENTERING AND LEAVING SITE AND ENTERING PUBLIC ROADWAYS.
4. CONTRACTOR SHALL MAINTAIN AND AUGMENT EXISTING STABILIZED CONSTRUCTION ENTRANCES AS NEEDED TO CONTROL SEDIMENT.

4 — STABILIZED TEMPORARY CONSTRUCTION ACCESS - DETAIL
SCALE: NTS

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
6/17/2021



NOTE

1. COMPOST SOCK SHALL BE 100% NATURAL AND BIODEGRADABLE. MATERIAL AND INSTALLATION SHALL BE PER WSDOT STANDARD SPECIFICATIONS 8-01.3(12) AND 9-14.5(6).

5 — COMPOST SOCK - DETAIL
SCALE: NTS

OTHER POSSIBLE BMPS SHALL INCLUDE THE FOLLOWING FROM THE CONSTRUCTION STORMWATER GENERAL PERMIT, STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (SWMMWW 2019): HIGH VISIBILITY PLASTIC OR METAL FENCE (BMP C103), WHEEL WASH (BMP C106), CONSTRUCTION ROAD/PARKING AREA STABILIZATION (BMP C107), DUST CONTROL MEASURES (BMP C140), SAWCUTTING AND SURFACING POLLUTION PREVENTION MEASURES BMP C152, CONCRETE HANDLING MEASURES BMP C151 AND TEMPORARY AND PERMANENT SEEDING (BMP C120). THESE SHALL INSTALLED AND MAINTAINED PER THE SPECIFICATIONS PROVIDED IN THE SWMMWW.

PERMIT SET

Rev	Date	Description	By

Client

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale: As Noted

SCALE WARNING
Drawing is not to scale. If scale bar doesn't measure one inch

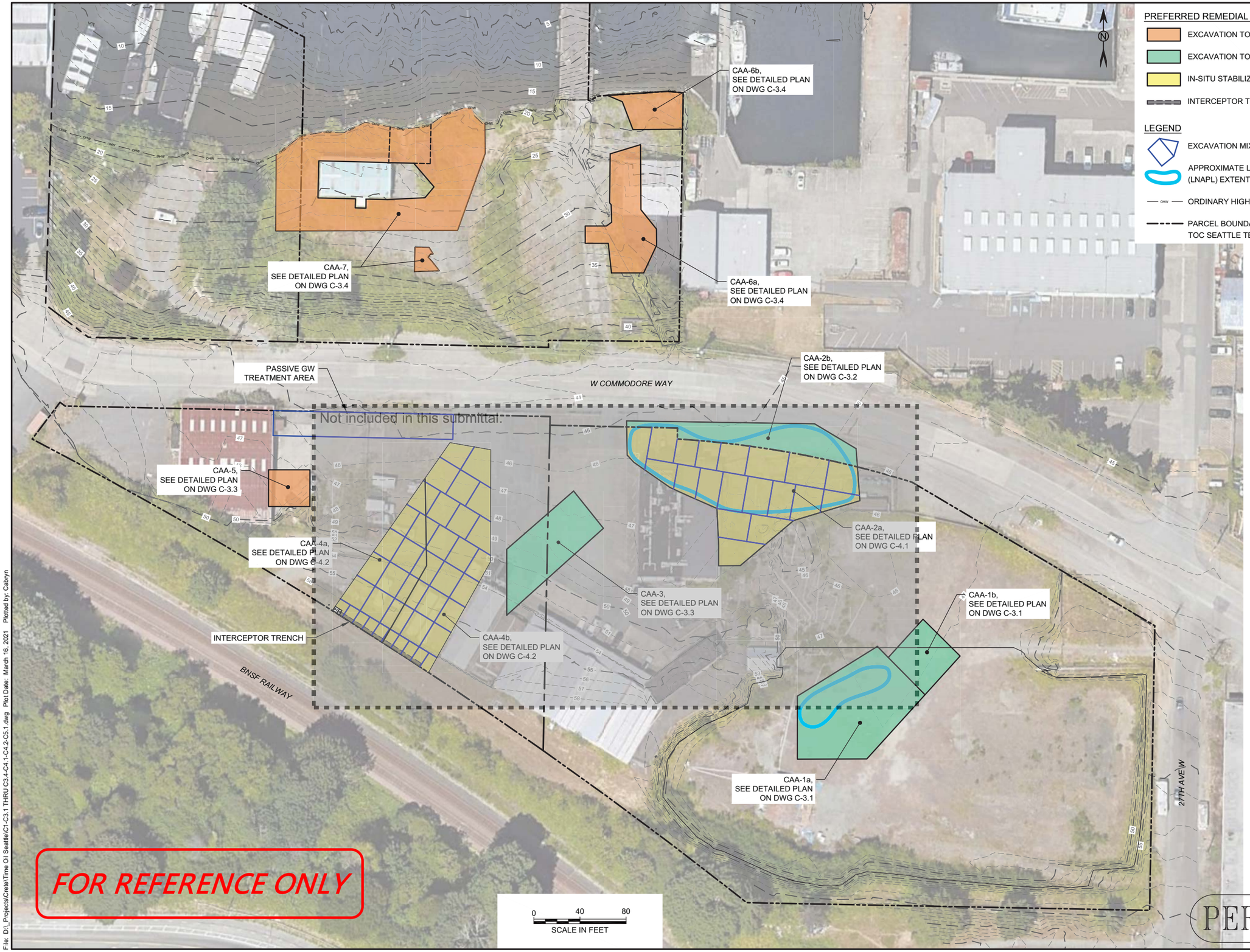
Designer: M. Byers
Drafter: C. Taylor
Checker: X
Reviewer: X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

TESC Notes and Details

Drawing No.
G-11

Sheet 12 of 23



FOR REFERENCE ONLY

PERMIT SET

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

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GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

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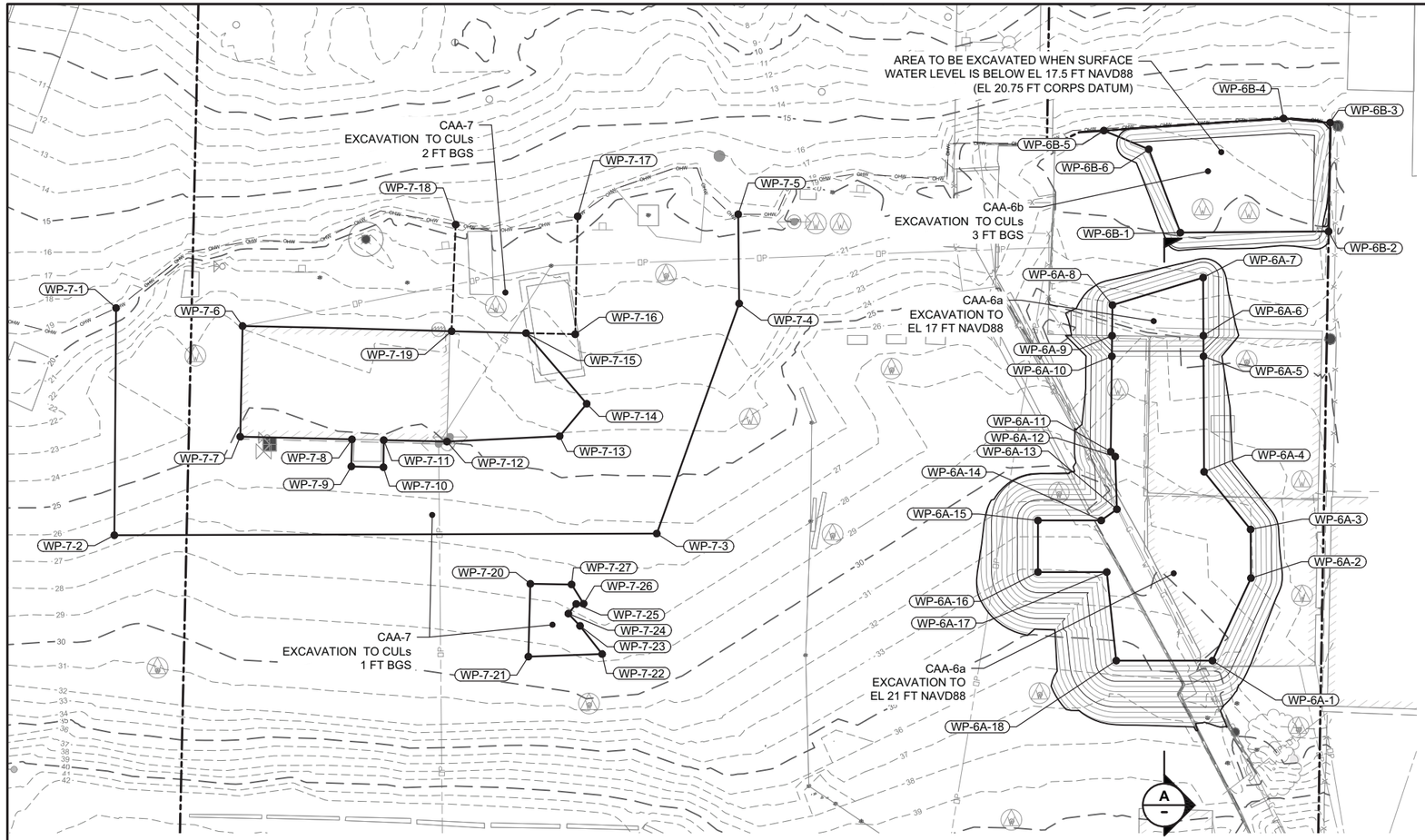
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Remediation Areas

Drawing No.
C-1

Sheet 13 of 23



DETAILED PLAN VIEW

CAA-6 AND CAA-7 EXCAVATION AREAS

0 20 40

SCALE IN FEET

CAA-6a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-6A-1	245717.33	1256119.57
WP-6A-2	245741.32	1256130.76
WP-6A-3	245755.46	1256130.66
WP-6A-4	245772.23	1256117.13
WP-6A-5	245805.78	1256116.97
WP-6A-6	245811.78	1256116.94
WP-6A-7	245828.66	1256116.85
WP-6A-8	245820.69	1256090.50
WP-6A-9	245811.77	1256090.40
WP-6A-10	245805.77	1256090.33
WP-6A-11	245778.08	1256090.01
WP-6A-12	245776.62	1256091.31
WP-6A-13	245761.33	1256091.80
WP-6A-14	245758.08	1256087.25
WP-6A-15	245758.07	1256068.85
WP-6A-16	245743.07	1256068.85
WP-6A-17	245743.07	1256088.85
WP-6A-18	245717.33	1256091.61

CAA-6b

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-6B-1	245841.72	1256110.24
WP-6B-2	245842.06	1256153.34
WP-6B-3	245873.66	1256153.78
WP-6B-4	245874.91	1256140.25
WP-6B-5	245871.38	1256088.01
WP-6B-6	245865.94	1256101.06

CAA-7

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-7-1	245819.81	1255800.91
WP-7-2	245753.78	1255800.40
WP-7-3	245754.27	1255958.06
WP-7-4	245821.12	1255982.00
WP-7-5	245847.05	1255981.73
WP-7-6	245814.58	1255837.67
WP-7-7	245782.40	1255837.00
WP-7-8	245781.64	1255869.47
WP-7-9	245773.77	1255869.28
WP-7-10	245773.55	1255878.62
WP-7-11	245781.43	1255878.69
WP-7-12	245780.99	1255897.07
WP-7-13	245782.57	1255929.84
WP-7-14	245791.99	1255937.69
WP-7-15	245812.52	1255920.07
WP-7-16	245812.19	1255934.36
WP-7-17	245846.45	1255935.06
WP-7-18	245844.06	1255899.61
WP-7-19	245813.08	1255898.42
WP-7-20	245739.65	1255921.31

LEGEND

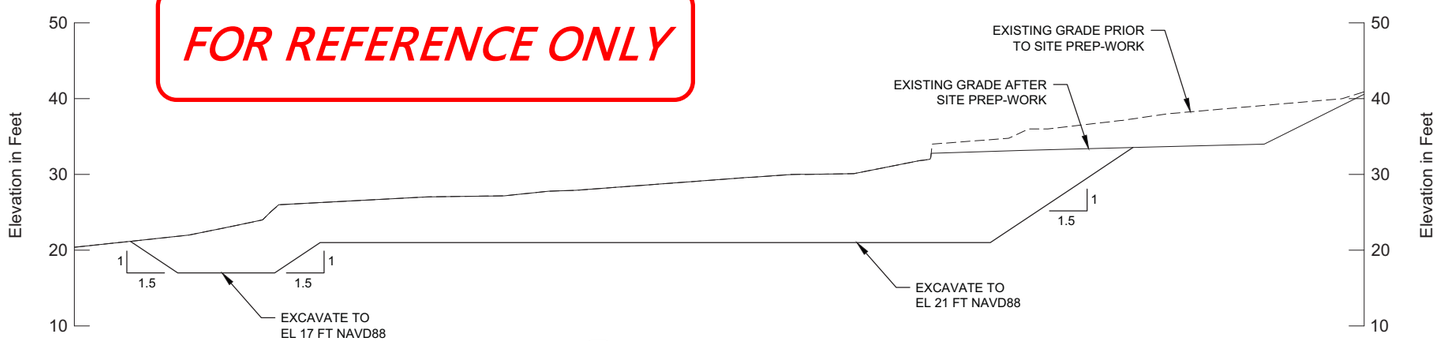
- EXCAVATION TO CLEANUP LEVEL (CUL)
- OHW — ORDINARY HIGH WATER
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES WILL BE STABILIZED TO PREVENT EROSION.

SITE RESTORATION
1. ALL EXPOSED EARTH SURFACES SHALL BE LANDSCAPED WITH SUITABLE VEGETATION TO PREVENT EROSION FOR THE PERMANENT CONDITION.

FOR REFERENCE ONLY



A SECTION

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

PERMIT SET

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3/16/2021

Scale As Noted

SCALE WARNING
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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

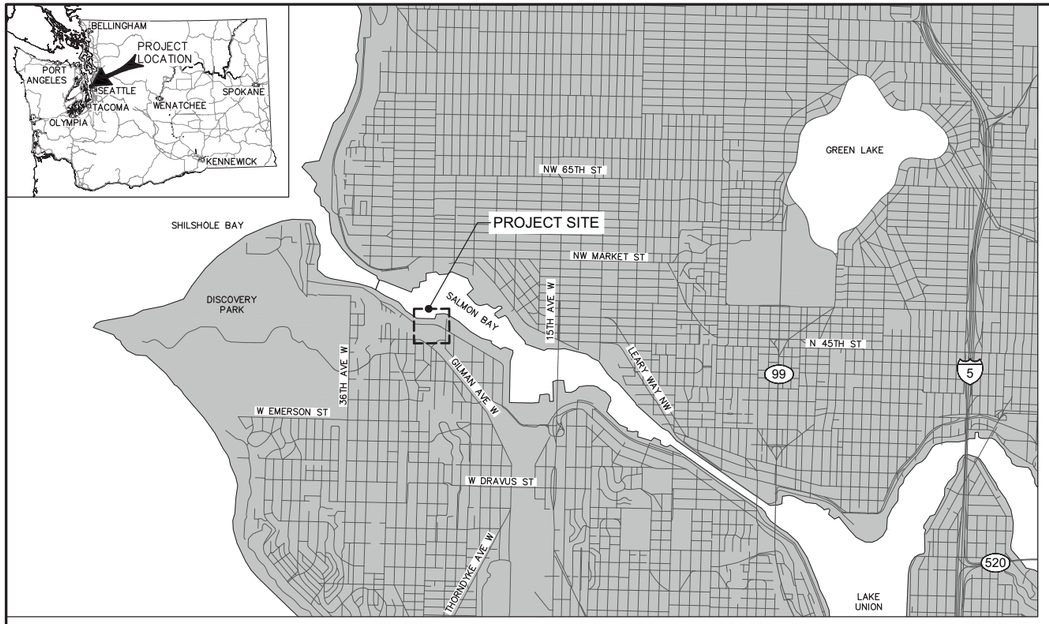
CAA-6 and CAA-7 Excavation Area Plan and Profile

Drawing No. C-3.4

Sheet 17 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

Time Oil Bulk Terminal
Cleanup Action



VICINITY MAP
Not to Scale

LEGAL DESCRIPTION

PARCEL C:
THAT PORTION OF THE EAST 111.04 FEET GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING SOUTH OF COMMODORE WAY AND NORTH OF A LINE PARALLEL TO AND 180.51 FEET SOUTH OF SAID SOUTH LINE OF COMMODORE WAY, MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL D:
THAT PORTION OF GOVERNMENT LOT 6, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF FORT STREET (FORMERLY GOVERNMENT WAY), WEST OF 27TH AVENUE WEST, AND SOUTH OF COMMODORE WAY;

EXCEPT THE FOLLOWING PORTION:

BEGINNING AT THE SOUTHWEST CORNER OF SAID TRACT;
THENCE NORTH ALONG THE WEST LINE OF SAID LOT 6 A DISTANCE OF 50.40 FEET;
THENCE SOUTHEASTERLY A DISTANCE OF 84.5 FEET TO THE NORTH LINE OF FORT STREET
(FORMERLY GOVERNMENT WAY);
THENCE WEST TO THE POINT OF BEGINNING.

PARCEL E:
THAT PORTION OF THE EAST 111.04 FEET OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTHEASTERLY OF THAT PORTION OF THE EAST 111.04 FEET OF SAID GOVERNMENT LOT 5 CONVEYED TO THE GREAT NORTHERN RAILWAY COMPANY BY DEED RECORDED IN VOLUME 726 OF DEEDS, AT PAGE 372, UNDER RECORDING NUMBER 652106, RECORDS OF KING COUNTY, WASHINGTON, AND SOUTHERLY OF A LINE PARALLEL TO AND 180.51 FEET SOUTHERLY OF THE SOUTHERLY MARGIN OF COMMODORE WAY MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL F:
THAT PORTION OF BLOCKS 3, 4 AND 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON, AND OF VACATED STREETS AND ALLEYS ADJOINING, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF WEST COMMODORE WAY DISTANT SOUTH 54°01'35" EAST 190 FEET FROM THE NORTHWESTERLY LINE OF LOT 1, BLOCK 6, OF SAID PLAT OF LAWTON PARK;
THENCE SOUTH 35°58'25" WEST, PARALLEL WITH SAID NORTHWESTERLY LINE TO THE NORTHEASTERLY MARGIN OF THE GREAT NORTHERN RAILWAY RIGHT OF WAY;
THENCE SOUTHEASTERLY ALONG SAID MARGIN 500 FEET, MORE OR LESS, TO THE EAST LINE OF SAID BLOCK 5;
THENCE NORTH 00°00'50" WEST 300 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF SAID BLOCK 5, SAID POINT BEING ON THE SOUTH MARGIN OF WEST COMMODORE WAY; THENCE WESTERLY ALONG SAID SOUTH MARGIN 400 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL G:
THAT PORTION OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTH LINE OF COMMODORE WAY AS ESTABLISHED AT A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST AND NORTHWESTERLY ALONG SAID WAY LINE TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 550 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT; THENCE NORTH ALONG SAID PARALLEL LINE TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDE LANDS;
THENCE EASTERLY ALONG SAID BLOCK 7 TO A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE BEGINNING.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

PROJECT TEAM

OWNER
TOC Seattle Terminal 1, LLC
2753 West 31st Street
Chicago, IL 60608
Contact: Mike Ciserella
773-722-9200 x501

WASHINGTON DEPARTMENT OF ECOLOGY PROJECT
Cleanup Project Manager,
Toxics Cleanup Program
3190 160th Ave SE
Bellevue, WA 98008
Contact: Mark Adams
425-649-7107
mada461@ecy.wa.gov

REMEDIATION CONSULTANT
CRETE Consulting, Inc., PC
108 S. Washington St, Suite 300
Seattle, WA 98104
Contact: Jamie Stevens
206-799-2744

REMEDIATION CONTRACTOR
(TBD)

CIVIL DESIGNER
KPFF Consulting Engineers
1601 5th Ave #1600
Seattle, WA 98101
Contact: Jenifer Clapman
206-926-0549

SHORING DESIGNER
CT Engineering
180 Nickerson St, Suite 302
Seattle, WA 98109
Contact: Charlie Griffes
206-714-6023

SURVEYOR
Axis Survey & Mapping
15241 NE 90th St, Suite 100
Redmond, WA 98052
Contact: Mitch Evans
425-823-5700 x301

GEOTECHNICAL ENGINEER
PanGEO, Inc.
3213 Eastlake Ave East, Suite B
Seattle, WA 98102
Contact: W. Paul Grant
206-262-0370

PROJECT SUMMARY

TOC Seattle Terminal 1, LLC purchased these parcels on November 25, 2020 and plans to clean up and develop these parcels associated with the former Time Oil Bulk Terminal facility. To address these historical contaminants TOC Seattle Terminal 1, LLC and the Washington Department of Ecology have entered into a Prospective Purchaser Consent Decree which directs TOC Seattle Terminal 1, LLC to implement the cleanup of the parcels in accordance with the Washington Department of Ecology's cleanup laws and regulations. Cleanup work completed that is required and is being performed under a Washington Department of Ecology Prospective Purchaser Consent Decree is exempt from the procedural requirements of State and local permits for on-site actions (RCW 70.105D.090(1)). The cleanup must comply with the substantive requirements of the applicable permits; therefore, engagement is needed with State and local jurisdictional authorities to obtain the substantive requirements. The main elements to the cleanup actions include the removal of soil above state cleanup levels through excavation and off-site disposal, and in situ solidification and stabilization. The cleanup action also includes elements to address groundwater contamination not covered by these permit documents. ~~Prior to the start of the cleanup work, all~~

2 All buildings have been demolished to existing grade, only foundations and footings remain. All utilities servicing the buildings have been capped and terminated.

Owner:
TOC Seattle Terminal 1, LLC

Washington Department of Ecology:
Cleanup Oversight through a Prospective Purchaser Consent Decree No. 20-2-15215-3 SEA, effective November 25, 2020
Ecology Project Manager: Mark Adams 425-649-7107

Project Design Team:
CRETE Consulting, Inc., PC
Primary Contact: Jamie Stevens 206-799-2744

Submittal for Parcel No. 1125039050 and 4237900405

SHEET INDEX

SHEET NO.	DWG NO.	SHEET TITLE
1	G-1	COVER SHEET, SHEET INDEX AND VICINITY MAP
2	G-2	SITE MAP
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4	G-4	GENERAL NOTES (2 OF 4)
5	G-5	GENERAL NOTES (3 OF 4)
6	G-6	GENERAL NOTES (4 OF 4)
7	G-7A	SITE SURVEY (1 OF 2)
8	G-7B	SITE SURVEY (2 OF 2)
9	G-8	SITE ACCESS, HAUL ROUTES, AND STAGING AREAS
10	G-9	DEMO AND TESC PLAN (1 OF 2)
11	G-10	DEMO AND TESC PLAN (2 OF 2)
12	G-11	TESC NOTES AND DETAILS
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16	C-3.3	CAA-3 AND CAA-5 EXCAVATION AREA PLAN AND PROFILE
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18	C-4.1	CAA-2A INSITU SOLIDIFICATION AREA
19	C-4.2	CAA-4A INSITU SOLIDIFICATION AREA
20	C-4.3	ISS SWELL MANAGEMENT AREA
21	C5.1	UPLAND AOC CLEAN ACTION AREAS
22	C6.1	INTERCEPTOR TRENCH DESIGN
23	C7.1	TYPICAL FINAL CAP DETAILS

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48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST - STOP CALL
UTILITY NOTIFICATION CENTER
1-800-424-5555

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Cover Sheet, Sheet Index and Vicinity Map

Drawing No.
G-1

Sheet 1 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

THE CITY OF SEATTLE
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LEGEND

PARCEL BOUNDARY FOR
TOC SEATTLE TERMINAL 1, LLC PROPERTIES

EXISTING SITE PLAN

0 60 120
SCALE IN FEET

PERMIT SET

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STATE OF WASHINGTON
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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design
Seattle, Washington
Site Map

Drawing No.
G-2

Sheet 2 **of** 23

GENERAL NOTES

1. THIS WORK IS BEING COMPLETED TO SATISFY A PROSPECTIVE PURCHASER CONSENT DECREE (PPCD) BETWEEN THE DEPARTMENT OF ECOLOGY AND TOC SEATTLE TERMINAL 1, LLC.

2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN DURING THE LIFE OF THE CONTRACT, ENVIRONMENTAL PROTECTIVE MEASURES IN ACCORDANCE WITH THESE PLANS. THE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, EROSION CONTROL, VEHICLE DECONTAMINATION, AND SPILL RESPONSE.

3. IT IS POSSIBLE THAT DISTURBANCE OF HISTORICAL NATIVE AMERICAN MATERIALS MAY OCCUR AS A RESULT OF EXCAVATION OPERATIONS. THE EXCAVATION CREW SHALL ATTEND A 1-HOUR ONSITE ORIENTATION HELD BY THE SITE ARCHAEOLOGIST (RETAINED BY TOC SEATTLE TERMINAL 1, LLC) WHERE PERSONNEL SHALL BE MADE AWARE OF THE POTENTIAL TO DISCOVER CULTURAL RESOURCES WITHIN THE REMOVAL AREAS. THE CONTRACTOR SHALL BE MADE AWARE OF THEIR RESPONSIBILITIES DURING MONITORING BY THE SITE ARCHAEOLOGIST AND THEIR OBLIGATIONS IN THE CASE OF AN INADVERTENT DISCOVERY. IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED DURING REMOVAL, THE CONTRACTOR SHALL CEASE EXCAVATION AND NOTIFY THE ENGINEER. CONTRACTOR SHALL ALLOW ACCESS TO WORK AREAS AS REQUESTED BY THE ENGINEER TO ALLOW INSPECTION FOR CULTURAL RESOURCES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING, MAINTAINING, MONITORING, AND SUPPLEMENTING SILT CONTROL MEASURES, STORMWATER RUNOFF CONTROL MEASURES, AND ADDITIONAL BEST MANAGEMENT PRACTICES (BMPS) FOR THE IMPLEMENTATION AND MAINTENANCE OF A COMPREHENSIVE EROSION CONTROL PLAN. THE CONTRACTOR SHALL MEET CITY OF SEATTLE REQUIREMENTS AND THE SUBSTANTIVE REQUIREMENTS OF THE CONSTRUCTION STORMWATER GENERAL PERMIT (CSWGP) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR SITE CONSTRUCTION WORK (INCLUDING APPLICABLE CONSTRUCTION WATER).

5. GRADING MUST BE STABILIZED BY OCTOBER 31ST, AND NO EXCAVATION OR FILL PLACEMENT CAN BE PERFORMED BETWEEN OCTOBER 31ST AND APRIL 1ST UNLESS AN EXTENSION IS GIVEN BY THE CITY OF SEATTLE.

PERMITS/NOTICE OF INTENTS

1. THE CONTRACTOR SHALL OBTAIN CONSTRUCTION PERMITS AND APPROVALS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. CITY OF SEATTLE FIRE HYDRANT OR WATER SERVICE CONNECTION PERMIT

2. OWNER WILL OBTAIN THE FOLLOWING PERMITS OR SUBSTANTIVE REQUIREMENT DETERMINATIONS AND CONTRACTOR SHALL COMPLY WITH THESE REQUIREMENTS:
   A. KING COUNTY INDUSTRIAL WASTEWATER PERMIT FOR DISCHARGE OF TREATED SITE WATER TO THE SANITARY SEWER.
   B. CITY OF SEATTLE GRADING, SHORING, AND RIGHT-OF-WAY WORK APPROVALS.
   C. ECOLOGY CONSTRUCTION STORM WATER NPDES PERMIT THAT WILL BE TRANSFERRED TO CONTRACTOR PRIOR TO MOBILIZATION.
   D. ECOLOGY ENGINEERING DESIGN REPORT APPROVAL.

PRE CONSTRUCTION SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT A TECHNICAL EXECUTION PLAN (PLAN) THAT DOCUMENTS THE PROPOSED APPROACHES, EQUIPMENT, MEANS, AND METHODS OF ACCOMPLISHING THE EXCAVATION AND DISPOSAL OF SOIL AND ASSOCIATED SUBSURFACE DEBRIS AS WELL AS APPROACHES, EQUIPMENT, MEANS AND METHODS TO COMPLETE THE SOIL MIXING AND THE CONSTRUCTION OF THE INFILTRATION TRENCH. THE PLAN SHALL INCLUDE THE SEQUENCING APPROACH TO COMPLETE THE WORK BASED ON THE SCHEDULE. THE PLAN SHALL ADDRESS THE SAFE HANDLING OF CONTAMINATED MATERIALS AND MAINTAINING CLOSE TOLERANCES ON THE EXCAVATION LIMITS SHOWN ON THE DRAWINGS. AT A MINIMUM THE PLAN SHALL INCLUDE THE FOLLOWING ATTACHMENTS:
   A. TRAFFIC CONTROL PLAN
   B. EXCAVATION PLAN
   C. UTILITY PROTECTION PLAN
   D. ISS DESIGN
   E. DEWATERING SYSTEM PLAN WHICH SHALL DETAIL THE MEANS AND METHODS FOR ACHIEVING DEWATERED EXCAVATIONS THAT ENCOUNTER THE GROUNDWATER TABLE. THE METHODS FOR DEWATERING SHALL BE AT THE CONTRACTOR'S DISCRETION AND MAY BE A SYSTEM COMPRISED OF SEVERAL DIFFERENT COMPONENTS INCLUDING, BUT NOT LIMITED TO TRENCHES AND PUMPS, SHEET PILING, WELLS, AND WELL POINTS. WHILE THE CONTRACTOR WILL BE GIVEN THE DISCRETION IN ASSEMBLING, OPERATING AND MAINTAINING THE SYSTEM, PERFORMANCE OF THE SYSTEM SHALL BE MONITORED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DEWATERING SYSTEM TO ENSURE THAT OPEN EXCAVATION AREAS ARE HYDROSTATICALLY CONTROLLED AT ALL TIMES. THE ENGINEER WILL HAVE FINAL DETERMINATION AS TO ACCEPTABILITY OF THE DEWATERING SYSTEM PERFORMANCE. THE CONTRACTOR SHALL ALSO CONTROL SURFACE RUNOFF SO AS TO PREVENT ENTRY OR COLLECTION OF WATER IN EXCAVATIONS.
   F. CONSTRUCTION WATER MANAGEMENT PLAN (CWMP) - SHALL PROVIDE SUFFICIENT DETAIL TO ENSURE THAT THERE SHALL BE NO DISCHARGE OF WATER THAT DOES NOT COMPLY WITH ECOLOGY REQUIREMENTS AT ANY TIME AND UNDER ANY CIRCUMSTANCE. THE CWMP SHALL INCLUDE DETAILS ON ONSITE COLLECTION, TREATMENT, AND DISCHARGE OF WATER AND/OR COLLECTION, TRUCKING, AND OFFSITE TREATMENT OF WATER COLLECTED DURING FIELD ACTIVITIES. WATER INCLUDES SITE STORMWATER STOCKPILE DRAINAGE, DECONTAMINATION FLUIDS, AND GROUNDWATER COLLECTED DURING DEWATERING.

2. THE CONTRACTOR SHALL SUBMIT, FOR THE ENGINEER'S REVIEW AND COMMENT, A SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN. THE ENGINEER'S REVIEW OF, OR COMMENT ON, THE SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OR LIABILITY FOR THE PLAN. DELAY IN SUBMITTING A WRITTEN SITE- SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT CONSTITUTE GROUNDS FOR A CONTRACT SCHEDULE EXTENSION OR DELAY CLAIM.

3. THE CONTRACTOR SHALL IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DEVELOPED FOR THE PROJECT IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT CSWGP THAT BECAME EFFECTIVE IN MAY 5, 2017 (NOTE THIS EXPIRES DECEMBER 31, 2020, CONTRACTOR SHALL USE THE MOST RECENT VERSION WHICH EXTENDS INTO THE CONSTRUCTION WORK WINDOW). THE SWPPP SHALL INCLUDE A CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP), SPILL PLAN (SP). THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP AND THE TESC MEASURES INCLUDING MONITORING, SAMPLING, TESTING, AND REPORTING REQUIRED BY THE CSWGP.
   A. IF REQUESTED BY ECOLOGY, THE CONTRACTOR SHALL SUBMIT TO ECOLOGY PRODUCT CATALOG CUTS FOR FILTER FABRIC FENCE AND FILTER BAG INSERTS TO BE USED FOR THE WORK.
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING MONTHLY DISCHARGE REPORTS IN ACCORDANCE WITH THE CSWGP. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINES OR PENALTIES AS A CONSEQUENCE OF FAILURE TO SUBMIT MONTHLY REPORTS IN A TIMELY FASHION.

SCHEDULE

1. WEEKLY PROGRESS MEETINGS SHALL INCLUDE THE CONTRACTOR, ENGINEER, CONSULTANTS AND OTHERS AFFECTED BY DECISIONS MADE. THE ENGINEER WILL ARRANGE FOR THE TIME AND LOCATION OF THE MEETINGS. CONTRACTOR SHALL SCHEDULE, COORDINATE, LEAD AND ATTEND WEEKLY PROGRESS MEETINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COPIES OF THE CURRENT THREE WEEK LOOK AHEAD SCHEDULE TO ALL PARTICIPANTS AT EACH MEETING. THE CONTRACTOR SHALL RECORD MEETING MINUTES AND DISTRIBUTE COPIES WITHIN FIVE WORKING DAYS TO THE MEETING TO PARTICIPANTS AND TO OTHERS AFFECTED BY THE DECISIONS MADE.

2. WEEKLY PROGRESS MEETING SHALL INCLUDE THE FOLLOWING STANDARD AGENDA:
   A. REVIEW MINUTES OF PREVIOUS MEETING
   B. HEALTH AND SAFETY ISSUES
   C. REVIEW OF WORK PROGRESS
   D. FIELD OBSERVATION, PROBLEMS, AND DECISIONS
   E. IDENTIFICATION OF PROBLEMS THAT IMPEDE PLANNED PROGRESS
   F. REVIEW OF PROGRESS SCHEDULE (3 WEEKS LOOK AHEAD, 1 WEEK BACK)
   G. CORRECTIVE MEASURES TO ACHIEVE SCHEDULE MILESTONES
   H. PLANNED PROGRESS DURING SUCCEEDING WORK PERIOD
   I. COORDINATION OF PROJECTED WORK PROGRESS
   J. QUALITY AND WORK STANDARDS
   K. EFFECT OF PROPOSED CHANGES ON PROGRESS SCHEDULE AND COORDINATION
   L. DEMONSTRATION THAT THE PROJECT RECORDS ARE UP-TO-DATE
   M. OTHER BUSINESS RELATED TO THE WORK.

3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE WORK SCHEDULE SO THAT ALL WORK CAN BE COMPLETED IN A SINGLE SEASON. CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS AND LABOR AS NECESSARY TO MAINTAIN THE PROJECT SCHEDULE AND SHALL, AT NO ADDITIONAL COST, PROVIDE ADDITIONAL EQUIPMENT, MATERIALS AND LABOR TO ACCELERATE THE WORK AS REQUIRED TO REMAIN ON SCHEDULE.

4. CONTRACTOR SHALL SUBMIT WEEKLY SCHEDULE UPDATES THAT SHOW A DETAILED 3-WEEK LOOK-AHEAD SCHEDULE, AND AN OVERALL SCHEDULE THAT DEMONSTRATES COMPLETION BY THE DATES PRESCRIBED HEREIN. THIS WEEKLY SCHEDULE SUBMITTAL SHALL CLEARLY SHOW THE COMPLETION DATES AND DETAIL METHODS THAT WILL BE EMPLOYED TO ACCELERATE THE WORK AS NECESSARY TO ACHIEVE THE COMPLETION DATES.

5. THE FOLLOWING WORK RESTRICTIONS APPLY TO THIS WORK:
   A. PROJECT COMPLETION DATE IS XXXX, 20XX. ALL SITE WORK SHALL BE COMPLETED BY THIS DATE.

HEALTH AND SAFETY NOTES

1. THE CONTRACTOR SHALL COMPLY WITH THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA), INCLUDING ALL REVISIONS AND AMENDMENTS THERETO; THE PROVISIONS OF THE WASHINGTON DEPARTMENT OF LABOR AND INDUSTRIES, SAFETY AND HEALTH.

2. THE CONTRACTOR SHALL CONSIDER THAT HAZARDOUS AND/OR REGULATED MATERIAL CAN BE ENCOUNTERED IN THE SUBSURFACE AT ANY LOCATION ON THE PROJECT. THE CONTRACTOR SHALL PLAN WORK ZONE DESTINATION AND WORK HEALTH AND SAFETY AROUND THIS ASSUMPTION.

3. FORTY-HOUR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING, WITH CURRENT ANNUAL 8-HOUR REFRESHER, SHALL BE REQUIRED FOR ALL ONSITE WORKERS AND OTHER WORKERS WITH POTENTIAL FOR HANDLING OR EXPOSURE TO SITE SOIL OR GROUNDWATER, WITH THE EXCEPTION OF TRUCK DRIVERS AND SURVEYORS (UNLESS THEIR ACTIVITIES REQUIRE POTENTIAL EXPOSURE TO CONTAMINATED MATERIALS). TRUCK DRIVERS SHALL RECEIVE ORIENTATION ON THE SITE SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN; NO OTHER HEALTH AND SAFETY TRAINING SHALL BE REQUIRED, PROVIDED THAT ALL OUT-OF-CAB ACTIVITIES ARE RESTRICTED TO COVERING OF LOADS, NECESSARY VEHICLE INSPECTIONS, AND SIGNING OF MANIFESTS.

SURVEYING NOTES

1. THE CONTRACTOR SHALL ESTABLISH SUCH ADDITIONAL LINES, GRADES AND CONTROLS AS ARE NEEDED FOR CONSTRUCTION.

2. ALL WORK PERFORMED SHALL BE IN CONFORMANCE WITH THE LINES, GRADES AND DIMENSIONS INDICATED ON THE DRAWINGS. IF A DISCREPANCY IS NOTED BETWEEN THE DRAWINGS, THE SAME SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION. WHERE TOLERANCES ARE STATED, THE WORK PERFORMED SHALL BE WITHIN THOSE TOLERANCES. THE ENGINEER WILL DETERMINE IF THE WORK CONFORMS TO SUCH LINES, GRADES AND DIMENSIONS AND HIS DETERMINATION SHALL BE FINAL.

3. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR DETAILED DIMENSIONS AND ELEVATIONS MEASURED FROM PRIMARY CONTROL POINTS.

4. CONTRACTOR SHALL SUBMIT SURVEYS TO THE ENGINEER WITHIN 24 HOURS OF COMPLETING INDEPENDENT SURVEYS. INCLUDE AUTOCAD ELECTRONIC FILE, PLAN VIEW DRAWINGS WITH 1-FT CONTOUR INTERVALS AND SPOT ELEVATIONS DEPICTING HIGH AND LOW POINTS PLOTTED AT 1 INCH=50 FEET. THE AUTOCAD FILES SHALL INCLUDE A TRIANGULATED IRREGULAR NETWORK (TIN) BASED DTM. ASCII-FORMAT PROCESSED SURVEY DATA SHALL BE PROVIDED IN X,Y,Z (EASTING, NORTHING, ELEVATION) FORMAT. EACH DATA SHALL INCLUDE A DESCRIPTIVE HEADER INCLUDING, BUT NOT LIMITED TO: SOFTWARE AND EQUIPMENT INFORMATION, CLIENT, PROJECT, HORIZONTAL AND VERTICAL DATUM, UNITS, SURVEY TYPE, ALIGNMENT, AND STATIONS SURVEYED.

5. THE CONTRACTOR SHALL MAINTAIN ON SITE A COMPLETE, ACCURATE LOG OF CONTROL OF SURVEY WORK AS IT PROGRESSES.

EXISTING UTILITIES

1. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND AND ABOVEGROUND UTILITIES IN THE AREA OF THE WORK. THOSE UTILITIES WHICH ARE TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL UTILITY PROVIDERS THAT WILL BE AFFECTED BY EARTHWORK ACTIVITIES AND SHALL DESIGN SITE ACTIVITIES (SHORING) TO ACCOUNT FOR THE UTILITIES.

2. THE CONTRACTOR SHALL PREPARE A UTILITY PROTECTION PLAN, DISCUSSED WITH THE TECHNICAL EXECUTION PLAN SUBMITTAL. UTILITIES TO BE PROTECTED INCLUDE MONITORING WELLS, SIDE SEWER CONNECTIONS AND A GAS LINE AND UTILITY POLE ASSOCIATED WITH THE RIGHT-OF-WAY EXCAVATION. CITY MAY PROVIDE SPECIFIC PROTECTION OR MONITORING REQUIREMENTS IN THE RIGHT-OF-WAY WORK APPROVAL.

3. WELLS AND INJECTION POINTS WILL BE DECOMMISSIONED BY OWNER PRIOR TO CONTRACTOR MOBILIZATION.

4. ALL SEWER AND STORM LINES IN THE ROW WITHIN 10 FEET (OR WITHIN 20 FEET IF SUCH LINES ARE 30 FEET OR MORE OFF SITE PROPERTY LINE) OF ANY PROPOSED SHORING ELEMENT SHALL BE VIDEOTAPED OF PRE-PROJECT CONDITION AND A COPY SENT TO SPU AT SPU_DWW_PIPE_REHAB@SEATTLE.GOV PRIOR TO PRECONSTRUCTION MEETING. SIMILAR VIDEOTAPE OF POST-PROJECT CONDITION IS ALSO REQUIRED AND SENT TO SPU AT SAME EMAIL ADDRESS.

CONSTRUCTION WATER MANAGEMENT

1. THE DEWATERING SYSTEM IS EXPECTED TO BE OPERATED INTERMITTENTLY THROUGHOUT THE PROJECT. WATER COLLECTION AND TREATMENT WILL BE REQUIRED FOR ALL SITE CONTACT STORMWATER, INCLUDING WATER COLLECTED WITHIN STOCKPILE AREAS, FROM OTHER DISTURBED AREAS WITHIN THE SITE WHERE STORMWATER CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL.

2. WATER GENERATED FROM THE DEWATERING PROCESS WILL BE APPROPRIATELY TREATED AND DISCHARGED TO SANITARY SEWER OR AT AN OFFSITE FACILITY PERMITTED TO DISPOSE OF CONTAMINATED WATER.

3. THE MINIMUM SYSTEM REQUIREMENTS SHALL INCLUDE OIL/WATER SEPARATION, SOLIDS REMOVAL, POLISHING WITH GRANULATED ACTIVATED CARBON, AND PH AND DISSOLVED OXYGEN TREATMENT. CONTRACTOR SHALL ADD TO THE SYSTEM TO THE DEGREE THEY BELIEVE NECESSARY TO COMPLY WITH THE DISCHARGE LIMITS.

4. ALL PROJECT WATER THAT CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL, OR THAT CONTACTS ONSITE PAVEMENT, SHALL BE TREATED ONSITE TO REMOVE ALL CONTAMINANTS OF CONCERN (COCS) BEFORE DISCHARGE TO THE CITY OF SEATTLE TREATMENT SYSTEM, OR SHALL BE TRUCKED TO AN ECOLOGY-APPROVED OFFSITE FACILITY FOR TREATMENT, OR A COMBINATION OF BOTH. THE EXCEPTION IS FOR OVER-THE-ROAD TRUCK WHEEL WASH WATER WHICH SHALL BE HANDLED SEPARATELY (OFFSITE DISPOSAL) DUE TO THE POTENTIAL FOR DIFFERENT CONTAMINANTS.

5. CONTRACTOR SHALL UTILIZE EITHER OR BOTH METHODS, WHICHEVER IS DEEMED NECESSARY TO ENSURE THAT NO DISCHARGE OF NON-COMPLIANT WATER OCCURS AT ANY TIME OR UNDER ANY CIRCUMSTANCE.

6. SUFFICIENT STORAGE SHALL BE AVAILABLE ONSITE TO PREVENT NON-COMPLIANT DISCHARGES. STORAGE CAPACITY DESIGN SHALL CONSIDER FLOW-THROUGH DISCHARGE RATES AND/OR TRUCKING CAPACITY AND TURNAROUND TIMES.

7. FOR OFFSITE DISPOSAL, TRUCK TICKETS SHALL BE PROVIDED TO THE ENGINEER WEEKLY AND WILL IDENTIFY LOCATION OF FACILITY AND VOLUME OF WATER DISCHARGED.

8. FOR ONSITE TREATMENT AND DISPOSAL, DAILY TREATMENT LOGS SHALL BE PROVIDED TO THE ENGINEER AS PART OF THE DAILY CONSTRUCTION REPORT AND SHALL INCLUDE CUMULATIVE INFLOW AND DISCHARGE VOLUMES, HOURS OF TREATMENT SYSTEM OPERATION AND DISCHARGE, MAINTENANCE ACTIVITIES, AND TEST DATA THAT DEMONSTRATE DISCHARGED WATER MEETS ALL REQUIRED CRITERIA.

9. TREATMENT SYSTEM(S) SHALL BE APPROVED FOR USE BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP C250 AND THE CHEMICAL TREATMENT ASSESSMENT PROTOCOL – ECOLOGY (CTAPE).

10. THE CONSTRUCTION WATER TREATMENT SYSTEM SHALL ONLY BE OPERATED BY THE CONSTRUCTION WATER TREATMENT SYSTEM OPERATOR(S) (OPERATOR).

11. OPERATOR SHALL BE ONSITE AT ALL TIMES THE CONSTRUCTION WATER TREATMENT SYSTEM IS OPERATING AND SHALL HAVE NO OTHER DUTIES.

12. IF ONSITE TREATMENT IS USED, CONTRACTOR SHALL PERFORM A "PROOF OF TREATMENT" TO DEMONSTRATE THE EFFECTIVENESS OF THE TREATMENT SYSTEM PRIOR TO STARTING DISCHARGE

13. SAMPLING AND ANALYSIS: CONTRACTOR SHALL PERFORM SAMPLING AND ANALYSIS OF REPRESENTATIVE SAMPLES OF THE TREATED WATER AS REQUIRED TO DEMONSTRATE THAT THE EFFLUENT MEETS KING COUNTY INDUSTRIAL WASTE PROGRAM WATER QUALITY DISCHARGE LIMITS BEFORE DISCHARGE INTO THE SANITARY SEWER SYSTEM ACCORDING TO THE REQUIREMENTS OF PERMIT.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

NEW SHEET

PERMIT SET

Rev	Date	Description	By

Client

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GRANT HAINSWORTH, STATE OF WASHINGTON, 33192, REGISTERED PROFESSIONAL ENGINEER
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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (1 of 4)

Drawing No.
G-3

Sheet 3 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Catryn

GENERAL NOTES continued...

EARTHWORK AND SUBGRADE PREPARATION NOTES

1. ALL EARTHWORK AND SUBGRADE PREPARATION WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE DRAWINGS.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS CONCEPTUAL. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION ONLY WITHIN THE LIMITS OF THE PROJECT. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE PERTINENT UTILITY LOCATIONS AND ELEVATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO FULLY UNDERSTAND AND VERIFY THE CONDITION OF ANY UTILITY SERVICE LINES, AND PROTECT THOSE LINES AT ALL TIMES DURING THE COURSE OF THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ITS ACTIONS.

3. IF DURING CONSTRUCTION, CONDITIONS ARE ENCOUNTERED WHICH DIFFER FROM THE CONDITIONS PROVIDED ON THE DRAWINGS OR LISTED WITHIN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY.

5. USE OF DUST CONTROL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO MINIMIZE DUST GENERATION. IF WORK ACTIVITIES GENERATE VISIBLE DUST AT THE PROJECT BOUNDARIES OR IN AREAS WHERE CLEAN BACKFILL HAS BEEN PLACED, ACTIVITIES SHALL BE MODIFIED OR STOPPED WHILE DUST CONTROL MEASURES ARE IMPLEMENTED. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SPRINKLING AREAS WITH WATER, CHANGING THE RATE OF EXCAVATION/BACKFILLING/HAULING ACTIVITIES, OR KEEPING DROP HEIGHTS TO A MINIMUM WHILE LOADING TRUCKS.

STOCKPILE MANAGEMENT PROCEDURES

1. STOCKPILING SHALL BE ALLOWED ONLY IN AREAS APPROVED BY THE ENGINEER. ~~THE EDGES OF THE STOCKPILES SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE TOP OF THE BANK ALONG SALMON BAY~~.

2. STOCKPILES ARE REQUIRED TO BE LINED ON THE BOTTOM OR PLACED ON PAVEMENT TO PREVENT CONTAMINATION OF THE UNDERLYING SOIL, AND COVERED WHEN NOT DIRECTLY IN USE TO MINIMIZE THE DUST PRODUCTION AND TO PROTECT AGAINST PRECIPITATION.

3. STOCKPILE BOTTOM LINERS SHALL BE POLYETHYLENE, SHALL HAVE A MINIMUM THICKNESS OF 30 MILS AND SHALL BE RESISTANT TO WEATHERING AND DEGRADATION DUE TO CONTACT WITH CONTAMINATED MATERIALS FOR THE DURATION OF THE PROJECT WORK AND SUITABLE FOR THE INTENDED USE OF THE STOCKPILE AREA. THE LINER SHALL BE FURNISHED WITH PREFABRICATED SHOP WELDED SEAMS OR SEAMS WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DIMENSIONS MAY BE MAXIMIZED TO PROVIDE THE LARGEST MANAGEABLE SHEET.

4. THE LINER SHALL BE SUPPLIED IN ROLLS. LABELS ON EACH ROLL SHALL IDENTIFY THE THICKNESS OF THE MATERIAL, THE LENGTH AND WIDTH OF THE ROLL, LOT AND ROLL NUMBERS, AND NAME OF MANUFACTURER.

5. PREPARE THE AREA TO RECEIVE THE STOCKPILE LINER IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS TO PROVIDE A SMOOTH, FIRM SUBGRADE THAT SHALL BE FREE OF PROTRUSIONS AND SUITABLE TO PROTECT THE LINER DURING USE.

6. INSTALL BOTTOM LINER TO FULLY COVER THE SMOOTH GROUND SURFACE FOR EACH STOCKPILE. FIELD SEAMING, IF NECESSARY, SHALL BE COMPLETED IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS TO PROVIDE A WATER TIGHT SEAM. SIMPLE OVERLAPPING OF SEAMS WITHOUT SEALING IS NOT ALLOWED. ANCHOR THE LINER ADEQUATELY TO PREVENT DISPLACEMENT. MONITOR AND MAINTAIN LINER INTEGRITY. IMMEDIATELY REPAIR TEARS OR PUNCTURES WHERE DAMAGED.

7. STOCKPILE BERMS (OR ECOLOGY BLOCKS) SHALL BE FIRM, NON-YIELDING AND STABLE. BOTTOM LINER SHALL COVER ENTIRE BERM AND BE PLACED SUCH THAT ALL DRAINAGE FROM THE STOCKPILE IS CONTAINED WITHIN THE STOCKPILE CELL.

8. ONCE THE LINER IS IN PLACE AND THE STOCKPILE AREA READY TO RECEIVE/ STORE MATERIAL, THE CONTRACTOR SHALL INSTALL A CUSHIONING LAYER (MINIMUM 12 INCHES THICK) TO PROTECT THE LINER IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS. THIS LAYER CAN CONSIST OF ONSITE WASTE AS LONG AS IT MEETS THE LINER MANUFACTURER'S RECOMMENDATIONS FOR LINER PROTECTION. LEAVE THIS CUSHIONING LAYER OVER THE LINER DURING OPERATIONS TO PROTECT THE LINER FROM DAMAGE BY STOCKPILING AND LOADING OPERATIONS. SHOULD THE LINER BE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPAIR THE DAMAGE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND NOT ALLOW CONTAMINATED MATERIAL OR RUN-OFF TO ESCAPE THE STOCKPILE. NO CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO DRIVE DIRECTLY OVER THE LINER.

9. STOCKPILE COVERS SHALL BE 6-MIL (MINIMUM THICKNESS) BLACK OR CLEAR REINFORCED POLYETHYLENE SHEETING. THE STOCKPILE COVER SHEETS SHALL BE OF SUFFICIENT LENGTH AND WIDTH TO COMPLETELY AND FULLY COVER ALL OF EACH STOCKPILE WITH NO MORE THAN TWO SHEETS.

10. STOCKPILE COVERS AND LINERS SHALL BE FREE OF HOLES OR TEARS. DEFECTIVE MATERIAL SHALL BE IMMEDIATELY REPAIRED OR REPLACED AND NOT ALLOW LEAKAGE OR ESCAPE OF MATERIAL FROM THE STOCKPILE AREA, AS DETERMINED BY THE ENGINEER.

11. INSTALL STOCKPILE COVER IN A MANNER THAT MINIMIZES WRINKLES AND PROVIDES FOR A STRAIGHT PLACEMENT. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE AT LEAST 4 FEET OF OVERLAP OF ALL SEAMS. PLACE SANDBAGS OR OTHER PREAPPROVED CLEAN WEIGHTED OBJECTS ON THE COVER AT SUFFICIENTLY CLOSE SPACING TO PREVENT UPLIFT FROM WIND. THE TOE OF SLOPES SHALL BE TIGHTLY SECURED AND COVERED BY THE SHEETING.

12. PROTECT THE COVER FROM DAMAGE. REMOVE AND REPLACE DAMAGED POLYETHYLENE SHEETING AS NEEDED OR IF DIRECTED BY THE ENGINEER.

13. FURNISH SAND BAGS OR OTHER DEVICES AS APPROVED BY THE ENGINEER OF SUFFICIENT QUANTITY AND WEIGHT AND WITH SUFFICIENTLY CLOSE SPACING TO COMPLETELY AND FULLY HOLD THE STOCKPILE COVER IN POSITION. ONLY CLEAN, UNCONTAMINATED MATERIAL SHALL BE USED TO WEIGH DOWN THE COVERING; STOCKPILE MATERIAL SHALL NOT BE USED FOR COVER WEIGHT. IN PARTICULAR, THE EDGES OF THE STOCKPILE COVER SHALL BE ADEQUATELY ANCHORED TO COMPLETELY TRAP THE MATERIAL WITHIN.

14. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES.

15. COORDINATE STOCKPILING AND STOCKPILE MAINTENANCE WORK WITH EXCAVATION WORK.

16. LINE BOTTOM OF STOCKPILES AS OUTLINED IN THESE PLANS. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES. COVER STOCKPILES DURING LENGTHY PERIODS OF INACTIVITY WHILE ON SITE, AT THE END OF EACH WORK DAY, JUST PRIOR TO AND DURING PERIODS OF PRECIPITATION, AND AS NECESSARY TO CONTROL DUST, EROSION AND ODORS.

STOCKPILE SAMPLING

1. THE FREQUENCY OF MATERIAL SAMPLING WILL DEPEND UPON THE REQUIREMENTS OF THE WASTE DISPOSAL FACILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT AND COORDINATE ANY SAMPLING REQUIREMENTS MANDATED BY THE WASTE DISPOSAL FACILITY.

2. STOCKPILES LOCATED ON AREAS OVERLYING CLEAN SOILS SHALL MANDATE THAT SAMPLING OF THE UNDERLYING SOILS BE PERFORMED UPON STOCKPILE REMOVAL TO DEMONSTRATE THAT STOCKPILING DID NOT AFFECT CLEAN UNDERLYING SOILS. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN STOCKPILES HAVE BEEN COMPLETELY REMOVED AND THE ENGINEER WILL SAMPLE THE UNDERLYING SOILS. IF THE UNDERLYING SOILS ARE FOUND, THROUGH SAMPLING OR VISUAL OBSERVATIONS BY THE ENGINEER, TO BE CONTAMINATED BY THE CONTRACTOR'S STOCKPILING ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATING THE CONTAMINATED SOILS TO THE ENGINEER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

EXCAVATION NOTES

1. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR DEALING WITH OBSTRUCTIONS. IF OBSTRUCTIONS ARE ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING STEPS:
   A. NOTIFY THE ENGINEER.
   B. IF THE EXPOSED OBSTRUCTION IS TOO LARGE TO REMOVE, EITHER CHIP OUT THE PORTION THAT EXTENDS INTO THE EXCAVATION, OR PROVIDE FOR THE REMOVAL TO BE COMPLETED AROUND THE OBSTRUCTION. THIS DETERMINATION WILL BE MADE WITH THE ENGINEER.

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BACKFILL NOTES

1. SUBMIT TEST RESULTS PRIOR TO IMPORTING ANY BACKFILL MATERIAL ON THE SITE, ONE TEST FOR EVERY SOURCE OF BACKFILL MATERIAL, AND EACH TIME THE MATERIAL SOURCE IS DEEMED TO CHANGE. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE. TESTING SHALL IN ACCORDANCE WITH
   A. SIEVE ANALYSES AND COMPARISON TO THE REQUIRED SPECIFICATIONS
   B. MOISTURE DENSITY CURVE FOR GRAVEL BORROW IN ACCORDANCE WITH ASTM D-1557 MODIFIED PROCTOR
   C. CHEMICAL TEST RESULTS FOR ALL ANALYTES LISTED HEREIN ALONG WITH A COMPARISON OF THE ANALYTICAL TEST RESULTS TO THE SPECIFIED LEVELS

2. IMPORTED BACKFILL MATERIAL SHALL BE NATURALLY OCCURRING OR NATURAL MATERIAL BLENDED TO ACHIEVE GRADATION REQUIREMENTS LISTED HEREIN. THE BACKFILL SHALL NOT CONTAIN RECYCLED MATERIAL OF ANY TYPE AND SHALL NOT BE FROM AN INDUSTRIAL SITE. IMPORTED GRAVEL BORROW OR OTHER CLEAN SOIL SHALL BE IN COMPLIANCE WITH ANALYTICAL TESTING SPECIFICATIONS.

3. BACKFILL SHALL BE PLACED IN 12 INCH MAXIMUM LIFT THICKNESS AND COMPACTED TO 95@ASTM D—1557 MINIMUM COMPACTION.

4. THE CONTRACTOR SHALL PLACE MATERIAL USED FOR THE CONSTRUCTION OF FILL IN ROUGHLY HORIZONTAL LAYERS UPON EARTH WHICH HAS BEEN STABILIZED OR OTHERWISE APPROVED BY THE ENGINEER FOR CONSTRUCTION. THE BACKFILL SHALL BE COMPACTED WITH MODERN, EFFICIENT COMPACTING UNITS SATISFACTORY TO THE ENGINEER.

5. FIELD TESTS TO DETERMINE IN-PLACE COMPLIANCE WITH REQUIRED DENSITIES AS SPECIFIED, SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D1557, D2167, OR D6938.

6. THE EXCAVATED AREA WITHIN THE W. COMMODORE WAY ROW SHALL ALSO BE BACKFILLED WITH CLEAN IMPORTED FILL AND RESTORED WITH A PAVEMENT SECTION MEETING CITY OF SEATTLE REQUIREMENTS.

MATERIAL SPECIFICATIONS

1.
   A. QUARRY SPALLS
      A.A. QUARRY SPALLS SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-13.6.
   B. GRAVEL BORROW
      B.A. AGGREGATE FOR GRAVEL BORROW SHALL CONSIST OF GRANULAR MATERIAL, EITHER NATURALLY OCCURRING OR BLENDED, AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GRADATION:

SIEVE SIZE (INCHES)	PERCENT PASSING
4	99 – 100
2	70 – 100
NO. 4	50 – 80
NO. 40	30 MAX.
NO. 200	7.0 MAX.*
SAND EQUIVALENT	50 MIN.

      NOTES: ALL PERCENTAGES ARE BY WEIGHT.
      * FOR BACKFILL IN WET CONDITIONS THE FINES CONTENT (MATERIAL PASSING NO. 200) SHALL BE LIMITED TO 5.0%
   C. BALLAST ROCK
      C.A. BALLAST ROCK SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-03.9(1)
   D. WOVEN GEOTEXTILE
      D.A. WOVEN GEOTEXTILE SHALL BE US 2600 OR APPROVED EQUIVALENT

2. CHEMICAL ACCEPTANCE CRITERIA: CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION TO DEMONSTRATE THAT THE PROPOSED BACKFILL IS FREE FROM ENVIRONMENTAL CONTAMINATION. BACKFILL ANALYTES, REPORTING LIMITS, METHODS, AND CRITERIA ARE:

Analyte	Unit	Analytical Method	Reporting Limit	Criteria
PCB Aroclors	µg/kg dw	EPA 8082	4	ND
Semi-volatile organic compounds (SVOCs)	µg/kg dw	EPA 8270	20[a]	ND
Dioxin/Furan TEQ	ng/kg dw	EPA 1613	1	4
Arsenic	mg/kg dw	EPA 6010	5	7.3
Cadmium			0.2	2.5
Chromium			0.5	130
Copper			0.2	195
Lead			2	225
Silver			0.3	2
Zinc			1	205
Mercury	mg/kg dw	EPA 7471	.02	0.2
Diesel range hydrocarbons	mg/kg dw	NWTPH-Dx	5	ND
Lube oil range hydrocarbons			10	

NOTES:
ND = NOT DETECTED AT REPORTING LIMIT; TEQ = TOXICITY EQUIVALENT.

[A]: MOST SVOCS, SUCH AS PAHS, HAVE REPORTING LIMITS OF 20 UG/KG DW. SOME SVOCS HAVE HIGHER REPORTING LIMITS: 2,4-DIMETHYLPHENOL – 35, 4-METHYLPHENOL – 35, BENZOIC ACID – 400, BIS(2-ETHYLHEXYL)PHTHALATE - 30, HEXACHLOROBUTADIENE – 90, DIETHYLPHTHALATE – 50, PENTACHLOROPHENOL – 200.

3. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION OF ALL IMPORT SOIL TO DEMONSTRATE THAT THE PROPOSED IMPORT MATERIAL MEETS THE CHEMICAL CRITERIA. IMPORT TESTING SHALL BE EVALUATED EITHER USING PRE-EXISTING, VERIFIABLE DATA FROM AN IMPORT SOURCE THAT WAS DEVELOPED WITHIN 180 DAYS OF THE SUBMITTAL AND IS FROM THE SAME MATERIAL SOURCE, OR BY COLLECTING SAMPLES SPECIFICALLY FOR THIS PROJECT. SAMPLES SHALL BE COLLECTED BY AN ENVIRONMENTAL PROFESSIONAL AND ALL LABORATORY TESTING SHALL BE COMPLETED BY LABS ACCREDITED BY ECOLOGY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IMPORT MATERIAL SAMPLING, TESTING AND REPORTING.

4. ALL TESTING TO DEMONSTRATE COMPLIANCE WITH SPECIFICATIONS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO PURCHASE OF THE MATERIAL. TESTING SHALL BE SUBMITTED NO LATER THAN FIVE WORKING DAYS PRIOR TO THE PLANNED DELIVERY OF MATERIALS TO THE SITE. A MINIMUM OF ONE ANALYTICAL SAMPLE SHALL BE COLLECTED FROM EACH SOURCE AND EACH MATERIAL IMPORTED.

5. THE CONTRACTOR SHALL NOT OBTAIN IMPORT MATERIAL(S) FROM INDUSTRIAL SITES. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE SOURCE AREA LAND USE AND OPERATION HISTORY WHEN PROVIDING TESTING RESULTS, TO SUPPORT THE ENGINEER'S DETERMINATION OF MATERIAL SUITABILITY.

6. THE CONTRACTOR SHALL CONDUCT ONE PHYSICAL SAMPLE FOR EACH IMPORT SOURCE PER EACH MATERIAL DELIVERED TO THE SITE FOR PLACEMENT.

NEW SHEET

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH, STATE OF WASHINGTON, 33192, REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (2 of 4)

Drawing No.
G-4

Sheet 4 **of** 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

GENERAL NOTES continued...

7. IF THE IMPORT SOURCE CHANGES DURING CONSTRUCTION, NEW TESTING SHALL BE SUBMITTED FOLLOWING THE SCHEDULE AND REQUIREMENTS LISTED IN THIS SPECIFICATION. THE OWNER MAY REQUIRE ADDITIONAL TESTS IF THERE IS AN OBSERVABLE VARIANCE IN THE PROVIDED MATERIAL, SUCH TESTS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE AND TESTING SHALL BE DONE BY A ECOLOGY ACCREDITED LABORATORY.

8. THE CONTRACTOR SHALL MONITOR IMPORT MATERIALS TO MAINTAIN CONSISTENT GRADATION AND CHEMICAL REQUIREMENTS AS SPECIFIED.

DEWATERING

1. LOCATE DEWATERING FACILITIES WHERE THEY SHALL NOT INTERFERE WITH UTILITIES AND CONSTRUCTION WORK TO BE PERFORMED BY OTHERS INCLUDING ANY FOLLOW ON CONTRACTORS. OBTAIN APPROVAL FOR FACILITY LOCATIONS FROM THE ENGINEER.

2. THE CONTRACTOR SHALL MONITOR GROUNDWATER LEVELS IN AND AROUND THE EXCAVATIONS TO ENSURE GROUNDWATER LEVELS AND HYDROSTATIC PRESSURES ARE REDUCED AS REQUIRED PRIOR TO EXCAVATION, SUCH THAT GROUNDWATER SHALL NOT PREVENT PROPER COMPLETION OF ALL WORK PERFORMED UNDER THIS CONTRACT. THE CONTRACTOR MAY USE EXISTING MONITORING WELLS.

3. ACCEPTANCE BY THE ENGINEER SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ERRORS THEREIN OR FROM THE RESPONSIBILITY FOR COMPLETE AND ADEQUATE DESIGN, MATERIALS, INSTALLATION METHODS, OPERATION METHODS, OR ADEQUATE MAINTENANCE OF THE SYSTEM.

4. THE CONTRACTOR SHALL EMPLOY MATERIALS, EQUIPMENT, AND CONSTRUCTION METHODS COMMONLY USED AND PROVEN AS SUITABLE FOR THE DURATION OF CONSTRUCTION DEWATERING AND ANY SURFACE WATER CONTROL SYSTEMS.

5. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ACQUIRING A WATER SUPPLY WITH WHICH TO INSTALL AND OPERATE ANY DEWATERING SYSTEM COMPONENTS PROPOSED IN THE DEWATERING SYSTEM PLAN.

6. THE CONTRACTOR SHALL VERIFY AND INDEPENDENTLY INTERPRET THE AVAILABLE SUBSURFACE INFORMATION PRESENTED IN THE CONTRACT DOCUMENTS AND ASSOCIATED TECHNICAL EXHIBITS AND SUPPLEMENT THE EXISTING DATA NECESSARY IN ORDER TO COMPLETE THE DESIGN AND CONSTRUCTION.

7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ADEQUACY OF THE DESIGNED DEWATERING SYSTEM TO PERFORM THE DESIRED FUNCTION.

SCREENING, HANDLING, AND DISPOSAL OF CONTAMINATED SOIL AND WATER

1. ALL SOIL REMOVED FROM EXCAVATION REMOVAL AREAS WILL BE DISPOSED OF AS SUBTITLE D SOIL IN AN ECOLOGY APPROVED LANDFILL. ALL SAMPLING REQUIRED BY THE LANDFILL SHALL BE COMPLETED PRIOR TO SHIPMENT OF SOILS.

2. ALL WATER THAT COMES INTO CONTACT WITH DISTURBED SOILS SHALL BE CAPTURED AND DISPOSED OF OFF SITE AT AN APPROVED DISPOSAL FACILITY OR TREATED AT THE ON-SITE WATER TREATMENT PLANT PRIOR TO DISCHARGE. THE ON-SITE WATER TREATMENT PLANT WILL COMPLY WITH ALL KING COUNTY INDUSTRIAL WASTEWATER TREATMENT REQUIREMENTS.

3. IF ANY WATER IS COLLECTED THROUGH DEWATERING ACTIVITIES IT SHALL BE TREATED AS CONTACT STORMWATER, DESCRIBED ABOVE.

4. GROUNDWATER DEWATERING TO COMBINED SEWERS MUST BE METERED PRIOR TO DISCHARGE. CONTACT THE SPU SUBMETER PROGRAM OFFICE AT (206) 684-5089 TO DETERMINE THE REQUIRED METER TYPE, INSTALLATION LOCATION AND BILLING INFORMATION AND TO SCHEDULE AN INSPECTION AFTER INSTALLATION.

