Cleanup Action Plan Addendum
North Lot Property
Seattle, Washington

September 18, 2013

Prepared for

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and

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TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirement
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CAP	Cleanup Action Plan
DCA	Disproportionate Cost Analysis
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
ft	Feet
MCL	Maximum Contaminant Level
MTCA	Washington State Model Toxics Control Act
NLD	North Lot Development
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PPA/CD	Prospective Purchaser Agreement/Consent Decree
Property	North Lot Property
RCW	Revised Code of Washington
RI	Remedial Investigation
SWPPP	Stormwater Pollution Prevention Plan
TPH	Total Petroleum Hydrocarbons
TPH-D	Diesel-Range Total Petroleum Hydrocarbons
TPH-G	Gasoline-Range Total Petroleum Hydrocarbons
TPH-O	Motor Oil-Range Total Petroleum Hydrocarbons
WAC	Washington Administrative Code

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1.0 INTRODUCTION

This cleanup action plan addendum (CAP Addendum) documents certain changes to the CAP (Landau Associates 2011a) for the North Lot Property (Property). The revisions herein affect only the cleanup action for the East Parcel of the Property. North Lot Development (NLD) is developing the West parcel of the Property as planned, and no changes are proposed to the remedial activities for the West Parcel as set forth in the original RI/FS or CAP.

The Property is located in the south end Central Business District, southeast of the intersection of South King Street and Occidental Avenue South in Seattle, Washington (Figure 1). 255 S. King Street LP purchased the East Parcel of the Property from NLD on August 30, 2013, and will execute a development plan that will include construction of a high-rise hotel and commercial/retail building with one level of below-ground parking and associated uses.

The 2011 Remedial Investigation (RI) and Feasibility Study (FS) reports (Landau Associates 2011b,c) and CAP for the Property were prepared to be consistent with NLD's development plan at the time the reports were prepared. The CAP for the Property was adopted on August 12, 2011. The CAP described the history and physical conditions at the Property, and identified the Property-specific cleanup standards.

The information regarding the Property history, physical conditions, and cleanup standards has not changed since 2011, and is still applicable to this CAP Addendum. This information is summarized in the sections below, as appropriate. This CAP Addendum specifically identifies only the elements of 255 S. King Street LP's proposed cleanup action for the East Parcel of the Property, and the associated monitoring to document that the cleanup activities have been completed.

On April 27, 2012, 255 S. King Street LP sent a letter to Ecology (Foster Pepper 2012) requesting permission to become a party to the existing Prospective Purchaser Consent Decree (PPCD; Ecology 2009) for the Property. Ecology responded with a protocol for evaluating and negotiating the proposed remedial activities to be performed by 255 S. King Street LP to accommodate its proposed development plan for the East Parcel. In accordance with that protocol, a draft FS Addendum addressing the proposed changes in the cleanup action for the East Parcel (Landau Associates 2012) was submitted to Ecology on June 22, 2012. Ecology subsequently provided comments following its review of the draft FS Addendum (Ecology 2012a), which were incorporated into the FS Addendum and the CAP Addendum.

255 S. King Street LP's proposed excavation for construction of the below-ground parking and associated uses represents a "substantial change" (as defined in Section XVI of the PPCD) from the development plan identified by NLD for the East Parcel. The FS Addendum and this CAP Addendum have been prepared to document the proposed changes in the cleanup action for the East Parcel resulting from the change in ownership and a change in the proposed development plan.

On September 28, 2012, NLD submitted a Cleanup Action Report (CAR) to Ecology, reporting that certain remedial activities set forth in the CAP and PPCD were completed for the West Parcel and identifying those remedial activities that remain to be completed. By letter of December 3, 2012, Ecology confirmed its receipt and review of the CAR (Ecology 2012b).

The following sections present a summary of the information specified by the Model Toxics Control Act (MTCA) [Washington Administrative Code (WAC) 173-340-380] to be included in the CAP Addendum for the East Parcel of the Property. The information presented in this CAP Addendum for the East Parcel of the Property is based on the evaluations and analyses developed and presented in the RI and FS reports, the FS Addendum, and the CAP. As documented in the FS Addendum and in this CAP Addendum, the proposed cleanup action for the East Parcel will comply with WAC 173-340-360.

1.1 SUMMARY OF EAST PARCEL DEVELOPMENT PROJECT

The East Parcel of the Property currently remains paved pending commencement of development activities. The development proposed by 255 S. King Street LP for the East Parcel will include a high-rise hotel and commercial/retail building with one below-ground level of parking and associated uses. The specifics of the design for the high-rise building are still in development.

The additional remedial actions for the East Parcel, as outlined in the FS Addendum, include excavation and off-Property disposal of soil from 0 to approximately 17.5 feet (ft) below ground surface (BGS) within the building footprint. The current shoring plan for the proposed development on the East Parcel involves installation of a steel sheet pile wall around the perimeter of the building footprint to aid in construction, including the soil excavation and associated dewatering, with the sheet pile wall remaining in place as part of the building structure. The East Parcel surface will be capped by the building foundation. Outside of the building foundation footprint, added measures will be implemented to prevent contact with shallow contaminated soil (i.e., concrete pavement in walkways and driveways or soil cover in landscaped areas). The size of the building footprint within the parcel will be maximized leaving limited area for walkways or driveways and landscaping. The excavation will be deeper than 17.5 ft BGS in localized areas for installation of pile caps, elevator pits, grade beams, and other building components. The proposed conceptual schematic design for the East Parcel development is provided in Appendix A; the conceptual East Parcel pile and excavation exhibit is provided in Appendix B.

1.2 PROPERTY DESCRIPTION AND HISTORY

The Property is known as the "North Lot Property" and is located in Seattle, Washington's south end Central Business District adjacent to CenturyLink Field and Event Center, as shown on Figure 1. The Property consists of 3.85 acres currently owned by NLD, and is located southeast of the intersection of

South King Street and Occidental Avenue South in Seattle, Washington (Figure 2). The West Parcel of the Property is currently under development; the East Parcel of the Property consists of a paved parking lot, which is currently used for commuter parking and parking for events at CenturyLink Field and Event Center.

Based on a Phase I Environmental Site Assessment completed by Landau Associates (2007), the Property was originally undeveloped tideflats of Elliott Bay. The Property was filled in the late 1890s and early 1900s and was operated as a rail yard from the late 1800s until the late 1960s. The fill material underlying the Property is composed of remnants of the former rail yard operations and construction debris (i.e., brick, metal, and concrete). Prior to filling, the area that includes the Property was initially developed with streets, buildings, and railroad tracks elevated on and supported by pilings. Several sets of railroad tracks were formerly present on the Property. Structures associated with the rail yard included engine maintenance buildings, paint shops, track switching areas, and materials storage areas. In addition, two gasoline stations were formerly located in the northwestern portion of the Property at different times between the late 1930s and approximately 1966. King County purchased the Property in the 1970s to facilitate construction of the Kingdome stadium to the south of the Property, which was later demolished and replaced with the current CenturyLink Field and Event Center development.

The Property has been used as a parking lot since the 1970s (Landau Associates 2007). The Property is served by various utilities including a stormwater drainage system that consists of a series of storm drain pipelines running north to south across the Property. A storm drain pipeline also runs approximately northwest to southeast on the East Parcel of the Property. The King County main storm drain runs along King Street to the north of the Property, and the King County combined sewer main runs along Occidental Avenue to the west of the Property. Relevant historical Property features on the East Parcel are shown on Figure 3. Existing Property features on the East Parcel include asphalt paving, the stormwater drainage system, site lighting, and below-grade utilities on and adjacent to the Property (Figure 4).

1.3 PROPERTY CHARACTERIZATION

The environmental investigations conducted at the Property from 2008 through 2010 are summarized in the 2011 RI and FS reports and includes the Phase II investigation, the RI field investigation, the supplemental investigation, and the data gaps investigation. An investigation of soil vapor in the northwestern portion of the Property was also conducted as part of the FS (Landau Associates 2011c). The investigations of the Property included a review of the Property's industrial history to confirm that the investigations included all areas likely to have contamination; an evaluation of

soil and groundwater conditions; and laboratory analysis of soil, groundwater, and soil vapor samples to document the nature and extent of contamination.

The investigations included the sampling of soil, soil vapor, and/or groundwater from more than 70 borings and the installation and sampling of 20 groundwater monitoring wells. The soil, groundwater, and soil vapor samples collected during the various investigations were submitted for selected laboratory analysis for a comprehensive list of analytical parameters including:

- Total petroleum hydrocarbons (TPH)
- Gasoline-range total petroleum hydrocarbons (TPH-G)
- Diesel-range total petroleum hydrocarbons (TPH-D)
- Motor oil-range total petroleum hydrocarbons (TPH-O)
- Metals (including arsenic, cadmium, chromium, copper, lead, mercury, and zinc)
- Benzene, toluene, ethylbenzene, and xylenes (BTEX)
- Polycyclic aromatic hydrocarbons (PAHs)
- Semivolatile organic compounds
- Volatile organic compounds
- Polychlorinated biphenyls (PCBs)
- Dioxins/furans.

Soil quality was evaluated during the RI by area based on the operational history and the findings of the various investigations. The areas on the West Parcel of the Property requiring remedial action have been addressed by the completed cleanup action elements during the building construction that is currently underway. The locations where soil samples were collected on the East Parcel of the Property and the areas of soil contamination to be addressed, based on the RI and FS, are shown on Figure 5. The constituents of concern identified in the RI for the East Parcel of the Property include TPH, benzene, PAHs, and arsenic. The analytical data indicated that the extent of impacts to groundwater from the soil contamination at the Property is limited and that contamination in groundwater did not pose a threat to human health or the environment.

The Property consists of heterogeneous fill that was placed over the native tideflat surface to allow development of the area in the vicinity of the Property. The soil contamination in the East Parcel of the Property includes one distinct, localized area of creosote-like material present at the base of the fill in the northeastern corner of the East Parcel. Within this localized area, the contaminant concentrations are above the cleanup levels due to the creosote-like material, which is a remnant of historical operations. Property-wide concentrations of PAHs and arsenic that are associated with the heterogeneous fill material are also above the cleanup levels. PAHs have been detected in various shallow soil samples (0 to 2 ft BGS), but are also anticipated to be dispersed throughout the fill.

As mentioned above, the extent of impacts to groundwater from soil contamination appears to be limited. There is no evidence of soil contaminants leaching to groundwater, or of contaminants in groundwater migrating off-Property at concentrations greater than the cleanup levels. On the East Parcel of the Property, arsenic was the only analyte detected in groundwater at concentrations greater than the cleanup level at multiple locations. The locations where arsenic has been detected at concentrations greater than the cleanup level in the East Parcel are hydraulically upgradient of much of the Property, and, as discussed in the RI report, the arsenic concentrations are the result of migration from off-Property sources.

As identified in the RI and FS reports, concentrations of benzene and gasoline above the cleanup levels are locally present in deeper (approximately 20 ft BGS) soil and groundwater in the northeastern portion of the Property adjacent to the creosote layer at the base of the fill material. These concentrations of benzene and gasoline pose a potential vapor intrusion threat to users of the below-ground parking garage proposed for the East Parcel. As discussed in Section 3.1.2, the potential for vapor intrusion would be addressed as part of the planned building construction.

In summary, the nature and extent of contamination on the East Parcel of the Property is discussed in the 2011 RI and FS reports, based on the operational history of the Property and the analytical results for the soil and groundwater samples, and is as follows:

- Creosote-like material was encountered at the base of the fill material in the northeastern portion of the East Parcel, and where creosote-related constituents have locally been detected in soil and groundwater
- Various constituents have been detected in soil across the East Parcel (and Property-wide) that are interpreted to be related to the presence of the fill placed over the native tideflat surface during the development of the area or that may be related to activities that occurred Property-wide, such as the rail yard operations.

Groundwater elevations have been measured Property-wide six times (November 24, 2008; January 16, 2009; June 3, 2009; August 25, 2009; February 24, 2010; and April 22, 2010). Groundwater elevations at wells located at the Union Station site, which is located to the east and hydraulically upgradient of the Property, were also collected during the June 3, 2009; February 24, 2010; and April 22, 2010 monitoring events. In February 2010, information from the King Street Center building located at 201 South Jackson Street (immediately to the north of the Property) verified the presence of a foundation drain system at the building. The drain system passively collects groundwater along the building foundation. The water that collects in the drain system is pumped to the sanitary sewer system for disposal. The groundwater elevation contours for all six monitoring events are provided on Figures 6 through 11.

2.0 CLEANUP ACTION SELECTION

The RI findings were used in the FS to develop and evaluate remedial alternatives for cleanup of the Property. The FS defines cleanup standards, identifies and evaluates six cleanup action alternatives, and identifies a preferred cleanup action alternative that is protective of human health and the environment per MTCA requirements. The FS Addendum describes the proposed changes to the cleanup action alternative selected in the FS based on the change in the development plan for the East Parcel of the Property proposed by 255 S. King Street LP. The following sections describe the cleanup levels, points of compliance, and cleanup action alternatives developed and evaluated in the FS and FS Addendum for the East Parcel of the Property.

2.1 PROPERTY CLEANUP LEVELS

Cleanup levels were developed for the Property in the RI, FS, and CAP and have been applied to the cleanup action on the West Parcel of the Property. As noted in the FS Addendum, these cleanup levels will also be applied to the cleanup action for the East Parcel of the Property.

Pre-development conditions at the Property presented a limited risk to users of the Property because contaminated soil was and is capped by the existing asphalt pavement, and groundwater in the Property area is not used as a potable water source. However, as discussed in the RI report, preliminary soil cleanup levels were identified for the detected constituents. For all constituents except lead and TPH, MTCA Method B soil cleanup levels were developed based on the most stringent of the constituent concentrations in soil protective of groundwater as drinking water and marine surface water, and protective of human health based on direct contact (Method B standard formula values for carcinogens and non-carcinogens). In accordance with MTCA, the MTCA Method A soil cleanup levels were used for lead, TPH-G, TPH-D, and TPH-O. Cleanup levels for arsenic, copper, and mercury were adjusted upward to the natural background concentration in soil. Cleanup levels for non-carcinogens were evaluated based on total Property risk and were adjusted downward, where necessary, to achieve a hazard index for the Property equal to or less than 1. Cleanup levels for carcinogens were also evaluated based on total Property risk; adjustment of the cleanup levels for carcinogens for total Property risk was not necessary. Table 1 summarizes cleanup levels for soil. A remediation level for benzene in soil on the West Parcel of the Property of 780 milligrams per kilogram was also developed, based on the potential for vapor intrusion to buildings due to benzene in shallow soil (see Table 2). Additional information regarding cleanup level development is provided in Appendix F of the FS report (Landau Associates 2011c).

