



Final Engineering Design Report – Upland Areas of Jeld Wen Site, Woodlife Area

Jeld Wen Site

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1.0 Introduction

This Draft Engineering Design Report (EDR) describes the approach and criteria for the design selected for performing cleanup activities in the upland Woodlife Area of the former E.A. Nord, Inc, door facility (i.e., Former Nord Door Facility) (through its successor-in-interest, JELD-WEN, Inc. [JELD-WEN]), located at 300 West Marine View Drive, Everett, Washington, 98201 (Ecology Cleanup Site ID: 4402; Jeld Wen Site). Cleanup of the Site includes both upland and sediment remediation. Separate EDRs are being developed to describe the proposed remediation for contamination in the intertidal aquatic areas (Marine EDR) and for contamination in the upland Creosote/Fuel Oil Area. This EDR presents the proposed remedy to address contaminated soil and groundwater in the Woodlife Area at the Site (Figure 1).

The required cleanup actions at the Site are set forth in the JELD-WEN Final Cleanup Action Plan¹, and in accordance with the requirements of Agreed Order (AO) Number DE 5095 and subsequent First Amendment and Second Amendment to the AO between JELD-WEN and the Washington State Department of Ecology (Ecology). This EDR has been prepared to meet the requirements of the Model Toxics Control Act (MTCA²).

This EDR provides a summary of background information used to characterize and define the extent of contamination at the Site and describes physical and operational conditions based on available information. This EDR also describes the proposed remedial actions intended to address soil and groundwater contamination, and the design elements and criteria that are the basis for the Pre-Remedial Design Investigation (PRDI). A narrative discussion of performance standards and how the remedial design will meet professional engineering standards of practice and regulatory requirements is provided herein.

2.0 Conceptual Site Model

The Conceptual Site Model (CSM) for the target remedial action area, the Woodlife Area, was presented in detail in the Upland PRDI Work Plan and is summarized in the following section.

Characterization data and historical documents indicate that the primary source of contaminants in soil and groundwater in the Woodlife Area is attributed to an approximately 10,000-gallon aboveground storage tank (AST) that contained Woodlife wood treatment solution (which contained pentachlorophenol [PCP]), and was formerly located northeast of the main manufacturing building, associated underground piping from the AST, and the former dip tank located within the main manufacturing building.

Soil and groundwater sampling was completed for analysis of PCP, Polychlorinated dibenzo-p-dioxins and dibenzofurans (hereafter referred to as “dioxins”), and total petroleum hydrocarbons (TPH) based on the location and historical use of the Woodlife solution. PCP was not detected above the laboratory reporting limit in any groundwater samples on the Site. PCP was only detected above the laboratory reporting limit in three soil samples from the Woodlife Area. TPH was detected above the reporting limit in some soil and groundwater samples from the Woodlife

¹ Washington Department of Ecology (Ecology). Final Cleanup Action Plan (CAP), Jeld Wen Site. August 2023

² Model Toxics Control Act (MTCA). Washington Administrative Code (WAC) Chapter 173-340, amended 2019.



Area but was limited in extent. There appears to be some crossover in impacts associated with the former National Pole treating operations and impacts associated with former fuel oil storage (Creosote/Fuel Oil Area). Elevated photoionization detector (PID) measurements during field screening at one historical boring, GP-501, suggested the presence of volatile-range contaminants; however, follow-up assessment of the GP-501 area during PRDI activities did not reveal significant evidence of volatile-range contaminants.

Dioxins analytical results indicate that the impacts are localized and originate from underground piping connected to the former Woodlife AST and former dip tank. It is likely that residual dioxins are more persistent than the PCP that was used in the Woodlife solution and is an apt constituent to trace the horizontal and vertical extent of Woodlife-associated impacts. Findings from the PRDI support the CSM regarding the localized and “pancaked” horizontal extent of dioxins impacts in soil, where the majority of impacts are located 3 feet to 5 feet below ground surface (bgs). The extent was delineated during the PRDI activities with the exception of shallow soil at the grassy area to the north of proposed excavation zone as well as an area to the south where there appears to cross-over into the Creosote/Fuel Oil Area.

The Property is zoned as industrial use, and it is likely that industrial activities will continue in the Woodlife Area for the foreseeable future. Potentially complete exposure pathways for soil in the Woodlife Area include direct exposure by construction workers and/or industrial workers (e.g. dermal, incidental ingestion) associated with future on-site work or property development work.

Ecology considers the groundwater at the Site to be non-potable based on WAC 173-340-720(2)(d). No groundwater production wells are located at the Site. Groundwater impacts are currently contained under existing surface caps, buildings, and roadways, further limiting potential exposure. Past sampling of shoreline seeps in the “log way” indicate that groundwater contaminants of concern (COCs) are localized and are not present in surface water or sediment adjacent to the Woodlife Area. Volatilization of dioxins from groundwater is not considered a pathway based on its low volatility. Therefore, no complete exposure pathways were identified for groundwater impacts in the Woodlife Area.

3.0 Basis of Design

Feasibility Study (FS)³ alternatives for the Woodlife Area were developed by considering the horizontal and vertical delineation of impacts identified during RI sampling activities. Ecology selected Alternative 2: Soil Removal, Engineering Controls, and Institutional Controls, as the preferred cleanup alternative (see Figure 2).

The purpose of the onsite soil excavation for the Woodlife Area is to remove the impacted soil for offsite disposal. Removal of the impacted soil will effectively address the limited groundwater impacts due to the hydrophobic nature of dioxins. The extent of the excavation is based on existing analytical data supplemented with investigation results completed during the PRDI activities. Institutional controls will include restrictions on soil disturbance where impacted soil remains, and restrictions on the placement of drinking water wells on the property.

A dioxin Cleanup Level (CUL) of 5.2 picograms per gram (pg/g) was presented in the CAP, which

³ SLR / Anchor, RI/FS Report.



is equivalent to the natural background concentration⁴. Remediation Levels (RELs) are not proposed for the soil and groundwater cleanup components in the Woodlife Area; however, if the soil impacts can't be fully delineated due to site conditions or health and safety concerns (i.e., significant groundwater infiltration causing excavation/trenching concerns), some contamination could allowably remain in place, being capped with clean backfill and asphalt pavement. If soil impacts extend below 5 feet bgs, an REL of 13 pg/g (MTCA method B direct contact value) will be used to limit the depth and spatial extent of excavation, in conjunction with observations of site conditions or health & safety concerns. This will dictate the use of engineering controls (clean backfill and asphalt surface cap) and institutional controls as primary components of the remedial action.

Per the CAP and the PRDI Work Plan, the lateral and vertical extent of impacts in the Woodlife Area, was thoroughly assessed during the PDRI activities. The PRDI data in conjunction with the existing site data for the Woodlife Area is sufficient to allow for delineation of the soil impacts to the Woodlife Area. (see Figure 3). The associated soil excavation area is presented in Figure 7.

4.0 Implementation of the Cleanup Action

4.1 Roles and Responsibilities

The cleanup action implementation team includes representatives from JELD-WEN, Ecology, SLR, and other to-be-determined organizations, contractors, and service providers listed below. This information will be updated as the project work progresses. See Appendix B for parcel ownership information.

- Property Owner(s): W&W Everett Investments, LLC (central and eastern portion of peninsula); HM Pacific Northwest 1 LLC (Heidelberg Materials asphalt plant on west end of peninsula); City of Everett (portions of West Marine View Drive); Port of Everett (portions of West Marine View Drive)
- JELD-WEN Project Manager: Tom Graham
- Ecology Site Manager Contact: Frank Winslow, LHG
- Project Consultant: SLR International Corporation; R. Scott Miller, P.E.
- Construction Contractor(s): TBD

4.2 Site Preparation

This draft EDR assumes that all or the northeastern portion of the main manufacturing building has been demolished. Building demolition and associated site controls following building demolition are not included in this draft EDR. The schedule, construction contractor mobilization, and pre-mobilization activities assume building demolition or partial building demolition have been completed before the end of 2025.

Pre-mobilization coordination activities will include, but are not limited to:

⁴ Ecology. Natural Background for Dioxins/Furans in WA Soils. Technical Memorandum #8. August 2010.



- Ecology's approval of the 90% complete Plans and Specifications for the Woodlife Area.
- Obtaining necessary permits or obtaining concurrence from Ecology that substantial completion of permit requirements has been met (see Section 4.10).
- Communicating the project schedule with the Project Team and stakeholders.
- Notifying Ecology about the anticipated field schedule at least five working days prior to the scheduled start of the cleanup activities.
- Coordination with the property owners regarding temporary re-routing of primary driveway to access western portion of the Site (active operating facility).
- Performing a utility locate prior to excavation activity. Coordination with utility companies and property owners regarding interruption or temporary relocation of utilities within the work area (see Section 4.3).
- Communicating with the laboratory about the laboratory requirements included in the Sampling and Analysis Plan (SAP)/Quality Assurance Project Plan (QAPP).
- Communicating with the off-site waste disposal facility regarding the acceptance of solid waste generated at the Site.
- Coordinating with the appropriate wastewater facility or municipality regarding the acceptance of any construction stormwater or groundwater generated at the Site as a result of the construction activities.

4.3 Utility Protection Plan

The known underground and overhead utilities and surface features at and near the Woodlife Area are shown on Figure 4. Utilities and features at and near the Woodlife Area include:

- Underground electrical to Heidelberg Materials
- Underground pressurized sanitary sewer connection from Heidelberg Materials
- Underground fiberoptic connection to Heidelberg Materials
- Abandoned railroad tracks
- Overhead electrical powerlines across West Marine View Drive
- Building downspouts and stormwater drainlines to outfalls
- North Truck Dock Stormwater Sump
- Water service line for fire suppression system for vacant warehouse building (estimated to be demolished by time of construction)

All lines will be carefully marked by a professional locating service, including an assessment of depth bgs. Excavation will maintain appropriate lateral and vertical setbacks from identified utilities. If target excavation depths cannot be achieved due to the presence of subsurface utilities, Ecology will be contacted from the field for discussion on moving forward. Confirmation soil samples in a case such as this would need to be collected to delineate remaining contamination



(3-4 samples). If excavation may temporarily interrupt services to the Heidelberg facility, notice will be given prior to and during such work.

Except for removal of surface pavement, all excavation work within 12 inches of the marked location will be via hand-excavation. Utility line conduit will be supported by 4x4 wood blocking placed every 24-inches at locations where excavation is required below the conduit. Utility lines located through deeper excavation areas may be re-routed on the surface and around the perimeter of the excavation area using acceptable materials (i.e., water hoses or piping). It is anticipated that no utilities will require prolonged interruption.

4.4 Construction Controls

4.4.1 Temporary Site Controls

Temporary facilities will be controlled by the contractor with respect to subcontractors, site access, signage/traffic controls, temporary facilities, safety, noise, dust, and security. The Site will be closed to the public; however, the owner's operations at the Site (including that of their tenants) is expected to continue throughout construction.

Woodlife Area cleanup area is in the main access for the Site; the approach to alternative access and/or excavation staging was under discussion during the development of the draft ERD (potential options shown on Figure 5). It is expected that project Construction Plans & Specifications (CPS) will have additional details on Site access during construction.

The contractor will employ Best Management Practices (BMPs) to prevent pollution of air (dust) and water BMPs will be employed in all work areas, equipment and material storage areas, stockpiles, and haul areas. Areas of the Site will be designated as clean support areas (e.g., imported material staging areas) or contaminated (e.g., excavated material stockpile areas and haul routes to and from contaminated stockpiles). Equipment will be decontaminated before moving from contaminated areas to clean support areas to prevent cross contamination. BMPs such as housekeeping along contaminated material haul routes and access points (i.e., sweeping) will further prevent cross contamination.

4.4.2 Engineering Controls

4.4.2.1 Dust Control

To manage dust during excavation and construction activities, practices in accordance with Ecology guidance⁵ will be implemented at the Site. At designated Site entrances, track out control mats will be placed to minimize contaminated sediment migrating offsite from haul trucks and construction equipment. All haul trucks will cover their loads when traveling offsite. Haul trucks will be visually inspected by site personnel to ensure compliance with dust control requirements.

⁵ Ecology. Best Management Practices Standards and Specifications for Dust Control. 2012.