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INSITU SOLIDIFICATION NOTES

SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION IN THE TECHNICAL EXECUTION PLAN FOR THE ISS DESIGN PLAN:
   - A. DESCRIPTION AND SPECIFICATIONS OF ISS SYSTEM, EQUIPMENT, AND PROCESSES.
   - B. ISS LAYOUT DRAWING SHOWING THE CONFIGURATION AND LAYOUT OF THE ISS SYSTEM.
   - C. SITE MAPS SHOWING THE PROPOSED LAYOUT AND PATTERN OF THE INDIVIDUAL ISS MIXING CELLS.
   - D. PROPOSED APPROACH FOR MIXING CAA-4 IN TWO LIFTS, RELOCATION OF THE UPPER LIFT MIXED SOIL TO ISS SWELL MANAGEMENT AREA, AND BACKFILLING WITH LOWER LIFT ISS SWELL IN CONJUNCTION WITH PLACEMENT OF THE INTERCEPTOR TRENCH.
   - E. METHODS FOR DETERMINING AND VERIFYING THE COORDINATES, ELEVATIONS, AND DEPTHS OF THE ISS MIXING CELLS.
   - F. METHODS FOR CONTROLLING NOISE LEVELS GENERATED FROM THE ISS EQUIPMENT.
   - G. PROPOSED METHODS TO PREPARE GROUT MIXTURES AND TO PROPORTION REAGENTS TO VERIFY PROPER PORTIONS.
   - H. TOTAL ESTIMATED QUANTITY OF WATER AND SOLIDIFICATION REAGENTS REQUIRED FOR THE WORK BASED ON THESE DRAWINGS, AVAILABLE SOIL BORING INFORMATION, CONTRACTOR'S TREATABILITY STUDY, AND THE CONTRACTOR'S LAYOUT PLAN FOR THE ISS MIXING CELLS.
   - I. SOLIDIFICATION PROCEDURES AND SEQUENCING, INCLUDING COORDINATION WITH SHORING INSTALLATION AND INTERCEPTOR TRENCH PLACEMENT.
   - J. ASSOCIATED DEWATERING PROCEDURES.
   - K. ESTIMATED PRODUCTION RATE FOR SOLIDIFICATION IN TERMS OF NUMBER OF MIXING CELLS PER DAY.
   - L. METHODS FOR HANDLING GENERATED SWELL.
   - M. ESTIMATED SCHEDULE FOR COMPLETION.
   - N. ANY PROPOSED DEVIATIONS FROM THE DRAWINGS.
   - O. SPILL CONTROL MEASURES.
   - P. WASH OUT AND GROUT DISPOSAL FACILITIES AND PRACTICES.
   - Q. EROSION CONTROL.
   - R. SAMPLING METHODS, PERSONNEL, AND EQUIPMENT.
   - S. RESUMES FOR KEY PERSONNEL ASSIGNED TO CONDUCT THE WORK, INCLUDING PROJECT SUPERINTENDED, EQUIPMENT OPERATIONS, GROUT PLANT OPERATORS, SUPERVISORY ENGINEERING STAFF AND OTHER TECHNICAL STAFF.
   - T. DISCUSSION OF BACKUP EQUIPMENT REQUIRED AND/OR AVAILABLE FOR THIS PROJECT.

2. CONTRACTOR SHALL PROVIDE DAILY SUBMITTALS DURING THE WORK SUMMARIZING THE FOLLOWING INFORMATION AT A MINIMUM:
   - A. NUMBER OF MIXING CELLS SOLIDIFIED
   - B. MIX DESIGN CALCULATIONS
   - C. SOLIDIFICATION EQUIPMENT USED
   - D. ANY UNFORESEEN SITE CONDITIONS OR EQUIPMENT PROBLEMS THAT AFFECTED SOLIDIFICATION EFFORTS
   - E. ANY MODIFICATIONS OR DEVIATIONS FROM THE SPECIFICATIONS, DRAWINGS OR THE TECHNICAL EXECUTION PLAN
   - F. IDENTIFICATION OF PORTIONS OF MIXING CELLS NOT COMPLETED DUE TO REFUSAL

3. CONTRACTOR SHALL PROVIDE WEEKLY SUBMITTALS SUMMARIZING THE FOLLOWING INFORMATION AT A MINIMUM:
   - A. TOTAL QUANTITY OF SOLID SOLIDIFIED FOR THE WEEK IN CUBIC YARDS AND NUMBER OF MIXING CELLS
   - B. QUANTITIES OF REAGENTS USED DURING THE WEEK
   - C. QUANTITIES OF REAGENTS DELIVERED TO THE SITE DURING THE WEEK WITH BACKUP IN FORM OF WEIGHT RECIPES, BILLS OF LADING, FLOW METER RECORDS, OR EQUIVALENT
   - D. PERCENT COMPLETE FOR ALL SOLIDIFICATION
   - E. SOLIDIFICATION PROGRESS SCHEDULE AND ANY MODIFICATIONS TO THE PROJECT SCHEDULE BASED ON THE WEEKLY PRODUCTION
   - F. SWELL DISPOSAL/HANDLING METHODS AND QUANTITIES MANAGED FOR THE WEEK
   - G. WASHOUT AND GROUT DISPOSAL AND HANDLING METHODS AND QUANTITIES MANAGED FOR THE WEEK

GROUT MIX DESIGN

1. CONTRACTOR SHALL PROVIDE THE PROPOSED MIX DESIGN, BASED ON THE ADDITIONAL MIX DESIGN STUDY PERFORMED, TO BE USED FOR PRODUCTION TO MEET THE PERFORMANCE REQUIREMENTS OF THE PROJECT.

2. CONTRACTOR SHALL PROVIDE PORTLAND CEMENT AND GROUND GRANULATED BLAST FURNACE SLAG (GGBFS) AS APPROVED BY THE ENGINEER IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN IN SUFFICIENT QUANTITIES TO MAINTAIN THE REQUIRED PRODUCTION RATE.

3. CONTRACTOR SHALL COMPLETE A FORM ACCEPTABLE TO THE ENGINEER TO CALCULATE THE MINIMUM REAGENT PORTIONS AS FOLLOWS:
   - A. CALCULATE THE VOLUME OF SOIL BEING TREATED IN THE EACH CELL BASED ON THE TOTAL DEPTH AND SQUARE FOOTAGE OF THE CELL.
   - B. CALCULATE THE WEIGHT OF SOIL BEING TREATED IN THE MIXING CELL BASED ON THE PREVIOUSLY CALCULATED VOLUME, USING AN APPROPRIATE UNIT DENSITY FOR THE SOIL BEING SOLIDIFIED.
   - C. WATER AND REAGENT ADDITION SHALL BE IN ACCORDANCE WITH THE RATIOS DEFINED IN THE ENGINEER-APPROVED PRODUCTION MIX DESIGN. CONTRACTOR SHALL KEEP THE WATER RATIO AT A MINIMUM TO OBTAIN A WORKABLE GROUT AND MINIMIZE SWELL.
   - D. CONTRACTOR SHALL NOT MODIFY THE GROUT MIX PROPORTIONS OF THE APPROVED PRODUCTION MIX DESIGN WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
   - E. CONTRACTOR SHALL PROVIDE A FORM DETAILING THE MATERIAL USED BATCH MIXING INFORMATION AND CORRECT MIX RATIO VERIFICATION FOR EACH MIXING CELL.

PERFORMANCE REQUIREMENTS

1. MIXING CELLS SHALL BE LAID OUT IN A MANNER TO STABILIZE THE ENTIRE AREA SO THAT NO SOIL IS UNTREATED.

2. THE PRODUCTION ISS MIXING CELLS SHALL MEET THE FOLLOWING PERFORMANCE STANDARDS. PRODUCTION MIXING CELLS THAT DO NOT MEET THE PERFORMANCE TESTING REQUIREMENTS SHALL BE RE-MIXED, RE-SAMPLED, AND RE-TESTED AT THE CONTRACTOR'S SOLE EXPENSE UNTIL THE MIXING CELL MEETS THE PERFORMANCE REQUIREMENTS:
   - A. HYDRAULIC CONDUCTIVITY LESS THAN 1X10-6 CM/SEC
   - B. UNCONFINED COMPRESSIVE STRENGTH (28 DAYS) GREATER THAN 50 PSI
   - C. ALL PERIMETER ISS MIXING CELLS SHALL ACHIEVE THE PERFORMANCE CRITERIA
   - D. UP TO 10% OF INTERIOR ISS MIXING CELLS MAY FAIL THE ABOVE CRITERIA BUT EACH GRID CELL MUST HAVE A HYDRAULIC CONDUCTIVITY NO GREATER THAN 10-5 CM/S AND A UCS NO LESS THAN 30 PSI

3. CONTRACTOR SHALL COMPLETE A MINIMUM OF TWO TEST MIXING CELLS IN EACH CAA AT A LOCATION DESIGNATED BY THE ENGINEER PRIOR TO PRODUCTION MIXING CELLS TO ENSURE THAT THE PERFORMANCE STANDARDS SHALL BE ACHIEVED USING THE PRODUCTION MIX DESIGN SUBMITTED TO THE ENGINEER. CONTRACTOR SHALL OBTAIN SAMPLES OF THE TREATED SOIL MASS IN THE TEST MIXING CELLS USING THE PRODUCTION SAMPLING EQUIPMENT AND TEST THE SAMPLES TO DEMONSTRATE THAT THE PROJECT PERFORMANCE REQUIREMENTS SHALL BE ACHIEVED. THE TEST CELL(S) SHALL BE LOCATED WITHIN THE ISS FOOTPRINT AND WILL BECOME PART OF THE FINAL ISS AREA AFTER TESTING.

4. THE BOTTOM ELEVATION FOR ISS TREATMENT IS SHOWN ON THE DRAWINGS FOR EACH MIXING CELL. TO THE EXTENT THAT CONTRACTOR MODIFIES THE PROPOSED MIXING CELLS, THE BOTTOM ELEVATIONS WILL NEED TO BE APPROVED BY ENGINEER. CONTRACTOR SHALL NOT DEVIATE FROM THE ELEVATIONS BY GREATER THAN 0.5 FEET WITHOUT WRITTEN AUTHORIZATION BY THE ENGINEER.

5. IF SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED DURING ISS MIXING, CONTRACTOR SHALL IDENTIFY THE OBSTRUCTION, INFORM THE ENGINEER, AND DEVELOP A COURSE OF ACTION TO SAFELY AND EFFECTIVELY REMOVE THE OBSTRUCTION. DEPENDING ON THE NATURE OF THE OBSTRUCTION, THE MATERIALS SHALL BE SEPARATED AND MANAGED AS APPROVED BY ENGINEER. MATERIAL MAY BE PLACED IN THE ISS SWELL MANAGEMENT AREA OR LOADED INTO DESIGNATED WASTE CONTAINERS FOR CONTAINMENT AND TRANSPORT OF THAT CLASS OF WASTE TO AN OFF-SITE DISPOSAL FACILITY. OBSTRUCTIONS WHICH CANNOT BE PENETRATED OR REMOVED MAY BE LEFT IN PLACE WITH THE ISS EXCAVATOR PATTERN ADJUSTED TO ALLOW MIXING WHICH CAN BE COMPLETED AROUND THE OBSTRUCTION OR WITH GROUTING AROUND THE OBSTRUCTION.

6. CONTRACTOR SHALL ENSURE THAT THE GROUT IS DISTRIBUTED EVENLY THROUGH THE MIXING CELL AND THAT THE GROUT AND SOIL AT EACH MIXING CELL IS A HOMOGENEOUS MIXTURE TO MEET THE PERFORMANCE REQUIREMENTS.

7. CONTRACTOR SHALL INSPECT AND PREPARE A TEST SAMPLE OF TREATED SOIL. SAMPLES WILL BE VISUALLY INSPECTED TO VERIFY THAT A HOMOGENEOUS MIXTURE HAS BEEN CREATED, BASED ON THE FOLLOWING CRITERIA:
   - A. NO VISIBLE NON AQUEOUS PHASE LIQUID (NAPL)
   - B. GROUT AND SOIL ARE THOROUGHLY MIXED IN THE MIXING CELL
   - C. CONSISTENT COLOR FOR SAMPLES COLLECTED FROM DIFFERENT DEPTH INTERVALS AND LOCATIONS IN THE MIXING CELL
   - D. THERE ARE NO UNMIXED SOIL CLUMPS GREATER THAN 6 INCHES

8. SAMPLES COLLECTED BY CONTRACTOR SHALL BE TESTED FOR UNCONFINED COMPRESSIVE STRENGTH AND HYDRAULIC CONDUCTIVITY TO DEMONSTRATE THAT THE SAMPLES MEET THE PERFORMANCE REQUIREMENTS.

9. CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER TO MINIMIZE THE AMOUNT OF SWELL PRODUCED BY THE SOLIDIFICATION PROCESSES.

SOLIDIFICATION WATER

1. WATER SHALL BE OBTAINED FROM THE CITY OF SEATTLE VIA A FIRE HYDRANT OR WATER SERVICE CONNECTION, ON OR NEAR THE SITE. THE WATER SERVICE SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER. CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE FOR TEMPORARY HOOK UP OF WATER SERVICE AND PAY ALL FEES FOR CITY WATER USAGE. CONTRACTOR MAY USE OTHER INCIDENTAL SOURCES OF WATER (E.G. STORMWATER) FOR SOLIDIFICATION WITH APPROVAL FROM THE ENGINEER.

2. CONTRACTOR SHALL PROVIDE A MEANS OF MEASURING WATER FOR BATCH MIXING. THE MEASURING DEVICE SHALL MEASURE TOTALIZED AND INSTANTANEOUS FLOWS. MEASURING DEVICES SHALL BE CALIBRATED TO WITHIN +/- 2% TO ACCURATELY MEASURE THE WATER FOR EACH BATCH. CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR THE CALIBRATION. MEASURING DEVICES SHALL BE RECALIBRATED PER THE MANUFACTURES RECOMMENDATIONS AND MONTHLY DURING THE WORK.

3. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL PIPES AND HOSES USED TO CONNECT THE GROUT MIXING PLANT TO THE CITY OF SEATTLE WATER SUPPLY SYSTEM.

4. IF WATER FOR ISS IS STORED ON THE SITE, STORAGE CONTAINERS SHALL BE FREE OF ANY WASTE MATERIALS, DEBRIS, AND OTHER ITEMS THAT MAY BE DELETERIOUS TO THE EXECUTION OF THE SOLIDIFICATION PROCESSES.

REAGENTS

1. CONTRACTOR SHALL PROVIDE PORTLAND CEMENT AND GGBFS APPROVED BY THE ENGINEER IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN.

2. UNLESS THE LIMIT AND DEPTHS SHOWN ON THE DRAWINGS ARE INCREASED AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL PURCHASE ANY ADDITIONAL REGENTS AT NO EXPENSE TO THE OWNER DUE TO WASTE OR OVER APPLICATION.

3. REAGENT REQUIREMENTS (MODIFICATIONS MAY BE MADE IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN SUBMITTED BY THE CONTRACTOR)
   - A. PORTLAND CEMENT - TYPE I PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150
   - B. GGBFS - GRADE 100 MEETING THE REQUIREMENTS OF ASTM C989.

GROUT PREPARATION

1. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND PERSONNEL NEEDED TO PROPERLY PREPARE THE GROUT IN ACCORDANCE WITH THE ENGINEER-APPROVED PRODUCTION MIX DESIGN AND THESE SPECIFICATIONS.

2. CONTRACTOR SHALL COMPLETE A FORM TO CALCULATE THE NEEDED QUANTITIES OF WATER AND REAGENTS FOR EACH MIXING CELL:
   - A. AMOUNT OF EACH REAGENT ADDED
   - B. GROUT DENSITY
   - C. ISS MIXING CELL NUMBER

3. CONTRACTOR SHALL ADD THE CALCULATED QUANTITIES OF WATER AND REAGENTS TO THE GROUT MIXING PLANT.

4. CONTRACTOR SHALL THOROUGHLY MIX THE WATER AND REAGENT MIXTURE UNTIL IT IS A CONSISTENT AND HOMOGENOUS MIXTURE.

5. CONTRACTOR SHALL PUMP THE GROUT MIXTURE FROM THE GROUT MIXING PLANT TO THE ISS EQUIPMENT.

6. CONTRACTOR SHALL PROVIDE THE PUMPS, HOSES, AND PIPING AS A MEANS OF DELIVERING THE MIXED GROUT FROM THE GROUT MIXING PLANT TO THE MIXING CELL AT AN ADEQUATE PRESSURE AND FLOW RATE FOR THE SOLIDIFICATION PROCESS.

7. PROCESSED GROUT HELD FOR GREATER THAN 3 HOURS PRIOR TO USING SHALL BE DISCARDED AT THE CONTRACTOR'S EXPENSE.

8. CONTRACTOR SHALL PROVIDE GROUT MIXING EQUIPMENT OF SIZE AND CAPACITY AS TO NOT LIMIT THE PRODUCTION OF THE ISS MIXING EQUIPMENT.

NEW SHEET

PERMIT SET

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Client

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Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
5/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

General Notes (3 of 4)

Drawing No.
G-5

Sheet 5 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

COORDINATION OF WORK

1. CONTRACTOR SHALL COORDINATE ISS ACTIVITIES WITH SHORING EXCAVATION, DEWATERING, SAMPLING, BACKFILLING, AND OTHER WORK AS NECESSARY.
2. AS PART OF THE ISS WORK, DEMOLITION OF SURFACES AND EXCAVATION OF CLEAN OVERBURDEN SHALL BE CONDUCTED PRIOR TO BEGINNING ISS WORK.
3. DEWATERING SHALL BE CONDUCTED ONLY TO THE EXTENT NECESSARY TO COMPLETE THE WORK.
4. CONTRACTOR SHALL COLLECT SAMPLES FROM THE COMPLETE MIXING CELLS IN ACCORDANCE WITH THE DRAWINGS.
5. CONTRACTOR SHALL NOT BACKFILL ANY AREAS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

SOLIDIFICATION

1. CONTRACTOR SHALL PROVIDE ALL PERSONNEL, EQUIPMENT, AND MATERIALS REQUIRED TO CONDUCT THE WORK IDENTIFIED IN THESE SPECIFICATIONS.
2. SOLIDIFICATION SHALL BE CONDUCTED TO THE EXTENTS, DEPTHS, AND ELEVATIONS SHOWN IN THESE DRAWINGS.
3. CONTRACTOR PERSONNEL SHALL PERFORM SURVEYING TO CONFIRM THE MIXING CELL COORDINATES AND THE GROUND SURFACE AND BOTTOM ELEVATION FOR ISS TREATMENT.
4. CONTRACTOR SHALL NOTE ANY VARIANCE FOR THE ISS DEPTH AND ADJUST GROUT MIX ACCORDINGLY.
5. REAGENT ADDITION SHALL BE AT THE PRESCRIBED PROPORTIONS IN THE APPROVED MIX DESIGN AND CALCULATED ON THE CONTRACTOR'S FORM.
6. CONTRACTOR SHALL MIX GROUT WITH IMPACTED SOIL UNTIL IT IS A HOMOGENEOUS MIXTURE OF SOIL AND GROUT FROM THE GROUND SURFACE TO THE BOTTOM ELEVATION OF ISS TREATMENT SHOWN ON THE DRAWINGS.
7. CONTRACTOR SHALL COMPLETE A FORM TO CALCULATE THE NEEDED QUANTITIES OF WATER AND REAGENTS FOR EACH MIXING CELL:
   A. AMOUNT OF EACH REAGENT ADDED
   B. GROUT DENSITY
   C. ISS MIXING CELL NUMBER
   D. MIXING CELL COORDINATES
   E. GROUND SURFACE ELEVATION
   F. BOTTOM ELEVATION FOR ISS TREATMENT PROVIDED IN THE DRAWINGS
   G. ACTUAL BOTTOM ELEVATION OF MIXING CELL
   H. START AND FINISH TIME
   I. GROUT ADDITION RATE

SWELL MANAGEMENT

1. CONTRACTOR SHALL REMOVE SWELL GENERATED DURING ISS OPERATION FROM THE IMMEDIATE WORK AREA AS REQUIRED TO ALLOW WORK TO PROCEED.
2. A SPECIFIC AREA OF THE BULK TERMINAL PARCEL HAS BEEN IDENTIFIED FOR PLACEMENT OF EXCESS ISS SWELL MATERIAL. THE CONTRACTOR SHALL MOVE EXCESS ISS SWELL MATERIAL TO THE DESIGNATED AREA WHILE THE SWELL MATERIAL IS STILL WORKABLE. CONTRACTOR SHALL COORDINATE WITH ENGINEER REGARDING THE LOCATION AND THICKNESS OF SWELL PLACEMENT BASED ON ACTUAL SWELL PRODUCTION DURING CONSTRUCTION.
3. CONTRACTOR SHALL PLACE SWELL MATERIAL AT THE NORTH END OF CAA-4 IN CONJUNCTION WITH INSTALLATION OF THE INTERCEPTOR TRENCH AND ISS SURFACE GRADING. SWELL MATERIAL ADJACENT TO THE INTERCEPTOR TRENCH SHALL BE WRAPPED WITH A WOVEN GEOTEXTILE FABRIC DURING PLACEMENT AND COMPACTION TO SEPARATE THE TREATED ISS MATERIAL FROM THE TRENCH BACKFILL.
4. ISS FLUFF SHOULD BE COMPACTED IN 6-INCH LIFTS USING A DOZER FOLLOWED BY A SMOOTH DRUM ROLLER ON THE FINAL LIFT TO CREATE A SMOOTH SURFACE. ALL FILL SUPPORTING STRUCTURES, INCLUDING BUILDINGS AND PAVEMENTS, SHOULD BE MOISTURE CONDITIONED AND COMPACTED TO A DENSE AND UNYIELDING CONDITION AS DETERMINED BY PANGEO'S FIELD REPRESENTATIVE.

PERFORMANCE MONITORING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAMPLING AND PERFORMANCE TESTING REQUIRED IN THIS SECTION. CONTRACTOR SHALL ALSO PROVIDE A DUPLICATE SET OF SAMPLES TO THE ENGINEER UPON REQUEST OF THE ENGINEER FOR EVERY SAMPLE TAKEN FOR PRODUCTION TESTING.
2. PERIODICALLY THE ENGINEER WILL VISUALLY INSPECT EACH BATCH OF MIXED GROUT TO ENSURE THAT THE GROUT HAS BEEN SUFFICIENTLY MIXED. CONTRACTOR SHALL CONTINUE TO MIX GROUT UNTIL IT IS THOROUGHLY MIXED TO THE SATISFACTION OF THE ENGINEER.
3. CONTRACTOR SHALL COLLECT IN SITU BULK SAMPLES FROM NEWLY SOLIDIFIED MIXING CELLS.
   A. SAMPLING TIMING - SAMPLING OF THE MIXING CELLS SHALL OCCUR WITHIN 4 HOURS OF MIXING CELL COMPLETION WHILE THE MIXING CELL IS STILL WET.
   B. SAMPLING TOOL - CONTRACTOR SHALL PROVIDE AND USE A SUITABLE IN SITU SAMPLING TOOL TO COLLECT THE SAMPLES. THE MINIMUM SAMPLE VOLUME OF THE TOOL SHALL BE 3.0 GALLONS. THE SAMPLER SHALL CONSIST OF A WEIGHTED CHAMBER, WHICH CAN BE OPENED AND CLOSED FROM THE SURFACE TO OBTAIN MIXED SOIL AND GROUT AT DEPTH IN THE MIXING CELL. THE SAMPLER SHALL BE CAPABLE OF SAMPLING TO THE DEPTH OF THE BOTTOM ELEVATION FOR ISS TREATMENT IN ALL LOCATIONS.
   C. SAMPLING FREQUENCY - AT A MINIMUM, 1 SAMPLE WILL BE COLLECTED FROM EACH MIXING CELL PER DAY OF PRODUCTION. THE MIXING CELL WILL BE CHOSEN BY THE ENGINEER.
   D. NUMBER OF SAMPLES PER MIXING CELL - A SAMPLE FOR QUALITY CONTROL TESTING SHALL BE COLLECTED FROM EACH MIXING CELL. MIXING CELL SIZES HAVE BEEN SELECTED TO APPROXIMATE 1 DAY OR SHIFT OF PRODUCTION FOR 1 EXCAVATOR. THE SAMPLE WILL BE COLLECTED FROM THE LOCATION AND DEPTH SPECIFIED BY THE ENGINEER AT THE TIME OF SAMPLING AND WILL VARY FOR EACH MIXING CELL. CONTRACTOR SHALL FORM THE REQUIRED NUMBER OF INDIVIDUAL CYLINDERS OR MOLDS TO PERFORM THE TESTING DESCRIBED BELOW. ADDITIONAL CYLINDERS WILL BE REQUIRED TO PERFORM DUPLICATE TESTING ON 10% OF THE MIXING CELLS.
   E. TESTING OF SAMPLES - CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL OF THE QUALITY CONTROL TESTING. CONTRACTOR SHALL TEST TWO CYLINDERS FROM EACH MIXING CELL. THE FIRST CYLINDER OR MOLD SHALL BE TESTED FOR HYDRAULIC CONDUCTIVITY AND UNCONFINED COMPRESSIVE STRENGTH AT 10 DAYS. THE SECOND CYLINDER SHALL BE TESTED FOR PERMEABILITY AND UNCONFINED COMPRESSIVE STRENGTH AT 28 DAYS. IF THE RESULTS AT 28 DAYS DO NOT ACHIEVE THE PROJECT PERFORMANCE REQUIREMENTS, A THIRD CYLINDER SHALL BE TESTED FOR PERMEABILITY AND UNCONFINED COMPRESSIVE STRENGTH. ADDITIONAL TESTING OF CYLINDERS FROM THE SAME MIXING CELL MAY BE REQUIRED IF THE 28 DAY TESTS DO NOT ACHIEVE THE PROJECT PERFORMANCE REQUIREMENTS. ALL ADDITIONAL TESTING PERFORMED AT THE ENGINEERS DISCRETION ON THE MIXING CELL AFTER FAILING 28 DAY TESTS SHALL BE AT THE CONTRACTOR'S EXPENSE. ALTERNATELY, THE CONTRACTOR MAY CHOOSE TO REMIX AND RETEST THE FAILING MIXING CELL RATHER THAN PERFORM ADDITIONAL LABORATORY TESTS ON SAMPLES.
4. THE ENGINEER WILL DETERMINE WHETHER THE CONTRACTOR'S ISS OPERATIONS MEET SPECIFIED PERFORMANCE REQUIREMENTS BASED ON THE QUALITY CONTROL LABORATORY TESTING RESULTS.
5. THE ENGINEER MAY REQUIRE ADDITIONAL SAMPLING DURING THE COURSE OF THE PROJECT.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale. If scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

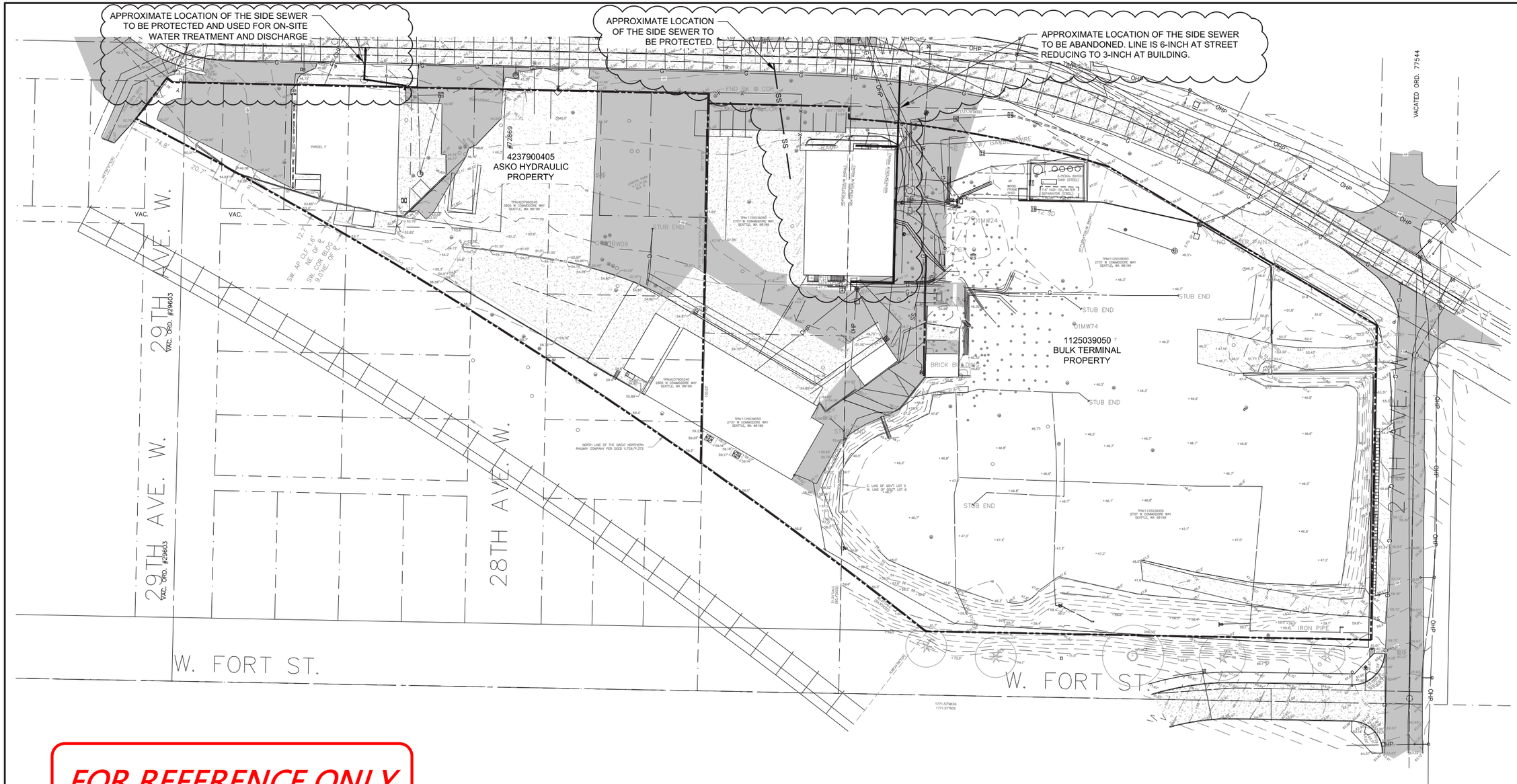
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (4 of 4)

Drawing No. **G-6**

Sheet 6 of 23

File: D:_Projects\Crete\Time Oil Seattle\GI-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



FOR REFERENCE ONLY

NOTES

1. SITE SURVEY BY AXIS SURVEY & MAPPING, DATED 12-9-2020.

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Scale	As Noted

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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

Site Survey (2 of 2)

Drawing No. **G-7B**

Sheet 8 of 23

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
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6/28/2021

SALMON BAY
EBB
FLOOD

1125039108
LOCKHAVEN MARINA
MOORAGE-DNR LEASE

1125039113
DNR AQUATIC LEASE
LAND PROPERTY

Not included in this submittal.

1125039047
LOCKHAVEN APARTMENTS
AND MARINA

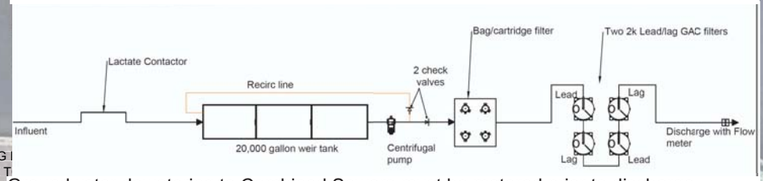
1125039081
WEST WATERFRONT
PROPERTY

1125039120
EAST WATERFRONT
PROPERTY

ENSURE CONSTRUCTION FENCING I
CONTINUOUS TO THE SHORELINE T
ISOLATE THE SITE. INSTALL NEW 5'
CONSTRUCTION FENCING, IF REQU

4237900410
WAREHOUSE

PROPOSED ON-SITE 100 GPM REMEDIATION DEWATERING PROCESS FLOW DIAGRAM. DETAILS OF THIS SYSTEM ARE PROVIDED IN THE KING COUNTY INDUSTRIAL WASTEWATER DISCHARGE APPLICATION. ALL ON-SITE WATER TREATMENT SHALL COMPLY WITH THE KING COUNTY PERMIT REQUIREMENTS.



Groundwater dewatering to Combined Sewers must be metered prior to discharge. Contact the SPU Submeter Program office at (206) 684-5089 to determine the required meter type, installation location and billing information and to schedule an inspection after installation

1125039068
MARITIME INDUSTRIAL
CENTER

2771605265
CRS BOATYARD

2 APPROXIMATE LOCATION OF SIDE SEWER AND SEWER MAIN FOR ONSITE DISCHARGE. SEE SHEET G-7B FOR DETAILS. ONLY PARTIAL MAIN SEWER SHOWN ON THIS SHEET

W COMMODORE WAY

SITE ACCESS

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS REMAIN, TYP.

4237900405
ASKO HYDRAULIC
PROPERTY

2 APPROXIMATE LOCATION OF WATER TREATMENT SYSTEM

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS REMAIN, TYP.

4237900240
BNSF

BNSF RAILWAY

1125039050
BULK TERMINAL
PROPERTY

SITE ACCESS

2771605365
WAREHOUSE

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS AND LOADING DOCK WILL REMAIN, TYP.

ISS SWELL
MANAGEMENT
AREA

27TH AVE W

2770606119
WAREHOUSE

26TH AVE W

CONTRACTOR
LAYDOWN AREA

W FORT ST

LEGEND

- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES
- BUILDINGS TO BE DEMOLISHED
- CONTRACTOR LAYDOWN AREA
- SITE ACCESS

NOTES

1. ISS BATCH PLANT AND WATER TREATMENT OPERATIONS SHALL BE LOCATED WITHIN THE ASKO/BULK TERMINAL AND MAY BE LOCATED OUTSIDE OF THE CONTRACTOR LAYDOWN AREA. THE LOCATIONS OF THE ISS BATCH PLAN AND WATER TREATMENT OPERATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO MOBILIZATION.
2. CONTRACTOR LAYDOWN AREA AND SOIL MANAGEMENT AREA (INCLUDING OVERBURDEN AND EXCAVATED SOILS) FOR THE "EAST WATERFRONT PROPERTY" SHALL BE APPROVED BY THE ENGINEER PRIOR TO MOBILIZATION.

EXISTING SITE PLAN
0 60 120
SCALE IN FEET

PERMIT SET

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

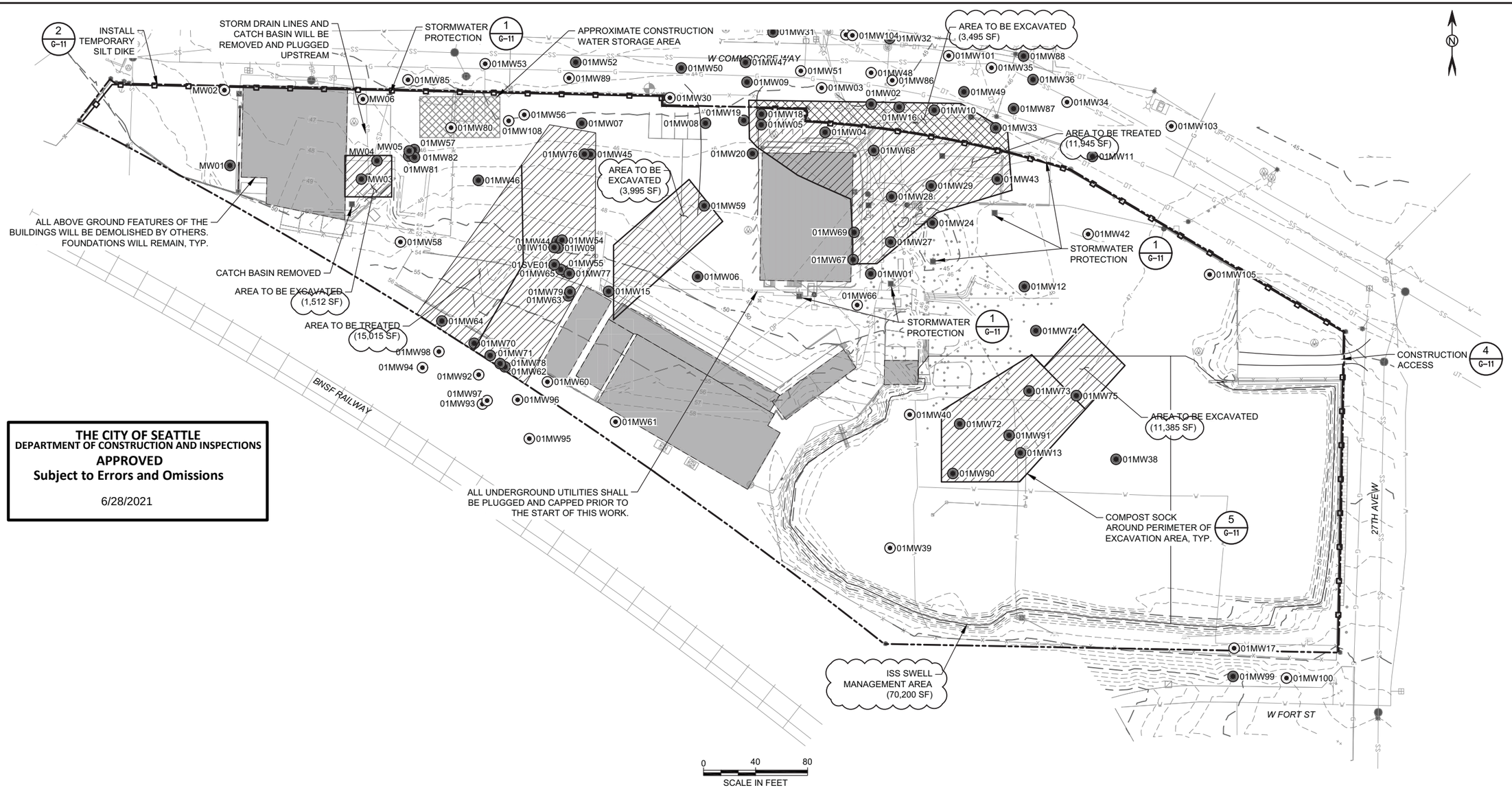
Scale	As Noted
	SCALE WARNING: Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Site Access, Haul Routes, and Staging Areas

Drawing No.
G-8

Sheet 9 of 23



THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

LEGEND

- EXCAVATION / TREATMENT AREA
- ABOVE GROUND FEATURE TO BE DEMOLISHED (UNDER SEPARATE PERMIT)
- CONSTRUCTION WATER STORAGE AREA
- MONITORING WELL TO BE PROTECTED
- MONITORING WELL TO BE DECOMMISSIONED
- TEMPORARY SILT DIKE
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ~~DEMOLITION OF UPLAND STRUCTURES IS PERMITTED UNDER SEPARATE PERMIT AND WILL OCCUR BY OTHERS PRIOR TO THE START OF THIS WORK. DEMOLITION WILL INCLUDE ALL ABOVE GRADE STRUCTURES AND ACTIVE UTILITIES ASSOCIATED WITH THE BUILDINGS.~~ SELECTIVE DEMOLITION WILL BE REQUIRED TO REMOVE ASPHALT AND CONCRETE ABOVE WORK AREAS AND WILL BE COMPLETED BY THE REMEDIATION CONTRACTOR. (2)
2. ALL CONTACT STORMWATER WILL BE COLLECTED DURING SITE CONSTRUCTION AND WILL BE DISCHARGED IN ACCORDANCE WITH PERMITS AND AS APPROVED BY THE ENGINEER.

PERMIT SET

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted
SCALE WARNING
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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal Remediation Design Seattle, Washington
Demo and TESC Plan (2 of 2)

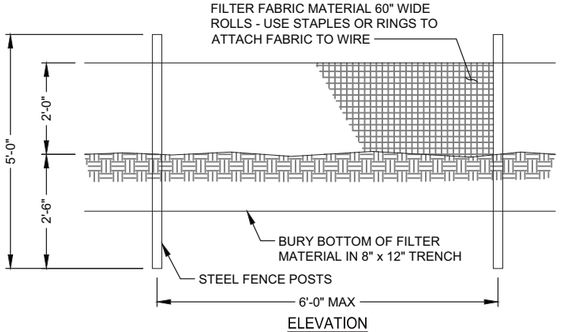
Drawing No. **G-10**

Sheet 11 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP) NOTES

1. SUBMIT A CONSTRUCTION STORMWATER ANO EROSION CONTROL PLAN (CSECP), TREE, VEGETATION AND SOIL PROTECTION PLAN (TVSPP), SPILL PLAN (SP), AND TEMPORARY DISCHARGE PLAN (TDP) IN ACCORDANCE WITH 8-01.3(2).
2. THE CONCEPTUAL CSEC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM BMPS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD. THESE CSEC FACILITIES MUST BE UPGRADED (E.G. ADDITIONAL CATCH BASIN FILTERS, OR ADDITIONAL STORMWATER TREATMENT MEASURES) AS NEEDED, DUE TO WEATHER OR FIELD CONDITIONS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM OR OFF-SITE AREAS.
3. THE CONTRACTOR MUST USE PROPER EROSION AND SEDIMENT CONTROL PRACTICES ON THE CONSTRUCTION SITE AND ANY ADJACENT CONSTRUCTION STAGING AREAS TO PREVENT EROSION IN AND DOWNHILL OF DISTURBED AREAS, AND TO PREVENT THE DISCHARGE OF UPLAND SEDIMENTS OR SEDIMENT- LADEN WATER INTO WETLANDS, WATER BODIES, STREETS AND LOCAL DRAINAGE SYSTEMS.
4. THE CSEC FACILITIES ON THE APPROVED PLAN WILL BE CONSTRUCTED PRIOR TO SITE DISTURBANCE TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE CONTRACTOR MUST USE BMPS (E.G. DIVERSION DITCHES, BERMS) AS APPLICABLE TO MINIMIZE OFF- SITE RUNOFF AND CLEAN STORMWATER FROM ENTERING THE PROJECT AREA.
6. THE CONTRACTOR MUST NOT DISCHARGE TURBID WATER GENERATED FROM CONSTRUCTION ACTIVITIES, DIRECTLY TO ANY STREAMS, STORM WATER SYSTEM INLETS, OR DRAINAGE DITCHES.
7. SOIL STOCKPILES MUST BE STABILI ZED FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND, WHERE POSSIBLE, LOCATED AWAY FROM STORM DRAIN INLETS.
8. THE CONTRACTOR MUST EMPLOY DUST CONTROL MEASURES AS NEEDED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES.
9. CATCH BASIN PROTECTION MUST BE INSTALLED IN ANY GRATED ROAD DRAINAGE STRUCTURES, EXISTING OR NEWLY INSTALLED, WHICH ARE LIKELY TO RECEIVE RUNOFF FROM THE DISTURBED AREAS DURING CONSTRUCTION. CATCH BASIN PROTECTION SHOWN ON THE CONCEPTUAL CSEC PLANS ARE APPROXIMATE LOCATIONS. THE CONTRACTOR MUST ADD CATCH BASIN PROTECTION AS NECESSARY TO ALL GRATED CATCH BASINS THAT RECEIVE STORMWATER RUNOFF WITHIN THE PROJECT AREA AND THAT MAY OR MAY NOT BE SHOWN ON THE CSEC PLANS.
10. SILT FENCES SHALL BE INSTALLED AND MAINTAINED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(10) AND 8-01.3(14).
11. THE CONTRACTOR SHALL PROTECT ALL DRAINAGE AND SEWER SYSTEM PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(12) AND 8-01.3(14).
12. ALL COMPOST SOCKS, COMPOST BERMS, AND STRAW WATTLES SHALL BE CONSTRUCTED, INSTALLED AND MARINATED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(13) AND 8-01.3(14).
13. BMPS (E.G. COMPOST SOCKS) MUST BE INSTALLED TO PREVENT SEDIMENT OR SEDIMENT LADEN WATERS FROM ENTERING GRATED ROADWAY INLETS WHICH HAVE NO SUMP AND MAY BE TOO SHALLOW TO EMPLOY CATCH BASIN FILTER SOCKS. OTHER BMPS, SUCH AS STREET SWEEPING AND VACUUMING MUST ALSO BE EMPLOYED AS NEEDED TO REMOVE SEDIMENT.
14. AT NO TIME MUST MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES MUST BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION MUST NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. PER CITY OF SEATTLE STANDARD SPECIFICATION SECTION 8-01.3(2)A AND THE CITY'S STORMWATER CODE, AREAS OF EXPOSED SOIL IN EXCESS OF 4,000 SQUARE FEET THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30, OR SEVEN DAYS DURING THE PER IOD FROM MAY 1 TO SEPTEMBER 30, WILL BE IMMEDIATELY STABILIZED WITH APPROVED CSEC METHODS (E.G., SEEDING, MULCHING, NETTING, CLEAR PLASTIC COVERING).
16. THE CONTRACTOR'S CERTIFIED SEDIMENT AND EROSION CONTROL LEAD (CSECL) MUST REVIEW AND MODIFY THE CSEC PLANS ON AN AS NEEDED BASIS TO REFLECT THE SITE CONDITIONS AND CONSTRUCTION METHODS USED. THE CONTRACTOR'S CSECL MUST CONDUCT SITE INSPECTIONS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24 HOURS OF ANY RUNOFF DISCHARGE FROM SITE. AFTER ANY 24- HOUR RUNOFF PRODUCING EVENT, THE CSECL WILL INSPECT CSEC MEASURES FOR INTEGRITY. ANY DAMAGED CSEC MEASURES WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND REPAIRED IMMEDIATELY.
17. CONCRETE SAWCUTTING DEBRIS AND SLURRY MUST BE CONTAINED AND MANAGED USING APPROPRIATE BMPS TO PREVENT CONTAMINATION OF SITE WATER AND MEET DISCHARGE REQUIREMENTS. FRESH CONCRETE CAN ALSO ADVERSELY AFFECT SITE WATER QUALITY. PH SAMPLING AND TESTING MUST BE IN COMPLIANCE WITH APPLICABLE DISCHARGE AUTHORIZATIONS FROM KING COUNTY DURING CONCRETE POURS AND SAWCUTTING. IF PH EXCEEDS DISCHARGE LIMITS, APPROPRIATE BMPS MUST BE APPLIED.
18. THE CONTRACTOR MUST SET ASIDE A SEPARATE AREA FOR THE WASH-OUT OF CONSTRUCTION EQUIPMENT AND TOOLS. PROCESS WATER MUST BE HAULED OFF SITE OR DISCHARGED TO SEWER IN COMPLIANCE WITH A KING COUNTY DISCHARGE AUTHORIZATION.
19. TEMPORARY TRENCH DEWATERING MUST BE DISCHARGED TO AN APPROVED LOCATION. DISCHARGES TO THE SEWER SYSTEM MUST COMPLY WITH ALL PROVISIONS OF ANY DISCHARGE AUTHORIZATIONS FROM KING COUNTY AND SPU, AS WELL AS COS SPECIFICATIONS SECTION 2- 08.3. & 8- 01.3(2)D AND E.
20. EXCAVATION SPOILS MAY BE EXTREMELY WET. CONTRACTOR MUST PREVENT MUD AND WATER FROM BEING TRACKED ALONG HAULING ROUTES BY LINING TRUCK BEDS OR BY OTHER MEANS AS NECESSARY. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
21. THE CONTRACTOR IS RESPONSIBLE FOR THE SEQUENCING AND STAGING OF ALL DEMOLITION AND CSEC ACTIVITIES AT APPROPRIATE TIMES.
22. PROTECT TREES & VEGETATION PER STANDARD SPECIFICATIONS 1 -07. 16 (2) & 8-01.3(2)B. CONTACT SDOT URBAN FORESTRY (684-8621 OR 684-5041) FOR FIELD REVIEW OF TREE, VEGETATION, AND SOIL PROTECTION PLAN PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
24. CONTRACTOR SHALL LOCATE EXISTING CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES DURING THE PROJECT. PROTECTION OF THESE CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES SHALL BE COORDINATED WITH THE WORK BY THE CONTRACTOR.



3 — TEMPORARY FILTER FABRIC FENCE - DETAIL
SCALE: NTS

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
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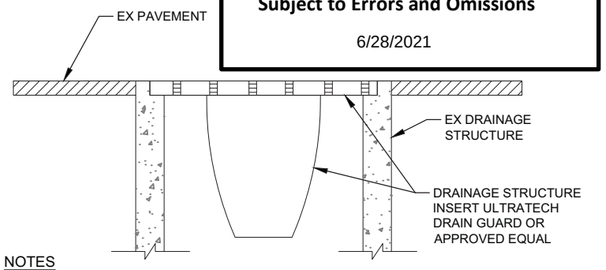
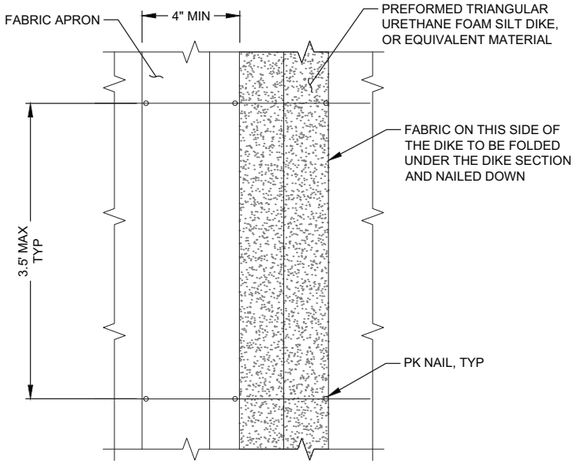
6/28/2021



NOTES

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED. ALL SEDIMENT SHALL BE DISPOSED OF OFF-SITE.
2. ANY SEDIMENT IN THE DRAINAGE STRUCTURE INSERT SHALL BE REMOVED WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE INSERT. THE INSERT SHALL BE REPLACED MONTHLY OR AS DIRECTED BY THE ENGINEER.

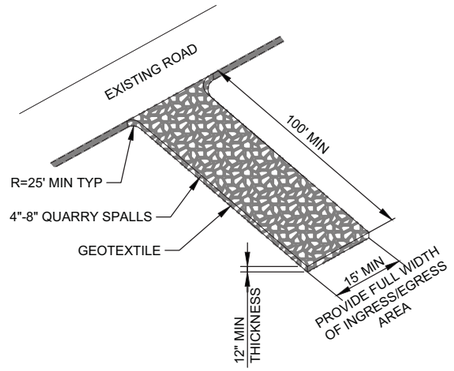
1 — TEMPORARY DRAINAGE STRUCTURE INSERT - DETAIL
SCALE: NTS



NOTES

1. PK NAILS SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF A 7-FOOT UNIT AS SHOWN ON THE DIKE PLAN.
2. ALTERNATE APPROVED HOLD DOWN DEVICE MAY BE SUBSTITUTED FOR PK NAILS (WIRE STAPLES, ETC).

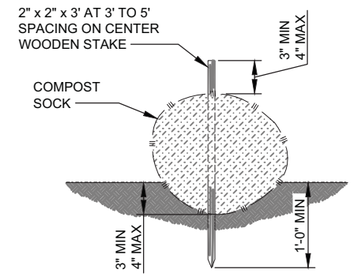
2 — TEMPORARY TRIANGULAR SILT DIKE - DETAIL
SCALE: NTS



NOTES

1. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.
2. VEHICLE TIRES SHALL BE INSPECTED TO ENSURE THEY ARE FREE OF MUD BEFORE ENTERING PUBLIC ROADWAYS.
3. PROVIDE FLAGGING FOR CONSTRUCTION VEHICLES ENTERING AND LEAVING SITE AND ENTERING PUBLIC ROADWAYS.
4. CONTRACTOR SHALL MAINTAIN AND AUGMENT EXISTING STABILIZED CONSTRUCTION ENTRANCES AS NEEDED TO CONTROL SEDIMENT.

4 — STABILIZED TEMPORARY CONSTRUCTION ACCESS - DETAIL
SCALE: NTS



NOTE

1. COMPOST SOCK SHALL BE 100% NATURAL AND BIODEGRADABLE. MATERIAL AND INSTALLATION SHALL BE PER WSDOT STANDARD SPECIFICATIONS 8-01.3(12) AND 9-14.5(6).

5 — COMPOST SOCK - DETAIL
SCALE: NTS

OTHER POSSIBLE BMPS SHALL INCLUDE THE FOLLOWING FROM THE CONSTRUCTION STORMWATER GENERAL PERMIT, STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (SWMMWW 2019): HIGH VISIBILITY PLASTIC OR METAL FENCE (BMP C103), WHEEL WASH (BMP C106), CONSTRUCTION ROAD/PARKING AREA STABILIZATION (BMP C107), DUST CONTROL MEASURES (BMP C140), SAWCUTTING AND SURFACING POLLUTION PREVENTION MEASURES BMP C152, CONCRETE HANDLING MEASURES BMP C151 AND TEMPORARY AND PERMANENT SEEDING (BMP C120). THESE SHALL INSTALLED AND MAINTAINED PER THE SPECIFICATIONS PROVIDED IN THE SWMMWW.

PERMIT SET

Rev	Date	Description	By

Client

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www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale: As Noted

SCALE WARNING
Drawing is not to scale. If scale bar doesn't measure one inch

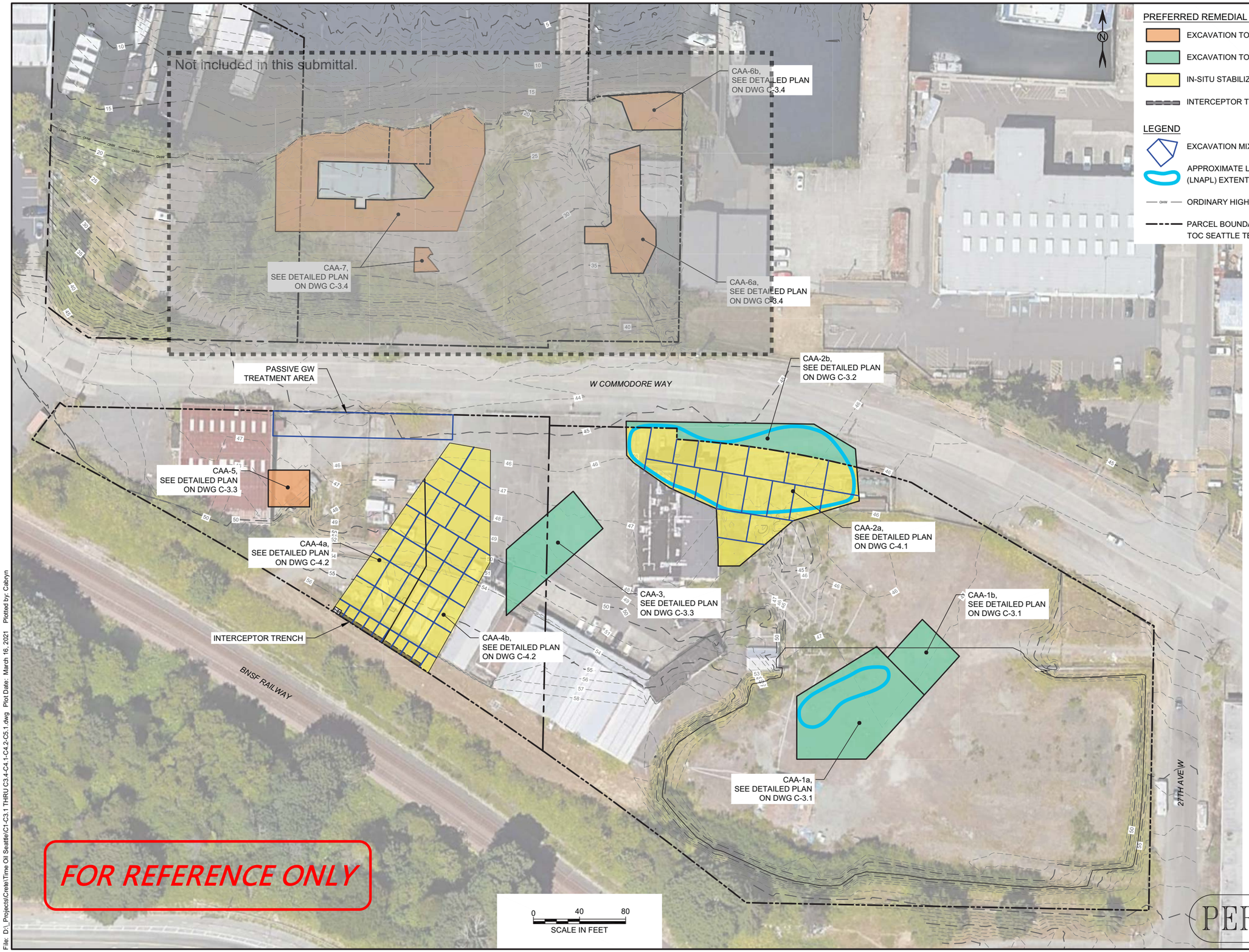
Designer: M. Byers
Drafter: C. Taylor
Checker: X
Reviewer: X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

TESC Notes and Details

Drawing No.
G-11

Sheet 12 of 23



PREFERRED REMEDIAL ALTERNATIVE

- EXCAVATION TO CLEANUP LEVEL (CUL)
- EXCAVATION TO REMEDIATION LEVEL (REL)
- IN-SITU STABILIZATION / SOLIDIFICATION
- INTERCEPTOR TRENCH

LEGEND

- EXCAVATION MIXING GRID CELLS
- APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT
- OHW — ORDINARY HIGH WATER
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

Rev	Date	Description	By

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted

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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

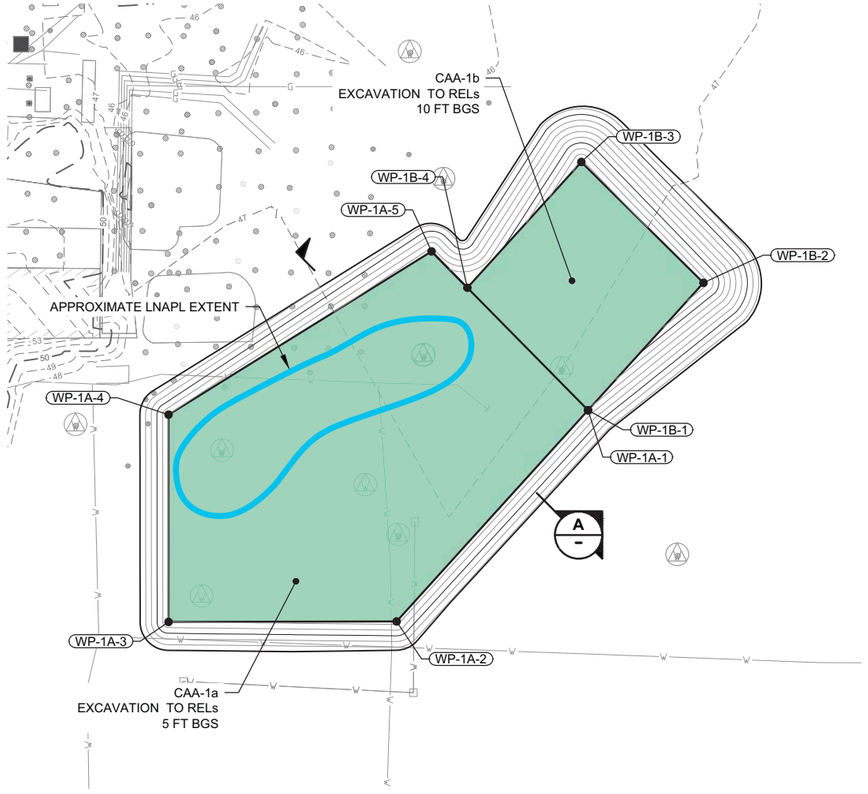
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Remediation Areas

Drawing No.
C-1

Sheet 13 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-1 EXCAVATION AREAS

0 20 40

SCALE IN FEET

CAA-1a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-1A-1	245351.26	1256363.61
WP-1A-2	245295.50	1256313.09
WP-1A-3	245295.38	1256252.89
WP-1A-4	245350.08	1256252.89
WP-1A-5	245393.18	1256322.31

CAA-1b

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-1B-1	245351.26	1256363.61
WP-1B-2	245384.89	1256394.08
WP-1B-3	245416.79	1256361.85
WP-1B-4	245383.59	1256331.77

LEGEND

EXCAVATION TO REMEDIATION LEVEL (REL)

APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES WILL BE STABILIZED TO PREVENT EROSION.

A SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

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GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER 3/16/2021

Scale As Noted

SCALE WARNING
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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

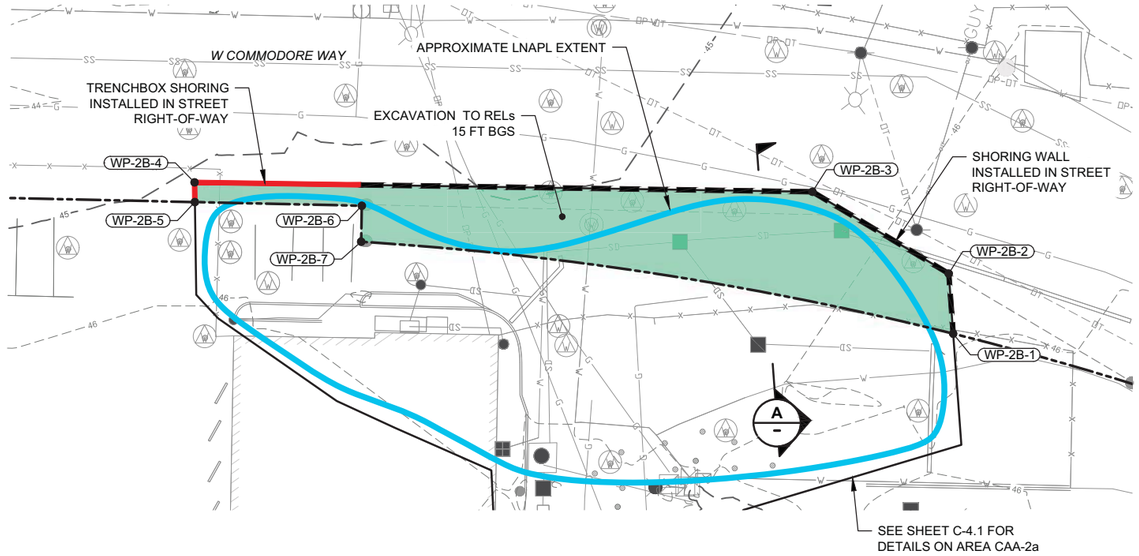
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-1 Excavation Area Plan and Profile

Drawing No.
C-3.1

Sheet 14 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-2B EXCAVATION AREA

0 20 40

SCALE IN FEET

CAA-2b

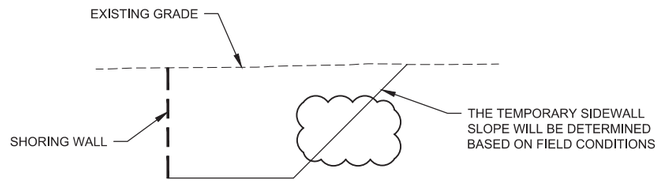
WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-2B-1	245548.98	1256304.98
WP-2B-2	245564.83	1256303.81
WP-2B-3	245586.42	1256267.84
WP-2B-4	245588.91	1256104.74
WP-2B-5	245583.71	1256104.82
WP-2B-6	245582.74	1256148.89
WP-2B-7	245573.24	1256148.72

LEGEND

- EXCAVATION TO REMEDIATION LEVEL (REL)
- APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES
- SHORING WALL (SEE SHORING DRAWINGS SS1.0 THRU SS4.0 FOR DETAILS)
- TRENCH BOX SHORING

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES IN THE CITY OF SEATTLE ROW WILL BE RETURNED TO EXISTING CONDITIONS BASED ON CITY OF SEATTLE REQUIREMENTS.
2. UTILITIES WILL BE PROTECTED DURING CONSTRUCTION ACTIVITIES.
3. GAS LINE SHALL BE LOCATED PER THE SHORING DETAILS.
4. ALL SEWER AND STORM LINES IN THE ROW WITHIN 10 FEET (OR WITHIN 20 FEET IF SUCH LINES ARE 30 FEET OR MORE OFF SITE PROPERTY LINE) OF ANY PROPOSED SHORING ELEMENT SHALL BE VIDEOTAPED OF PRE-PROJECT CONDITION AND A COPY SENT TO SPU AT SPU_DWW_PIPE_REHAB@SEATTLE.GOV PRIOR TO PRE-CONSTRUCTION MEETING. SIMILAR VIDEOTAPE OF POST-PROJECT CONDITION IS ALSO REQUIRED AND SENT TO SPU AT SAME EMAIL ADDRESS. ADD A NOTE IN THE PLANS TO THIS EFFECT.
5. THE CITY ROW SHALL BE RESTORED TO PRE EXISTING CONDITIONS BASED ON THE CITY OF SEATTLE REQUIREMENTS.



A – SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
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Subject to Errors and Omissions

6/28/2021

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Seattle, Washington 98104
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GRANT HAINSWORTH — STATE OF WASHINGTON — 43123 — REGISTERED PROFESSIONAL ENGINEER — 5/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

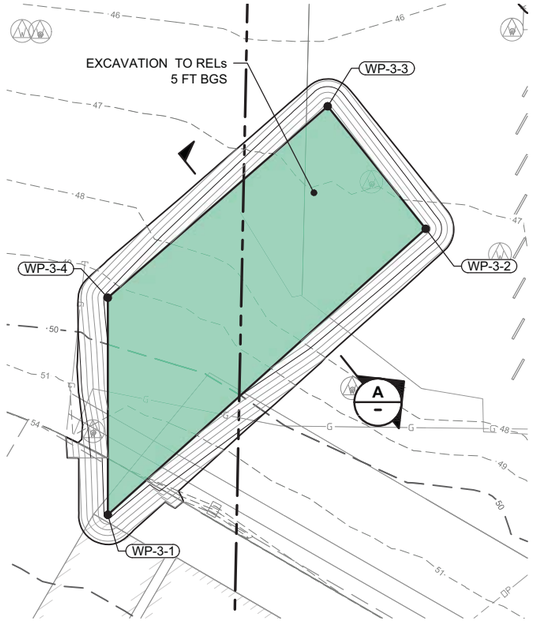
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-2b Excavation Plan Plan and Profile

Drawing No.
C-3.2

Sheet 15 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

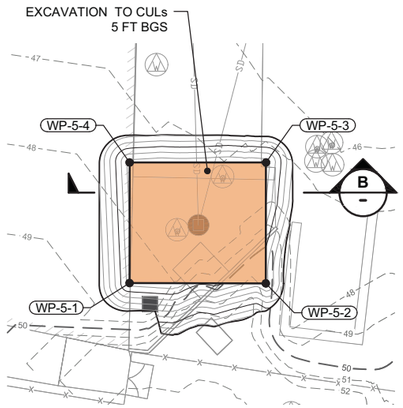


DETAILED PLAN VIEW

CAA-3 EXCAVATION AREA

0 20 40

SCALE IN FEET



DETAILED PLAN VIEW

CAA-5 EXCAVATION AREA

0 20 40

SCALE IN FEET

CAA-3

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-3-1	245420.23	1256000.75
WP-3-2	245495.70	1256084.65
WP-3-3	245528.03	1256058.78
WP-3-4	245477.52	1256000.75

CAA-5

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-5-1	245514.61	1255794.03
WP-5-2	245514.51	1255829.99
WP-5-3	245546.44	1255830.03
WP-5-4	245546.44	1255794.06

LEGEND

- EXCAVATION TO CLEANUP LEVEL (CUL)
- EXCAVATION TO REMEDIATION LEVEL (REL)
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES WILL BE STABILIZED TO PREVENT EROSION.

A SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

B SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

FOR REFERENCE ONLY

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GRANT HAINSWORTH
STATE OF WASHINGTON
53123
REGISTERED
PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

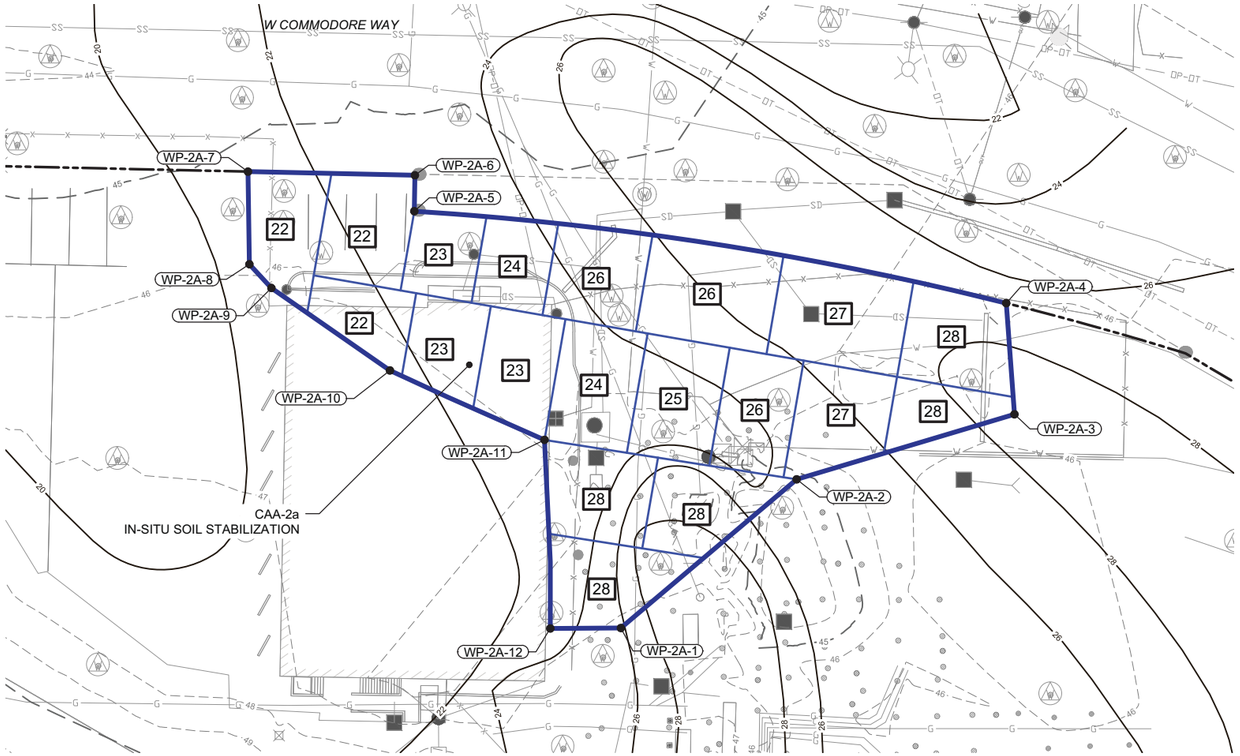
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-3 and CAA-5 Excavation Area Plan and Profile

Drawing No.
C-3.3

Sheet 16 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-2A IN-SITU SOLIDIFICATION AREA

0 20 40

SCALE IN FEET

CAA-2a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-2A-1	245463.24	1256203.26
WP-2A-2	245502.48	1256249.65
WP-2A-3	245519.64	1256307.14
WP-2A-4	245548.98	1256304.98
WP-2A-5	245573.24	1256148.72
WP-2A-6	245582.74	1256148.89
WP-2A-7	245583.71	1256104.82
WP-2A-8	245559.25	1256105.20
WP-2A-9	245552.99	1256111.00
WP-2A-10	245531.21	1256142.30
WP-2A-11	245512.90	1256183.10
WP-2A-12	245463.12	1256184.62

LEGEND

- IN-SITU STABILIZATION / SOLIDIFICATION
- 24 — EXCAVATION MIXING GRID CELL WITH MIXING BOTTOM ELEVATION (IN FEET, NAVD88)
- EXISTING SURFACE CONTOUR
- 20 — TOP OF SILT CONTOUR
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ALL ISS TREATMENT AREAS SHALL BE COVERED WITH A WOVEN GEOTEXTILE FABRIC AND 6 INCHES OF CRUSHED ROCK OR BALLAST ROCK TO RESTORE THE AREA TO PRE-EXISTING CONDITIONS.
2. THE FINAL DEPTH OF THE IN-SITU SOIL STABILIZATION AREA MAY CHANGE BASED ON FIELD CONDITIONS.

THE CITY OF SEATTLE
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6/28/2021

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GRANT HAINSWORTH STATE OF WASHINGTON 33123 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

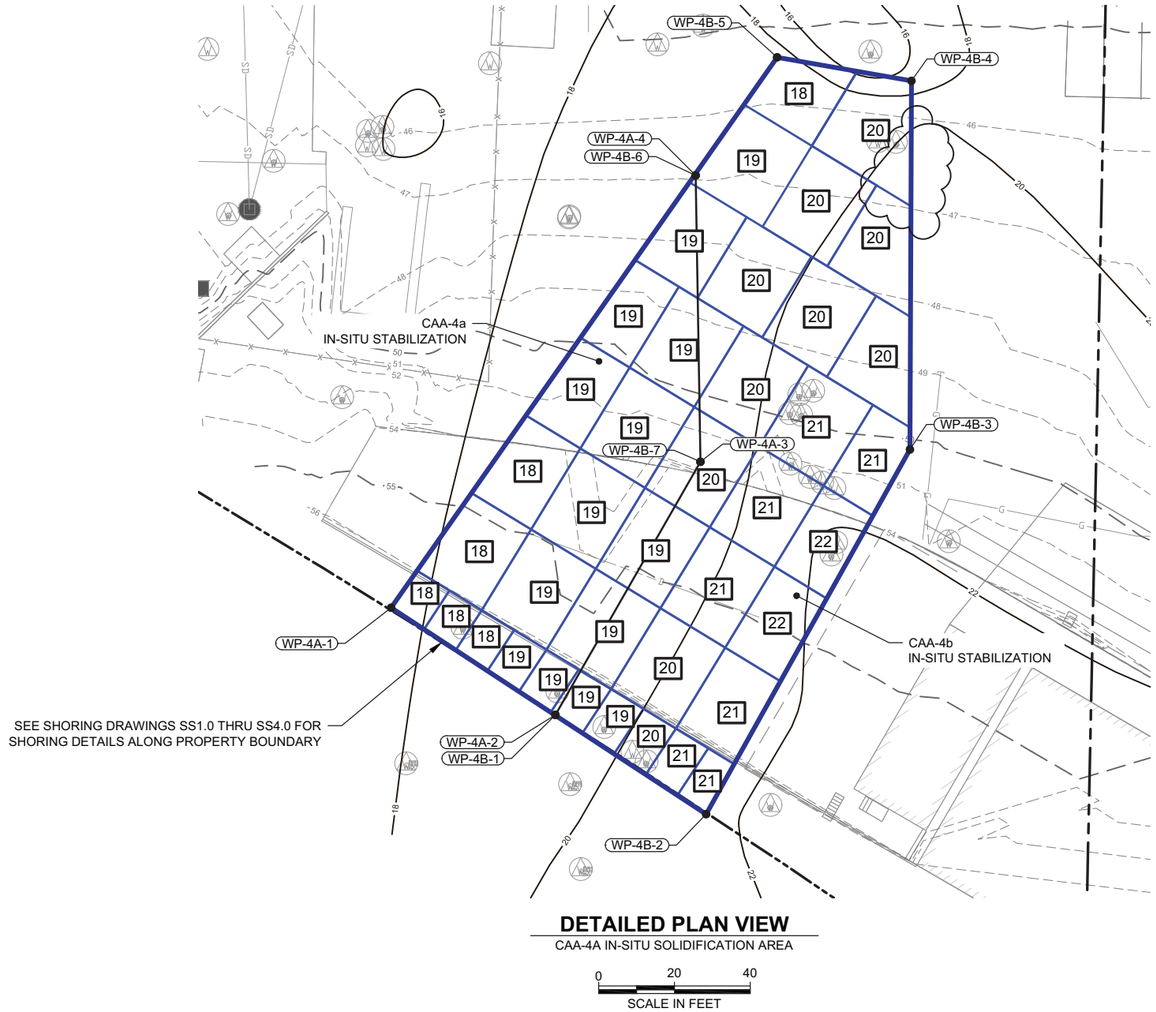
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-2a Insitu Solidification Area

Drawing No.
C-4.1

Sheet 18 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-4A IN-SITU SOLIDIFICATION AREA

0 20 40

SCALE IN FEET

CAA-4a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-4A-1	245424.77	1255849.60
WP-4A-2	245396.49	1255892.98
WP-4A-3	245463.29	1255931.25
WP-4A-4	245538.88	1255929.98

CAA-4b

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-4B-1	245396.49	1255892.98
WP-4B-2	245370.29	1255932.76
WP-4B-3	245466.55	1255986.55
WP-4B-4	245563.84	1255986.96
WP-4B-5	245570.05	1255951.48
WP-4B-6	245538.88	1255929.98
WP-4B-7	245463.29	1255931.25

LEGEND

- IN-SITU STABILIZATION / SOLIDIFICATION
- 24 — EXCAVATION MIXING GRID CELL WITH MIXING BOTTOM ELEVATION (IN FEET, NAVD88)
- EXISTING SURFACE CONTOUR
- TOP OF SILT CONTOUR
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ALL ISS TREATMENT AREAS SHALL BE COVERED WITH A WOVEN GEOTEXTILE FABRIC AND 6 INCHES OF CRUSHED ROCK OR BALLAST ROCK TO RESTORE THE AREA TO PRE-EXISTING CONDITIONS.
2. THE FINAL DEPTH OF THE IN-SITU SOIL STABILIZATION AREA MAY CHANGE BASED ON FIELD CONDITIONS.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

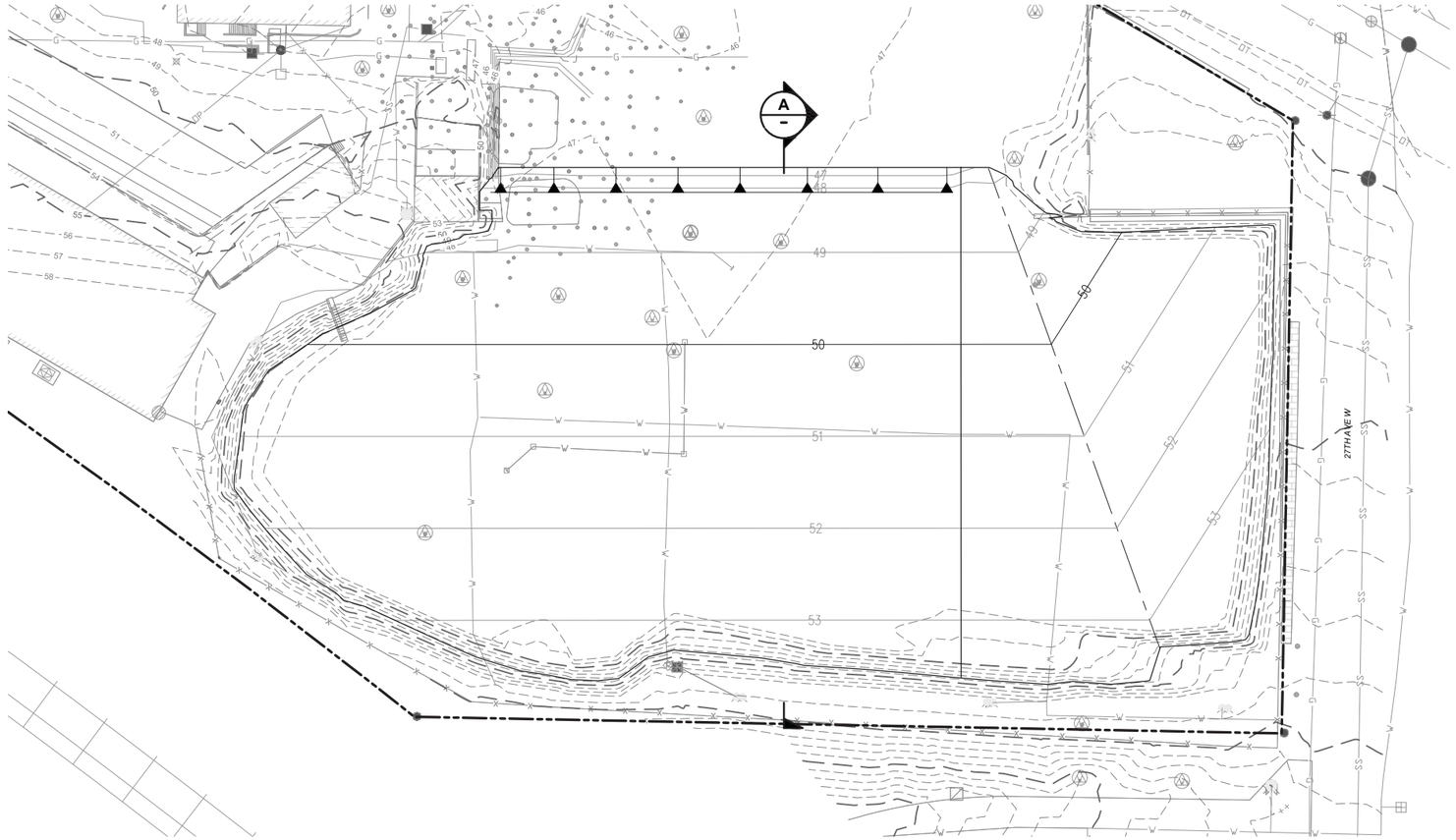
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-4a Insitu Solidification Area

Drawing No.
C-4.2

Sheet 19 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

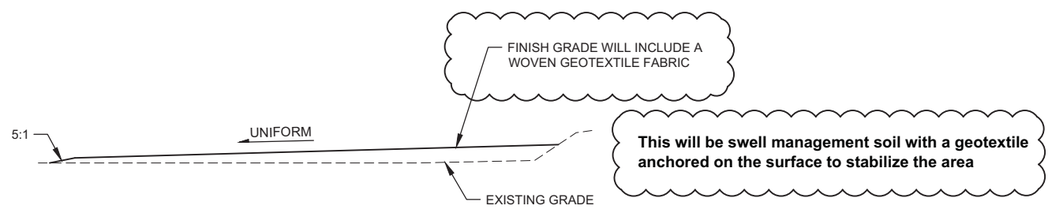


DETAILED PLAN VIEW

ISS SWELL MANAGEMENT AREA

0 30 60

SCALE IN FEET



A SECTION

SCALE: 1"=30'

0 30 60

SCALE IN FEET

FOR REFERENCE ONLY

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

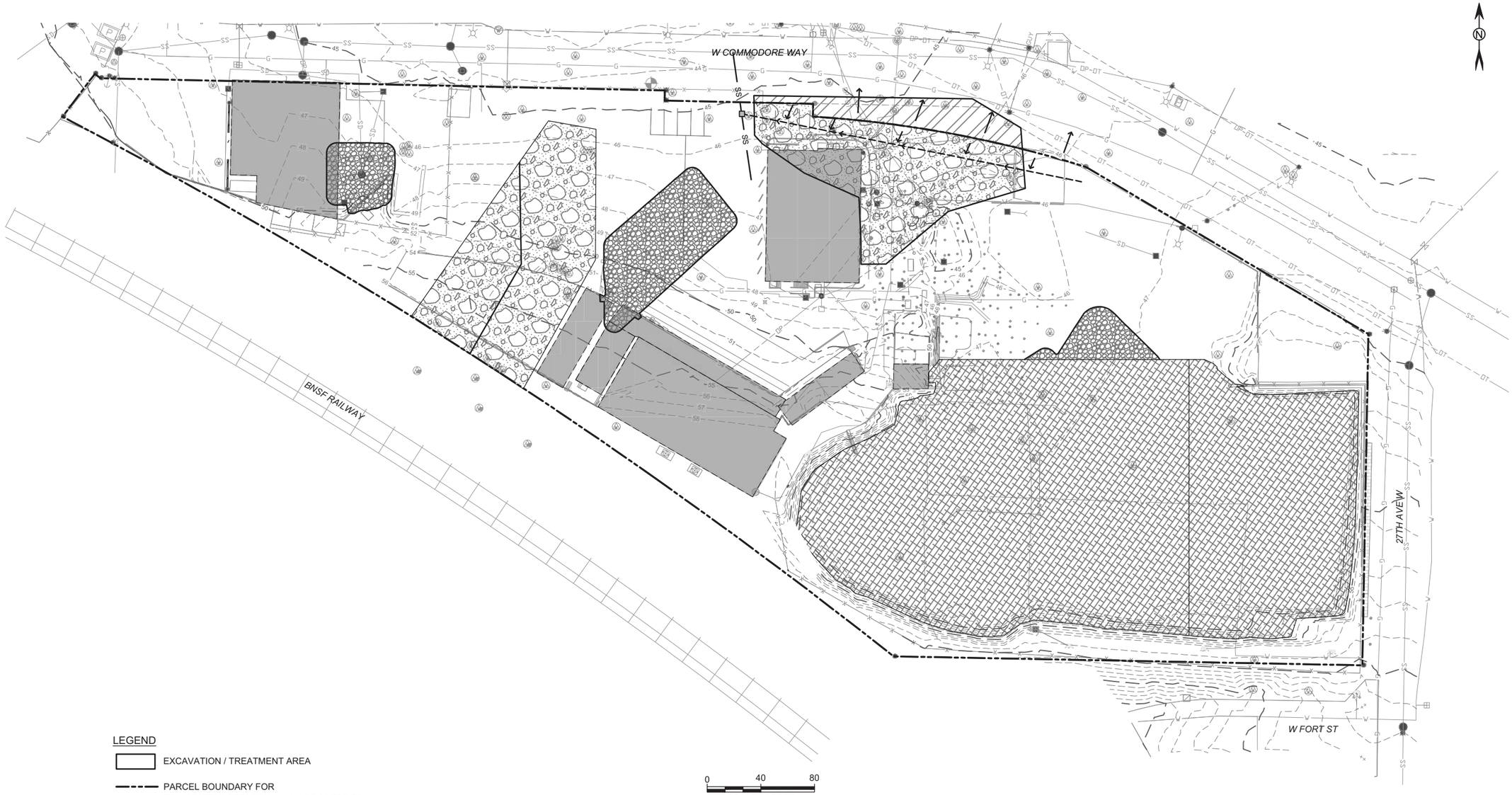
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

ISS Swell Management Area

Drawing No.
C-4.3

Sheet 20 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-CS.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



LEGEND

- EXCAVATION / TREATMENT AREA
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

STABILIZED INTERIM SURFACES

- ISS AREAS - WOVEN INDICATOR GEOTEXTILE FABRIC WITH 6 INCHES CRUSHED ROCK
- ISS SWELL AREA - WOVEN INDICATOR GEOTEXTILE FABRIC (GRAVEL OR ROCK WILL BE ADDED TO SUPPORT INTERIM SITE ACTIVITIES, IF NEEDED)
- EXCAVATION AREAS - 6 INCHES OF CRUSHED ROCK TO THE SURROUNDING GRADE
- ROW - RESTORED TO PRE-CONSTRUCTION CONDITIONS

NOTES

1. EXISTING ASPHALT, CONCRETE, AND GRAVEL AREAS WILL REMAIN DURING THE INTERIM PERIOD BETWEEN SITE CLEANUP AND DEVELOPMENT.

This shows the stable condition between cleanup action and final site development (which will be completed by others in separate permit submittal).

FOR REFERENCE ONLY

NEW SHEET

PERMIT SET

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3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Upland AOC Clean Action Areas Interim Stabilization

Drawing No.
C5.1

Sheet 21 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
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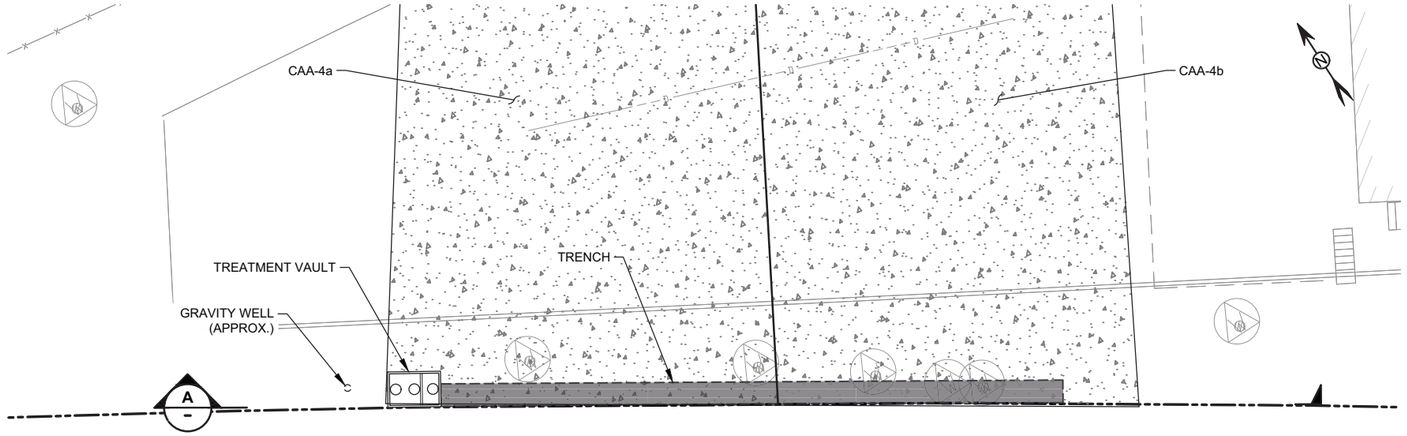
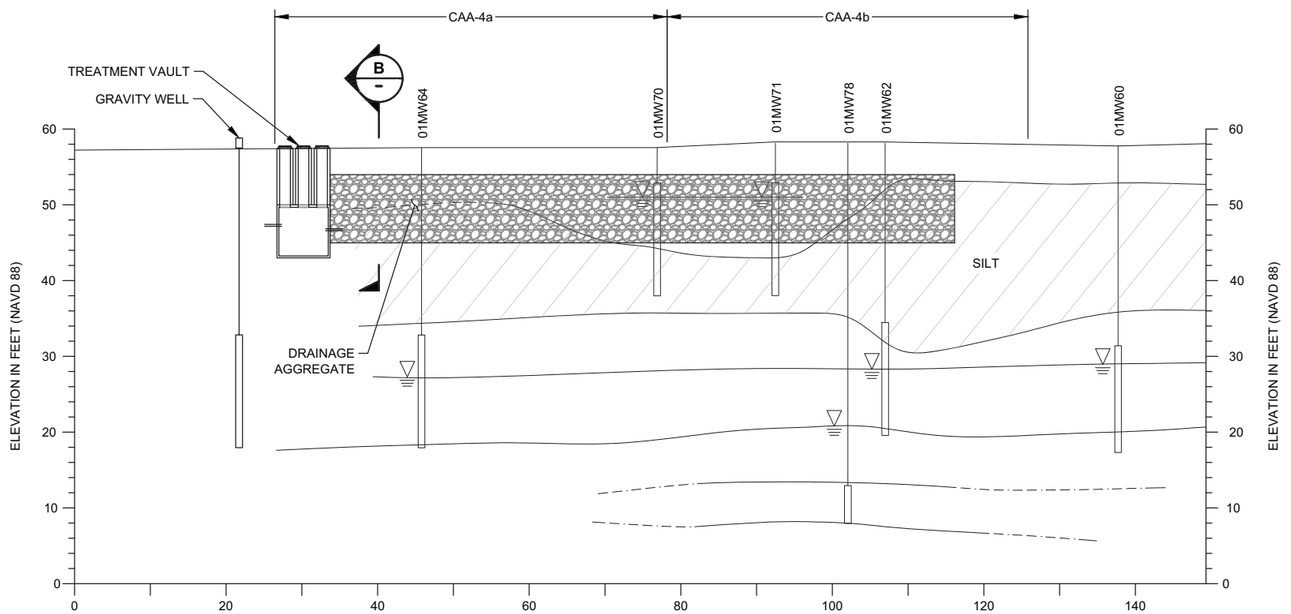


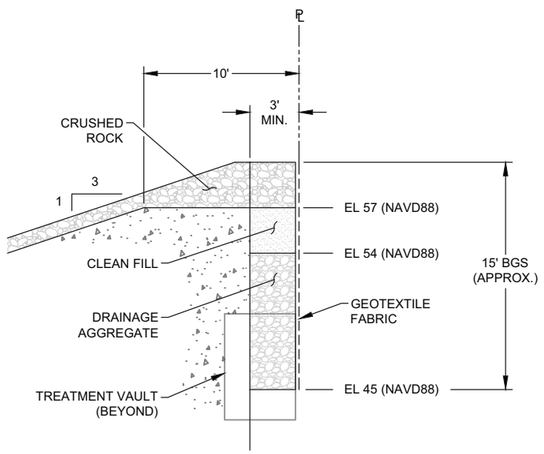
DETAILED PLAN VIEW
INFILTRATION TRENCH

0 20 40
SCALE IN FEET

LEGEND
- IN-SITU STABILIZATION / SOLIDIFICATION
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES



A - TRENCH PROFILE
0 10 20
SCALE IN FEET
HORIZONTAL = VERTICAL



2 - TRENCH SECTION
0 5 10
SCALE IN FEET

PERMIT SET

Rev	Date	Description	By

Client

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted
	SCALE WARNING: Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington
Interceptor Trench Design

Drawing No. **C6.1**

Sheet 22 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

ABBREVIATIONS

&	AND
@	AT
'	FEET (FOOT)
"	INCH (INCHES)
#	POUND(S), NUMBER
=	EQUAL(S)
A.B.	ANCHOR BOLT
ABV.	ABOVE
ADD.	ADDITIONAL
ADJ.	ADJACENT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
ASSY.	ASSEMBLY
B. (BTM.)	BOTTOM
BEL.	BELOW
BEN	BOUNDARY EDGE NAILING
B.F.	BRACED FRAME
BLDG.	BUILDING
BLK.(G.)	BLOCK (ING)
BLW.	BELOW
BM.	BEAM
BMU	BRICK MASONRY UNIT
BN	BOUNDARY NAILING
BNDRY.	BOUNDARY
B.O.	BOTTOM OF
B.O.E.	BOTTOM OF EXCAVATION
B.O.F.	BOTTOM OF FOOTING
BRDG.	BRIDGE, BRIDGING
BRG.	BEARING
BTWN.	BETWEEN
C	CAMBER
CAMB.	CAMBER(ED)
CANT.	CANTILEVER(ED)
CF	CUBIC FOOT
C.I.P.	CAST IN PLACE
C.J.	CONSTRUCTION JOINT
CL	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CTSK.	COUNTERSINK
CTR.	CENTER(ED)
CY	CUBIC YARD
CMU	CONCRETE MASONRY UNIT
d	PENNY (NAILS)
DB	DROPPED BEAM
DBA	DEFORMED BAR ANCHORS
DBL.	DOUBLE
DCW	DEMAND CRITICAL WELD
DEPT.	DEPARTMENT
DET.	DETAIL
DF	DOUGLAS FIR
DIA. / Ø	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
D.O.	DITTO (REPEAT)
DP.	DEEP
D.S.	DRAG STRUT
DWG.	DRAWING(S)
DWL.	DOWEL(S)
(E)	EXISTING
EA.	EACH
E.E.	EACH END
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
EMBD.	EMBED(MENT)
EN	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EQPT.	EQUIPMENT
E.W.	EACH WAY
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR

ABBREVIATIONS

FAB.	FABRICATION
FB	FLUSH BEAM
FDN.	FOUNDATION
F.F.	FINISH FLOOR
FIN.	FINISH(ED)
FLG.	FLANGE
FLR.	FLOOR
FN	FIELD (FACE) NAIL
F.O.	FINISHED OPENING
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FRM.	FRAME (FRAMING)
F.S.	FAR SIDE
FT.	FEET (FOOT)
FRTW	FIRE RETARDANT TREATED WOOD
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZE(D)
GB.	GRADE BEAM
GLB	GLUE LAMINATED BEAM
GRD.	GRADE
GWB	GYPSUM WALLBOARD
GYP.	GYPCRETE
HD	HOLDOWN
H.D.G.	HOT DIPPED GALVANIZED
HGR.	HANGER
HORIZ.	HORIZONTAL
HR	HEADER
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.E.	INVERT ELEVATION
I.F.	INSIDE FACE
IN.	INCH(ES)
INFO.	INFORMATION
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	KIPS (1000 LB.)
LAT.	LATERAL
LB.	POUND(S)
L.B.	LAG BOLTS(S)
LG.	LONG(ITUDINAL)
LGTH.	LENGTH
LGMF.	LIGHT GAUGE METAL FRAMING
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE(S)
L.W.	LIGHT WEIGHT
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MBM	METAL BUILDING MANUFACTURER
MECH.	MECHANICAL
M.E.J.	MASONRY EXPANSION JOINT
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
N.L.B.	NON-LOAD BEARING
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.C.	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORNT.	ORIENTATION
OSB	ORIENTED STRAND BOARD
O.W.J.	OPEN WEB JOIST

ABBREVIATIONS

PAR.	PARALLEL
P/C	PRECAST
PEN	PANEL EDGE NAIL
PERP.	PERPENDICULAR
PL.	PLATE
PL	PROPERTY LINE
PLMBG.	PLUMBING
PLYWD.	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESERVATIVE TREATED
PT	POST TENSION(ED)
QTY.	QUANTITY
R. (RAD.)	RADIUS
RE: (REF.)	REFERENCE
REINF.	REINFORCEMENT
REQ.	REQUIRED
R.F.	RIGID FRAME
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCH.	SCHEDULE
SCHED.	SCHEDULE
SCL	STRUCTURAL COMPOSITE WOOD
SHT.	SHEET
SIM.	SIMILAR
S.J.	SHRINKAGE CONTROL JOINT
SKW.	SKEW(ED)
S.O.G.	SLAB ON GRADE
SPC.	SPACE(S) (ING)
SPEC.	SPECIFICATION(S)
SQ.	SQUARE
STD.	STANDARD
STGR.	STAGGER
STIFF.	STIFFENER(S)
STIR.	STIRRUP(S)
STL.	STEEL
STRUC.	STRUCTURAL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED(TION)
SYMM.	SYMMETRICAL
T.	TOP
T.&B.	TOP AND BOTTOM
TEMP.	TEMPORARY
T.&G.	TONGUE AND GROOVE
THK.	THICK(NESS)
THRD.	THREADED
TN	TOE NAIL
T.O.S.	TOP OF (STEEL) (SHEATHING) (SLAB)
T.O.W.	TOP OF WALL
TRANSV.	TRANSVERSE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
V.	VERTICAL
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W.	WIDE (WIDTH)
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.H.S.	WELDED HEADED STUDS
W.P.	WORK POINT
W.S.	WELDED STUD
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
X-STG	EXTRA STRONG
XX-STG	DOUBLE EXTRA STRONG
YD	YARD

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

Utility Conflict Note

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING
ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. RESOLVE ANY PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

00100- CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE, AS AMENDED BY THE CITY OF SEATTLE.

00101- EASEMENTS

ALL EASEMENTS, IF REQUIRED, SHALL BE THE RESPONSIBILITY OF THE OWNER.

00200- DESIGN LOADS AND CONSIDERATIONS

DESIGN LOADS FOR THE SHORING SYSTEM ARE AS SPECIFIED IN PANGEO INC REPORT NO. 20-361 DATED NOVEMBER 20, 2020.

THE SHORING SYSTEM IS TEMPORARY. THE STEEL SOLDIER PILES THE LAGGING ARE THE TEMPORARY RETAINING SYSTEM.

SEE DETAILS ON SS4 FOR SPECIFIC DESIGN LOADING DIAGRAMS.

00300- UTILITIES AND ADJACENT PROPERTIES

STABILITY AND EROSION PROTECTION OF EXISTING & CUT SLOPES, AND THE COORDINATION OF THE EXCAVATION, SHORING AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES IS THE RESPONSIBILTY OF THE CONTRACTOR PRIOR TO DRILLING AND EXCAVATION.

LOCATE AND DISCONNECT ANY UNDERGROUND POWER, COMMUNICATION, GAS AND WATER LINES PRIOR TO DRILLING & EXCAVATION. CONTRACTOR SHALL VERIFY OVERHEAD CLEARANCES PRIOR TO MOBILIZATION AND CONSTRUCTION.

THE CONTRACTOR SHALL VERIFY THE EXACT ELEVATION, LOCATION AND SIZE OF ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO SHORING INSTALLATION.

00301- DRAINAGE CONTROL

THE CONTRACTOR SHALL TAKE MEASURES TO CONTROL ALL SURFACE WATER RUNOFF FLOW AND FLOWS FROM EXISTING SUBSURFACE DRAINAGE FEARTURES INCLUDING PERCHED WATER. IN NO CASE SHALL THE CONTRACTOR ALLOW THE WALL SYSTEM TO BE EXPOSED TO HYDROSTATIC PRESSURES OR ALLOW SURFACE WATER TO FLOW INTO THE EXCAVATION.

00400- BASELINE SURVEY AND MONITORING

EXISTING STRUCTURES OR IMPROVEMENTS TO BE SAVED THAT ARE NEAR THE CONSTRUCTION ZONE SHOULD HAVE BASELINE PHYSICAL LOCATION DATA ESTABLISHED PRIOR TO BEGINNING WORK. AS A MINIMUM, OPTICAL SURVEY POINTS (POINTS KNOWN, OR PO'S) SHOULD BE ESTABLISHED AT THE CORNERS AND MIDPOINT OF THE STRUCTURE THE SELECTION OF MONITORING POINTS SHOULD BE MADE WITH CONCURRENCE OF THE GEOTECHNICAL ENGINEER.

THE MONITORING PROGRAM SHOULD INCLUDE MEASUREMENT OF CHANGES IN BOTH THE HORIZONTAL AND VERTICAL DIRECTIONS. THE MONITORING SHOULD BE PERFORMED AT LEAST WEEKLY WHILE ACTIVE WALL CONSTRUCTION IS UNDERWAY. THE MONITORING SHOULD BE BY A LICENSED SURVEYOR, AND THE RESULTS BE PROMPTLY SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. THE RESULTS OF THE MONITORING WILL ALLOW THE DESIGN TEAM TO CONFIRM DESIGN PARAMETERS, AND FOR THE CONTRACTOR TO MAKE ADJUSTMENTS TO MEANS AND METHODS OF CONSTRUCTION, IF NECESSARY.

00401- MONITORING AND QUALITY CONTROL

THE OWNER SHALL PROVIDE MONITORING AND QUALITY CONTROL OF ALL SHORING WALLS INCLUDING SOLDIER PILE WALLS, BERMS, AND ADJACENT GROUND SURFACES AND BUILDINGS OF STRUCTURES AS FOLLOWS:

THE GEOTECHNICAL ENGINEER OF RECORD SHALL PROVIDE FULL TIME OBSERVATION MONITORING OF THE EXCAVATION, SOLDIER PILE INSTALLATION, AND VERFICATION AND PROOF TESTING. INSTALLATION INCLUDES DRILLING OF PILES AND PLACEMENT OF LEAN MIX AND STRUCTURAL GROUT. A COMPLETE AND ACCURATE RECORD SHALL BE KEPT OF ALL PILE AND DEPTHS, QUANTITIES OF LEAN MIX AND STRUCTURAL GROUT PER PILE AND ANY UNUSUAL CONDITIONS ENCOUNTERED.

A QUALIFIED TESTING AGENCY SHALL PERFORM WELDING INSPECTIONS AND STRUCTRAL GROUT SAMPLING AND TESTING.

THE CONTRACTOR SHALL PROVIDE TESTING EQUIPMENT THAT HAS BEEN CALIBRATED IN THE PAST 60 DAYS. MEASUREMENTS OF ANCHOR MOVEMENT SHALL BE OBTAINED WITH EQUIPMENT ACCURATE TO 0.001 INCH.

PRECONSTRUCTION BASELINE SURVEY:
A LICENSED SURVEYOR HIRED BY THE OWNER, SHALL ESTABLISH BASELINE READINGS OF BENCHMARKS AND MONITORING POINTS ON THE GROUND SURFACE AND SETTLEMENT-SENSITIVE STRUCTURES BEHIND THE SHORING WALL ALIGNMENT PRIOR TO EXCAVATION AND INSTALLATION OF THE SHORING SYSTEM. STATIONARY BENCHMARKS SHALL BE SET AT LEAST 40 FEET AWAY FROM THE MONITORING POINTS. MONITORING POINTS ESTABLISHED ALONG THE CURBLINE AND CENTERLINE OF ADJACENT ROADWAYS NEED TO BE MONITORED WHEN TOTAL WALL MOVEMENTS REACH 0.5 INCH OR AT SDOT REQUEST. THE MINIMUM MONITORING POINT SPACING ALONG THE TOP OF ALL SOIL NAIL WALLS SHALL BE 20 FEET AND AT THE TOP OF EVERY OTHER SOLDIER PILE. THE SURVEY SHALL HAVE AN ACCURACY OF 0.01 FEET. A VISUAL AND PHOTOGRAPHIC SURVEY SHALL BE MADE OF ADJACENT BUILDINGS PRIOR TO CONSTRUCTION.

REPORTS:
SURVEY MONITORING RESULTS SHALL BE TRANSMITTED TO THE GEOTECHNICAL ENGINEER AND GENERAL CONTRACTOR WITHIN 24 HOURS OF EACH SURVEY. THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE AND A GRAPHICAL REPRESENTATION OF WALL MOVEMENT VERSUS TIME ALONG WITH THE SURVEY DATA TO GENERAL CONTRACTOR, SHORING INSTALLER, SHORING ENGINEER, DPD AND ON AT LEAST A WEEKLY BASIS.

CONSTRUCTION MONITORING:
THE GENERAL CONTRACTORS SHALL OBSERVE THE CONDITIONS ABOVE THE SHORING ON A DAILY BASIS FOR SIGNS OF GROUND OR BUILDING MOVEMENTS. THE GEOTECHNICAL, SHORING ENGINEER SHALL BE IMMEDIATELY AND DIRECTLY NOTIFIED IF SIGNS OF MOVEMENT SUCH AS: NEW CRACKS IN STRUCTURES, INCREASED SIZE OF OLD CRACKS OR SEPARATION OF JOINTS IN STRUCTURES, FOUNDATIONS, STREETS OR PAVED AND UNPAVED SURFACES ARE OBSERVED.

THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER SHORING ENGINEER, DPD IMMEDIATELY AND DIRECTLY IF MORE THAN 0.5 INCH OF DISPLACEMENT OCCURS. AT THAT TIME THE GEOTECHNICAL ENGINEER AND SHORING ENGINEER SHALL PREPARE A REMEDIAL PLAN. REMEDIAL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEFLECTIONS FROM EXCEEDING 1.0 INCH.

DRILLING AND EXCAVATION OPERATIONS SHALL BE IMMMEDIATELY SUSPENDED IF GROUND SUBSIDENCE IS OBSERVED, OR IF ADJACENT STRUCTURES ARE DAMAGED AS A RESULT OF THE DRILLING OR EXCAVATION OPERATION.

SHORING INSTALLATION AND EXCAVATION IN AREAS ADJACENT TO BUILDINGS:
THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER, SHORING ENGINEER AND DPD IMMEDIATELY AND DIRECTLY IF THE 0.5 INCH DAMAGE THRESHOLD IS APPROACHED. SHORING INSTALLATION AND EXCAVATION SHALL NOT CONTINUE UNTIL REMEDIAL ACTION IS TAKEN TO ENSURE THAT 0.5 INCH IS NOT EXCEEDED.

00600- MATERIALS

LEAN MIX CONCRETE 1 1/2 SACK MIX

STRUCTURAL STEEL	WF SECTIONS	ASTM A992 Fy = 50 KSI
	CHANNELS	ASTM A36 Fy = 36 KSI
	STEEL ANGLES	ASTM A36 Fy = 36 KSI
	PLATE MATERIAL	ASTM A36 Fy = 36 KSI
	STRUCTURAL PIPE	ASTM A53 Fy = 35 KSI GRADE B
	STRUCTURAL BOLTS	ASTM A 325-N
	WELDED HEADED STUDS (WHS)	ASTM A -108
	WELDING ELECTRODES	E70-XX WITH CHARPY V-NOTCH
	TOUGHNESS OF AT LEAST 20 FT-LBS AT 0 DEGREES F.	

TIMBER LAGGING P.T. HF NO. 2 4X12

TIMBER LAGGING SHALL BE PRESERVATIVE TREATED WITH WATER BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 (A OR F) TO A MINIMUM RETENTION OF 0.4 LBS/CU. FT. (0.21 LBS/CU. FT. FOR CA-B) ANY SAWN ENDS OF SUCH TREATED LAGGING SHALL BE FIELD TREATED WITH TWO BRUSHED COATS OF THE SAME PRESERVATIVE. A 1" DIAMETER HOLE SHALL BE DRILLED IN THE CENTER OF ALL LAGGING BOARDS AT 24" ON CENTER TO PERMIT SEEPAGE. EACH LAGGING LIFT SHALL BE 4 FOOT HIGH MAXIMUM. NO EXCAVATION FOR THE IMMEDIATE LOWER LIFT IS ALLOWED UNTIL VOIDS BEHIND THE LAGGING OF THE PRECEDING LIFT ARE FILLED WITH APPROVED MATERIALS. ALL VOIDS BEHIND LAGGING SHALL BE BACKFILLED PRIOR TO PROJECT MAIN STRUCTURE CONSTRUCTION. 1

DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE 14TH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL AND THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360-10.

00601- CORROSION PROTECTION

THE PILES FOR THIS PROJECT ARE TEMPORARY AND DO NOT REQUIRE CORROSION PROTECTION.

00602- WELDING

WELDING SHALL CONFORM TO AWS D1-04 "STRUCTURAL WELDING CODE." WELDING ELECTRODES SHALL BE E70XX. ALL WELDING SHALL BE PERFORMED BY WABO AND AWS CERTIFIED WELDERS. ALL COMPLETE PENETRATION WELDS (CP) SHALL BE ULTRASONIC TESTED. ALL SINGLE PASS FILLET WELDS SHALL BE VISUALLY INSPECTED. MINIMUM WELD SIZE IS 1/4" CONTINUOUS FILLET.

00603- SUBMITTALS

SUBMITTALS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION;

1. CONSTRUCTION SEQUENCE NARRATIVE & DESCRIPTION INCLUDING EQUIPMENT LIST AND KEY PERSONNEL.
2. LEAN CONCRETE MIX & STRUCTURAL CONCRETE MIX DESIGN
3. CERTIFIED STEEL MILL REPORTS
4. STRUCTURAL STEEL AND EMBEDDED ITEMS

00604- EXCAVATION

THE DISPOSAL SITE FOR EXCAVATION SPOILS, INCLUDING FACILITY NAME AND ADDRESS SHALL BE PROVIDED TO THE BUILDING DEPARTMENT SITE DEVELOPMENT INSPECTOR AT THE PRECONSTRUCTION MEETING.

ANY VOIDS BETWEEN THE FACE OF THE EXCAVATION AND THE LAGGING SHALL BE FILLED IMMEDIATELY WITH AN PERMEABLE, FREE DRAINING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. THIS SHALL INCLUDE LEAN CONCRETE GROUT BEHIND THE UPPER TWO-THIRDS OF THE CUT FACE OF THE SHORING SYSTEM IF APPROVED BY THE GEOTECHNICAL ENGINEER. NO EXCAVATION FOR A LOWER LIFT SHALL PROCEED UNTIL THE INSTALLATION OF THE LIFT ABOVE IS COMPLETED, INCLUDING BACKFILLING BEHIND THE LAGGING.

THE CONTRACTOR SHALL LIMIT THE OPEN FACE OF THE EXCAVATION TO 4 FEET VERTICAL, UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE TIMBER LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK AREA AND AVOID EXCESSIVE SLOUGHING, CAVING OR OVERBREAK. THE CONTRACTOR SHALL RESPONSIBLE FOR THE MEANS AND METHODS USED FOR TEMPORARY FACE STABILITY AND MEANS TO CONTROL EXCESSIVE OVERBREAK, AS APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATION SHALL PROCEED TO A BOTTOM OF EXCAVATION (BOE) DEPTH NO GREATER THAN SHOWN ON THE PLANS.

REMOVE LEAN MIX FROM THE PILE TO ALLOW PLACEMENT OF WOOD LAGGING. CARE BY THE EXCAVATOR SHALL BE TAKEN TO PREVENT EXCESSIVE POUNDING OR SHAKING OF THE SHORING WALL.

GROUNDWATER:
THE GEOTECHNICAL REPORT INDICATES THAT THE GROUNDWATER TABLEN IS UNLIKELY TO BE ENCOUNTERED ABOVE THE BOTTOM OF EXCAVATION ELEVATION - LOCAL PERCHED GROUNDWATER MAY BE ENCOUNTERED. REFER TO THE GEOTECHNICAL REPORT.

00605 - SLOPE PROTECTION

THE CONTRACTOR SHALL PROTECT CUT SLOPES WITH PLASTIC IF CONSTRUCTION OCCURS DURING WET WEATHER. PLASTIC SHEETING SHALL BE OVERLAPPED AT LEAST 12 INCHES. SURFACE DRAINAGE AROUND THE EXCAVATION SHALL BE CONTROLLED BY THE CONTRACTOR TO PREVENT WATER FROM FLOWING INTO THE EXCAVATION. CUT SLOPES SHALL BE EXCAVATED TO INTERSECT THE BACKSIDE OF THE DRILLED HOLE.

CLEAR PLASTIC SHALL HAVE A MINIMUM THICKNESS OF 6 MIL AND SHALL MEET THE REQUIREMENTS OF WSDOT / APWA SECTION 9-14.5.

CONTRACTOR SHALL MONITOR SLOPES FOR ANY SIGNS OF DISTRESS AND TAKE CORRECTIVE ACTIONS AS REQUIRED BY THE GEOTECHNICAL ENGINEER.

00700- SOLDIER PILES

SOLDIER PILES ARE TO BE INSTALLED IN 24 INCH DIAMETER HOLES U.N.O AND BACKFILLED WITH LEAN MIX CONCRETE, TYPICAL U.N.O. REFER TO SHORING ELEVATIONS. ALL HOLES SHALL BE DRILLED IN AN ACCEPTABLE MANNER WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES TO THE GEOTECHNICAL ENGINEERS SATISFACTION

TEMPORARY CASING OR OTHER APPROVED METHODS SHALL BE USED AS REQUIRED FOR PILE INSTALLATION TO MINIMIZE GROUND LOSS SHOULD CAVING SOIL CONDITIONS BE ENCOUNTERED. WHEN CASING HOLES ARE REQUIRED, THE CASING SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND ALL INSTALLATION AND REMOVAL STRESSES, TO PREVENT DISTORTION CAUSED BY PLACING ADJACENT PILES AND TO PREVENT COLLAPSE DUE TO SOIL OR HYDROSTATIC PRESSURE.

ALTERNATE PILE PLACEMENT AT LEAST 24 HOURS TO ALLOW CONCRETE TO HARDEN PRIOR TO DRILLING ADHACENT PILES.

INSTALLATION TOLERANCES SHALL BE AS FOLLOWS;

PLAN DIRECTION	3 INCHES PARALLEL TO WALL
	1 INCH PERPENDICULAR TO WALL
VERTICAL DIRECTION	1 1/2% OF TOTAL LENGTH, 3" MAXIMUM IN ELEVATION

SHOULD GROUNDWATER BE ENCOUNTERED DURING DRILLING FOR SOLDIER PILES, THE CONTRACTOR SHALL BE PREPARED TO USE TEMPORARY CASING OR OTHER METHODS TO KEEP THE SIDEWALLS OF THE HOLE OPEN WITHOUT SIGNIFICANT RAVELING OR CAVING.

GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING DRILLING OPERATION TO VERIFY THAT THE CONTRACTORS DRILLING METHOD AND PROCEDURES ARE APPROPRIATE FOR THE GROUND CONDITONS.

THE CITY OF SEATTLE
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6/28/2021

09990 ADDITIONAL CITY COMMENTS

GRADING SEASON — NOTE THAT NO GRADING SHALL BE PERFORMED BETWEEM OCTOBER 31st, AND APRIL 1st.

Structural Drawing List (Shoring)

SHEET	DESCRIPTION	Issued	Rev	Rev Date
SS1.0	Structural Notes	01/15/21	1	03/11/2021
SS2.0	Excavation Plan	01/15/21	1	03/11/2021
SS2.1	Excavation Plan	01/15/21		
SS3.0	Elevations and Details	01/15/21		
SS3.1	Elevations and Details	01/15/21		
SS4.0	Details	01/15/21		

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Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)
www.ctengineering.com

01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021
1	SDOT & SDCI CORRECTIONS	03/11/2021

JOB #: 2020
ENG: YEZ
CAD: JMA
SCALE:
KEY ISSUE DATES:

Structural Notes

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS1.0

3/11/2021 11:11:34 AM
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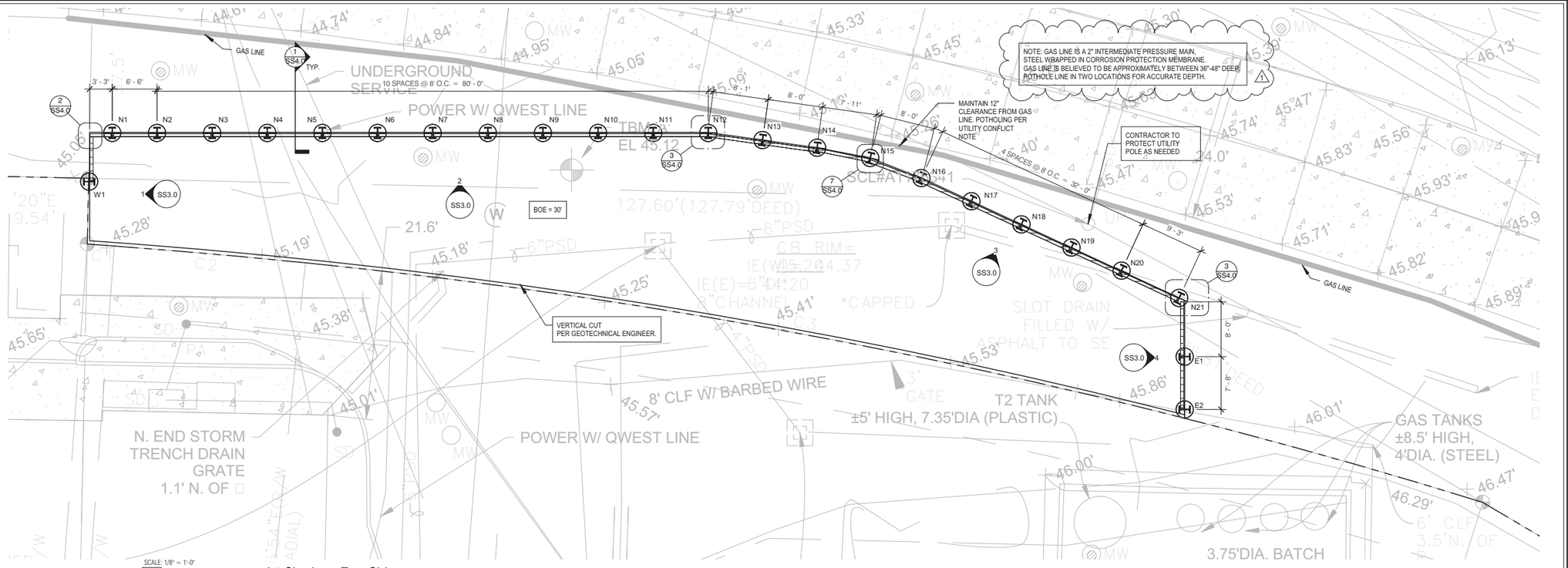

SCALE: 1/8" = 1'-0"

1 L1 Shoring - East Side

Shoring Notes

1. VERIFY ALL DIMENSIONS WITH ARCHITECT PRIOR TO CONSTRUCTION. RE: ARCHITECT FOR GRID TO FACE OF SHORING. SEE WALL ELEVATIONS FOR SHORING LAYOUT TO GRIDS.
2. A PRECONSTRUCTION MEETING WITH THE CITY DOT (IN ADDITION TO THOSE REQUIRED BY THE BUILDING DEPARTMENT) SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION. THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, GEOTECHNICAL ENGINEER, SURVEYOR AND SHORING DESIGNER SHALL BE IN ATTENDANCE. GENERAL CONTRACTOR SHALL COORDINATE MEETING TIME WITH ATTENDEES AND CITY DOT.
3. ALL EXISTING UTILITIES, I.E., OVERHEAD POWER, COMMUNICATION LINES, ETC., AS WELL AS ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND PROTECTED THROUGHOUT CONSTRUCTION.
4. ALL EXISTING STORM, SEWER, GAS, ETC., LINES CROSSING INTO THE EXCAVATION SHALL BE FIELD LOCATED AND REROUTED OR CAPPED PRIOR TO INSTALLATION OF THE SHORING. POTHOLE TO VERIFY LOCATION OF UNDER SIDEWALK POWER AND PHONE.
5. ALL SHORING ELEMENTS IN THE ROW SHALL BE REMOVED TO A DEPTH OF AT LEAST 4 FEET BELOW FINISHED GRADE IN THE ROW ONCE THEY ARE NO LONGER NEEDED FOR CONSTRUCTION.
6. CONTRACTOR SHALL NOT STOCK PILE MATERIALS AND/OR EQUIPMENT ALONG THE TOP OF SHORING WALL THAT EXCEEDS 250 PSF U.N.O.. ALL LOADS SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER AND SHORING DESIGNER PRIOR TO PLACEMENT. RE: CONSTRUCTION LOADING SECTION SHEET SS4.0.

GRAPHIC SCALE

-8' 0' 4' 8' 16'

(1/8" : 1'-0")

Utility Conflict Note

CAUTION:

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CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

Shoring Notes

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01/15/21

No.	REVISION	DATE
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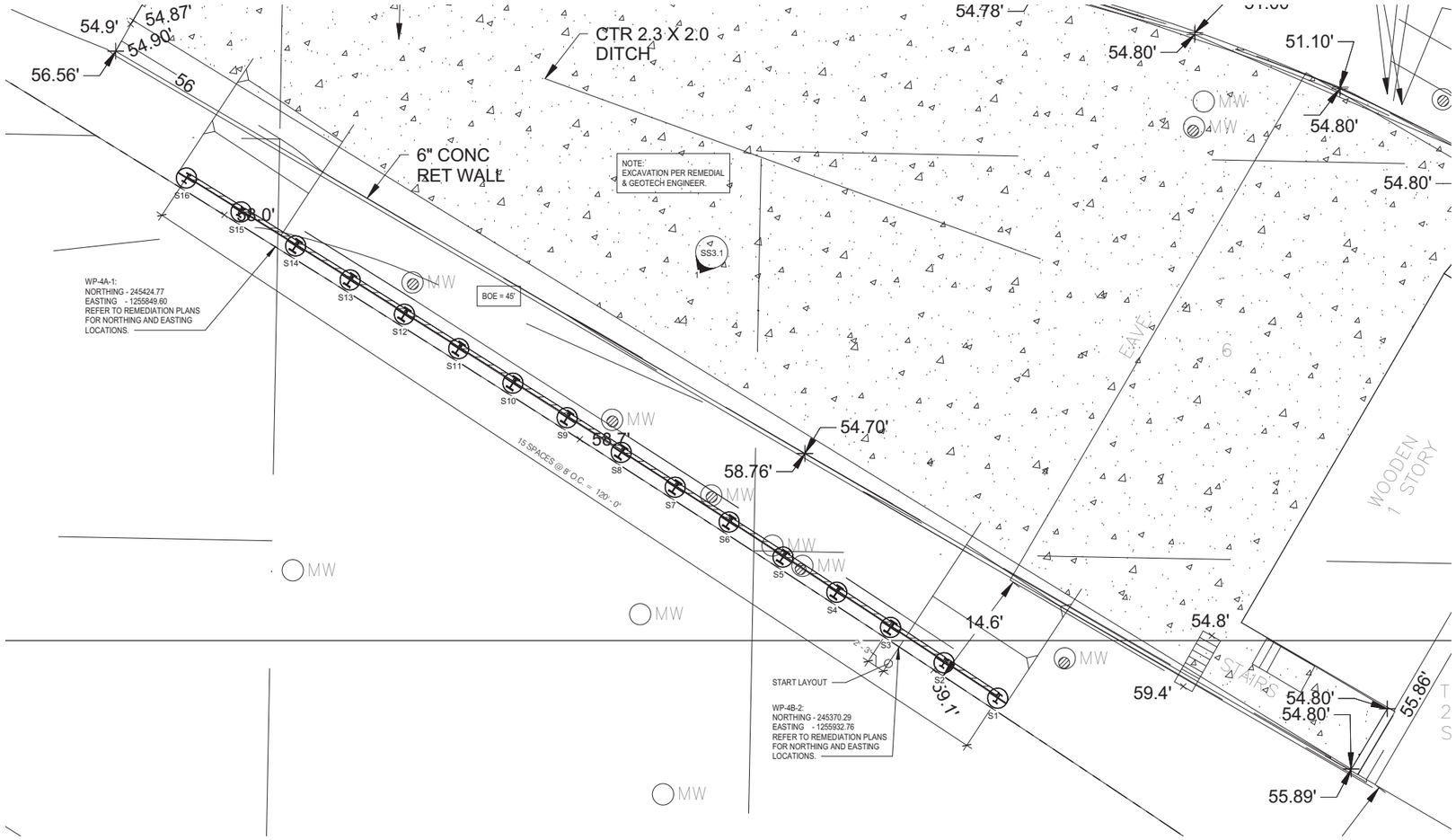
JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: As indicated
KEY ISSUE DATES:

Excavation Plan

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS2.0



SCALE: 1/8" = 1'-0"

1 L1 Shoring - West Side

Shoring Notes

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JOB #: 20209
ENG: YEZ
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Excavation Plan
Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS2.1

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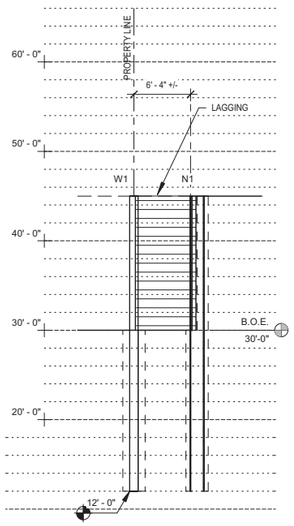
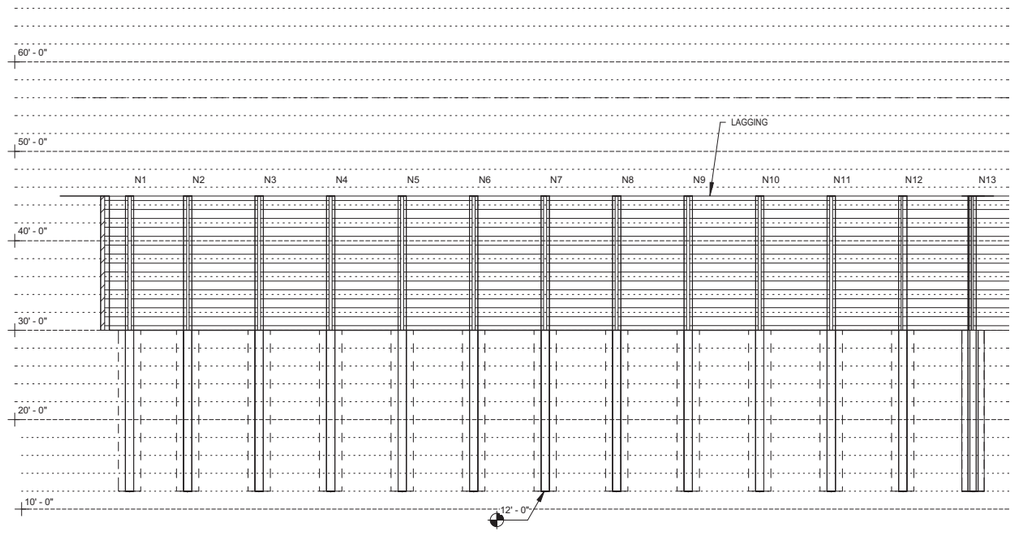


SCALE: 1/8" = 1'-0"

1 West



SCALE: 1/8" = 1'-0"

2 North

Structural Shoring Schedule (Cantilever)					
PILE NO	PILE SIZE	HOLE DIA.	PILE LENGTH INFORMATION		
			UPSTAND HEIGHT	EMBED DEPTH	LENGTH
E1	W18X130	30"	17' - 4"	18' - 0"	35' - 4"
E2	W18X130	30"	17' - 5"	18' - 0"	35' - 5"
N1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N2	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N3	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N4	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N5	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N6	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N7	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N8	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N9	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N10	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N11	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N12	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N13	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N14	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N15	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N16	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N17	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N18	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N19	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N20	W18X130	30"	16' - 0"	18' - 0"	34' - 0"
N21	W18X130	30"	16' - 11"	18' - 0"	34' - 11"
S1	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
S2	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S3	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S4	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S5	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S6	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
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S9	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S10	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
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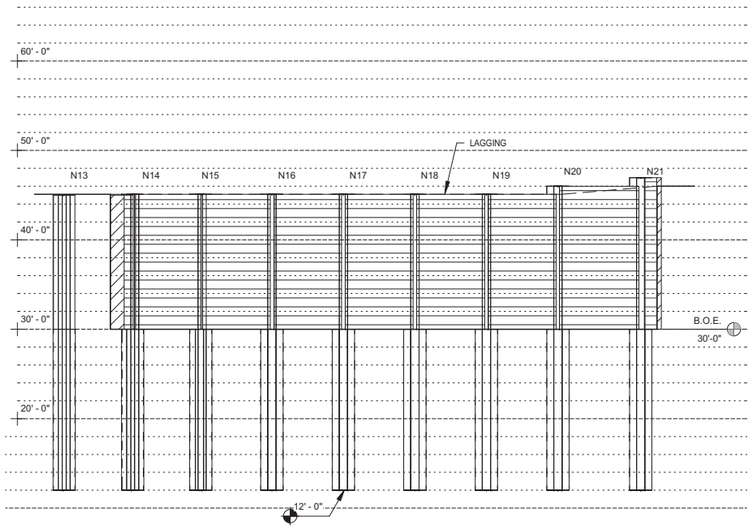
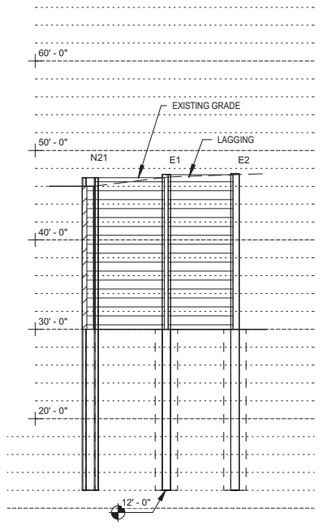
S12	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S13	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S14	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S15	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S16	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
W1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"



SCALE: 1/8" = 1'-0"

3 Northeast



SCALE: 1/8" = 1'-0"

4 East

Utility Conflict Note

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JOB #: 20209
ENG: YEZ
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SCALE: 1/8" = 1'-0"
KEY ISSUE DATES:

Elevations and Details

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS3.0

3/11/2021 11:11:37 AM
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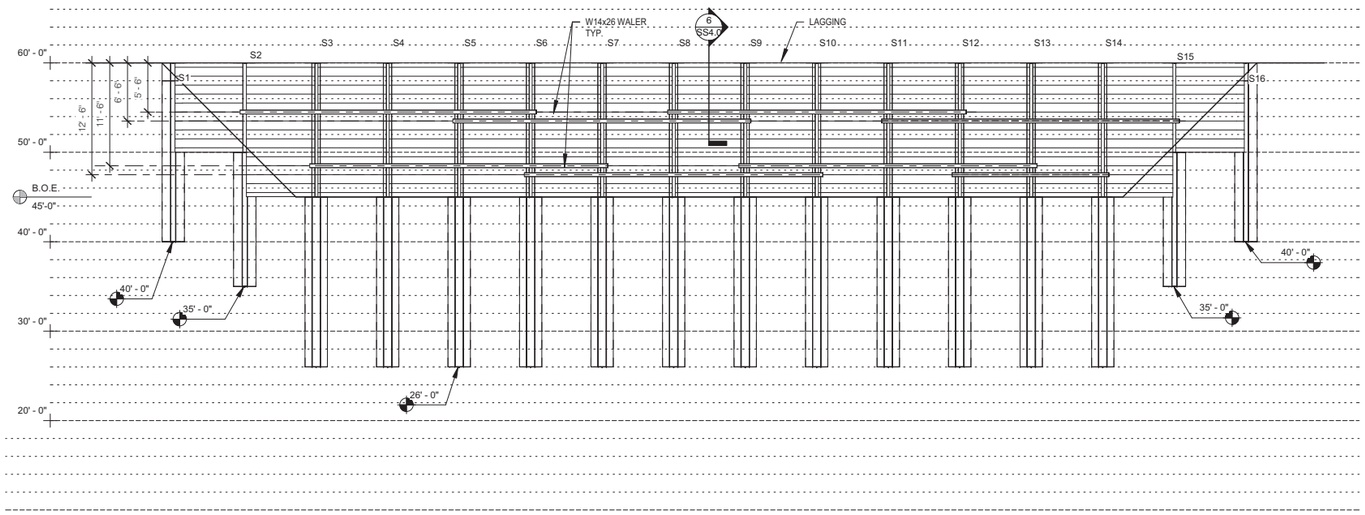
NOTE:
THE WALERS ARE FOR THE PURPOSE OF PROVIDING TEMPORARY SUPPORT TO EACH OF THE PILES TO ALLOW FOR A SEQUENCE OF NARROW TRENCH EXCAVATIONS DOWN TO ELEVATION 30' FOR REMEDIATION PURPOSES. THE TRENCHES ARE TO BE LIMITED IN WIDTH TO THE 8' WIDE ZONE IN FRONT OF EACH OF THE PILES WHILE MAINTAINING THE EMBEDMENT AND PASSIVE PRESSURE RESISTANCE FOR THE TWO ADJACENT PILES. AFTER REMEDIATION IS COMPLETE FOR EACH OF THE TRENCHES, THEY ARE TO BE BACKFILLED WITH MATERIAL THAT INCLUDES CEMENT IN ORDER TO RE-ESTABLISH THE PASSIVE PRESSURE CAPABILITIES FOR THAT ZONE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

1



SCALE: 1/8" = 1'-0"

1 South

Structural Shoring Schedule (Cantilever)

PILE NO	PILE SIZE	HOLE DIA.	PILE LENGTH INFORMATION		
			UPSTAND HEIGHT	EMBED DEPTH	LENGTH
E1	W18X130	30"	17' - 4"	18' - 0"	35' - 4"
E2	W18X130	30"	17' - 5"	18' - 0"	35' - 5"
N1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N2	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N3	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N4	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N5	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N6	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N7	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N8	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N9	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N10	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N11	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N12	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N13	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N14	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N15	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N16	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N17	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N18	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N19	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N20	W18X130	30"	16' - 0"	18' - 0"	34' - 0"
N21	W18X130	30"	16' - 11"	18' - 0"	34' - 11"
S1	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
S2	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S3	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S4	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S5	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
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W1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

FOR SEATTLE DPD USE ONLY

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)
www.ctengineering.com

01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021
1	SDOT & SDCI CORRECTIONS	03/11/2021

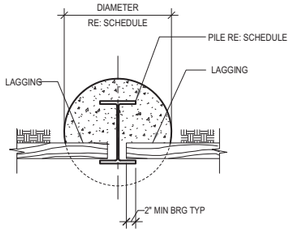
JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: 1/8" = 1'-0"
KEY ISSUE DATES:

Elevations and Details

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

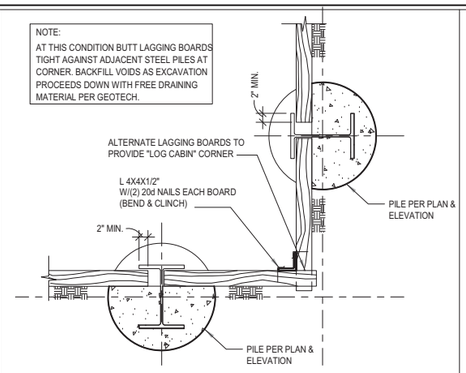
SS3.1

3/11/2021 11:11:37 AM
M:\20\209 TOC Seattle\SHORING\20209 TOC SEATTLE (R20).rvt



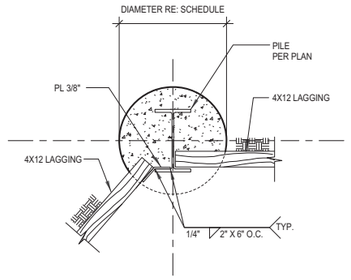
SCALE: 3/4" = 1'-0"

1 TYPICAL PILE DETAIL



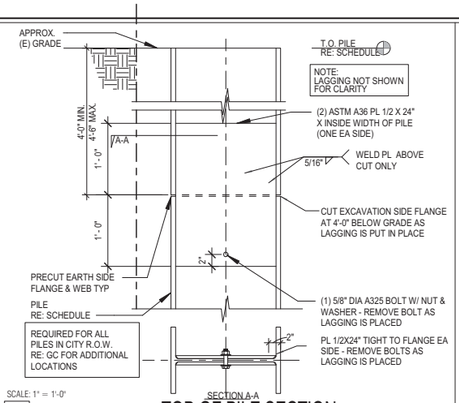
SCALE: 3/4" = 1'-0"

2 TYPICAL BUTTED CORNER DETAIL



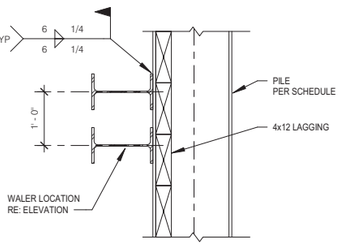
SCALE: 3/4" = 1'-0"

3 TYPICAL CORNER PILE DETAIL



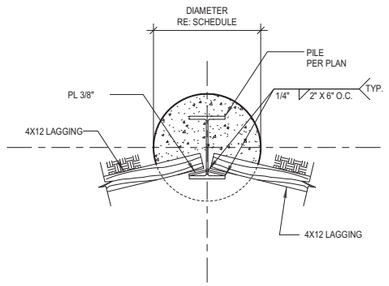
SCALE: 1" = 1'-0"

4 TOP OF PILE SECTION



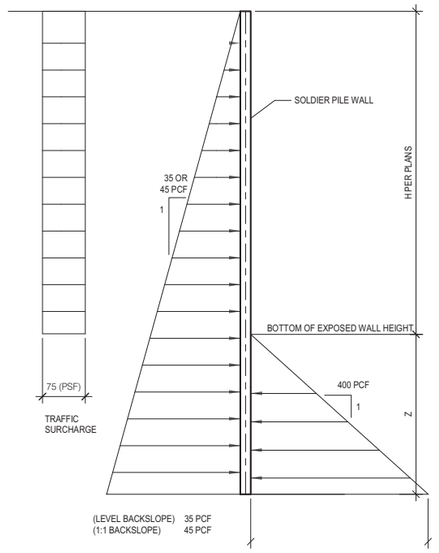
SCALE: 3/4" = 1'-0"

6 WALER CONNECTION



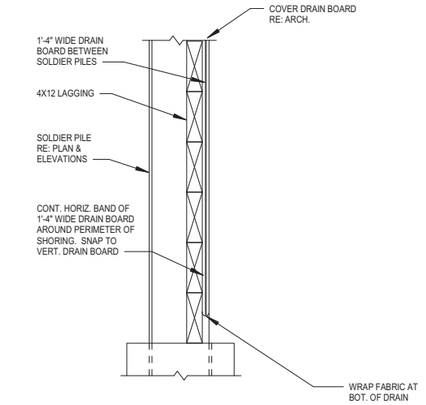
SCALE: 3/4" = 1'-0"

7 TYPICAL CORNER PILE DETAIL



SCALE: 3/4" = 1'-0"

10 WALL DESIGN PARAMETERS - SINGLE TIEBACK & CANTILEVER PILE



SCALE: 3/4" = 1'-0"

20 TYPICAL SECTION

THE CITY OF SEATTLE
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01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021

JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: As indicated
KEY ISSUE DATES:

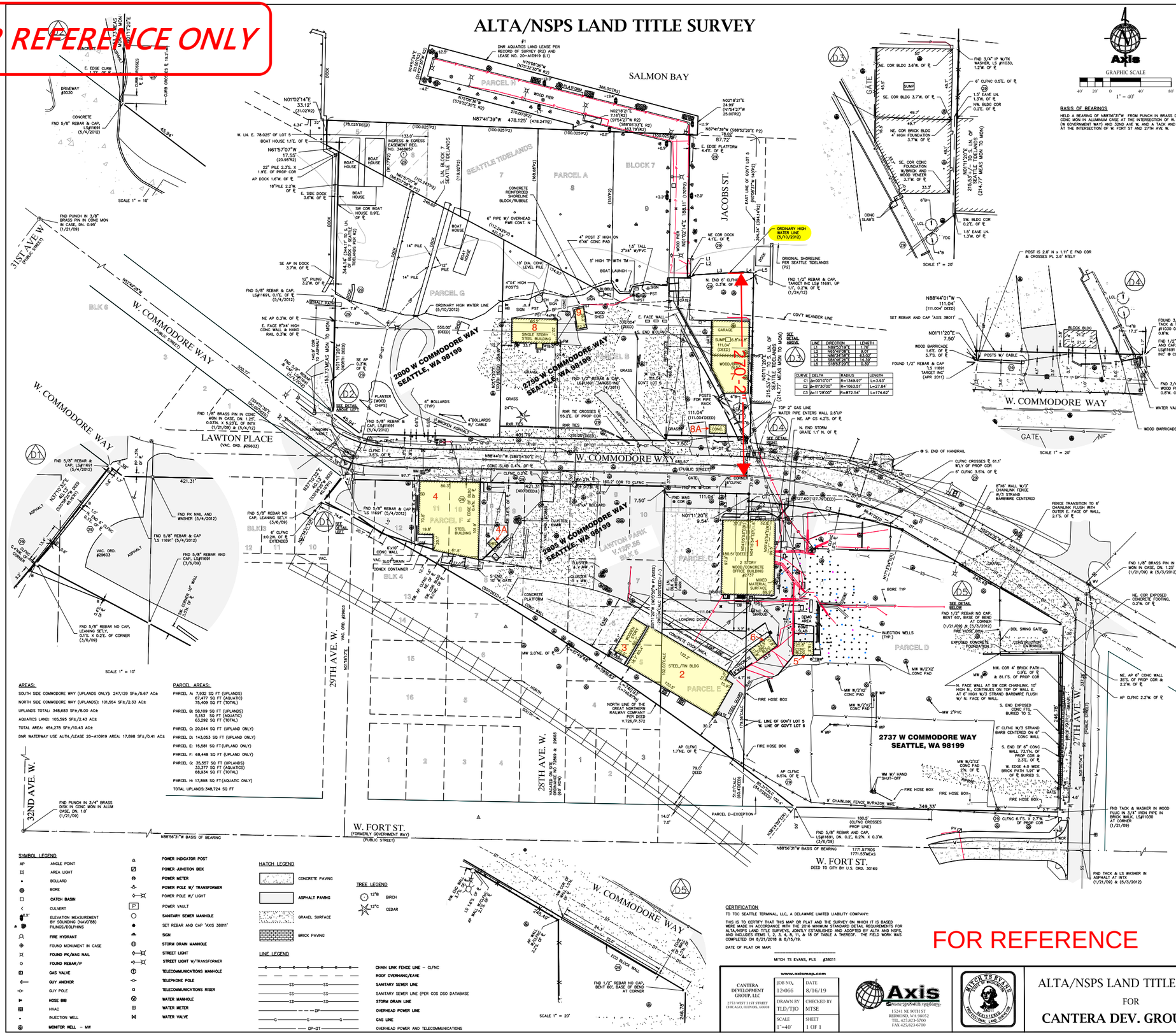
Details
Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS4.0

3/11/2021 11:11:38 AM
M:\20\209 TOC Seattle\SHORING\202/09 TOC SEATTLE (R20).rvt

FOR REFERENCE ONLY

ALTA/NSPS LAND TITLE SURVEY



AREAS:

SOUTH SIDE COMMODORE WAY (UPLANDS ONLY): 247,129 SF±/5.67 AC±

NORTH SIDE COMMODORE WAY (UPLANDS): 101,554 SF±/2.33 AC±

UPLANDS TOTAL: 348,683 SF±/8.00 AC±

AQUATICS LAND: 105,595 SF±/2.43 AC±

TOTAL AREA: 454,278 SF±/10.43 AC±

DNR WATERWAY USE AUTH./LEASE 20-A10919 AREA: 17,898 SF±/0.41 AC±

PARCEL AREAS:

PARCEL A: 7,932 SQ FT (UPLANDS)
67,477 SQ FT (AQUATIC)
75,409 SQ FT (TOTAL)

PARCEL B: 58,109 SQ FT (UPLANDS)
5,183 SQ FT (AQUATIC)
63,292 SQ FT (TOTAL)

PARCEL C: 20,044 SQ FT (UPLAND ONLY)

PARCEL D: 143,053 SQ FT (UPLAND ONLY)

PARCEL E: 15,581 SQ FT (UPLAND ONLY)

PARCEL F: 68,448 SQ FT (UPLAND ONLY)

PARCEL G: 35,557 SQ FT (UPLANDS)
33,377 SQ FT (AQUATICS)
68,934 SQ FT (TOTAL)

PARCEL H: 17,898 SQ FT (AQUATIC ONLY)

TOTAL UPLANDS:348,724 SQ FT

SYMBOL LEGEND

AP	ANGLE POINT		POWER INDICATOR POST
	AREA LIGHT		POWER JUNCTION BOX
	BOLLARD		POWER METER
	BORE		POWER POLE W/ TRANSFORMER
	CATCH BASIN		POWER POLE W/ LIGHT
	CULVERT	P	POWER VAULT
4.XX'	ELEVATION MEASUREMENT BY SOUNDING (NAVD'88) PILINGS/DOLPHINS		SANITARY SEWER MANHOLE
	FIRE HYDRANT		SET REBAR AND CAP "AXIS 38011"
	FOUND MONUMENT IN CASE		SIGN
	FOUND PK/MAG NAIL		STORM DRAIN MANHOLE
	FOUND REBAR/IP		STREET LIGHT
	GAS VALVE		STREET LIGHT W/TRANSFORMER
	GUY ANCHOR		TELECOMMUNICATIONS MANHOLE
	GUY POLE		TELEPHONE POLE
	HOSE BIB		TELECOMMUNICATIONS RISER
	HVAC		WATER MANHOLE
	INJECTION WELL		WATER METER
	MONITOR WELL - MW		WATER VALVE

HATCH LEGEND

- CONCRETE PAVING
- ASPHALT PAVING
- GRAVEL SURFACE
- BRICK PAVING

TREE LEGEND

- 12"B BIRCH
- 12"C CEDAR

LINE LEGEND

- CHAIN LINK FENCE LINE – CLFNC
- ROOF OVERHANG/EAVE
- SANITARY SEWER LINE
- SANITARY SEWER LINE (PER COS DSO DATABASE
- STORM DRAIN LINE
- OVERHEAD POWER LINE
- GAS LINE
- OVERHEAD POWER AND TELECOMMUNICATIONS

N88°56'31"W BASIS OF BEARING 1771.53'ROS 1771.53'MEAS

CERTIFICATION

TO TOC SEATTLE TERMINAL, LLC, A DELAWARE LIMITED LIABILITY COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 8, 11, & 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 8/21/2018 & 8/15/19.