Due to the proposed below-ground parking garage on the East Parcel of the Property and the presence of benzene in deeper soil, the proposed building construction will include measures to address potential vapor intrusion into the below-ground garage. Additionally, compliance monitoring will be conducted (see Appendix C) to document indoor air quality within the garage and to allow for evaluation of potential mitigation measures, if warranted, to protect users of the below-ground garage. These issues are discussed in both the FS Addendum and in Section 3.1.2 of this CAP Addendum.

The Property is located within 1,100 ft of Elliott Bay and groundwater at the Property, where not affected by the King Street Center foundation drains, generally flows toward Elliott Bay. As noted above, groundwater in the Property area is not used as a potable water source and the City of Seattle would require connection to the city water system as part of Property development. However, the MTCA Method B groundwater cleanup levels based on drinking water use and discharge to marine surface water, or the MTCA Method A groundwater cleanup levels for petroleum hydrocarbons, were used to identify groundwater cleanup levels for constituents detected at the Property. The MTCA Method B groundwater cleanup levels were developed based on the most stringent of the federal or state maximum contaminant levels (MCLs), state primary and secondary MCLs, protection of marine surface water, and the MTCA Method B standard formula values. The MTCA Method A groundwater cleanup levels were used for TPH-G, TPH-D, and TPH-O. Cleanup levels for non-carcinogens were evaluated based on total Property risk and were adjusted downward, where necessary, to achieve a hazard index for the Property equal to or less than 1. Adjustment of cleanup levels for carcinogens for total Property risk was not necessary. Total risk adjustment tables are provided in Appendix F of the FS report (Landau Associates 2011c). Table 3 summarizes the groundwater cleanup levels developed for constituents detected at the Property.

2.2 POINT OF COMPLIANCE

Under MTCA, the point of compliance is the point or points where the cleanup levels must be attained. The standard point of compliance where soil cleanup levels protective of direct human contact must be met is throughout a site from the ground surface to 15 ft below the ground surface, in accordance with WAC 173-340-740(6)(d). The standard point of compliance where soil cleanup levels protective of groundwater must be met is throughout the soil column, in accordance with WAC 173-340-740(6)(b). For the Property, the proposed soil point of compliance established in the FS is throughout the soil column throughout the Property. As noted in the FS Addendum, the soil point of compliance established in the FS remains applicable to the proposed development plan for the East Parcel.

The standard point of compliance for groundwater is throughout groundwater at the Property, including the East Parcel. The proposed conditional point of compliance for groundwater is the Property boundary or as close to the Property boundary as practicable. For a conditional point of compliance [in

accordance with WAC 173-340-720(8)(c, d)], there must be a demonstration that it is not practicable to meet the cleanup levels throughout the site in a reasonable restoration timeframe and that all practicable methods of treatment are to be used in the site cleanup.

As established in the FS and in the FS Addendum, the proposed cleanup action alternative is permanent to the maximum extent practicable, and meets the aforementioned criteria for establishing a conditional point of compliance. Specifically, the preferred alternative was selected based on a detailed disproportionate cost analysis (DCA) to identify the alternative that is permanent to the maximum extent practicable. Consistent with Alternative 3 in the FS, the revised remedial action approach for the East Parcel also provides for equal or greater benefits under the MTCA evaluation criteria, including but not limited to the requirement for a reasonable restoration timeframe, and the requirement for consideration of public concerns. Therefore, the proposed conditional point of compliance for groundwater is the Property boundary for most of the Property and as close to the Property boundary as practicable in the northeastern portion of the Property. Due to the presence of the creosote-like material along the northeastern Property boundary, it is not feasible to install a compliance monitoring well in the creosote-like material, so the proposed conditional point of compliance for the northeastern portion of the East Parcel would be as close to the Property boundary as practicable, and would be the Property boundary for the remainder of the East Parcel. The compliance monitoring plan (Appendix C) identifies the approach to document groundwater quality at the conditional point of compliance and indoor air quality within the parking garage level of the proposed structure on the East Parcel of the Property.

2.3 EVALUATED CLEANUP ACTION ALTERNATIVES

The development of cleanup action alternatives included analysis of technologies and process options potentially applicable to conditions at the Property. Potential general response actions and remedial technologies were identified based on the known site conditions, media impacted, contaminant types, and best professional judgment regarding applicable remedial technologies. The identified remedial technologies were screened in the FS on the basis of effectiveness, implementability, and cost. Screened technologies included institutional controls, containment, removal/excavation, and treatment.

Each of the cleanup action alternatives developed for the Property was developed to be protective of human health and the environment, consistent with the MTCA regulations, and suitable for integration into the proposed NLD development plan for the Property at the time the FS was completed. Each alternative is comprehensive and considers the Property and its future use as a whole, but includes the use of separate cleanup action technologies for the different areas of concern. The six alternatives incorporate the most viable cleanup action technologies within the general response action categories of containment,

source removal (i.e., excavation), treatment, and institutional controls. The six alternatives developed and evaluated in the FS are:

- Alternative 1: Containment including a Vapor Barrier
- Alternative 2: Hotspot Excavation and Containment
- Alternative 3: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Containment, and Added Measures to Prevent Contact with Shallow Contaminated Soil Outside the Footprints of the Building Foundations
- Alternative 4: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Focused Treatment of Creosote Area, and Containment
- Alternative 5: Hotspot Excavation, Focused Treatment of Residual Gasoline/Benzene, Excavation of Fill Material across the Property to 5 ft BGS, and Containment
- Alternative 6: Complete Excavation of Fill Material.

3.0 PROPOSED CLEANUP ACTION

The selection of the preferred alternative in the FS included an extensive and detailed disproportionate cost analysis (DCA). The DCA was conducted as part of the comparative analysis of the cleanup action alternatives to determine which alternative is permanent to the maximum extent practicable for the Property. Based on the evaluations in the FS, including the DCA, the preferred cleanup action alternative for the Property was Alternative 3. Alternative 3 was deemed to be compatible with the development planned for the Property at the time the FS was completed. The purchase of the East Parcel of the Property by 255 S. King Street LP has necessitated revisions to Alternative 3 to address the revised development plan and the additional remediation for the East Parcel of the Property. After additional review and analysis, it has been confirmed that Alternative 3 is still the preferred cleanup action alternative for the Property because Alternative 3 is compatible with the revised development plan and meets applicable MTCA requirements.

As detailed in the FS Addendum and discussed below, the revised Alternative 3 adds the following elements with regard to the East Parcel of the Property:

- Excavation and off-Property disposal of soil from 0 to approximately 17.5 feet (ft) below ground surface (BGS) within the building footprint.
- Installation of a vapor barrier with the building foundation to address potential vapor intrusion into the below-ground parking garage.
- Capping of most of the East Parcel surface by the building foundation.
- Additional capping measures consisting of concrete pavement on walkways and driveways, excavation to 5 ft BGS, and soil cover in landscaped areas to prevent contact with shallow contaminated soil in areas outside the building foundation footprint.
- Implementation of institutional controls.
- Groundwater Compliance Monitoring.

3.1 COMPONENTS OF THE PROPOSED CLEANUP ACTION

The components of the revised alternative for the East Parcel of the Property are discussed in the following sections. The conceptual model for the proposed cleanup action is shown on Figure 12.

3.1.1 CONSTRUCTION SOIL EXCAVATION

Project construction includes removal and off-Property disposal of soil across the East Parcel to a depth of approximately 1.5 ft BGS (including existing asphalt, associated subgrade, and shallow soil/fill) to prepare the parcel for development. Additional below-grade excavation on the East Parcel includes excavation to approximately 17.5 ft BGS in the area of the building footprint. The excavation will go deeper in localized areas for installation of pile caps, elevator pits, grade beams, and other building

components, primarily within the building foundation footprint. Based on current construction estimates, approximately 33,400 cubic yards (measured in place) of existing surface material will be excavated as part of the proposed construction. This volume does not include the 1.5 ft of material that will be excavated as part of the preparation for East Parcel construction or the additional soil that will be excavated below 17.5 ft BGS in localized areas for the below-ground building components listed above. As discussed in Section 3.1.3, additional soil will also be excavated to a depth of 5 ft BGS in any landscaped areas outside the building footprint that are not capped with concrete. Excavated material, including shallow contaminated soil, removed during construction will be disposed of off-Property consistent with MTCA and other applicable regulations.

3.1.2 VAPOR BARRIER AND INDOOR AIR SAMPLING

A vapor barrier will be integrated within the building design and installed during construction (in conjunction with the building foundation's water barrier) to mitigate the potential for vapor intrusion into the below-ground parking garage proposed for the East Parcel. The ventilation system for the below-ground parking garage will also be designed to allow for proper ventilation and to allow the space to be operated under positive pressure. The compliance monitoring plan will include baseline indoor air sampling and analysis to document conditions following construction and to assess the need for additional mitigation or monitoring, as warranted, to protect users of the below-ground garage and associated uses (see Appendix C).

3.1.3 SURFACE CAP AND ADDED MEASURES TO PREVENT CONTACT WITH CONTAMINATED SOIL OUTSIDE THE BUILDING FOUNDATIONS

The contaminated soil remaining in place on the East Parcel following cleanup and development will primarily be contained beneath the building foundation as part of the East Parcel development. The size of the building footprint within the parcel will be maximized leaving a limited area outside the building footprint for walkways, driveways and landscaping. The areas of shallow contaminated soil outside of the building foundation footprint that were excavated to 1.5 ft BGS as part of initial project construction will be addressed by added measures that are equally effective in containing the contaminated soil and preventing potential human contact with shallow soil. The walkways and driveways will be capped with concrete, and the landscaped areas outside of the building foundation footprint will be excavated an additional 5 ft BGS and backfilled with clean soil.

3.1.4 REQUIRED INSTITUTIONAL CONTROLS

Institutional controls will be implemented to assure the continued protection of human health and the environment. Institutional controls include restrictions on disturbance of the surface cap, on the installation of wells on the East Parcel of the Property, except as part of the cleanup action, and on the use of site groundwater as drinking water. A deed restriction documenting these limitations will be filed for the East Parcel.

Institutional controls will also include periodic reviews of East Parcel conditions and preparation of status reports on the effectiveness of the cleanup action over time. This periodic review and reporting is a requirement of MTCA (WAC 173-340-420). Periodic reviews are planned to occur every 5 years after the initiation of the cleanup action per MTCA.

3.1.5 GROUNDWATER COMPLIANCE MONITORING

The groundwater compliance monitoring plan was developed and included with the CAP and addresses the groundwater monitoring for both the West and East Parcels. The groundwater compliance monitoring plan has not changed with the development of this CAP Addendum, and is attached hereto as Appendix C.

As required by the MTCA regulations, monitoring is included in the proposed cleanup action to assess contaminant concentrations in groundwater and document groundwater flow direction. The groundwater compliance monitoring plan is provided in Appendix C. The groundwater compliance monitoring would include the installation of additional groundwater monitoring wells, groundwater monitoring and sample collection at the new wells and existing wells, and laboratory analysis of groundwater samples.

Groundwater sample analytical parameters and laboratory methods would consist of the following:

- BTEX by U.S. Environmental Protection Agency (EPA) Method 8021
- TPH-G and TPH-D by Ecology-approved Methods NWTPH-Gx and NWTPH-Dx
- PAHs by EPA Method 8270 Selected Ion Monitoring
- Dissolved metals including arsenic and lead by EPA Method 200.8, cadmium, chromium, copper, and zinc by EPA Method 6010B, and mercury by EPA Method 7470A.

The list of analytical parameters and laboratory methods for groundwater sample analysis are provided in Tables 1 and 2 of Appendix C, respectively.

The proposed installation and development of the new monitoring wells (two on the West Parcel and two on the East Parcel, as discussed below) will be coordinated with the construction schedules for development on both parcels. Compliance reports including the monitoring data for the Property (both

parcels) will be submitted to Ecology approximately 6 to 8 weeks following receipt of the final analytical data, according to the schedule presented below.

During the first 5 years, sampling and analysis of monitoring wells will occur quarterly for Year 1 and then annually for the next 4 years of monitoring; however, the frequency of monitoring may be adjusted based on the groundwater analytical results and whether analytes are detected at concentrations greater than the cleanup levels. If the detected concentration of one or more constituents is greater than the cleanup level, the well will be re-sampled and the data re-evaluated. If the re-sampling indicates one or more constituents at a concentration greater than the cleanup level, then a remediation contingency plan will be developed, approved by Ecology, and implemented. After 5 consecutive years with no exceedances, both the monitoring frequency and the number of sampling locations will be reduced, as appropriate, based on site conditions at the time and upon approval from Ecology. Groundwater compliance monitoring will conclude after 30 years with no exceedances of the cleanup levels. All changes to the groundwater compliance monitoring schedule will be approved in advance by Ecology based on the evaluation of site conditions at the time.

3.1.6 GROUNDWATER TREATMENT CONTINGENCY

A contingency for groundwater treatment is included in the proposed cleanup action for the East Parcel of the Property. Under current Property conditions, contamination in groundwater does not pose a threat to human health or the environment; therefore, groundwater treatment options were not evaluated in the cleanup alternatives.

In the event that compliance groundwater monitoring shows a significant increase in contaminant concentrations in groundwater, or evidence of off-Property migration of groundwater with contaminant concentrations greater than the cleanup levels, or a significant change in site conditions, then groundwater treatment options will be evaluated to prevent contaminated groundwater from migrating beyond the conditional point of compliance. One potential treatment option for evaluation as part of the contingency plan is the installation of extraction wells along the Property boundary to collect groundwater before it flows off the Property. Collected groundwater could be treated using a granular-activated carbon treatment system and pumped into the sanitary sewer system for further treatment and disposal.