4.4.2.2 Stormwater Discharge

The proposed excavation area encompasses the current main access driveway of the Site, and it has been repeatedly documented that stormwater run-on from West Marine View Drive flows onto the Site. That run-on flows across pavement over a portion of the Woodlife Area and into the North Truck Dock sump where it is pumped via a surface pump and aboveground piping to an existing stormwater outfall located adjacent to the Log Way. Soil below the pavement of this existing surface stormwater flow path and soil around the sump in the North Truck Dock will be removed as part of the Woodlife Area cleanup. While JELD-WEN will attempt to work with the nearby property owner(s) and the City of Everett throughout the engineering design phase on a plan to redirect stormwater runoff/run-on from off-site sources, the requirements of MTCA do not extend beyond restoration of the property to its initial condition(s).

It is assumed that a Construction Stormwater General Permit (CSWGP) will be obtained prior to construction, including an Erosion Sediment Control Plan (ESCP) detailing BMPs to be employed to control stormwater. The ESCP will be implemented by the contractor and under the oversight of a Certified Erosion and Sediment Control Lead (CESCL). BMPs include straw waddles surrounding drainage pathways, installation of fabric filters in catch basins, inspections and monitoring. Stormwater will be managed according to permit conditions.

It is assumed that the Woodlife Area cleanup will be completed during the summer months (late-June, July, August, September) when limited precipitation is expected. Straw waddles and other barriers will be used to direct stormwater run-on and other surface drainage away from the Woodlife Area excavation. The catch basin located on West Marine View Drive adjacent to the main access entrance (Figure 6) is at an elevation above the adjacent gutter along the sidewalk; this misalignment is the cause of the stormwater run-on from West Marine View onto the Site. If an unseasonable rain event occurs during the Woodlife Area cleanup, barriers used to control run-on could cause water ponding on West Marine View Drive and this may necessitate road closure for safety. If the Woodlife Area cleanup is completed during non-summer months, additional coordination and actions will be necessary to redirect stormwater runoff/run-on in this area.

4.4.3 Institutional Controls

Institutional Controls (ICs) are implemented during the construction phase to minimize risk through modifying the work environment.

4.4.3.1 Health and Safety Plan

A Site-specific Health and Safety Plan (HASP) will be developed to comply with Hazardous Waste Operations and Emergency Response (HAZWOPER⁶) requirements, and to promote safety pursuant to WAC 173-340-400 and WAC 173-340-810. On each morning of the day that field activities occur, a 'tailgate' safety meeting will be held by site personnel to discuss hazards and concerns before starting work. A copy of the HASP will be signed by site personnel and kept onsite during work hours.

⁶ 29 CFR 1910.120



4.4.3.2 Inadvertent Discovery Plan

An Inadvertent Discovery Plan (IDP) was prepared in accordance with applicable state and federal laws and was maintained on site during ground disturbing activities for the PRDI activities. At the request of Ecology⁷, upon consultation with Department of Archaeology & Historic Preservation (DAHP), a licensed archaeologist performed monitoring during ground disturbance activities. No evidence of archaeological artifacts was observed during any upland PRDI activities; however, prior to cleanup activities, an archaeological review will be performed by Ecology Toxic Cleanup Program's archaeologist to evaluate the need for active monitoring during construction. Soil Excavation

4.5 Soil Excavation

Soil excavation activities will be performed in accordance with standard industry practices and professional experience. Soil removal is planned from ground surface to a depth of up to 12 feet bgs (see Figure 7). Based on the estimated footprint of the excavation (approximately 35,000 sqft) and the maximum depths to contaminated soil, at least 4,250 cubic yards of soil is anticipated; however, vertical removal will be guided by field observations and health & safety concerns. To the extent possible the excavations will be cut vertically to minimize the overall size of the excavation; however, it is likely that sloping or benching will be required to stabilize the excavation in areas that extend deeper.

Soils may be direct loaded to dump trucks for transport to the designated disposal facility or stockpiled in designated soil stockpile areas per construction stormwater permit requirements. The limits of the excavation will be based on the findings of the PRDI activities, and as shown on cross sections in Appendix A. Confirmation soil sampling will be utilized at locations with identified data gaps in the excavation area to confirm satisfactory removal, or delineate residual pockets to be controlled by other means, in accordance with CUL requirements (see section 4.8). In the event that confirmation sampling results indicate the need for excavation in areas where existing monitoring wells are present, these wells will be decommissioned by a licensed driller prior to excavation activity. The need for replacement of those monitoring wells in these areas will be determined by Ecology.

4.5.1 Dewatering

Groundwater is typically encountered at approximately 6 feet bgs in the Woodlife Area. Groundwater monitoring wells in the area include MW-6 and MW-7, located along the northeastern shoreline of the log way area, and MW-26D, MW-27S, MW-28D, and MW-29S, located to the south of the Woodlife area (in the PRDI AS area). Minimum groundwater elevation was encountered in MW-7 at 5.82 feet AMSL. Maximum groundwater elevation was encountered in MW-7 at 10.90 feet AMSL (see Appendix A).

During soil excavation, dewatering is expected to be necessary for the portion of the Woodlife Area excavation that will extend below the water table. Dewatering will be performed as needed using hose and pump connections to extract the water from the excavation and store it in holding

⁷ Letter to Frank Winslow, Ecology from Treasure Mitchell, Ecology. RE: Model Toxics Control Act Consultation Requirement – WAC 173-340-815. May 7, 2024



tank(s) pending offsite removal or discharge. Water from the excavation will be treated for solids and chemical concerns (i.e., bag filters and activated carbon) to achieve discharge limitations. The holding tanks will be sampled to ensure the water is in compliance with local water standards before being discharged to the municipal sanitary system or surface waters. If the water cannot be disposed of via permitted discharge to the sanitary system or surface discharge, it will be disposed of at an offsite facility permitted to receive such waste.

4.6 Soil Handling, Transport, and Disposal

Soil excavated from the Woodlife Area cleanup footprint (Figure 7) will be transported to a commercial landfill that is permitted to receive the waste. The landfill selection is not defined in the draft EDR. The selected contractor may utilize barge, truck, and rail depending on their approach to the work and the selected landfill facility. Examples of permitted landfills that have historically managed contaminated soil include the Waste Management landfills in Wenatchee, Washington, and Arlington, Oregon, and the Allied Waste facility located in Roosevelt, Washington. Other landfills may be utilized for disposal management, provided that the contractor can demonstrate they are properly permitted.

The selected contractor will be responsible for transport and disposal of the contaminated soil and materials at the approved licensed disposal facility. The contractor will be required to meet the following specific requirements for transportation and disposal:

- The contractor will be required to identify its selected licensed disposal facility as part of its bid and provide certification from the disposal facility that they can, and are willing to, accept the project contaminated materials with its contaminant concentrations.
- The contractor will be responsible for the safe transport of all waste (e.g., contaminated soil, debris from the Woodlife Area excavation, removed unused railroad ties and any dewatering fluids or residuals) in accordance with all applicable regulations and guidelines. The contractor will prepare and sign all manifests and obtain all approvals for the transport of contaminated soil and debris or other waste materials destined for off-site disposal. The contractor will be required to provide legible copies of all manifest, weigh bills, bill of lading and other records associated with soil and other material handling, that is associated with off-site transport and disposal.
- The contractor will be responsible for the coordination, safe transport, and appropriate recycling of recyclable items (e.g., removed surface pavements, removed unused railroad rails) in accordance with all applicable regulations and guidelines for these materials.

4.7 Excavation Confirmation Sampling

There are two subareas of the Woodlife Area that have identified excavation extent data gaps during the PRDI activities. These subareas are locations where confirmation soil samples will be collected (areas marked with sidewall confirmation sample area on Figure 7 and on cross sections included as Appendix A) as described below:

- The northeast edge of the proposed excavation was not fully delineated due to subsurface obstructions preventing sample collection using hand tools. This subarea was delineated except for the shallow (1 foot and 3 foot below ground surface) samples at the



northeastern edge. There is limited space to expand the excavation in this direction due to the proximity to the property boundary and the presence of utilities.

- The second subarea is the southern edge of the excavation where the PRDI assessment progressed nearer to the Creosote/Fuel Oil Area.

Soil samples will be collected for the relevant COPCs of the Woodlife Area (dioxins) from the excavation sidewalls after soil is removed in accordance with the engineering design plans. If analytical sample results indicate that impacted soils exceeding the project CULs remain, additional soil removal and re-testing may be performed until sample results confirm that CULs have been met, or a property boundary is approached. It should be noted, however, that additional soil removal and re-sampling will be discontinued if unfavorable conditions arise concerning access or health & safety; as previously noted, engineering and institutional controls are a stated part of the selected alternative for the Woodlife Area.

Ecology has stated that sufficiency of confirmation soil sampling will be determined by Ecology following receipt and review of the Cleanup Action Report, and that should Ecology determine additional data are needed, then additional sampling following cleanup could be required. Confirmation soil sampling locations along the northeast edge and southern edge of the Woodlife excavation are shown on Figure 7. These two subareas are, however, outside of the current driveway area, lessening the demand for immediate backfilling and providing an opportunity to leave those areas unfilled after excavation, pending receipt of the confirmation soil sample analytical results. No other confirmation soil samples are currently proposed to promote expedited backfilling and paving of the driveway area to support site operations. The sampling grid, shown on Figure 7, will be used to support real-time communications and data transmittals with Ecology regarding confirmation soil sampling locations and depths to seek Ecology concurrence on the sufficiency of confirmation soil sampling for the remaining data gap areas.

4.8 Soil Backfill and Surface Restoration

Excavation backfilling and compaction will be completed in accordance with the recommendations of geotechnical engineers from standard industry practice and information derived during PRDI activities. Fill materials will be preferentially sourced from a clean quarry. When fill materials are not sourced from a clean quarry, structural fill will be profiled via analytical testing of dioxins and characterized for other potential contamination prior to being imported to be used as backfill material. Upon completion of soil compaction in accordance with the geotechnical specifications, the area will be filled and subsequently paved to match the existing grade. As noted in the PRDI report, understanding of surface topography in the Woodlife Area near the main entrance is an essential design element due to the presence of stormwater surface flow that enters the property from the adjacent public roadway; however, the requirements of MTCA do not extend beyond restoration of the property to its initial condition. It is expected that final construction grades and/or controls will manage the run-on of stormwater from offsite sources.

Existing surface water ponding conditions at the North Truck Dock could promote migration of residual contamination and potentially adversely affect the Creosote Area contamination and/or the performance of the remediation system. To address these concerns, the North Truck Dock will be removed and regraded to match surrounding elevations and incorporate a blind sump to allow for the property owner to effectively manage run-on. If residual contamination above CULs



is known to be remaining due to inability to complete the proposed excavation (due to H&S or access concerns), a white (or brightly colored) geotextile barrier (e.g., UV stable polypropylene woven geotextile) will be placed as a demarcation layer to indicate the boundary between clean overlying cap material and contaminated underlying soil.

The surface will be restored with an asphalt pavement cap to provide additional protection from direct contact. The soil compaction standards, and aggregate and asphalt specifications will be designed to meet requirements for the expected heavy load traffic that presently uses the accessway.

4.9 Post-Construction Controls

Post-construction controls will be developed and implemented in accordance with WAC 173-340-440 and Ecology's Toxic Cleanup Program Procedure 440A.

4.9.1 Institutional Controls

Institutional controls to be implemented in accordance with the CAP include the recording of a restrictive covenant on the property with the Snohomish County Assessor's Office. This covenant will include restrictions on soil digging and placement of drinking water wells on the property and will pertain to the entire peninsula. The Performing PLPs shall develop a soil management plan to control potential exposure risks posed by direct exposure to residual subsurface contamination and to protect the integrity of the remedy.

4.9.2 Engineering Controls

Engineering controls to be implemented in accordance with the CAP will include maintaining paved areas, or clean soil caps, to prevent human direct contact exposure and continue to qualify for Terrestrial Ecological Evaluation (TEE) exclusion.

4.10 Required Permits

All actions carried out must be performed in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090, which allows an exemption from the procedural requirements of selected State and local permits, though the substantive requirements of such permit requirements still apply. The permits or other federal, state, or local requirements that the agency has determined are applicable and that are known, currently, include:

Federal Requirements

- Resource Conservation and Recovery Act (RCRA)
- Occupational Safety and Health Act (29 CFR 1910)
- Rules for Transport of Hazardous Waste (49 CFR 107, 49 CFR 171, 40 CFR 263)
- Clean Air Act (Title 42, Chapter 85)
- National Pollutant Elimination Discharge System (NPDES) permit.

State Requirements



- Model Toxics Control Act (WAC 173-340)
- Dangerous Waste Regulations (WAC 173-303)
- State Environmental Policy Act (RCW-43.21C)
- Environmental Checklist (WAC 197-11-960)
- State Clean Air Act (RCW 70.94)
- Washington Industrial Safety and Health Act Regulations (WAC 296-62)
- Water Pollution Control Act (RCW 90.48)
- Maximum Environmental Noise Levels (WAC 173-60).