DATE OF PLAT OR MAP: _____

MITCH TS EVANS, PLS #38011

FOR REFERENCE

CANTERA DEVELOPMENT GROUP, LLC
2753 WEST 31ST STREET
CHICAGO, ILLINOIS, 60608

www.axismap.com
15241 NE 90TH ST
REDMOND, WA 98052
TEL: 425.823-6700
FAX 425.823-6700

JOB NO. 12-066	DATE 8/16/19
DRAWN BY TLD/TJO	CHECKED BY MTSE
SCALE 1"=40'	SHEET 1 OF 1

ALTA/NSPS LAND TITLE SURVEY
FOR
CANTERA DEV. GROUP, LLC

GRAPHIC SCALE
40' 20' 0 40' 80'
1" = 40'

BASIS OF BEARINGS

HELD A BEARING OF N88°56'31"W FROM PUNCH IN BRASS DISK ON CONC MON IN ALUMINUM CASE AT THE INTERSECTION OF W. FORT ST (W GOVERNMENT WAY) AND 32ND AVE W, AND A TACK AND WASHER AT THE INTERSECTION OF W. FORT ST AND 27TH AVE W.

LEGAL DESCRIPTION

PARCEL A:

THE EASTERLY 78.025 FEET OF LOT 5 AND ALL OF LOTS 6, 7, 8 AND 9, BLOCK 7, SEATTLE TIDELANDS, IN KING COUNTY, WASHINGTON, AS SHOWN ON THE OFFICIAL MAPS ON FILE IN THE OFFICE OF THE COMMISSIONER OF PUBLIC LANDS AT OLYMPIA, WASHINGTON.

PARCEL B:

THE EAST 111.04 FEET OF THAT PORTION OF GOVERNMENT LOT 5 OF SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF WEST COMMODORE WAY;

TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 5 OF SECTION 11, TOWNSHIP 25 NORTH RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTHERLY LINE OF COMMODORE WAY AS NOW ESTABLISHED, AT A POINT WHICH IS 111.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST ALONG SAID NORTH LINE OF COMMODORE WAY 219.00 FEET;
THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID GOVERNMENT LOT TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDELANDS;
THENCE EASTERLY ALONG THE SOUTHERLY LINE OF SAID BLOCK TO A POINT WHICH IS 111.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE POINT OF BEGINNING;

EXCEPT ANY PORTION THEREOF LYING WITHIN THE SEATTLE TIDELANDS.

PARCEL C:

THAT PORTION OF THE EAST 111.04 FEET GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING SOUTH OF COMMODORE WAY AND NORTH OF A LINE PARALLEL TO AND 180.51 FEET SOUTH OF SAID SOUTH LINE OF COMMODORE WAY, MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL D:

THAT PORTION OF GOVERNMENT LOT 6, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF FORT STREET (FORMERLY GOVERNMENT WAY), WEST OF 27TH AVENUE WEST, AND SOUTH OF COMMODORE WAY;

EXCEPT THE FOLLOWING PORTION:

BEGINNING AT THE SOUTHWEST CORNER OF SAID TRACT;
THENCE NORTH ALONG THE WEST LINE OF SAID LOT 6 A DISTANCE OF 50.40 FEET;
THENCE SOUTHEASTERLY A DISTANCE OF 84.5 FEET TO THE NORTH LINE OF FORT STREET (FORMERLY GOVERNMENT WAY);
THENCE WEST TO THE POINT OF BEGINNING.

PARCEL E:

THAT PORTION OF THE EAST 111.04 FEET OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTHEASTERLY OF THAT PORTION OF THE EAST 111.04 FEET OF SAID GOVERNMENT LOT 5 CONVEYED TO THE GREAT NORTHERN RAILWAY COMPANY BY DEED RECORDED IN VOLUME 726 OF DEEDS, AT PAGE 372, UNDER RECORDING NUMBER 692109, RECORDS OF KING COUNTY, WASHINGTON, AND SOUTHERLY OF A LINE PARALLEL TO AND 180.51 FEET SOUTHERLY OF THE SOUTHERLY MARGIN OF COMMODORE WAY MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL F:

THAT PORTION OF BLOCKS 3, 4 AND 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON, AND OF VACATED STREETS AND ALLEYS ADJOINING, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF WEST COMMODORE WAY DISTANT SOUTH 54°01'35" EAST 190 FEET FROM THE NORTHWESTERLY LINE OF LOT 1, BLOCK 6, OF SAID PLAT OF LAWTON PARK;
THENCE SOUTH 35°58'25" WEST, PARALLEL WITH SAID NORTHWESTERLY LINE TO THE NORTHEASTERLY MARGIN OF THE GREAT NORTHERN RAILWAY RIGHT OF WAY;
THENCE SOUTHEASTERLY ALONG SAID MARGIN 500 FEET, MORE OR LESS, TO THE EAST LINE OF SAID BLOCK 5;
THENCE NORTH 00°00'50" WEST 300 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF SAID BLOCK 5, SAID POINT ALSO BEING ON THE SOUTH MARGIN OF WEST COMMODORE WAY; THENCE WESTERLY ALONG SAID SOUTH MARGIN 400 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL G:

THAT PORTION OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTH LINE OF COMMODORE WAY AS ESTABLISHED AT A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST AND NORTHWESTERLY ALONG SAID WAY LINE TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 180.51 FEET SOUTH OF THE NORTH LINE OF SAID GOVERNMENT LOT; THENCE NORTH ALONG SAID PARALLEL LINE TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDELANDS;
THENCE EASTERLY ALONG SAID BLOCK 7 TO A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE BEGINNING.

PARCEL H (SUBJECT TO CHANGE; SEE EXCEPTION 20 IN SCHEDULE B HEREIN):

THAT PORTION OF WASHINGTON STATE HARBOR AREA LYING NORTH OF BLOCK 7, MAP OF SEATTLE TIDE LANDS, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 11;
THENCE SOUTH 89°09'27" EAST 1323.96 FEET TO EAST LINE OF GOVERNMENT LOT 5;
THENCE ALONG SAID EAST LINE NORTH 0°49'52" EAST 930.22 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF BLOCK 7, SEATTLE TIDE LANDS, ALSO KNOWN AS THE STATE HARBOR LINE;
THENCE NORTH 89°09'27" WEST 78.02 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 1542'7" EAST 25.00 FEET;
THENCE NORTH 73°52'30" WEST 366.00 FEET;
THENCE SOUTH 14°27'30" WEST 53.00 FEET;
THENCE SOUTH 73°52'30" EAST 210.00 FEET;
THENCE SOUTH 1542'7" WEST 7.16 FEET TO THE SAID HARBOR LINE;
THENCE SOUTH 88°03'33" EAST 163.79 FEET TO THE TRUE POINT OF BEGINNING AND THE END OF THIS DESCRIPTION.

SCHEDULE B SPECIAL EXCEPTIONS

EASEMENTS ARE BASED ON THE SUPPLEMENT SUPPLEMENTAL #1 TO THE 5TH COMMITMENT BY CHICAGO TITLE COMPANY, ORDER NO. 0116861-06, DATED JULY 31, 2019, AT 08:00 AM, SUPPLEMENT DATE: AUGUST 14, 2019. (SUPPORTING DOCUMENTS PROVIDED)

(1) EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: RAINIER ICE & COLD STORAGE, INC.
PURPOSE: INGRESS AND EGRESS
AREA AFFECTED: A WESTERLY PORTION OF PARCEL A AS DESCRIBED IN DOCUMENT
RECORDED: MAY 5, 1945
RECORDING NUMBER: 3465822

SAID EASEMENT IS A RE-RECORDING OF A EASEMENT RECORDED UNDER RECORDING NUMBER 3465822, AS SHOWN HEREON

2. ANY PROHIBITION OR LIMITATION OF USE, OCCUPANCY OR IMPROVEMENT OF THE LAND RESULTING FROM THE RIGHTS OF THE PUBLIC OR RIPARIAN OWNERS TO USE ANY PORTION WHICH IS NOW OR HAS BEEN FORMERLY COVERED BY WATER.

3. PARAMOUNT RIGHTS AND EASEMENTS IN FAVOR OF THE UNITED STATES FOR COMMERCE, NAVIGATION, FISHERIES, AND THE PRODUCTION OF POWER.

20. THE LEGAL DESCRIPTION FOR PARCEL H AS SHOWN IN SCHEDULE A HEREIN IS SUBJECT TO CHANGE.

SAID LEGAL DESCRIPTION IS BASED ON THAT DESCRIPTION CONTAINED IN SURVEY RECORDED UNDER RECORDING NO. 9707019001. WE MUST BE PROVIDED WITH A COPY OF THE DNR LEASE REFERENCED IN SAID SURVEY AND IN RECORDING MEMORANDUM RECORDED UNDER RECORDING NO. 9711200892, AND ANY SUBSEQUENT CHANGES TO SAID LEASED AREA, TO CONFIRM THE DIMENSIONS OF THE PROPERTY COVERED.

WE FURTHER NOTE THAT THE TAX ASSESSOR'S LEGAL DESCRIPTION VARIES FROM THE DESCRIPTION CONTAINED IN SAID SURVEY.

22. ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY #12-066 DATED MAY 30, 2012, REVISED JUNE 19, 2014 MATTERS A THROUGH O, AS SHOWN HEREON

FOR ALL OTHER EXCEPTIONS, REFER TO THE ABOVE REFERENCED 5TH COMMITMENT.

REFERENCES

(R1) RECORD OF SURVEY BY TARGET SURVEYORS INC, REC NO. 9707149007

(R2) RECORD OF SURVEY BY RUSS DODGE SURVEY REC NO. 9707019001

(R3) N.O.S. BY BARGHAUSEN CONSULTING ENG. INC REC NO. 8403219007

(R4) CITY OF SEATTLE ENGINEERING MAP SE 1/4 SEC 10 T25N R5E

(R5) RECORD OF SURVEY BY ORNI ENTERPRISES REC. NO. 9509279003

(R6) RECORD OF SURVEY BY REID MIDDLETON & ASSOC. REC NO. 7703179001

(R7) RECORD OF SURVEY BY ABA INC. REC NO. 2009070290010

(R8) CITY OF SEATTLE ENGINEERING MAP SW 1/4 SEC 11 T25N R5E

(R9A) OREGON WASHINGTON RAILROAD AND NAVIGATION COMPANY STATION MAP LANDS TRACTS AND STRUCTURES 107-25.A

(R9B) OREGON WASHINGTON RAILROAD AND NAVIGATION COMPANY STATION MAP LANDS TRACTS AND STRUCTURES 107-25.B

(R10) AQ 20-010897

(P1) PLAT OF LAWTON PARK RECORDED IN VOLUME 12 OF PLATS PAGE 56

(P2) SEATTLE TIDE LANDS MAP TF17-204

(L1) DNR WATERWAY USE AUTHORIZATION/LEASE NO. 20-A10919 REC. NO. 9711200892/20090924000249/20130607000412/20180521001023

SURVEY NOTES

UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON ASBUILT FIELD LOCATION OF EXISTING STRUCTURES BASED ON OBSERVABLE SURFACE EVIDENCE AND AVAILABLE UTILITY MAPS FROM CITY AND UTILITY PURVEYOR'S DRAWINGS. A UTILITY LOCATE SERVICE WAS SUB-CONSULTED. CALL 811 FOR UTILITY LOCATES BEFORE ANY DIGGING OR EXCAVATION ON SITE.

THIS SURVEY DISCLOSES FACTORS OF RECORD AND ON THE GROUND AFFECTING THE SUBJECT PROPERTY BOUNDARY, BUT IT DOES NOT PURPORT TO LEGALLY RESOLVE RELATED PROPERTY LINE DISPUTES. WHERE AMBIGUITIES ARE NOTED, AXIS RECOMMENDS THAT THE OWNER CONSULT WITH LEGAL COUNSEL TO DETERMINE HOW BEST TO INTERPRET THEIR PROPERTY RIGHTS AND ADDRESS ANY POTENTIAL PROPERTY LINE DISPUTES.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY BETWEEN JANUARY 2009 TO MAY 2012, AUGUST 21, 2018 AND AUGUST 15, 2019 AND CAN ONLY BE CONSIDERED AS REFLECTING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

BUILDING LOCATION TIES ARE MEASURED AT RIGHT ANGLES FROM THE PROPERTY LINES AT THE POSITIONS INDICATED.

INSTRUMENTATION FOR THIS SURVEY WITH A LEICA 1201 & 1103 ELECTRONIC TOTAL STATIONS, AS WELL AS A 3D LASER SCANNING SYSTEM, LEICA SCANSTATION 2, MODEL NUMBER HDS 4050. MEETING OR EXCEEDING STANDARDS SET BY WAC 332-130-080/090.

THIS SURVEY DOES NOT EXCEED THE ALLOWABLE ACCURACY MEASUREMENTS CONTROLLING LAND BOUNDARIES ON ALTA/NSPS LAND TITLE SURVEYS. 0.07 (OR 20MM)+ 50 PPM

ALL DISTANCES SHOWN ARE GROUND DISTANCES UNLESS OTHERWISE NOTED.

AQUATIC LANDS AND BOUNDARIES MAY CHANGE DEPENDING ON NATURAL OR ARTIFICIAL CAUSES. OTHER THAN ENVIRONMENTAL CHANGES, THE BALLARD LOCKS DIRECTLY TO THE WEST HAS A DAILY IMPACT ON WATER LEVELS IN SALMON BAY. THE ORDINARY HIGH WATER MARK WAS LOCATED ON (5/10/2012) AND MAY OR MAY NOT REPRESENT THE ACTUAL LOCATION OF THE LIMIT TITLE.

FLOOD ZONE

FLOOD ZONE DESIGNATION = ZONE X

PER FLOOD INSURANCE RATE MAP KING COUNTY, WASHINGTON AND INCORPORATED AREAS MAP NUMBER 53033C0320 F, DATED MAY 16, 1995

WETLANDS

NO WETLAND DELINEATION WERE DISCOVERED ON SITE AS PER REVIEW OF KING COUNTY MAP OR CITY OF SEATTLE GIS MAPPING.

SW 1/4, SW 1/4, SEC. 11, TWP. 25 N., RGE. 3 E., W.M.
CITY OF SEATTLE, KING COUNTY, WASHINGTON

REV#	DESCRIPTION OF REVISION	DATE	BY
#1	ADDED REFERENCES TO LEASE NO. 20-A10919	6/19/14	TJO
#2	UPDATED MAP BASED ON 8/21/2018 FIELD OBSERVATIONS	8/23/18	TJO
#3	UPDATED CERTIFICATION PARTIES	9/25/18	TJO
#4	UPDATED MAP 5TH COMMITMENT	8/6/19	TJO
#5	UPDATED MAP SUPPLEMENT #1 TO THE 5TH COMMITMENT	8/15/19	TJO
#6			
#7			

City of Seattle
Seattle Department of Construction and Inspections, 700 Fifth Ave

PLAN COVERSHEET | 6819513-CN | 2737 W COMMODORE WAY

Project Information

Description of Work: Construct shoring and excavation for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan.

Procedural SEPA conducted by Department of Ecology.

Permit Remarks:

Applicant Information

Name: Craig Belcher
Address: 6947 Coal Creek Pkwy SE, #122
Newcastle, WA 98059
Phone: (206) 295-0613
Capacity: Applicant
E-Mail: craig@cba-llc.com

Name: TOC HOLDINGS CO
Address: 2737 W COMMODORE WAY
SEATTLE, WA 98199
Phone: 206-285-2400
Capacity: Owner
E-Mail: MARKCHANDLER@TOCHOLDINGS.COM

Name: TOC Seattle Terminal 1, LLC
Address: 2753 W 31ST ST
Chicago, IL 60608
Phone: (773) 722-9200
Capacity: Financially Responsible Party
E-Mail: doug@cantera-group.com

Name: TOC Seattle Terminal 1, LLC
Address: 2753 W 31ST ST
Chicago, IL 60608
Phone: (773) 722-9200
Capacity: Owner
E-Mail: doug@cantera-group.com

Land Use Code Information

Zoning and Districts at Issuance:

AIRPORT_HEIGHT_DISTRICT	AIRPORT_HEIGHT_DISTRICT	Council District 7	URBAN_VILLAGE Yes, Ballard-

DevSite: DV0008011
Design Review Required: N

Existing Use	Sq. Ft	Proposed Use	Sq. Ft
		Not Reviewed	0

Dwelling Units	Proposed New	Demolished	Dwelling Units	Proposed New	Demolished	Total Dwelling Units Live/Work:
None	0	0				

# of EV-Ready Parking Spaces Required By Code	# of EV-Ready Parking Spaces Proposed	Reduced # of EV-Ready Parking Spaces Provided
0	0	

Ground Disturbance

Ground Disturbance:
PASV Required: Yes
Land-Disturbing Activity: 5: >5000 sq/ft

Drainage and Sewer Review Information

Side Sewer Information

Reuse Existing Side Sewer?
Side Sewer Conflict? No

Drainage Information

Flow Control Type:
Flow Control Standard:
Discharge Point:
Treatment Standard Type:
Total Area Mitigated by GSI:
Total Disturbed Area:
New Plus Replaced Impervious Surface:
New Impervious Surface:

Building Code Information

Building Code: 2015 SBC
SDCI Building ID: NONE
Proposed Number of Above-Grade Stories:
Proposed Number of Below-Grade Stories:
Number of Mezzanines:
High-Rise:

Required Emergency System
Pressurization System – Stairwell:
Pressurization System – Elevator:
Elevator – Required Accessible Egress:

Change of Occupancy?

Floor/Area	Construction Type	Occupancy Group	Sq. Ft.	NFPA Sprinkler Standard	Posted Occupancy
Shoring & Escavation for soil remediation	None	None	1	None	

Energy/Mechanical Code Information

Energy Envelope
Energy Code:
HVAC Mechanical System Included: No
Commercial Kitchen hood Exhaust System:
Fume Hood:
Spray Paint Booth:

Compliance Category
Compliance Path:
Energy Credit Option #:
Maximum Glazing: %
Unlimited:

Fenestration

Occupancy	Comments	U Max	SHGC Max	VT Minimum	Type

Insulation Values

Insulation Assembly	Comments	Occupancy

Energy Equipment

Residential Information
AFUE Efficiency: %
HSPF Efficiency: %
Heating:
Cooling:

Residential Energy Efficiency
Energy Credit Option:

Non-Residential Information
Special Requirements:
Heating:
Cooling:

Equipment Sizes

Allowance Factor	Min BTUs	Unit ID

Land Use Conditions

Condition ID:
Category:
Verification Group:
Exception / Modification & Date:
Verification By & Date:
Condition:

Project Phases

Phase	Shoring/ Excavation	Foundations	Structure to Grade	Base Structure	Super Structure	Architectural Shell and Core	Architectural Full Occupancy

Scope:

Special Inspections

Agency: MAYES TESTING ENGINEERS, A TERRACON COMPANY
Inspection: 6819513-CN-002
Agency Phone: (425) 742-9360

Inspection Type	Description
Shoring System Welding	

Agency: PANGEO INC
Inspection: 6819513-CN-003
Agency Phone: (206) 262-0370

Inspection Type	Description
Erosion Control - Permanent	
Erosion Control - Temporary	
Verify Fill & Compaction	
Shoring Instl/Prfrm Monitoring	
Other Geotechnical	in situ stabilization/solidification
Soldier Pile Installation	
Other Geotechnical	excavation mixing grid cells
Other Geotechnical	interceptor trench
Observe And Monitor Excavation	
Monitor Grading Season Restriction	

Customer Alert!

Site Inspection Required Prior to First Ground Disturbance - Call (206) 684-8860
An SDCI site inspection is required prior to any ground disturbance related to this permit, including clearing, grubbing or grading.

Preconstruction Conferences, When Required - Call (206) 684-8860
An SDCI preconstruction conference should be scheduled prior to beginning work. A conference is required for the following types of work:
1. When any special inspections are indicated on the plan.
2. When land use or design review conditions are indicated on the plan.
3. When a DCI plans examiner specifies on plans unusual or complex inspection or occupancy requirements.

Rules for Ufer Grounds - Call (206) 684-5383
If you have any questions or concerns regarding the rules (2005 NEC) for installation of ufer grounds, please contact DCI's Electrical Technical Backup Monday - Friday, 7:00 a.m. to 4:30 p.m.

Required SDOT Permits and Inspections
-Street Tree Inspections
Protection and/or planting/pruning/removal of street trees requires SDOT inspection and approval. Call prior to construction: Commercial/Multifamily Zones, (206) 684-5693; Single Family Zones, (206) 684-7997.

-Street Use Permits
Call prior to construction: (206) 684-5283.

Water Service Inspection by SPU Required
All water service piping on property must be inspected prior to backfilling trench. For information and inspection, call Seattle Public Utilities (SPU) at (206) 684-5800. For water quality backflow protection information and inspection, call SPU at (206) 684-3536.

Shop Drawings & Key Area Inspections

Required Shop Drawings

Document Type	Number Required	Description

Key Inspections Issues	Key Issue Description	Review Type

Permit Issuance Authorization

Review Name	Approved by	Phone Number
Addressing	Stephanie Commandest	(206) 615-1707
Drainage	Art Richardson	(206) 684-3655
ECA GeoTech	Jim Mattoon	(206) 684-5979
ECA Wildlife	Christy Carr	(206) 615-1393
Land Use	Tami Garrett	(206) 233-7182
Structural Engineer	Bill Whipkey	(206) 233-7229
Zoning	Emilie Voight	(206) 684-7663
Shoring - Right of Way	Ray Gu	

Plan Tag

Project Number: 6819513-CN
Project Type: Construction Permit
Address: 2737 W COMMODORE WAY
Application Date: 01/22/2021
Issue Date: 06/30/2021
Description of Work: Construct shoring and excavation for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan.
Procedural SEPA conducted by Department of Ecology.
Parent Permit: 6807824-GR
Type of Work: Full +
Category: Industrial
Cover Sheet Generation Date: 06/30/2021
Related Land Use Project:
Action / Decision Type: Add/Alt
Filed at Address: 2701 W COMMODORE WAY
Priority:
Building ID: NONE
Value: $100,000
Use:

City of Seattle
Seattle Department of Construction and Inspections, 700 Fifth Ave

PLAN COVERSHEET | 6807625-GR | 2750 W COMMODORE WAY

Project Information

Description of Work: Grading as required for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan

Permit Remarks: related demolition permit 6806566-DM

Applicant Information

Name: Craig Belcher
Address: 6947 Coal Creek Pkwy SE, #122
Newcastle, WA 98059
Phone: (206) 295-0613
Capacity: Applicant
E-Mail: craig@cba-llc.com

Name: TOC HOLDINGS CO
Address: 2737 W COMMODORE WAY
SEATTLE, WA 98199
Phone: 206-285-2400
Capacity: Owner
E-Mail: MARKCHANDLER@TOCHOLDINGS.COM

Land Use Code Information

Zoning and Districts at Issuance:

Council District 6	Council District 7	Shoreline Yes	URBAN_VILLAGE Yes, Ballard-AIRPORT_HEIGHT_DISTRICT
AIRPORT_HEIGHT_DISTRICT	AIRPORT_HEIGHT_DISTRICT	AIRPORT_HEIGHT_DISTRICT	

DevSite: DV0347498
Design Review Required: N

Existing Use	Sq. Ft	Proposed Use	Sq. Ft

Dwelling Units	Proposed New	Demolished	Dwelling Units	Proposed New	Demolished	Total Dwelling Units Live/Work:

# of EV-Ready Parking Spaces Required By Code	# of EV-Ready Parking Spaces Proposed	Reduced # of EV-Ready Parking Spaces Provided

Ground Disturbance

Ground Disturbance:
PASV Required: Yes
Land-Disturbing Activity: 5: >5000 sq/ft

Drainage and Sewer Review Information

Side Sewer Information

Reuse Existing Side Sewer?
Side Sewer Conflict? No

Drainage Information

Flow Control Type:
Flow Control Standard:
Discharge Point:
Treatment Standard Type:
Total Area Mitigated by GSI:
Total Disturbed Area:
New Plus Replaced Impervious Surface:
New Impervious Surface:

Building Code Information

Building Code:
SDCI Building ID: None
Proposed Number of Above-Grade Stories:
Proposed Number of Below-Grade Stories:
Number of Mezzanines:
High-Rise:

Required Emergency System
Pressurization System – Stairwell:
Pressurization System – Elevator:
Elevator – Required Accessible Egress:

Change of Occupancy?

Floor/Area	Construction Type	Occupancy Group	Sq. Ft.	NFPA Sprinkler Standard	Posted Occupancy

Energy/Mechanical Code Information

Energy Envelope
Energy Code:
HVAC Mechanical System Included:
Commercial Kitchen hood Exhaust System:
Fume Hood:
Spray Paint Booth:

Compliance Category
Compliance Path:
Energy Credit Option #:
Maximum Glazing: %
Unlimited:

Fenestration

Occupancy	Comments	U Max	SHGC Max	VT Minimum	Type

Insulation Values

Insulation Assembly	Comments	Occupancy

Energy Equipment

Residential Information
AFUE Efficiency: %
HSPF Efficiency: %
Heating:
Cooling:

Residential Energy Efficiency
Energy Credit Option:

Non-Residential Information
Special Requirements:
Heating:
Cooling:

Equipment Sizes

Allowance Factor	Min BTUs	Unit ID

Land Use Conditions

Condition ID:
Category:
Verification Group:
Exception / Modification & Date:
Verification By & Date:
Condition:

Project Phases

Phase	Shoring/ Excavation	Foundations	Structure to Grade	Base Structure	Super Structure	Architectural Shell and Core	Architectural Full Occupancy

Scope:

Special Inspections

Agency: PANGEO INC
Inspection: 6807625-GR-002
Agency Phone: (206) 262-0370

Inspection Type	Description
Erosion Control - Permanent	
Erosion Control - Temporary	
Monitor Grading Season Restriction	
Observe And Monitor Excavation	
Verify Fill & Compaction	

Customer Alert!

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-Street Use Permits
Call prior to construction: (206) 684-5283.

Water Service Inspection by SPU Required
All water service piping on property must be inspected prior to backfilling trench. For information and inspection, call Seattle Public Utilities (SPU) at (206) 684-5800. For water quality backflow protection information and inspection, call SPU at (206) 684-3536.

Shop Drawings & Key Area Inspections

Required Shop Drawings

Document Type	Number Required	Description

Key Inspections Issues	Key Issue Description	Review Type

Permit Issuance Authorization

Review Name	Approved by	Phone Number
Drainage	Art Richardson	(206) 684-3655
ECA GeoTech	Jim Mattoon	(206) 684-5979
Zoning	Stephen Fesler	(206) 684-7821
Shoreline	Ben Perkowski	(206) 684-0347
Addressing	Betty Huey	(206) 615-1434

Plan Tag

Project Number: 6807625-GR
Project Type: Grading Permit
Address: 2750 W COMMODORE WAY
Application Date: 01/26/2021
Issue Date: 06/30/2021
Description of Work: Grading as required for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan
Cover Sheet Generation Date: 06/30/2021
Parent Permit: 005905-20PA
Related Land Use Project:
Building ID: None
Type of Work: Full +
Category: Industrial
Action / Decision Type:
Priority:
Value: $0
Use:
Filed at Address: 2750 W COMMODORE WAY

Permit Number:
6819513-CN

CITY OF SEATTLE
Construction Permit

Seattle Department of
Construction and Inspections
700 Fifth Ave, Suite 2000
PO Box 34019
Seattle, WA 98124-4019
(206) 684-8600

DIST 04

APN #:

Site Address: 2737 W COMMODORE WAY SEATTLE, WA 98199
Building ID: NONE
Location:
Legal Description: Historical legal: ALL THT PTN OF GL 6, SEC 11-25-3 LY N OF THE N LN OF GOV'T WY
Records Filed At: 2701 W COMMODORE WAY

OWNER
TOC HOLDINGS CO
2737 W COMMODORE WAY
SEATTLE, WA 98199
Ph: 206-285-2400

CONTRACTOR

Application Date:	01/22/2021
Issue Date:	06/30/2021
Expiration Date:	12/30/2022
Fees Paid:	$10,649.75
As of Print Date:	06/30/2021

Description of Work: Construct shoring and excavation for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan.

Procedural SEPA conducted by Department of Ecology

Permit Remarks:

Curb Cut Size and Location:

Building Code: 2015 SBC
SDCI Valuation: $100,000
Occupancy Cert Required: N
Special Inspections: Y
Land Use Conditions: N
Non-Separated Uses: N **Site Final Required: Y**

Building Info:
Basements:
Stories:
Mezzanines

Housing & Dwelling Unit(s) this Permit:

Unit Type	DU?	Units	Add	Remove
None	N	0	0	0

Zoning/Overlay:
IG2 U/65
Council District 7
IB U/45
URBAN_VILLAGE Yes,
AIRPORT_HEIGHT_DIST
Additional Information on File

Occupancy per Building Code

Floors	Type	Occupancy Group	Occupancy Type	Asmbly Load	Fire
Shorin	None	None			None

Approved Use per Land Use Code

Use	Location
Not Reviewed	0

A/P #	Related Cases/Permits
6828060-EX	ECA and Shoreline Exemption/Street
21TMP-189119	Contractor Disclosure Form
6819513-CN-004	Upload Documents
6819513-CN-001	Construction Application Intake
6819513-CN-006	Contractor Disclosure Form
6819513-CN-002	Special Inspection
Additional Information on File	

Project Contacts	Name	Phone
Structural Reviewer	Bill Whipkey	206-233-7229
Zoning Reviewer	Emilie Voight	NA
Land Use Reviewer	Tami Garrett	206-233-7182
Addressing Reviewer	Stephanie Commandest	206-615-1707

Applicant Signature: **Date:**

Permitted work must not progress without prior inspection approval. When ready for inspection, make request with the Seattle Department of Construction and Inspections at (206) 684-8900 or on the internet at:
https://cosaccela.seattle.gov/Portal. **Provide the permit number, site address, and contact phone.** Permission is given to do the above work at the site address shown, according to the conditions hereon and according to the specification pertaining thereto, subject to compliance with the Ordinances of the City of Seattle. Correct information is the responsibility of the applicant. Permits with incorrect information may be subject to additional fees.

You must have a paper copy of your approved and stamped plan set available at your job site for the City Inspector to review. If you do not have your plans printed and ready for review, you may fail your inspection.

PERMIT # 6819513-CN

City of Seattle
Seattle Department of Construction and Inspections
700 Fifth Ave, Suite 2000

POST THIS SIDE OUT

TO THE CONTRACTOR/OWNER:
Additional permits may be required for work occurring under this permit. This permit does not authorize Sewer, Public Right-of-Way Shoring, Drainage and Street Use, Fire Department, Boiler, Electrical, Elevator, Furnace, Gas Piping, Plumbing, or Sign permits. If other permits are required, they must be applied for separately from this permit. The requirements for all other permits related to this Permit, must be completed prior to the Final Inspection of this permit. The premises must not be occupied until the Final Inspection is completed and occupancy is authorized by the Seattle Department of Construction and Inspections. If your project is in a pre-1978 built residence, or pre-1978 built child-occupied facility, Washington's Lead Renovation Rule WAC 365-230-360 requires certification to perform your work. Call to ask for compliance details at (360) 586-5323, or email to: lbpinfo@commerce.wa.gov

PROPERTY LINES MUST BE ESTABLISHED BY SURVEY STAKES PRIOR TO SETBACK/FOUNDATION INSPECTION.

BEFORE BEGINNING CONSTRUCTION:
A) Before **First Ground Disturbance**, request an inspection of installed **Erosion Control Measures**.
B) When there is **Special Inspections**, Land Use conditions, and/or unusual design elements, a **Pre Construction Conference** is required **prior** to construction. Call 684-8860 to request a Pre Construction conference.
C) If this permit requires a **Soil Bearing Capacity** special inspection by a Geotechnical Engineer, that approval is required **before** the foundation pour.
D) When **Special Inspections** are required, notify the Special Inspection Agency at least 24 hours in advance.

INSPECTION REQUESTS: Please clarify which inspections your project requires **before** proceeding with your project.
You may request an inspection on the internet or by phone. Inspection requests received **before 7:00 AM** are scheduled for the same working day. Inspection requests received **after 7:00 AM** are scheduled for the next working day. Inspectors are available between the hours of 7:30 AM and 8:30 AM.
A) **Internet:** https://cosaccela.seattle.gov/Portal Search for your record and click on the **Inspections & Appointments** link to schedule your inspection.
B) **24 hour inspection request line at (206) 684-8900**, **cell phones are discouraged** due to frequent connection problems.
C) **Customer Service at (206) 684-8950** between the hours of 7:30 AM and 4:30 PM.

DURING CONSTRUCTION:
SDCI inspectors will provide an electronic copy of each inspection report through the Seattle Services Portal. Go to the portal, print a copy of the inspection reports, and keep them together or with this Permit, where they can be conveniently referenced,

a.	**FIRST GROUND** (non distrubance areas, erosion control, tree protection)	f.	**INSULATION** (Slab, Walls, Ceiling)
b.	**SETBACK** (Location)	g.	**MECHANICAL COVER** (If HVAC is authorized by this permit)
c.	**FOUNDATION** (Footings, Walls) [Soil bearing, Reinforcing steel, Foundation drainage]	h.	**MECHANICAL FINAL** (If HVAC is authorized by this permit)
d.	**STRUCTURAL** (Shear Wall, HD's/Straps, Diaphragms)	i.	**SITE FINAL** (If required by this permit)
e.	**FRAMING** (Sub floor prior to sheathing, Walls, Ceiling)	j.	**FINAL INSPECTION** (After all other related permit requirements are completed)

PRIOR TO FINAL BUILDING APPROVAL:
Other permit approval sign-offs may be required prior to the Final Inspection of this permit. To speed-up Final approval of this permit, we recommend you acquire other permit final approvals in the signature boxes provided below.

SOIL BEARING Approved By Engineer Date	**BOILER** Approved By Date	**SEATTLE FIRE DEPARTMENT** Approved By Date
ELECTRICAL Approved By Date	**ELEVATOR** Approved By Date	**LAND USE/DESIGN REVIEW** Approved By Date
PLUMBING / GASPIPING / BACKFLOW Approved By Date	**SITE / SIDE SEWER** Approved By Date	**SDOT - PRVT CONTRACT/ST. USE** Approved By Date
MECHANICAL / REFRIGERATION Approved By Date	**OTHER** Approved By Date	**STREET TREES / ARBORIST** Approved By Date

City of Seattle
Seattle Department of Construction and Inspections
Engineering Services

TOC HOLDINGS CO
2737 W COMMODORE WAY
SEATTLE, WA 98199

Re: Project #6819513-CN-007

Approved Grading Season Extension

Review Type GEO SOILS
Project Address 2737 W COMMODORE WAY
SEATTLE, WA 98199
Contact Email MARKCHANDLER@TOCHOLDINGS.COM
SDCI Reviewer Pao Huang
Reviewer Phone (206) 684-5825
Reviewer Email pao.huang@seattle.gov
Owner TOC HOLDINGS CO

Date October 18, 2021
Contact Phone (206) 285-2400

Address Seattle Department of Construction and Inspections
700 Fifth Ave
Suite 2000
PO Box 34019
Seattle, WA 98124-4019

1. The Seattle Department of Construction and Inspections (SDCI) received your request to extend the allowable grading season for the referenced project. This letter contains our decision regarding your request. Note that this letter addresses only the seasonal grading restriction and does not include other issues related to site development.

Grading for project sites containing Environmentally Critical Areas (ECAs) is restricted to the time period between April 1 and October 31, with all grading required to be stabilized by October 31. The grading restriction can also be applied under the authority of Section 22.170.110 A of the City of Seattle Grading Code for project sites that do not contain ECAs. SDCI agrees to extend the allowable grading season for this project subject to the following conditions:

2. Construction site meeting. A construction site meeting is required prior to beginning grading associated with the grading season extension. The general, excavation, and shoring contractors, Geotechnical Special Inspector, and SDCI Site Development Inspector must attend this meeting and review the conditions outlined in this letter. **Contact SDCI at (206) 684-8860 and request a "grading season extension site meeting" with the Site Development Inspector. The grading season extension becomes effective after the construction site meeting is held and SDCI fees for reviewing the grading season extension are paid.**

Grading season extension. This extension shall expire on December 7, 2021. All grading activities must be stabilized by that date, and no further grading shall occur from December 8, 2021 through April 1, 2022 without written approval from SDCI.

Grading activities covered by this extension include the following: installation and maintenance of the sediment/erosion and temporary drainage control systems; installation and maintenance of temporary cuts and shoring elements; excavation and backfill associated with project construction.

The temporary drainage and sediment/erosion control system shall be maintained throughout the construction process until the permanent measures are established and the temporary measures are no longer needed. All exposed earth surfaces shall be protected. Runoff from exposed surfaces shall be conveyed to an approved sedimentation area or discharge location.

No earthwork activity with the exception of maintenance of the sediment/erosion control and temporary drainage system shall occur during intense rainfall events.

3. A site visit from the Geotechnical Special Inspector shall occur during each day of active grading and in the event of significant rainfall which might compromise stabilization measures. The determination of what constitutes significant rainfall is subject to the discretion of the Geotechnical Special Inspector. However, as a minimum standard, the Geotechnical Special Inspector is required to conduct a site visit if more than one-half inch of precipitation occurs on any given day.

During these visits, the Geotechnical Special Inspector shall observe the stability of the excavations and verify proper installation, maintenance, and performance of the sediment/erosion control system, including the condition of water in the catch basin in the vicinity of the site. While on site, the Geotechnical Special Inspector shall verify that earth materials are not being tracked onto the public right-of-way.

Any recommendations required to maintain stability of excavations and proper functioning of the sediment/erosion control system provided by the Geotechnical Special Inspector and SDCI personnel shall be implemented immediately.

The Geotechnical Special Inspector shall provide copies of field reports to SDCI no later than 48 hours after each inspection. The field reports shall be uploaded to the Seattle Services Portal by the Geotechnical Special Inspector. The Geotechnical Special Inspector shall provide written notice to SDCI that the site has been stabilized following completion of grading.

In the event of instability or significant erosion problems at the site the Geotechnical Special Inspector shall immediately contact the reviewer via email with a copy to susan.chang@seattle.gov. If you do not receive a timely response, please call SDCI at (206) 684-8850 so that they can get a message to the SDCI Geotechnical Group.

4. The conditions contained in this letter are required for the extension to remain in effect. Failure to adhere to these conditions may result in revocation of the extension. This extension is also subject to revocation or modification in the event of area-wide adverse precipitation and landslide activity such as occurred during the winter of 1996/97.

If you have questions, please contact the reviewer via email with a copy to susan.chang@seattle.gov.

Seattle Department of
Construction and Inspections
700 Fifth Ave, Suite 2000
PO Box 34019
Seattle, WA 98124-4019
(206) 684-8600

CITY OF SEATTLE
Side Sewer Permit

6849528-SS
Permit Number

DIST 04

Site Address: **2737 W COMMODORE WAY SEATTLE, WA 98199**
Location: Various locations within the Asko Hydraulic, Bulk Terminal, and East Waterfront Parcels

OWNER	CONTRACTOR
Forgen Ken Martinez 6558 Lonetree Blvd Rocklin, CA 95765 Ph: (916) 367-1313	Forgen Ken Martinez 6558 Lonetree Blvd Rocklin, CA 95765 Ph: (916) 367-1313

Application Date:	07/26/2021
Issue Date:	07/26/2021
Expiration Date:	01/26/2023
Fees Paid:	$375.00
As of Print Date:	07/26/2021

Description of Work: Capping permit of existing side sewer per plan under shoring and excavation permit 6819513-CN shoring and excavation work. Temporary dewatering under separate side sewer permit. Work also related to 6807625-GR for contaminated site cleanup work. Separate SDOT permit required for ROW work.

Permit Remarks:

PERMIT SUBMITTED ONLINE

Related New Construction Project: 6819513-

Side Sewer

Intake Reviewer Eric, Dripps

Activity in the Right-of-Way

Excavation:	Y
Roadway Restoration:	Y
Temporary Dewatering for Construction:	N
Curb Crossing and/or Staging:	Y
Curb and Sidewalk Restoration:	Y

Drainage Criteria

Drainage Type of Work: None

Sanitary System

Action Type:	Capping Only
Number of Service Sewer Lines Capped:	1
Reuse Existing Side Sewer System:	N

ATTENTION:
Addtional inspection time will be billed at $324.00 per hour per SMC 21.16.071

Erosion Control required at ground disturbance.

Permitted work must not be covered until inspected. When ready for inspection, make request with the Seattle Department of Construction and Inspections at (206) 684-8900. Provide site address and permit number.
Permission is hereby given to do the above work at the site address shown, according to the conditions hereon and according to the specification pertaining thereto, subject to compliance with Ordinances of the City of Seattle. Correct information is the responsibility of the applicant. Permits with incorrect information may be subject to additional fees. Permit fee includes one hour of inspection. Inspection time includes office, travel, and inspection time. **Call Street Use prior to any work in ROW at (206) 684-5270 or online at SDOTJobStart@seattle.gov**

You Must Have a Paper Copy of Your Approved and Stamped Plan Set Available at Your Job Site for the City Inspector to Review. If You Do Not Have Your Plans Printed and Ready for Review, You May Fail Your Inspection.

Permit Number:
6807625-GR

CITY OF SEATTLE
Grading Permit

Seattle Department of
Construction and Inspections
700 Fifth Ave, Suite 2000
PO Box 34019
Seattle, WA 98124-4019
(206) 684-8600

APN #:
DV0347498

Site Address: 2750 W COMMODORE WAY SEATTLE, WA 98199

Location:

Legal Description: W 219.996 FT OF E 550 FT OF GOVT LOT 5 BTWN COMMODORE WAY & BLOCK 7 SEATTLE TIDE LANDS; TGW E 78.025 FT OF LOT 5 & ALL OF LOTS 6-9, BLOCK

OWNER

TOC HOLDINGS CO
2737 W COMMODORE WAY
SEATTLE, WA 98199
Ph: 206-285-2400

CONTRACTOR

Application Date:	01/26/2021
Issue Date:	06/30/2021
Expiration Date:	12/30/2022
Fees Paid:	$3,611.00
As of Print Date:	06/30/2021

Description of Work: Grading as required for soil remediation (Administrative purposes only for courtesy review by local jurisdiction), per plan

Permit Remarks: related demolition permit 6806566-DM

DPD Valuation: $100,000.00

Special Inspections: Y

Land Use Conditions: N

Zoning/Overlays:
IG1 U/45
Council District 7
AIRPORT_HEIGHT_DISTRICT Yes, (1158
URBAN_VILLAGE Yes, Ballard-Interbay-N
AIRPORT_HEIGHT_DISTRICT Yes, (1153
Additional Information on File

A/P #	Related Cases/Permits
6807625-GR-005	Contractor Disclosure Form
6807625-GR-001	Application Intake
6807625-GR-004	Upload Documents
6807625-GR-002	Special Inspection
6807625-GR-003	Upload Documents
005905-20PA	Building & Land Use Pre-Application

Project Contacts	Name	Phone
Structural Reviewer	NA	NA
LU Planner	NA	NA

Applicant Signature: **Date:**

Records Filed At: 2750 W COMMODORE WAY

Permitted work must not progress without prior inspection approval. When ready for inspection, make request with the Department of Planning and Development at (206) 684-8900 or on the internet at: www.seattle.gov/dpd/inspectionrequest. Provide the permit number, site address, and contact phone. Permission is given to do the above work at the site address shown, according to the conditions hereon and according to the specification pertaining thereto, subject to compliance with the Ordinances of the City of Seattle. Correct information is the responsibility of the applicant. Permits with incorrect information may be subject to additional fees.

You Must Have a Paper Copy of Your Approved and Stamped Plan Set Available at Your Job Site for the City Inspector to Review. If You Do Not Have Your Plans Printed and Ready for Review, You May Fail Your Inspection.

Seattle Department of Transportation

Issue Date: 9/3/2021
Original Issue Date: 9/3/2021
Application Received Date: 8/11/2021
Permit Expiration Date: 5/16/2022

Street Use Permit
Permit Number: SUUMP0000216

Address: 2737 W COMMODORE WAY

Project Description: Environmental remediation project that is currently permitted under Permit #6819513-CN. Upon mobilization to the site, a water meter and 6" water line were discovered to be in the remediation area along/within the ROW on the south side of W. Commodore Way. We need the water meter and 6" water line removed from the ROW as soon as possible so that we may proceed with our remediation activities that are currently under a Prospective Purchaser Consent Decree with the Washington Department of Ecology (NO. 20-2-15215-3 SEA). The ROW in the affected area is paved with asphalt, but is not improved with a sidewalk or parking.
Project Name: 2737 W COMMODORE WAY Time Oil Bulk Terminal

Onsite Contact
Rich Chapman
(916)792-9477

Owner
TOC Seattle Terminal 1, LLC
Mike Ciserella
2753 West 31st Street
Chicago, Illinois 60608

Applicant
Pioneer Engineering & Environmental Services, LLC
Kim Hempel
2753 West 31st Street
Chicago, Illinois 60608

Financially Responsible Party
TOC Seattle Terminal 1, LLC
Mike Ciserella
2753 West 31st Street
Chicago, Illinois 60608

Work Type	Abandon/Cut & Cap,Restore
Utility Information	Sewer,Water
Method of Installation	This permit is to cut/cap and remove a 6" water supply line/associated meter and/or a side sewer line in the way of our active environmental remediation areas. We will have to trench in the ROW (but not in the drive lane) in order to cut/cap and/or r
Curb Ramp Required ?	

Mobility Impacts Legend

C: Closed	**ALC:** All Lanes Closed
N: None	**IC:** Intermittent Closure
R: Rerouted	**RLC:** Reduced Lane Closure
SLC: Some Lanes Closed	**RW:** Reduced Width

Permitted Use(s)

Permitted Use Description: Major Utility Infrastructure
Space/Segment Description: A/W COMMODORE WAY BETWEEN 27TH AVE W AND 31ST AVE W
Street Category: Arterial

						Mobility Impacts				
Issue Date	**Start Date**	**End Date**	**Work Days**	**Sq Ft**	**Side of Street**	**Side-walk**	**Bike**	**Travel**	**Transit**	**Parking**
9/3/2021	08/10/2021	11/16/2021	ALL	1	South	N	N	N	N	N

Seattle Department of Transportation

Issue Date: 9/3/2021
Original Issue Date: 9/3/2021
Application Received Date: 8/11/2021
Permit Expiration Date: 5/16/2022

Street Use Permit
Permit Number: SUUMP0000216

Conditions of Use:

C055: CONCRETE POURING, CONCRETE/ASPHALT CUTTING, AND ASPHALT APPLICATION - Sweep or shovel loose aggregate chunks and dust for recycling or proper disposal. Place storm drain covers or similarly effective containment devices over all storm drains located downslope or adjacent to the work area. Shovel or vacuum all slurry and remove from the site. Perform cleaning of concrete application and mixing equipment or concrete-delivery vehicles in a designated area where the rinse water is controlled.

C006: LANDSCAPING AND LAWN VEGETATION MANAGEMENT - Use proper fertilizer and herbicide application techniques to minimize nutrient pollution of stormwater. Implement proper landscaping and mulching techniques to prevent plant material and excess mulch from entering the separate storm drainage system. Do not dispose of collected vegetation in separate storm drainage systems, waterways, water bodies or greenbelt areas.

C056: OUTDOOR STORAGE OR TRANSFER OF SOLID RAW MATERIALS, BYPRODUCTS OR FINISHED PRODUCTS-Do not hose down the contained stockpile area if the discharge will flow into a storm drain or a drainage conveyance. Sweep paved storage areas daily or more often as necessary to collect and dispose of loose solid materials. For stockpiles containing more than 5 cubic yards of erodible or water-soluble materials: store in a building or a covered, paved area; place temporary plastic sheeting (polyethylene, polypropylene, hypalon, or equivalent material) over the material; or pave the area and install a stormwater drainage system.

C057: OUTDOOR PORTABLE CONTAINER STORAGE-Label and store containers on a paved surface under a roof or inside a building if possible. Place drip pans beneath all taps on mounted containers and at potential drip and spill locations during the filling and unloading of containers. Check containers daily for leaks and spills.

C007: SPILL PREVENTION AND CLEANUP-Keep a spill cleanup kit in a nearby vehicle or next to the work site so that it is easily accessible. Make sure the contents of the spill kit are appropriate for the types and quantities of materials used for this work task. Refill spill kit materials before beginning work.

C060: USE OF CHEMICALS DURING CONSTRUCTION - Use only the recommended amounts of chemical materials and apply them in a proper manner. Neutralize the pH of concrete wash water from concrete mixers, if necessary.

C061: SAWCUTTING AND PAVING POLLUTION PREVENTION - Vacuum slurry and cuttings during the activity to prevent migration offsite and do not leave slurry and cuttings on permanent concrete or asphalt paving overnight. Dispose of collected slurry and cuttings, waste material, and demolition debris in a manner that does not violate groundwater or surface water quality standards. Implement preventative measures such as berms, barriers, secondary containment, and vactor trucks if observations indicate that a violation of water quality standards could occur.

C062: SOLID WASTE HANDLING AND DISPOSAL - Remove and dispose of accumulated solid waste at authorized disposal areas. Label waste containers and place them in a covered area with closed lids. Salvage and recycle any useful materials.

C063: MULCHING AND MATTING - Apply mulch to protect exposed soils and promote plant establishment.

C009: PERMANENT SEEDING AND PLANTING - Install temporary surface runoff control measures prior to seeding or planting to protect the surface from erosion until the vegetation is established. Establish permanent vegetation (e.g., grasses, legumes, trees, and shrubs) as rapidly as possible to prevent soil erosion by wind or water, per City Of Seattle standards.

C010: SODDING - Establish permanent turf for immediate erosion protection or to stabilize drainage pathways where concentrated overland flow will occur, per City Of Seattle standards.

C065: STORM DRAIN INLET PROTECTION - Install storm drain covers on stormwater structures less than 12 inches deep during construction. Install catch basin filter socks in stormwater structures greater than 12 inches deep. Place the storm drain or catch basin grate on top of the catch basin filter sock to hold it in place.

C066: STREET SWEEPING AND VACUUMING - Do not sweep or vacuum when sediment is wet or when tracked soil is caked (caked soil may need to be scraped loose). Do not sweep up any unknown substance or any object that may be potentially hazardous. Prevent sediment from entering storm drain system. Properly dispose of sweeper wastes at an approved dump site after sweeping is finished.

C068: A pre-construction meeting with the SDOT Street Use is required prior to the start of work.

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C069: The Permittee shall contact the Office of Arts and Culture at 206-684-7171 at least 2 weeks prior to construction if the proposed work may impact a public art piece. If a public art piece is damaged during construction, the Permittee shall contact the Street Use inspector and the Office of Arts and Culture immediately.

C002: Contact SDOT Urban Forestry (684-TREE) 48 hours in advance of any work adjacent to (within the dripline) street trees that may impact the tree's canopy, stem, roots or soil.

Any construction activity within the dripline of a street tree must be pre-approved by SDOT Urban Forestry. When trenching near trees with trunks greater than twelve inches (12") in diameter, all trenching must be hand dug for a distance of twenty feet (20'), measured ten feet (10') radius from the tree trunk.

Do not cut roots greater than two inches (2") in diameter, without permission from SDOT Urban Forestry. If tree roots must be severed, cut off cleanly with sharp saw. Do not expose roots--cut or uncut-- to drying conditions. Do not paint ends of cut roots.

Failure to prevent injury to any street tree may result in fines and/or penalties as outlined in SMC. 15.43.

Seattle Department of Transportation

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GENERAL REQUIREMENTS

1. ***Nature of permit.*** This permit is issued according to Seattle Municipal Code ("SMC"), Chapter 15.04, for the use or occupancy of the public right of way in a manner consistent with the terms and conditions in this permit. This permit is wholly of a temporary nature, vests no permanent rights, and is revocable according to SMC Section 15.04.070.
2. ***Acceptance of terms, conditions, and requirements***. The Permittee accepts the terms, conditions, and requirements of this permit and agrees to comply with them to the satisfaction of the Seattle Department of Transportation, Street Use Division ("Street Use"), or such other agency as may be designated by the City. The Permittee further agrees to comply with all applicable City ordinances, including but not limited to SMC Title 15, and all applicable state and federal laws.
3. ***Copy of permit***. A copy of the issued permit and current approved plans shall be on site and available at all times.
4. ***Expiration of permit***. This permit shall remain valid until revoked according to SMC Section 15.04.070; provided that the permit shall expire automatically if the authorized work does not begin within six months from the date the permit is issued. The Permittee is responsible for keeping the permit up to date including submitting updated plans for approval. The Permittee shall submit requests to update a permit in writing or in person, and all requests shall be made to Street Use in a timely manner; otherwise, the Permittee may lose access to requested schedule for continued work in the right of way.
5. ***Superiority of Street Improvement Permits***. When a Street Improvement Permit exists, rights acquired under the Street Improvement Permit supersede those acquired under any other Street Use or Utility Permits. Work not approved under the Street Improvement Permit shall require separate Street Use or Utility Permits and Permittee shall obtain these permits in advance of work.
6. ***Compliance with technical requirements and standards***. All work within the public right of way shall be performed and completed according to the current or subsequently-amended requirements in the following technical documents published by the City: Right-of-Way Improvements Manual; Street Tree Manual; Standard Specifications for Road, Bridge and Municipal Construction; Standard Plans for Municipal Construction; Right of Way Opening and Restoration Rule; and Traffic Control Manual for In-Street Work.
7. ***Scope of work***. The Permittee shall stage equipment or materials and construct or install the improvements and infrastructure reflected in and in accordance with this permit and the City-approved construction plans. Any revisions, omissions, or additions to the scope of work shall be reviewed and approved by the City before implementation.
8. ***Traffic Incidents***. If SDOT determines that a transportation incident or other event is likely to impact the transportation network that includes the permitted site, you may be required to minimize your use footprint until the transportation network impact has ended.
9. ***Street Use notification***. Construction work may be completed in several phases: site preparation (installing traffic control, saw-cutting, etc.); groundbreaking; restoration; and staging of equipment and materials. Before beginning any phase of work in the public right of way, the Permittee shall notify Street Use of each date as described below.
    - The **Job Start Notification** is to schedule and re-schedule the Initial Inspection. The Permittee shall use the **Seattle Services Portal** to notify Street Use a minimum of 2-business days before beginning work. If dates change, the job start shall be rescheduled a minimum of 2-business days before the start date.
        - When you schedule or re-schedule your job start, the Initial Inspection is scheduled for the same date.
        - If the job start is not scheduled, the Initial Inspection will automatically schedule for 5 business days after the issued use start date.
        - If the job start schedule or re-schedule open period has relapsed in the Seattle Services Portal, you must provide the start date notification to the assigned inspector.
    - Subsequent inspection notifications must be scheduled on the **Seattle Services Portal**. Depending on the permit type, the following inspection notifications may also be available to schedule in the **Seattle Services Portal** after the Initial Inspection has been completed:
        - **Curb Ramp Inspection**: to confirm new curb ramps meet ADA requirements.
        - **Mark Out Inspection**: to establish layout of restoration dimensions.
        - **Restoration Inspection**: to ensure restoration complies with City standards and codes. The Restoration Inspection must be scheduled a minimum of 2-business days before beginning the restoration work.
        - **Site Inspection**: to request an inspection prior to your next scheduled inspection.
    - Notifications not available on the **Seattle Services Portal**:
        - Pre-construction meeting: required for Street Improvement Permits and Utility Major Permits before starting construction. To schedule a preconstruction meeting, contact your assigned Street Use reviewer or SIP Project Manager.
        - Off-hour Inspection: for any inspection needed outside of normal working hours, email request to DOT_StUse_OffHours_Inspection@seattle.gov a minimum of 3-business days in advance. The off-hour request MUST include the following information:
            - Permit/record number
            - Address/location
            - Hours of work
            - Dates of work
            - And (if applicable) stated confirmation of Hub coordination approval.

Failure to notify Street Use Job Start may result in a $300 penalty or other amounts according to SMC Section 15.04.074.

10. ***Underground and overhead utility notification***. The Permittee shall notify the following entities, as applicable, 2-business days in advance:
    - Utility Underground Locate Center (811 or 1-800-424-5555) before ground disturbance; and
    - Seattle City Light (206-684-4911) if working within 10 feet of high-voltage lines.
11. ***Olympic Pipe Line Company notification***. When work in the right of way occurs within 100 feet of an Olympic Pipe Line Company ("OPLC") pipeline, the Permittee shall coordinate the work with OPLC, which may include submitting detailed construction plans to OPLC. The Permittee shall notify OPLC's field coordinator 10-business days in advance of the work (425-981-2506) and an OPLC representative may be required to be onsite during the work.
12. ***King County Metro notification***. The contractor shall notify King County Metro Transit in advance of any construction that may disrupt transit

service according to the following schedule.

- Five working days' notice for any work requiring a temporary bus stop.
- Ten working days' notice for relocation of a bus shelter or reroute of bus service.
- King County Metro Transit's electric storage battery Trolley Busses can be activated for weekend outage requires with 15 working days notification. Subject to vehicle and staff support capacity restrictions.
- No two consecutive transit stops may be closed.

If trolley wires are present, call 206-477-1150 or email trolley.impacts@kingcounty.gov.
If trolley wires are not present, call 206-477-1140 or email construction.coord@kingcounty.gov.

13. ***Public notification***. Notification requirements shall comply with following:

- For ROW Management and Major permits on non-arterial streets and Public Space Management Short-term Activity permits, the permittee shall hand deliver and/or mail a project notification to adjacent residents and businesses at least 2 business days prior to beginning right of way work or activity
- For ROW Management and Major permits on arterial streets in an Urban Center or Urban Village, the permittee shall hand deliver and/or mail a project notification to all potentially affected residents and businesses within a 2-block radius and community organizations at least 10 business days prior to beginning right of way work or activity, including alleys. For multi-family housing units, notifications must be mailed or emailed to each individual unit, posted predominantly in the building common areas and/or distributed to each individual unit by the building manager/owner.
    - For projects longer than 6 months in duration, the permittee shall deliver a project notification monthly and provide an on-site project notice.
    - If there is any change of right of way use at any point in the project, an updated project notification must be provided at least 10 business days prior to beginning right of way work or activity.
- The project notification shall include the following:
    - The name, address, and description of the project
    - The duration of the project, with beginning and end dates listed
    - Permittee 24-hour contact information (name, phone number, and email)
    - List of right of way closures with dates, duration, and hours of closures
        - For projects longer than 6 months in duration, the right of way closures shall be represented in a visual map
    - SDCI and SDOT permit numbers
    - If available, a link to the project website
- For projects longer than 6 months in duration, an on-site project information notice shall be posted and maintained at each closure that is visible to the public that shall include the following:
    - The name, address, description, and duration of the project
    - Permittee 24-hour contact information (name, phone number, and email)
    - List of right of way closures with dates, duration, and hours of closures
    - SDCI and SDOT permit numbers
    - A reference to 684-ROAD for residents to report safety or mobility concerns
    - If available, a link to the project website
- For crosswalk closures longer than two weeks in duration, a crosswalk closure notice must be posted to, and maintained, on each crosswalk closure barricade and include the following:
    - The name and address of the project
    - Permittee 24-hour contact information (name, phone number, and email)
    - The duration and hours of the closure
    - A reference to 684-ROAD for residents to report safety or mobility concerns
    - If available, a link to the project website
- If the project requires a closure of any portion of an alleyway, the permittee shall notify all impacted residents and businesses at least 10 business days prior to work in the alleyway and coordinate closure dates and times with the following agencies:
    - Seattle Public Utilities: Sally Hulsman (sally.hulsman@seattle.gov)
    - Seattle Fire Department Special Events Division at 206-386-1450 (this division will provide coordination information for the local fire station)
- If the project will close or reduce down to one general purpose lane an arterial street in the Central Business District, the permittee shall notify King County Metro (construction.coord@kingcounty.gov) and the SDOT Transportation Operations Center (construction.coordination@seattle.gov) at least 10 business days prior to beginning work in the public right of way and coordinate closure dates and times with the following agencies:
    - Seattle Fire Department Special Events Division at 206-386-1450 (this division will provide coordination information for the local fire station)
    - Seattle Police Department Non-Emergency Division at 206-625-5011 or SPDdispatch@seattle.gov
- If the project is working outside of approved hours due to an emergency event that will impact public health and safety, the contractor must notify the Street Use inspector, inspector lead, and the Transportation Operations Center at SDOTTOC@seattle.gov as soon as the issue has been identified.