A conceptual contingency plan for groundwater treatment will be prepared as described in Section 6.0.

3.1.7 HAZARDOUS SUBSTANCES REMAINING AT THE PROPERTY

Following implementation of the proposed cleanup action, hazardous substances remaining on the East Parcel of the Property will include the following:

- Low concentrations of arsenic and PAHs will remain in soil (fill material), from a depth of a minimum of 1.5 ft BGS to the contact with the native soils at approximately 23 ft BGS; however, the soil will be contained beneath the improvements placed as part of development, preventing direct contact with the contamination. The volume of soil remaining with low concentrations of arsenic and PAHs will be further reduced by the excavation for the below-ground parking garage which is contemplated as part of the East Parcel development.
- Creosote-like material will remain in place in the northeastern portion of the Property. There is no evidence of migration of the creosote-like material, and none is expected in the future.
- Localized deeper (i.e., about 20 ft BGS) groundwater contamination by PAHs and petroleum hydrocarbons due to the presence of the creosote-like material will remain in the northeastern portion of the East Parcel. However, as discussed above, there is currently no evidence of off-Property migration of contaminated groundwater and there is no risk of contact with the contaminated groundwater due to a deed restriction.

The proposed cleanup action will include: (1) capping by either the building foundation, concrete walkways and driveways, or a minimum of 5 ft of clean fill to prevent direct contact with contaminated soils remaining in place; (2) the implementation of institutional controls to prevent disruption of the contained soil and to prevent use of groundwater on the Property; (3) a vapor barrier and air sampling to address the potential for vapor intrusion; and (4) groundwater compliance monitoring to document that there is no off-Property migration of contaminants in groundwater.

3.2 COMPLIANCE WITH MODEL TOXICS CONTROL ACT THRESHOLD REQUIREMENTS

The proposed cleanup action for the East Parcel of the Property complies with the MTCA threshold requirements, including protection of human health and the environment, compliance with cleanup standards, compliance with applicable state and federal laws, and inclusion of a provision for compliance monitoring. The proposed East Parcel cleanup action protects human health and the environment through permanent measures to control potential exposure to contaminated soil as part of development. The proposed cleanup action and development on the East Parcel includes excavation and removal of contaminated soil to approximately 17.5 ft BGS in the area of the proposed building footprint, a surface cap over the entire East Parcel, additional capping measures to prevent contact with shallow contaminated soil the of the building foundations footprints within the East Parcel boundary, institutional controls, vapor mitigation and monitoring for potential vapor intrusion, groundwater monitoring, and a contingent groundwater treatment. Cleanup levels will be achieved at the conditional points of compliance upon completion of the cleanup action. The cleanup action will be conducted in compliance with all applicable local, state, and federal laws, identified in Section 5.0. Protection, performance, and confirmational monitoring programs will be implemented to verify adequate protection of human health and the environment during and after development to confirm compliance with the cleanup standards.

4.0 JUSTIFICATION FOR SELECTING THE CLEANUP ACTION

The proposed cleanup action for the East Parcel of the Property would effectively and permanently protect human health and the environment by:

- Preventing direct contact with contaminated soil through excavation and capping
- Providing for enhanced containment measures (via additional excavation to 5 ft BGS or concrete capping) in areas outside of the building foundations footprints within the Property boundary
- Providing for groundwater compliance monitoring
- Providing for contingent groundwater treatment
- Providing for vapor intrusion assessment and mitigation
- Providing for institutional controls.

The primary risk associated with the Property (direct exposure to contaminated soils) will be effectively controlled through excavation to approximately 17.5 ft BGS within the building footprint on the East Parcel, capping within the building foundation footprint, (excavation of shallow contaminated soil to approximately 1.5 ft BGS outside of the building footprint), added protective containment measures (additional excavation of 5 ft in landscaped areas or concrete capping in areas outside the building foundation footprint, vapor mitigation, post-construction vapor monitoring, and institutional controls. There is currently no evidence of off-Property migration of contaminants in groundwater, and on-Property groundwater will not be used as a drinking water source given the availability of a municipal water supply and regulations prohibiting development of water supply wells in this area.

The proposed cleanup action is consistent with the development contemplated by 255 S. King Street LP for the East Parcel of the Property. Figure 13 shows the conceptual model for the East Parcel prior to incorporation of the revised cleanup action; Figure 14 shows the conceptual model for the East Parcel following incorporation of the additional remedial action elements identified in this CAP Addendum and associated with 255 S. King Street LP's Property development.

The proposed cleanup action on the East Parcel of the Property would effectively achieve the Property remedial action objectives and cleanup standards, further limit the potential for exposure to contaminated soil and groundwater, and provide permanent protection of human health and the environment from potential risks posed by the Property.

5.0 APPLICABLE STATE AND FEDERAL LAWS

In accordance with MTCA, all cleanup actions must comply with applicable state and federal laws [WAC 173-340-710(1)]. MTCA defines applicable state and federal laws to include legally applicable requirements and those requirements that are relevant and appropriate. Collectively, these requirements are referred to as applicable or relevant and appropriate requirements (ARARs). This section provides a brief overview of ARARs for the cleanup action for the East Parcel of the Property, and is identical to the ARARs described in the CAP, which address the entire Property. The primary ARAR is the MTCA cleanup regulation (Chapter 70.105D, RCW; Chapter 173-340 WAC), which outlines requirements for the development of cleanup standards, and procedures for development and implementation of a cleanup under MTCA. The other ARARs that may be applicable to the cleanup action include the following:

- Washington Hazardous Waste Management Act [Chapter 70.105 Revised Code of Washington (RCW)] and its implementing regulations, Dangerous Waste Regulations (Chapter 173-303 WAC). These regulations establish a comprehensive statewide framework for the planning, regulation, control, and management of dangerous waste. The regulations designate those solid wastes that are dangerous or extremely hazardous to human health and the environment. The management of excavated contaminated soil from the Property would be conducted in accordance with these regulations to the extent that any dangerous wastes are discovered or generated during the cleanup action.
- Washington Solid Waste Management Act (Chapter 70.95 RCW) and its implementing regulation, Criteria for Municipal Solid Waste Landfills (Chapter 173-351 WAC). These regulations establish a comprehensive statewide program for solid waste management including proper handling and disposal. The management of any contaminated soil removed from the Property would be conducted in accordance with these regulations to the extent that this soil could be managed as solid waste instead of dangerous waste.
- Hazardous Waste Operations (Chapter 296-843 WAC). These requirements establish safety requirements for workers conducting investigation and cleanup operations at sites containing hazardous materials. These requirements would be applicable to onsite cleanup activities and would be addressed in a site health and safety plan prepared specifically for these activities.
- Federal Clean Water Act National Pollutant Discharge Elimination System (NPDES) Permit and State Construction Stormwater General Permit. Construction activities that disturb one or more acres of land typically need to obtain an NPDES Construction Stormwater General Permit from Ecology. A substantive requirement would be to prepare a stormwater pollution prevention plan (SWPPP) prior to the earthwork activities. The SWPPP would document planned procedures designed to prevent stormwater pollution by controlling erosion of exposed soil and by containing soil stockpiles and other materials that could contribute pollutants to stormwater.

6.0 IMPLEMENTATION SCHEDULE AND RESTORATION TIMEFRAME

The proposed cleanup action will be conducted as part of the construction of the East Parcel development by 255 S. King Street LP. The cleanup activities will begin with the removal and off-Property disposal of approximately 1.5 ft of surface material that will be excavated as part of site preparation. The additional soil excavation within the building footprint will be conducted following removal of the surface material. The remaining cleanup action elements will be implemented as outlined in the schedule provided in Appendix D.

Construction design and engineering plans will be prepared to support implementation of the cleanup action. These plans will include: a soil and water handling and disposal plan, a SWPPP, a dust suppression plan, a health and safety plan for construction workers, and engineering plans for the protective cap. Plans will also be developed to manage long-term operation and maintenance (O&M) of the protective cap, and to provide a conceptual-level outline of contingent groundwater treatment. The O&M plans will include routine evaluation of the storm drain pipes and other underground conduits associated with the Property to ensure the structural integrity as the subsurface piping ages. These plans will be completed and submitted to Ecology prior to implementation of the cleanup action.

The restoration timeframe is expected to be the time at which development of the East Parcel of the Property is complete. At that time, excavation of contaminated soil as described in Section 3.1.1, installation of the vapor barrier as described in Section 3.1.2, and the surface cap or additional excavation/capping measures as described in Section 3.1.4 will be completed. Institutional controls and groundwater and vapor intrusion compliance monitoring will begin following the completion of construction on the East Parcel of the Property.

Groundwater compliance monitoring as described in Appendix C will begin following completion of construction on the both the West and East Parcels, which includes the installation of the additional compliance groundwater monitoring wells. Capping (via installation of building foundations and added concrete in areas outside of the building foundation footprints), will be accomplished in conjunction with the construction for the East Parcel. The contingency for groundwater treatment will remain in effect for the duration of the groundwater compliance monitoring.

The vapor intrusion assessment and monitoring outlined in Appendix C will be initiated following the completion of the below-ground garage, and will be implemented per the compliance monitoring schedule.

7.0 USE OF THIS REPORT

This report was prepared for the exclusive use of North Lot Development, LLC, 255 S. King Street LP, and applicable regulatory agencies, for specific application to the North Lot Property, including review by the public. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied. This document was prepared under the supervision and direction of the undersigned.

LANDAU ASSOCIATES, INC.

Colette M. Griffith
Project Engineer

Timothy L. Syverson, L.G.
Senior Associate Geologist

CMG/TLS/ccy

8.0 REFERENCES

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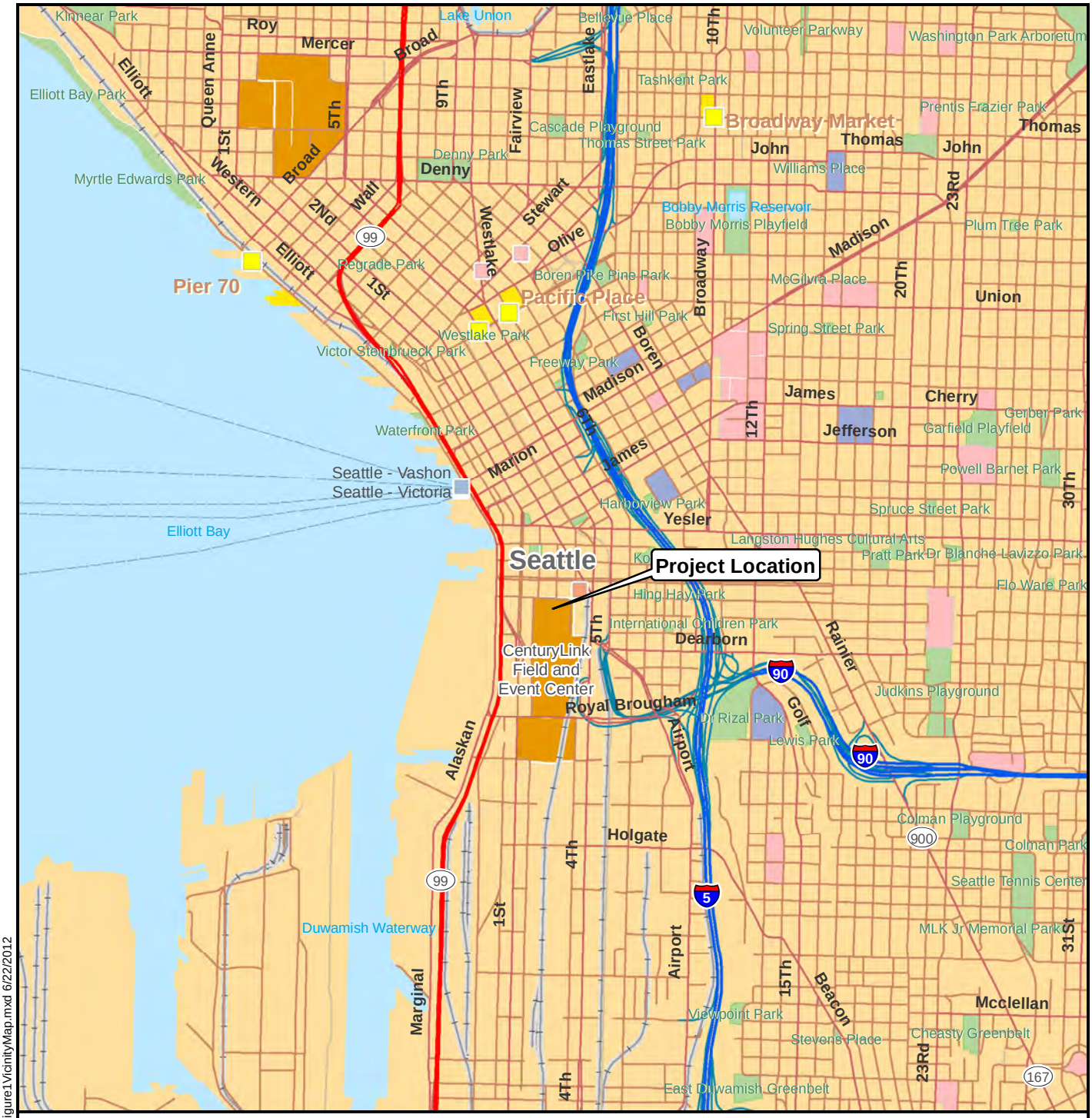