Local Requirements

- City of Everett – utility and pavement requirements (under review by the City of Everett at the time of the EDR is being prepared).
- Local water discharge requirements, if using local stormwater drains

4.11 Schedule

In accordance with the project schedule, Site Activities are expected to begin after receipt of approval by Ecology to the Final EDR and Final Construction Specifications document. The Final Construction document is the last task included in the current Second Amendment to the AO, and JELD-WEN anticipates performing the implementation of the cleanup action under a subsequent amended AO.

4.12 Compliance Monitoring

The compliance monitoring plan for the Site was developed in accordance with the requirements of WAC 173-340-410. Compliance monitoring requirements associated with remedy implementation consist of protection monitoring during construction activities, performance monitoring to ensure that remedy construction is in accordance with the project plans and design, and confirmation monitoring following remedy completion to confirm compliance with cleanup standards. Requirements for compliance monitoring will be established in a Compliance Monitoring Plan the Performing PLPs shall submit to Ecology for review and approval.

4.12.1 Protection Monitoring

The purpose of protection monitoring per WAC 173-340-410(1)(a) is to “confirm that human health and the environment are adequately protected” during cleanup activities. Upland protection monitoring will include applicable permitting and notification requirements, including development of an ESCP and obtaining a National Pollutant Discharge Elimination System (NPDES) construction stormwater permit, as well as other applicable local regulations. Stormwater inspections and sampling will be performed per the terms of the construction stormwater general permit.

Fugitive emissions and dust are considered a complete pathway during excavation activities. Dust monitoring will be conducted throughout excavation work and other site activities during cleanup



activities as described in the SAP. Equipment operators working at the excavation are not expected to come into contact with the soils while performing normal site duties. Protection monitoring requirements for worker safety will be described in the HASP.

4.12.2 Performance Monitoring

The purpose of performance monitoring per WAC 173-340-410(1)(b) is to "confirm that the interim action or cleanup action has attained cleanup standards and, if appropriate, remediation levels or other performance standards." The following performance monitoring will be conducted during cleanup activities per the SAP/QAPP:

- Sidewall confirmation soil samples will be collected from the Woodlife Area excavation soil excavations at the locations discussed in Section 4.8.
- Construction Quality Assurance (CQA) monitoring for construction activities, including survey of excavation extents or caps, geotechnical assessment of backfilling and compaction, and chemical profiling of imported fill material.

4.12.3 Confirmational Monitoring

The purpose of confirmational monitoring per WAC 173-340-410(1)(c) is to "confirm the long-term effectiveness of the interim action or cleanup action once cleanup standards and, if appropriate, remediation levels or other performance standards have been attained."

- Routine inspections of capped areas to verify that the constructed remedy remains effective.
- Periodic groundwater monitoring at existing groundwater monitoring wells to verify that groundwater cleanup standards have been met (i.e., concentrations above CULs have not reached the POC).

A one-time, post-excavation sampling event will be conducted at monitoring well MW-7 to confirm that excavation activities did not result in mobilization of dioxins in groundwater. The well will be allowed to stabilize and be as free of turbidity as practicable prior to sampling, and field turbidity measurements will be recorded and reported with the analytical results.

4.13 Cleanup Action Completion Report

Once excavation activities and the surface restoration are completed, a Cleanup Action Completion Report will be produced to document all cleanup implementation activities. As noted above, it is anticipated that the elements of the Cleanup Action Completion Report will be included in an Amended AO. The completion report will include:

- An excavation plan map and sections drawing that details the depth of excavation, location of any remaining contamination, and confirmation soil sampling analytical results that document clean excavation sidewalls and floor;
- A discussion of utilities encountered within the excavation and management measures taken;
- Copies of disposal receipts and weight tickets from the permitted disposal facility;



- A discussion of dewatering periods and associated volumes, copies of any regulatory correspondence regarding discharge, and analytical data gathered from discharge sampling;
- A discussion of stormwater management measures followed during the cleanup, including actions taken to prevent runoff from West Marine View Drive from entering the Site;
- A discussion on the traffic control measures utilized to effectively route traffic to and from the Heidelberg facility during excavation activities; and,
- Provenance of clean quarry fill material used to backfill the excavation, including any analytical sampling data of the material, if available.



5.0 Closure

This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.

Sincerely,

SLR International Corporation



R. Scott Miller, P.E.
Senior Principal



Chris Kramer
Principal



Expires 8-1-2026



6.0 Limitations

The services described in this work product were performed in accordance with generally accepted professional consulting principles and practices. No other representations or warranties, expressed or implied, are made. These services were performed consistent with our agreement with our client. This work product is intended solely for the use and information of our client unless otherwise noted. Any reliance on this work product by a third party is at such party's sole risk.

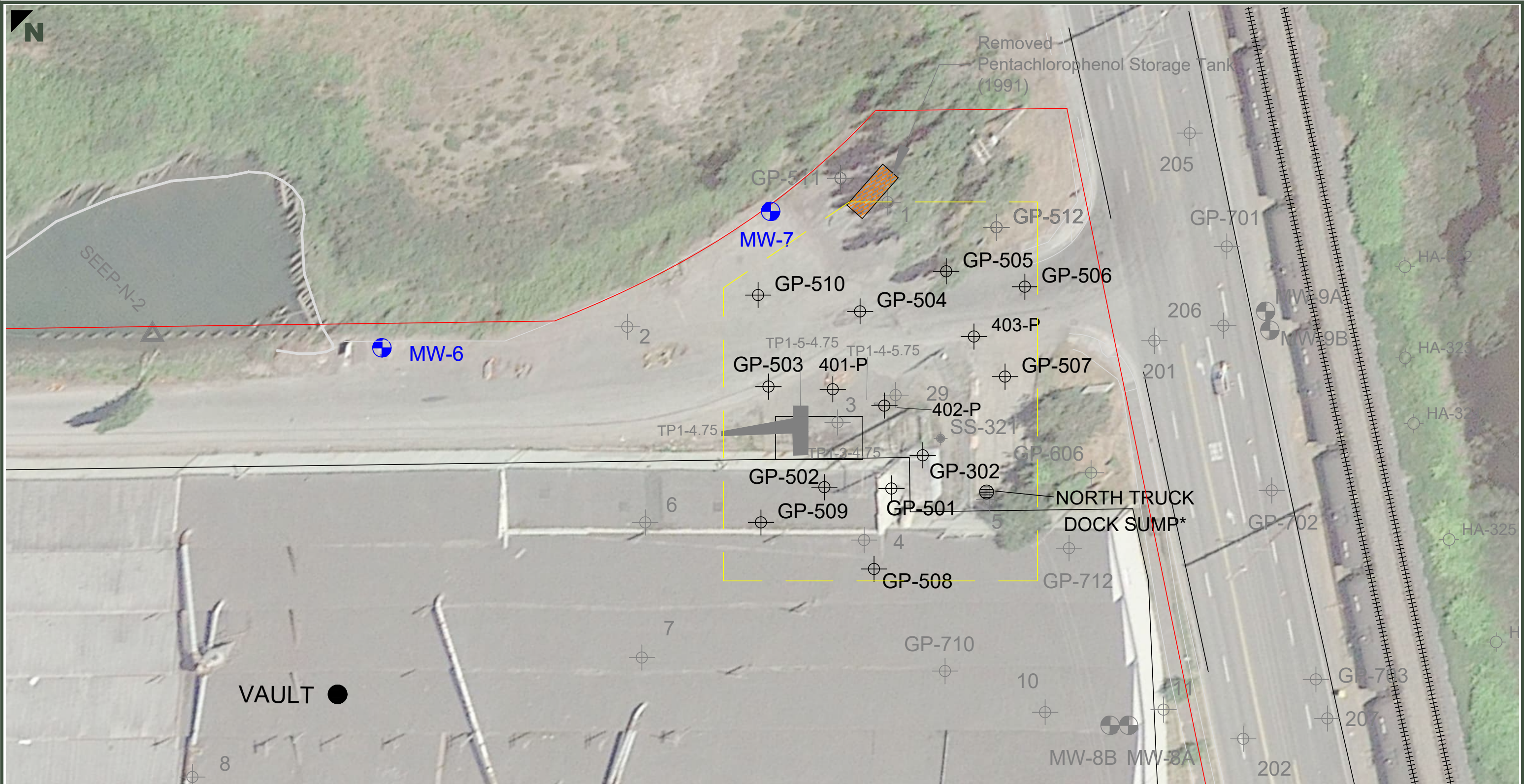
Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.





Figures

N:\Portland\Projects\JELD-WEN\JELD-WEN NORD DOOR\I-R\FS Report\2022\Figures\CAD\WOODLIFE FS ALT.dwg



LEGEND

- MW-6 EXISTING GROUNDWATER MONITORING WELLS
- ESTIMATED LIMITS OF EXCAVATION (ACTUAL HORIZONTAL AND VERTICAL EXTENTS TO BE DETERMINED BY PRE-REMEDIAL DESIGN INVESTIGATION)
- APPROXIMATE PROPERTY BOUNDARY

NOTES

FIGURE FROM 2023 CLEANUP ACTION PLAN (CAP).

THE BUILDINGS, SURFACE UTILITIES, EDGE OF PAVEMENT, AND APPROXIMATE SHORELINE SHOWN ON THIS MAP ARE BASED ON A 2006 SURVEY PERFORMED BY WH PACIFIC.