- If a tree has been approved for removal, the permittee shall post a "tree removal" public-notice placard at least 10-business days prior to beginning work.
- If an SDOT public notice comment period is required prior to permitting, the permittee shall conduct the public notice outreach prior to commencement of the SDOT public notice comment period. The comment period will occur as part of the SDOT review process.

14. ***Alley notification***. Where this permit authorizes work in an alley, the Permittee shall notify all potentially impacted property owners and businesses prior to any activity occurring in the alley, including and especially those property owners and businesses with tenants using the alley to access parking or for building ingress/egress or deliveries. The Permittee shall schedule work around waste-management-collection days. If this is not possible, the Permittee shall coordinate with waste management services to either provide intermittent alley access during waste pickup or to temporarily establish waste pickup at an alternate location. If an alley is to remain open during permitted work, a minimum 11-foot clear width is required for vehicular access. If an alley is closed to through traffic, the Permittee shall notify the nearest Seattle Fire Department fire station and the Seattle Police Department at the non-emergency numbers prior to commencing work.
15. ***Coordination of work***. In performing work authorized by this permit, the Permittee shall coordinate with other contractors, public agencies and other permittees working in the public right of way to minimize impact to the public. Documented coordination agreements may be required prior to permit issuance and additional notification to the public may be required.
Coordination of work in a designated Hub area:
Locations, dates, and times of work in the right-of-way shall be approved by the Hub coordinator through the permit review process. Schedule and time changes after the initial or amendment issuance of a utility permit shall be approved by the Hub coordinator at least 10 business days prior to performing work. Schedule and time change requests can be emailed to SDOTConstructionHub@seattle.gov.

- Attendance at geo-based Hub coordination meetings is strongly encouraged to ensure desired dates are coordinated and scheduled to minimize delays in the permit review and Hub coordination processes. For meeting information and invitations, email SDOTConstructionHub@Seattle.gov.
- The Construction Hub map can be found at this link:https://www.seattle.gov/transportation/projects-and-programs/programs/project-and-construction-coordination-office/construction-hub-coordination

16. ***Hours of work***. Work performed in the public right of way shall occur only during hours authorized under all applicable codes, regulations, rules, and permits.
17. ***Billing***. All fees and costs billed according to this permit shall be paid to the City of Seattle within 30-calendar days from the invoice date. Past due invoices may be subject to interest charges and may be sent to collections.
18. ***Deposits, charges, and future billings***. The Permittee or, if designated, Financially Responsible Party, is responsible and liable for all permit-related charges. Any charges in excess of the deposit shall be billed to the Permittee on a monthly basis.
19. ***Corrective work***. The Permittee is responsible for any additional costs incurred by the City resulting from temporary or corrective measures required to bring the work area into compliance with standards that apply, including but not limited to: temporary traffic control, requirements for temporary structures, temporary stabilization, and temporary restoration when the Permittee is not on site.
20. ***Indemnification***. The Permittee agrees to defend, indemnify, and hold harmless the City of Seattle, its officials, officers, employees, and agents; against any liability, claims, causes of action, judgments, or expenses, including reasonable attorney fees; resulting directly or indirectly from any act or omission of the Permittee, its contractors, subcontractors, anyone directly or indirectly employed by them, and anyone for whose acts or omissions they may be liable; arising out of the Permittee's use or occupancy of the public right of way; and all loss by the failure of the Permittee to fully or adequately perform, in any respect, all authorizations or obligations under this Permit.
21. ***Insurance***. The Permittee shall obtain and maintain in full force and effect, at its own expense, public liability insurance in an amount sufficient to protect the City from all potential claims and risks of loss from perils in connection with any activity that may arise from or be related to the Permittee's activity upon or the use or occupation of the public right of way allowed by the permit; and all claims and risks in connection with activities performed by the Permittee by virtue of the permission granted by the permit. The Permittee shall meet all other insurance requirements in SMC 15.04.045.

EXISTING IMPROVEMENTS

1. ***Costs of damage to City property and improvements***. The Permittee shall be responsible for the costs of repairing any damage to City property or improvements resulting from work performed by or on behalf of the Permittee within the public right of way. Damage to street trees is assessed on the value of the tree according to SMC subsection 15.90.018.B.
2. ***Utility protection***. The Permittee shall be responsible for checking locations and providing adequate protection for all utilities in the work area.
3. ***Utility relocation***. The Permittee shall be responsible for notifying affected utilities and requesting any necessary relocation.
4. ***Survey monuments***. Before removing, destroying, disturbing, or covering a survey monument such that the survey point is no longer visible or readily accessible, the Permittee shall obtain a permit from the Department of Natural Resources according to Washington Administrative Code, Chapter 332-120.
5. ***Protecting, removing, and relocating existing improvements***. In addition to General Requirements item 12, the Permittee, at their own cost and expense, shall be responsible for coordinating the removal and relocation of existing improvements within the public right of way that their construction or permitted project may interfere with. These existing improvements include, but are not limited to trees, bike racks, newsstands, bike-share stations, signs, benches, artwork, and waste receptacles.

- For existing improvements, the Permittee shall contact the improvement owner at least 10-business days before starting work to coordinate the temporary removal of the improvement.
- For newsstands, the Permittee shall coordinate temporary relocation during the construction period by posting notice of upcoming construction projects at SeattleNewsstands.org at least 10-business days before starting work.

The Permittee shall be responsible for reinstalling the improvements or coordinating the reinstallation in their original location or at a reasonable alternative location approved by the existing improvement owner and meeting all applicable City requirements. The Permittee is further responsible for protecting all trees within the construction project area and shall contact Urban Forestry to disclose and describe any construction impacts to trees.
Failure to contact the improvement owners or Urban Forestry is cause for Street Use to revoke this permit.
6. ***Monorail system proximity requirements***. The Permittee shall be responsible for coordinating with the Seattle Center when any work,

deliveries, or loading/unloading will occur within 14 feet of a Monorail structure or 20 feet of a Monorail foundation or below-ground installation. The Permittee shall contact the Seattle Center at 206-905-2601 at least 10-business days before starting construction. Failure to do so is cause for permit revocation.
7. ***Monorail system proximity guidelines***. Below grade: The restricted digging area includes a 45-degree cone extending outward and downward from the ground level of all monorail piers. Nearby excavations shall be monitored to assure footing stability. At- or above-grade: The piers above ground level cannot be moved, nor can any item like lighting or signage be attached to the piers without prior written consent from the Seattle Center Director. Piers shall not be painted. Landscaping shall not occur adjacent to piers or within 10 feet of a Monorail structure without prior written consent of the Seattle Center Director. Any construction activity in the area of the power rails shall follow OSHA guidelines for working around high voltage. Construction equipment shall be located and operated in awareness of and taking account of beam height and the train's 14-foot-operational envelope from each side of the beam. Contractors shall string warning lines from pier to pier under the beams as a guide. Spotters shall be employed when any construction activity occurs within 25 feet of the beams.

ENVIRONMENTAL PROTECTION
1. ***Best management practices required***. The Permittee shall be responsible for protecting the public place, including but not limited to protecting existing street trees and green stormwater infrastructure, and controlling surface runoff, erosion and sediment at the construction site, as required by: the Stormwater Code, (SMC Title 22, Subtitle VIII); the Street and Sidewalk Use Code, (SMC Title 15); the Standard Specifications for Road, Bridge, and Municipal Construction; and Department of Planning and Development Director's Rule 21-2015/Seattle Public Utilities DWW 200, or successor rules or provisions. The site and the surrounding area shall generally be kept clean and free of construction debris or other material, including but not limited to mud, dust, rock, asphalt, and concrete. Waste materials shall be collected and disposed of at an appropriate disposal site. These materials shall be prevented from entering any part of the public sewer and storm drain system, and any surface waters.

TRAFFIC CONTROL REQUIREMENTS
1. ***Compliance with the Traffic Control Manual for In-Street Work***. In order to provide safe and effective work areas and to ward, control, protect, and expedite vehicular and pedestrian traffic; signage for all construction within the public right of way shall comply with the City of Seattle Traffic Control Manual for In-Street Work, as amended. When required, the conditions on the traffic control plan shall supersede any conflicting provisions or requirements in the City of Seattle Traffic Control Manual for In-Street Work. A copy of the current City of Seattle Traffic Control Manual for In-Street Work and the approved traffic control plan shall be on site at all times.
2. ***Lanes to remain open during peak hours***. Traffic lanes shall not be closed during the following peak hours: 6:00 AM - 9:00 AM and 3:00 PM - 7:00 PM in the Central Business District; and 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM for arterials elsewhere in the City, unless specifically noted on the approved traffic control plan.
3. ***Maintain access***. Access to adjoining properties and businesses shall be maintained or accommodated during construction. Pedestrian access around construction sites shall be implemented and maintained per SDOT Director's Rule 10-2015, or successor rule.
4. ***Width of temporary traffic lanes***. Temporary traffic lanes created during the permitted work shall be a minimum of 11 feet in width unless otherwise approved on the traffic control plan.
5. ***Working within restricted curb spaces***. When the project impacts a restricted curb space, such as meters, pay stations, specific use and load zones; the Permittee shall obtain permission from SDOT Traffic Operations and reserve the spaces with the Traffic Operations Permit Counter (206-684-5086) before starting work.
6. ***Temporary No Parking signs and easels***. In areas without parking pay stations or parking meters, or when Traffic Operations allows reserved parking spaces to be controlled with Temporary No Parking signs, establishing a Temporary No Parking Zone requires placing type R7-T38 (T-38) or R7-T39 (T-39) easels and completing an online verification form in conformance with the Traffic Control Manual for In-Street Work. In high impact areas, the Central Business District, and in areas where construction projects are densely clustered (such as in City-designated "Construction Hubs"), additional requirements for establishing a Temporary No Parking Zone may apply.
7. ***Nighttime illumination***. Four or more Type B warning lights of sufficient brilliance to be seen from 500 feet shall be maintained at all times during the hours of darkness at the points of obstruction or excavation of any right of way.
8. ***Work in alleys***. For work occurring in alleys that impedes vehicular access, including but not limited to egress, ingress, or through travel; "Street Closed" signs shall be placed at each end of the alley. Property owners adjacent to the alley shall be contacted, and their access concerns shall be addressed and mitigated if possible. This may require alternative work scheduling in the case of Solid Waste collection days and hours.

Notify Street Use District Inspections when working outside of Standard City of Seattle Work Hours:
8am to 5pm
Monday - Friday

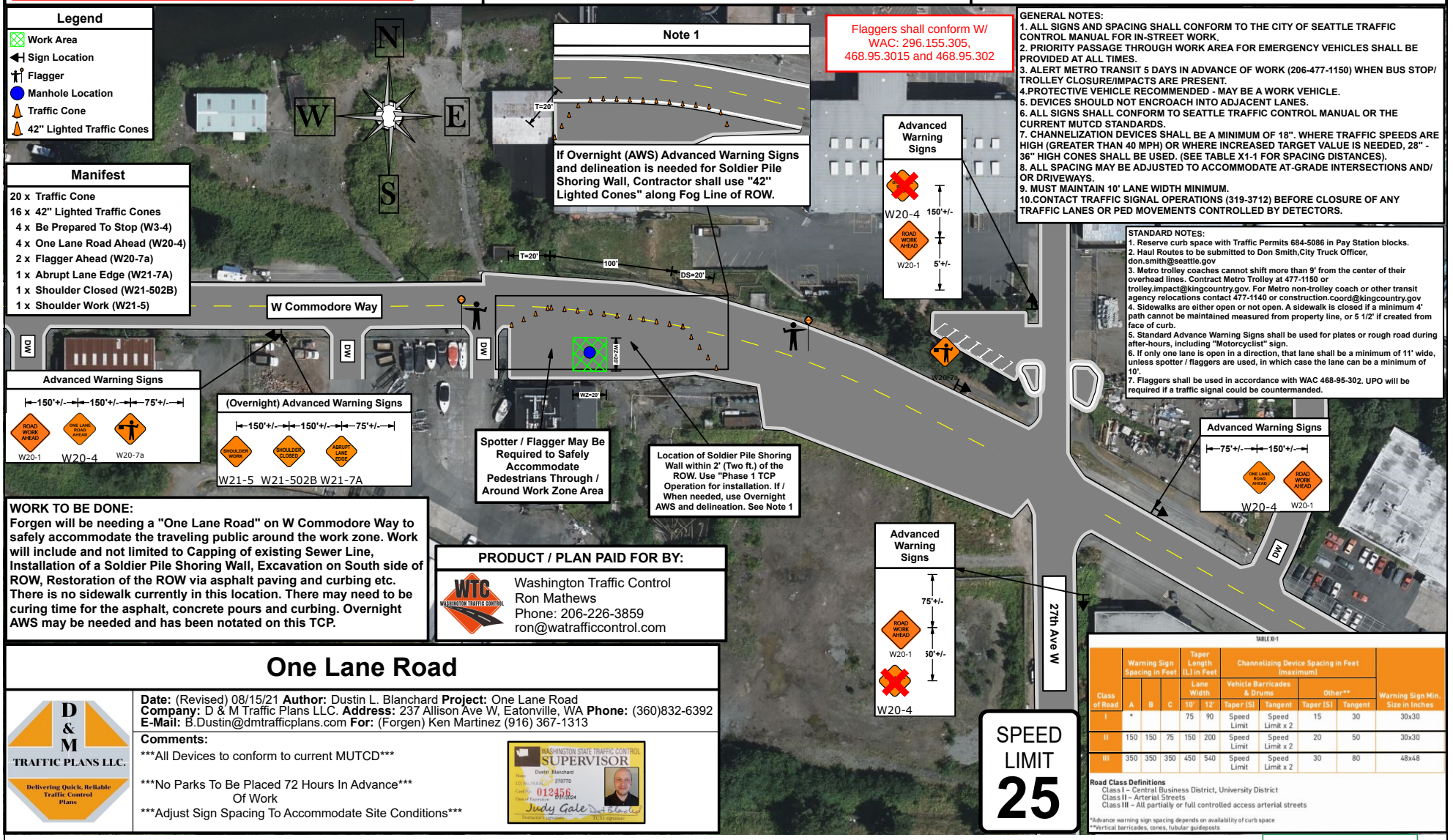
ADDRESS:
2737 W Commodore Way, Seattle WA

Phase 1

PERMIT: SUUMP0000216

Legend
- Work Area
- Sign Location
- Flagger
- Manhole Location
- Traffic Cone
- 42" Lighted Traffic Cones

Manifest
20 x Traffic Cone
16 x 42" Lighted Traffic Cones
4 x Be Prepared To Stop (W3-4)
4 x One Lane Road Ahead (W20-4)
2 x Flagger Ahead (W20-7a)
1 x Abrupt Lane Edge (W21-7A)
1 x Shoulder Closed (W21-502B)
1 x Shoulder Work (W21-5)



GENERAL NOTES:
1. ALL SIGNS AND SPACING SHALL CONFORM TO THE CITY OF SEATTLE TRAFFIC CONTROL MANUAL FOR IN-STREET WORK.
2. PRIORITY PASSAGE THROUGH WORK AREA FOR EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES.
3. ALERT METRO TRANSIT 5 DAYS IN ADVANCE OF WORK (206-477-1150) WHEN BUS STOP/ TROLLEY CLOSURE/IMPACTS ARE PRESENT.
4.PROTECTIVE VEHICLE RECOMMENDED - MAY BE A WORK VEHICLE.
5. DEVICES SHOULD NOT ENCROACH INTO ADJACENT LANES.
6. ALL SIGNS SHALL CONFORM TO SEATTLE TRAFFIC CONTROL MANUAL OR THE CURRENT MUTCD STANDARDS.
7. CHANNELIZATION DEVICES SHALL BE A MINIMUM OF 18". WHERE TRAFFIC SPEEDS ARE HIGH (GREATER THAN 40 MPH) OR WHERE INCREASED TARGET VALUE IS NEEDED, 28" - 36" HIGH CONES SHALL BE USED. (SEE TABLE X1-1 FOR SPACING DISTANCES).
8. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND/ OR DRIVEWAYS.
9. MUST MAINTAIN 10' LANE WIDTH MINIMUM.
10.CONTACT TRAFFIC SIGNAL OPERATIONS (319-3712) BEFORE CLOSURE OF ANY TRAFFIC LANES OR PED MOVEMENTS CONTROLLED BY DETECTORS.

STANDARD NOTES:
1. Reserve curb space with Traffic Permits 684-5086 in Pay Station blocks.
2. Haul Routes to be submitted to Don Smith,City Truck Officer, don.smith@seattle.gov
3. Metro trolley coaches cannot shift more than 9' from the center of their overhead lines. Contract Metro Trolley at 477-1150 or trolley.impact@kingcountry.gov. For Metro non-trolley coach or other transit agency relocations contact 477-1140 or construction.coord@kingcountry.gov
4. Sidewalks are either open or not open. A sidewalk is closed if a minimum 4' path cannot be maintained measured from property line, or 5 1/2' if created from face of curb.
5. Standard Advance Warning Signs shall be used for plates or rough road during after-hours, including "Motorcyclist" sign.
6. If only one lane is open in a direction, that lane shall be a minimum of 11' wide, unless spotter / flaggers are used, in which case the lane can be a minimum of 10'.
7. Flaggers shall be used in accordance with WAC 468-95-302. UPO will be required if a traffic signal could be countermanded.

WORK TO BE DONE:
Forgen will be needing a "One Lane Road" on W Commodore Way to safely accommodate the traveling public around the work zone. Work will include and not limited to Capping of existing Sewer Line, Installation of a Soldier Pile Shoring Wall, Excavation on South side of ROW, Restoration of the ROW via asphalt paving and curbing etc. There is no sidewalk currently in this location. There may need to be curing time for the asphalt, concrete pours and curbing. Overnight AWS may be needed and has been notated on this TCP.

PRODUCT / PLAN PAID FOR BY:
Washington Traffic Control
Ron Mathews
Phone: 206-226-3859
ron@watrafficcontrol.com

TABLE XI-1

Class of Road	Warning Sign Spacing in Feet A	B	C	Taper Length (L) in Feet Lane Width 10	12	Channelizing Device Spacing in Feet (maximum) Vehicle Barricades & Drums Taper (S)	Tangent	Other** Taper (S)	Tangent	Warning Sign Min. Size in Inches
I	*			75	90	Speed Limit	Speed Limit x 2	15	30	30x30
II	150	150	75	150	200	Speed Limit	Speed Limit x 2	20	50	30x30
III	350	350	350	450	540	Speed Limit	Speed Limit x 2	30	80	48x48

Road Class Definitions
Class I – Central Business District, University District
Class II – Arterial Streets
Class III – All partially or full controlled access arterial streets

*Advance warning sign spacing depends on availability of curb space
**Vertical barricades, cones, tubular guideposts

One Lane Road

D & M TRAFFIC PLANS LLC.
Delivering Quick, Reliable Traffic Control Plans

Date: (Revised) 08/15/21 **Author:** Dustin L. Blanchard **Project:** One Lane Road
Company: D & M Traffic Plans LLC. **Address:** 237 Allison Ave W, Eatonville, WA **Phone:** (360)832-6392
E-Mail: B.Dustin@dmtrafficplans.com **For:** (Forgen) Ken Martinez (916) 367-1313

Comments:
All Devices to conform to current MUTCD

No Parks To Be Placed 72 Hours In Advance Of Work

Adjust Sign Spacing To Accommodate Site Conditions

SPEED LIMIT **25**

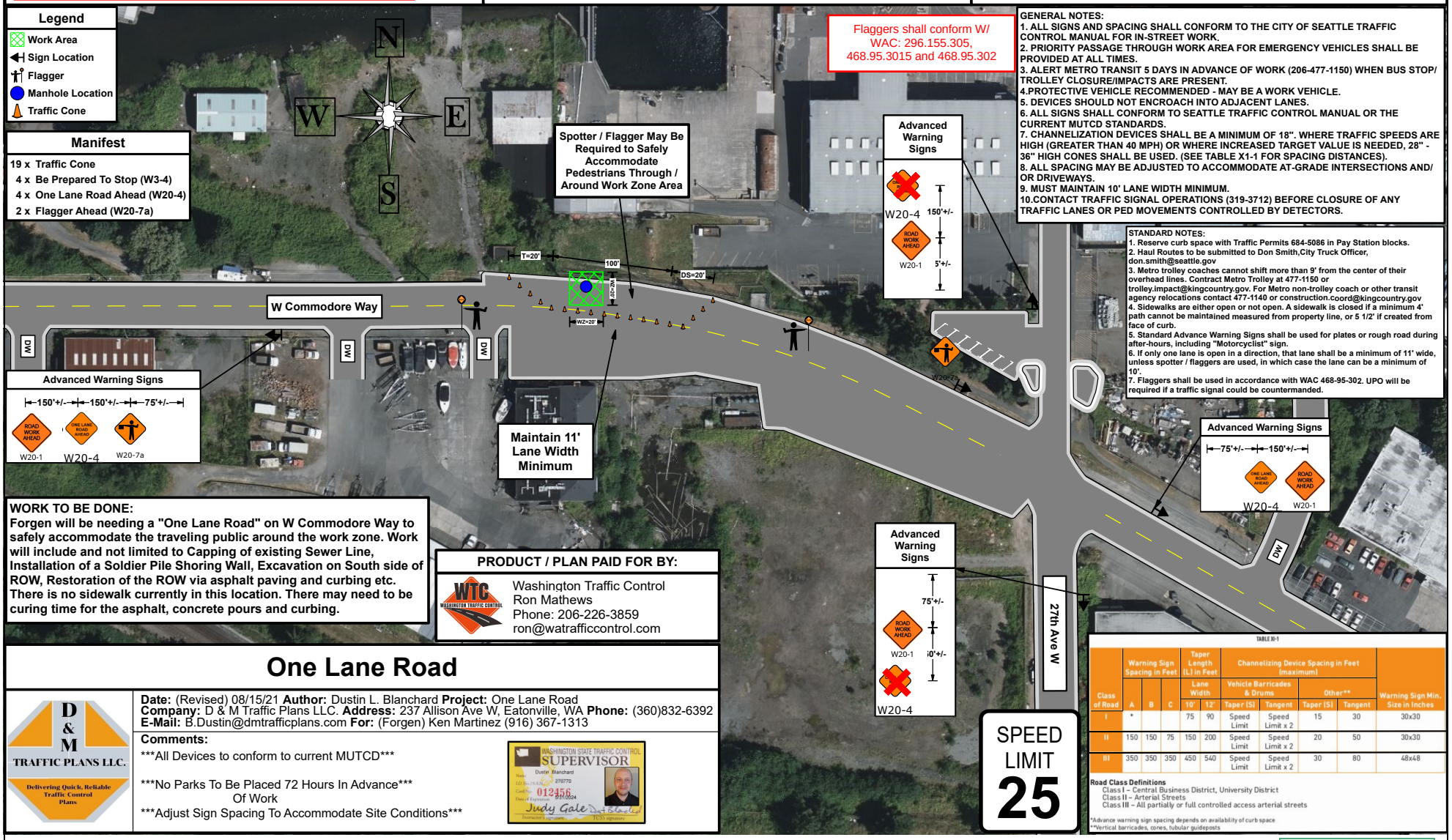
APPROVED AS NOTED
Tong.Q 08/26/2021
SDOT TRANSPORTATION OPERATIONS

Notify Street Use District Inspections when working outside of Standard City of Seattle Work Hours:
8am to 5pm
Monday - Friday

ADDRESS:
2737 W Commodore Way, Seattle WA

Phase 2

PERMIT: SUUMP0000216



GENERAL NOTES:
1. ALL SIGNS AND SPACING SHALL CONFORM TO THE CITY OF SEATTLE TRAFFIC CONTROL MANUAL FOR IN-STREET WORK.
2. PRIORITY PASSAGE THROUGH WORK AREA FOR EMERGENCY VEHICLES SHALL BE PROVIDED AT ALL TIMES.
3. ALERT METRO TRANSIT 5 DAYS IN ADVANCE OF WORK (206-477-1150) WHEN BUS STOP/ TROLLEY CLOSURE/IMPACTS ARE PRESENT.
4.PROTECTIVE VEHICLE RECOMMENDED - MAY BE A WORK VEHICLE.
5. DEVICES SHOULD NOT ENCROACH INTO ADJACENT LANES.
6. ALL SIGNS SHALL CONFORM TO SEATTLE TRAFFIC CONTROL MANUAL OR THE CURRENT MUTCD STANDARDS.
7. CHANNELIZATION DEVICES SHALL BE A MINIMUM OF 18". WHERE TRAFFIC SPEEDS ARE HIGH (GREATER THAN 40 MPH) OR WHERE INCREASED TARGET VALUE IS NEEDED, 28" - 36" HIGH CONES SHALL BE USED. (SEE TABLE X1-1 FOR SPACING DISTANCES).
8. ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE AT-GRADE INTERSECTIONS AND/ OR DRIVEWAYS.
9. MUST MAINTAIN 10' LANE WIDTH MINIMUM.
10.CONTACT TRAFFIC SIGNAL OPERATIONS (319-3712) BEFORE CLOSURE OF ANY TRAFFIC LANES OR PED MOVEMENTS CONTROLLED BY DETECTORS.

STANDARD NOTES:
1. Reserve curb space with Traffic Permits 684-5086 in Pay Station blocks.
2. Haul Routes to be submitted to Don Smith,City Truck Officer, don.smith@seattle.gov
3. Metro trolley coaches cannot shift more than 9' from the center of their overhead lines. Contract Metro Trolley at 477-1150 or trolley.impact@kingcountry.gov. For Metro non-trolley coach or other transit agency relocations contact 477-1140 or construction.coord@kingcountry.gov
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WORK TO BE DONE:
Forgen will be needing a "One Lane Road" on W Commodore Way to safely accommodate the traveling public around the work zone. Work will include and not limited to Capping of existing Sewer Line, Installation of a Soldier Pile Shoring Wall, Excavation on South side of ROW, Restoration of the ROW via asphalt paving and curbing etc. There is no sidewalk currently in this location. There may need to be curing time for the asphalt, concrete pours and curbing.

PRODUCT / PLAN PAID FOR BY:

WTC Washington Traffic Control
Ron Mathews
Phone: 206-226-3859
ron@watrafficcontrol.com

TABLE XI-1

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One Lane Road

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Date: (Revised) 08/15/21 **Author:** Dustin L. Blanchard **Project:** One Lane Road
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E-Mail: B.Dustin@dmtrafficplans.com **For:** (Forgen) Ken Martinez (916) 367-1313

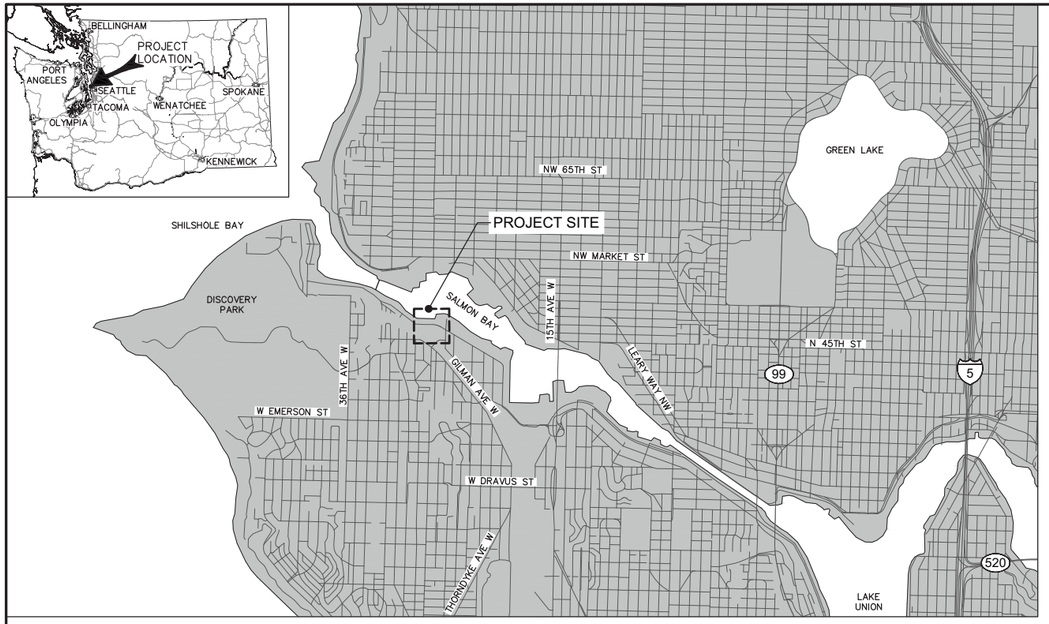
Comments:
All Devices to conform to current MUTCD

No Parks To Be Placed 72 Hours In Advance Of Work

Adjust Sign Spacing To Accommodate Site Conditions

APPROVED AS NOTED
Tong.Q 08/26/2021
SDOT TRANSPORTATION OPERATIONS

Time Oil Bulk Terminal
Cleanup Action



VICINITY MAP
Not to Scale

LEGAL DESCRIPTION

PARCEL C:
THAT PORTION OF THE EAST 111.04 FEET GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING SOUTH OF COMMODORE WAY AND NORTH OF A LINE PARALLEL TO AND 180.51 FEET SOUTH OF SAID SOUTH LINE OF COMMODORE WAY, MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL D:
THAT PORTION OF GOVERNMENT LOT 6, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF FORT STREET (FORMERLY GOVERNMENT WAY), WEST OF 27TH AVENUE WEST, AND SOUTH OF COMMODORE WAY;

EXCEPT THE FOLLOWING PORTION:

BEGINNING AT THE SOUTHWEST CORNER OF SAID TRACT;
THENCE NORTH ALONG THE WEST LINE OF SAID LOT 6 A DISTANCE OF 50.40 FEET;
THENCE SOUTHEASTERLY A DISTANCE OF 84.5 FEET TO THE NORTH LINE OF FORT STREET
(FORMERLY GOVERNMENT WAY);
THENCE WEST TO THE POINT OF BEGINNING.

PARCEL E:
THAT PORTION OF THE EAST 111.04 FEET OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTHEASTERLY OF THAT PORTION OF THE EAST 111.04 FEET OF SAID GOVERNMENT LOT 5 CONVEYED TO THE GREAT NORTHERN RAILWAY COMPANY BY DEED RECORDED IN VOLUME 726 OF DEEDS, AT PAGE 372, UNDER RECORDING NUMBER 652106, RECORDS OF KING COUNTY, WASHINGTON, AND SOUTHERLY OF A LINE PARALLEL TO AND 180.51 FEET SOUTHERLY OF THE SOUTHERLY MARGIN OF COMMODORE WAY MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL F:
THAT PORTION OF BLOCKS 3, 4 AND 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON, AND OF VACATED STREETS AND ALLEYS ADJOINING, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF WEST COMMODORE WAY DISTANT SOUTH 54°01'35" EAST 190 FEET FROM THE NORTHWESTERLY LINE OF LOT 1, BLOCK 6, OF SAID PLAT OF LAWTON PARK;
THENCE SOUTH 35°58'25" WEST, PARALLEL WITH SAID NORTHWESTERLY LINE TO THE NORTHEASTERLY MARGIN OF THE GREAT NORTHERN RAILWAY RIGHT OF WAY;
THENCE SOUTHEASTERLY ALONG SAID MARGIN 500 FEET, MORE OR LESS, TO THE EAST LINE OF SAID BLOCK 5;
THENCE NORTH 00°00'50" WEST 300 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF SAID BLOCK 5, SAID POINT BEING ON THE SOUTH MARGIN OF WEST COMMODORE WAY; THENCE WESTERLY ALONG SAID SOUTH MARGIN 400 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL G:
THAT PORTION OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTH LINE OF COMMODORE WAY AS ESTABLISHED AT A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST AND NORTHWESTERLY ALONG SAID WAY LINE TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 550 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT; THENCE NORTH ALONG SAID PARALLEL LINE TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDE LANDS;
THENCE EASTERLY ALONG SAID BLOCK 7 TO A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE BEGINNING.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

PROJECT TEAM

OWNER
TOC Seattle Terminal 1, LLC
2753 West 31st Street
Chicago, IL 60608
Contact: Mike Ciserella
773-722-9200 x501

WASHINGTON DEPARTMENT OF ECOLOGY PROJECT
Cleanup Project Manager,
Toxics Cleanup Program
3190 160th Ave SE
Bellevue, WA 98008
Contact: Mark Adams
425-649-7107
mada461@ecy.wa.gov

REMEDIATION CONSULTANT
CRETE Consulting, Inc., PC
108 S. Washington St, Suite 300
Seattle, WA 98104
Contact: Jamie Stevens
206-799-2744

REMEDIATION CONTRACTOR
(TBD)

CIVIL DESIGNER
KPFF Consulting Engineers
1601 5th Ave #1600
Seattle, WA 98101
Contact: Jenifer Clapman
206-926-0549

SHORING DESIGNER
CT Engineering
180 Nickerson St, Suite 302
Seattle, WA 98109
Contact: Charlie Griffes
206-714-6023

SURVEYOR
Axis Survey & Mapping
15241 NE 90th St, Suite 100
Redmond, WA 98052
Contact: Mitch Evans
425-823-5700 x301

GEOTECHNICAL ENGINEER
PanGEO, Inc.
3213 Eastlake Ave East, Suite B
Seattle, WA 98102
Contact: W. Paul Grant
206-262-0370

PROJECT SUMMARY

TOC Seattle Terminal 1, LLC purchased these parcels on November 25, 2020 and plans to clean up and develop these parcels associated with the former Time Oil Bulk Terminal facility. To address these historical contaminants TOC Seattle Terminal 1, LLC and the Washington Department of Ecology have entered into a Prospective Purchaser Consent Decree which directs TOC Seattle Terminal 1, LLC to implement the cleanup of the parcels in accordance with the Washington Department of Ecology's cleanup laws and regulations. Cleanup work completed that is required and is being performed under a Washington Department of Ecology Prospective Purchaser Consent Decree is exempt from the procedural requirements of State and local permits for on-site actions (RCW 70.105D.090(1)). The cleanup must comply with the substantive requirements of the applicable permits; therefore, engagement is needed with State and local jurisdictional authorities to obtain the substantive requirements. The main elements to the cleanup actions include the removal of soil above state cleanup levels through excavation and off-site disposal, and in situ solidification and stabilization. The cleanup action also includes elements to address groundwater contamination not covered by these permit documents. ~~Prior to the start of the cleanup work, all~~

2 All buildings have been demolished to existing grade, only foundations and footings remain. All utilities servicing the buildings have been capped and terminated.

Owner:
TOC Seattle Terminal 1, LLC

Washington Department of Ecology:
Cleanup Oversight through a Prospective Purchaser Consent Decree No. 20-2-15215-3 SEA, effective November 25, 2020
Ecology Project Manager: Mark Adams 425-649-7107

Project Design Team:
CRETE Consulting, Inc., PC
Primary Contact: Jamie Stevens 206-799-2744

Submittal for Parcel No. 1125039050 and 4237900405

SHEET INDEX

SHEET NO.	DWG NO.	SHEET TITLE
1	G-1	COVER SHEET, SHEET INDEX AND VICINITY MAP
2	G-2	SITE MAP
3	G-3	GENERAL NOTES (1 OF 4)
4	G-4	GENERAL NOTES (2 OF 4)
5	G-5	GENERAL NOTES (3 OF 4)
6	G-6	GENERAL NOTES (4 OF 4)
7	G-7A	SITE SURVEY (1 OF 2)
8	G-7B	SITE SURVEY (2 OF 2)
9	G-8	SITE ACCESS, HAUL ROUTES, AND STAGING AREAS
10	G-9	DEMO AND TESC PLAN (1 OF 2)
11	G-10	DEMO AND TESC PLAN (2 OF 2)
12	G-11	TESC NOTES AND DETAILS
13	C-1	REMEDIATION AREAS
14	C-3.1	CAA-1 EXCAVATION AREA PLAN AND PROFILE
15	C-3.2	CAA-2B EXCAVATION PLAN PLAN AND PROFILE
16	C-3.3	CAA-3 AND CAA-5 EXCAVATION AREA PLAN AND PROFILE
17	C-3.4	CAA-6 AND CAA-7 EXCAVATION AREA PLAN AND PROFILE
18	C-4.1	CAA-2A INSITU SOLIDIFICATION AREA
19	C-4.2	CAA-4A INSITU SOLIDIFICATION AREA
20	C-4.3	ISS SWELL MANAGEMENT AREA
21	C5.1	UPLAND AOC CLEAN ACTION AREAS
22	C6.1	INTERCEPTOR TRENCH DESIGN
23	C7.1	TYPICAL FINAL CAP DETAILS

CALL BEFORE YOU DIG!
WASHINGTON UTILITY NOTIFICATION CENTER
48 HOURS NOTICE BEFORE YOU DIG, DRILL, OR BLAST - STOP CALL
UTILITY NOTIFICATION CENTER
1-800-424-5555

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Cover Sheet, Sheet Index and Vicinity Map

Drawing No.
G-1

Sheet 1 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
6/28/2021

LEGEND

PARCEL BOUNDARY FOR
TOC SEATTLE TERMINAL 1, LLC PROPERTIES

EXISTING SITE PLAN

0 60 120
SCALE IN FEET

PERMIT SET

Rev	Date	Description	By

Client

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GRANT HAINSWORTH
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5/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design
Seattle, Washington
Site Map

Drawing No.
G-2

Sheet 2 **of** 23

GENERAL NOTES

1. THIS WORK IS BEING COMPLETED TO SATISFY A PROSPECTIVE PURCHASER CONSENT DECREE (PPCD) BETWEEN THE DEPARTMENT OF ECOLOGY AND TOC SEATTLE TERMINAL 1, LLC.

2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN DURING THE LIFE OF THE CONTRACT, ENVIRONMENTAL PROTECTIVE MEASURES IN ACCORDANCE WITH THESE PLANS. THE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, EROSION CONTROL, VEHICLE DECONTAMINATION, AND SPILL RESPONSE.

3. IT IS POSSIBLE THAT DISTURBANCE OF HISTORICAL NATIVE AMERICAN MATERIALS MAY OCCUR AS A RESULT OF EXCAVATION OPERATIONS. THE EXCAVATION CREW SHALL ATTEND A 1-HOUR ONSITE ORIENTATION HELD BY THE SITE ARCHAEOLOGIST (RETAINED BY TOC SEATTLE TERMINAL 1, LLC) WHERE PERSONNEL SHALL BE MADE AWARE OF THE POTENTIAL TO DISCOVER CULTURAL RESOURCES WITHIN THE REMOVAL AREAS. THE CONTRACTOR SHALL BE MADE AWARE OF THEIR RESPONSIBILITIES DURING MONITORING BY THE SITE ARCHAEOLOGIST AND THEIR OBLIGATIONS IN THE CASE OF AN INADVERTENT DISCOVERY. IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED DURING REMOVAL, THE CONTRACTOR SHALL CEASE EXCAVATION AND NOTIFY THE ENGINEER. CONTRACTOR SHALL ALLOW ACCESS TO WORK AREAS AS REQUESTED BY THE ENGINEER TO ALLOW INSPECTION FOR CULTURAL RESOURCES.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING, MAINTAINING, MONITORING, AND SUPPLEMENTING SILT CONTROL MEASURES, STORMWATER RUNOFF CONTROL MEASURES, AND ADDITIONAL BEST MANAGEMENT PRACTICES (BMPS) FOR THE IMPLEMENTATION AND MAINTENANCE OF A COMPREHENSIVE EROSION CONTROL PLAN. THE CONTRACTOR SHALL MEET CITY OF SEATTLE REQUIREMENTS AND THE SUBSTANTIVE REQUIREMENTS OF THE CONSTRUCTION STORMWATER GENERAL PERMIT (CSWGP) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR SITE CONSTRUCTION WORK (INCLUDING APPLICABLE CONSTRUCTION WATER).

5. GRADING MUST BE STABILIZED BY OCTOBER 31ST, AND NO EXCAVATION OR FILL PLACEMENT CAN BE PERFORMED BETWEEN OCTOBER 31ST AND APRIL 1ST UNLESS AN EXTENSION IS GIVEN BY THE CITY OF SEATTLE.

PERMITS/NOTICE OF INTENTS

1. THE CONTRACTOR SHALL OBTAIN CONSTRUCTION PERMITS AND APPROVALS INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
   A. CITY OF SEATTLE FIRE HYDRANT OR WATER SERVICE CONNECTION PERMIT

2. OWNER WILL OBTAIN THE FOLLOWING PERMITS OR SUBSTANTIVE REQUIREMENT DETERMINATIONS AND CONTRACTOR SHALL COMPLY WITH THESE REQUIREMENTS:
   A. KING COUNTY INDUSTRIAL WASTEWATER PERMIT FOR DISCHARGE OF TREATED SITE WATER TO THE SANITARY SEWER.
   B. CITY OF SEATTLE GRADING, SHORING, AND RIGHT-OF-WAY WORK APPROVALS.
   C. ECOLOGY CONSTRUCTION STORM WATER NPDES PERMIT THAT WILL BE TRANSFERRED TO CONTRACTOR PRIOR TO MOBILIZATION.
   D. ECOLOGY ENGINEERING DESIGN REPORT APPROVAL.

PRE CONSTRUCTION SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT A TECHNICAL EXECUTION PLAN (PLAN) THAT DOCUMENTS THE PROPOSED APPROACHES, EQUIPMENT, MEANS, AND METHODS OF ACCOMPLISHING THE EXCAVATION AND DISPOSAL OF SOIL AND ASSOCIATED SUBSURFACE DEBRIS AS WELL AS APPROACHES, EQUIPMENT, MEANS AND METHODS TO COMPLETE THE SOIL MIXING AND THE CONSTRUCTION OF THE INFILTRATION TRENCH. THE PLAN SHALL INCLUDE THE SEQUENCING APPROACH TO COMPLETE THE WORK BASED ON THE SCHEDULE. THE PLAN SHALL ADDRESS THE SAFE HANDLING OF CONTAMINATED MATERIALS AND MAINTAINING CLOSE TOLERANCES ON THE EXCAVATION LIMITS SHOWN ON THE DRAWINGS. AT A MINIMUM THE PLAN SHALL INCLUDE THE FOLLOWING ATTACHMENTS:
   A. TRAFFIC CONTROL PLAN
   B. EXCAVATION PLAN
   C. UTILITY PROTECTION PLAN
   D. ISS DESIGN
   E. DEWATERING SYSTEM PLAN WHICH SHALL DETAIL THE MEANS AND METHODS FOR ACHIEVING DEWATERED EXCAVATIONS THAT ENCOUNTER THE GROUNDWATER TABLE. THE METHODS FOR DEWATERING SHALL BE AT THE CONTRACTOR'S DISCRETION AND MAY BE A SYSTEM COMPRISED OF SEVERAL DIFFERENT COMPONENTS INCLUDING, BUT NOT LIMITED TO TRENCHES AND PUMPS, SHEET PILING, WELLS, AND WELL POINTS. WHILE THE CONTRACTOR WILL BE GIVEN THE DISCRETION IN ASSEMBLING, OPERATING AND MAINTAINING THE SYSTEM, PERFORMANCE OF THE SYSTEM SHALL BE MONITORED BY THE ENGINEER. THE CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DEWATERING SYSTEM TO ENSURE THAT OPEN EXCAVATION AREAS ARE HYDROSTATICALLY CONTROLLED AT ALL TIMES. THE ENGINEER WILL HAVE FINAL DETERMINATION AS TO ACCEPTABILITY OF THE DEWATERING SYSTEM PERFORMANCE. THE CONTRACTOR SHALL ALSO CONTROL SURFACE RUNOFF SO AS TO PREVENT ENTRY OR COLLECTION OF WATER IN EXCAVATIONS.
   F. CONSTRUCTION WATER MANAGEMENT PLAN (CWMP) - SHALL PROVIDE SUFFICIENT DETAIL TO ENSURE THAT THERE SHALL BE NO DISCHARGE OF WATER THAT DOES NOT COMPLY WITH ECOLOGY REQUIREMENTS AT ANY TIME AND UNDER ANY CIRCUMSTANCE. THE CWMP SHALL INCLUDE DETAILS ON ONSITE COLLECTION, TREATMENT, AND DISCHARGE OF WATER AND/OR COLLECTION, TRUCKING, AND OFFSITE TREATMENT OF WATER COLLECTED DURING FIELD ACTIVITIES. WATER INCLUDES SITE STORMWATER STOCKPILE DRAINAGE, DECONTAMINATION FLUIDS, AND GROUNDWATER COLLECTED DURING DEWATERING.

2. THE CONTRACTOR SHALL SUBMIT, FOR THE ENGINEER'S REVIEW AND COMMENT, A SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN. THE ENGINEER'S REVIEW OF, OR COMMENT ON, THE SITE-SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OR LIABILITY FOR THE PLAN. DELAY IN SUBMITTING A WRITTEN SITE- SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN SHALL NOT CONSTITUTE GROUNDS FOR A CONTRACT SCHEDULE EXTENSION OR DELAY CLAIM.

3. THE CONTRACTOR SHALL IMPLEMENT THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DEVELOPED FOR THE PROJECT IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT CSWGP THAT BECAME EFFECTIVE IN MAY 5, 2017 (NOTE THIS EXPIRES DECEMBER 31, 2020, CONTRACTOR SHALL USE THE MOST RECENT VERSION WHICH EXTENDS INTO THE CONSTRUCTION WORK WINDOW). THE SWPPP SHALL INCLUDE A CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP), SPILL PLAN (SP). THE CONTRACTOR IS RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP AND THE TESC MEASURES INCLUDING MONITORING, SAMPLING, TESTING, AND REPORTING REQUIRED BY THE CSWGP.
   A. IF REQUESTED BY ECOLOGY, THE CONTRACTOR SHALL SUBMIT TO ECOLOGY PRODUCT CATALOG CUTS FOR FILTER FABRIC FENCE AND FILTER BAG INSERTS TO BE USED FOR THE WORK.
   B. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING MONTHLY DISCHARGE REPORTS IN ACCORDANCE WITH THE CSWGP. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINES OR PENALTIES AS A CONSEQUENCE OF FAILURE TO SUBMIT MONTHLY REPORTS IN A TIMELY FASHION.

SCHEDULE

1. WEEKLY PROGRESS MEETINGS SHALL INCLUDE THE CONTRACTOR, ENGINEER, CONSULTANTS AND OTHERS AFFECTED BY DECISIONS MADE. THE ENGINEER WILL ARRANGE FOR THE TIME AND LOCATION OF THE MEETINGS. CONTRACTOR SHALL SCHEDULE, COORDINATE, LEAD AND ATTEND WEEKLY PROGRESS MEETINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COPIES OF THE CURRENT THREE WEEK LOOK AHEAD SCHEDULE TO ALL PARTICIPANTS AT EACH MEETING. THE CONTRACTOR SHALL RECORD MEETING MINUTES AND DISTRIBUTE COPIES WITHIN FIVE WORKING DAYS TO THE MEETING TO PARTICIPANTS AND TO OTHERS AFFECTED BY THE DECISIONS MADE.

2. WEEKLY PROGRESS MEETING SHALL INCLUDE THE FOLLOWING STANDARD AGENDA:
   A. REVIEW MINUTES OF PREVIOUS MEETING
   B. HEALTH AND SAFETY ISSUES
   C. REVIEW OF WORK PROGRESS
   D. FIELD OBSERVATION, PROBLEMS, AND DECISIONS
   E. IDENTIFICATION OF PROBLEMS THAT IMPEDE PLANNED PROGRESS
   F. REVIEW OF PROGRESS SCHEDULE (3 WEEKS LOOK AHEAD, 1 WEEK BACK)
   G. CORRECTIVE MEASURES TO ACHIEVE SCHEDULE MILESTONES
   H. PLANNED PROGRESS DURING SUCCEEDING WORK PERIOD
   I. COORDINATION OF PROJECTED WORK PROGRESS
   J. QUALITY AND WORK STANDARDS
   K. EFFECT OF PROPOSED CHANGES ON PROGRESS SCHEDULE AND COORDINATION
   L. DEMONSTRATION THAT THE PROJECT RECORDS ARE UP-TO-DATE
   M. OTHER BUSINESS RELATED TO THE WORK.

3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE WORK SCHEDULE SO THAT ALL WORK CAN BE COMPLETED IN A SINGLE SEASON. CONTRACTOR SHALL PROVIDE EQUIPMENT, MATERIALS AND LABOR AS NECESSARY TO MAINTAIN THE PROJECT SCHEDULE AND SHALL, AT NO ADDITIONAL COST, PROVIDE ADDITIONAL EQUIPMENT, MATERIALS AND LABOR TO ACCELERATE THE WORK AS REQUIRED TO REMAIN ON SCHEDULE.

4. CONTRACTOR SHALL SUBMIT WEEKLY SCHEDULE UPDATES THAT SHOW A DETAILED 3-WEEK LOOK-AHEAD SCHEDULE, AND AN OVERALL SCHEDULE THAT DEMONSTRATES COMPLETION BY THE DATES PRESCRIBED HEREIN. THIS WEEKLY SCHEDULE SUBMITTAL SHALL CLEARLY SHOW THE COMPLETION DATES AND DETAIL METHODS THAT WILL BE EMPLOYED TO ACCELERATE THE WORK AS NECESSARY TO ACHIEVE THE COMPLETION DATES.

5. THE FOLLOWING WORK RESTRICTIONS APPLY TO THIS WORK:
   A. PROJECT COMPLETION DATE IS XXXX, 20XX. ALL SITE WORK SHALL BE COMPLETED BY THIS DATE.

HEALTH AND SAFETY NOTES

1. THE CONTRACTOR SHALL COMPLY WITH THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA), INCLUDING ALL REVISIONS AND AMENDMENTS THERETO; THE PROVISIONS OF THE WASHINGTON DEPARTMENT OF LABOR AND INDUSTRIES, SAFETY AND HEALTH.

2. THE CONTRACTOR SHALL CONSIDER THAT HAZARDOUS AND/OR REGULATED MATERIAL CAN BE ENCOUNTERED IN THE SUBSURFACE AT ANY LOCATION ON THE PROJECT. THE CONTRACTOR SHALL PLAN WORK ZONE DESTINATION AND WORK HEALTH AND SAFETY AROUND THIS ASSUMPTION.

3. FORTY-HOUR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING, WITH CURRENT ANNUAL 8-HOUR REFRESHER, SHALL BE REQUIRED FOR ALL ONSITE WORKERS AND OTHER WORKERS WITH POTENTIAL FOR HANDLING OR EXPOSURE TO SITE SOIL OR GROUNDWATER, WITH THE EXCEPTION OF TRUCK DRIVERS AND SURVEYORS (UNLESS THEIR ACTIVITIES REQUIRE POTENTIAL EXPOSURE TO CONTAMINATED MATERIALS). TRUCK DRIVERS SHALL RECEIVE ORIENTATION ON THE SITE SPECIFIC CONSTRUCTION HEALTH AND SAFETY PLAN; NO OTHER HEALTH AND SAFETY TRAINING SHALL BE REQUIRED, PROVIDED THAT ALL OUT-OF-CAB ACTIVITIES ARE RESTRICTED TO COVERING OF LOADS, NECESSARY VEHICLE INSPECTIONS, AND SIGNING OF MANIFESTS.

SURVEYING NOTES

1. THE CONTRACTOR SHALL ESTABLISH SUCH ADDITIONAL LINES, GRADES AND CONTROLS AS ARE NEEDED FOR CONSTRUCTION.

2. ALL WORK PERFORMED SHALL BE IN CONFORMANCE WITH THE LINES, GRADES AND DIMENSIONS INDICATED ON THE DRAWINGS. IF A DISCREPANCY IS NOTED BETWEEN THE DRAWINGS, THE SAME SHALL IMMEDIATELY BE BROUGHT TO THE ENGINEER'S ATTENTION. WHERE TOLERANCES ARE STATED, THE WORK PERFORMED SHALL BE WITHIN THOSE TOLERANCES. THE ENGINEER WILL DETERMINE IF THE WORK CONFORMS TO SUCH LINES, GRADES AND DIMENSIONS AND HIS DETERMINATION SHALL BE FINAL.

3. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR DETAILED DIMENSIONS AND ELEVATIONS MEASURED FROM PRIMARY CONTROL POINTS.

4. CONTRACTOR SHALL SUBMIT SURVEYS TO THE ENGINEER WITHIN 24 HOURS OF COMPLETING INDEPENDENT SURVEYS. INCLUDE AUTOCAD ELECTRONIC FILE, PLAN VIEW DRAWINGS WITH 1-FT CONTOUR INTERVALS AND SPOT ELEVATIONS DEPICTING HIGH AND LOW POINTS PLOTTED AT 1 INCH=50 FEET. THE AUTOCAD FILES SHALL INCLUDE A TRIANGULATED IRREGULAR NETWORK (TIN) BASED DTM. ASCII-FORMAT PROCESSED SURVEY DATA SHALL BE PROVIDED IN X,Y,Z (EASTING, NORTHING, ELEVATION) FORMAT. EACH DATA SHALL INCLUDE A DESCRIPTIVE HEADER INCLUDING, BUT NOT LIMITED TO: SOFTWARE AND EQUIPMENT INFORMATION, CLIENT, PROJECT, HORIZONTAL AND VERTICAL DATUM, UNITS, SURVEY TYPE, ALIGNMENT, AND STATIONS SURVEYED.

5. THE CONTRACTOR SHALL MAINTAIN ON SITE A COMPLETE, ACCURATE LOG OF CONTROL OF SURVEY WORK AS IT PROGRESSES.

EXISTING UTILITIES

1. THE CONTRACTOR SHALL LOCATE EXISTING UNDERGROUND AND ABOVEGROUND UTILITIES IN THE AREA OF THE WORK. THOSE UTILITIES WHICH ARE TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DAMAGE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH ALL UTILITY PROVIDERS THAT WILL BE AFFECTED BY EARTHWORK ACTIVITIES AND SHALL DESIGN SITE ACTIVITIES (SHORING) TO ACCOUNT FOR THE UTILITIES.

2. THE CONTRACTOR SHALL PREPARE A UTILITY PROTECTION PLAN, DISCUSSED WITH THE TECHNICAL EXECUTION PLAN SUBMITTAL. UTILITIES TO BE PROTECTED INCLUDE MONITORING WELLS, SIDE SEWER CONNECTIONS AND A GAS LINE AND UTILITY POLE ASSOCIATED WITH THE RIGHT-OF-WAY EXCAVATION. CITY MAY PROVIDE SPECIFIC PROTECTION OR MONITORING REQUIREMENTS IN THE RIGHT-OF-WAY WORK APPROVAL.

3. WELLS AND INJECTION POINTS WILL BE DECOMMISSIONED BY OWNER PRIOR TO CONTRACTOR MOBILIZATION.

4. ALL SEWER AND STORM LINES IN THE ROW WITHIN 10 FEET (OR WITHIN 20 FEET IF SUCH LINES ARE 30 FEET OR MORE OFF SITE PROPERTY LINE) OF ANY PROPOSED SHORING ELEMENT SHALL BE VIDEOTAPED OF PRE-PROJECT CONDITION AND A COPY SENT TO SPU AT SPU_DWW_PIPE_REHAB@SEATTLE.GOV PRIOR TO PRECONSTRUCTION MEETING. SIMILAR VIDEOTAPE OF POST-PROJECT CONDITION IS ALSO REQUIRED AND SENT TO SPU AT SAME EMAIL ADDRESS.

CONSTRUCTION WATER MANAGEMENT

1. THE DEWATERING SYSTEM IS EXPECTED TO BE OPERATED INTERMITTENTLY THROUGHOUT THE PROJECT. WATER COLLECTION AND TREATMENT WILL BE REQUIRED FOR ALL SITE CONTACT STORMWATER, INCLUDING WATER COLLECTED WITHIN STOCKPILE AREAS, FROM OTHER DISTURBED AREAS WITHIN THE SITE WHERE STORMWATER CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL.

2. WATER GENERATED FROM THE DEWATERING PROCESS WILL BE APPROPRIATELY TREATED AND DISCHARGED TO SANITARY SEWER OR AT AN OFFSITE FACILITY PERMITTED TO DISPOSE OF CONTAMINATED WATER.

3. THE MINIMUM SYSTEM REQUIREMENTS SHALL INCLUDE OIL/WATER SEPARATION, SOLIDS REMOVAL, POLISHING WITH GRANULATED ACTIVATED CARBON, AND PH AND DISSOLVED OXYGEN TREATMENT. CONTRACTOR SHALL ADD TO THE SYSTEM TO THE DEGREE THEY BELIEVE NECESSARY TO COMPLY WITH THE DISCHARGE LIMITS.

4. ALL PROJECT WATER THAT CONTACTS CONTAMINATED OR POTENTIALLY CONTAMINATED SOIL, OR THAT CONTACTS ONSITE PAVEMENT, SHALL BE TREATED ONSITE TO REMOVE ALL CONTAMINANTS OF CONCERN (COCS) BEFORE DISCHARGE TO THE CITY OF SEATTLE TREATMENT SYSTEM, OR SHALL BE TRUCKED TO AN ECOLOGY-APPROVED OFFSITE FACILITY FOR TREATMENT, OR A COMBINATION OF BOTH. THE EXCEPTION IS FOR OVER-THE-ROAD TRUCK WHEEL WASH WATER WHICH SHALL BE HANDLED SEPARATELY (OFFSITE DISPOSAL) DUE TO THE POTENTIAL FOR DIFFERENT CONTAMINANTS.

5. CONTRACTOR SHALL UTILIZE EITHER OR BOTH METHODS, WHICHEVER IS DEEMED NECESSARY TO ENSURE THAT NO DISCHARGE OF NON-COMPLIANT WATER OCCURS AT ANY TIME OR UNDER ANY CIRCUMSTANCE.

6. SUFFICIENT STORAGE SHALL BE AVAILABLE ONSITE TO PREVENT NON-COMPLIANT DISCHARGES. STORAGE CAPACITY DESIGN SHALL CONSIDER FLOW-THROUGH DISCHARGE RATES AND/OR TRUCKING CAPACITY AND TURNAROUND TIMES.

7. FOR OFFSITE DISPOSAL, TRUCK TICKETS SHALL BE PROVIDED TO THE ENGINEER WEEKLY AND WILL IDENTIFY LOCATION OF FACILITY AND VOLUME OF WATER DISCHARGED.

8. FOR ONSITE TREATMENT AND DISPOSAL, DAILY TREATMENT LOGS SHALL BE PROVIDED TO THE ENGINEER AS PART OF THE DAILY CONSTRUCTION REPORT AND SHALL INCLUDE CUMULATIVE INFLOW AND DISCHARGE VOLUMES, HOURS OF TREATMENT SYSTEM OPERATION AND DISCHARGE, MAINTENANCE ACTIVITIES, AND TEST DATA THAT DEMONSTRATE DISCHARGED WATER MEETS ALL REQUIRED CRITERIA.

9. TREATMENT SYSTEM(S) SHALL BE APPROVED FOR USE BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY BMP C250 AND THE CHEMICAL TREATMENT ASSESSMENT PROTOCOL – ECOLOGY (CTAPE).

10. THE CONSTRUCTION WATER TREATMENT SYSTEM SHALL ONLY BE OPERATED BY THE CONSTRUCTION WATER TREATMENT SYSTEM OPERATOR(S) (OPERATOR).

11. OPERATOR SHALL BE ONSITE AT ALL TIMES THE CONSTRUCTION WATER TREATMENT SYSTEM IS OPERATING AND SHALL HAVE NO OTHER DUTIES.

12. IF ONSITE TREATMENT IS USED, CONTRACTOR SHALL PERFORM A "PROOF OF TREATMENT" TO DEMONSTRATE THE EFFECTIVENESS OF THE TREATMENT SYSTEM PRIOR TO STARTING DISCHARGE

13. SAMPLING AND ANALYSIS: CONTRACTOR SHALL PERFORM SAMPLING AND ANALYSIS OF REPRESENTATIVE SAMPLES OF THE TREATED WATER AS REQUIRED TO DEMONSTRATE THAT THE EFFLUENT MEETS KING COUNTY INDUSTRIAL WASTE PROGRAM WATER QUALITY DISCHARGE LIMITS BEFORE DISCHARGE INTO THE SANITARY SEWER SYSTEM ACCORDING TO THE REQUIREMENTS OF PERMIT.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
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6/28/2021

NEW SHEET

PERMIT SET

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Client

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GRANT HAINSWORTH, STATE OF WASHINGTON, 33192, REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (1 of 4)

Drawing No.
G-3

Sheet 3 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Catryn

GENERAL NOTES continued...

EARTHWORK AND SUBGRADE PREPARATION NOTES

1. ALL EARTHWORK AND SUBGRADE PREPARATION WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE DRAWINGS.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND /OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS CONCEPTUAL. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION ONLY WITHIN THE LIMITS OF THE PROJECT. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE PERTINENT UTILITY LOCATIONS AND ELEVATIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO FULLY UNDERSTAND AND VERIFY THE CONDITION OF ANY UTILITY SERVICE LINES, AND PROTECT THOSE LINES AT ALL TIMES DURING THE COURSE OF THIS WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES RESULTING FROM ITS ACTIONS.

3. IF DURING CONSTRUCTION, CONDITIONS ARE ENCOUNTERED WHICH DIFFER FROM THE CONDITIONS PROVIDED ON THE DRAWINGS OR LISTED WITHIN THE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

4. THE CONTRACTOR IS RESPONSIBLE FOR ALL PROJECT SAFETY.

5. USE OF DUST CONTROL MEASURES SHALL BE IMPLEMENTED AS NECESSARY TO MINIMIZE DUST GENERATION. IF WORK ACTIVITIES GENERATE VISIBLE DUST AT THE PROJECT BOUNDARIES OR IN AREAS WHERE CLEAN BACKFILL HAS BEEN PLACED, ACTIVITIES SHALL BE MODIFIED OR STOPPED WHILE DUST CONTROL MEASURES ARE IMPLEMENTED. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, SPRINKLING AREAS WITH WATER, CHANGING THE RATE OF EXCAVATION/BACKFILLING/HAULING ACTIVITIES, OR KEEPING DROP HEIGHTS TO A MINIMUM WHILE LOADING TRUCKS.

STOCKPILE MANAGEMENT PROCEDURES

1. STOCKPILING SHALL BE ALLOWED ONLY IN AREAS APPROVED BY THE ENGINEER. ~~THE EDGES OF THE STOCKPILES SHALL BE LOCATED NO CLOSER THAN 20 FEET FROM THE TOP OF THE BANK ALONG SALMON BAY~~.

2. STOCKPILES ARE REQUIRED TO BE LINED ON THE BOTTOM OR PLACED ON PAVEMENT TO PREVENT CONTAMINATION OF THE UNDERLYING SOIL, AND COVERED WHEN NOT DIRECTLY IN USE TO MINIMIZE THE DUST PRODUCTION AND TO PROTECT AGAINST PRECIPITATION.

3. STOCKPILE BOTTOM LINERS SHALL BE POLYETHYLENE, SHALL HAVE A MINIMUM THICKNESS OF 30 MILS AND SHALL BE RESISTANT TO WEATHERING AND DEGRADATION DUE TO CONTACT WITH CONTAMINATED MATERIALS FOR THE DURATION OF THE PROJECT WORK AND SUITABLE FOR THE INTENDED USE OF THE STOCKPILE AREA. THE LINER SHALL BE FURNISHED WITH PREFABRICATED SHOP WELDED SEAMS OR SEAMS WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. DIMENSIONS MAY BE MAXIMIZED TO PROVIDE THE LARGEST MANAGEABLE SHEET.

4. THE LINER SHALL BE SUPPLIED IN ROLLS. LABELS ON EACH ROLL SHALL IDENTIFY THE THICKNESS OF THE MATERIAL, THE LENGTH AND WIDTH OF THE ROLL, LOT AND ROLL NUMBERS, AND NAME OF MANUFACTURER.

5. PREPARE THE AREA TO RECEIVE THE STOCKPILE LINER IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS TO PROVIDE A SMOOTH, FIRM SUBGRADE THAT SHALL BE FREE OF PROTRUSIONS AND SUITABLE TO PROTECT THE LINER DURING USE.

6. INSTALL BOTTOM LINER TO FULLY COVER THE SMOOTH GROUND SURFACE FOR EACH STOCKPILE. FIELD SEAMING, IF NECESSARY, SHALL BE COMPLETED IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS TO PROVIDE A WATER TIGHT SEAM. SIMPLE OVERLAPPING OF SEAMS WITHOUT SEALING IS NOT ALLOWED. ANCHOR THE LINER ADEQUATELY TO PREVENT DISPLACEMENT. MONITOR AND MAINTAIN LINER INTEGRITY. IMMEDIATELY REPAIR TEARS OR PUNCTURES WHERE DAMAGED.

7. STOCKPILE BERMS (OR ECOLOGY BLOCKS) SHALL BE FIRM, NON-YIELDING AND STABLE. BOTTOM LINER SHALL COVER ENTIRE BERM AND BE PLACED SUCH THAT ALL DRAINAGE FROM THE STOCKPILE IS CONTAINED WITHIN THE STOCKPILE CELL.

8. ONCE THE LINER IS IN PLACE AND THE STOCKPILE AREA READY TO RECEIVE/ STORE MATERIAL, THE CONTRACTOR SHALL INSTALL A CUSHIONING LAYER (MINIMUM 12 INCHES THICK) TO PROTECT THE LINER IN ACCORDANCE WITH THE LINER MANUFACTURER'S RECOMMENDATIONS. THIS LAYER CAN CONSIST OF ONSITE WASTE AS LONG AS IT MEETS THE LINER MANUFACTURER'S RECOMMENDATIONS FOR LINER PROTECTION. LEAVE THIS CUSHIONING LAYER OVER THE LINER DURING OPERATIONS TO PROTECT THE LINER FROM DAMAGE BY STOCKPILING AND LOADING OPERATIONS. SHOULD THE LINER BE DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY REPAIR THE DAMAGE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND NOT ALLOW CONTAMINATED MATERIAL OR RUN-OFF TO ESCAPE THE STOCKPILE. NO CONSTRUCTION EQUIPMENT SHALL BE ALLOWED TO DRIVE DIRECTLY OVER THE LINER.

9. STOCKPILE COVERS SHALL BE 6-MIL (MINIMUM THICKNESS) BLACK OR CLEAR REINFORCED POLYETHYLENE SHEETING. THE STOCKPILE COVER SHEETS SHALL BE OF SUFFICIENT LENGTH AND WIDTH TO COMPLETELY AND FULLY COVER ALL OF EACH STOCKPILE WITH NO MORE THAN TWO SHEETS.

10. STOCKPILE COVERS AND LINERS SHALL BE FREE OF HOLES OR TEARS. DEFECTIVE MATERIAL SHALL BE IMMEDIATELY REPAIRED OR REPLACED AND NOT ALLOW LEAKAGE OR ESCAPE OF MATERIAL FROM THE STOCKPILE AREA, AS DETERMINED BY THE ENGINEER.

11. INSTALL STOCKPILE COVER IN A MANNER THAT MINIMIZES WRINKLES AND PROVIDES FOR A STRAIGHT PLACEMENT. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH AND THERE SHALL BE AT LEAST 4 FEET OF OVERLAP OF ALL SEAMS. PLACE SANDBAGS OR OTHER PREAPPROVED CLEAN WEIGHTED OBJECTS ON THE COVER AT SUFFICIENTLY CLOSE SPACING TO PREVENT UPLIFT FROM WIND. THE TOE OF SLOPES SHALL BE TIGHTLY SECURED AND COVERED BY THE SHEETING.

12. PROTECT THE COVER FROM DAMAGE. REMOVE AND REPLACE DAMAGED POLYETHYLENE SHEETING AS NEEDED OR IF DIRECTED BY THE ENGINEER.

13. FURNISH SAND BAGS OR OTHER DEVICES AS APPROVED BY THE ENGINEER OF SUFFICIENT QUANTITY AND WEIGHT AND WITH SUFFICIENTLY CLOSE SPACING TO COMPLETELY AND FULLY HOLD THE STOCKPILE COVER IN POSITION. ONLY CLEAN, UNCONTAMINATED MATERIAL SHALL BE USED TO WEIGH DOWN THE COVERING; STOCKPILE MATERIAL SHALL NOT BE USED FOR COVER WEIGHT. IN PARTICULAR, THE EDGES OF THE STOCKPILE COVER SHALL BE ADEQUATELY ANCHORED TO COMPLETELY TRAP THE MATERIAL WITHIN.

14. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES.

15. COORDINATE STOCKPILING AND STOCKPILE MAINTENANCE WORK WITH EXCAVATION WORK.

16. LINE BOTTOM OF STOCKPILES AS OUTLINED IN THESE PLANS. PROVIDE STORMWATER RUN-ON CONTROL, MANAGE ALL DRAINAGE FROM STOCKPILES, PREVENT RAIN, STORMWATER, AND SURFACE WATER FROM CONTACTING MATERIAL CONTAINED IN THE STOCKPILES. COVER STOCKPILES DURING LENGTHY PERIODS OF INACTIVITY WHILE ON SITE, AT THE END OF EACH WORK DAY, JUST PRIOR TO AND DURING PERIODS OF PRECIPITATION, AND AS NECESSARY TO CONTROL DUST, EROSION AND ODORS.