Data Source: ESRI 2008

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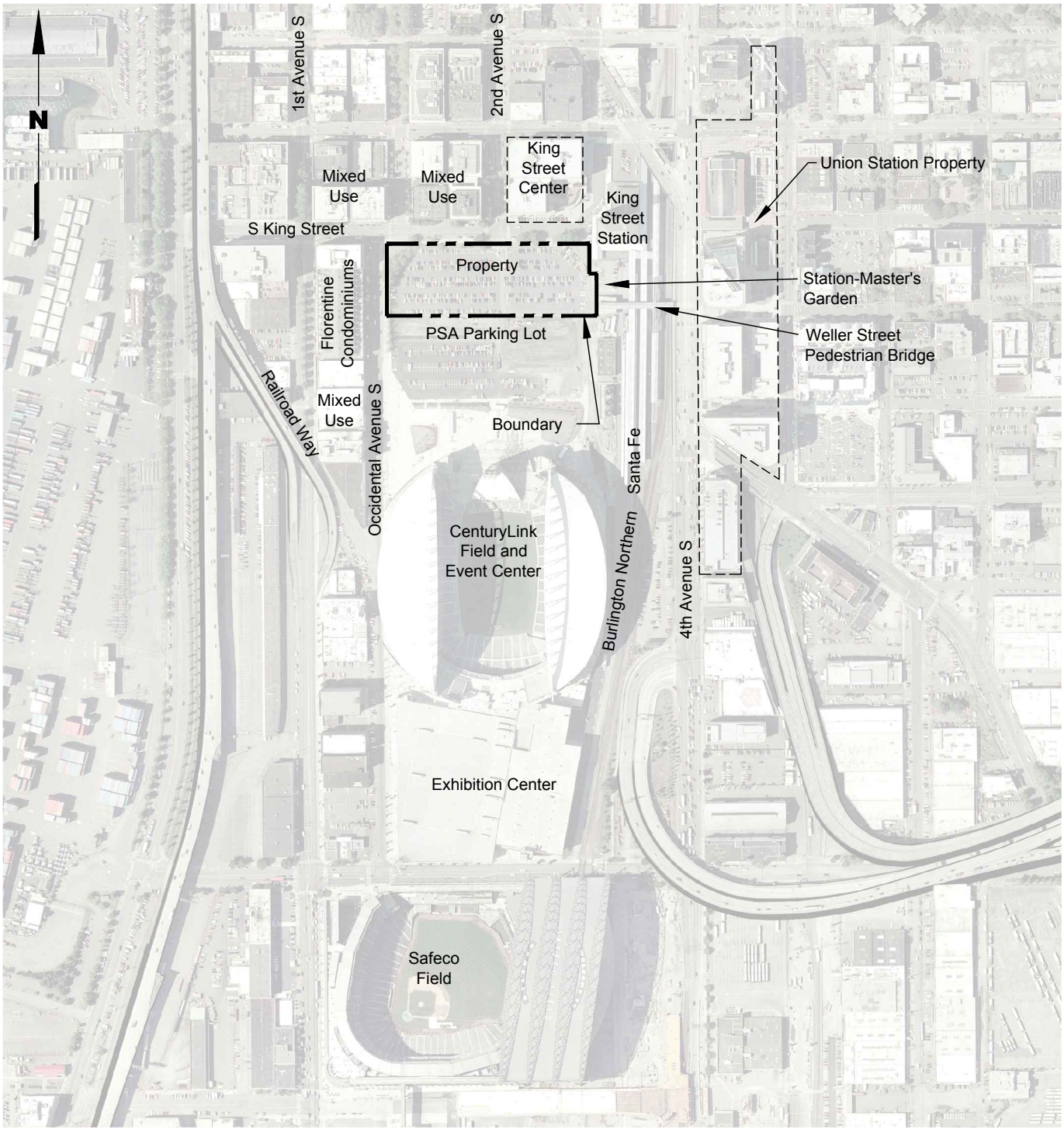
North Lot Development Property Seattle, Washington	**Vicinity Map**	Figure 1



LANDAU ASSOCIATES, INC. | V:\1307\001\010.013\Figure 2.dwg (A) "Figure 2" 6/22/2012

LANDAU ASSOCIATES

North Lot Development Property Seattle, Washington	**Property Plan and Surrounding Area**	Figure 2

Historical Property Features
(Landau Associates 2007)

1. Car Shop
2. Locomotive House
3. Turn Table
4. Blacksmith
5. Machine Shop
6. Car Repair & Paint Shop
7. Machine Shop
8. Blacksmith Shop
9. Railroad Turntable
10. Round House
11. Engine House
12. Round House
13. Gasoline Stations

Present Features

- Property Boundary
- Fence Line

Data Source: Triad Boundary Survey, King County

Note
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 50 100
Scale in Feet

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North Lot Development Property Seattle, Washington	**Historical Property Features**	Figure 3

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Legend

- Fence Line
- Storm Drain
- Utilities and Other Features

Y:\Projects\130700\1010.013\Figure4EastParcelUtilitySitePlan.mxd 9/27/2012

Note
1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 50 100
Scale in Feet

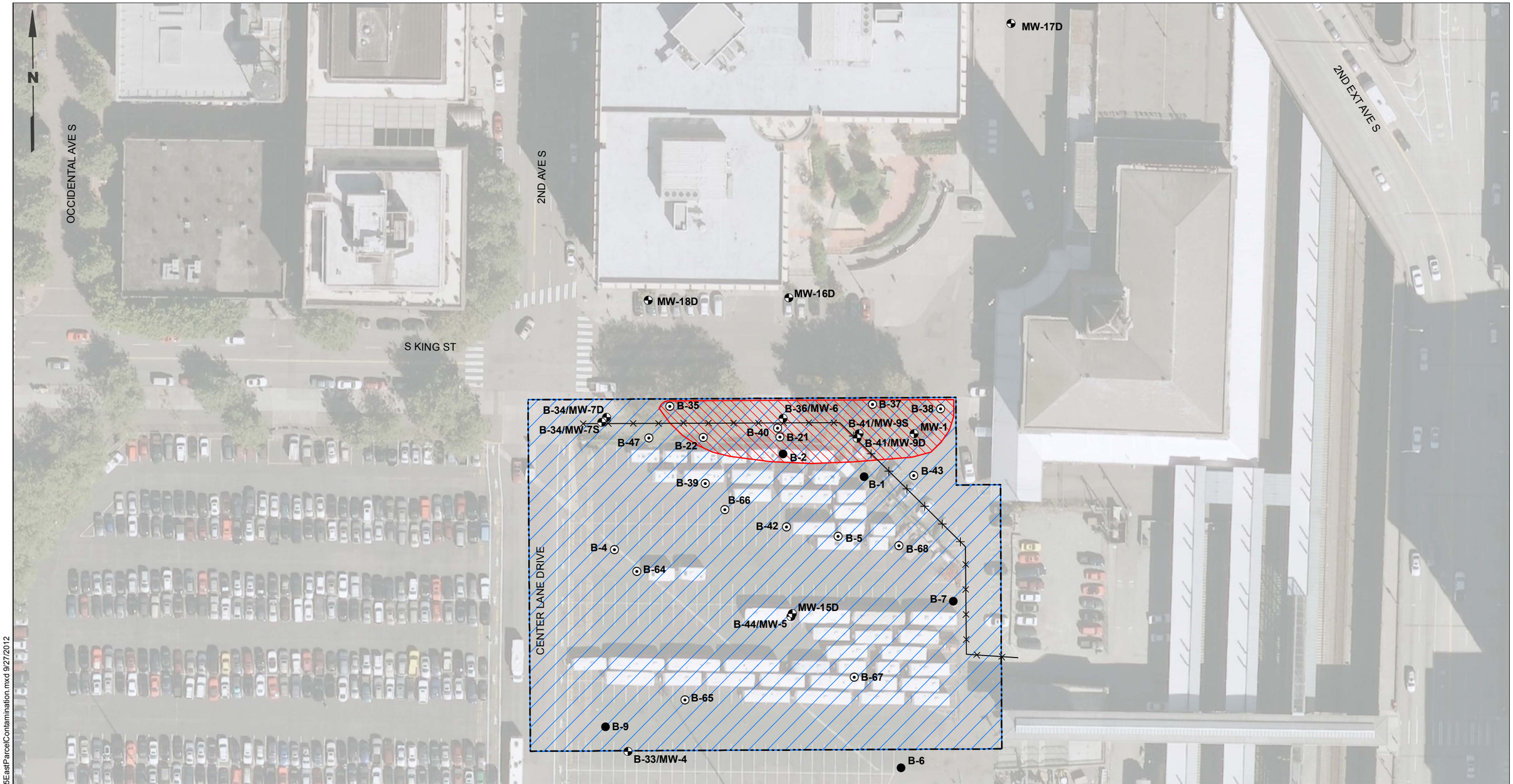
Data Source: Triad Boundary Survey, King County

LANDAU ASSOCIATES

North Lot Development Property
Seattle, Washington

East Parcel Plan and Existing Features

Figure 4



Legend

- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil Boring and Groundwater Sample Location
- Fence Line
- Property Boundary

Approximate Extent of Contaminant Concentrations in Soil Greater than the Cleanup Levels:

- Creosote-Like Material; Localized Concentrations Greater than MTCA Method B Cleanup Levels
- cPAHs and Metals Concentrations Greater than MTCA Method B Cleanup Levels

0 60 120

Scale in Feet

Data Source: Triad Boundary Survey, King County

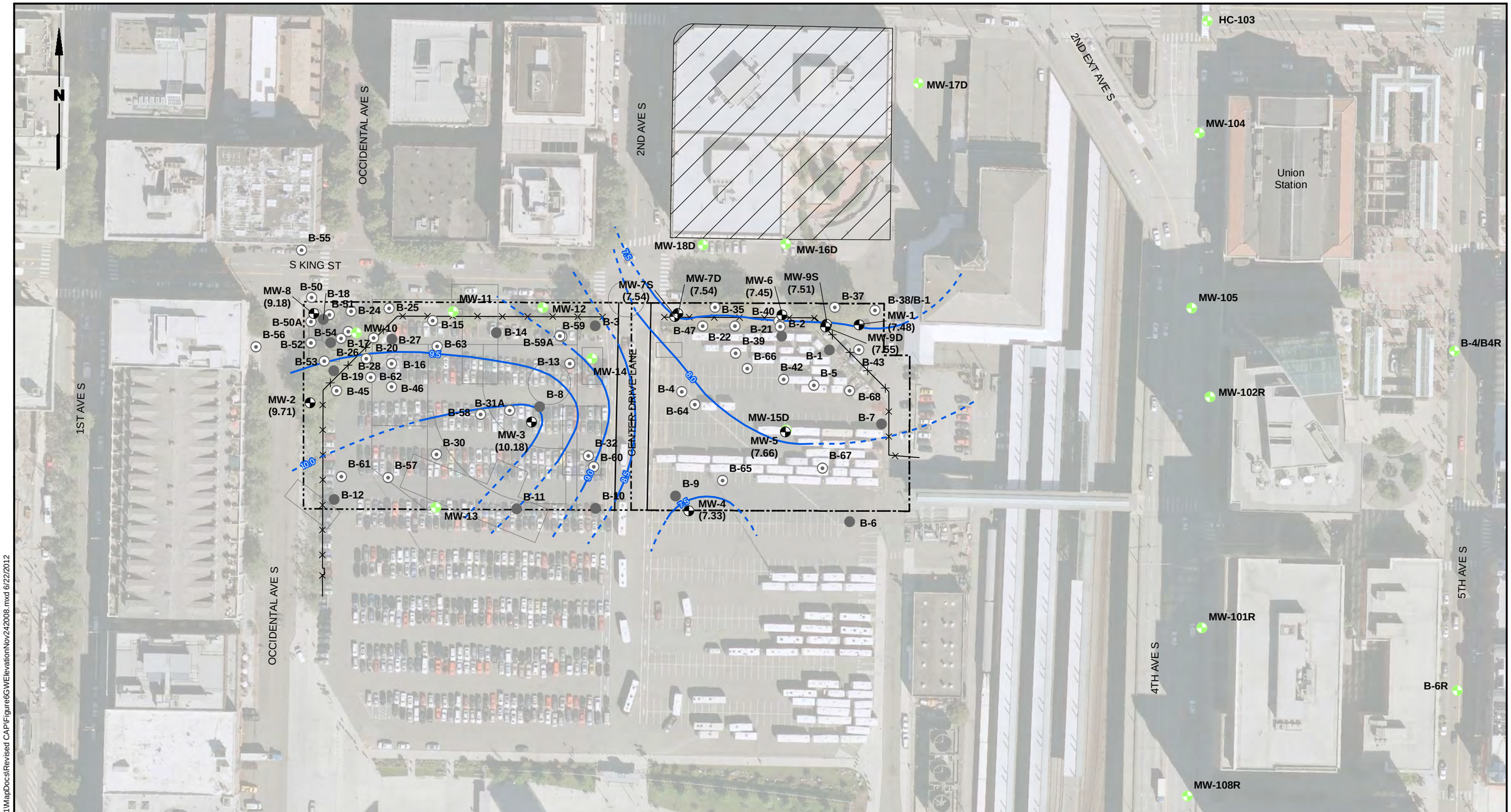
Notes

1. Cleanup alternatives that address remedial action for areas of contamination defined above are evaluated in the FS.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Y:\Projects\130700\1010.013\Figure5EastParcelContamination.mxd 9/27/2012

LANDAU ASSOCIATES

North Lot Development Seattle, Washington	**East Parcel Areas of Soil Contamination Exceeding Cleanup Levels**	Figure 5



Legend

- MW-4 (7.33) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 7.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-9. Wells MW-10 through MW-18D not yet installed. Union Station wells to the east not measured for this round.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 110 220

Scale in Feet

Data Source: Triad Boundary Survey, King County

LANDAU ASSOCIATES

North Lot Development Property Seattle, Washington	**Groundwater Elevation Contours for November 24, 2008**	Figure 6