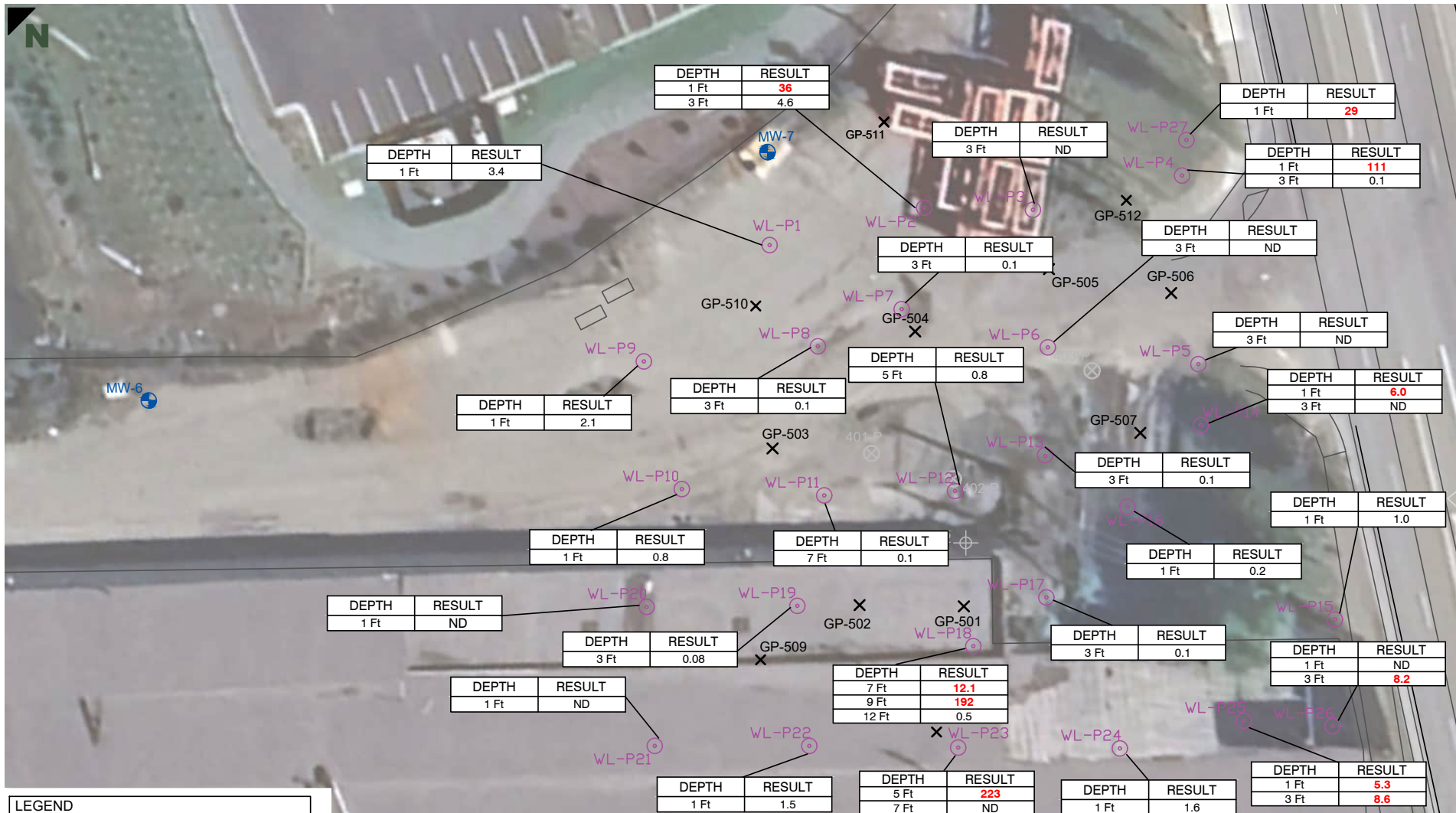


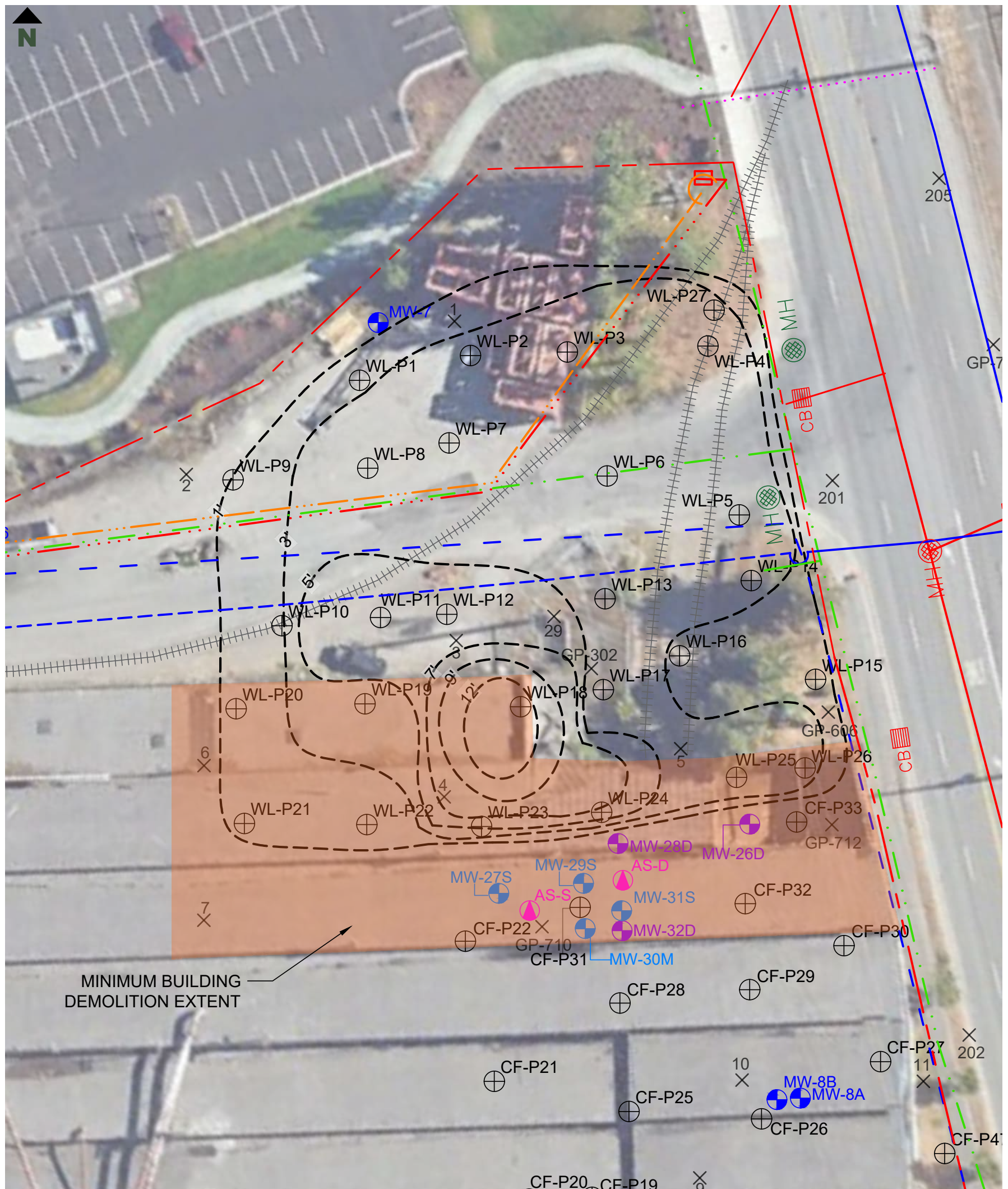
JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
FINAL EDR - WOODLIFE AREA

Figure
UPLAND CLEANUP AREA - WOODLIFE AREA

Date	JULY 2025	Scale	AS SHOWN	Fig. No.
File Name	WOODLIFE FS ALT	Project No.	108.020778.00001	2





LEGEND	
	SUBJECT PROPERTY BOUNDARY
	EXISTING GROUNDWATER MONITORING WELL
	NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
	NEW PRDI DEEP GROUNDWATER MONITORING WELL
	AIR SPARGE WELL
	PRDI GEOTECH BORING LOCATION
	GEOPROBE SOIL BORING LOCATION AND DESIGNATION
	HISTORICAL BORING LOCATION AND DESIGNATION
	RAILROAD SPURS
	WATER LINE
	UNDERGROUND POWER LINE
	OVERHEAD POWER LINE
	FIBER OPTIC LINE
	SANITARY SEWER LINE
	DRAINAGE MANHOLE
	SEWER MANHOLE
	DRAINAGE CATCH BASIN

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report

Figure

UTILITY PLAN

Date	APRIL 2025
File Name	2024_Nord.dwg

Scale	AS SHOWN
Project No.	108.020778.00001

Fig. No. 4





LEGEND

- SUBJECT PROPERTY BOUNDARY
- CURRENT PRIMARY ACCESS ROUTE
- - - ALTERNATE ACCESS ROUTES TO OPERATIONS
- - - ALTERNATE ACCESS FOR CONSTRUCTION
- WOODLIFE AREA EXCAVATION FOOTPRINT

NOTES

ASSUMES THAT MAIN MANUFACTURING BUILDING IS DEMOLISHED DOWN TO CONCRETE/ASPHALT SURFACE.

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
FINAL EDR - WOODLIFE AREA

Figure
ACCESS PLAN

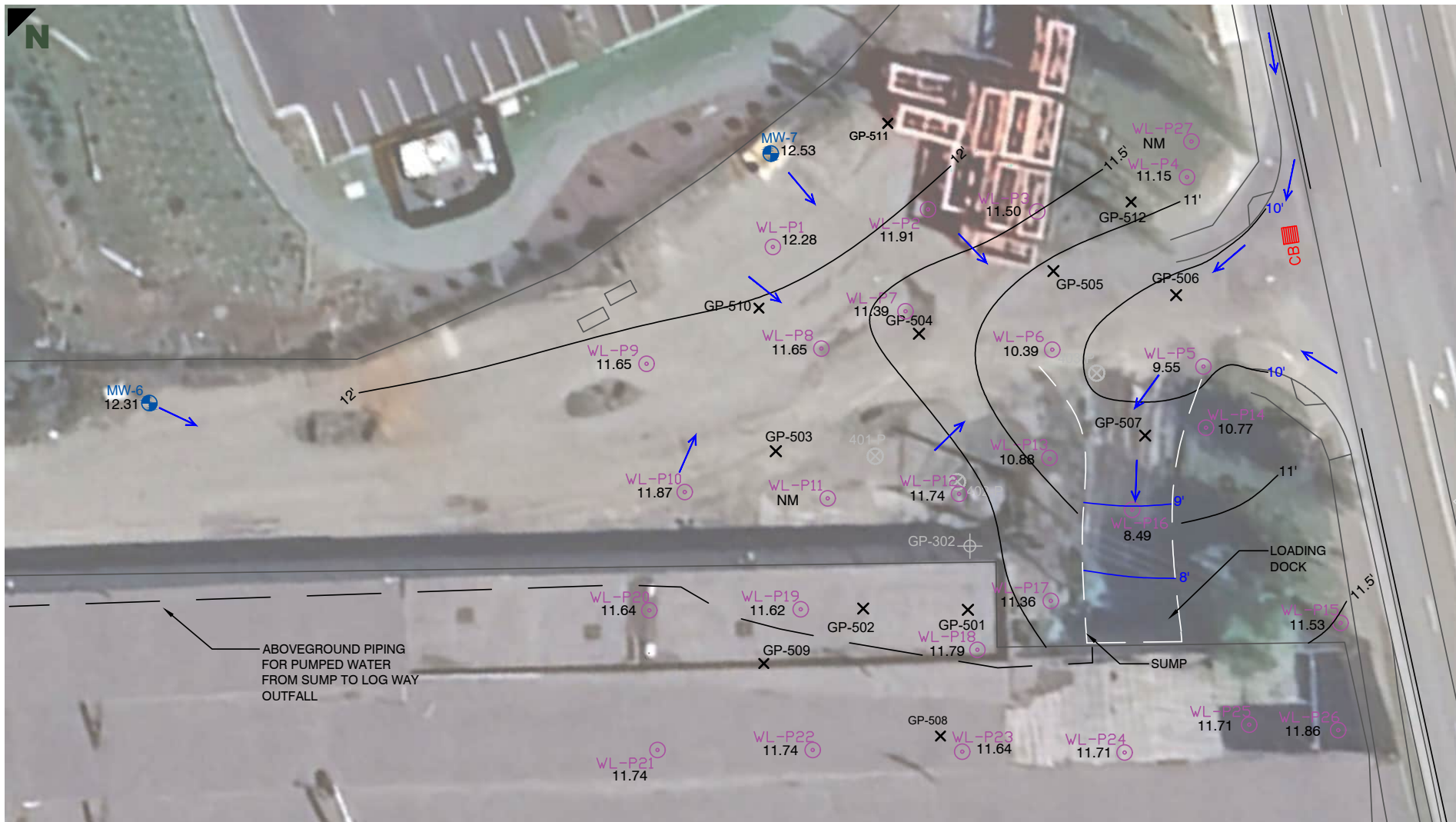
0 90' 180' 270'



Date JULY 2025
File Name 2024_Nord.dwg

Scale AS SHOWN
Project No. 108.020778.00001

Fig. No. 5



LEGEND

- | | | | |
|--|---|--|-----------------------------|
| | GEOPROBE SAMPLING LOCATION, SLR 2012 | | PRDI SOIL BORING LOCATION |
| | GEOPROBE SAMPLE LOCATION, SLR 2009 | | SURFACE FLOW DIRECTION |
| | SURFACE SOIL SAMPLE LOCATION, SLR 2009 | | CITY OF EVERETT CATCH BASIN |
| | NEAR SURFACE SOIL SAMPLE LOCATION, SLR 2009 | | |
| | EXISTING MONITORING WELL | | |
| | GEOPROBE SAMPLING LOCATION, SLR 2013 | | |

0 45 90 135'