STOCKPILE SAMPLING

1. THE FREQUENCY OF MATERIAL SAMPLING WILL DEPEND UPON THE REQUIREMENTS OF THE WASTE DISPOSAL FACILITY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT AND COORDINATE ANY SAMPLING REQUIREMENTS MANDATED BY THE WASTE DISPOSAL FACILITY.

2. STOCKPILES LOCATED ON AREAS OVERLYING CLEAN SOILS SHALL MANDATE THAT SAMPLING OF THE UNDERLYING SOILS BE PERFORMED UPON STOCKPILE REMOVAL TO DEMONSTRATE THAT STOCKPILING DID NOT AFFECT CLEAN UNDERLYING SOILS. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN STOCKPILES HAVE BEEN COMPLETELY REMOVED AND THE ENGINEER WILL SAMPLE THE UNDERLYING SOILS. IF THE UNDERLYING SOILS ARE FOUND, THROUGH SAMPLING OR VISUAL OBSERVATIONS BY THE ENGINEER, TO BE CONTAMINATED BY THE CONTRACTOR'S STOCKPILING ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIATING THE CONTAMINATED SOILS TO THE ENGINEER'S SATISFACTION AT NO ADDITIONAL COST TO THE OWNER.

EXCAVATION NOTES

1. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR DEALING WITH OBSTRUCTIONS. IF OBSTRUCTIONS ARE ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL COMPLETE THE FOLLOWING STEPS:
   A. NOTIFY THE ENGINEER.
   B. IF THE EXPOSED OBSTRUCTION IS TOO LARGE TO REMOVE, EITHER CHIP OUT THE PORTION THAT EXTENDS INTO THE EXCAVATION, OR PROVIDE FOR THE REMOVAL TO BE COMPLETED AROUND THE OBSTRUCTION. THIS DETERMINATION WILL BE MADE WITH THE ENGINEER.

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BACKFILL NOTES

1. SUBMIT TEST RESULTS PRIOR TO IMPORTING ANY BACKFILL MATERIAL ON THE SITE, ONE TEST FOR EVERY SOURCE OF BACKFILL MATERIAL, AND EACH TIME THE MATERIAL SOURCE IS DEEMED TO CHANGE. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE. TESTING SHALL IN ACCORDANCE WITH
   A. SIEVE ANALYSES AND COMPARISON TO THE REQUIRED SPECIFICATIONS
   B. MOISTURE DENSITY CURVE FOR GRAVEL BORROW IN ACCORDANCE WITH ASTM D-1557 MODIFIED PROCTOR
   C. CHEMICAL TEST RESULTS FOR ALL ANALYTES LISTED HEREIN ALONG WITH A COMPARISON OF THE ANALYTICAL TEST RESULTS TO THE SPECIFIED LEVELS

2. IMPORTED BACKFILL MATERIAL SHALL BE NATURALLY OCCURRING OR NATURAL MATERIAL BLENDED TO ACHIEVE GRADATION REQUIREMENTS LISTED HEREIN. THE BACKFILL SHALL NOT CONTAIN RECYCLED MATERIAL OF ANY TYPE AND SHALL NOT BE FROM AN INDUSTRIAL SITE. IMPORTED GRAVEL BORROW OR OTHER CLEAN SOIL SHALL BE IN COMPLIANCE WITH ANALYTICAL TESTING SPECIFICATIONS.

3. BACKFILL SHALL BE PLACED IN 12 INCH MAXIMUM LIFT THICKNESS AND COMPACTED TO 95@ASTM D—1557 MINIMUM COMPACTION.

4. THE CONTRACTOR SHALL PLACE MATERIAL USED FOR THE CONSTRUCTION OF FILL IN ROUGHLY HORIZONTAL LAYERS UPON EARTH WHICH HAS BEEN STABILIZED OR OTHERWISE APPROVED BY THE ENGINEER FOR CONSTRUCTION. THE BACKFILL SHALL BE COMPACTED WITH MODERN, EFFICIENT COMPACTING UNITS SATISFACTORY TO THE ENGINEER.

5. FIELD TESTS TO DETERMINE IN-PLACE COMPLIANCE WITH REQUIRED DENSITIES AS SPECIFIED, SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D1557, D2167, OR D6938.

6. THE EXCAVATED AREA WITHIN THE W. COMMODORE WAY ROW SHALL ALSO BE BACKFILLED WITH CLEAN IMPORTED FILL AND RESTORED WITH A PAVEMENT SECTION MEETING CITY OF SEATTLE REQUIREMENTS.

MATERIAL SPECIFICATIONS

1.
   A. QUARRY SPALLS
      A.A. QUARRY SPALLS SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-13.6.
   B. GRAVEL BORROW
      B.A. AGGREGATE FOR GRAVEL BORROW SHALL CONSIST OF GRANULAR MATERIAL, EITHER NATURALLY OCCURRING OR BLENDED, AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GRADATION:

SIEVE SIZE (INCHES)	PERCENT PASSING
4	99 – 100
2	70 – 100
NO. 4	50 – 80
NO. 40	30 MAX.
NO. 200	7.0 MAX.*
SAND EQUIVALENT	50 MIN.

      NOTES: ALL PERCENTAGES ARE BY WEIGHT.
      * FOR BACKFILL IN WET CONDITIONS THE FINES CONTENT (MATERIAL PASSING NO. 200) SHALL BE LIMITED TO 5.0%
   C. BALLAST ROCK
      C.A. BALLAST ROCK SHALL MEET THE REQUIREMENTS OF WSDOT SPECIFICATION SECTION 9-03.9(1)
   D. WOVEN GEOTEXTILE
      D.A. WOVEN GEOTEXTILE SHALL BE US 2600 OR APPROVED EQUIVALENT

2. CHEMICAL ACCEPTANCE CRITERIA: CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION TO DEMONSTRATE THAT THE PROPOSED BACKFILL IS FREE FROM ENVIRONMENTAL CONTAMINATION. BACKFILL ANALYTES, REPORTING LIMITS, METHODS, AND CRITERIA ARE:

Analyte	Unit	Analytical Method	Reporting Limit	Criteria
PCB Aroclors	µg/kg dw	EPA 8082	4	ND
Semi-volatile organic compounds (SVOCs)	µg/kg dw	EPA 8270	20[a]	ND
Dioxin/Furan TEQ	ng/kg dw	EPA 1613	1	4
Arsenic	mg/kg dw	EPA 6010	5	7.3
Cadmium			0.2	2.5
Chromium			0.5	130
Copper			0.2	195
Lead			2	225
Silver			0.3	2
Zinc			1	205
Mercury	mg/kg dw	EPA 7471	.02	0.2
Diesel range hydrocarbons	mg/kg dw	NWTPH-Dx	5	ND
Lube oil range hydrocarbons			10	

NOTES:
ND = NOT DETECTED AT REPORTING LIMIT; TEQ = TOXICITY EQUIVALENT.

[A]: MOST SVOCS, SUCH AS PAHS, HAVE REPORTING LIMITS OF 20 UG/KG DW. SOME SVOCS HAVE HIGHER REPORTING LIMITS: 2,4-DIMETHYLPHENOL – 35, 4-METHYLPHENOL – 35, BENZOIC ACID – 400, BIS(2-ETHYLHEXYL)PHTHALATE - 30, HEXACHLOROBUTADIENE – 90, DIETHYLPHTHALATE – 50, PENTACHLOROPHENOL – 200.

3. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE CHEMICAL COMPOSITION OF ALL IMPORT SOIL TO DEMONSTRATE THAT THE PROPOSED IMPORT MATERIAL MEETS THE CHEMICAL CRITERIA. IMPORT TESTING SHALL BE EVALUATED EITHER USING PRE-EXISTING, VERIFIABLE DATA FROM AN IMPORT SOURCE THAT WAS DEVELOPED WITHIN 180 DAYS OF THE SUBMITTAL AND IS FROM THE SAME MATERIAL SOURCE, OR BY COLLECTING SAMPLES SPECIFICALLY FOR THIS PROJECT. SAMPLES SHALL BE COLLECTED BY AN ENVIRONMENTAL PROFESSIONAL AND ALL LABORATORY TESTING SHALL BE COMPLETED BY LABS ACCREDITED BY ECOLOGY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IMPORT MATERIAL SAMPLING, TESTING AND REPORTING.

4. ALL TESTING TO DEMONSTRATE COMPLIANCE WITH SPECIFICATIONS SHALL BE SUBMITTED AND APPROVED BY THE ENGINEER PRIOR TO PURCHASE OF THE MATERIAL. TESTING SHALL BE SUBMITTED NO LATER THAN FIVE WORKING DAYS PRIOR TO THE PLANNED DELIVERY OF MATERIALS TO THE SITE. A MINIMUM OF ONE ANALYTICAL SAMPLE SHALL BE COLLECTED FROM EACH SOURCE AND EACH MATERIAL IMPORTED.

5. THE CONTRACTOR SHALL NOT OBTAIN IMPORT MATERIAL(S) FROM INDUSTRIAL SITES. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE SOURCE AREA LAND USE AND OPERATION HISTORY WHEN PROVIDING TESTING RESULTS, TO SUPPORT THE ENGINEER'S DETERMINATION OF MATERIAL SUITABILITY.

6. THE CONTRACTOR SHALL CONDUCT ONE PHYSICAL SAMPLE FOR EACH IMPORT SOURCE PER EACH MATERIAL DELIVERED TO THE SITE FOR PLACEMENT.

NEW SHEET

PERMIT SET

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Client

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GRANT HAINSWORTH, STATE OF WASHINGTON, 33192, REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (2 of 4)

Drawing No.
G-4

Sheet 4 **of** 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

GENERAL NOTES continued...

7. IF THE IMPORT SOURCE CHANGES DURING CONSTRUCTION, NEW TESTING SHALL BE SUBMITTED FOLLOWING THE SCHEDULE AND REQUIREMENTS LISTED IN THIS SPECIFICATION. THE OWNER MAY REQUIRE ADDITIONAL TESTS IF THERE IS AN OBSERVABLE VARIANCE IN THE PROVIDED MATERIAL, SUCH TESTS SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER. EACH SAMPLE SHALL BE REPRESENTATIVE OF THE CURRENT PRODUCTION AND STOCKPILE BEING SUPPLIED TO THE SITE AND TESTING SHALL BE DONE BY A ECOLOGY ACCREDITED LABORATORY.

8. THE CONTRACTOR SHALL MONITOR IMPORT MATERIALS TO MAINTAIN CONSISTENT GRADATION AND CHEMICAL REQUIREMENTS AS SPECIFIED.

DEWATERING

1. LOCATE DEWATERING FACILITIES WHERE THEY SHALL NOT INTERFERE WITH UTILITIES AND CONSTRUCTION WORK TO BE PERFORMED BY OTHERS INCLUDING ANY FOLLOW ON CONTRACTORS. OBTAIN APPROVAL FOR FACILITY LOCATIONS FROM THE ENGINEER.

2. THE CONTRACTOR SHALL MONITOR GROUNDWATER LEVELS IN AND AROUND THE EXCAVATIONS TO ENSURE GROUNDWATER LEVELS AND HYDROSTATIC PRESSURES ARE REDUCED AS REQUIRED PRIOR TO EXCAVATION, SUCH THAT GROUNDWATER SHALL NOT PREVENT PROPER COMPLETION OF ALL WORK PERFORMED UNDER THIS CONTRACT. THE CONTRACTOR MAY USE EXISTING MONITORING WELLS.

3. ACCEPTANCE BY THE ENGINEER SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ERRORS THEREIN OR FROM THE RESPONSIBILITY FOR COMPLETE AND ADEQUATE DESIGN, MATERIALS, INSTALLATION METHODS, OPERATION METHODS, OR ADEQUATE MAINTENANCE OF THE SYSTEM.

4. THE CONTRACTOR SHALL EMPLOY MATERIALS, EQUIPMENT, AND CONSTRUCTION METHODS COMMONLY USED AND PROVEN AS SUITABLE FOR THE DURATION OF CONSTRUCTION DEWATERING AND ANY SURFACE WATER CONTROL SYSTEMS.

5. THE CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR ACQUIRING A WATER SUPPLY WITH WHICH TO INSTALL AND OPERATE ANY DEWATERING SYSTEM COMPONENTS PROPOSED IN THE DEWATERING SYSTEM PLAN.

6. THE CONTRACTOR SHALL VERIFY AND INDEPENDENTLY INTERPRET THE AVAILABLE SUBSURFACE INFORMATION PRESENTED IN THE CONTRACT DOCUMENTS AND ASSOCIATED TECHNICAL EXHIBITS AND SUPPLEMENT THE EXISTING DATA NECESSARY IN ORDER TO COMPLETE THE DESIGN AND CONSTRUCTION.

7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE ADEQUACY OF THE DESIGNED DEWATERING SYSTEM TO PERFORM THE DESIRED FUNCTION.

SCREENING, HANDLING, AND DISPOSAL OF CONTAMINATED SOIL AND WATER

1. ALL SOIL REMOVED FROM EXCAVATION REMOVAL AREAS WILL BE DISPOSED OF AS SUBTITLE D SOIL IN AN ECOLOGY APPROVED LANDFILL. ALL SAMPLING REQUIRED BY THE LANDFILL SHALL BE COMPLETED PRIOR TO SHIPMENT OF SOILS.

2. ALL WATER THAT COMES INTO CONTACT WITH DISTURBED SOILS SHALL BE CAPTURED AND DISPOSED OF OFF SITE AT AN APPROVED DISPOSAL FACILITY OR TREATED AT THE ON-SITE WATER TREATMENT PLANT PRIOR TO DISCHARGE. THE ON-SITE WATER TREATMENT PLANT WILL COMPLY WITH ALL KING COUNTY INDUSTRIAL WASTEWATER TREATMENT REQUIREMENTS.

3. IF ANY WATER IS COLLECTED THROUGH DEWATERING ACTIVITIES IT SHALL BE TREATED AS CONTACT STORMWATER, DESCRIBED ABOVE.

4. GROUNDWATER DEWATERING TO COMBINED SEWERS MUST BE METERED PRIOR TO DISCHARGE. CONTACT THE SPU SUBMETER PROGRAM OFFICE AT (206) 684-5089 TO DETERMINE THE REQUIRED METER TYPE, INSTALLATION LOCATION AND BILLING INFORMATION AND TO SCHEDULE AN INSPECTION AFTER INSTALLATION.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

INSITU SOLIDIFICATION NOTES

SUBMITTALS

1. THE CONTRACTOR SHALL SUBMIT THE FOLLOWING INFORMATION IN THE TECHNICAL EXECUTION PLAN FOR THE ISS DESIGN PLAN:
   - A. DESCRIPTION AND SPECIFICATIONS OF ISS SYSTEM, EQUIPMENT, AND PROCESSES.
   - B. ISS LAYOUT DRAWING SHOWING THE CONFIGURATION AND LAYOUT OF THE ISS SYSTEM.
   - C. SITE MAPS SHOWING THE PROPOSED LAYOUT AND PATTERN OF THE INDIVIDUAL ISS MIXING CELLS.
   - D. PROPOSED APPROACH FOR MIXING CAA-4 IN TWO LIFTS, RELOCATION OF THE UPPER LIFT MIXED SOIL TO ISS SWELL MANAGEMENT AREA, AND BACKFILLING WITH LOWER LIFT ISS SWELL IN CONJUNCTION WITH PLACEMENT OF THE INTERCEPTOR TRENCH.
   - E. METHODS FOR DETERMINING AND VERIFYING THE COORDINATES, ELEVATIONS, AND DEPTHS OF THE ISS MIXING CELLS.
   - F. METHODS FOR CONTROLLING NOISE LEVELS GENERATED FROM THE ISS EQUIPMENT.
   - G. PROPOSED METHODS TO PREPARE GROUT MIXTURES AND TO PROPORTION REAGENTS TO VERIFY PROPER PORTIONS.
   - H. TOTAL ESTIMATED QUANTITY OF WATER AND SOLIDIFICATION REAGENTS REQUIRED FOR THE WORK BASED ON THESE DRAWINGS, AVAILABLE SOIL BORING INFORMATION, CONTRACTOR'S TREATABILITY STUDY, AND THE CONTRACTOR'S LAYOUT PLAN FOR THE ISS MIXING CELLS.
   - I. SOLIDIFICATION PROCEDURES AND SEQUENCING, INCLUDING COORDINATION WITH SHORING INSTALLATION AND INTERCEPTOR TRENCH PLACEMENT.
   - J. ASSOCIATED DEWATERING PROCEDURES.
   - K. ESTIMATED PRODUCTION RATE FOR SOLIDIFICATION IN TERMS OF NUMBER OF MIXING CELLS PER DAY.
   - L. METHODS FOR HANDLING GENERATED SWELL.
   - M. ESTIMATED SCHEDULE FOR COMPLETION.
   - N. ANY PROPOSED DEVIATIONS FROM THE DRAWINGS.
   - O. SPILL CONTROL MEASURES.
   - P. WASH OUT AND GROUT DISPOSAL FACILITIES AND PRACTICES.
   - Q. EROSION CONTROL.
   - R. SAMPLING METHODS, PERSONNEL, AND EQUIPMENT.
   - S. RESUMES FOR KEY PERSONNEL ASSIGNED TO CONDUCT THE WORK, INCLUDING PROJECT SUPERINTENDED, EQUIPMENT OPERATIONS, GROUT PLANT OPERATORS, SUPERVISORY ENGINEERING STAFF AND OTHER TECHNICAL STAFF.
   - T. DISCUSSION OF BACKUP EQUIPMENT REQUIRED AND/OR AVAILABLE FOR THIS PROJECT.

2. CONTRACTOR SHALL PROVIDE DAILY SUBMITTALS DURING THE WORK SUMMARIZING THE FOLLOWING INFORMATION AT A MINIMUM:
   - A. NUMBER OF MIXING CELLS SOLIDIFIED
   - B. MIX DESIGN CALCULATIONS
   - C. SOLIDIFICATION EQUIPMENT USED
   - D. ANY UNFORESEEN SITE CONDITIONS OR EQUIPMENT PROBLEMS THAT AFFECTED SOLIDIFICATION EFFORTS
   - E. ANY MODIFICATIONS OR DEVIATIONS FROM THE SPECIFICATIONS, DRAWINGS OR THE TECHNICAL EXECUTION PLAN
   - F. IDENTIFICATION OF PORTIONS OF MIXING CELLS NOT COMPLETED DUE TO REFUSAL

3. CONTRACTOR SHALL PROVIDE WEEKLY SUBMITTALS SUMMARIZING THE FOLLOWING INFORMATION AT A MINIMUM:
   - A. TOTAL QUANTITY OF SOLID SOLIDIFIED FOR THE WEEK IN CUBIC YARDS AND NUMBER OF MIXING CELLS
   - B. QUANTITIES OF REAGENTS USED DURING THE WEEK
   - C. QUANTITIES OF REAGENTS DELIVERED TO THE SITE DURING THE WEEK WITH BACKUP IN FORM OF WEIGHT RECIPES, BILLS OF LADING, FLOW METER RECORDS, OR EQUIVALENT
   - D. PERCENT COMPLETE FOR ALL SOLIDIFICATION
   - E. SOLIDIFICATION PROGRESS SCHEDULE AND ANY MODIFICATIONS TO THE PROJECT SCHEDULE BASED ON THE WEEKLY PRODUCTION
   - F. SWELL DISPOSAL/HANDLING METHODS AND QUANTITIES MANAGED FOR THE WEEK
   - G. WASHOUT AND GROUT DISPOSAL AND HANDLING METHODS AND QUANTITIES MANAGED FOR THE WEEK

GROUT MIX DESIGN

1. CONTRACTOR SHALL PROVIDE THE PROPOSED MIX DESIGN, BASED ON THE ADDITIONAL MIX DESIGN STUDY PERFORMED, TO BE USED FOR PRODUCTION TO MEET THE PERFORMANCE REQUIREMENTS OF THE PROJECT.

2. CONTRACTOR SHALL PROVIDE PORTLAND CEMENT AND GROUND GRANULATED BLAST FURNACE SLAG (GGBFS) AS APPROVED BY THE ENGINEER IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN IN SUFFICIENT QUANTITIES TO MAINTAIN THE REQUIRED PRODUCTION RATE.

3. CONTRACTOR SHALL COMPLETE A FORM ACCEPTABLE TO THE ENGINEER TO CALCULATE THE MINIMUM REAGENT PORTIONS AS FOLLOWS:
   - A. CALCULATE THE VOLUME OF SOIL BEING TREATED IN THE EACH CELL BASED ON THE TOTAL DEPTH AND SQUARE FOOTAGE OF THE CELL.
   - B. CALCULATE THE WEIGHT OF SOIL BEING TREATED IN THE MIXING CELL BASED ON THE PREVIOUSLY CALCULATED VOLUME, USING AN APPROPRIATE UNIT DENSITY FOR THE SOIL BEING SOLIDIFIED.
   - C. WATER AND REAGENT ADDITION SHALL BE IN ACCORDANCE WITH THE RATIOS DEFINED IN THE ENGINEER-APPROVED PRODUCTION MIX DESIGN. CONTRACTOR SHALL KEEP THE WATER RATIO AT A MINIMUM TO OBTAIN A WORKABLE GROUT AND MINIMIZE SWELL.
   - D. CONTRACTOR SHALL NOT MODIFY THE GROUT MIX PROPORTIONS OF THE APPROVED PRODUCTION MIX DESIGN WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
   - E. CONTRACTOR SHALL PROVIDE A FORM DETAILING THE MATERIAL USED BATCH MIXING INFORMATION AND CORRECT MIX RATIO VERIFICATION FOR EACH MIXING CELL.

PERFORMANCE REQUIREMENTS

1. MIXING CELLS SHALL BE LAID OUT IN A MANNER TO STABILIZE THE ENTIRE AREA SO THAT NO SOIL IS UNTREATED.

2. THE PRODUCTION ISS MIXING CELLS SHALL MEET THE FOLLOWING PERFORMANCE STANDARDS. PRODUCTION MIXING CELLS THAT DO NOT MEET THE PERFORMANCE TESTING REQUIREMENTS SHALL BE RE-MIXED, RE-SAMPLED, AND RE-TESTED AT THE CONTRACTOR'S SOLE EXPENSE UNTIL THE MIXING CELL MEETS THE PERFORMANCE REQUIREMENTS:
   - A. HYDRAULIC CONDUCTIVITY LESS THAN 1X10-6 CM/SEC
   - B. UNCONFINED COMPRESSIVE STRENGTH (28 DAYS) GREATER THAN 50 PSI
   - C. ALL PERIMETER ISS MIXING CELLS SHALL ACHIEVE THE PERFORMANCE CRITERIA
   - D. UP TO 10% OF INTERIOR ISS MIXING CELLS MAY FAIL THE ABOVE CRITERIA BUT EACH GRID CELL MUST HAVE A HYDRAULIC CONDUCTIVITY NO GREATER THAN 10-5 CM/S AND A UCS NO LESS THAN 30 PSI

3. CONTRACTOR SHALL COMPLETE A MINIMUM OF TWO TEST MIXING CELLS IN EACH CAA AT A LOCATION DESIGNATED BY THE ENGINEER PRIOR TO PRODUCTION MIXING CELLS TO ENSURE THAT THE PERFORMANCE STANDARDS SHALL BE ACHIEVED USING THE PRODUCTION MIX DESIGN SUBMITTED TO THE ENGINEER. CONTRACTOR SHALL OBTAIN SAMPLES OF THE TREATED SOIL MASS IN THE TEST MIXING CELLS USING THE PRODUCTION SAMPLING EQUIPMENT AND TEST THE SAMPLES TO DEMONSTRATE THAT THE PROJECT PERFORMANCE REQUIREMENTS SHALL BE ACHIEVED. THE TEST CELL(S) SHALL BE LOCATED WITHIN THE ISS FOOTPRINT AND WILL BECOME PART OF THE FINAL ISS AREA AFTER TESTING.

4. THE BOTTOM ELEVATION FOR ISS TREATMENT IS SHOWN ON THE DRAWINGS FOR EACH MIXING CELL. TO THE EXTENT THAT CONTRACTOR MODIFIES THE PROPOSED MIXING CELLS, THE BOTTOM ELEVATIONS WILL NEED TO BE APPROVED BY ENGINEER. CONTRACTOR SHALL NOT DEVIATE FROM THE ELEVATIONS BY GREATER THAN 0.5 FEET WITHOUT WRITTEN AUTHORIZATION BY THE ENGINEER.

5. IF SUBSURFACE OBSTRUCTIONS ARE ENCOUNTERED DURING ISS MIXING, CONTRACTOR SHALL IDENTIFY THE OBSTRUCTION, INFORM THE ENGINEER, AND DEVELOP A COURSE OF ACTION TO SAFELY AND EFFECTIVELY REMOVE THE OBSTRUCTION. DEPENDING ON THE NATURE OF THE OBSTRUCTION, THE MATERIALS SHALL BE SEPARATED AND MANAGED AS APPROVED BY ENGINEER. MATERIAL MAY BE PLACED IN THE ISS SWELL MANAGEMENT AREA OR LOADED INTO DESIGNATED WASTE CONTAINERS FOR CONTAINMENT AND TRANSPORT OF THAT CLASS OF WASTE TO AN OFF-SITE DISPOSAL FACILITY. OBSTRUCTIONS WHICH CANNOT BE PENETRATED OR REMOVED MAY BE LEFT IN PLACE WITH THE ISS EXCAVATOR PATTERN ADJUSTED TO ALLOW MIXING WHICH CAN BE COMPLETED AROUND THE OBSTRUCTION OR WITH GROUTING AROUND THE OBSTRUCTION.

6. CONTRACTOR SHALL ENSURE THAT THE GROUT IS DISTRIBUTED EVENLY THROUGH THE MIXING CELL AND THAT THE GROUT AND SOIL AT EACH MIXING CELL IS A HOMOGENEOUS MIXTURE TO MEET THE PERFORMANCE REQUIREMENTS.

7. CONTRACTOR SHALL INSPECT AND PREPARE A TEST SAMPLE OF TREATED SOIL. SAMPLES WILL BE VISUALLY INSPECTED TO VERIFY THAT A HOMOGENEOUS MIXTURE HAS BEEN CREATED, BASED ON THE FOLLOWING CRITERIA:
   - A. NO VISIBLE NON AQUEOUS PHASE LIQUID (NAPL)
   - B. GROUT AND SOIL ARE THOROUGHLY MIXED IN THE MIXING CELL
   - C. CONSISTENT COLOR FOR SAMPLES COLLECTED FROM DIFFERENT DEPTH INTERVALS AND LOCATIONS IN THE MIXING CELL
   - D. THERE ARE NO UNMIXED SOIL CLUMPS GREATER THAN 6 INCHES

8. SAMPLES COLLECTED BY CONTRACTOR SHALL BE TESTED FOR UNCONFINED COMPRESSIVE STRENGTH AND HYDRAULIC CONDUCTIVITY TO DEMONSTRATE THAT THE SAMPLES MEET THE PERFORMANCE REQUIREMENTS.

9. CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER TO MINIMIZE THE AMOUNT OF SWELL PRODUCED BY THE SOLIDIFICATION PROCESSES.

SOLIDIFICATION WATER

1. WATER SHALL BE OBTAINED FROM THE CITY OF SEATTLE VIA A FIRE HYDRANT OR WATER SERVICE CONNECTION, ON OR NEAR THE SITE. THE WATER SERVICE SHALL BE EQUIPPED WITH A BACKFLOW PREVENTER. CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE FOR TEMPORARY HOOK UP OF WATER SERVICE AND PAY ALL FEES FOR CITY WATER USAGE. CONTRACTOR MAY USE OTHER INCIDENTAL SOURCES OF WATER (E.G. STORMWATER) FOR SOLIDIFICATION WITH APPROVAL FROM THE ENGINEER.

2. CONTRACTOR SHALL PROVIDE A MEANS OF MEASURING WATER FOR BATCH MIXING. THE MEASURING DEVICE SHALL MEASURE TOTALIZED AND INSTANTANEOUS FLOWS. MEASURING DEVICES SHALL BE CALIBRATED TO WITHIN +/- 2% TO ACCURATELY MEASURE THE WATER FOR EACH BATCH. CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR THE CALIBRATION. MEASURING DEVICES SHALL BE RECALIBRATED PER THE MANUFACTURES RECOMMENDATIONS AND MONTHLY DURING THE WORK.

3. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL PIPES AND HOSES USED TO CONNECT THE GROUT MIXING PLANT TO THE CITY OF SEATTLE WATER SUPPLY SYSTEM.

4. IF WATER FOR ISS IS STORED ON THE SITE, STORAGE CONTAINERS SHALL BE FREE OF ANY WASTE MATERIALS, DEBRIS, AND OTHER ITEMS THAT MAY BE DELETERIOUS TO THE EXECUTION OF THE SOLIDIFICATION PROCESSES.

REAGENTS

1. CONTRACTOR SHALL PROVIDE PORTLAND CEMENT AND GGBFS APPROVED BY THE ENGINEER IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN.

2. UNLESS THE LIMIT AND DEPTHS SHOWN ON THE DRAWINGS ARE INCREASED AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL PURCHASE ANY ADDITIONAL REGENTS AT NO EXPENSE TO THE OWNER DUE TO WASTE OR OVER APPLICATION.

3. REAGENT REQUIREMENTS (MODIFICATIONS MAY BE MADE IN ACCORDANCE WITH THE APPROVED PRODUCTION MIX DESIGN SUBMITTED BY THE CONTRACTOR)
   - A. PORTLAND CEMENT - TYPE I PORTLAND CEMENT MEETING THE REQUIREMENTS OF ASTM C150
   - B. GGBFS - GRADE 100 MEETING THE REQUIREMENTS OF ASTM C989.

GROUT PREPARATION

1. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIALS, AND PERSONNEL NEEDED TO PROPERLY PREPARE THE GROUT IN ACCORDANCE WITH THE ENGINEER-APPROVED PRODUCTION MIX DESIGN AND THESE SPECIFICATIONS.

2. CONTRACTOR SHALL COMPLETE A FORM TO CALCULATE THE NEEDED QUANTITIES OF WATER AND REAGENTS FOR EACH MIXING CELL:
   - A. AMOUNT OF EACH REAGENT ADDED
   - B. GROUT DENSITY
   - C. ISS MIXING CELL NUMBER

3. CONTRACTOR SHALL ADD THE CALCULATED QUANTITIES OF WATER AND REAGENTS TO THE GROUT MIXING PLANT.

4. CONTRACTOR SHALL THOROUGHLY MIX THE WATER AND REAGENT MIXTURE UNTIL IT IS A CONSISTENT AND HOMOGENOUS MIXTURE.

5. CONTRACTOR SHALL PUMP THE GROUT MIXTURE FROM THE GROUT MIXING PLANT TO THE ISS EQUIPMENT.

6. CONTRACTOR SHALL PROVIDE THE PUMPS, HOSES, AND PIPING AS A MEANS OF DELIVERING THE MIXED GROUT FROM THE GROUT MIXING PLANT TO THE MIXING CELL AT AN ADEQUATE PRESSURE AND FLOW RATE FOR THE SOLIDIFICATION PROCESS.

7. PROCESSED GROUT HELD FOR GREATER THAN 3 HOURS PRIOR TO USING SHALL BE DISCARDED AT THE CONTRACTOR'S EXPENSE.

8. CONTRACTOR SHALL PROVIDE GROUT MIXING EQUIPMENT OF SIZE AND CAPACITY AS TO NOT LIMIT THE PRODUCTION OF THE ISS MIXING EQUIPMENT.

NEW SHEET

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Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
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GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER
5/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

General Notes (3 of 4)

Drawing No.
G-5

Sheet 5 of 23

File: D:_Projects\Crete\Time Oil Seattle\G1-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

COORDINATION OF WORK

1. CONTRACTOR SHALL COORDINATE ISS ACTIVITIES WITH SHORING EXCAVATION, DEWATERING, SAMPLING, BACKFILLING, AND OTHER WORK AS NECESSARY.
2. AS PART OF THE ISS WORK, DEMOLITION OF SURFACES AND EXCAVATION OF CLEAN OVERBURDEN SHALL BE CONDUCTED PRIOR TO BEGINNING ISS WORK.
3. DEWATERING SHALL BE CONDUCTED ONLY TO THE EXTENT NECESSARY TO COMPLETE THE WORK.
4. CONTRACTOR SHALL COLLECT SAMPLES FROM THE COMPLETE MIXING CELLS IN ACCORDANCE WITH THE DRAWINGS.
5. CONTRACTOR SHALL NOT BACKFILL ANY AREAS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

SOLIDIFICATION

1. CONTRACTOR SHALL PROVIDE ALL PERSONNEL, EQUIPMENT, AND MATERIALS REQUIRED TO CONDUCT THE WORK IDENTIFIED IN THESE SPECIFICATIONS.
2. SOLIDIFICATION SHALL BE CONDUCTED TO THE EXTENTS, DEPTHS, AND ELEVATIONS SHOWN IN THESE DRAWINGS.
3. CONTRACTOR PERSONNEL SHALL PERFORM SURVEYING TO CONFIRM THE MIXING CELL COORDINATES AND THE GROUND SURFACE AND BOTTOM ELEVATION FOR ISS TREATMENT.
4. CONTRACTOR SHALL NOTE ANY VARIANCE FOR THE ISS DEPTH AND ADJUST GROUT MIX ACCORDINGLY.
5. REAGENT ADDITION SHALL BE AT THE PRESCRIBED PROPORTIONS IN THE APPROVED MIX DESIGN AND CALCULATED ON THE CONTRACTOR'S FORM.
6. CONTRACTOR SHALL MIX GROUT WITH IMPACTED SOIL UNTIL IT IS A HOMOGENEOUS MIXTURE OF SOIL AND GROUT FROM THE GROUND SURFACE TO THE BOTTOM ELEVATION OF ISS TREATMENT SHOWN ON THE DRAWINGS.
7. CONTRACTOR SHALL COMPLETE A FORM TO CALCULATE THE NEEDED QUANTITIES OF WATER AND REAGENTS FOR EACH MIXING CELL:
   A. AMOUNT OF EACH REAGENT ADDED
   B. GROUT DENSITY
   C. ISS MIXING CELL NUMBER
   D. MIXING CELL COORDINATES
   E. GROUND SURFACE ELEVATION
   F. BOTTOM ELEVATION FOR ISS TREATMENT PROVIDED IN THE DRAWINGS
   G. ACTUAL BOTTOM ELEVATION OF MIXING CELL
   H. START AND FINISH TIME
   I. GROUT ADDITION RATE

SWELL MANAGEMENT

1. CONTRACTOR SHALL REMOVE SWELL GENERATED DURING ISS OPERATION FROM THE IMMEDIATE WORK AREA AS REQUIRED TO ALLOW WORK TO PROCEED.
2. A SPECIFIC AREA OF THE BULK TERMINAL PARCEL HAS BEEN IDENTIFIED FOR PLACEMENT OF EXCESS ISS SWELL MATERIAL. THE CONTRACTOR SHALL MOVE EXCESS ISS SWELL MATERIAL TO THE DESIGNATED AREA WHILE THE SWELL MATERIAL IS STILL WORKABLE. CONTRACTOR SHALL COORDINATE WITH ENGINEER REGARDING THE LOCATION AND THICKNESS OF SWELL PLACEMENT BASED ON ACTUAL SWELL PRODUCTION DURING CONSTRUCTION.
3. CONTRACTOR SHALL PLACE SWELL MATERIAL AT THE NORTH END OF CAA-4 IN CONJUNCTION WITH INSTALLATION OF THE INTERCEPTOR TRENCH AND ISS SURFACE GRADING. SWELL MATERIAL ADJACENT TO THE INTERCEPTOR TRENCH SHALL BE WRAPPED WITH A WOVEN GEOTEXTILE FABRIC DURING PLACEMENT AND COMPACTION TO SEPARATE THE TREATED ISS MATERIAL FROM THE TRENCH BACKFILL.
4. ISS FLUFF SHOULD BE COMPACTED IN 6-INCH LIFTS USING A DOZER FOLLOWED BY A SMOOTH DRUM ROLLER ON THE FINAL LIFT TO CREATE A SMOOTH SURFACE. ALL FILL SUPPORTING STRUCTURES, INCLUDING BUILDINGS AND PAVEMENTS, SHOULD BE MOISTURE CONDITIONED AND COMPACTED TO A DENSE AND UNYIELDING CONDITION AS DETERMINED BY PANGEO'S FIELD REPRESENTATIVE.

PERFORMANCE MONITORING

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAMPLING AND PERFORMANCE TESTING REQUIRED IN THIS SECTION. CONTRACTOR SHALL ALSO PROVIDE A DUPLICATE SET OF SAMPLES TO THE ENGINEER UPON REQUEST OF THE ENGINEER FOR EVERY SAMPLE TAKEN FOR PRODUCTION TESTING.
2. PERIODICALLY THE ENGINEER WILL VISUALLY INSPECT EACH BATCH OF MIXED GROUT TO ENSURE THAT THE GROUT HAS BEEN SUFFICIENTLY MIXED. CONTRACTOR SHALL CONTINUE TO MIX GROUT UNTIL IT IS THOROUGHLY MIXED TO THE SATISFACTION OF THE ENGINEER.
3. CONTRACTOR SHALL COLLECT IN SITU BULK SAMPLES FROM NEWLY SOLIDIFIED MIXING CELLS.
   A. SAMPLING TIMING - SAMPLING OF THE MIXING CELLS SHALL OCCUR WITHIN 4 HOURS OF MIXING CELL COMPLETION WHILE THE MIXING CELL IS STILL WET.
   B. SAMPLING TOOL - CONTRACTOR SHALL PROVIDE AND USE A SUITABLE IN SITU SAMPLING TOOL TO COLLECT THE SAMPLES. THE MINIMUM SAMPLE VOLUME OF THE TOOL SHALL BE 3.0 GALLONS. THE SAMPLER SHALL CONSIST OF A WEIGHTED CHAMBER, WHICH CAN BE OPENED AND CLOSED FROM THE SURFACE TO OBTAIN MIXED SOIL AND GROUT AT DEPTH IN THE MIXING CELL. THE SAMPLER SHALL BE CAPABLE OF SAMPLING TO THE DEPTH OF THE BOTTOM ELEVATION FOR ISS TREATMENT IN ALL LOCATIONS.
   C. SAMPLING FREQUENCY - AT A MINIMUM, 1 SAMPLE WILL BE COLLECTED FROM EACH MIXING CELL PER DAY OF PRODUCTION. THE MIXING CELL WILL BE CHOSEN BY THE ENGINEER.
   D. NUMBER OF SAMPLES PER MIXING CELL - A SAMPLE FOR QUALITY CONTROL TESTING SHALL BE COLLECTED FROM EACH MIXING CELL. MIXING CELL SIZES HAVE BEEN SELECTED TO APPROXIMATE 1 DAY OR SHIFT OF PRODUCTION FOR 1 EXCAVATOR. THE SAMPLE WILL BE COLLECTED FROM THE LOCATION AND DEPTH SPECIFIED BY THE ENGINEER AT THE TIME OF SAMPLING AND WILL VARY FOR EACH MIXING CELL. CONTRACTOR SHALL FORM THE REQUIRED NUMBER OF INDIVIDUAL CYLINDERS OR MOLDS TO PERFORM THE TESTING DESCRIBED BELOW. ADDITIONAL CYLINDERS WILL BE REQUIRED TO PERFORM DUPLICATE TESTING ON 10% OF THE MIXING CELLS.
   E. TESTING OF SAMPLES - CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL OF THE QUALITY CONTROL TESTING. CONTRACTOR SHALL TEST TWO CYLINDERS FROM EACH MIXING CELL. THE FIRST CYLINDER OR MOLD SHALL BE TESTED FOR HYDRAULIC CONDUCTIVITY AND UNCONFINED COMPRESSIVE STRENGTH AT 10 DAYS. THE SECOND CYLINDER SHALL BE TESTED FOR PERMEABILITY AND UNCONFINED COMPRESSIVE STRENGTH AT 28 DAYS. IF THE RESULTS AT 28 DAYS DO NOT ACHIEVE THE PROJECT PERFORMANCE REQUIREMENTS, A THIRD CYLINDER SHALL BE TESTED FOR PERMEABILITY AND UNCONFINED COMPRESSIVE STRENGTH. ADDITIONAL TESTING OF CYLINDERS FROM THE SAME MIXING CELL MAY BE REQUIRED IF THE 28 DAY TESTS DO NOT ACHIEVE THE PROJECT PERFORMANCE REQUIREMENTS. ALL ADDITIONAL TESTING PERFORMED AT THE ENGINEERS DISCRETION ON THE MIXING CELL AFTER FAILING 28 DAY TESTS SHALL BE AT THE CONTRACTOR'S EXPENSE. ALTERNATELY, THE CONTRACTOR MAY CHOOSE TO REMIX AND RETEST THE FAILING MIXING CELL RATHER THAN PERFORM ADDITIONAL LABORATORY TESTS ON SAMPLES.
4. THE ENGINEER WILL DETERMINE WHETHER THE CONTRACTOR'S ISS OPERATIONS MEET SPECIFIED PERFORMANCE REQUIREMENTS BASED ON THE QUALITY CONTROL LABORATORY TESTING RESULTS.
5. THE ENGINEER MAY REQUIRE ADDITIONAL SAMPLING DURING THE COURSE OF THE PROJECT.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

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3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale. If scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

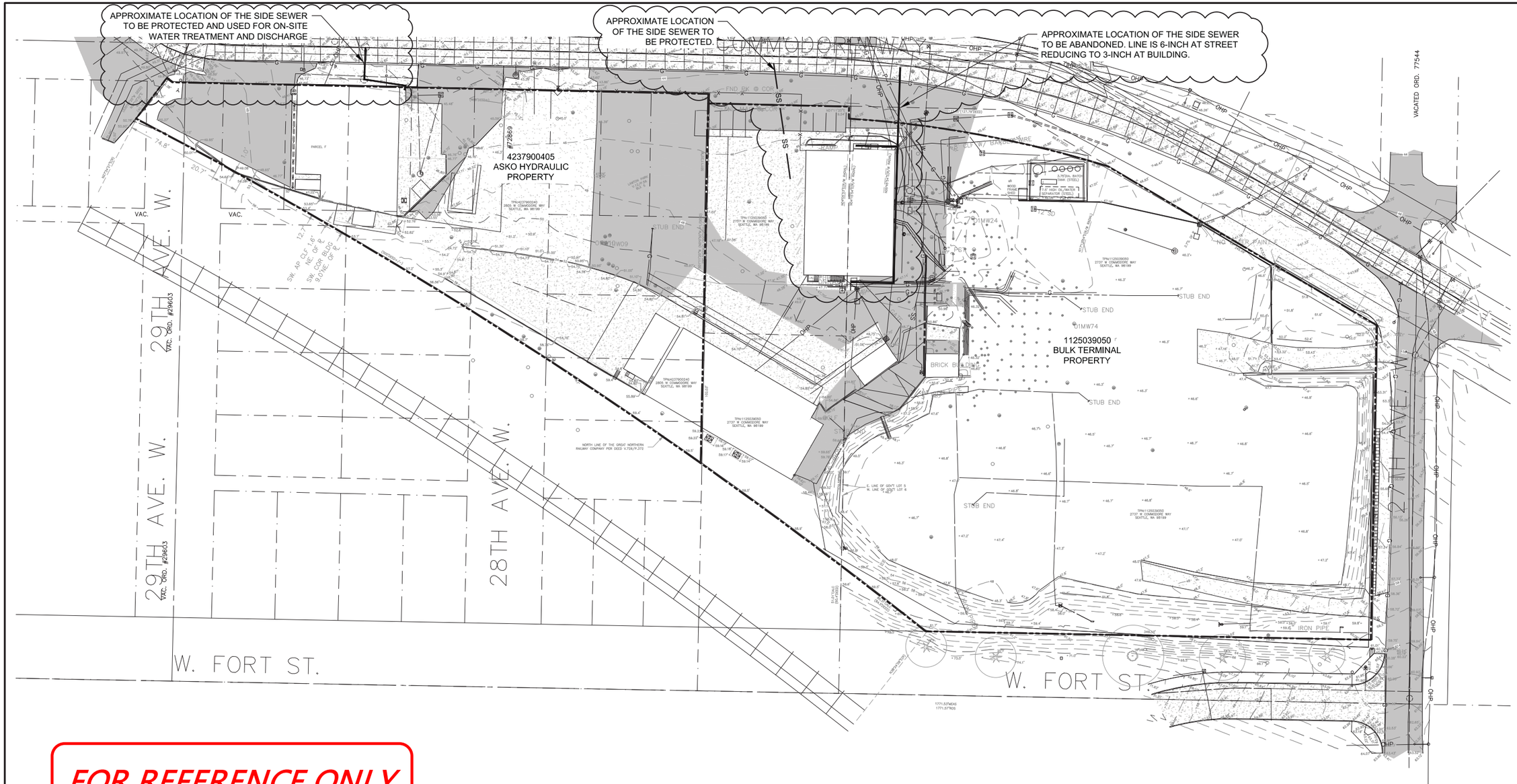
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

General Notes (4 of 4)

Drawing No. **G-6**

Sheet 6 of 23

File: D:_Projects\Crete\Time Oil Seattle\GI-G3 thru G6.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



FOR REFERENCE ONLY

NOTES

1. SITE SURVEY BY AXIS SURVEY & MAPPING, DATED 12-9-2020.

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal Remediation Design Seattle, Washington

Site Survey (2 of 2)

Drawing No. **G-7B**

Sheet 8 of 23

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
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6/28/2021

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MOORAGE-DNR LEASE

1125039113
DNR AQUATIC LEASE
LAND PROPERTY

Not included in this submittal.

1125039047
LOCKHAVEN APARTMENTS
AND MARINA

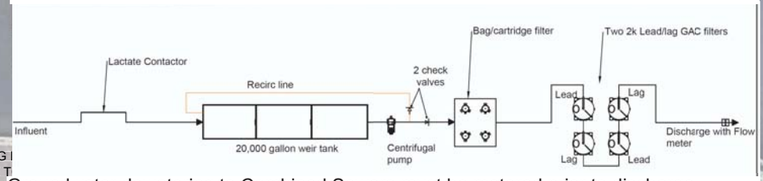
1125039081
WEST WATERFRONT
PROPERTY

1125039120
EAST WATERFRONT
PROPERTY

ENSURE CONSTRUCTION FENCING I
CONTINUOUS TO THE SHORELINE T
ISOLATE THE SITE. INSTALL NEW 5'
CONSTRUCTION FENCING, IF REQU

4237900410
WAREHOUSE

PROPOSED ON-SITE 100 GPM REMEDIATION DEWATERING PROCESS FLOW DIAGRAM. DETAILS OF THIS SYSTEM ARE PROVIDED IN THE KING COUNTY INDUSTRIAL WASTEWATER DISCHARGE APPLICATION. ALL ON-SITE WATER TREATMENT SHALL COMPLY WITH THE KING COUNTY PERMIT REQUIREMENTS.



Groundwater dewatering to Combined Sewers must be metered prior to discharge. Contact the SPU Submeter Program office at (206) 684-5089 to determine the required meter type, installation location and billing information and to schedule an inspection after installation

1125039068
MARITIME INDUSTRIAL
CENTER

2771605265
CRS BOATYARD

2 APPROXIMATE LOCATION OF SIDE SEWER AND SEWER MAIN FOR ONSITE DISCHARGE. SEE SHEET G-7B FOR DETAILS. ONLY PARTIAL MAIN SEWER SHOWN ON THIS SHEET

W COMMODORE WAY

SITE ACCESS

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS REMAIN, TYP.

4237900405
ASKO HYDRAULIC
PROPERTY

2 APPROXIMATE LOCATION OF WATER TREATMENT SYSTEM

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS REMAIN, TYP.

4237900240
BNSF

BNSF RAILWAY

1125039050
BULK TERMINAL
PROPERTY

SITE ACCESS

2771605365
WAREHOUSE

2 ALL ABOVE GROUND FEATURES HAVE BEEN DEMOLISHED BY OTHERS. FOUNDATIONS AND LOADING DOCK WILL REMAIN, TYP.

ISS SWELL
MANAGEMENT
AREA

27TH AVE W

2770606119
WAREHOUSE

26TH AVE W

CONTRACTOR
LAYDOWN AREA

W FORT ST

LEGEND

- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES
- BUILDINGS TO BE DEMOLISHED
- CONTRACTOR LAYDOWN AREA
- SITE ACCESS

NOTES

1. ISS BATCH PLANT AND WATER TREATMENT OPERATIONS SHALL BE LOCATED WITHIN THE ASKO/BULK TERMINAL AND MAY BE LOCATED OUTSIDE OF THE CONTRACTOR LAYDOWN AREA. THE LOCATIONS OF THE ISS BATCH PLAN AND WATER TREATMENT OPERATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO MOBILIZATION.
2. CONTRACTOR LAYDOWN AREA AND SOIL MANAGEMENT AREA (INCLUDING OVERBURDEN AND EXCAVATED SOILS) FOR THE "EAST WATERFRONT PROPERTY" SHALL BE APPROVED BY THE ENGINEER PRIOR TO MOBILIZATION.

EXISTING SITE PLAN
0 60 120
SCALE IN FEET

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

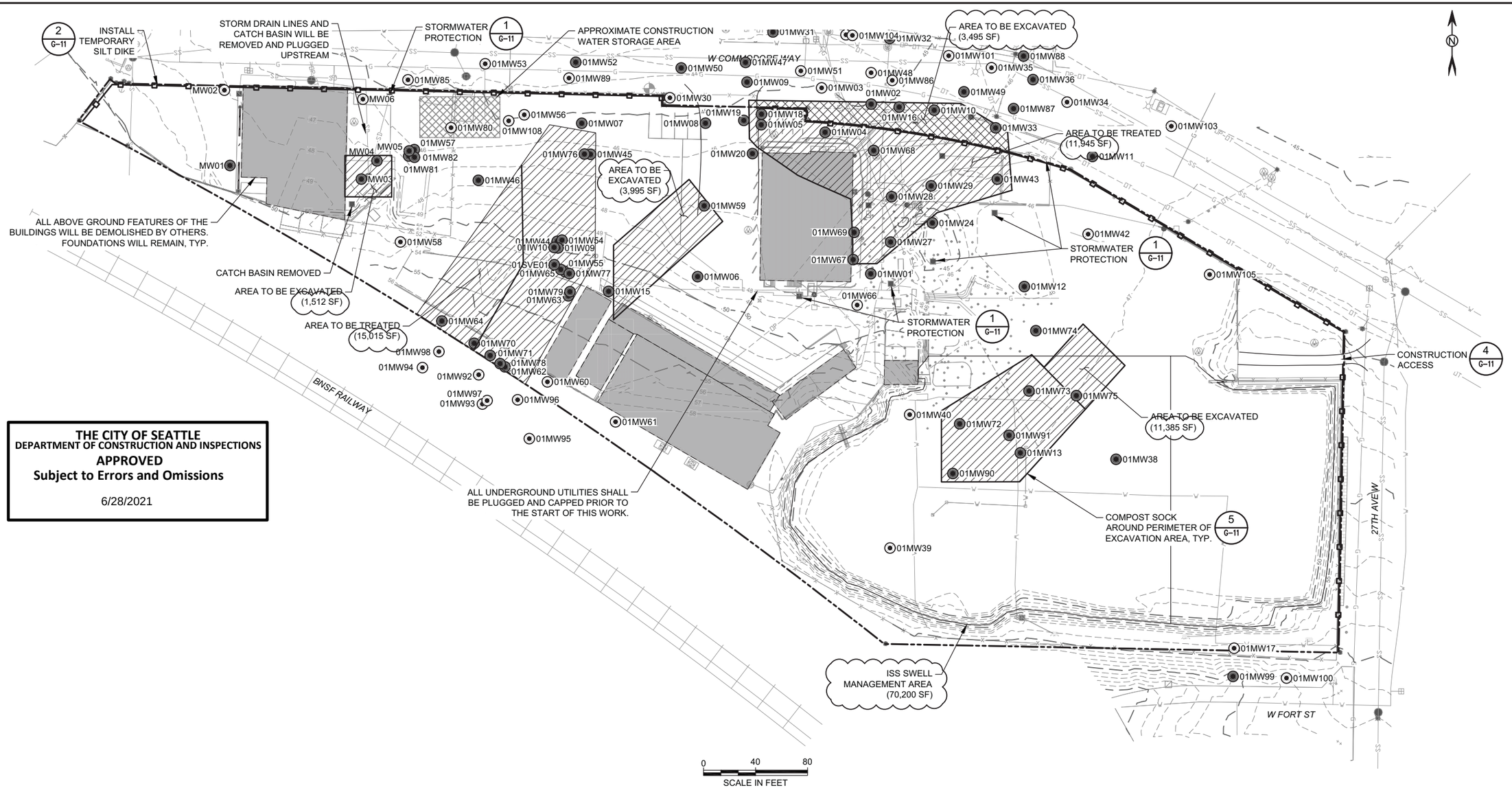
Scale	As Noted
	SCALE WARNING: Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Site Access, Haul Routes, and Staging Areas

Drawing No.
G-8

Sheet 9 of 23



THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

LEGEND

- EXCAVATION / TREATMENT AREA
- ABOVE GROUND FEATURE TO BE DEMOLISHED (UNDER SEPARATE PERMIT)
- CONSTRUCTION WATER STORAGE AREA
- MONITORING WELL TO BE PROTECTED
- MONITORING WELL TO BE DECOMMISSIONED
- TEMPORARY SILT DIKE
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ~~DEMOLITION OF UPLAND STRUCTURES IS PERMITTED UNDER SEPARATE PERMIT AND WILL OCCUR BY OTHERS PRIOR TO THE START OF THIS WORK. DEMOLITION WILL INCLUDE ALL ABOVE GRADE STRUCTURES AND ACTIVE UTILITIES ASSOCIATED WITH THE BUILDINGS.~~ SELECTIVE DEMOLITION WILL BE REQUIRED TO REMOVE ASPHALT AND CONCRETE ABOVE WORK AREAS AND WILL BE COMPLETED BY THE REMEDIATION CONTRACTOR. (2)
2. ALL CONTACT STORMWATER WILL BE COLLECTED DURING SITE CONSTRUCTION AND WILL BE DISCHARGED IN ACCORDANCE WITH PERMITS AND AS APPROVED BY THE ENGINEER.

PERMIT SET

Rev	Date	Description	By

Client

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Seattle, Washington 98104
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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted
SCALE WARNING
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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

Time Oil Bulk Terminal Remediation Design Seattle, Washington
Demo and TESC Plan (2 of 2)

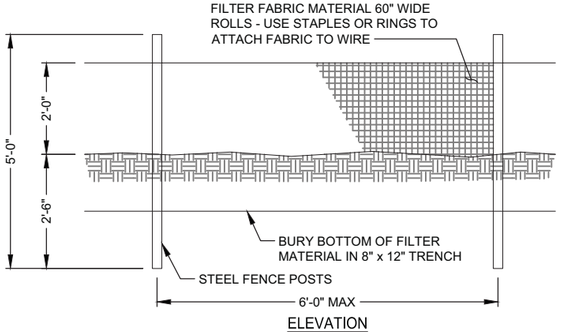
Drawing No. **G-10**

Sheet 11 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

CONSTRUCTION STORMWATER AND EROSION CONTROL PLAN (CSECP) NOTES

1. SUBMIT A CONSTRUCTION STORMWATER ANO EROSION CONTROL PLAN (CSECP), TREE, VEGETATION AND SOIL PROTECTION PLAN (TVSPP), SPILL PLAN (SP), AND TEMPORARY DISCHARGE PLAN (TDP) IN ACCORDANCE WITH 8-01.3(2).
2. THE CONCEPTUAL CSEC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM BMPS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD. THESE CSEC FACILITIES MUST BE UPGRADED (E.G. ADDITIONAL CATCH BASIN FILTERS, OR ADDITIONAL STORMWATER TREATMENT MEASURES) AS NEEDED, DUE TO WEATHER OR FIELD CONDITIONS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM OR OFF-SITE AREAS.
3. THE CONTRACTOR MUST USE PROPER EROSION AND SEDIMENT CONTROL PRACTICES ON THE CONSTRUCTION SITE AND ANY ADJACENT CONSTRUCTION STAGING AREAS TO PREVENT EROSION IN AND DOWNHILL OF DISTURBED AREAS, AND TO PREVENT THE DISCHARGE OF UPLAND SEDIMENTS OR SEDIMENT- LADEN WATER INTO WETLANDS, WATER BODIES, STREETS AND LOCAL DRAINAGE SYSTEMS.
4. THE CSEC FACILITIES ON THE APPROVED PLAN WILL BE CONSTRUCTED PRIOR TO SITE DISTURBANCE TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE CONTRACTOR MUST USE BMPS (E.G. DIVERSION DITCHES, BERMS) AS APPLICABLE TO MINIMIZE OFF- SITE RUNOFF AND CLEAN STORMWATER FROM ENTERING THE PROJECT AREA.
6. THE CONTRACTOR MUST NOT DISCHARGE TURBID WATER GENERATED FROM CONSTRUCTION ACTIVITIES, DIRECTLY TO ANY STREAMS, STORM WATER SYSTEM INLETS, OR DRAINAGE DITCHES.
7. SOIL STOCKPILES MUST BE STABILI ZED FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND, WHERE POSSIBLE, LOCATED AWAY FROM STORM DRAIN INLETS.
8. THE CONTRACTOR MUST EMPLOY DUST CONTROL MEASURES AS NEEDED TO PREVENT SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES.
9. CATCH BASIN PROTECTION MUST BE INSTALLED IN ANY GRATED ROAD DRAINAGE STRUCTURES, EXISTING OR NEWLY INSTALLED, WHICH ARE LIKELY TO RECEIVE RUNOFF FROM THE DISTURBED AREAS DURING CONSTRUCTION. CATCH BASIN PROTECTION SHOWN ON THE CONCEPTUAL CSEC PLANS ARE APPROXIMATE LOCATIONS. THE CONTRACTOR MUST ADD CATCH BASIN PROTECTION AS NECESSARY TO ALL GRATED CATCH BASINS THAT RECEIVE STORMWATER RUNOFF WITHIN THE PROJECT AREA AND THAT MAY OR MAY NOT BE SHOWN ON THE CSEC PLANS.
10. SILT FENCES SHALL BE INSTALLED AND MAINTAINED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(10) AND 8-01.3(14).
11. THE CONTRACTOR SHALL PROTECT ALL DRAINAGE AND SEWER SYSTEM PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(12) AND 8-01.3(14).
12. ALL COMPOST SOCKS, COMPOST BERMS, AND STRAW WATTLES SHALL BE CONSTRUCTED, INSTALLED AND MARINATED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(13) AND 8-01.3(14).
13. BMPS (E.G. COMPOST SOCKS) MUST BE INSTALLED TO PREVENT SEDIMENT OR SEDIMENT LADEN WATERS FROM ENTERING GRATED ROADWAY INLETS WHICH HAVE NO SUMP AND MAY BE TOO SHALLOW TO EMPLOY CATCH BASIN FILTER SOCKS. OTHER BMPS, SUCH AS STREET SWEEPING AND VACUUMING MUST ALSO BE EMPLOYED AS NEEDED TO REMOVE SEDIMENT.
14. AT NO TIME MUST MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES MUST BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION MUST NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
15. PER CITY OF SEATTLE STANDARD SPECIFICATION SECTION 8-01.3(2)A AND THE CITY'S STORMWATER CODE, AREAS OF EXPOSED SOIL IN EXCESS OF 4,000 SQUARE FEET THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE PERIOD FROM OCTOBER 1 TO APRIL 30, OR SEVEN DAYS DURING THE PER IOD FROM MAY 1 TO SEPTEMBER 30, WILL BE IMMEDIATELY STABILIZED WITH APPROVED CSEC METHODS (E.G., SEEDING, MULCHING, NETTING, CLEAR PLASTIC COVERING).
16. THE CONTRACTOR'S CERTIFIED SEDIMENT AND EROSION CONTROL LEAD (CSECL) MUST REVIEW AND MODIFY THE CSEC PLANS ON AN AS NEEDED BASIS TO REFLECT THE SITE CONDITIONS AND CONSTRUCTION METHODS USED. THE CONTRACTOR'S CSECL MUST CONDUCT SITE INSPECTIONS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24 HOURS OF ANY RUNOFF DISCHARGE FROM SITE. AFTER ANY 24- HOUR RUNOFF PRODUCING EVENT, THE CSECL WILL INSPECT CSEC MEASURES FOR INTEGRITY. ANY DAMAGED CSEC MEASURES WILL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND REPAIRED IMMEDIATELY.
17. CONCRETE SAWCUTTING DEBRIS AND SLURRY MUST BE CONTAINED AND MANAGED USING APPROPRIATE BMPS TO PREVENT CONTAMINATION OF SITE WATER AND MEET DISCHARGE REQUIREMENTS. FRESH CONCRETE CAN ALSO ADVERSELY AFFECT SITE WATER QUALITY. PH SAMPLING AND TESTING MUST BE IN COMPLIANCE WITH APPLICABLE DISCHARGE AUTHORIZATIONS FROM KING COUNTY DURING CONCRETE POURS AND SAWCUTTING. IF PH EXCEEDS DISCHARGE LIMITS, APPROPRIATE BMPS MUST BE APPLIED.
18. THE CONTRACTOR MUST SET ASIDE A SEPARATE AREA FOR THE WASH-OUT OF CONSTRUCTION EQUIPMENT AND TOOLS. PROCESS WATER MUST BE HAULED OFF SITE OR DISCHARGED TO SEWER IN COMPLIANCE WITH A KING COUNTY DISCHARGE AUTHORIZATION.
19. TEMPORARY TRENCH DEWATERING MUST BE DISCHARGED TO AN APPROVED LOCATION. DISCHARGES TO THE SEWER SYSTEM MUST COMPLY WITH ALL PROVISIONS OF ANY DISCHARGE AUTHORIZATIONS FROM KING COUNTY AND SPU, AS WELL AS COS SPECIFICATIONS SECTION 2- 08.3. & 8- 01.3(2)D AND E.
20. EXCAVATION SPOILS MAY BE EXTREMELY WET. CONTRACTOR MUST PREVENT MUD AND WATER FROM BEING TRACKED ALONG HAULING ROUTES BY LINING TRUCK BEDS OR BY OTHER MEANS AS NECESSARY. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
21. THE CONTRACTOR IS RESPONSIBLE FOR THE SEQUENCING AND STAGING OF ALL DEMOLITION AND CSEC ACTIVITIES AT APPROPRIATE TIMES.
22. PROTECT TREES & VEGETATION PER STANDARD SPECIFICATIONS 1 -07. 16 (2) & 8-01.3(2)B. CONTACT SDOT URBAN FORESTRY (684-8621 OR 684-5041) FOR FIELD REVIEW OF TREE, VEGETATION, AND SOIL PROTECTION PLAN PRIOR TO CONSTRUCTION.
23. THE CONTRACTOR MUST ENSURE THAT SOIL, DEBRIS, OR OTHER MATERIAL TRACKED AND DEPOSITED ARE REMOVED BY SWEEPING OR BY WASHING AND PROPERLY DISPOSED PER CITY OF SEATTLE SPECIFICATIONS 8-01.3(16).
24. CONTRACTOR SHALL LOCATE EXISTING CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES DURING THE PROJECT. PROTECTION OF THESE CATCH BASINS AND RELATED STORMWATER DRAINAGE FEATURES SHALL BE COORDINATED WITH THE WORK BY THE CONTRACTOR.



3 — TEMPORARY FILTER FABRIC FENCE - DETAIL
SCALE: NTS

THE CITY OF SEATTLE
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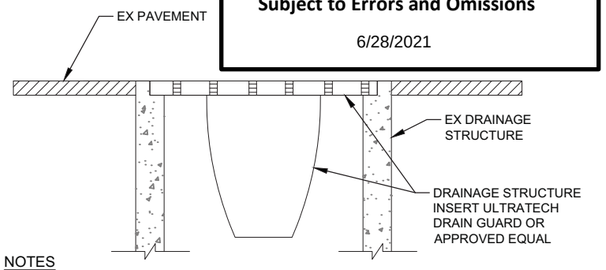
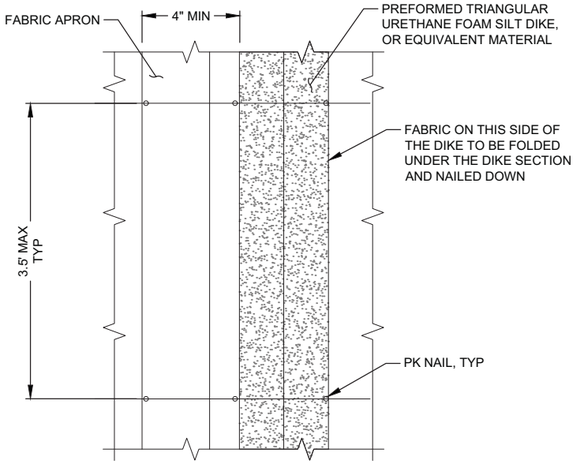
6/28/2021



NOTES

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED. ALL SEDIMENT SHALL BE DISPOSED OF OFF-SITE.
2. ANY SEDIMENT IN THE DRAINAGE STRUCTURE INSERT SHALL BE REMOVED WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE INSERT. THE INSERT SHALL BE REPLACED MONTHLY OR AS DIRECTED BY THE ENGINEER.

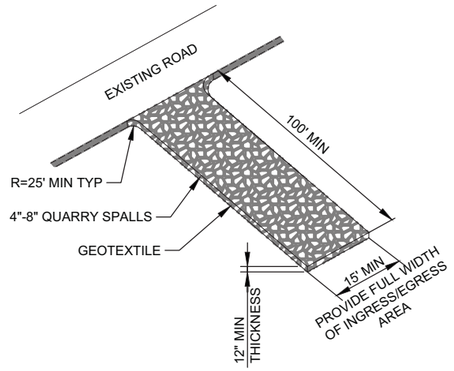
1 — TEMPORARY DRAINAGE STRUCTURE INSERT - DETAIL
SCALE: NTS



NOTES

1. PK NAILS SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF A 7-FOOT UNIT AS SHOWN ON THE DIKE PLAN.
2. ALTERNATE APPROVED HOLD DOWN DEVICE MAY BE SUBSTITUTED FOR PK NAILS (WIRE STAPLES, ETC).

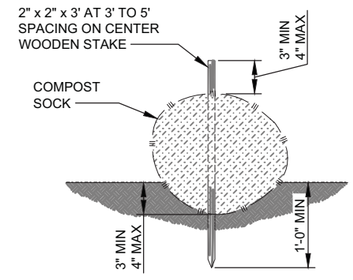
2 — TEMPORARY TRIANGULAR SILT DIKE - DETAIL
SCALE: NTS



NOTES

1. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS MUST BE REMOVED IMMEDIATELY.
2. VEHICLE TIRES SHALL BE INSPECTED TO ENSURE THEY ARE FREE OF MUD BEFORE ENTERING PUBLIC ROADWAYS.
3. PROVIDE FLAGGING FOR CONSTRUCTION VEHICLES ENTERING AND LEAVING SITE AND ENTERING PUBLIC ROADWAYS.
4. CONTRACTOR SHALL MAINTAIN AND AUGMENT EXISTING STABILIZED CONSTRUCTION ENTRANCES AS NEEDED TO CONTROL SEDIMENT.

4 — STABILIZED TEMPORARY CONSTRUCTION ACCESS - DETAIL
SCALE: NTS



NOTE

1. COMPOST SOCK SHALL BE 100% NATURAL AND BIODEGRADABLE. MATERIAL AND INSTALLATION SHALL BE PER WSDOT STANDARD SPECIFICATIONS 8-01.3(12) AND 9-14.5(6).

5 — COMPOST SOCK - DETAIL
SCALE: NTS

OTHER POSSIBLE BMPS SHALL INCLUDE THE FOLLOWING FROM THE CONSTRUCTION STORMWATER GENERAL PERMIT, STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (SWMMWW 2019): HIGH VISIBILITY PLASTIC OR METAL FENCE (BMP C103), WHEEL WASH (BMP C106), CONSTRUCTION ROAD/PARKING AREA STABILIZATION (BMP C107), DUST CONTROL MEASURES (BMP C140), SAWCUTTING AND SURFACING POLLUTION PREVENTION MEASURES BMP C152, CONCRETE HANDLING MEASURES BMP C151 AND TEMPORARY AND PERMANENT SEEDING (BMP C120). THESE SHALL INSTALLED AND MAINTAINED PER THE SPECIFICATIONS PROVIDED IN THE SWMMWW.