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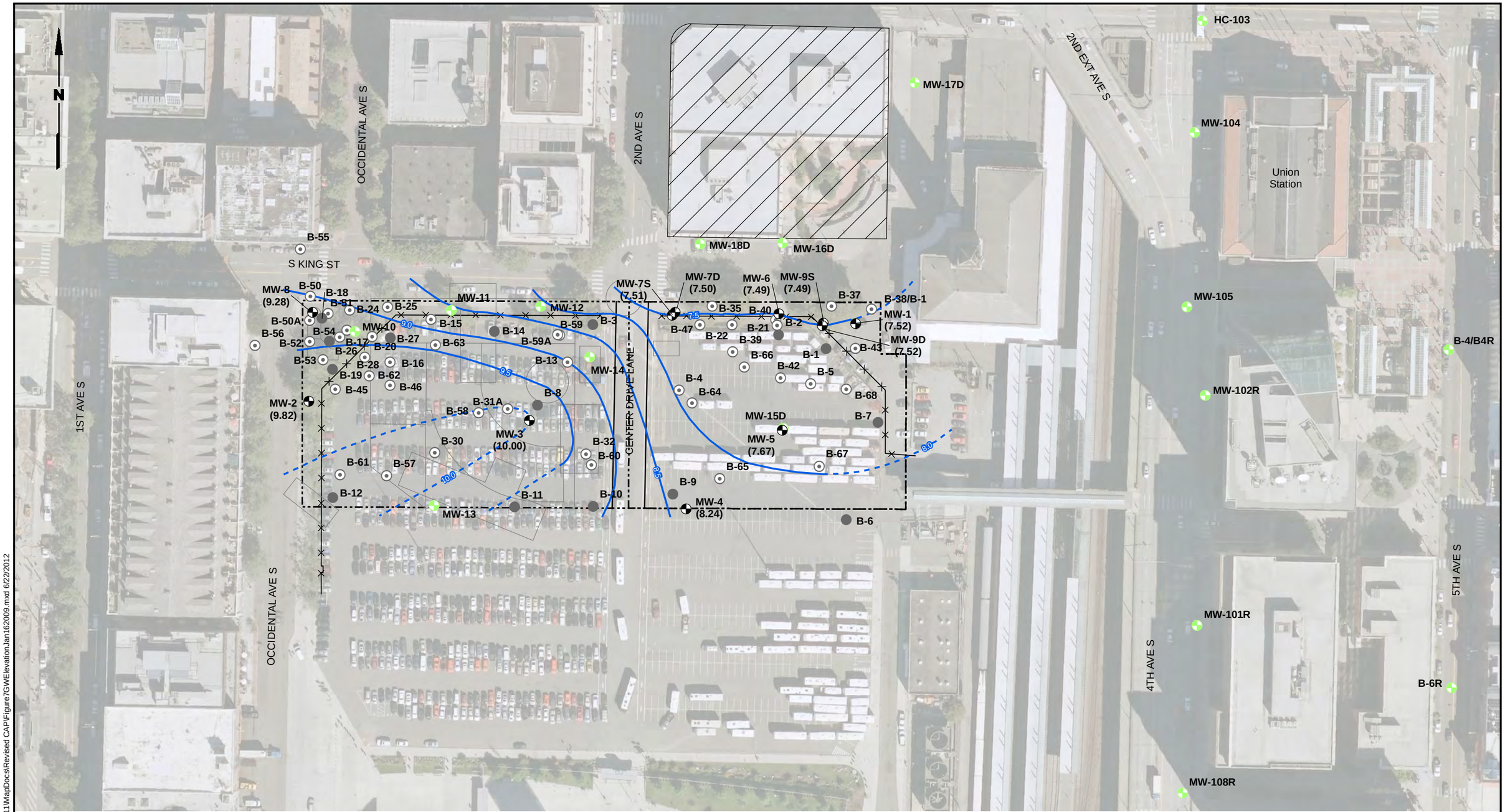


Y:\Projects\130700\010.011\MapDocs\Revised CAP\Figure7GWElevationJan162009.mxd 6/22/2012

Legend

- MW-4 (8.24) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 8.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-9. Wells MW-10 through MW-18D not yet installed. Union Station wells to the east not measured for this round.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

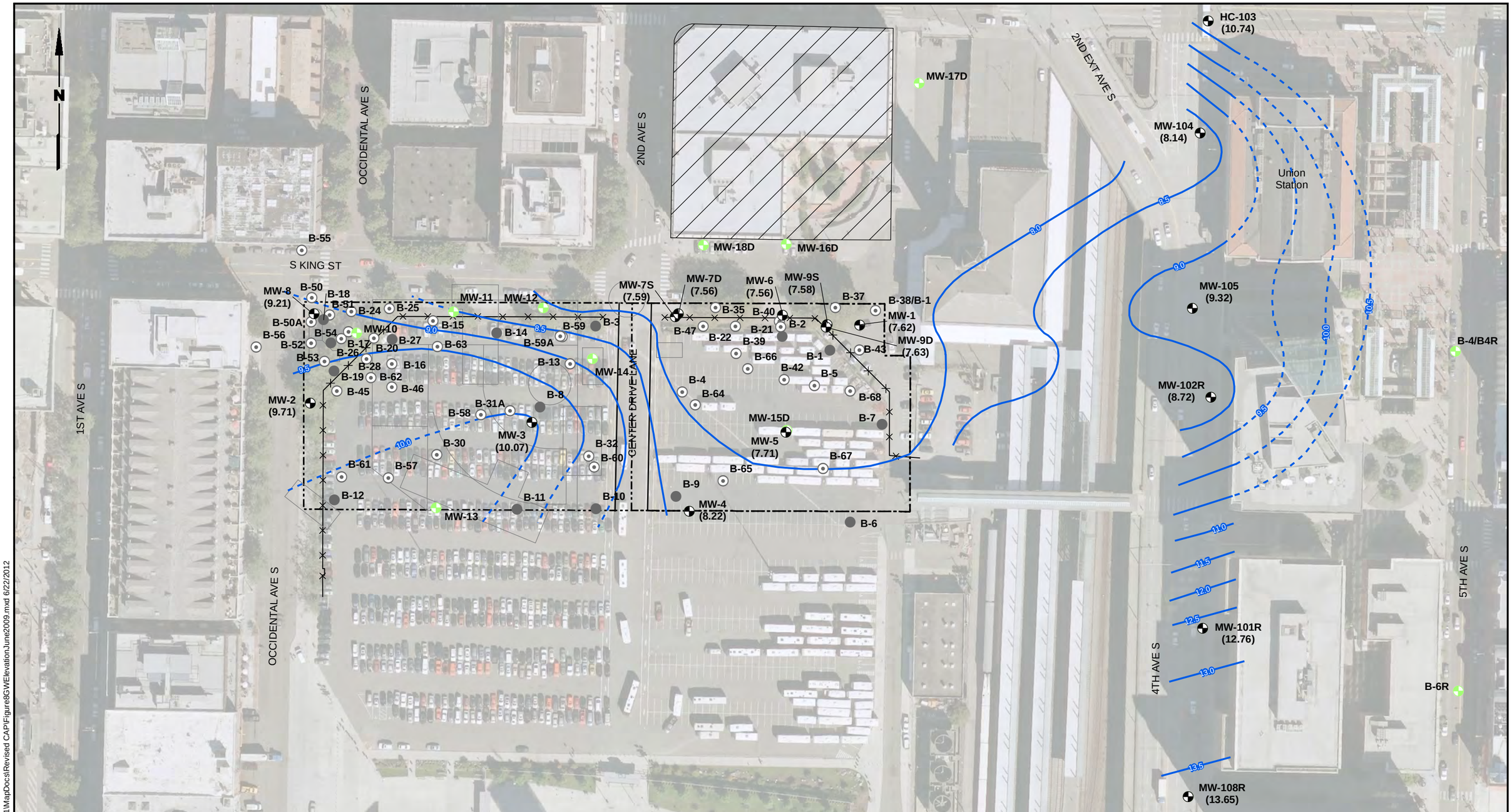
0 110 220

Scale in Feet

Data Source: Triad Boundary Survey, King County

LANDAU ASSOCIATES

North Lot Development Property Seattle, Washington	**Groundwater Elevation Contours for January 16, 2009**	Figure 7



Y:\Projects\13070010\10.011\MapDocs\Revised CAP\Figure8GWElevationJune2009.mxd 6/22/2012

Legend

- MW-4 (8.22) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 8.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-9. Wells MW-10 through MW-18D not yet installed.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 110 220
Scale in Feet

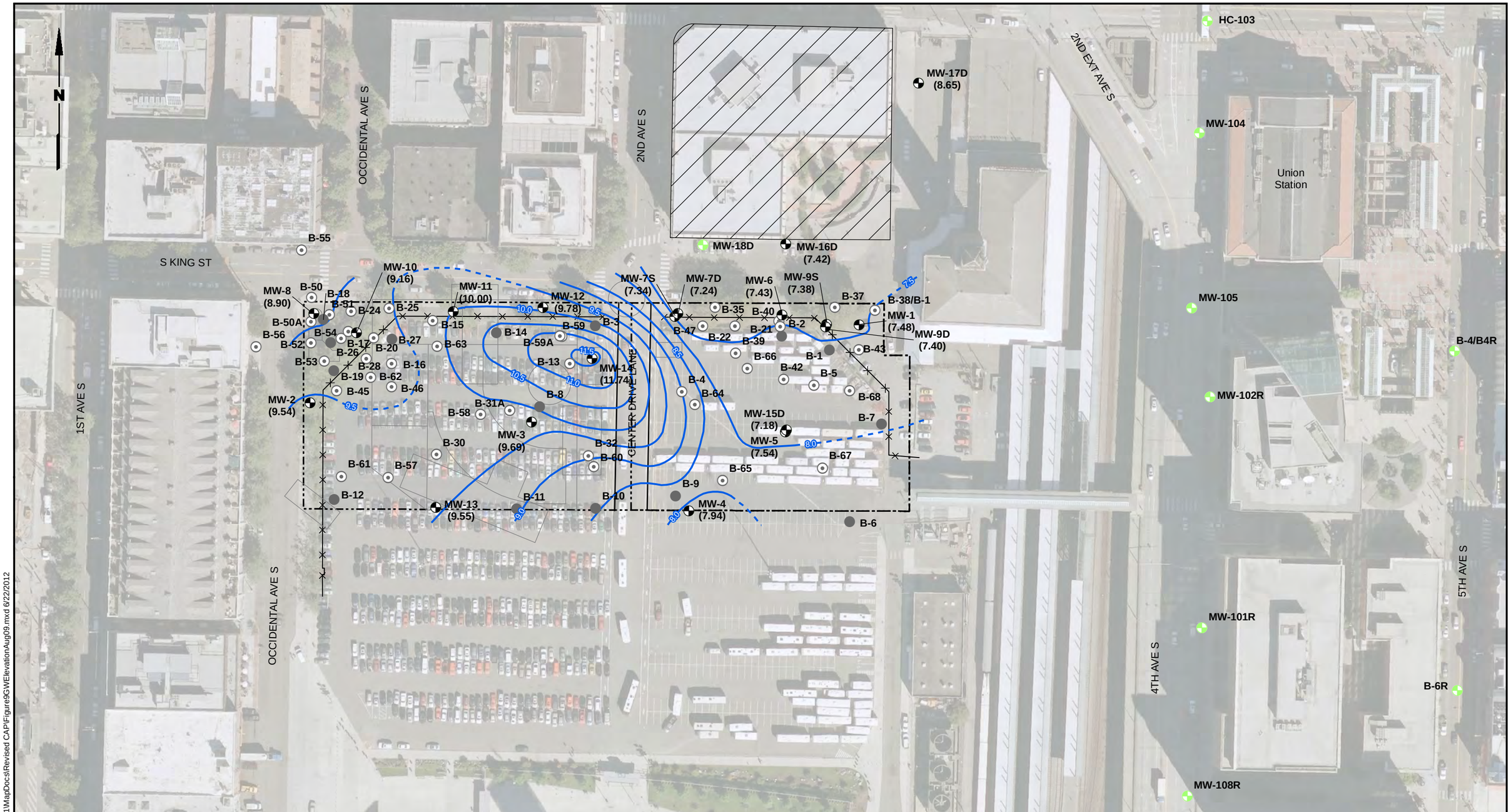
Data Source: Triad Boundary Survey, King County

LANDAU ASSOCIATES

North Lot Development Property
Seattle, Washington

Groundwater Elevation Contours for June 3, 2009

Figure 8



Y:\Projects\1307001\010.011\MapDocs\Revised CAP\Figure9GWElevationAug09.mxd 6/22/2012

Legend

- MW-4 (7.94) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 8.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-17D. Union Station wells to the east were not measured for this round.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

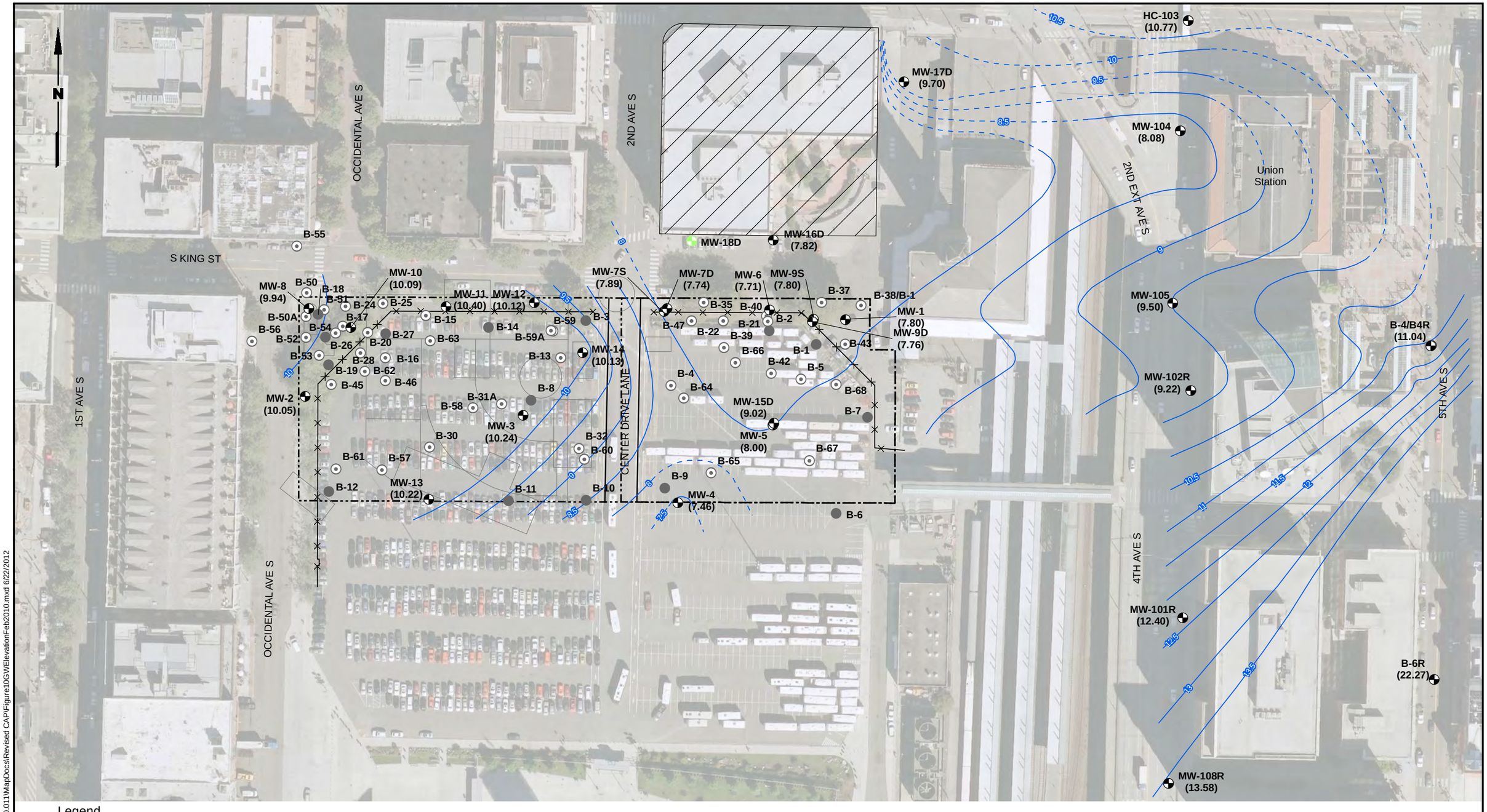
0 110 220

Scale in Feet

Data Source: Triad Boundary Survey, King County

LANDAU ASSOCIATES

North Lot Development Property Seattle, Washington	**Groundwater Elevation Contours for August 25, 2009**	Figure 9