JELD WEN SITE 300 WEST MARINE VIEW DRIVE EVERETT, WASHINGTON

Report

FINAL EDR - WOODLIFE AREA

Figure

STORMWATER DRAINAGE PLAN

Date JULY 2025

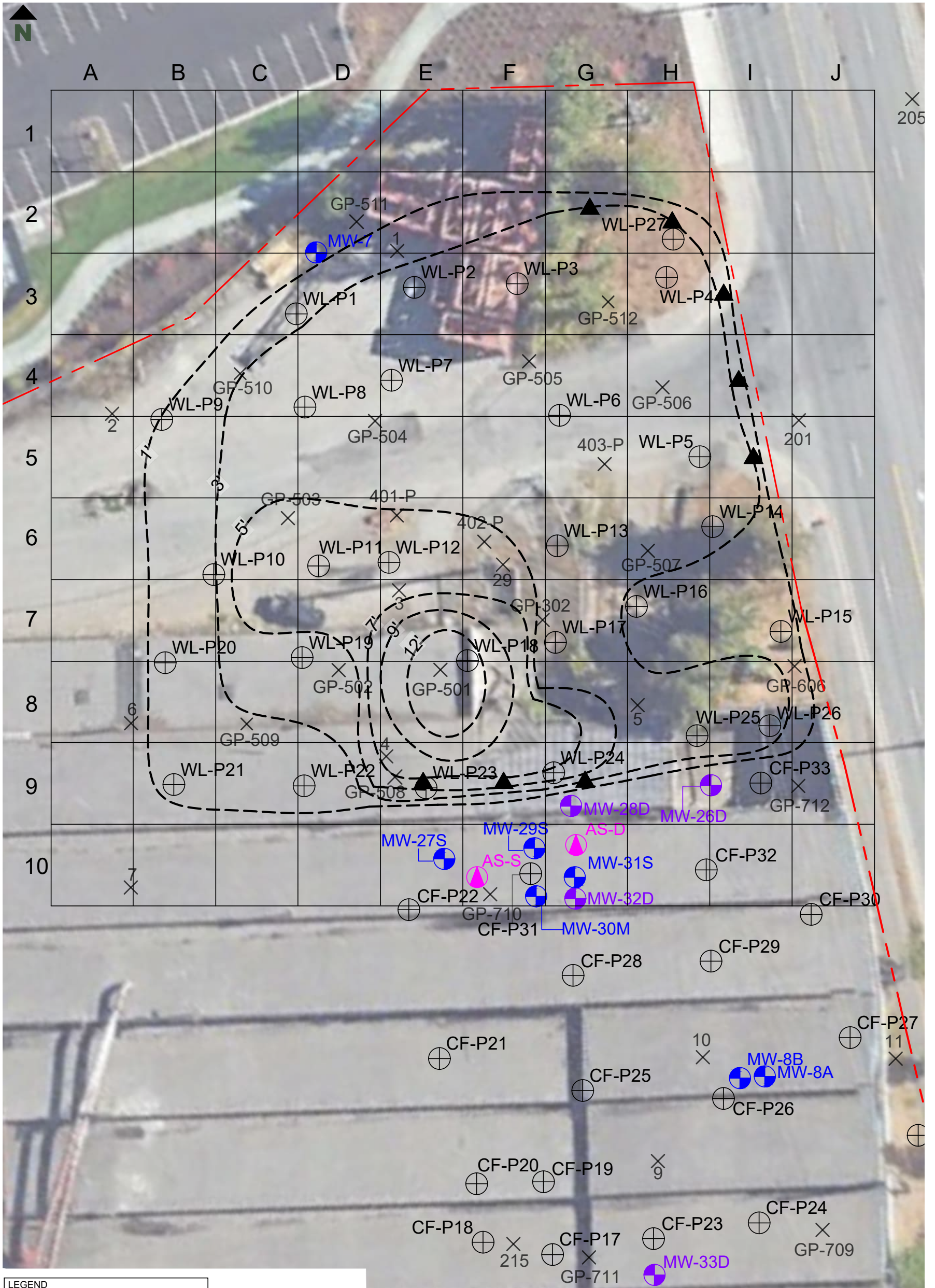
Scale AS SHOWN

Fig. No.

File Name RD Workplan-3

Project No. 108.020778.00001

6



LEGEND

- SUBJECT PROPERTY BOUNDARY
- EXISTING GROUNDWATER MONITORING WELL
- NEW PRDI SHALLOW GROUNDWATER MONITORING WELL
- NEW PRDI DEEP GROUNDWATER MONITORING WELL
- AIR SPARGE WELL
- PRDI GEOPROBE SOIL BORING
- HISTORICAL SOIL BORING
- PROPOSED CONFIRMATION SIDEWALL SAMPLE LOCATION

NOTES

SAMPLE GRID TO BE USED TO DOCUMENT FIELD LOCATION OF CONFIRMATION SOIL SAMPLES AND EXTENT OF FINAL EXCAVATION.

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

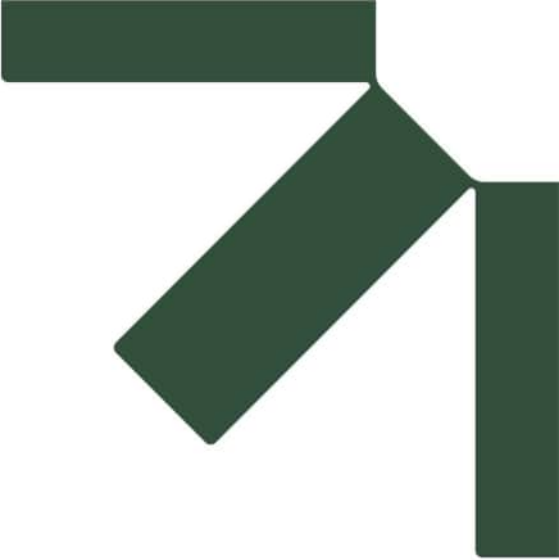
Report
FINAL EDR - WOODLIFE AREA

Figure
EXCAVATION PLAN

Date	JULY 2025	Scale	AS SHOWN	Fig. No.	7
File Name	2024_Nord.dwg	Project No.	108.020778.00001		

0 32' 64' 96'





Appendix A Cross Sections

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

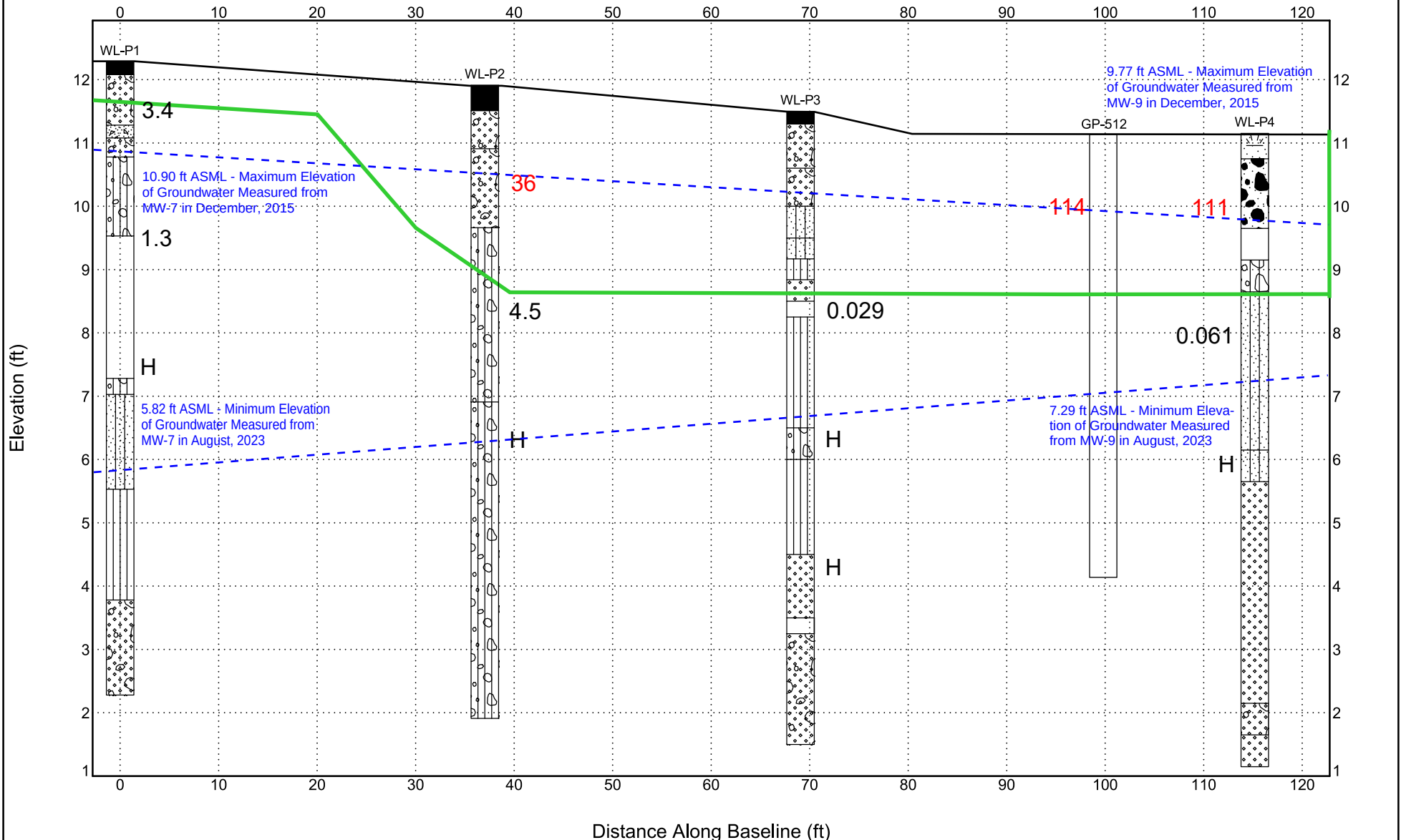
A1-A1'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.V20689.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

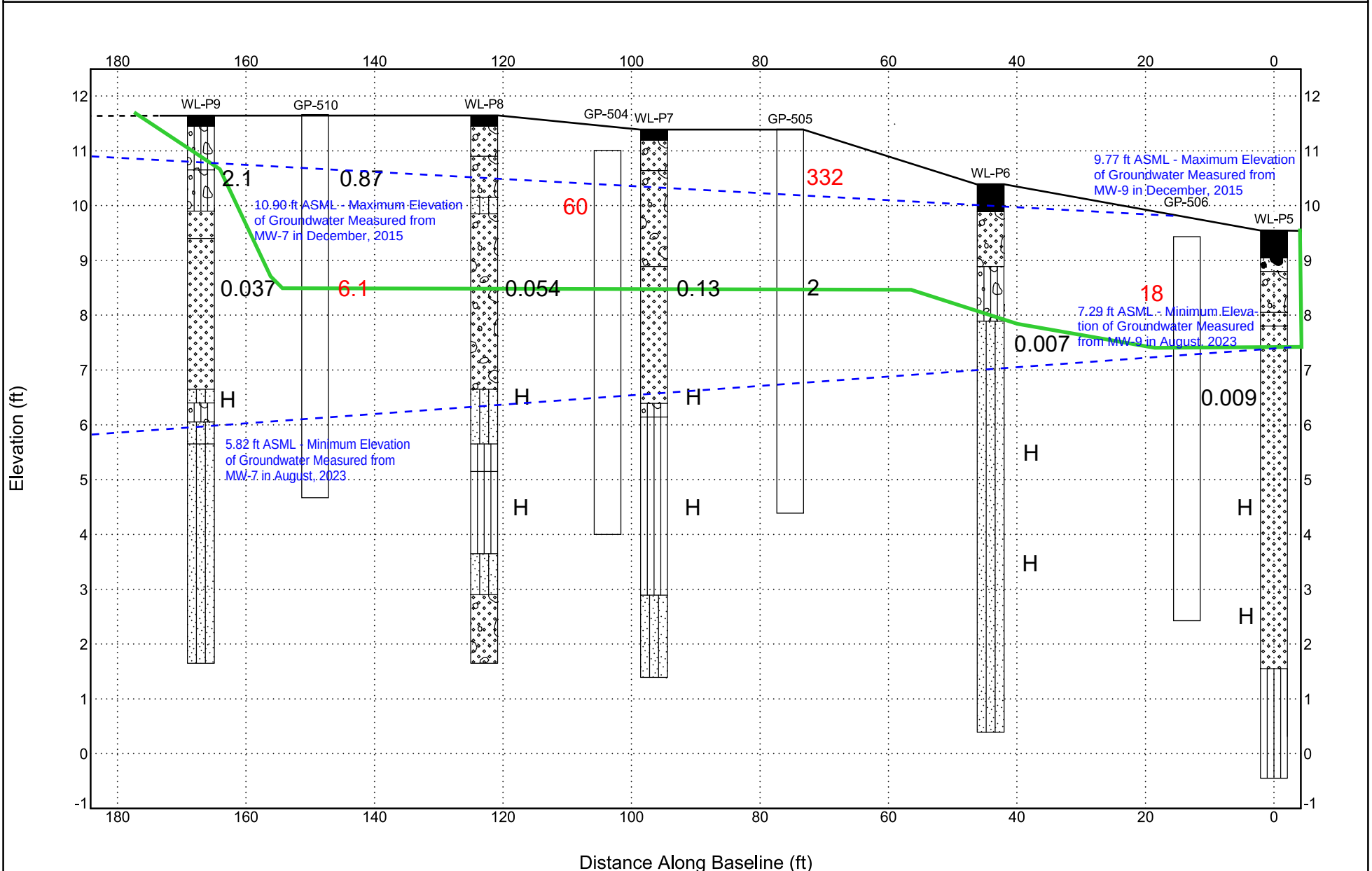
A2-A2'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