PERMIT SET

Rev	Date	Description	By

Client

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Scale: As Noted

SCALE WARNING
Drawing is not to scale. If scale bar doesn't measure one inch

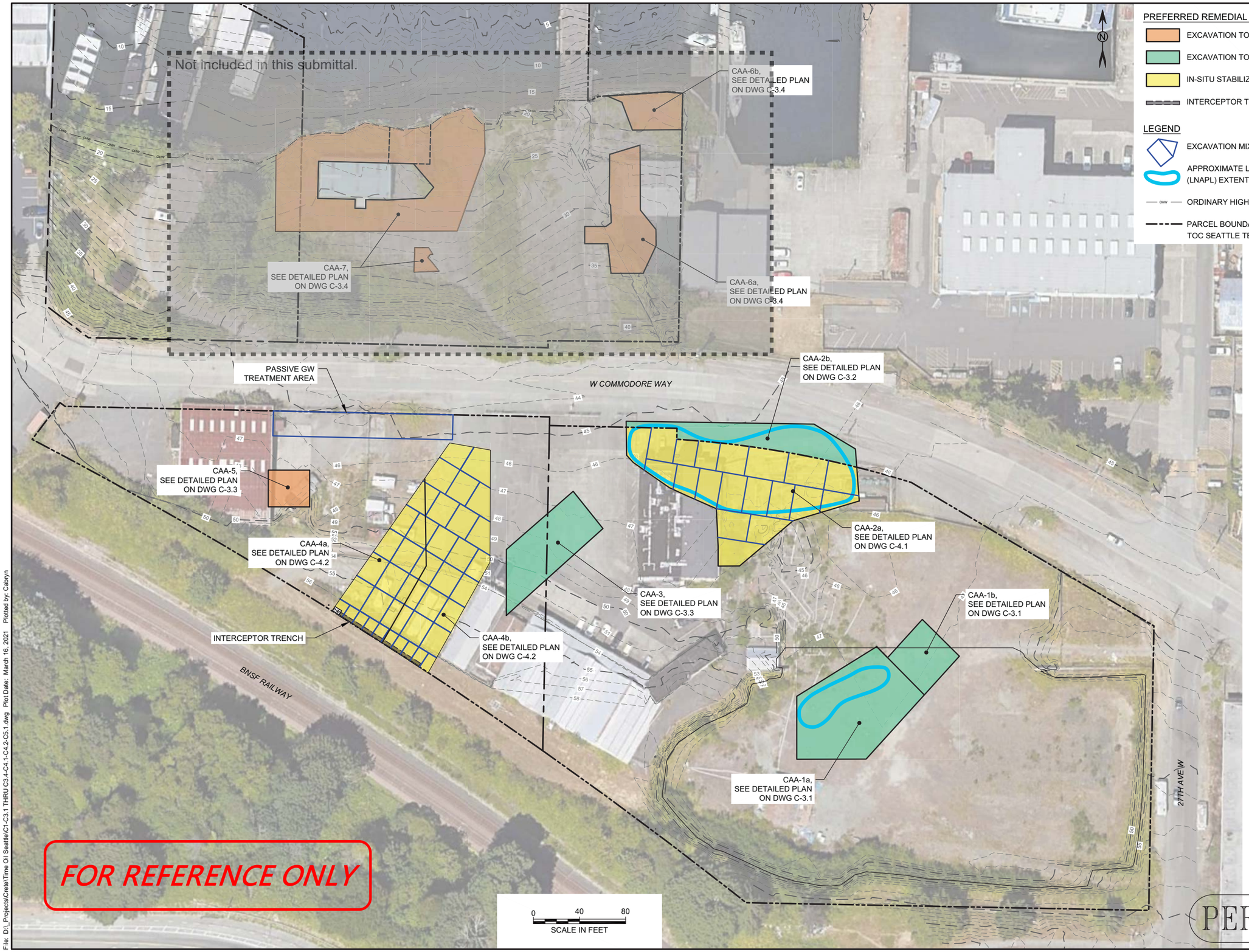
Designer: M. Byers
Drafter: C. Taylor
Checker: X
Reviewer: X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

TESC Notes and Details

Drawing No.
G-11

Sheet 12 of 23



PREFERRED REMEDIAL ALTERNATIVE

- EXCAVATION TO CLEANUP LEVEL (CUL)
- EXCAVATION TO REMEDIATION LEVEL (REL)
- IN-SITU STABILIZATION / SOLIDIFICATION
- INTERCEPTOR TRENCH

LEGEND

- EXCAVATION MIXING GRID CELLS
- APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT
- OHW — ORDINARY HIGH WATER
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

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Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

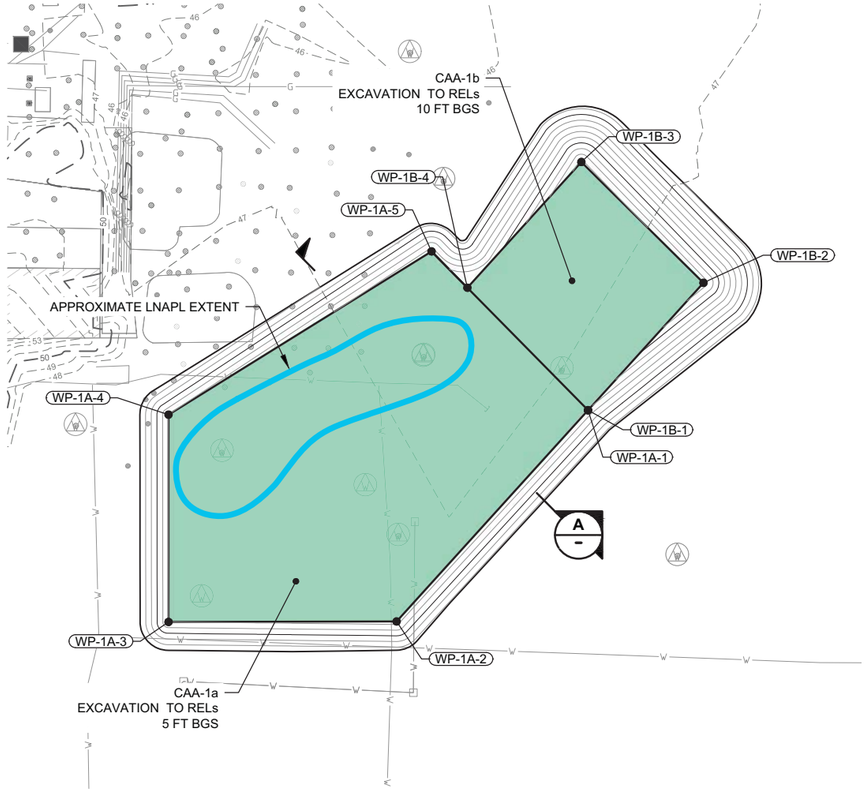
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

Remediation Areas

Drawing No.
C-1

Sheet 13 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-1 EXCAVATION AREAS

0 20 40

SCALE IN FEET

CAA-1a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-1A-1	245351.26	1256363.61
WP-1A-2	245295.50	1256313.09
WP-1A-3	245295.38	1256252.89
WP-1A-4	245350.08	1256252.89
WP-1A-5	245393.18	1256322.31

CAA-1b

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-1B-1	245351.26	1256363.61
WP-1B-2	245384.89	1256394.08
WP-1B-3	245416.79	1256361.85
WP-1B-4	245383.59	1256331.77

LEGEND

EXCAVATION TO REMEDIATION LEVEL (REL)

APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES WILL BE STABILIZED TO PREVENT EROSION.

A SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

FOR REFERENCE ONLY

PERMIT SET

Rev	Date	Description	By

Client

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GRANT HAINSWORTH STATE OF WASHINGTON 33192 REGISTERED PROFESSIONAL ENGINEER 3/16/2021

Scale As Noted

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Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

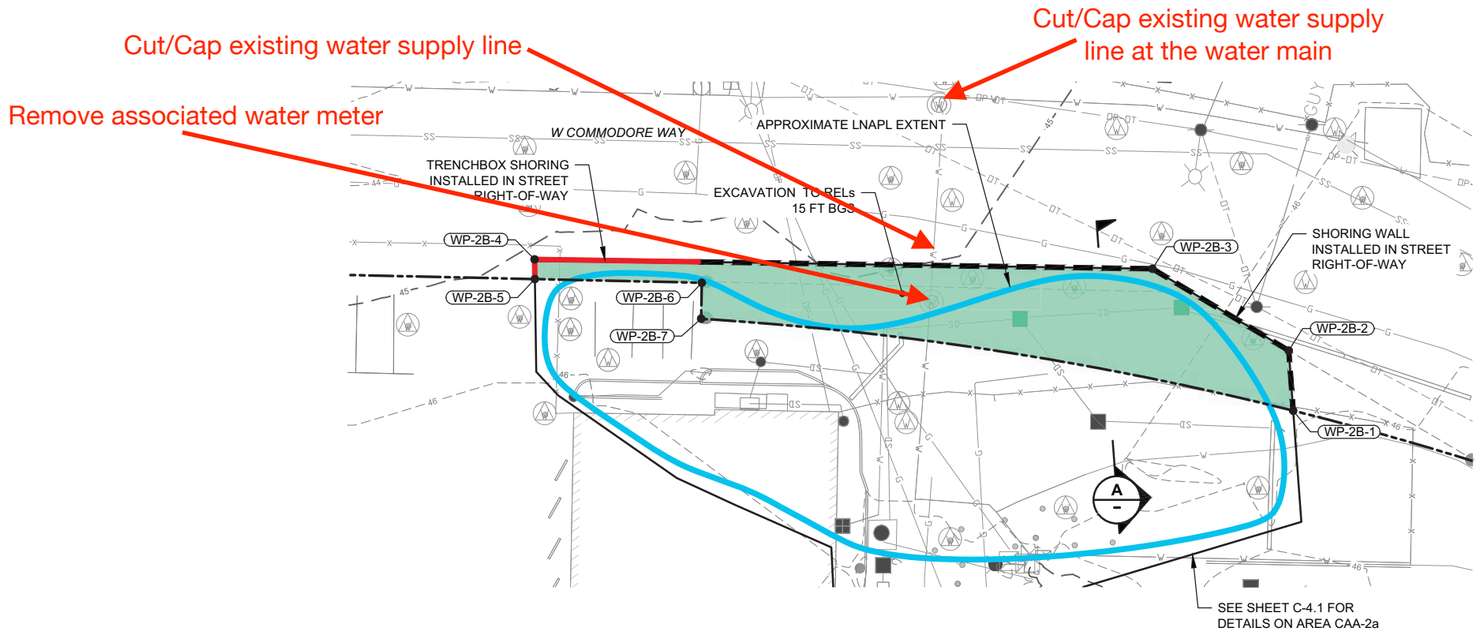
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-1 Excavation Area Plan and Profile

Drawing No.
C-3.1

Sheet 14 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW
CAA-2B EXCAVATION AREA

0 20 40
SCALE IN FEET

CAA-2b

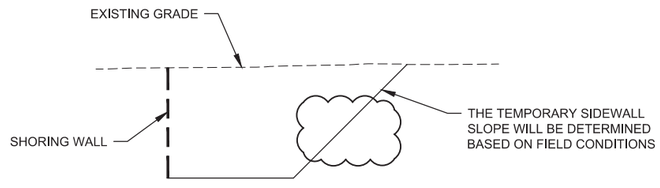
WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-2B-1	245548.98	1256304.98
WP-2B-2	245564.83	1256303.81
WP-2B-3	245586.42	1256267.84
WP-2B-4	245588.91	1256104.74
WP-2B-5	245583.71	1256104.82
WP-2B-6	245582.74	1256148.89
WP-2B-7	245573.24	1256148.72

LEGEND

- EXCAVATION TO REMEDIATION LEVEL (REL)
- APPROXIMATE LIGHT NON-AQUEOUS-PHASE LIQUID (LNAPL) EXTENT
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES
- SHORING WALL (SEE SHORING DRAWINGS SS1.0 THRU SS4.0 FOR DETAILS)
- TRENCH BOX SHORING

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES IN THE CITY OF SEATTLE ROW WILL BE RETURNED TO EXISTING CONDITIONS BASED ON CITY OF SEATTLE REQUIREMENTS.
2. UTILITIES WILL BE PROTECTED DURING CONSTRUCTION ACTIVITIES.
3. GAS LINE SHALL BE LOCATED PER THE SHORING DETAILS.
4. ALL SEWER AND STORM LINES IN THE ROW WITHIN 10 FEET (OR WITHIN 20 FEET IF SUCH LINES ARE 30 FEET OR MORE OFF SITE PROPERTY LINE) OF ANY PROPOSED SHORING ELEMENT SHALL BE VIDEOTAPED OF PRE-PROJECT CONDITION AND A COPY SENT TO SPU AT SPU_DWW_PIPE_REHAB@SEATTLE.GOV PRIOR TO PRE-CONSTRUCTION MEETING. SIMILAR VIDEOTAPE OF POST-PROJECT CONDITION IS ALSO REQUIRED AND SENT TO SPU AT SAME EMAIL ADDRESS. ADD A NOTE IN THE PLANS TO THIS EFFECT.
5. THE CITY ROW SHALL BE RESTORED TO PRE EXISTING CONDITIONS BASED ON THE CITY OF SEATTLE REQUIREMENTS.



A – SECTION
SCALE: 1"=10'

0 10 20
SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

SUUMP0000216
Approved as noted with SPU MOU.

W.Bou 9/3/2021
SDOT Street Use

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
6/28/2021

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 43122 — REGISTERED PROFESSIONAL ENGINEER — 5/16/2021

Scale	As Noted
SCALE WARNING	Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

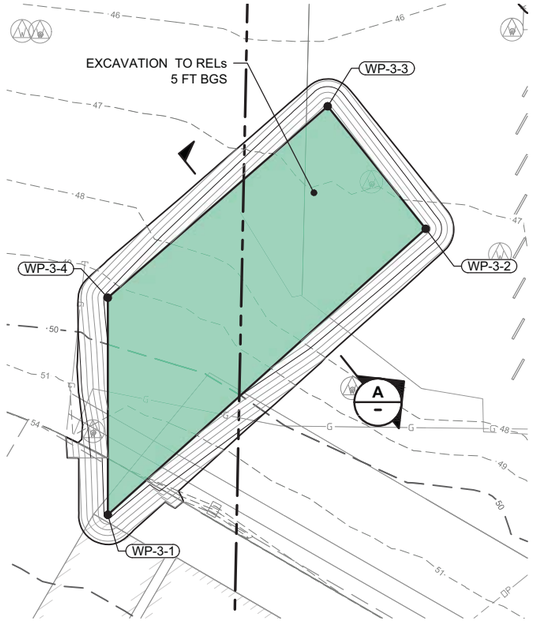
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-2b Excavation Plan Plan and Profile

Drawing No.
C-3.2

Sheet 15 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

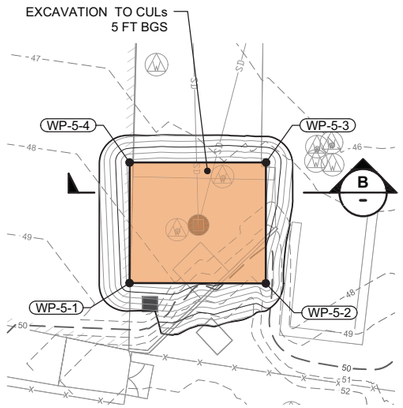


DETAILED PLAN VIEW

CAA-3 EXCAVATION AREA

0 20 40

SCALE IN FEET



DETAILED PLAN VIEW

CAA-5 EXCAVATION AREA

0 20 40

SCALE IN FEET

CAA-3

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-3-1	245420.23	1256000.75
WP-3-2	245495.70	1256084.65
WP-3-3	245528.03	1256058.78
WP-3-4	245477.52	1256000.75

CAA-5

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-5-1	245514.61	1255794.03
WP-5-2	245514.51	1255829.99
WP-5-3	245546.44	1255830.03
WP-5-4	245546.44	1255794.06

LEGEND

- EXCAVATION TO CLEANUP LEVEL (CUL)
- EXCAVATION TO REMEDIATION LEVEL (REL)
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. EXCAVATED AREAS WILL BE BACKFILLED AND COMPACTED WITH CLEAN IMPORT MATERIAL TO EXISTING GRADE +/- 1 FOOT. FINAL SURFACES WILL BE STABILIZED TO PREVENT EROSION.

A SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

B SECTION

SCALE: 1"=10'

0 10 20

SCALE IN FEET

NOTES

1. FINAL SOIL EXCAVATION DEPTHS WILL VARY BASED ON FIELD CONDITIONS, CROSS SECTIONS SHOW ANTICIPATED DEPTH AND VARIABILITY (TYP).

FOR REFERENCE ONLY

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH
STATE OF WASHINGTON
53123
REGISTERED
PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

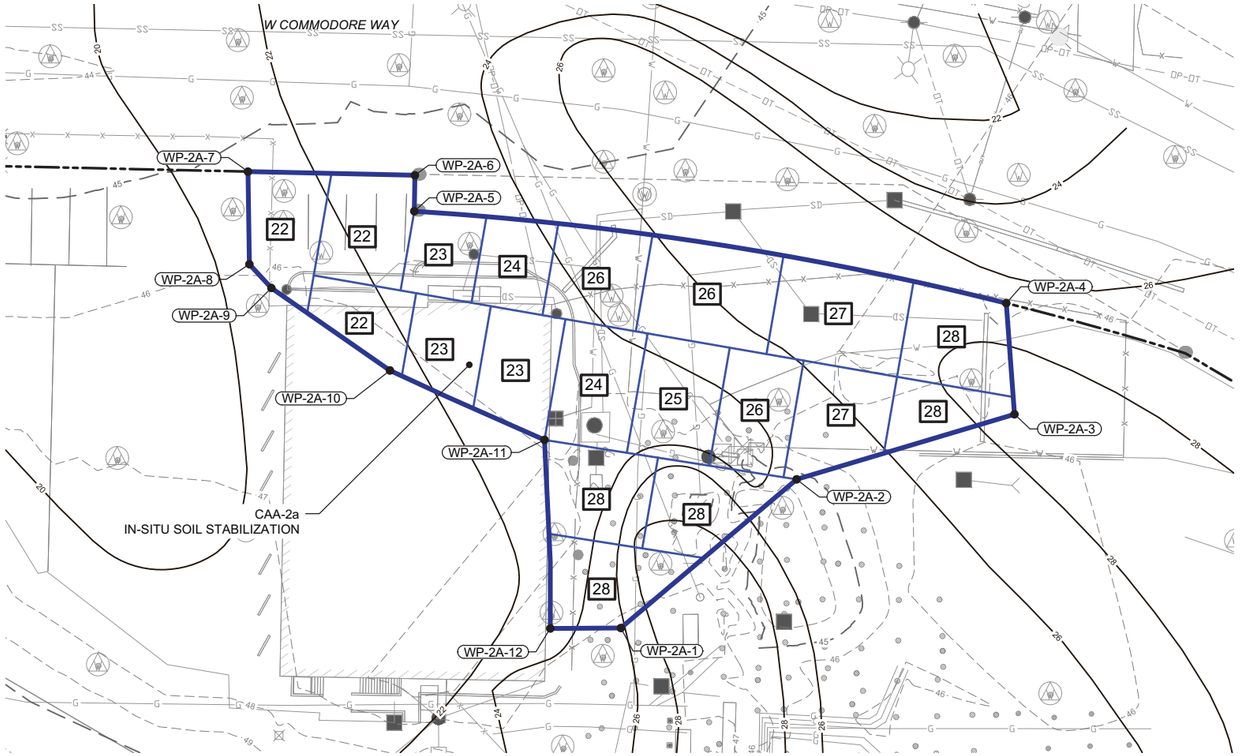
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-3 and CAA-5 Excavation Area Plan and Profile

Drawing No.
C-3.3

Sheet 16 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-2A IN-SITU SOLIDIFICATION AREA

0 20 40

SCALE IN FEET

CAA-2a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-2A-1	245463.24	1256203.26
WP-2A-2	245502.48	1256249.65
WP-2A-3	245519.64	1256307.14
WP-2A-4	245548.98	1256304.98
WP-2A-5	245573.24	1256148.72
WP-2A-6	245582.74	1256148.89
WP-2A-7	245583.71	1256104.82
WP-2A-8	245559.25	1256105.20
WP-2A-9	245552.99	1256111.00
WP-2A-10	245531.21	1256142.30
WP-2A-11	245512.90	1256183.10
WP-2A-12	245463.12	1256184.62

LEGEND

- IN-SITU STABILIZATION / SOLIDIFICATION
- 24 — EXCAVATION MIXING GRID CELL WITH MIXING BOTTOM ELEVATION (IN FEET, NAVD88)
- EXISTING SURFACE CONTOUR
- 20 — TOP OF SILT CONTOUR
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ALL ISS TREATMENT AREAS SHALL BE COVERED WITH A WOVEN GEOTEXTILE FABRIC AND 6 INCHES OF CRUSHED ROCK OR BALLAST ROCK TO RESTORE THE AREA TO PRE-EXISTING CONDITIONS.
2. THE FINAL DEPTH OF THE IN-SITU SOIL STABILIZATION AREA MAY CHANGE BASED ON FIELD CONDITIONS.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH STATE OF WASHINGTON 33123 REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

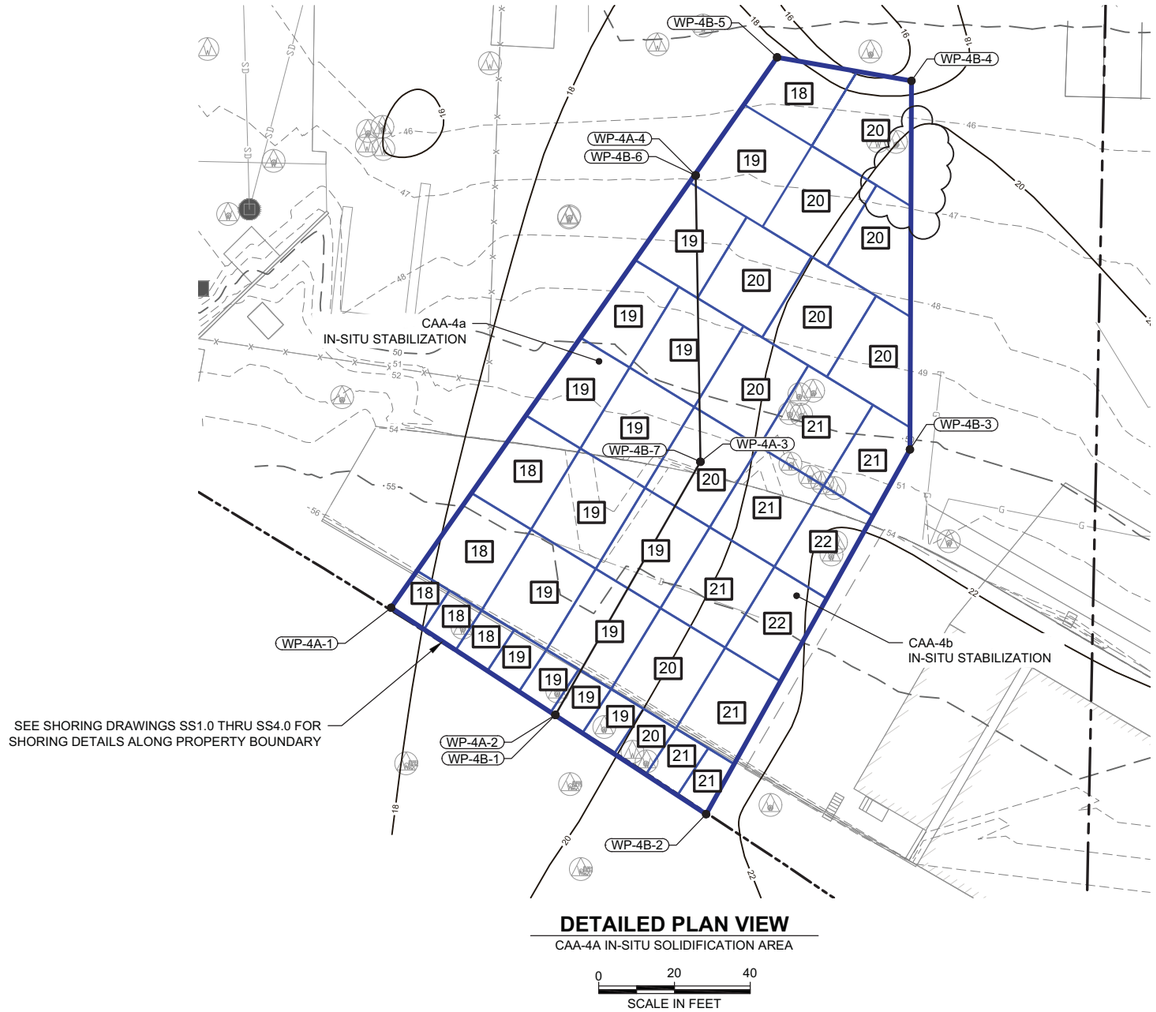
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-2a Insitu Solidification Area

Drawing No.
C-4.1

Sheet 18 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



DETAILED PLAN VIEW

CAA-4A IN-SITU SOLIDIFICATION AREA

0 20 40

SCALE IN FEET

CAA-4a

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-4A-1	245424.77	1255849.60
WP-4A-2	245396.49	1255892.98
WP-4A-3	245463.29	1255931.25
WP-4A-4	245538.88	1255929.98

CAA-4b

WORKING POINTS		
POINT ID	NORTHING	EASTING
WP-4B-1	245396.49	1255892.98
WP-4B-2	245370.29	1255932.76
WP-4B-3	245466.55	1255986.55
WP-4B-4	245563.84	1255986.96
WP-4B-5	245570.05	1255951.48
WP-4B-6	245538.88	1255929.98
WP-4B-7	245463.29	1255931.25

LEGEND

- IN-SITU STABILIZATION / SOLIDIFICATION
- 24 — EXCAVATION MIXING GRID CELL WITH MIXING BOTTOM ELEVATION (IN FEET, NAVD88)
- EXISTING SURFACE CONTOUR
- TOP OF SILT CONTOUR
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

NOTES

1. ALL ISS TREATMENT AREAS SHALL BE COVERED WITH A WOVEN GEOTEXTILE FABRIC AND 6 INCHES OF CRUSHED ROCK OR BALLAST ROCK TO RESTORE THE AREA TO PRE-EXISTING CONDITIONS.
2. THE FINAL DEPTH OF THE IN-SITU SOIL STABILIZATION AREA MAY CHANGE BASED ON FIELD CONDITIONS.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer M. Byers
Drafter C. Taylor
Checker X
Reviewer X

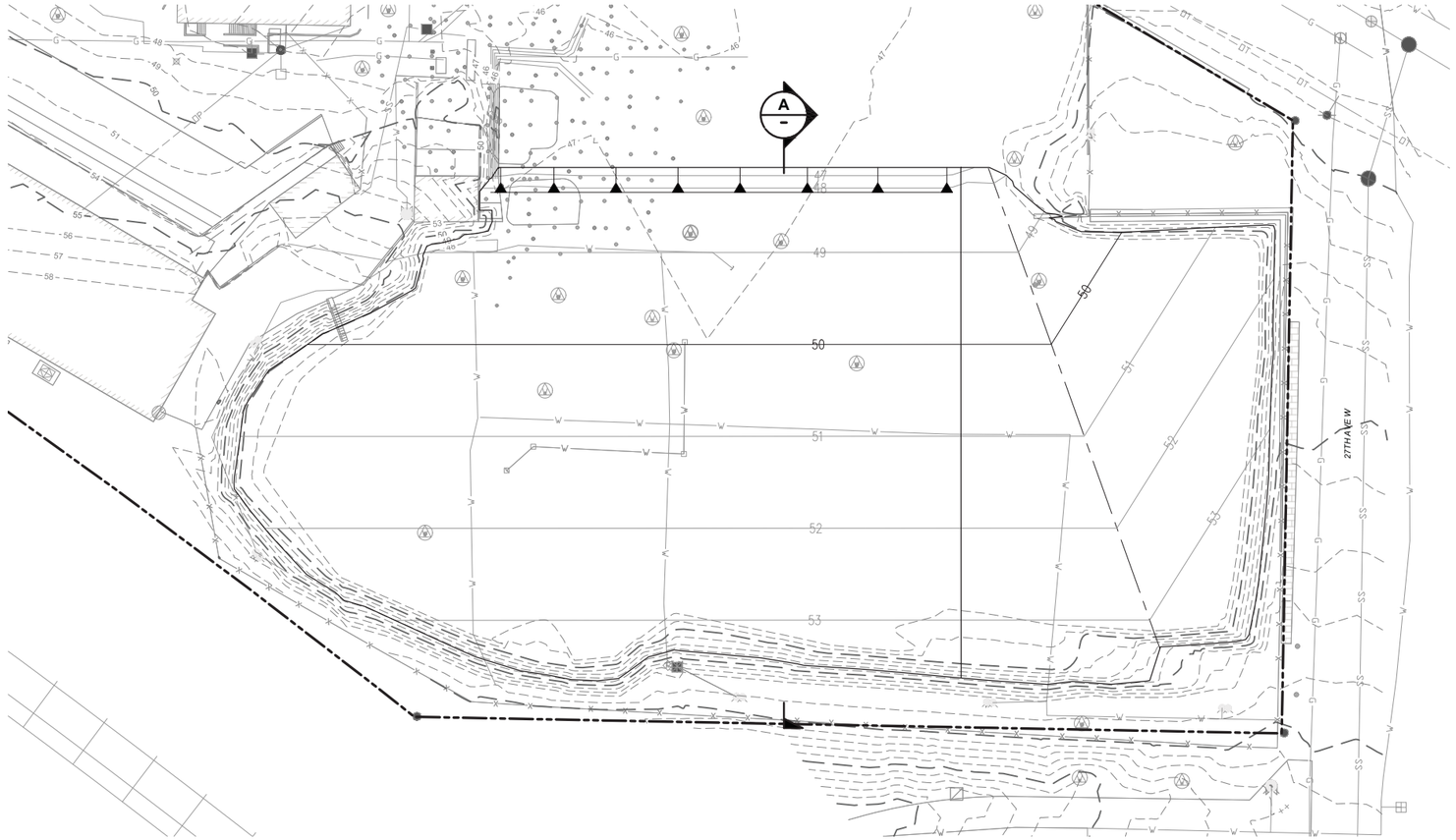
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

CAA-4a Insitu Solidification Area

Drawing No.
C-4.2

Sheet 19 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

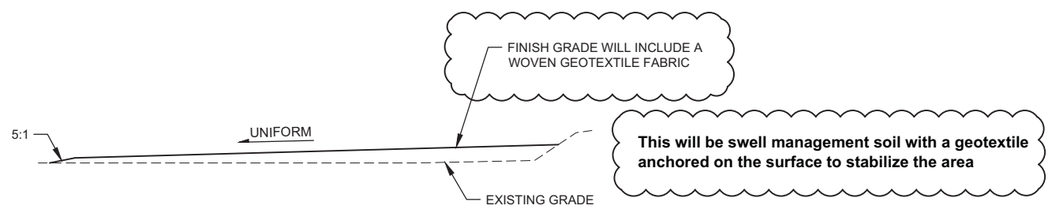


DETAILED PLAN VIEW

ISS SWELL MANAGEMENT AREA

0 30 60

SCALE IN FEET



A SECTION

SCALE: 1"=30'

0 30 60

SCALE IN FEET

FOR REFERENCE ONLY

PERMIT SET

Rev	Date	Description	By

Client

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108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

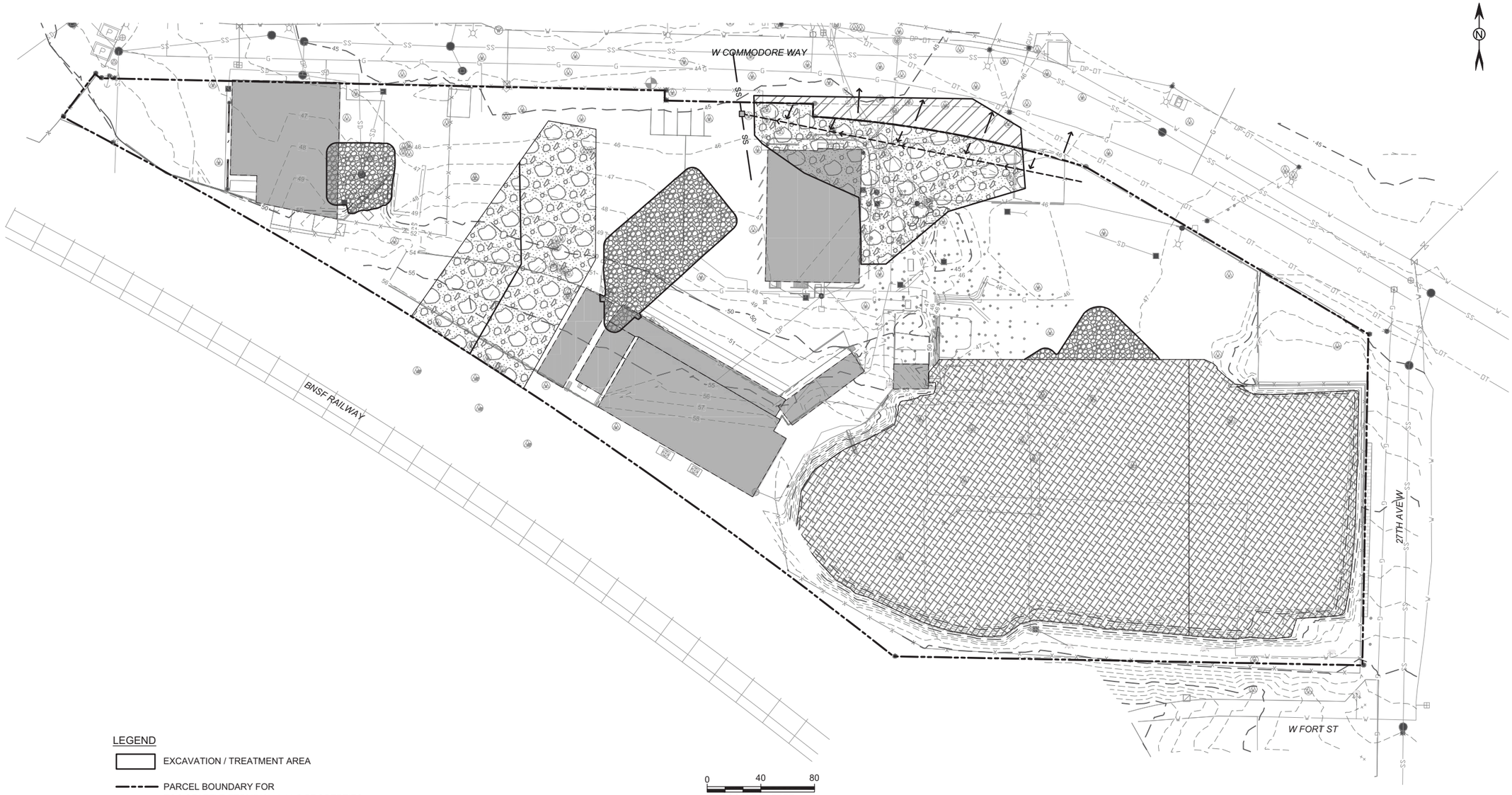
Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

ISS Swell Management Area

Drawing No.
C-4.3

Sheet 20 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-CS.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn



LEGEND

- EXCAVATION / TREATMENT AREA
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES

STABILIZED INTERIM SURFACES

- ISS AREAS - WOVEN INDICATOR GEOTEXTILE FABRIC WITH 6 INCHES CRUSHED ROCK
- ISS SWELL AREA - WOVEN INDICATOR GEOTEXTILE FABRIC (GRAVEL OR ROCK WILL BE ADDED TO SUPPORT INTERIM SITE ACTIVITIES, IF NEEDED)
- EXCAVATION AREAS - 6 INCHES OF CRUSHED ROCK TO THE SURROUNDING GRADE
- ROW - RESTORED TO PRE-CONSTRUCTION CONDITIONS

NOTES

1. EXISTING ASPHALT, CONCRETE, AND GRAVEL AREAS WILL REMAIN DURING THE INTERIM PERIOD BETWEEN SITE CLEANUP AND DEVELOPMENT.

This shows the stable condition between cleanup action and final site development (which will be completed by others in separate permit submittal).

FOR REFERENCE ONLY

NEW SHEET

PERMIT SET

Rev	Date	Description	By

Client

CRETE CONSULTING, INC.
108 S. Washington Street, Suite 300
Seattle, Washington 98104
(206) 491-7554
www.creteconsulting.com

GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER
3/16/2021

Scale	As Noted

SCALE WARNING
Drawing is not to scale, if scale bar doesn't measure one inch

Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington

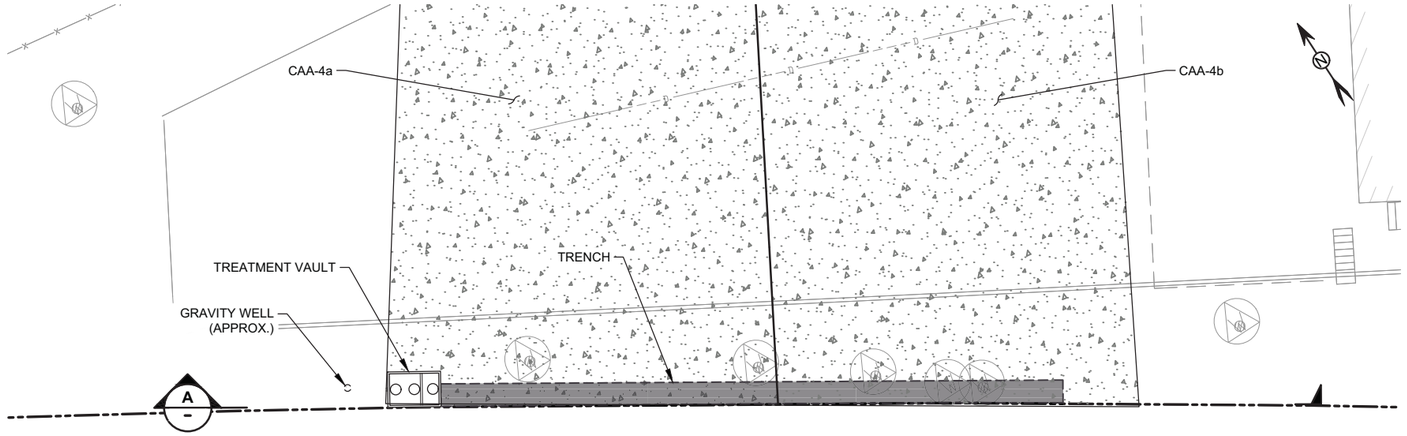
Upland AOC Clean Action Areas Interim Stabilization

Drawing No.
C5.1

Sheet 21 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

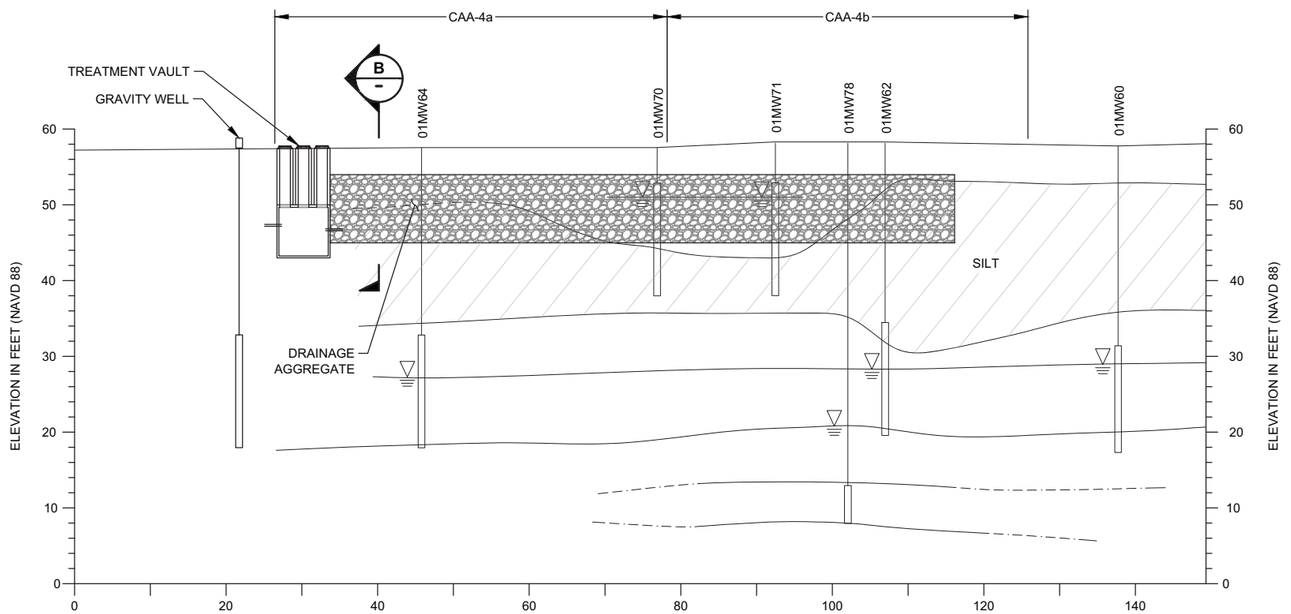
THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
6/28/2021



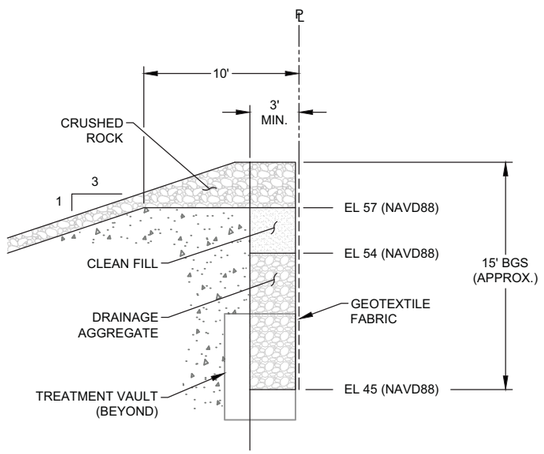
DETAILED PLAN VIEW
INFILTRATION TRENCH

0 20 40
SCALE IN FEET

LEGEND
- IN-SITU STABILIZATION / SOLIDIFICATION
- PARCEL BOUNDARY FOR TOC SEATTLE TERMINAL 1, LLC PROPERTIES



A - TRENCH PROFILE
0 10 20
SCALE IN FEET
HORIZONTAL = VERTICAL



2 - TRENCH SECTION
0 5 10
SCALE IN FEET

PERMIT SET

Rev	Date	Description	By

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GRANT HAINSWORTH — STATE OF WASHINGTON — 33192 — REGISTERED PROFESSIONAL ENGINEER — 3/16/2021

Scale	As Noted
	SCALE WARNING: Drawing is not to scale, if scale bar doesn't measure one inch
Designer	M. Byers
Drafter	C. Taylor
Checker	X
Reviewer	X

Time Oil Bulk Terminal
Remediation Design
Seattle, Washington
Interceptor Trench Design

Drawing No. **C6.1**

Sheet 22 of 23

File: D:_Projects\Crete\Time Oil Seattle\C1-C3.1 THRU C3.4-C4.1-C4.2-C5.1.dwg Plot Date: March 16, 2021 Plotted by: Cabryn

ABBREVIATIONS

&	AND
@	AT
'	FEET (FOOT)
"	INCH (INCHES)
#	POUND(S), NUMBER
=	EQUAL(S)
A.B.	ANCHOR BOLT
ABV.	ABOVE
ADD.	ADDITIONAL
ADJ.	ADJACENT
ALUM.	ALUMINUM
ALT.	ALTERNATE
APPROX.	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
ASSY.	ASSEMBLY
B. (BTM.)	BOTTOM
BEL.	BELOW
BEN	BOUNDARY EDGE NAILING
B.F.	BRACED FRAME
BLDG.	BUILDING
BLK.(G.)	BLOCK (ING)
BLW.	BELOW
BM.	BEAM
BMU	BRICK MASONRY UNIT
BN	BOUNDARY NAILING
BNDRY.	BOUNDARY
B.O.	BOTTOM OF
B.O.E.	BOTTOM OF EXCAVATION
B.O.F.	BOTTOM OF FOOTING
BRDG.	BRIDGE, BRIDGING
BRG.	BEARING
BTWN.	BETWEEN
C	CAMBER
CAMB.	CAMBER(ED)
CANT.	CANTILEVER(ED)
CF	CUBIC FOOT
C.I.P.	CAST IN PLACE
C.J.	CONSTRUCTION JOINT
CL	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
CTSK.	COUNTERSINK
CTR.	CENTER(ED)
CY	CUBIC YARD
CMU	CONCRETE MASONRY UNIT
d	PENNY (NAILS)
DB	DROPPED BEAM
DBA	DEFORMED BAR ANCHORS
DBL.	DOUBLE
DCW	DEMAND CRITICAL WELD
DEPT.	DEPARTMENT
DET.	DETAIL
DF	DOUGLAS FIR
DIA. / Ø	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
D.O.	DITTO (REPEAT)
DP.	DEEP
D.S.	DRAG STRUT
DWG.	DRAWING(S)
DWL.	DOWEL(S)
(E)	EXISTING
EA.	EACH
E.E.	EACH END
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
EMBD.	EMBED(MENT)
EN	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EQPT.	EQUIPMENT
E.W.	EACH WAY
EXP.	EXPANSION
EXST.	EXISTING
EXT.	EXTERIOR

ABBREVIATIONS

FAB.	FABRICATION
FB	FLUSH BEAM
FDN.	FOUNDATION
F.F.	FINISH FLOOR
FIN.	FINISH(ED)
FLG.	FLANGE
FLR.	FLOOR
FN	FIELD (FACE) NAIL
F.O.	FINISHED OPENING
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
FRM.	FRAME (FRAMING)
F.S.	FAR SIDE
FT.	FEET (FOOT)
FRTW	FIRE RETARDANT TREATED WOOD
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZE(D)
GB.	GRADE BEAM
GLB	GLUE LAMINATED BEAM
GRD.	GRADE
GWB	GYPSUM WALLBOARD
GYP.	GYPCRETE
HD	HOLDOWN
H.D.G.	HOT DIPPED GALVANIZED
HGR.	HANGER
HORIZ.	HORIZONTAL
HR	HEADER
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.E.	INVERT ELEVATION
I.F.	INSIDE FACE
IN.	INCH(ES)
INFO.	INFORMATION
INT.	INTERIOR
JST.	JOIST
JT.	JOINT
K	KIPS (1000 LB.)
LAT.	LATERAL
LB.	POUND(S)
L.B.	LAG BOLTS(S)
LG.	LONG(ITUDINAL)
LGTH.	LENGTH
LGMF.	LIGHT GAUGE METAL FRAMING
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LSH	LONG SLOTTED HOLE(S)
L.W.	LIGHT WEIGHT
MAT.	MATERIAL
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MBM	METAL BUILDING MANUFACTURER
MECH.	MECHANICAL
M.E.J.	MASONRY EXPANSION JOINT
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
N.L.B.	NON-LOAD BEARING
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.C.	NORMAL WEIGHT CONCRETE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
O.F.	OUTSIDE FACE
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORNT.	ORIENTATION
OSB	ORIENTED STRAND BOARD
O.W.J.	OPEN WEB JOIST

ABBREVIATIONS

PAR.	PARALLEL
P/C	PRECAST
PEN	PANEL EDGE NAIL
PERP.	PERPENDICULAR
PL.	PLATE
PL	PROPERTY LINE
PLMBG.	PLUMBING
PLYWD.	PLYWOOD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P.T.	PRESERVATIVE TREATED
PT	POST TENSION(ED)
QTY.	QUANTITY
R. (RAD.)	RADIUS
RE: (REF.)	REFERENCE
REINF.	REINFORCEMENT
REQ.	REQUIRED
R.F.	RIGID FRAME
R.O.	ROUGH OPENING
R.S.	ROUGH SAWN
SCH.	SCHEDULE
SCHED.	SCHEDULE
SCL	STRUCTURAL COMPOSITE WOOD
SHT.	SHEET
SIM.	SIMILAR
S.J.	SHRINKAGE CONTROL JOINT
SKW.	SKEW(ED)
S.O.G.	SLAB ON GRADE
SPC.	SPACE(S) (ING)
SPEC.	SPECIFICATION(S)
SQ.	SQUARE
STD.	STANDARD
STGR.	STAGGER
STIFF.	STIFFENER(S)
STIR.	STIRRUP(S)
STL.	STEEL
STRUC.	STRUCTURAL
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED(TION)
SYMM.	SYMMETRICAL
T.	TOP
T.&B.	TOP AND BOTTOM
TEMP.	TEMPORARY
T.&G.	TONGUE AND GROOVE
THK.	THICK(NESS)
THRD.	THREADED
TN	TOE NAIL
T.O.S.	TOP OF (STEEL) (SHEATHING) (SLAB)
T.O.W.	TOP OF WALL
TRANSV.	TRANSVERSE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
V.	VERTICAL
VERT.	VERTICAL
VIF	VERIFY IN FIELD
W.	WIDE (WIDTH)
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.H.S.	WELDED HEADED STUDS
W.P.	WORK POINT
W.S.	WELDED STUD
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
X-STG	EXTRA STRONG
XX-STG	DOUBLE EXTRA STRONG
YD	YARD

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

Utility Conflict Note

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING
ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. RESOLVE ANY PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

00100- CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL BUILDING CODE, AS AMENDED BY THE CITY OF SEATTLE.

00101- EASEMENTS

ALL EASEMENTS, IF REQUIRED, SHALL BE THE RESPONSIBILITY OF THE OWNER.

00200- DESIGN LOADS AND CONSIDERATIONS

DESIGN LOADS FOR THE SHORING SYSTEM ARE AS SPECIFIED IN PANGEO INC REPORT NO. 20-361 DATED NOVEMBER 20, 2020.

THE SHORING SYSTEM IS TEMPORARY. THE STEEL SOLDIER PILES THE LAGGING ARE THE TEMPORARY RETAINING SYSTEM.

SEE DETAILS ON SS4 FOR SPECIFIC DESIGN LOADING DIAGRAMS.

00300- UTILITIES AND ADJACENT PROPERTIES

STABILITY AND EROSION PROTECTION OF EXISTING & CUT SLOPES, AND THE COORDINATION OF THE EXCAVATION, SHORING AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES IS THE RESPONSIBILTY OF THE CONTRACTOR PRIOR TO DRILLING AND EXCAVATION.

LOCATE AND DISCONNECT ANY UNDERGROUND POWER, COMMUNICATION, GAS AND WATER LINES PRIOR TO DRILLING & EXCAVATION. CONTRACTOR SHALL VERIFY OVERHEAD CLEARANCES PRIOR TO MOBILIZATION AND CONSTRUCTION.

THE CONTRACTOR SHALL VERIFY THE EXACT ELEVATION, LOCATION AND SIZE OF ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO SHORING INSTALLATION.

00301- DRAINAGE CONTROL

THE CONTRACTOR SHALL TAKE MEASURES TO CONTROL ALL SURFACE WATER RUNOFF FLOW AND FLOWS FROM EXISTING SUBSURFACE DRAINAGE FEARTURES INCLUDING PERCHED WATER. IN NO CASE SHALL THE CONTRACTOR ALLOW THE WALL SYSTEM TO BE EXPOSED TO HYDROSTATIC PRESSURES OR ALLOW SURFACE WATER TO FLOW INTO THE EXCAVATION.

00400- BASELINE SURVEY AND MONITORING

EXISTING STRUCTURES OR IMPROVEMENTS TO BE SAVED THAT ARE NEAR THE CONSTRUCTION ZONE SHOULD HAVE BASELINE PHYSICAL LOCATION DATA ESTABLISHED PRIOR TO BEGINNING WORK. AS A MINIMUM, OPTICAL SURVEY POINTS (POINTS KNOWN, OR PO'S) SHOULD BE ESTABLISHED AT THE CORNERS AND MIDPOINT OF THE STRUCTURE THE SELECTION OF MONITORING POINTS SHOULD BE MADE WITH CONCURRENCE OF THE GEOTECHNICAL ENGINEER.

THE MONITORING PROGRAM SHOULD INCLUDE MEASUREMENT OF CHANGES IN BOTH THE HORIZONTAL AND VERTICAL DIRECTIONS. THE MONITORING SHOULD BE PERFORMED AT LEAST WEEKLY WHILE ACTIVE WALL CONSTRUCTION IS UNDERWAY. THE MONITORING SHOULD BE BY A LICENSED SURVEYOR, AND THE RESULTS BE PROMPTLY SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. THE RESULTS OF THE MONITORING WILL ALLOW THE DESIGN TEAM TO CONFIRM DESIGN PARAMETERS, AND FOR THE CONTRACTOR TO MAKE ADJUSTMENTS TO MEANS AND METHODS OF CONSTRUCTION, IF NECESSARY.

00401- MONITORING AND QUALITY CONTROL

THE OWNER SHALL PROVIDE MONITORING AND QUALITY CONTROL OF ALL SHORING WALLS INCLUDING SOLDIER PILE WALLS, BERMS, AND ADJACENT GROUND SURFACES AND BUILDINGS OF STRUCTURES AS FOLLOWS:

THE GEOTECHNICAL ENGINEER OF RECORD SHALL PROVIDE FULL TIME OBSERVATION MONITORING OF THE EXCAVATION, SOLDIER PILE INSTALLATION, AND VERFICATION AND PROOF TESTING. INSTALLATION INCLUDES DRILLING OF PILES AND PLACEMENT OF LEAN MIX AND STRUCTURAL GROUT. A COMPLETE AND ACCURATE RECORD SHALL BE KEPT OF ALL PILE AND DEPTHS, QUANTITIES OF LEAN MIX AND STRUCTURAL GROUT PER PILE AND ANY UNUSUAL CONDITIONS ENCOUNTERED.

A QUALIFIED TESTING AGENCY SHALL PERFORM WELDING INSPECTIONS AND STRUCTRAL GROUT SAMPLING AND TESTING.

THE CONTRACTOR SHALL PROVIDE TESTING EQUIPMENT THAT HAS BEEN CALIBRATED IN THE PAST 60 DAYS. MEASUREMENTS OF ANCHOR MOVEMENT SHALL BE OBTAINED WITH EQUIPMENT ACCURATE TO 0.001 INCH.

PRECONSTRUCTION BASELINE SURVEY:
A LICENSED SURVEYOR HIRED BY THE OWNER, SHALL ESTABLISH BASELINE READINGS OF BENCHMARKS AND MONITORING POINTS ON THE GROUND SURFACE AND SETTLEMENT-SENSITIVE STRUCTURES BEHIND THE SHORING WALL ALIGNMENT PRIOR TO EXCAVATION AND INSTALLATION OF THE SHORING SYSTEM. STATIONARY BENCHMARKS SHALL BE SET AT LEAST 40 FEET AWAY FROM THE MONITORING POINTS. MONITORING POINTS ESTABLISHED ALONG THE CURBLINE AND CENTERLINE OF ADJACENT ROADWAYS NEED TO BE MONITORED WHEN TOTAL WALL MOVEMENTS REACH 0.5 INCH OR AT SDOT REQUEST. THE MINIMUM MONITORING POINT SPACING ALONG THE TOP OF ALL SOIL NAIL WALLS SHALL BE 20 FEET AND AT THE TOP OF EVERY OTHER SOLDIER PILE. THE SURVEY SHALL HAVE AN ACCURACY OF 0.01 FEET. A VISUAL AND PHOTOGRAPHIC SURVEY SHALL BE MADE OF ADJACENT BUILDINGS PRIOR TO CONSTRUCTION.

REPORTS:
SURVEY MONITORING RESULTS SHALL BE TRANSMITTED TO THE GEOTECHNICAL ENGINEER AND GENERAL CONTRACTOR WITHIN 24 HOURS OF EACH SURVEY. THE GEOTECHNICAL ENGINEER SHALL REVIEW SURVEY DATA AND PROVIDE AN EVALUATION OF WALL PERFORMANCE AND A GRAPHICAL REPRESENTATION OF WALL MOVEMENT VERSUS TIME ALONG WITH THE SURVEY DATA TO GENERAL CONTRACTOR, SHORING INSTALLER, SHORING ENGINEER, DPD AND ON AT LEAST A WEEKLY BASIS.

CONSTRUCTION MONITORING:
THE GENERAL CONTRACTORS SHALL OBSERVE THE CONDITIONS ABOVE THE SHORING ON A DAILY BASIS FOR SIGNS OF GROUND OR BUILDING MOVEMENTS. THE GEOTECHNICAL, SHORING ENGINEER SHALL BE IMMEDIATELY AND DIRECTLY NOTIFIED IF SIGNS OF MOVEMENT SUCH AS: NEW CRACKS IN STRUCTURES, INCREASED SIZE OF OLD CRACKS OR SEPARATION OF JOINTS IN STRUCTURES, FOUNDATIONS, STREETS OR PAVED AND UNPAVED SURFACES ARE OBSERVED.

THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER SHORING ENGINEER, DPD IMMEDIATELY AND DIRECTLY IF MORE THAN 0.5 INCH OF DISPLACEMENT OCCURS. AT THAT TIME THE GEOTECHNICAL ENGINEER AND SHORING ENGINEER SHALL PREPARE A REMEDIAL PLAN. REMEDIAL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEFLECTIONS FROM EXCEEDING 1.0 INCH.

DRILLING AND EXCAVATION OPERATIONS SHALL BE IMMMEDIATELY SUSPENDED IF GROUND SUBSIDENCE IS OBSERVED, OR IF ADJACENT STRUCTURES ARE DAMAGED AS A RESULT OF THE DRILLING OR EXCAVATION OPERATION.

SHORING INSTALLATION AND EXCAVATION IN AREAS ADJACENT TO BUILDINGS:
THE SURVEYOR AND GENERAL CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER, SHORING ENGINEER AND DPD IMMEDIATELY AND DIRECTLY IF THE 0.5 INCH DAMAGE THRESHOLD IS APPROACHED. SHORING INSTALLATION AND EXCAVATION SHALL NOT CONTINUE UNTIL REMEDIAL ACTION IS TAKEN TO ENSURE THAT 0.5 INCH IS NOT EXCEEDED.

00600- MATERIALS

LEAN MIX CONCRETE 1 1/2 SACK MIX

STRUCTURAL STEEL	WF SECTIONS	ASTM A992 Fy = 50 KSI
	CHANNELS	ASTM A36 Fy = 36 KSI
	STEEL ANGLES	ASTM A36 Fy = 36 KSI
	PLATE MATERIAL	ASTM A36 Fy = 36 KSI
	STRUCTURAL PIPE	ASTM A53 Fy = 35 KSI GRADE B
	STRUCTURAL BOLTS	ASTM A 325-N
	WELDED HEADED STUDS (WHS)	ASTM A -108
	WELDING ELECTRODES	E70-XX WITH CHARPY V-NOTCH
	TOUGHNESS OF AT LEAST 20 FT-LBS AT 0 DEGREES F.	

TIMBER LAGGING P.T. HF NO. 2 4X12

TIMBER LAGGING SHALL BE PRESERVATIVE TREATED WITH WATER BORNE PRESERVATIVES IN ACCORDANCE WITH AWPA U1 (A OR F) TO A MINIMUM RETENTION OF 0.4 LBS/CU. FT. (0.21 LBS/CU. FT. FOR CA-B) ANY SAWN ENDS OF SUCH TREATED LAGGING SHALL BE FIELD TREATED WITH TWO BRUSHED COATS OF THE SAME PRESERVATIVE. A 1" DIAMETER HOLE SHALL BE DRILLED IN THE CENTER OF ALL LAGGING BOARDS AT 24" ON CENTER TO PERMIT SEEPAGE. EACH LAGGING LIFT SHALL BE 4 FOOT HIGH MAXIMUM. NO EXCAVATION FOR THE IMMEDIATE LOWER LIFT IS ALLOWED UNTIL VOIDS BEHIND THE LAGGING OF THE PRECEDING LIFT ARE FILLED WITH APPROVED MATERIALS. ALL VOIDS BEHIND LAGGING SHALL BE BACKFILLED PRIOR TO PROJECT MAIN STRUCTURE CONSTRUCTION. 1

DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE 14TH EDITION OF THE AISC "STEEL CONSTRUCTION MANUAL AND THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", AISC 360-10.

00601- CORROSION PROTECTION

THE PILES FOR THIS PROJECT ARE TEMPORARY AND DO NOT REQUIRE CORROSION PROTECTION.

00602- WELDING

WELDING SHALL CONFORM TO AWS D1-04 "STRUCTURAL WELDING CODE." WELDING ELECTRODES SHALL BE E70XX. ALL WELDING SHALL BE PERFORMED BY WABO AND AWS CERTIFIED WELDERS. ALL COMPLETE PENETRATION WELDS (CP) SHALL BE ULTRASONIC TESTED. ALL SINGLE PASS FILLET WELDS SHALL BE VISUALLY INSPECTED. MINIMUM WELD SIZE IS 1/4" CONTINUOUS FILLET.

00603- SUBMITTALS

SUBMITTALS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION;

1. CONSTRUCTION SEQUENCE NARRATIVE & DESCRIPTION INCLUDING EQUIPMENT LIST AND KEY PERSONNEL.
2. LEAN CONCRETE MIX & STRUCTURAL CONCRETE MIX DESIGN
3. CERTIFIED STEEL MILL REPORTS
4. STRUCTURAL STEEL AND EMBEDDED ITEMS

00604- EXCAVATION

THE DISPOSAL SITE FOR EXCAVATION SPOILS, INCLUDING FACILITY NAME AND ADDRESS SHALL BE PROVIDED TO THE BUILDING DEPARTMENT SITE DEVELOPMENT INSPECTOR AT THE PRECONSTRUCTION MEETING.

ANY VOIDS BETWEEN THE FACE OF THE EXCAVATION AND THE LAGGING SHALL BE FILLED IMMEDIATELY WITH AN PERMEABLE, FREE DRAINING MATERIAL APPROVED BY THE GEOTECHNICAL ENGINEER. THIS SHALL INCLUDE LEAN CONCRETE GROUT BEHIND THE UPPER TWO-THIRDS OF THE CUT FACE OF THE SHORING SYSTEM IF APPROVED BY THE GEOTECHNICAL ENGINEER. NO EXCAVATION FOR A LOWER LIFT SHALL PROCEED UNTIL THE INSTALLATION OF THE LIFT ABOVE IS COMPLETED, INCLUDING BACKFILLING BEHIND THE LAGGING.

THE CONTRACTOR SHALL LIMIT THE OPEN FACE OF THE EXCAVATION TO 4 FEET VERTICAL, UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL EXCAVATE THE WALL FACE AND INSTALL THE TIMBER LAGGING IN SUCH A MANNER AS TO MAINTAIN A SAFE WORK AREA AND AVOID EXCESSIVE SLOUGHING, CAVING OR OVERBREAK. THE CONTRACTOR SHALL RESPONSIBLE FOR THE MEANS AND METHODS USED FOR TEMPORARY FACE STABILITY AND MEANS TO CONTROL EXCESSIVE OVERBREAK, AS APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATION SHALL PROCEED TO A BOTTOM OF EXCAVATION (BOE) DEPTH NO GREATER THAN SHOWN ON THE PLANS.

REMOVE LEAN MIX FROM THE PILE TO ALLOW PLACEMENT OF WOOD LAGGING. CARE BY THE EXCAVATOR SHALL BE TAKEN TO PREVENT EXCESSIVE POUNDING OR SHAKING OF THE SHORING WALL.

GROUNDWATER:
THE GEOTECHNICAL REPORT INDICATES THAT THE GROUNDWATER TABLEN IS UNLIKELY TO BE ENCOUNTERED ABOVE THE BOTTOM OF EXCAVATION ELEVATION - LOCAL PERCHED GROUNDWATER MAY BE ENCOUNTERED. REFER TO THE GEOTECHNICAL REPORT.

00605 - SLOPE PROTECTION

THE CONTRACTOR SHALL PROTECT CUT SLOPES WITH PLASTIC IF CONSTRUCTION OCCURS DURING WET WEATHER. PLASTIC SHEETING SHALL BE OVERLAPPED AT LEAST 12 INCHES. SURFACE DRAINAGE AROUND THE EXCAVATION SHALL BE CONTROLLED BY THE CONTRACTOR TO PREVENT WATER FROM FLOWING INTO THE EXCAVATION. CUT SLOPES SHALL BE EXCAVATED TO INTERSECT THE BACKSIDE OF THE DRILLED HOLE.

CLEAR PLASTIC SHALL HAVE A MINIMUM THICKNESS OF 6 MIL AND SHALL MEET THE REQUIREMENTS OF WSDOT / APWA SECTION 9-14.5.

CONTRACTOR SHALL MONITOR SLOPES FOR ANY SIGNS OF DISTRESS AND TAKE CORRECTIVE ACTIONS AS REQUIRED BY THE GEOTECHNICAL ENGINEER.

00700- SOLDIER PILES

SOLDIER PILES ARE TO BE INSTALLED IN 24 INCH DIAMETER HOLES U.N.O AND BACKFILLED WITH LEAN MIX CONCRETE, TYPICAL U.N.O. REFER TO SHORING ELEVATIONS. ALL HOLES SHALL BE DRILLED IN AN ACCEPTABLE MANNER WITHOUT LOSS OF GROUND AND WITHOUT ENDANGERING PREVIOUSLY INSTALLED PILES TO THE GEOTECHNICAL ENGINEERS SATISFACTION

TEMPORARY CASING OR OTHER APPROVED METHODS SHALL BE USED AS REQUIRED FOR PILE INSTALLATION TO MINIMIZE GROUND LOSS SHOULD CAVING SOIL CONDITIONS BE ENCOUNTERED. WHEN CASING HOLES ARE REQUIRED, THE CASING SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND ALL INSTALLATION AND REMOVAL STRESSES, TO PREVENT DISTORTION CAUSED BY PLACING ADJACENT PILES AND TO PREVENT COLLAPSE DUE TO SOIL OR HYDROSTATIC PRESSURE.

ALTERNATE PILE PLACEMENT AT LEAST 24 HOURS TO ALLOW CONCRETE TO HARDEN PRIOR TO DRILLING ADHACENT PILES.

INSTALLATION TOLERANCES SHALL BE AS FOLLOWS;

PLAN DIRECTION	3 INCHES PARALLEL TO WALL
	1 INCH PERPENDICULAR TO WALL
VERTICAL DIRECTION	1 1/2% OF TOTAL LENGTH, 3" MAXIMUM IN ELEVATION

SHOULD GROUNDWATER BE ENCOUNTERED DURING DRILLING FOR SOLDIER PILES, THE CONTRACTOR SHALL BE PREPARED TO USE TEMPORARY CASING OR OTHER METHODS TO KEEP THE SIDEWALLS OF THE HOLE OPEN WITHOUT SIGNIFICANT RAVELING OR CAVING.

GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING DRILLING OPERATION TO VERIFY THAT THE CONTRACTORS DRILLING METHOD AND PROCEDURES ARE APPROPRIATE FOR THE GROUND CONDITONS.

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

09990 ADDITIONAL CITY COMMENTS

GRADING SEASON — NOTE THAT NO GRADING SHALL BE PERFORMED BETWEEM OCTOBER 31st, AND APRIL 1st.

Structural Drawing List (Shoring)

SHEET	DESCRIPTION	Issued	Rev	Rev Date
SS1.0	Structural Notes	01/15/21	1	03/11/2021
SS2.0	Excavation Plan	01/15/21	1	03/11/2021
SS2.1	Excavation Plan	01/15/21		
SS3.0	Elevations and Details	01/15/21		
SS3.1	Elevations and Details	01/15/21		
SS4.0	Details	01/15/21		

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Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)
www.ctengineering.com

01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021
1	SDOT & SDCI CORRECTIONS	03/11/2021

JOB #: 2020
ENG: YEZ
CAD: JMA
SCALE:
KEY ISSUE DATES:

Structural Notes

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS1.0

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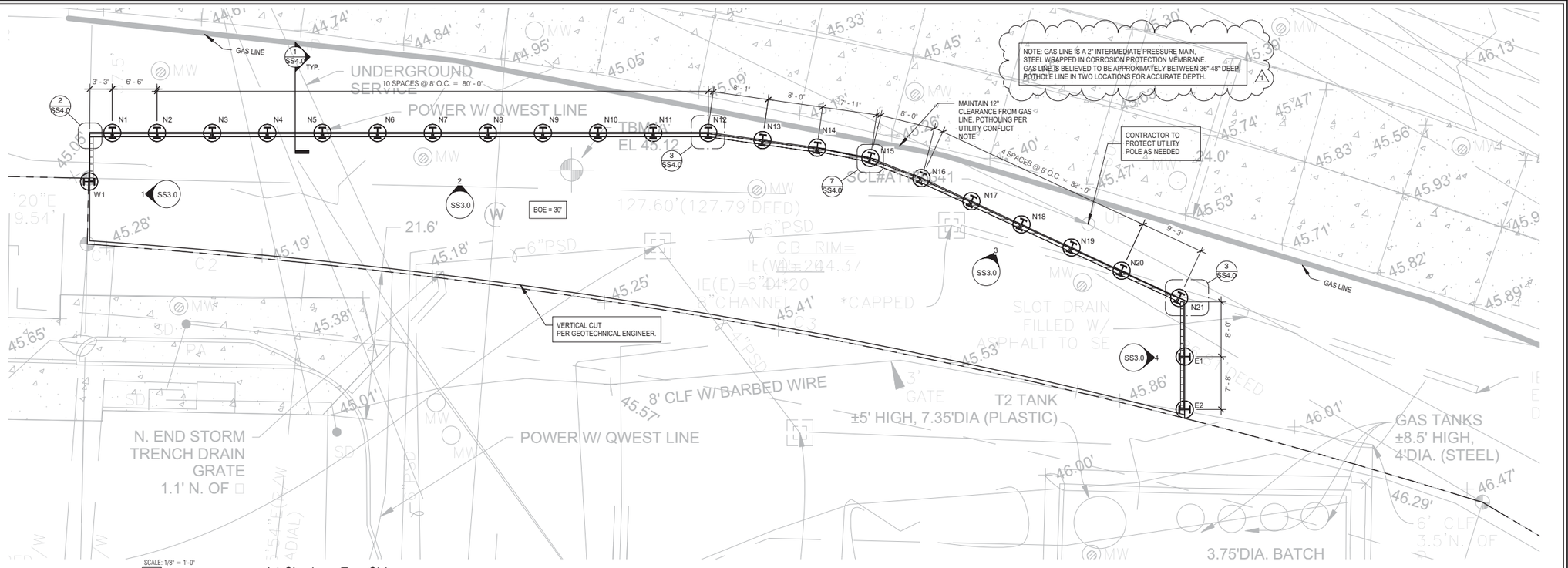

SCALE: 1/8" = 1'-0"

1 L1 Shoring - East Side

SUUMP0000216

Approved as noted.