Legend

- MW-4 (7.46) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring and Monitoring Well Location
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 7.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-17D and the Union Station wells to the east.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 110 220
Scale in Feet

Data Source: Triad Boundary Survey, King County

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North Lot Development Property Seattle, Washington	**Groundwater Elevation Contours for February 24, 2010**	Figure 10

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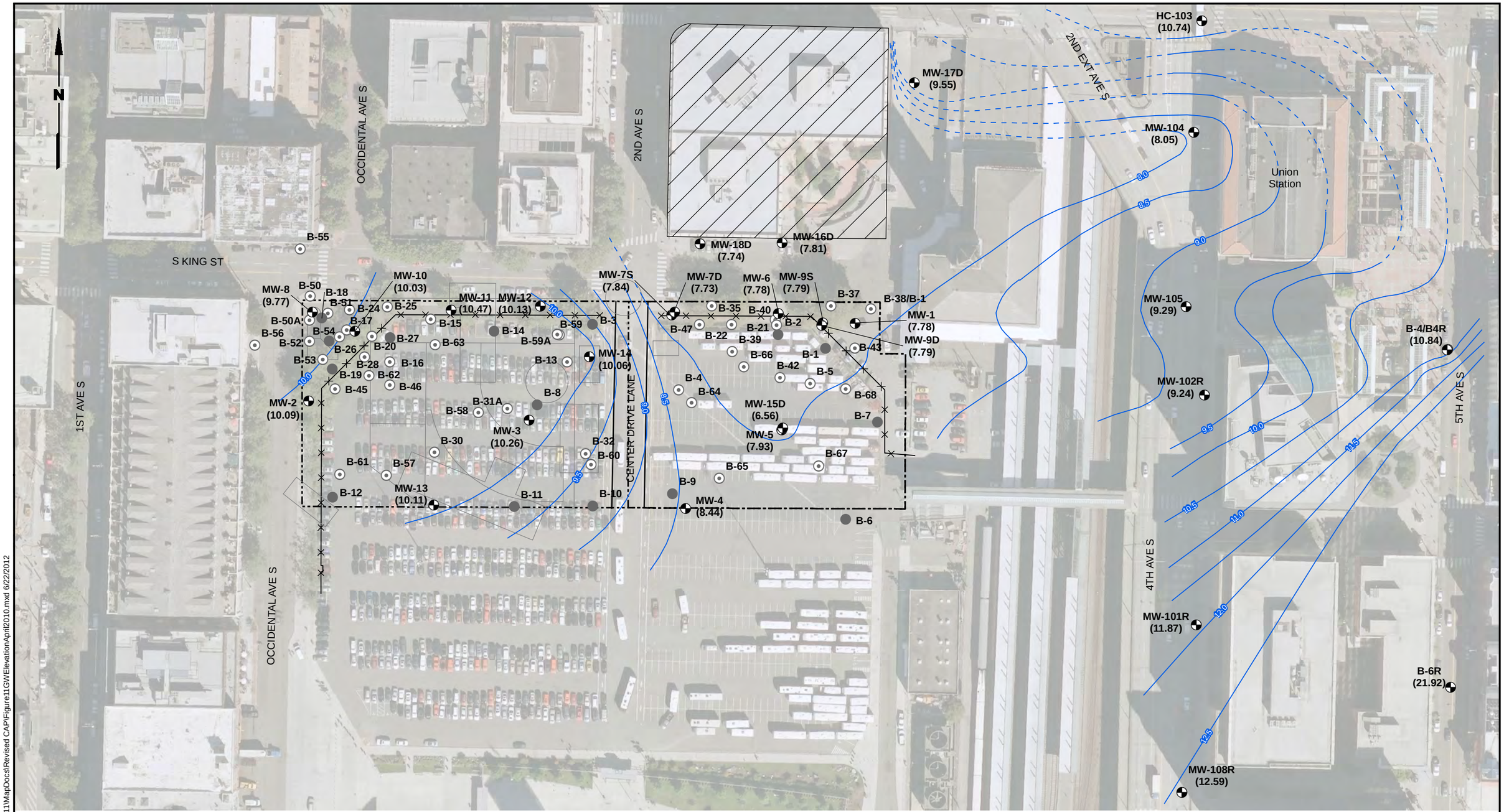

Y:\Projects\1307001\010.011\MapDocs\Revised CAP\Figure11GWElevationApril2010.mxd 6/22/2012

Legend

- MW-4 (7.46) — Direct-Push Soil Boring and Monitoring Well Location with Groundwater Elevation (ft)
- Direct-Push Soil Boring Location
- Direct-Push Soil and Groundwater Sample Location
- Historical Building Outlines
- Fence Line
- Property Boundary
- 8.5 — Groundwater Elevation Contour (ft)
- Area Bounded by Foundation Drain

Notes

1. Includes groundwater elevation data from wells MW-1 through MW-18D and the Union Station wells to the east.
2. Refer to Figure 3 for Historical Property Features Legend.
3. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 110 220

Scale in Feet

Data Source: Triad Boundary Survey, King County

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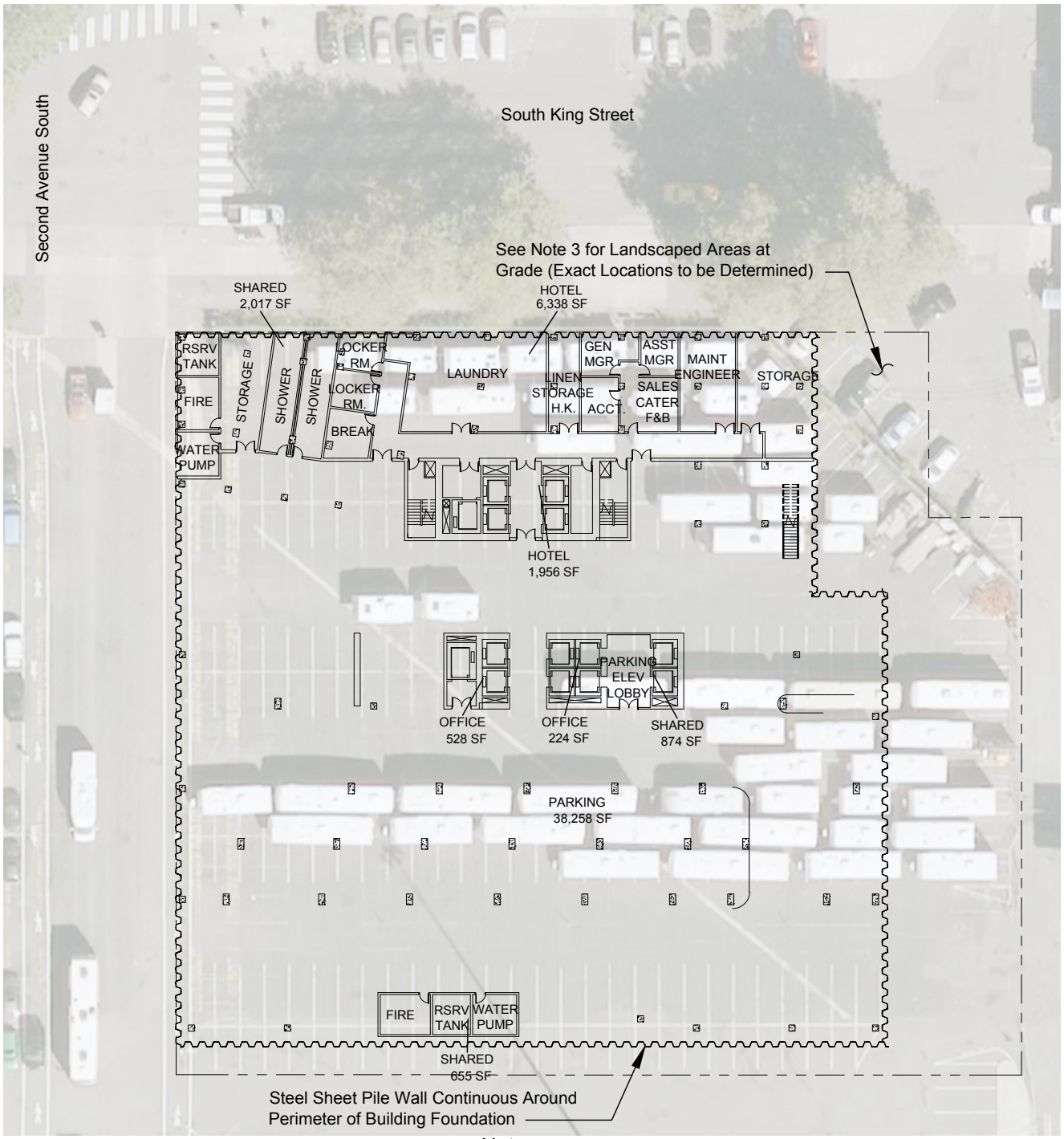
North Lot Development Property
Seattle, Washington

Groundwater Elevation Contours for April 22, 2010

Figure 11



Notes

1. Excavation within building footprint for below-ground parking garage shall be approximately 17.5 ft.
2. Approximately 18 inches of material to be removed across entire site. Cap non-landscaped areas outside of building footprint with concrete.
3. Landscaped areas - excavate to 5 ft BGS and provide membrane. Fill with clean soil.
4. Scope of work is within property line.

0 50 100

Scale in Feet

Base map source: 300 South King Street LP Team (June 5th, 2012)

North Lot | V:\1307\001\010.013\Figure 12.dwg (A) "Figure 12" 9/27/2012

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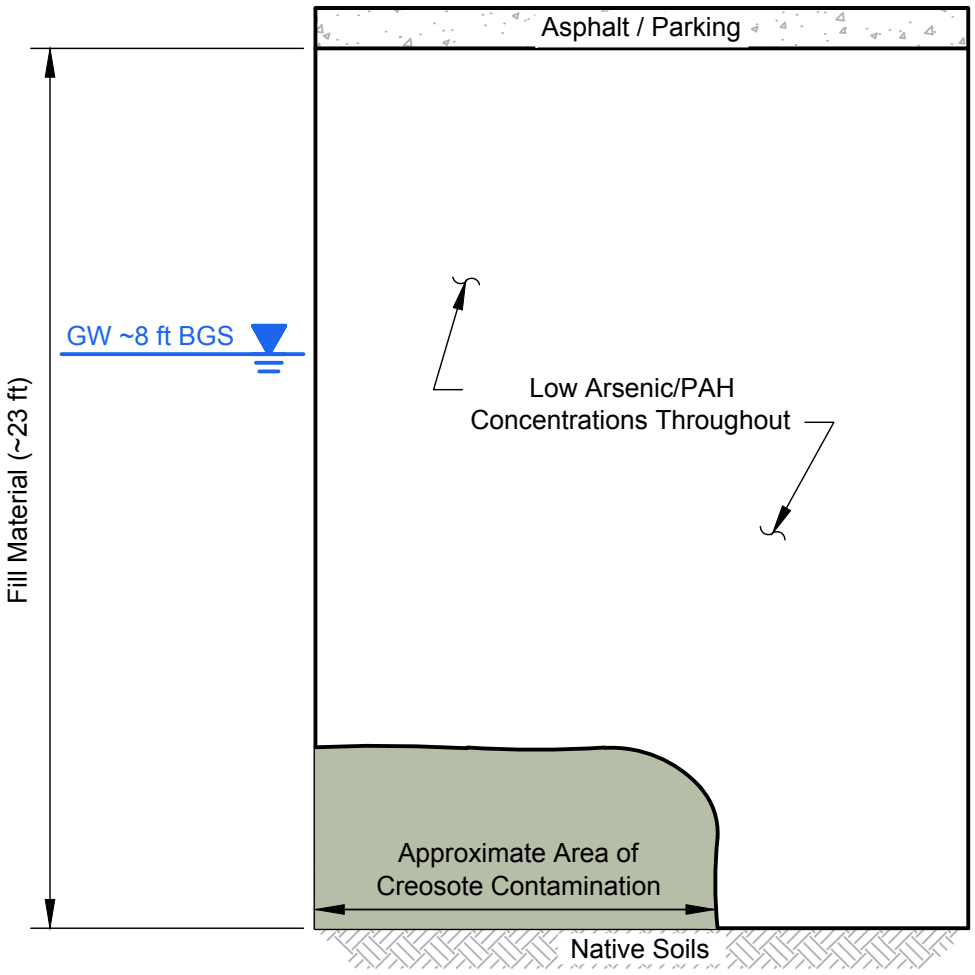
North Lot Development Property Seattle, Washington	**Conceptual East Parcel Plan Development**	Figure 12