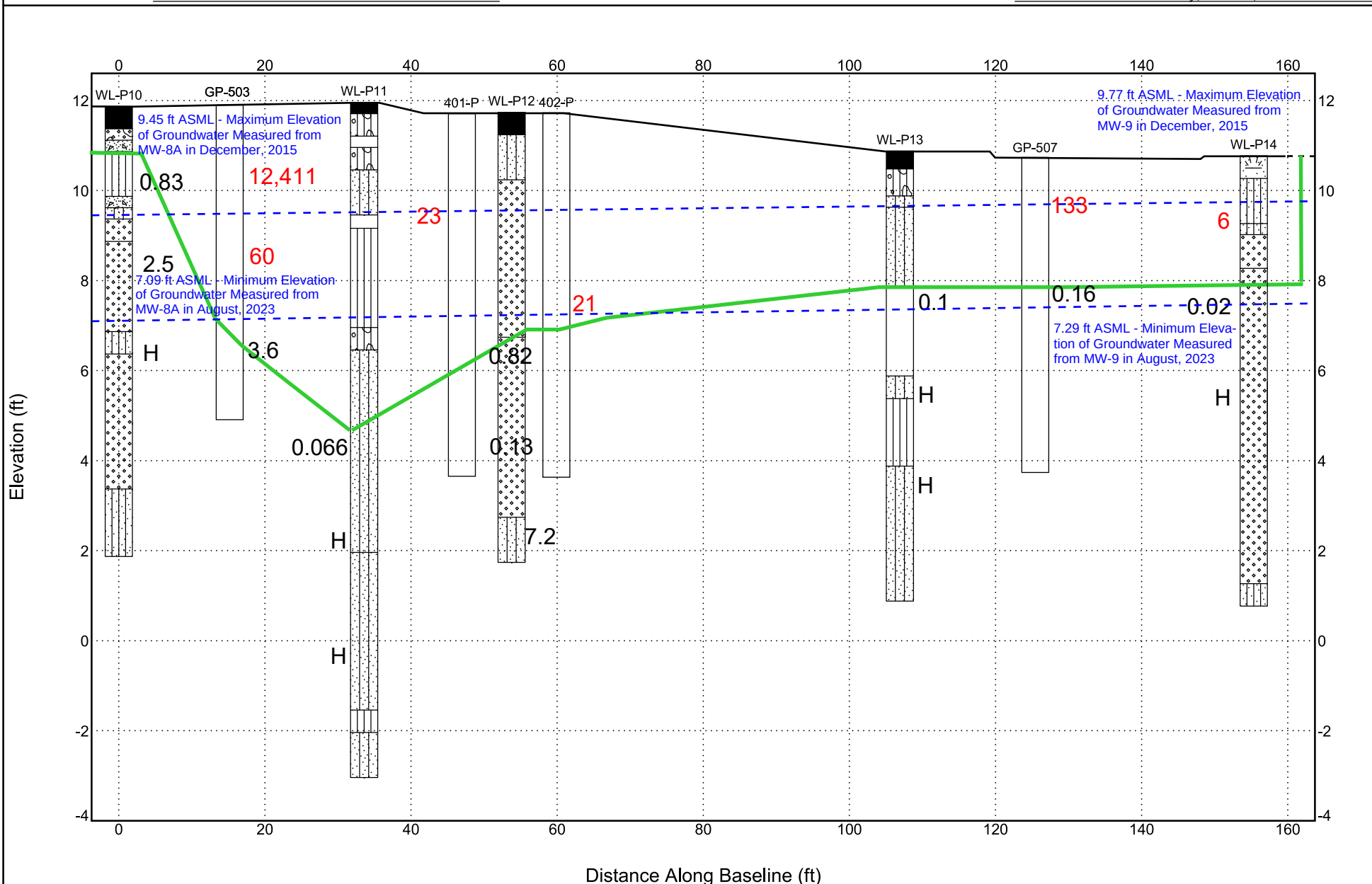
A3-A3'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

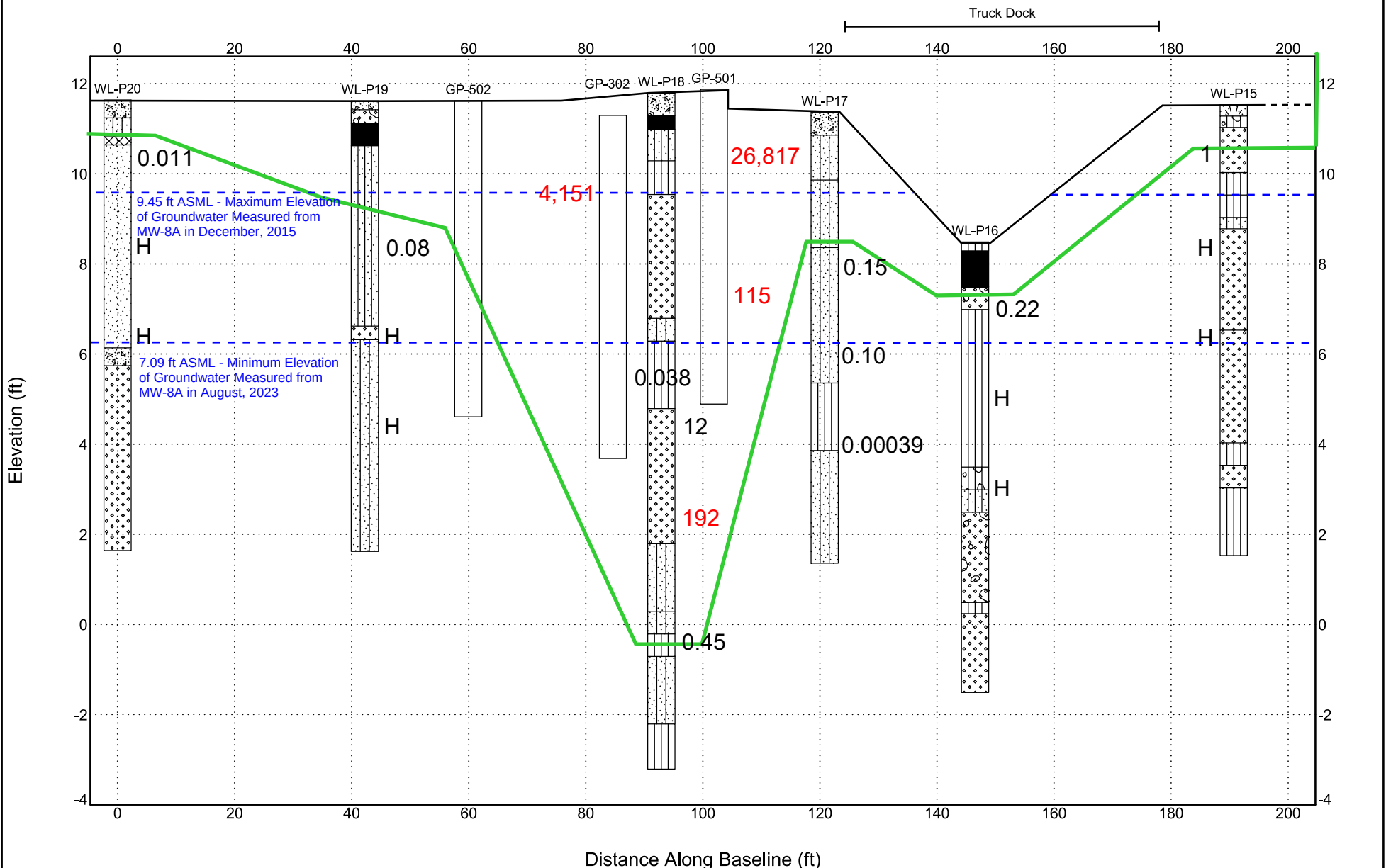
A4-A4'

CLIENT JELD-WEN, Inc.

PROJECT NUMBER 108.V20689.00001

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Confirmation Soil Sample Location
- Estimated Excavation Limit

Woodlife Area Soil Removal Grid Cross Section

A5-A5'

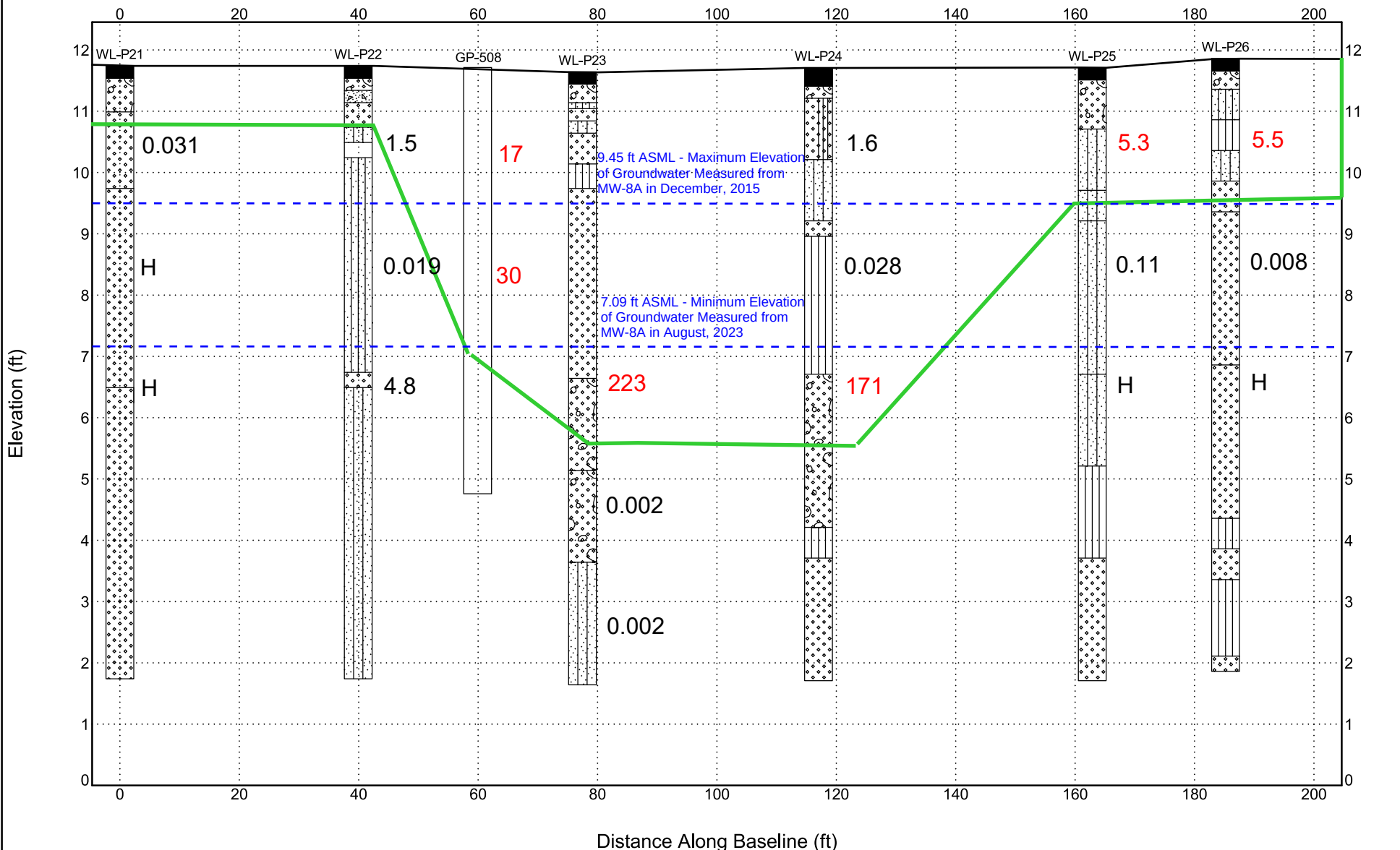
CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA

STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

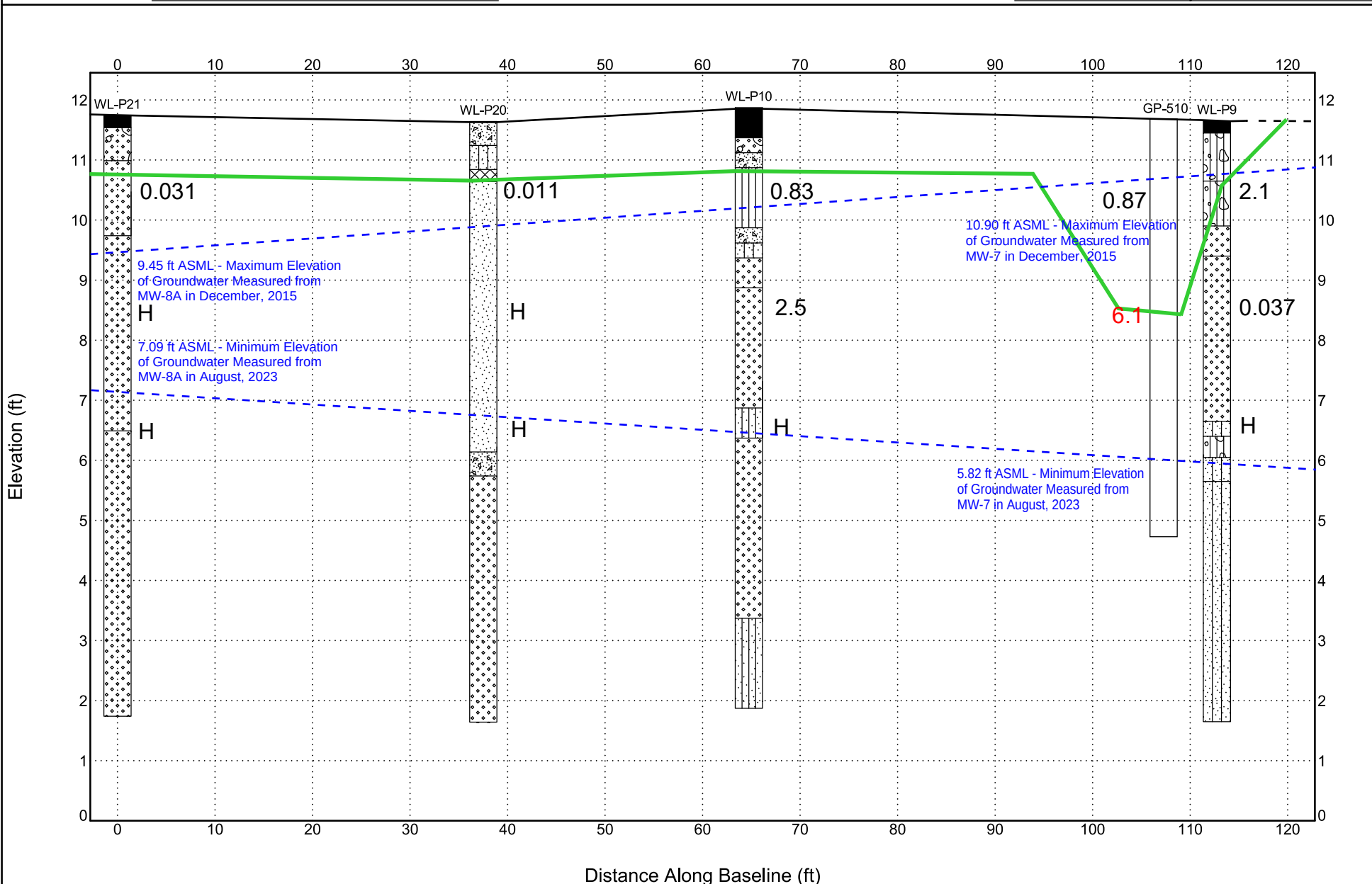
B1-B1'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

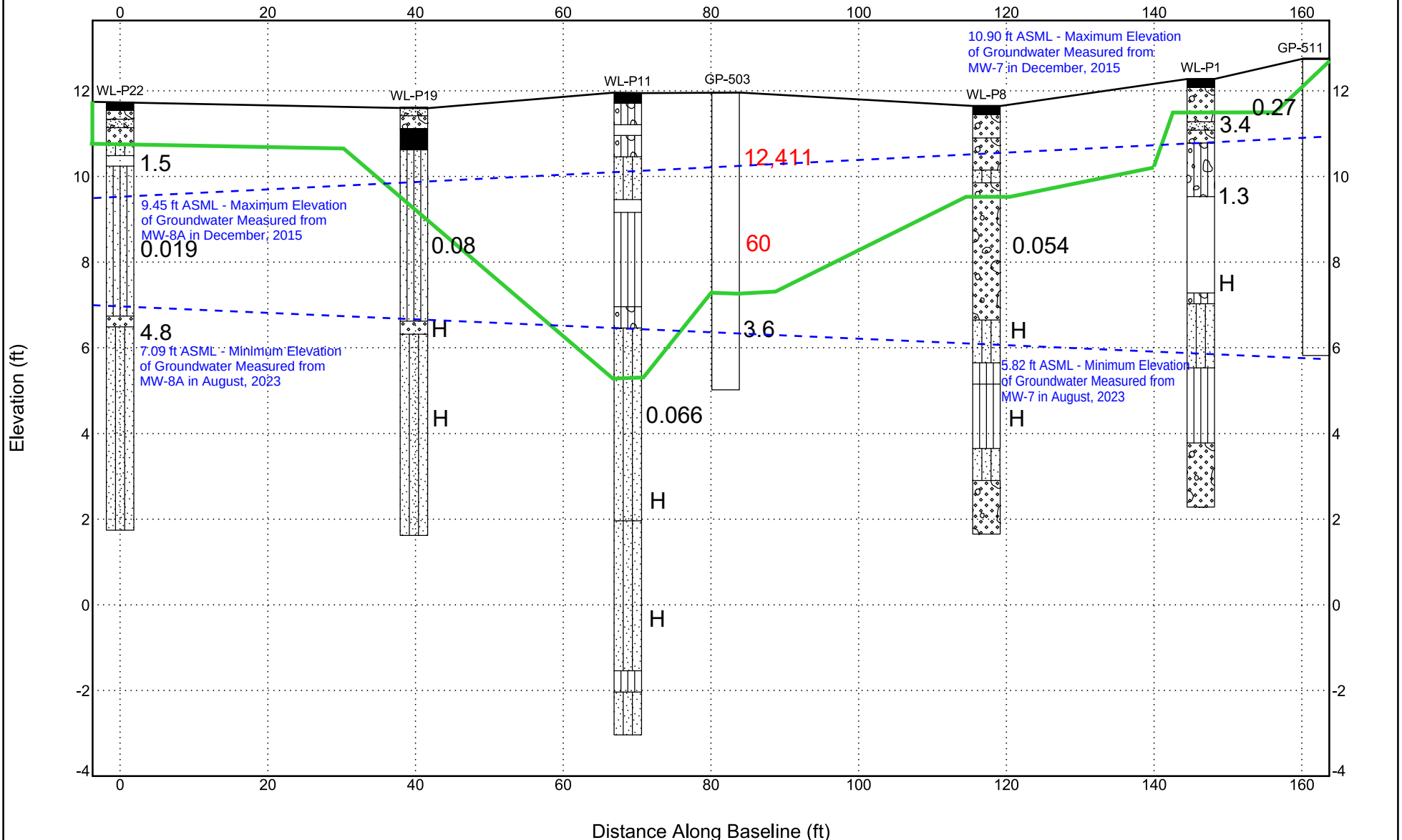
B2-B2'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

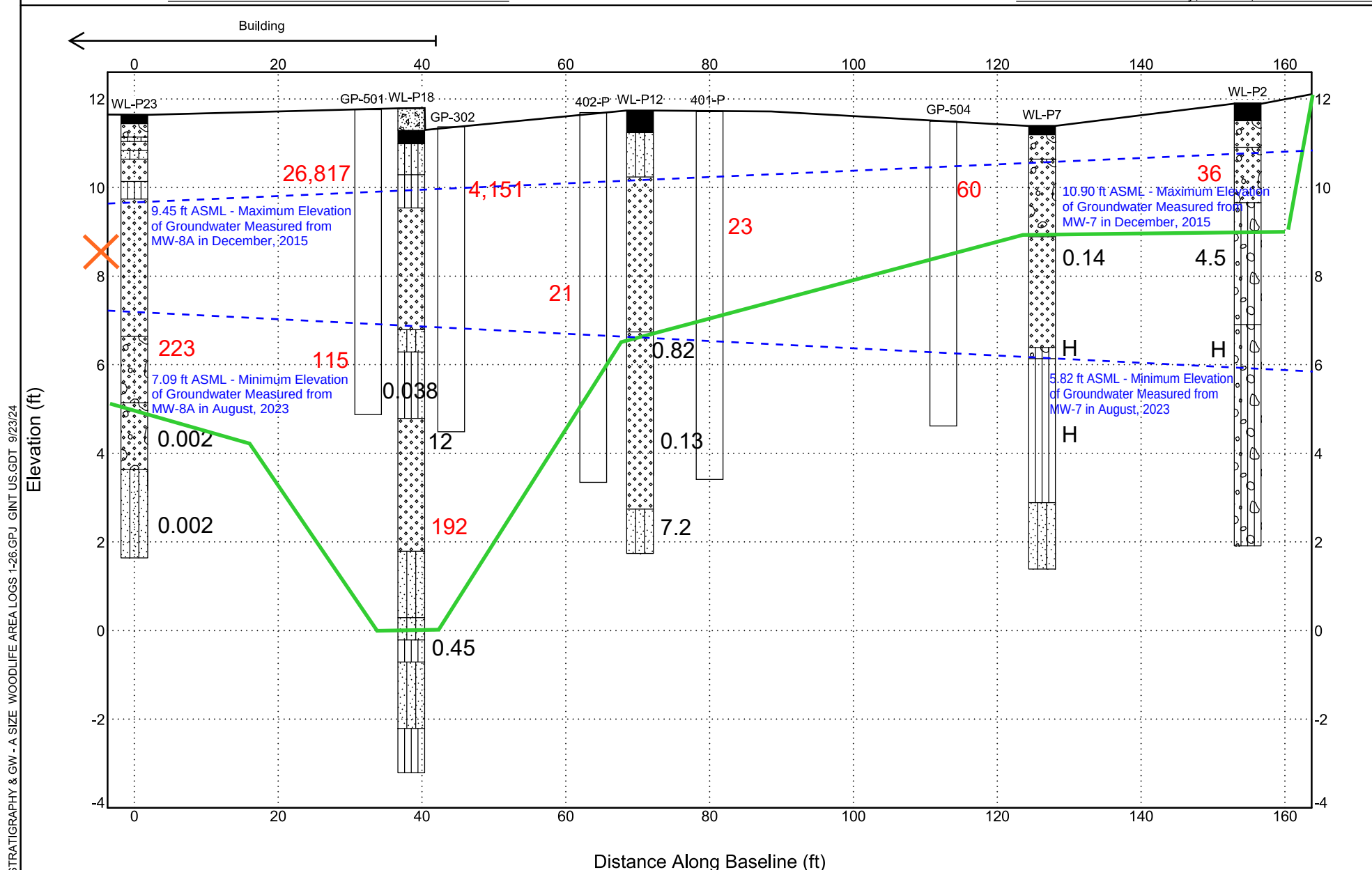
B3-B3'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

- Approximate Depth to Water
- Estimated Excavation Limit
- Estimated Confirmation Soil Sample Location

Woodlife Area Soil Removal Grid Cross Section

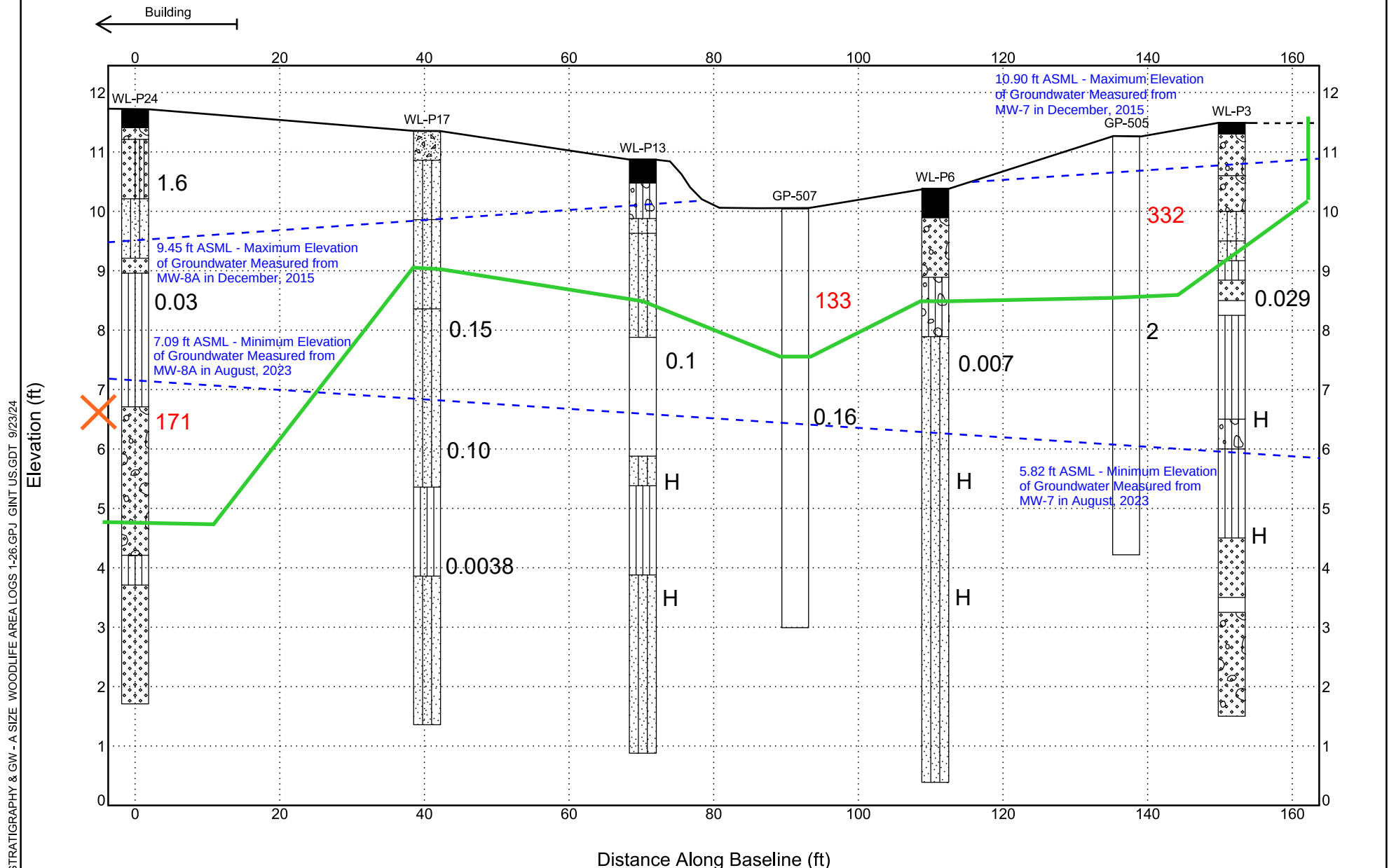
B4-B4'

CLIENT JELD-WEN, Inc.

PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA

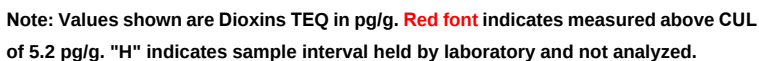


Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.

LEGEND

 Estimated Confirmation Soil Sample Location

PROJECT LOCATION Former Nord Door Facility, Everett, WA



STRATIGRAPHY & GW - A SIZE WOODLIFE AREA LOGS 1-26.GPJ GINT US.GDT 9/23/24

LEGEND

- Approximate Depth to Water
- Estimated Confirmation Soil Sample Location
- Estimated Excavation Limit

Woodlife Area Soil Removal Grid Cross Section

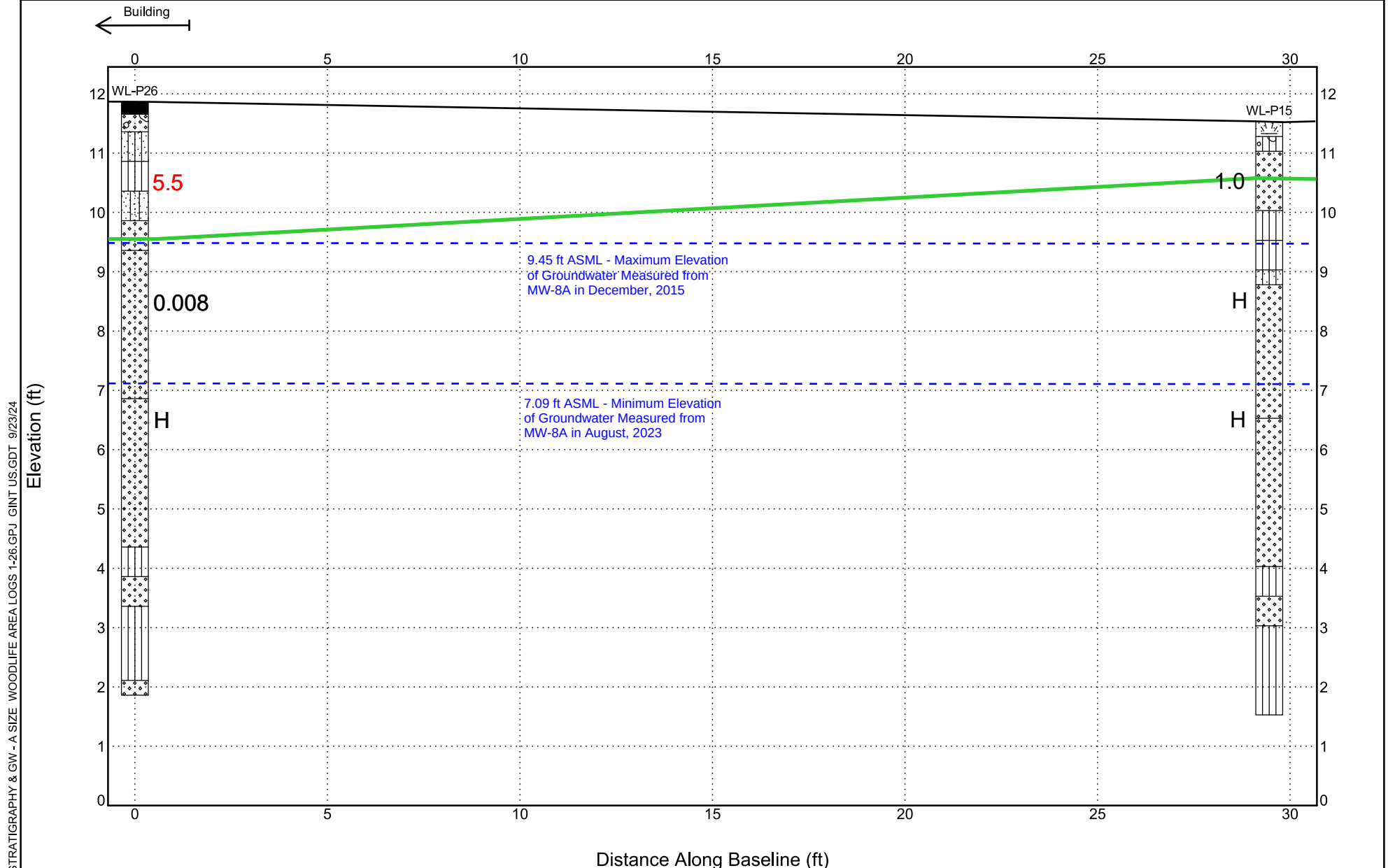
B6-B6'

CLIENT JELD-WEN, Inc.

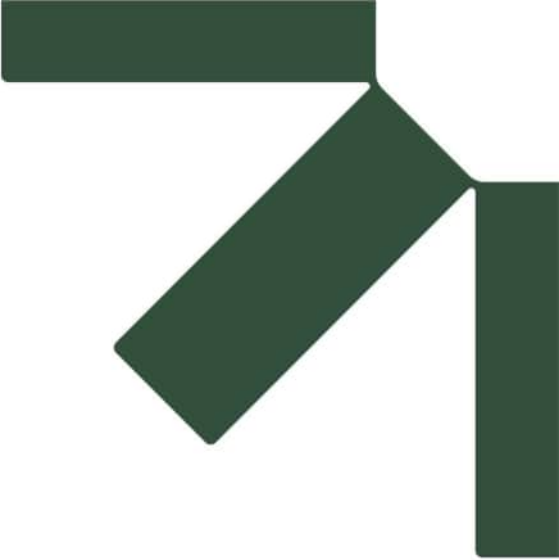
PROJECT NAME Upland Areas of Former Nord Door Facility - Woodlife Area

PROJECT NUMBER 108.V20689.00001

PROJECT LOCATION Former Nord Door Facility, Everett, WA



Note: Values shown are Dioxins TEQ in pg/g. Red font indicates measured above CUL of 5.2 pg/g. "H" indicates sample interval held by laboratory and not analyzed.



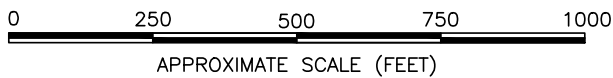
Appendix B Property Ownership Information

Last Saved: July 21, 2025 12:14:20 PM by cblackburn Drawing path: N:\Portland\Figures\VELD-WEN\JELD-WEN NordDoor\PHASE 2\IEDR\EDR AppendixA.dwg



DATA REFERENCED FROM : SNOHOMISH COUNTY ASSESSOR
AERIAL IMAGERY REFERENCE: ESRI (2024)

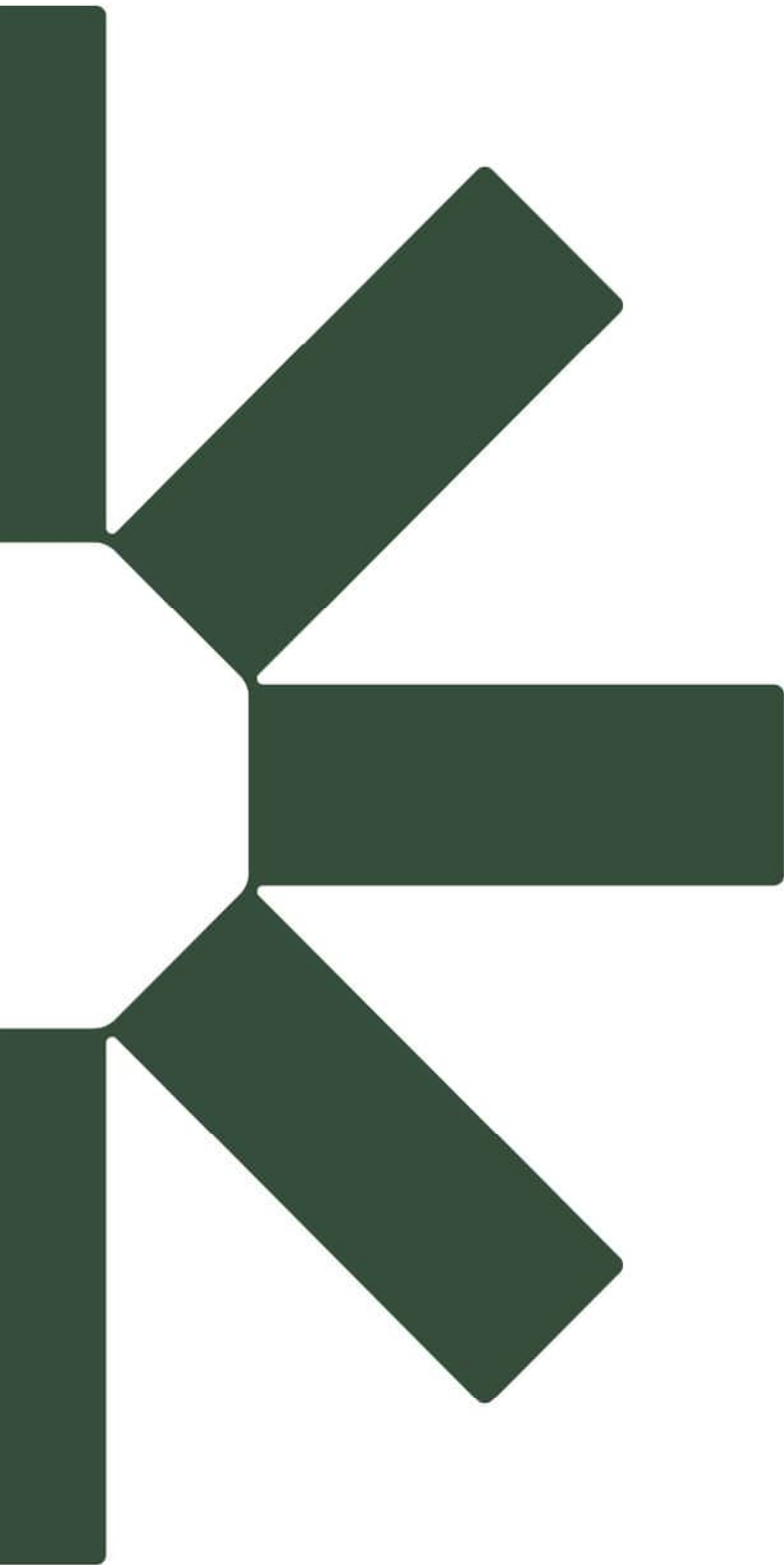
- Estimated extent of Engineering Controls (Soil Cap)
- Estimated extent of Institutional Controls (Deed Restrictions, Soil Management Plan)



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL
LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.



Site	300 WEST MARINE VIEW DR EVERETT, WA 98201		
Report	FINAL EDR - WOODLIFE AREA		
Drawing	UPLAND PROPERTY OWNERSHIP		
Date	July 17, 2025	Scale	AS SHOWN
File Name	EDR AppendixA	Project No.	108.020778.00001
Fig. No.	B-1		



Making Sustainability Happen