W Bou 9/3/2021
SDOT Street Use

Shoring Notes

1. VERIFY ALL DIMENSIONS WITH ARCHITECT PRIOR TO CONSTRUCTION. RE: ARCHITECT FOR GRID TO FACE OF SHORING. SEE WALL ELEVATIONS FOR SHORING LAYOUT TO GRIDS.
2. A PRECONSTRUCTION MEETING WITH THE CITY DOT (IN ADDITION TO THOSE REQUIRED BY THE BUILDING DEPARTMENT) SHALL BE REQUIRED PRIOR TO START OF CONSTRUCTION. THE OWNER, GENERAL CONTRACTOR, EXCAVATION AND SHORING SUBCONTRACTORS, GEOTECHNICAL ENGINEER, SURVEYOR AND SHORING DESIGNER SHALL BE IN ATTENDANCE. GENERAL CONTRACTOR SHALL COORDINATE MEETING TIME WITH ATTENDEES AND CITY DOT.
3. ALL EXISTING UTILITIES, I.E., OVERHEAD POWER, COMMUNICATION LINES, ETC., AS WELL AS ALL UNDERGROUND UTILITIES SHALL BE FIELD LOCATED AND PROTECTED THROUGHOUT CONSTRUCTION.
4. ALL EXISTING STORM, SEWER, GAS, ETC., LINES CROSSING INTO THE EXCAVATION SHALL BE FIELD LOCATED AND REROUTED OR CAPPED PRIOR TO INSTALLATION OF THE SHORING. POTHOLE TO VERIFY LOCATION OF UNDER SIDEWALK POWER AND PHONE.
5. ALL SHORING ELEMENTS IN THE ROW SHALL BE REMOVED TO A DEPTH OF AT LEAST 4 FEET BELOW FINISHED GRADE IN THE ROW ONCE THEY ARE NO LONGER NEEDED FOR CONSTRUCTION.
6. CONTRACTOR SHALL NOT STOCK PILE MATERIALS AND/OR EQUIPMENT ALONG THE TOP OF SHORING WALL THAT EXCEEDS 250 PSF U.N.O.. ALL LOADS SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER AND SHORING DESIGNER PRIOR TO PLACEMENT. RE: CONSTRUCTION LOADING SECTION SHEET SS4.0.

GRAPHIC SCALE

-8' 0' 4' 8' 16'

(1/8" : 1'-0")

Utility Conflict Note

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. RESOLVE ANY PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

Shoring Notes

1. REFER TO PLAN FOR DIMENSIONS AND KEY ELEVATIONS - VERIFY DIMENSIONS WITH ARCH'L.
2. STREET USE PSM PERMIT AND CONSTRUCTION USE PERMIT NEED TO BE IN PLACE BEFORE CONSTRUCTION FOR THE SOLDIER PILES TO BE ABANDONED IN THE ROW AFTER CONSTRUCTION AND AREA OF ROW TO BE OCCUPIED TEMPORARILY DURING CONSTRUCTION.

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6/28/2021

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01/15/21

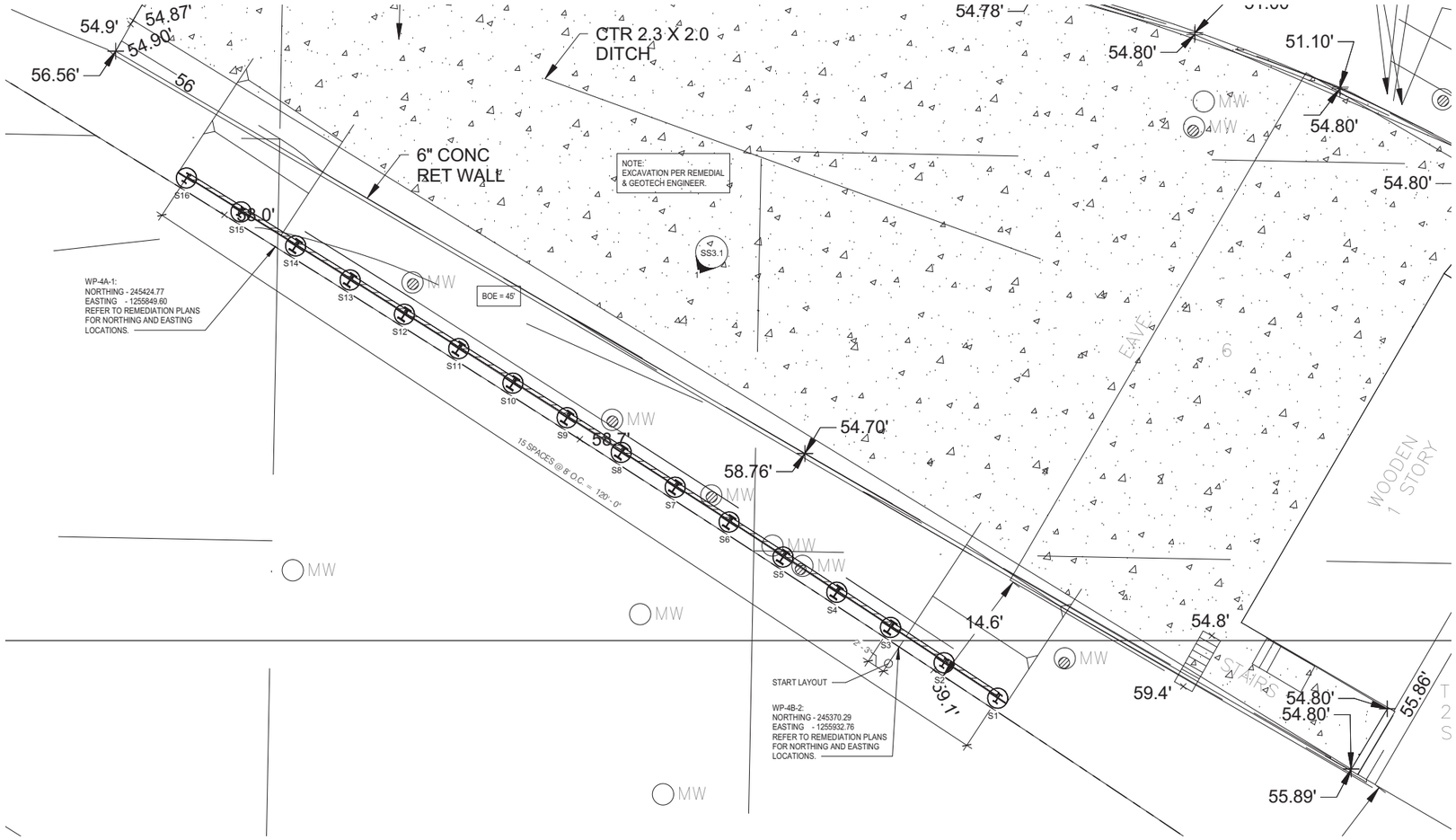
No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021
1	SDOT & SDCI CORRECTIONS	03/11/2021

JOB #: 2020
ENG: YEZ
CAD: JMA
SCALE: As indicated
KEY ISSUE DATES:

Excavation Plan

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS2.0



SCALE: 1/8" = 1'-0"

1 L1 Shoring - West Side

Shoring Notes

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JOB #: 20209
ENG: YEZ
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SCALE: As indicated
KEY ISSUE DATES:

Excavation Plan
Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS2.1

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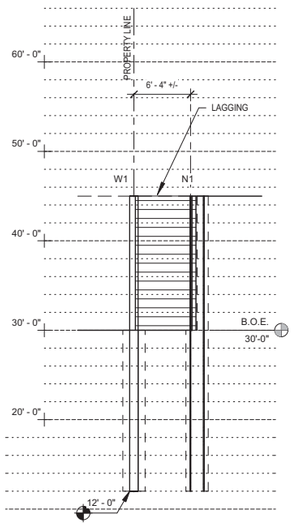
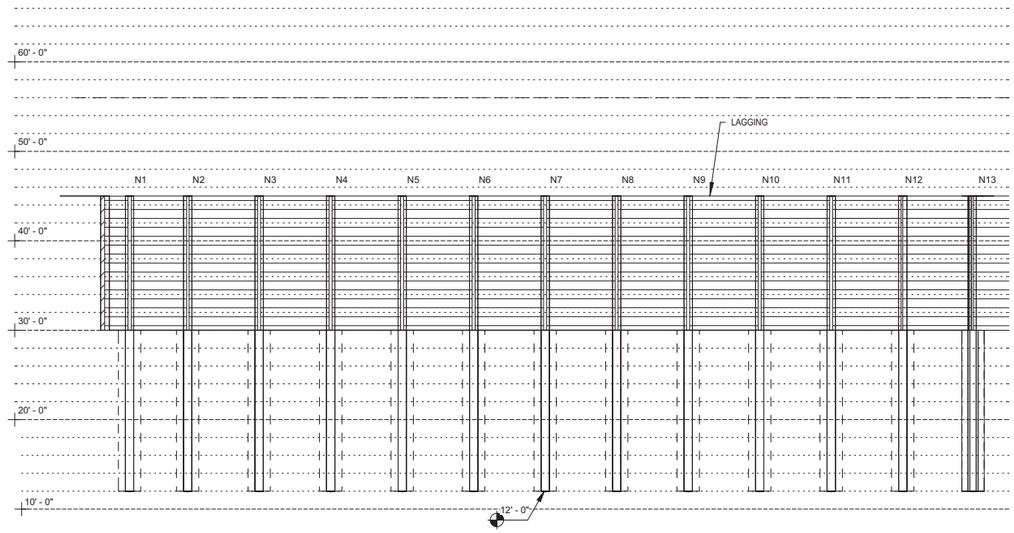


SCALE: 1/8" = 1'-0"

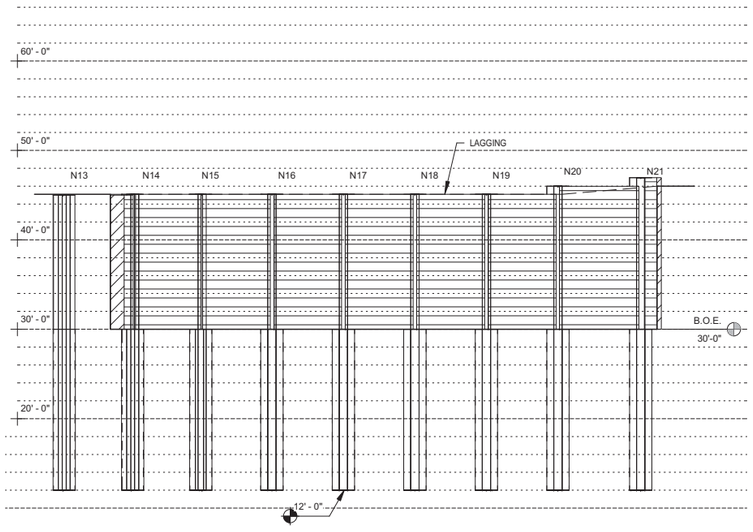
1 West



SCALE: 1/8" = 1'-0"

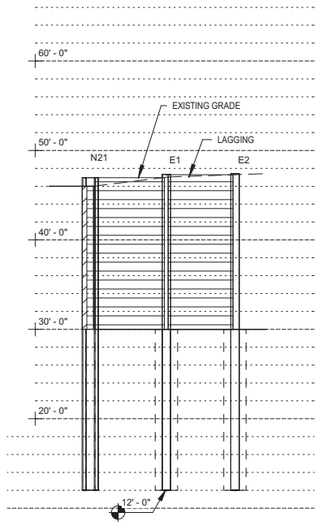
2 North

Structural Shoring Schedule (Cantilever)					
PILE NO	PILE SIZE	HOLE DIA.	PILE LENGTH INFORMATION		
			UPSTAND HEIGHT	EMBED DEPTH	LENGTH
E1	W18X130	30"	17' - 4"	18' - 0"	35' - 4"
E2	W18X130	30"	17' - 5"	18' - 0"	35' - 5"
N1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N2	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N3	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N4	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N5	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N6	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N7	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N8	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N9	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N10	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N11	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N12	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N13	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N14	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N15	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N16	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N17	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N18	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N19	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N20	W18X130	30"	16' - 0"	18' - 0"	34' - 0"
N21	W18X130	30"	16' - 11"	18' - 0"	34' - 11"
S1	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
S2	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S3	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S4	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S5	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S6	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S7	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S8	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S9	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S10	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S11	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S12	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S13	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S14	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S15	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S16	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
W1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"



SCALE: 1/8" = 1'-0"

3 Northeast



SCALE: 1/8" = 1'-0"

4 East

Utility Conflict Note

CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE AT 1-800-424-5555 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. RESOLVE ANY PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions

6/28/2021

FOR SEATTLE DPD USE ONLY

CT ENGINEERING INC.
Structural Engineers
180 Nickerson Street Suite 302 Seattle, WA 98109
206.285.4512 (V) 206.285.0618 (F)
www.ctengineering.com

01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021

JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: 1/8" = 1'-0"
KEY ISSUE DATES:

Elevations and Details

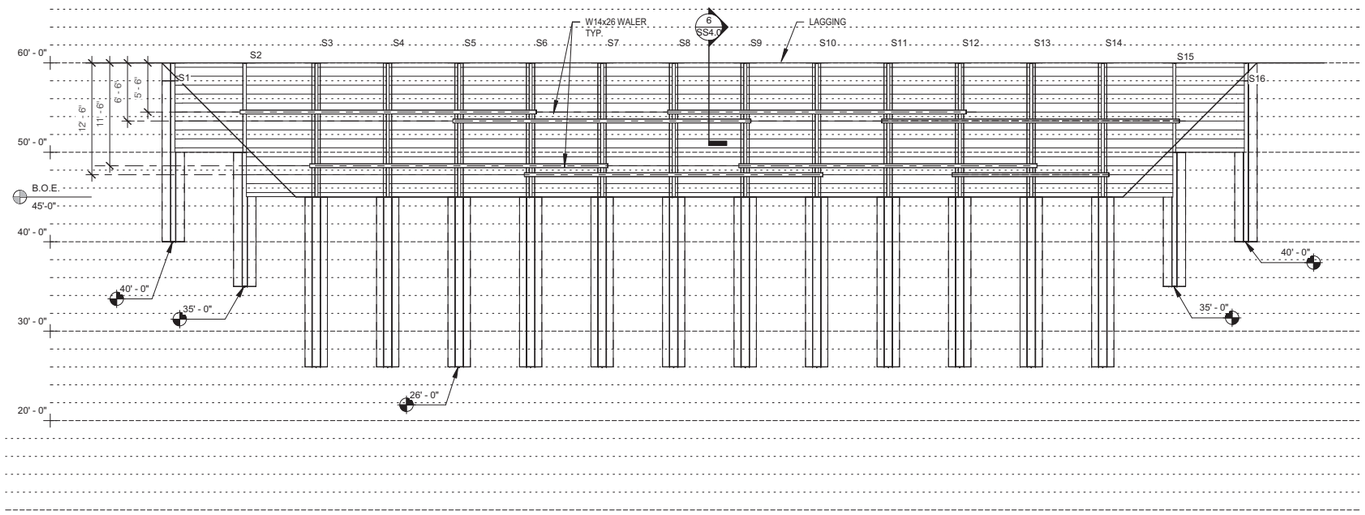
Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS3.0

3/11/2021 11:11:37 AM
M:\20209 TOC Seattle\SHORING\20209 TOC SEATTLE (R20).rvt

NOTE:
THE WALERS ARE FOR THE PURPOSE OF PROVIDING TEMPORARY SUPPORT TO EACH OF THE PILES TO ALLOW FOR A SEQUENCE OF NARROW TRENCH EXCAVATIONS DOWN TO ELEVATION 30' FOR REMEDIATION PURPOSES. THE TRENCHES ARE TO BE LIMITED IN WIDTH TO THE 8' WIDE ZONE IN FRONT OF EACH OF THE PILES WHILE MAINTAINING THE EMBEDMENT AND PASSIVE PRESSURE RESISTANCE FOR THE TWO ADJACENT PILES. AFTER REMEDIATION IS COMPLETE FOR EACH OF THE TRENCHES, THEY ARE TO BE BACKFILLED WITH MATERIAL THAT INCLUDES CEMENT IN ORDER TO RE-ESTABLISH THE PASSIVE PRESSURE CAPABILITIES FOR THAT ZONE TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.

1



SCALE: 1/8" = 1'-0"

1 South

Structural Shoring Schedule (Cantilever)

PILE NO	PILE SIZE	HOLE DIA.	PILE LENGTH INFORMATION		
			UPSTAND HEIGHT	EMBED DEPTH	LENGTH
E1	W18X130	30"	17' - 4"	18' - 0"	35' - 4"
E2	W18X130	30"	17' - 5"	18' - 0"	35' - 5"
N1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N2	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N3	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N4	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N5	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N6	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N7	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N8	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N9	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N10	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N11	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N12	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N13	W18X130	30"	15' - 0"	18' - 0"	33' - 0"
N14	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N15	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N16	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N17	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N18	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N19	W18X130	30"	15' - 1"	18' - 0"	33' - 1"
N20	W18X130	30"	16' - 0"	18' - 0"	34' - 0"
N21	W18X130	30"	16' - 11"	18' - 0"	34' - 11"
S1	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
S2	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S3	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S4	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S5	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S6	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S7	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S8	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S9	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S10	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S11	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S12	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S13	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S14	W18X130	30"	15' - 0"	19' - 0"	34' - 0"
S15	W14X34	30"	10' - 0"	15' - 0"	25' - 0"
S16	W14X34	30"	2' - 0"	18' - 0"	20' - 0"
W1	W18X130	30"	15' - 0"	18' - 0"	33' - 0"

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01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021
1	SDOT & SDCI CORRECTIONS	03/11/2021

JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: 1/8" = 1'-0"
KEY ISSUE DATES:

Elevations and Details

Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS3.1

3/11/2021 11:11:37 AM
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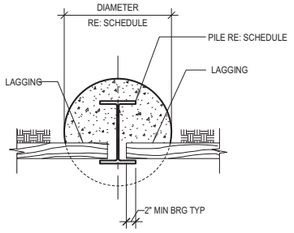
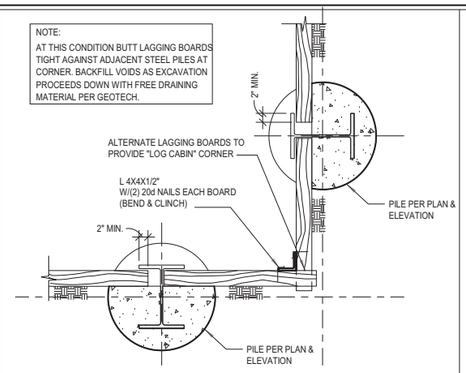


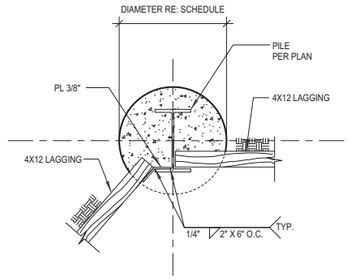
SCALE: 3/4" = 1'-0"

1 TYPICAL PILE DETAIL



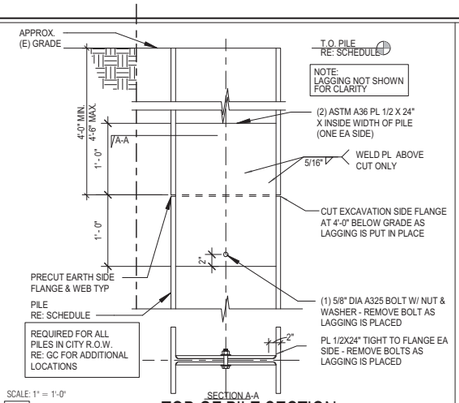
SCALE: 3/4" = 1'-0"

2 TYPICAL BUTTED CORNER DETAIL



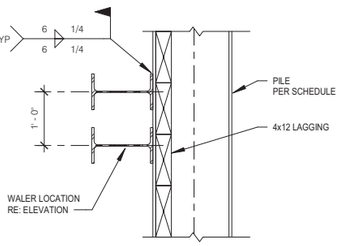
SCALE: 3/4" = 1'-0"

3 TYPICAL CORNER PILE DETAIL



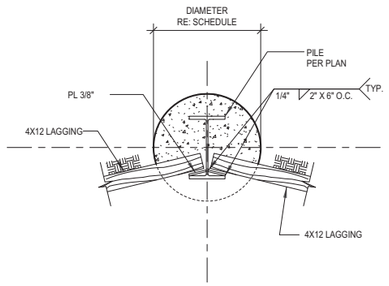
SCALE: 1" = 1'-0"

4 TOP OF PILE SECTION



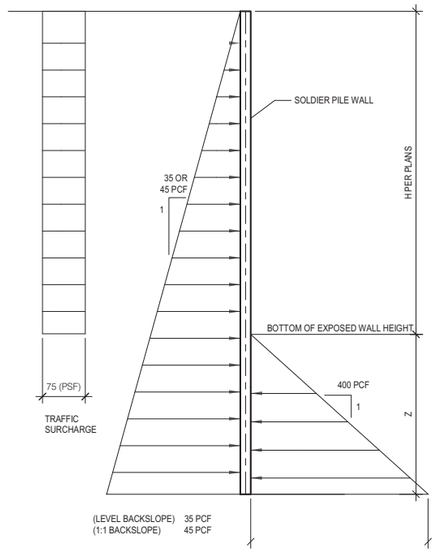
SCALE: 3/4" = 1'-0"

6 WALER CONNECTION



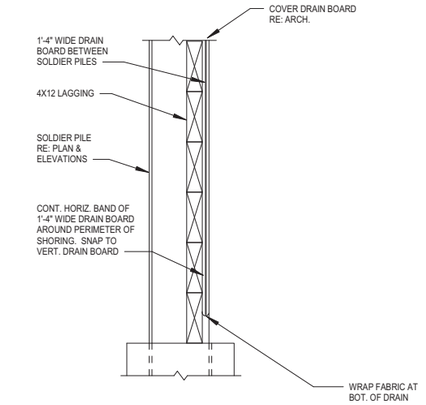
SCALE: 3/4" = 1'-0"

7 TYPICAL CORNER PILE DETAIL



SCALE: 3/4" = 1'-0"

10 WALL DESIGN PARAMETERS - SINGLE TIEBACK & CANTILEVER PILE



SCALE: 3/4" = 1'-0"

20 TYPICAL SECTION

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6/28/2021

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01/15/21

No.	REVISION	DATE
	PERMIT SUBMITTAL	01/15/2021

JOB #: 20209
ENG: YEZ
CAD: JMA
SCALE: As indicated
KEY ISSUE DATES:

Details
Shoring Plan
W. Commodore Way & 27th Ave W.
Seattle WA

SS4.0

3/11/2021 11:11:38 AM
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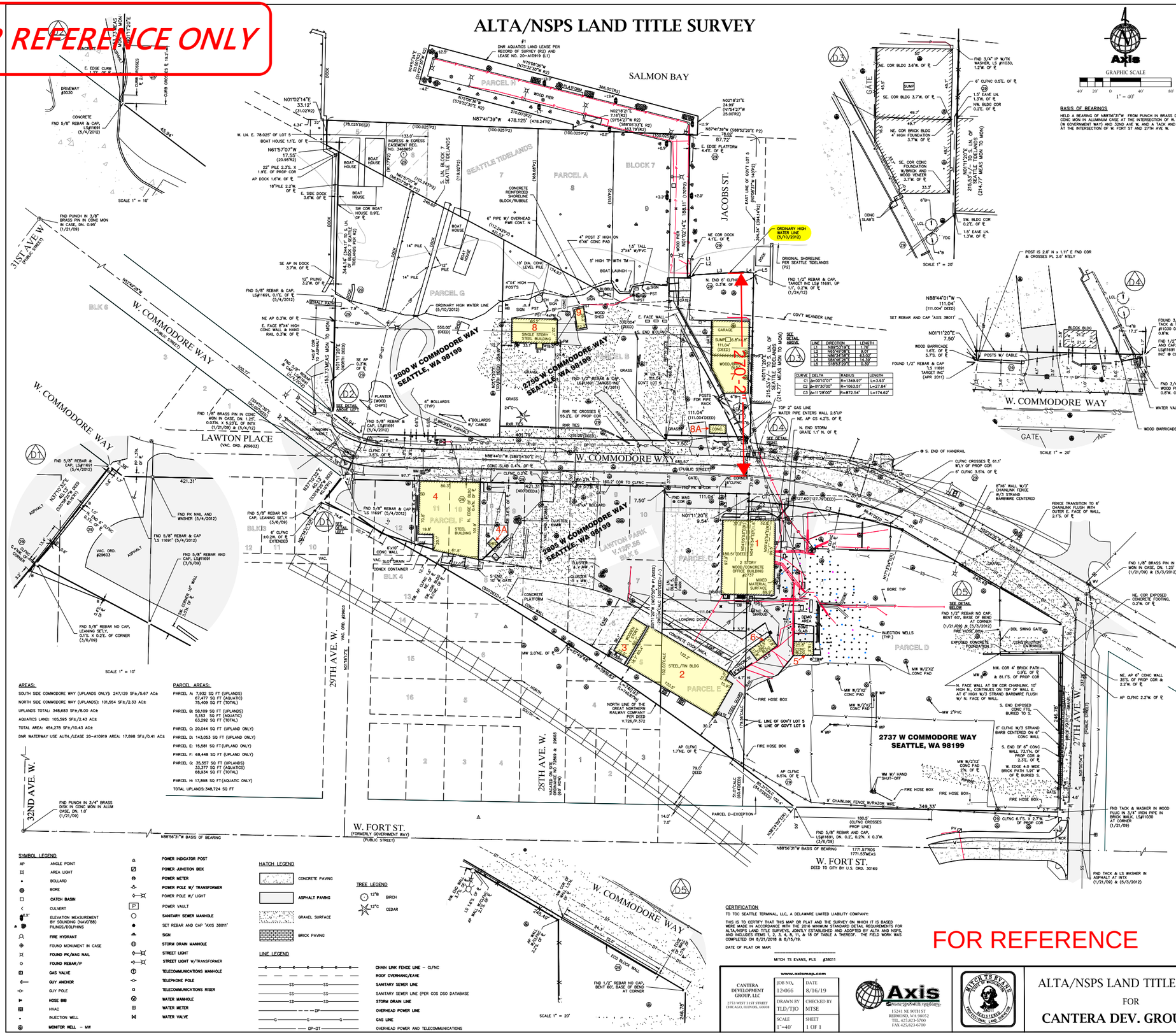
FOR REFERENCE ONLY

ALTA/NSPS LAND TITLE SURVEY



AREAS:

SOUTH SIDE COMMODORE WAY (UPLANDS ONLY): 247,129 SF±/5.67 AC±

NORTH SIDE COMMODORE WAY (UPLANDS): 101,554 SF±/2.33 AC±

UPLANDS TOTAL: 348,683 SF±/8.00 AC±

AQUATICS LAND: 105,595 SF±/2.43 AC±

TOTAL AREA: 454,278 SF±/10.43 AC±

DNR WATERWAY USE AUTH./LEASE 20-A10919 AREA: 17,898 SF±/0.41 AC±

PARCEL AREAS:

PARCEL A: 7,932 SQ FT (UPLANDS)
67,477 SQ FT (AQUATIC)
75,409 SQ FT (TOTAL)

PARCEL B: 58,109 SQ FT (UPLANDS)
5,183 SQ FT (AQUATIC)
63,292 SQ FT (TOTAL)

PARCEL C: 20,044 SQ FT (UPLAND ONLY)

PARCEL D: 143,053 SQ FT (UPLAND ONLY)

PARCEL E: 15,581 SQ FT (UPLAND ONLY)

PARCEL F: 68,448 SQ FT (UPLAND ONLY)

PARCEL G: 35,557 SQ FT (UPLANDS)
33,377 SQ FT (AQUATICS)
68,934 SQ FT (TOTAL)

PARCEL H: 17,898 SQ FT (AQUATIC ONLY)

TOTAL UPLANDS:348,724 SQ FT

SYMBOL LEGEND

AP	ANGLE POINT		POWER INDICATOR POST
	AREA LIGHT		POWER JUNCTION BOX
	BOLLARD		POWER METER
	BORE		POWER POLE W/ TRANSFORMER
	CATCH BASIN		POWER POLE W/ LIGHT
	CULVERT	P	POWER VAULT
4.XX'	ELEVATION MEASUREMENT BY SOUNDING (NAVD'88) PILINGS/DOLPHINS		SANITARY SEWER MANHOLE
	FIRE HYDRANT		SET REBAR AND CAP "AXIS 38011"
	FOUND MONUMENT IN CASE		SIGN
	FOUND PK/MAG NAIL		STORM DRAIN MANHOLE
	FOUND REBAR/IP		STREET LIGHT
	GAS VALVE		STREET LIGHT W/TRANSFORMER
	GUY ANCHOR		TELECOMMUNICATIONS MANHOLE
	GUY POLE		TELEPHONE POLE
	HOSE BIB		TELECOMMUNICATIONS RISER
	HVAC		WATER MANHOLE
	INJECTION WELL		WATER METER
	MONITOR WELL - MW		WATER VALVE

HATCH LEGEND

- CONCRETE PAVING
- ASPHALT PAVING
- GRAVEL SURFACE
- BRICK PAVING

TREE LEGEND

- 12"B BIRCH
- 12"C CEDAR

LINE LEGEND

- CHAIN LINK FENCE LINE – CLFNC
- ROOF OVERHANG/EAVE
- SANITARY SEWER LINE
- SANITARY SEWER LINE (PER COS DSO DATABASE
- STORM DRAIN LINE
- OVERHEAD POWER LINE
- GAS LINE
- OVERHEAD POWER AND TELECOMMUNICATIONS

N88°56'31"W BASIS OF BEARING 1771.53'ROS 1771.53'MEAS

CERTIFICATION

TO TOC SEATTLE TERMINAL, LLC, A DELAWARE LIMITED LIABILITY COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 8, 11, & 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON 8/21/2018 & 8/15/19.

DATE OF PLAT OR MAP: _____

MITCH TS EVANS, PLS #38011

FOR REFERENCE

CANTERA DEVELOPMENT GROUP, LLC
2753 WEST 31ST STREET
CHICAGO, ILLINOIS, 60608

www.axismap.com
15241 NE 90TH ST
REDMOND, WA 98052
TEL: 425.823-6700
FAX 425.823-6700

JOB NO. 12-066	DATE 8/16/19
DRAWN BY TLD/TJO	CHECKED BY MTSE
SCALE 1"=40'	SHEET 1 OF 1

ALTA/NSPS LAND TITLE SURVEY
FOR
CANTERA DEV. GROUP, LLC

GRAPHIC SCALE
40' 20' 0 40' 80'
1" = 40'

BASIS OF BEARINGS

HELD A BEARING OF N88°56'31"W FROM PUNCH IN BRASS DISK ON CONC MON IN ALUMINUM CASE AT THE INTERSECTION OF W. FORT ST (W GOVERNMENT WAY) AND 32ND AVE W, AND A TACK AND WASHER AT THE INTERSECTION OF W. FORT ST AND 27TH AVE W.

LEGAL DESCRIPTION

PARCEL A:

THE EASTERLY 78.025 FEET OF LOT 5 AND ALL OF LOTS 6, 7, 8 AND 9, BLOCK 7, SEATTLE TIDELANDS, IN KING COUNTY, WASHINGTON, AS SHOWN ON THE OFFICIAL MAPS ON FILE IN THE OFFICE OF THE COMMISSIONER OF PUBLIC LANDS AT OLYMPIA, WASHINGTON.

PARCEL B:

THE EAST 111.04 FEET OF THAT PORTION OF GOVERNMENT LOT 5 OF SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF WEST COMMODORE WAY;

TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 5 OF SECTION 11, TOWNSHIP 25 NORTH RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTHERLY LINE OF COMMODORE WAY AS NOW ESTABLISHED, AT A POINT WHICH IS 111.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST ALONG SAID NORTH LINE OF COMMODORE WAY 219.00 FEET;
THENCE NORTH PARALLEL WITH THE EAST LINE OF SAID GOVERNMENT LOT TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDELANDS;
THENCE EASTERLY ALONG THE SOUTHERLY LINE OF SAID BLOCK TO A POINT WHICH IS 111.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE POINT OF BEGINNING;

EXCEPT ANY PORTION THEREOF LYING WITHIN THE SEATTLE TIDELANDS.

PARCEL C:

THAT PORTION OF THE EAST 111.04 FEET GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING SOUTH OF COMMODORE WAY AND NORTH OF A LINE PARALLEL TO AND 180.51 FEET SOUTH OF SAID SOUTH LINE OF COMMODORE WAY, MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL D:

THAT PORTION OF GOVERNMENT LOT 6, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTH OF FORT STREET (FORMERLY GOVERNMENT WAY), WEST OF 27TH AVENUE WEST, AND SOUTH OF COMMODORE WAY;

EXCEPT THE FOLLOWING PORTION:

BEGINNING AT THE SOUTHWEST CORNER OF SAID TRACT;
THENCE NORTH ALONG THE WEST LINE OF SAID LOT 6 A DISTANCE OF 50.40 FEET;
THENCE SOUTHEASTERLY A DISTANCE OF 84.5 FEET TO THE NORTH LINE OF FORT STREET (FORMERLY GOVERNMENT WAY);
THENCE WEST TO THE POINT OF BEGINNING.

PARCEL E:

THAT PORTION OF THE EAST 111.04 FEET OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING NORTHEASTERLY OF THAT PORTION OF THE EAST 111.04 FEET OF SAID GOVERNMENT LOT 5 CONVEYED TO THE GREAT NORTHERN RAILWAY COMPANY BY DEED RECORDED IN VOLUME 726 OF DEEDS, AT PAGE 372, UNDER RECORDING NUMBER 692109, RECORDS OF KING COUNTY, WASHINGTON, AND SOUTHERLY OF A LINE PARALLEL TO AND 180.51 FEET SOUTHERLY OF THE SOUTHERLY MARGIN OF COMMODORE WAY MEASURED ALONG THE EAST LINE OF SAID GOVERNMENT LOT 5;

EXCEPT THAT PORTION THEREOF, IF ANY, LYING WEST OF THE EAST LINE OF BLOCK 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON.

PARCEL F:

THAT PORTION OF BLOCKS 3, 4 AND 5, LAWTON PARK, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 12 OF PLATS, PAGE 56, IN KING COUNTY, WASHINGTON, AND OF VACATED STREETS AND ALLEYS ADJOINING, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF WEST COMMODORE WAY DISTANT SOUTH 54°01'35" EAST 190 FEET FROM THE NORTHWESTERLY LINE OF LOT 1, BLOCK 6, OF SAID PLAT OF LAWTON PARK;
THENCE SOUTH 35°58'25" WEST, PARALLEL WITH SAID NORTHWESTERLY LINE TO THE NORTHEASTERLY MARGIN OF THE GREAT NORTHERN RAILWAY RIGHT OF WAY;
THENCE SOUTHEASTERLY ALONG SAID MARGIN 500 FEET, MORE OR LESS, TO THE EAST LINE OF SAID BLOCK 5;
THENCE NORTH 00°00'50" WEST 300 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF SAID BLOCK 5, SAID POINT ALSO BEING ON THE SOUTH MARGIN OF WEST COMMODORE WAY; THENCE WESTERLY ALONG SAID SOUTH MARGIN 400 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL G:

THAT PORTION OF GOVERNMENT LOT 5, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE NORTH LINE OF COMMODORE WAY AS ESTABLISHED AT A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE WEST AND NORTHWESTERLY ALONG SAID WAY LINE TO A POINT ON A LINE WHICH IS PARALLEL WITH AND 180.51 FEET SOUTH OF THE NORTH LINE OF SAID GOVERNMENT LOT; THENCE NORTH ALONG SAID PARALLEL LINE TO THE SOUTHERLY LINE OF BLOCK 7, SEATTLE TIDELANDS;
THENCE EASTERLY ALONG SAID BLOCK 7 TO A POINT WHICH IS 330.004 FEET WEST OF THE EAST LINE OF SAID GOVERNMENT LOT;
THENCE SOUTH TO THE BEGINNING.

PARCEL H (SUBJECT TO CHANGE; SEE EXCEPTION 20 IN SCHEDULE B HEREIN):

THAT PORTION OF WASHINGTON STATE HARBOR AREA LYING NORTH OF BLOCK 7, MAP OF SEATTLE TIDE LANDS, SECTION 11, TOWNSHIP 25 NORTH, RANGE 3 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SECTION 11;
THENCE SOUTH 89°09'27" EAST 1323.96 FEET TO EAST LINE OF GOVERNMENT LOT 5;
THENCE ALONG SAID EAST LINE NORTH 0°49'52" EAST 930.22 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF BLOCK 7, SEATTLE TIDE LANDS, ALSO KNOWN AS THE STATE HARBOR LINE;
THENCE NORTH 89°09'27" WEST 78.02 FEET TO THE TRUE POINT OF BEGINNING;
THENCE NORTH 1542'7" EAST 25.00 FEET;
THENCE NORTH 73°52'30" WEST 366.00 FEET;
THENCE SOUTH 14°27'30" WEST 53.00 FEET;
THENCE SOUTH 73°52'30" EAST 210.00 FEET;
THENCE SOUTH 1542'7" WEST 7.16 FEET TO THE SAID HARBOR LINE;
THENCE SOUTH 88°03'33" EAST 163.79 FEET TO THE TRUE POINT OF BEGINNING AND THE END OF THIS DESCRIPTION.

SCHEDULE B SPECIAL EXCEPTIONS

EASEMENTS ARE BASED ON THE SUPPLEMENT SUPPLEMENTAL #1 TO THE 5TH COMMITMENT BY CHICAGO TITLE COMPANY, ORDER NO. 0116861-06, DATED JULY 31, 2019, AT 08:00 AM, SUPPLEMENT DATE: AUGUST 14, 2019. (SUPPORTING DOCUMENTS PROVIDED)

(1) EASEMENT AND THE TERMS AND CONDITIONS THEREOF:

GRANTEE: RAINIER ICE & COLD STORAGE, INC.
PURPOSE: INGRESS AND EGRESS
AREA AFFECTED: A WESTERLY PORTION OF PARCEL A AS DESCRIBED IN DOCUMENT
RECORDED: MAY 5, 1945
RECORDING NUMBER: 3465822

SAID EASEMENT IS A RE-RECORDING OF A EASEMENT RECORDED UNDER RECORDING NUMBER 3465822, AS SHOWN HEREON

2. ANY PROHIBITION OR LIMITATION OF USE, OCCUPANCY OR IMPROVEMENT OF THE LAND RESULTING FROM THE RIGHTS OF THE PUBLIC OR RIPARIAN OWNERS TO USE ANY PORTION WHICH IS NOW OR HAS BEEN FORMERLY COVERED BY WATER.

3. PARAMOUNT RIGHTS AND EASEMENTS IN FAVOR OF THE UNITED STATES FOR COMMERCE, NAVIGATION, FISHERIES, AND THE PRODUCTION OF POWER.

20. THE LEGAL DESCRIPTION FOR PARCEL H AS SHOWN IN SCHEDULE A HEREIN IS SUBJECT TO CHANGE.

SAID LEGAL DESCRIPTION IS BASED ON THAT DESCRIPTION CONTAINED IN SURVEY RECORDED UNDER RECORDING NO. 9707019001. WE MUST BE PROVIDED WITH A COPY OF THE DNR LEASE REFERENCED IN SAID SURVEY AND IN RECORDING MEMORANDUM RECORDED UNDER RECORDING NO. 9711200892, AND ANY SUBSEQUENT CHANGES TO SAID LEASED AREA, TO CONFIRM THE DIMENSIONS OF THE PROPERTY COVERED.

WE FURTHER NOTE THAT THE TAX ASSESSOR'S LEGAL DESCRIPTION VARIES FROM THE DESCRIPTION CONTAINED IN SAID SURVEY.

22. ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY #12-066 DATED MAY 30, 2012, REVISED JUNE 19, 2014 MATTERS A THROUGH O, AS SHOWN HEREON

FOR ALL OTHER EXCEPTIONS, REFER TO THE ABOVE REFERENCED 5TH COMMITMENT.

REFERENCES

(R1) RECORD OF SURVEY BY TARGET SURVEYORS INC, REC NO. 9707149007

(R2) RECORD OF SURVEY BY RUSS DODGE SURVEY REC NO. 9707019001

(R3) N.O.S. BY BARGHAUSEN CONSULTING ENG. INC REC NO. 8403219007

(R4) CITY OF SEATTLE ENGINEERING MAP SE 1/4 SEC 10 T25N R5E

(R5) RECORD OF SURVEY BY ORNI ENTERPRISES REC. NO. 9509279003

(R6) RECORD OF SURVEY BY REID MIDDLETON & ASSOC. REC NO. 7703179001

(R7) RECORD OF SURVEY BY ABA INC. REC NO. 2009070290010

(R8) CITY OF SEATTLE ENGINEERING MAP SW 1/4 SEC 11 T25N R5E

(R9A) OREGON WASHINGTON RAILROAD AND NAVIGATION COMPANY STATION MAP LANDS TRACTS AND STRUCTURES 107-25.A

(R9B) OREGON WASHINGTON RAILROAD AND NAVIGATION COMPANY STATION MAP LANDS TRACTS AND STRUCTURES 107-25.B

(R10) AQ 20-010897

(P1) PLAT OF LAWTON PARK RECORDED IN VOLUME 12 OF PLATS PAGE 56

(P2) SEATTLE TIDE LANDS MAP TF17-204

(L1) DNR WATERWAY USE AUTHORIZATION/LEASE NO. 20-A10919 REC. NO. 9711200892/20090924000249/20130607000412/20180521001023

SURVEY NOTES

UTILITY LOCATIONS SHOWN HEREON ARE BASED UPON ASBUILT FIELD LOCATION OF EXISTING STRUCTURES BASED ON OBSERVABLE SURFACE EVIDENCE AND AVAILABLE UTILITY MAPS FROM CITY AND UTILITY PURVEYOR'S DRAWINGS. A UTILITY LOCATE SERVICE WAS SUB-CONSULTED. CALL 811 FOR UTILITY LOCATES BEFORE ANY DIGGING OR EXCAVATION ON SITE.

THIS SURVEY DISCLOSES FACTORS OF RECORD AND ON THE GROUND AFFECTING THE SUBJECT PROPERTY BOUNDARY, BUT IT DOES NOT PURPORT TO LEGALLY RESOLVE RELATED PROPERTY LINE DISPUTES. WHERE AMBIGUITIES ARE NOTED, AXIS RECOMMENDS THAT THE OWNER CONSULT WITH LEGAL COUNSEL TO DETERMINE HOW BEST TO INTERPRET THEIR PROPERTY RIGHTS AND ADDRESS ANY POTENTIAL PROPERTY LINE DISPUTES.

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY BETWEEN JANUARY 2009 TO MAY 2012, AUGUST 21, 2018 AND AUGUST 15, 2019 AND CAN ONLY BE CONSIDERED AS REFLECTING THE GENERAL CONDITIONS EXISTING AT THAT TIME.

BUILDING LOCATION TIES ARE MEASURED AT RIGHT ANGLES FROM THE PROPERTY LINES AT THE POSITIONS INDICATED.

INSTRUMENTATION FOR THIS SURVEY WITH A LEICA 1201 & 1103 ELECTRONIC TOTAL STATIONS, AS WELL AS A 3D LASER SCANNING SYSTEM, LEICA SCANSTATION 2, MODEL NUMBER HDS 4050. MEETING OR EXCEEDING STANDARDS SET BY WAC 332-130-080/090.

THIS SURVEY DOES NOT EXCEED THE ALLOWABLE ACCURACY MEASUREMENTS CONTROLLING LAND BOUNDARIES ON ALTA/NSPS LAND TITLE SURVEYS. 0.07 (OR 20MM)+ 50 PPM

ALL DISTANCES SHOWN ARE GROUND DISTANCES UNLESS OTHERWISE NOTED.

AQUATIC LANDS AND BOUNDARIES MAY CHANGE DEPENDING ON NATURAL OR ARTIFICIAL CAUSES. OTHER THAN ENVIRONMENTAL CHANGES, THE BALLARD LOCKS DIRECTLY TO THE WEST HAS A DAILY IMPACT ON WATER LEVELS IN SALMON BAY. THE ORDINARY HIGH WATER MARK WAS LOCATED ON (5/10/2012) AND MAY OR MAY NOT REPRESENT THE ACTUAL LOCATION OF THE LIMIT TITLE.

FLOOD ZONE

FLOOD ZONE DESIGNATION = ZONE X

PER FLOOD INSURANCE RATE MAP KING COUNTY, WASHINGTON AND INCORPORATED AREAS MAP NUMBER 53033C0320 F, DATED MAY 16, 1995

WETLANDS

NO WETLAND DELINEATION WERE DISCOVERED ON SITE AS PER REVIEW OF KING COUNTY MAP OR CITY OF SEATTLE GIS MAPPING.

SW 1/4, SW 1/4, SEC. 11, TWP. 25 N., RGE. 3 E., W.M.
CITY OF SEATTLE, KING COUNTY, WASHINGTON

REV#	DESCRIPTION OF REVISION	DATE	BY
#1	ADDED REFERENCES TO LEASE NO. 20-A10919	6/19/14	TJO
#2	UPDATED MAP BASED ON 8/21/2018 FIELD OBSERVATIONS	8/23/18	TJO
#3	UPDATED CERTIFICATION PARTIES	9/25/18	TJO
#4	UPDATED MAP 5TH COMMITMENT	8/6/19	TJO
#5	UPDATED MAP SUPPLEMENT #1 TO THE 5TH COMMITMENT	8/15/19	TJO
#6			
#7			

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 10, 2021

Mike Ciserella
TOC Seattle Terminal 1 LLC
2753 W 31st St
Chicago, IL 60608-5126

RE: Coverage under the Construction Stormwater General Permit

Permit number:	**WAR310049**
Site Name:	**former Time Oil Bulk Terminal Facility**
Location:	**2737 W Commodore Way #2805**
	Seattle, WA County: King
Disturbed Acres:	**3.5**

Dear Mike Ciserella:

The Washington State Department of Ecology (Ecology) received your Notice of Intent for coverage under Ecology's Construction Stormwater General Permit (CSWGP). This is your permit coverage letter. Your permit coverage is effective June 10, 2021.

Retain this letter as an official record of permit coverage for your site. You may keep your records in electronic format if you can easily access them from your construction site. You can get the CSWGP, permit forms, and other information at www.ecology.wa.gov/eCoverage-packet. Contact your Permit Administrator, listed below, if you want a copy of the CSWGP mailed to you. Please read the permit and contact Ecology if you have any questions.

Electronic Discharge Monitoring Reports (WQWebDMR)
This permit requires you to submit monthly discharge monitoring reports (DMRs) for the full duration of permit coverage (from the first full month of coverage to termination). DMRs must be submitted electronically using Ecology's secure online system, WQWebDMR. To sign up for WQWebDMR go to www.ecology.wa.gov/programs/wq/permits/paris/webdmr.html. If you have questions, contact the portal staff at (360) 407-7097 (Olympia area), or (800) 633-6193/option 3, or email WQWebPortal@ecy.wa.gov.

Appeal Process
You have a right to appeal coverage under the general permit to the Pollution Control Hearing Board (PCHB). Appeals must be filed within 30 days of the date of receipt of this letter. Any appeal is limited to the general permit's applicability or non-applicability to a specific discharger. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2). For more information regarding your right to appeal, go to https://apps.ecology.wa.gov/publications/summarypages/1710007.html to view Ecology's Focus Sheet: *Appeal of General Permit Coverage*.

Ecology Field Inspector Assistance
If you have questions regarding stormwater management at your construction site, please contact your Regional Inspector, Maria Zeman of Ecology's Northwest Regional Office in Bellevue at Maria.Zeman@ecy.wa.gov, or at 425-649-7100.

Questions or Additional Information
Ecology is here to help. Please review our web page at www.ecology.wa.gov/constructionstormwaterpermit. If you have questions about the Construction Stormwater General Permit, please contact your Permit Administrator, Josh Klimek at josh.klimek@ecy.wa.gov or (360) 407-7451.

Sincerely,

Jeff Killelea, Acting Manager
Program Development Services Section
Water Quality Program

King County
Wastewater Treatment Division
Industrial Waste Program
Department of Natural Resources and Parks
201 South Jackson Street, Suite 513
Seattle, WA 98104-3855
206-477-5300 Fax 206-263-3001
TTY Relay: 711

March 25, 2021

SENT VIA EMAIL ONLY
ELECTRONIC READ RECEIPT REQUESTED

Mike Ciserella
TOC Seattle Terminal 1, LLC
2753 West 31st Street
Chicago, IL 60608

Issuance of new Wastewater Discharge Authorization No. 1145-01 to TOC Seattle Terminal 1, LLC

Dear Mr. Mike Ciserella:

The King County Industrial Waste Program (KCIW) has reviewed your application to discharge industrial wastewater to the sewer system from the TOC Seattle Terminal 1, LLC facility located at 2737 West Commodore Way, Seattle, Washington, and has issued the enclosed Minor Discharge Authorization. The enclosed Discharge Authorization No. 1145-01 supersedes and cancels Discharge Authorization No. 4427-01, effective April 1, 2021.

This discharge authorization permits your facility to discharge limited amounts of industrial wastewater into King County's sewer system in accordance with the effluent limitations and other requirements and conditions set forth in the document and the regulations outlined in King County Code 28.84.060 (enclosed). As long as you maintain compliance with regulations and do not change the nature and volume of your discharge, KCIW will not require you to apply for an industrial wastewater discharge permit, a type of approval that would result in additional requirements, oversight, and increased fees.

If you propose to increase the volume of your discharge or change the type or quantities of substances discharged, you must contact KCIW at least 60 days before making these changes.

King County Code 28.84 authorizes a fee for each Minor Discharge Authorization issued by the King County Department of Natural Resources and Parks. The current fee for issuance of a new Minor Discharge Authorization is $2000. King County will send you an invoice for this amount.

If you have any questions about this discharge authorization or your wastewater discharge, please call me at 206-477-5465 or email me at dave.haberman@kingcounty.gov. To learn more about King County's industrial wastewater regulations, visit our program's website at: www.kingcounty.gov/industrialwaste.

Thanks in advance for supporting our mission to protect workers, the local and regional sanitary sewer system, our treatment plant infrastructure, and the environment.

Sincerely,

DocuSigned by:
Dave Haberman
39F3ABE315B446E...
Dave Haberman
Compliance Investigator

Enclosures

e-cc: Mike Ciserella, TOC Seattle Terminal 1, LLC, mike@cantear-group.com
Julie Howell, Seattle Public Utilities, julie.howell@seattle.gov

King County

MINOR DISCHARGE AUTHORIZATION
King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855

NUMBER 1145-01

for

TOC Seattle Terminal 1, LLC

Facility address: 2737 West Commodore Way, Seattle, Washington

Mailing address: 2753 West 31st Street, Chicago, IL 60608

Phone: 206-447-6267 **Emergency (24-hour) phone:** 425-754-4016

Industry type: Groundwater Remediation – Petroleum/Organics

SIC code: 4226 **EPA Id. No.:** WAD009591207

Discharge to: West Point

*Note: This authorization is valid only for the specific discharges shown below:

Discharge process: Wastewater generated by Groundwater Remediation - Petroleum operation

Pretreatment process: Groundwater treated via solids settling, filtration and granular activated carbon prior to discharge

Effective date: April 1, 2021
Expiration date: December 1, 2021

DESCRIPTION OF SAMPLE SITES AND DISCHARGE VOLUMES

Sample Site No.	Description	Maximum Volume (gallons per day)	
		Industrial	Total
A4257	Final Discharge Sump	8,500	8,500

Permission is hereby granted to discharge industrial wastewater from the above-identified facility into the King County sewer system in accordance with the effluent limitations and monitoring requirements set forth in this authorization.

If the industrial user wishes to continue to discharge after the expiration date, an application must be filed for re-issuance of this discharge authorization at least 90 days prior to the expiration date. For information concerning this King County Discharge Authorization, please call Industrial Waste Compliance Investigator Dave Haberman at 206-477-5465.

24-HOUR EMERGENCY NOTIFICATION
West Point Treatment Plant: 206-263-3801
Washington State Department of Ecology: 425-649-7000

I. SPECIAL CONDITIONS

A. Discharge to the sanitary sewer shall not begin until KCIW has conducted a preoperative inspection of the pretreatment facilities and has sent written notification (email is sufficient) to the permittee that discharges may begin.

II. SELF-MONITORING REQUIREMENTS

A. The following self-monitoring requirements shall be met for this discharge authorization:

Sample Site No.	Parameter	Sample Type	Frequency
A4257	Benzene	Grab	Monthly
	Ethylbenzene	Grab	Monthly
	Toluene	Grab	Monthly
	Total Xylenes	Grab	Monthly
	Pentachlorophenol	Grab	Monthly
	1,1,2-Trichloroethylene (TCE)	Grab	Monthly
	Vinyl Chloride	Grab	Monthly
	Nonpolar FOG	3 Grabs[B]	Monthly
	pH	Grab	Monthly
	Total Monthly Flow	Meter reading	Continuous
	Maximum Daily discharge	Meter reading	Continuous
	Settleable solids	Grab (by Imhoff cone)	Only if operating criteria are exceeded
	Hydrogen sulfide	Meter reading	Only if operating criteria are exceeded
	Explosivity	Meter reading	Only if operating criteria are exceeded

B. The three nonpolar fats, oils, and grease (FOG) grab samples shall be of equal volume, collected at least five minutes apart, and analyzed separately. When using U.S. Environmental Protection Agency approved protocols specified in 40 CFR Part 136, the individual grab samples may be composited (at the laboratory) prior to analysis. The result of the composite sample or the average of the concentrations of the three grab samples may be reported as total FOG unless the value is 100 mg/L or greater, in which case the concentration of nonpolar FOG must be reported.

C. The settleable solids field test by Imhoff cone must be performed as follows:

1. Fill Imhoff cone to one-liter mark with well-mixed sample
2. Allow 45 minutes to settle
3. Gently stir sides of cone with a rod or by spinning; settle 15 minutes longer
4. Record volume of settleable matter in the cone as mL/L

D. If a violation of any discharge limits or operating criteria is detected in monitoring, you shall notify KCIW immediately upon receipt of analytical data.

E. A self-monitoring report shall be filed with KCIW no later than the 15th day of the time period following the sample collection (i.e., the 15th day of the following month for monthly, weekly, daily samples; the 15th day of the following quarter for quarterly samples). If no discharge takes place during any monitoring period, it shall be noted on the report.

F. All self-monitoring data submitted to KCIW, which required a laboratory analysis, must have been performed by a laboratory accredited by the Washington State Department of Ecology for each parameter tested, using procedures approved by 40 CFR 136. This does not apply to field measurements performed by the industrial user such as pH, temperature, flow, atmospheric hydrogen sulfide, total dissolved sulfides, total settleable solids by Imhoff cone, or process control information.

G. All sampling data collected by the permittee at the point of compliance and analyzed using procedures approved by 40 CFR 136 or approved alternatives shall be submitted to KCIW whether required as part of this authorization or done voluntarily by the permittee.

H. Self-monitoring reports shall be signed by an authorized representative of the industrial user. The authorized representative of the industrial user is defined as:

1. The president, secretary, treasurer, or a vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation

2. The manager of one or more manufacturing, production, or operating facilities, but only if the manager:

    a. Is authorized to make management decisions that govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiate and direct other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations
    b. Can ensure that the necessary systems are established, or actions taken to gather complete and accurate information for control mechanism requirements and knowledgeable of King County reporting requirements
    c. Has been assigned or delegated the authority to sign documents, in accordance with corporate procedures

3. A general partner or proprietor if the industrial user is a partnership or proprietorship, respectively

4. A director or highest official appointed or designated to oversee the operation and performance of the industry if the industrial user is a government agency

5. The individuals described in one through four above may designate an authorized representative if:

    a. The authorization is submitted to King County in writing.
    b. The authorization specifies the individual or position responsible for the overall operation of the facility from which the discharge originates or having overall responsibility for environmental matters for the company or agency.

III. GENERAL DISCHARGE LIMITATIONS

A. Operating Criteria

There shall be no odor of solvent, gasoline, or hydrogen sulfide (rotten egg odor), oil sheen, unusual color, or visible turbidity. The discharge must remain translucent. If any of the discharge limits are exceeded, you must stop discharging and notify KCIW at 206-477-5300.

B. Corrosive Substances

Limits

Instantaneous minimum:	pH 5.0 (s.u.)
Daily minimum:	pH 5.5 (s.u.)
Maximum:	pH 12.0 (s.u.)

s.u. = standard units

The instantaneous minimum pH limit is violated whenever any single grab sample or any instantaneous recording is less than pH 5.0.

The daily minimum pH limit is violated whenever any continuous recording of 15 minutes or longer remains below pH 5.5 or when each pH value of four consecutive grab samples collected at 15-minute intervals or longer within a 24-hour period remains below pH 5.5.

Discharges of caustic solutions greater than pH 12.0 are prohibited unless King County provides prior written authorization. For these situations, the authorized caustic solution discharges above pH 12.0 must be less than pH 12.5 and must not contain an equivalent weight of sodium hydroxide (NaOH) that exceeds a daily loading rate of 21 pounds/day. The authorized discharge of caustic solutions greater than pH 12.0 shall be subject to special conditions to protect worker safety and the POTW.

C. Fats, Oils, and Grease

FOG Accumulations and Obstructions

Discharges of FOG shall not result in significant accumulations which, either alone or in combination with other wastes, are capable of obstructing flow or interfering with the operations or performance of the POTW.

Nonpolar FOG (mineral/petroleum origin)

Nonpolar FOG limit: 100 mg/L

The limit for nonpolar FOG is violated when either:

- the arithmetic mean of the concentration from the individual analyses of three grab samples, taken no more frequently than 5-minute intervals, exceeds the limitation, or

- the concentration of a single composite sample of three grab samples, taken no more frequently than 5-minute intervals, exceeds the limitation.

Industrial users that violate the nonpolar FOG limit may be required to complete, for King County review and approval, a FOG control plan.

Polar FOG (Animal and Vegetable Origin)

Industrial users that have the potential to discharge polar FOG shall minimize free-floating polar FOG. Industrial users must minimize the use of emulsifying agents, such as cleaners or detergents, to only the quantity needed to maintain industrial activities at their facility and to not impact the POTW.

Industrial users may not add emulsifying agents prior to or within FOG-removal devices, exclusively for the purposes of emulsifying free-floating FOG.

Industrial users that discharge free-floating polar FOG will be required to complete, for King County review and approval, a FOG control plan.

King County has the authority to include aqueous concentration-based discharge limits for polar FOG or total FOG (i.e., the sum of polar and nonpolar FOG) in permits and discharge authorizations issued to industrial users that primarily discharge FOG of animal or vegetable origin. The concentration-based limits shall be based on what can be achieved through implementation of a treatment technology that the Wastewater Treatment Division Director determines represents all known, available, and reasonable methods of prevention, control, and treatment.

D. Flammable or Explosive Materials

No person shall discharge any pollutant, as defined in 40 CFR 403.5, that creates a fire or explosion hazard in any sewer or treatment works, including, but not limited to, waste streams with a closed cup flashpoint of less than 140° Fahrenheit or 60° Centigrade using the test methods specified in 40 CFR 261.21.

At no time shall two successive readings on an explosion hazard meter, at the point of discharge into the system (or at any point in the system), be more than 5% nor any single reading be more than 10% of the lower explosive limit (LEL) of the meter.

Pollutants subject to this prohibition include, but are not limited to, gasoline, kerosene, naphtha, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, chlorates, perchlorates, bromates, carbides, hydrides, and sulfides, and any other substances that King County, the fire department, Washington State, or the U.S. Environmental Protection Agency has notified the user are a fire hazard or a hazard to the system.

E. Compound Screening Levels and Reporting Requirements

Compound	CAS Number	Wastewater Screening Level (mg/L)
Pentachlorophenol	87-86-5	0.0053
1,1,2-Trichloroethylene (TCE)	79-01-6	0.5
Vinyl Chloride	75-01-4	0.012
Benzene	71-43-2	0.070
Ethylbenzene	100-41-4	1.7
Toluene	108-88-3	1.4
Total Xylenes	1330-20-7	2.2

For each exceedance of the screening levels, the permittee shall:

1. Notify KCIW within 24 hours of learning of the exceedance

2. Collect a sample and submit new data to KCIW within 14 days of becoming aware of the exceedance (or the next time discharge occurs if greater than 14 days)

3. Submit a written report within 14 days of learning of the exceedance (*14-Day Report*). The report should explain the cause of the exceedance and corrective actions taken to respond to the exceedance and ensure ongoing compliance

F. Heavy Metals/Cyanide

The industrial user shall not discharge wastes, which exceed the following limitations:

Heavy Metals & Cyanide	Instantaneous Maximum ppm (mg/L)[1]	Daily Average ppm (mg/L)[2]
Arsenic	4.0	1.0
Cadmium	0.6	0.5
Chromium	5.0	2.75
Copper	8.0	3.0
Lead	4.0	2.0
Mercury	0.2	0.1
Nickel	5.0	2.5
Silver	3.0	1.0
Zinc	10.0	5.0
Cyanide	3.0	2.0

[1] The instantaneous maximum is violated whenever the concentration of any sample, including a grab within a series used to calculate daily average concentrations, exceeds the limitation.

[2] The daily average limit is violated: a) for a continuous flow system when a composite sample consisting of four or more consecutive samples collected during a 24-hour period over intervals of 15 minutes or greater exceeds the limitation, or b) for a batch system when any sample exceeds the limitation. A

composite sample is defined as at least four grab samples of equal volume taken throughout the processing day from a well-mixed final effluent chamber and analyzed as a single sample.

G. High Temperature

The industrial user shall not discharge material with a temperature in excess of 65° C (150° F).

H. Hydrogen Sulfide

The following are atmospheric hydrogen sulfide limits as measured at a monitoring location designated by King County:

- Short-Term Limit: 15.0 parts per million volume (ppmv) as a 15-minute average
- 8-Hour Limit: 10.0 ppmv as an 8-hour average
- Weekly Limit: 3.0 ppmv as a 7-day average

More stringent weekly atmospheric hydrogen sulfide limits may be developed and imposed on a case-by-case basis depending on nuisance conditions or risks to workers and sewer infrastructure.

Aqueous soluble sulfide limits may be established on a case-by-case basis depending on the volume of discharge and conditions in the receiving sewer, including oxygen content, pH, and existing sulfide concentrations.

I. Organic Compounds

No person shall discharge any organic pollutants that result in the presence of toxic gases, vapors, or fumes within a public or private sewer or treatment works in a quantity that may cause acute worker health and safety problems. Organic pollutants subject to this restriction include, but are not limited to, the following:

- Any organic compound listed in the "Total Toxic Organics (TTO)" definition provided in 40 CFR Section 433.11(e) and 40 CFR Section 413.02(i)
- Acetone, 2-butanone (MEK), 4-methyl-2-pentanone (MIBK), xylenes

Industrial users are required to implement source control strategies and best management practices to minimize the concentration of any of the aforementioned organic pollutants.

J. Settleable Solids

Settleable solids concentrations: 7.0 ml/L

IV. GENERAL CONDITIONS

A. All requirements of King County Code pertaining to the discharge of wastes into the municipal sewer system are hereby made a condition of this discharge authorization.

B. All pretreatment systems used to bring the permittee's discharge into compliance with King County's discharge limitations and all compliance monitoring equipment shall be maintained continuously in satisfactory and effective operations by the permittee at the permittee's expense and shall be subject to periodic inspections by authorized KCIW personnel. These systems shall be attended at all times during discharge to the King County sewerage system. In the event that such equipment fails, the permittee must notify KCIW immediately and take spill prevention precautions.

C. The industrial discharger shall implement measures to prevent accidental spills or discharges of prohibited substances to the municipal sewer system. Such measures include, but are not limited to, secondary containment of chemicals and wastes, elimination of connections to the municipal sewer system, and spill response equipment.

D. Any facility changes, which will result in a change in the character or volume of the pollutants discharged to the municipal sewer system, must be reported to your KCIW representative. Any facility changes that will cause the violation of the effluent limitations specified herein will not be allowed.

E. In the event the permittee is unable to comply with any of the conditions of this discharge authorization because of breakdown of equipment or facilities, an accident caused by human error, negligence, or any other cause, such as an act of nature the company shall:

1. Take immediate action to stop, contain, and clean up the unauthorized discharges and correct the problem.
2. Immediately notify KCIW and, if after 5 p.m. weekdays and on weekends, call the emergency King County treatment plant phone number on Page 1 so steps can be taken to prevent damage to the sewer system.
3. For discharge violations, collect a sample and submit new data to KCIW within 14 days of becoming aware of the violation.
4. Submit a written report within 14 days of the event (*14-Day Report*) describing the breakdown, the actual quantity and quality of resulting waste discharged, corrective action taken, and the steps taken to prevent recurrence.

F. Compliance with these requirements does not relieve the permittee from responsibility to maintain continuous compliance with the conditions of this discharge authorization or the resulting liability for failure to comply.

G. The permittee shall, at all reasonable times, allow authorized representatives of KCIW to enter that portion of the premises where an effluent source or disposal system is located or in which any records are required to be kept under the terms and conditions of this authorization.

H. Nothing in this discharge authorization shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including discharge into waters of the state. Any such discharge is subject to regulation and enforcement action by the Washington State Department of Ecology.

I. This discharge authorization does not authorize discharge after its expiration date. If the permittee wishes to continue to discharge after the expiration date, an application must be filed for reissuance of this discharge authorization at least 90 days prior to the expiration date. If the permittee submits its reapplication in the time specified herein, the permittee shall be deemed to have an effective wastewater discharge authorization until KCIW issues or denies the new wastewater discharge authorization. If the permittee fails to file its reapplication in the time period specified herein, the permittee will be deemed to be discharging without authorization.

DocuSigned by:
Dave Haberman
39F3ABE315B446E...

Compliance Investigator: Dave Haberman Date: 3/25/2021

King County

Industrial Waste Program Monthly Self-Monitoring Report

Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.kciw@kingcounty.gov

Company Name: TOC Seattle Terminal 1, LLC **Sample Site No.** A4257 **Permit/DA No.:** 1145-01

Please Specify Month & Year: **Month:** _____ **20**____

This form is available at: www.kingcounty.gov/industrialwaste

All units are mg/L unless otherwise noted.

Sample Date		pH Min LIMIT **(5.0)**	pH Max LIMIT **(12.0)**	Benzene (µg/L) LIMIT **(70)**	Ethylbenzene (µg/L) LIMIT **(1700)**	Toluene (µg/L) LIMIT **(1400)**	Total Xylenes (µg/L) LIMIT **(2200)**	NP Fats, Oils, & Grease (Avg./ 3 grabs) (mg/L) LIMIT **(100)**	Daily Flow (gals/day) LIMIT **8,500**	
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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further certify that all data requiring a laboratory analysis were analyzed by a Washington State Department of Ecology accredited laboratory for each parameter tested.

Signature of Principal Executive or Authorized Agent _____ Date _____

Monthly Min pH		& Date					
Monthly Max pH		& Date			& Date		

PLEASE CIRCLE ALL VIOLATIONS

Due Date: **Monthly report is due by the 15th each month.**

King County

Industrial Waste Program Monthly Self-Monitoring Report

Send to: King County Industrial Waste Program
201 S. Jackson Street, Suite 513
Seattle, WA 98104-3855
Phone 206-477-5300 / FAX 206-263-3001
Email: info.kciw@kingcounty.gov

Company Name: TOC Seattle Terminal 1, LLC **Sample Site No.** A4257 **Permit/DA No.:** 1145-01

Please Specify Month & Year: **Month:** _____ **20**____

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Sample Date	Pentachlorophenol CAS 87-86-5 LIMIT **(0.0053)**	Vinyl Chloride CAS 75-01-4 LIMIT **(0.012)**	1,1,2-Trichloroethylene (TCE) CAS 79-01-6 LIMIT **(0.5)**	Additional Notes
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Signature of Principal Executive or Authorized Agent Date

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