North Lot | V:\1307\001\010.013\Figure 13_14.dwg (A) "Figure 13" 9/27/2012

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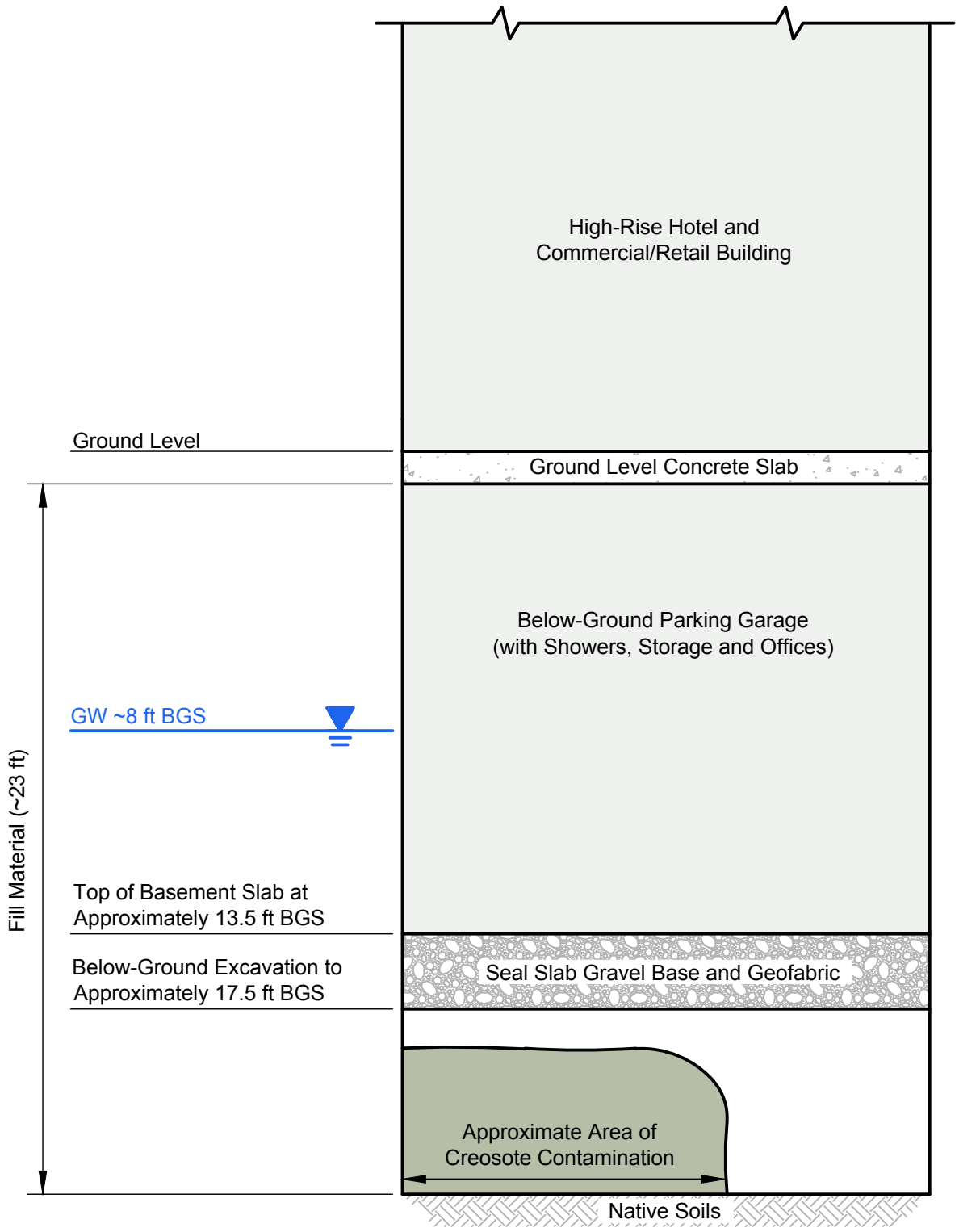
North Lot
Development Property
Seattle, Washington

Conceptual East Parcel Cross Section: Current Property Conditions

Figure
13



Note

1. Seal slab base layer and garage wells will include water and vapor barrier.

North Lot | V:\1307\001\010.013\Figure 13_14.dwg (A) "Figure 14" 9/27/2012

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North Lot
Development Property
Seattle, Washington

**Conceptual East Parcel
Cross Section: Post-Revised
Development Plan**

Figure
14

TABLE 1
SOIL CLEANUP LEVELS FOR DETECTED CONSTITUENTS
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

Analyte	Protection of Groundwater and Marine Surface Water (Fixed Parameter 3-Phase Model) mg/kg	Direct Contact Pathway (Ingestion Only) Method B: Unrestricted Land Use For soil from 0 - 15 ft BGS Standard Formula Values		Preliminary Cleanup Levels (Before adjustment for background) mg/kg	Background Soil Metals Concentrations Puget Sound Region 90th Percentile mg/kg	Preliminary Cleanup Levels (After adjustment for background) mg/kg	Preliminary Cleanup Levels (After adjustment for total site risk) mg/kg	Final Cleanup Levels in Final Units	Units	Range of Laboratory Reporting Limits for Project Samples
		Carcinogen mg/kg	Non-carcinogen mg/kg							
TPH										
Gasoline-Range Petroleum Hydrocarbons	(b) (c)		30 (b,c)	30		30		30	mg/kg	5 mg/kg
Diesel-Range Petroleum Hydrocarbons	(b)		2,000 (b)	2,000		2,000		2,000	mg/kg	5 mg/kg
Motor Oil-Range Petroleum Hydrocarbons	(b)		2,000 (b)	2,000		2,000		2,000	mg/kg	10 mg/kg
TOTAL METALS										
Arsenic	0.034	0.67	24	0.034	7	7		7	mg/kg	5 mg/kg
Chromium	1,000,000		120,000 (d)	120,000	42 (e)	120,000		120,000	mg/kg	0.5 mg/kg
Lead	1,620		250 (b)	250	17	250		250	mg/kg	2 mg/kg
Cadmium	0.69		80	0.69	1	0.69		0.69	mg/kg	0.2 mg/kg
Zinc	100		24,000	100	86	100		100	mg/kg	1 mg/kg
Copper	1.07		3,000	1.07	36	36		36	mg/kg	0.2 mg/kg
Mercury	0.026		24	0.026	0.07	0.07		0.07	mg/kg	0.05 mg/kg
BTEX										
Benzene	0.0045	18.0	320	0.0045		0.0045		25 (h)	µg/kg	12.5 - 25 µg/kg
Toluene	4.60		6,400	4.6		4.6	0.58	580	µg/kg	12.5 - 25 µg/kg
Ethylbenzene	6.10		8,000	6.1		6.1	2.4	2,400	µg/kg	12.5 - 25 µg/kg
Total Xylenes	15.0		16,000	15		15		15,000	µg/kg	12.5 - 50 µg/kg
PAHs										
Naphthalene	4.5		1,600	4.5		4.5		4,500	µg/kg	58 - 64 µg/kg
2-Methylnaphthalene	(a)		320	320		320		320,000	µg/kg	58 - 64 µg/kg
1-Methylnaphthalene	(a)					---		---		58 - 64 µg/kg
Acenaphthylene	(a)					---		---		58 - 64 µg/kg
Acenaphthene	98		4,800	98		98	25	25,000	µg/kg	58 - 64 µg/kg
Fluorene	100		3,200	100		100	79	79,000	µg/kg	58 - 64 µg/kg
Phenanthrene	(a)					---		---	µg/kg	58 - 64 µg/kg
Anthracene	2,300		24,000	2,300		2,300		2,300,000	µg/kg	58 - 64 µg/kg
Fluoranthene	630		3,200	630		630	49	49,000	µg/kg	58 - 64 µg/kg
Pyrene	660		2,400	660		660	140	140,000	µg/kg	58 - 64 µg/kg
Benzo(a)anthracene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg
Chrysene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg

TABLE 1
SOIL CLEANUP LEVELS FOR DETECTED CONSTITUENTS
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

Analyte	Protection of Groundwater and Marine Surface Water (Fixed Parameter 3-Phase Model) mg/kg	Direct Contact Pathway (Ingestion Only) Method B: Unrestricted Land Use For soil from 0 - 15 ft BGS Standard Formula Values Carcinogen mg/kg	Direct Contact Pathway (Ingestion Only) Method B: Unrestricted Land Use For soil from 0 - 15 ft BGS Standard Formula Values Non-carcinogen mg/kg	Preliminary Cleanup Levels (Before adjustment for background) mg/kg	Background Soil Metals Concentrations Puget Sound Region 90th Percentile mg/kg	Preliminary Cleanup Levels (After adjustment for background) mg/kg	Preliminary Cleanup Levels (After adjustment for total site risk) mg/kg	Final Cleanup Levels in Final Units	Units	Range of Laboratory Reporting Limits for Project Samples
Benzo(b)fluoranthene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg
Benzo(k)fluoranthene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg
Benzo(a)pyrene	0.23	0.14		0.14		0.14		140	µg/kg	58 - 64 µg/kg
Indeno(1,2,3-cd)pyrene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg
Dibenz(a,h)anthracene	(f)	(g)		(g)		(g)		(g)	µg/kg	58 - 64 µg/kg
Benzo(g,h,i)perylene	(a)					---		---		58 - 64 µg/kg
Dibenzofuran	(a)		160	160		160		160,000	µg/kg	58 - 64 µg/kg
SVOCs										
Phenol	22		48,000	22		22		22,000	µg/kg	58 - 180 µg/kg
4-Methylphenol	(a)					---		---		58 - 180 µg/kg
Di-n-butylphthalate	57		8000	57		57		57,000	µg/kg	58 - 180 µg/kg
Carbazole	0.32	50		0.32		0.32		320	µg/kg	58 - 180 µg/kg
DIOXINS/FURANS										
2,3,7,8-TCDD	0.00000027	0.000011		0.00000027		0.00000027		0.27	ng/kg	

TABLE 1
SOIL CLEANUP LEVELS FOR DETECTED CONSTITUENTS
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

Notes:

Screening level based on lowest of soil concentrations for protection of groundwater and protection of human direct contact (Method B standard formula values for carcinogens and non-carcinogens).

Cleanup levels are developed for all constituents detected above laboratory reporting limits in soil.
Shading indicates basis for cleanup level.
--- = No screening criteria available.
mg/kg = Milligrams per kilogram.
µg/kg = Micrograms per kilogram.
ng/kg = Nanograms per kilogram.

(a) Values for K_{oc} and Henry's Law Constant are not available; therefore, cleanup levels protective of groundwater can not be calculated using the three-phase partitioning model.
(b) MTCA Method A soil cleanup levels are used for gasoline-range, diesel-range, motor oil-range petroleum hydrocarbons, and lead.
(c) For gasoline-range petroleum hydrocarbons, if benzene is present. If benzene is not present, screening level is 100 mg/kg.
(d) Value is for chromium III. Based on site history, chormium VI is not expected to be present.
(e) Value is for total chromium.
(f) If toxicity equivalency factors (TEFs) are considered, cleanup levels protective of groundwater for other cPAHs are less than the value for benzo(a)pyrene.
(g) Evaluated using toxicity equivalency quotient (TEQ) based on benzo(a)pyrene.
(h) Final Cleanup Level adjusted upward to the Practical Quantitation Limit (PQL), equal to 10 times the Method Detection Limit (MDL).

TABLE 2
REMEDIATION LEVEL FOR BENZENE IN SOIL
BASED ON POTENTIAL FOR VAPOR INTRUSION
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

Analyte	µg/kg
Benzene	780

µg/kg = Micrograms per kilogram.

Remediation level based on evaulation of soil vapor data and application of Ecology's guidance for evaluating soil vapor intrusion (Ecology 2009).

TABLE 3
GROUNDWATER CLEANUP LEVELS FOR DETECTED CONSTITUENTS
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

	Protective of Drinking Water							Protective of Marine Surface Water																
	MCL Treatment Technique			WA State Board of Health MCLs		Standard Formula Values		AWQC for Protection of Aquatic Life (a)		National Toxics Rule (b)			National Recommended Water Quality Criteria (c)			Standard Formula Values		Preliminary Cleanup Levels (Before adjustment for background)	Background Groundwater	Preliminary Cleanup Levels (After adjustment for background)	Preliminary Cleanup Levels (After adjustment for total site risk)	Final Cleanup Levels in Final Units		Range of Laboratory Reporting Limits for Project Samples
										AWQC for Protection of Aquatic Life														
Analyte	MCL µg/L	Action Level µg/L	MCL Goal µg/L	Primary µg/L	Secondary µg/L	Carcinogen µg/L	Non-carcinogen µg/L	Acute µg/L	Chronic µg/L	Acute µg/L	Chronic µg/L	AWQC for Protection of Human Health µg/L	Protection of Aquatic Life - Acute µg/L	Protection of Aquatic Life - Chronic µg/L	Protection of Human Health µg/L	Carcinogen µg/L	Non Carcinogen µg/L							
TPH																								
Gasoline-Range Petroleum Hydrocarbons							800 (d,e)										800 (d,e)			800		0.8	mg/L	0.25 mg/L
Diesel-Range Petroleum Hydrocarbons							500 (d)										500 (d)			500		0.5	mg/L	0.25 mg/L
Oil-Range Petroleum Hydrocarbons							500 (d)										500 (d)			500		0.5	mg/L	0.5 mg/L
BTEX																								
Benzene	5		0	5		0.8	32					71			51	23	2,000	0.8		0.8		0.8	µg/L	1 µg/L
Toluene	1,000		1,000	1,000			640					200,000			15,000		19,000	640		640	80	80	µg/L	1 µg/L
Ethylbenzene	700		700	700			800					29,000			2,100		6,900	700		700	275	275	µg/L	1 µg/L
Total Xylenes	10,000		10,000	10,000			1,600 (f)											1,600 (f)		1,600 (f)		1,600 (f)	µg/L	1 µg/L
PAHs																								
Naphthalene							160										4,900	160		160		160	µg/L	0.10 - 1.4 µg/L
2-Methylnaphthalene							32											32		32		32	µg/L	0.10 - 1.4 µg/L
1-Methylnaphthalene																				---		---		0.10 - 1.4 µg/L
Acenaphthylene																				---		---		0.10 - 1.4 µg/L
Acenaphthene							960								990		640	640		640	250	250	µg/L	0.10 - 1.4 µg/L
Fluorene							640					14,000			5,300		3,500	640		640	500	500	µg/L	0.10 - 1.4 µg/L
Phenanthrene																				---		---		0.10 - 1.4 µg/L
Anthracene							4,800					110,000			40,000		26,000	4,800		4,800		4,800	µg/L	0.10 - 1.4 µg/L
Fluoranthene							640					370			140		90	90		90	50	50	µg/L	0.10 - 1.4 µg/L
Pyrene							480					11,000			4,000		2,600	480		480	100	100	µg/L	0.10 - 1.4 µg/L
Benzo(a)anthracene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Chrysene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Benzo(b)fluoranthene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Benzo(k)fluoranthene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Benzo(a)pyrene	0.2		0	0.2		0.012						0.031			0.018	0.030		0.012 (g)		0.012 (g)		0.012 (g)	µg/L	0.10 - 1.4 µg/L
Indeno(1,2,3-cd)pyrene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Dibenzo(a,h)anthracene						(g)						0.031			0.018	(g)		(g)		(g)		(g)	µg/L	0.10 - 1.4 µg/L
Benzo(g,h,i)perylene																				---		---		0.10 - 1.4 µg/L
Dibenzofuran							32											32		32		32	µg/L	0.10 - 1.4 µg/L
DISSOLVED METALS																								
Arsenic	10			10		0.058	4.8	69	36	69	36	0.14	69	36	0.14	0.10	18	0.058	5/21.3(i)	5/21.3(i)		5/21.3 (j)	µg/L	0.5 - 10 µg/L
Lead		15	0				15	210	8.1	210	8.1		210	8.1				8.1		8.1		8.1	µg/L	1 µg/L
Chromium	100		100	100			24,000 (h)										240,000	100		100		100	µg/L	5 µg/L
Cadmium	5		5	5			8.0	42	9.3	42	9.3		40	8.8			20	5		5		5	µg/L	2 µg/L
Zinc					5,000		4,800	90	81	90	81		90	81	26,000		17,000	81		81		81	µg/L	10 µg/L
Copper		1,300	1,300	1,300			590	4.8	3.1	2.4	2.4		4.8	3.1			2,700	2.4		2.4		2.4	µg/L	2 µg/L
Mercury	2		2	2			4.8	1.8	0.025	2.1	0.025	0.15	1.8	0.94	0.3			0.025		0.025		0.15 (k)	µg/L	0.1 µg/L
VOLATILES																								
Chloromethane						3.4										130		3		3		3	µg/L	0.2 µg/L
Methylene Chloride	5		0	5		5.8	480					1,600			590	960	170,000	5		5	3	3	µg/L	0.5 µg/L
Acetone							800											800		800	35	35	µg/L	3 µg/L
Carbon Disulfide							800											800		800	350	350	µg/L	0.2 µg/L
Chloroform	80			80		7.2	80					470			470	280	6,900	7.2		7.2		7.2	µg/L	0.2 µg/L
2-Butanone							4,800											4,800		4,800	2,400	2,400	µg/L	2.5 - 3.0 µg/L
Styrene	100		100	100		1.5	1,600														1.5			0.2 µg/L

TABLE 3
GROUNDWATER CLEANUP LEVELS FOR DETECTED CONSTITUENTS
NORTH LOT DEVELOPMENT
SEATTLE, WASHINGTON

	Protective of Drinking Water							Protective of Marine Surface Water															
	MCL Treatment Technique			WA State Board of Health MCLs		Standard Formula Values		AWQC for Protection of Aquatic Life (a)		National Toxics Rule (b)			National Recommended Water Quality Criteria (c)			Standard Formula Values		Preliminary Cleanup Levels (Before adjustment for background)	Background Groundwater	Preliminary Cleanup Levels (After adjustment for background)	Preliminary Cleanup Levels (After adjustment for total site risk)	Final Cleanup Levels in Final Units	Units	Range of Laboratory Reporting Limits for Project Samples
										AWQC for Protection of Aquatic Life														
Analyte	MCL µg/L	Action Level µg/L	MCL Goal µg/L	Primary µg/L	Secondary µg/L	Carcinogen µg/L	Non-carcinogen µg/L	Acute µg/L	Chronic µg/L	Acute µg/L	Chronic µg/L	AWQC for Protection of Human Health µg/L	Protection of Aquatic Life - Acute µg/L	Protection of Aquatic Life - Chronic µg/L	Protection of Human Health µg/L	Carcinogen µg/L	Non Carcinogen µg/L							
1,3,5-Trimethylbenzene							400											400		400		400	µg/L	0.2 µg/L
1,2,4-Trimethylbenzene							400											400		400		400	µg/L	0.2 µg/L
Isopropylbenzene																				---		---		0.2 µg/L
n-Propylbenzene																				---		---		0.2 µg/L
tert-Butylbenzene																				---		---		0.2 µg/L
sec-Butylbenzene																				---		---		0.2 µg/L
4-Isopropyltoluene																				---		---		0.2 µg/L
n-Butylbenzene																				---		---		0.2 µg/L
SEMIVOLATILES																								
Phenol							4,800					4,600,000			1,700,000		1,100,000	4,800		4,800		4,800	µg/L	
4-Methylphenol																				---		---		
Di-n-butylphthalate							1,600					12,000			4,500		2,900	1,600		1,600		1,600	µg/L	
Carbazole						4.4												4.4		4.4		4.4	µg/L	
DIOXINS AND FURANS																				---		---		
2,3,7,8-TCDD	3.0E-05			3.0E-05								1.4E-08			5.1E-09			5.1E-09		5.1E-09		5.1E-03	pg/L	

Notes:

Preliminary cleanup level is based on lowest of federal or state MCL, state secondary MCL, and Method B standard formula values, for carcinogens without federal or state MCLs on the Method B standard formula value, and for carcinogens with federal or state MCLs.

Preliminary cleanup levels are developed for all constituents detected in groundwater or soil.

Shading indicates basis for preliminary cleanup level.

--- = No cleanup level available.

mg/L = Milligrams per liter.

µg/L = Micrograms per liter.

pg/L = Picograms per liter.

(a) Ambient water quality criteria for protection of aquatic life from WAC 173-201A-240.

(b) Ambient water quality criteria for protection of human health from 40 CFR Part 131d (National Toxics Rule).

(c) National Recommended Water Quality Criteria (EPA website 2011).

(d) MTCA Method A groundwater cleanup levels are used for gasoline-range, diesel-range, oil-range petroleum hydrocarbons.

(e) For gasoline-range petroleum hydrocarbons, if benzene is present. If benzene is not present, screening level is 1,000 µg/L (1.0 mg/L).

(f) Screening level is for total xylenes.

(g) Evaluated using toxicity equivalency quotient (TEQ) based on benzo(a)pyrene.

(h) Value is for chromium III. Based on site history, chromium VI is not expected to be present.

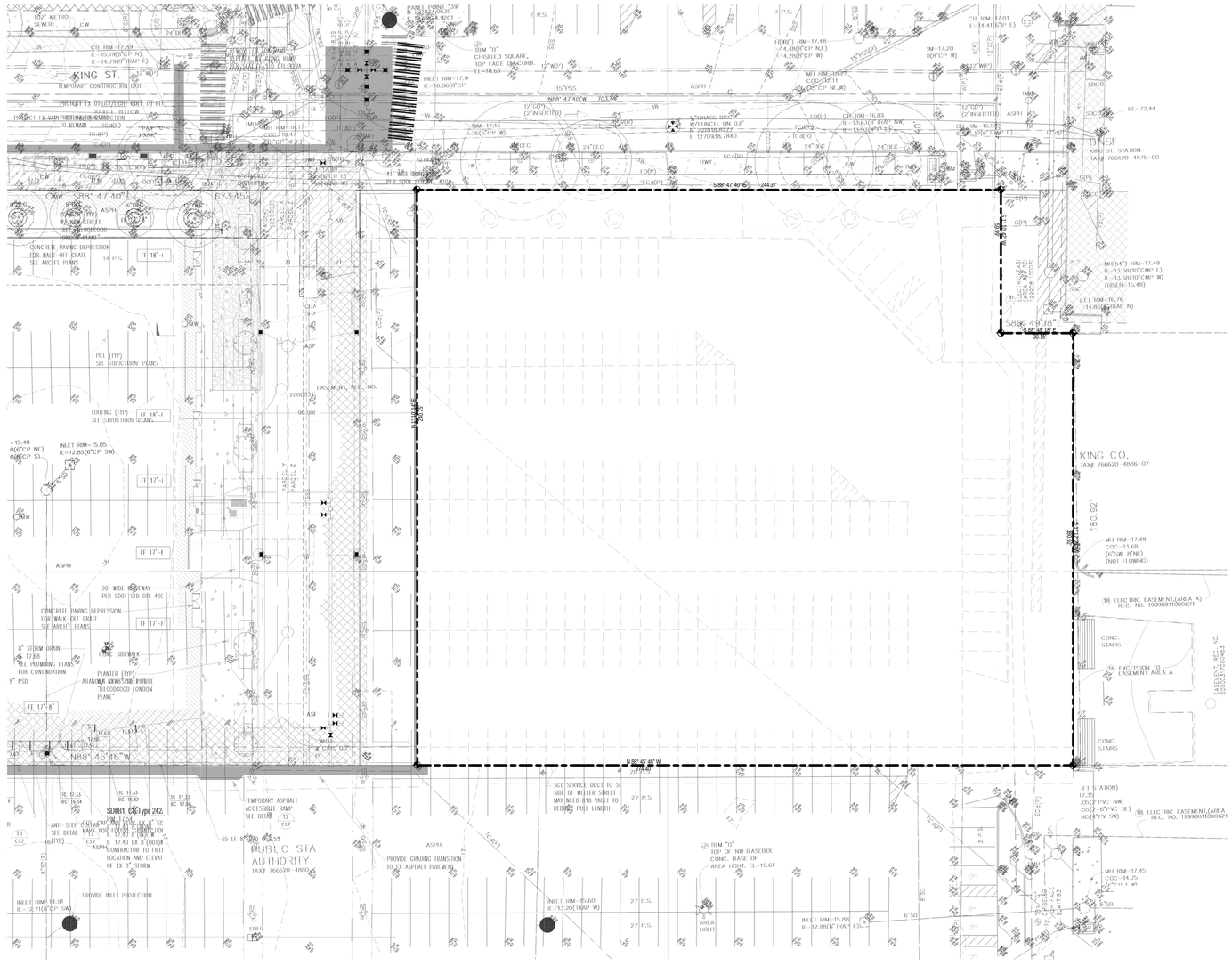
(i) Calculated background concentration will be used as the preliminary cleanup level at MW-5 and MW-15D.

(j) A cleanup level of 5 ug/L was agreed upon by Ecology for the western portion of the Property. A background concentration of 21.3 will be used as the cleanup level for the eastern portion of the Property.

(k) The cleanup level for mercury in groundwater was adjusted upward to the practical quantitation limit (PQL). The PQL is equal to 10 times the method detection limit (MDL).

APPENDIX A

North Lot Schematic Design



1 A2.00 SITE DEMOLITION PLAN

Scale: 1" = 20'-0"

DEMOLITION KEYNOTES

DP 00

DEMOLITION GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED TO IMPLEMENT NEW WORK, AS SHOWN IN THE DRAWINGS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF HIS WORK WITH THE WORK SHOWN ON THESE DOCUMENTS.
3. THE CONTRACTOR IS RESPONSIBLE TO PERFORM A COMPLETE SITE SURVEY AND ANALYSIS PRIOR TO COMMENCEMENT OF WORK. REPORT ALL DISCREPANCIES TO THE ARCHITECT IMMEDIATELY. FAILURE OF THE CONTRACTOR TO PERFORM SURVEY, FIELD VERIFIES CONDITIONS, COORDINATE WORK DOES NOT RELIEVE CONTRACTOR OF RESPONSIBILITY OF WORK.
4. THIS PLAN SHOWS GENERAL DEMOLITION WORK TO BE PERFORMED AND DOES NOT RELIEVE THE CONTRACTOR FROM OTHER DEMOLITION WORK REQUIRED TO PRODUCE THE BUILDING MODIFICATIONS SHOWN ON THE REMAINING CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL ENSURE THAT THIS PROJECT AND ALL CONSTRUCTION ACTIVITIES RELATED THERE TO CONFORM WITH ALL LOCAL, REGIONAL, STATE, AND/OR FEDERAL REGULATIONS PERTAINING TO DISTURBING, DISPLACING, AND/OR REMOVAL OF ASBESTOS OR ASBESTOS CONTAINING MATERIALS.
6. UNDER NO CIRCUMSTANCES IS THE CONTRACTOR TO DISRUPT, IMPEDE, IMPACT OR DAMAGE OTHER WORK OR CONSTRUCTION OCCUPYING THE SITE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES, DIRECT AND INDIRECT, RESULTING FROM SUCH OCCURRENCES.
7. PROTECT EXISTING BUILDINGS AND FENCE TO REMAIN AGAINST DAMAGE DURING DEMOLITION AND CONSTRUCTION.
8. REPETITIVE ITEMS NOT NOTED ON DEMOLITION PLAN SHALL BE REMOVED AS IF NOTED.
9. ALL ENGINEERING WHICH IS SUPPLEMENTARY, OR IN ADDITION TO, THAT WHICH IS CONTAINED HEREIN IS TO BE PERFORMED BY AN ENGINEER LICENSED IN THE SPECIFIC AREA OF EXPERTISE BEING CONSIDERED AND LICENSED IN THE PROJECT STATE.
10. THE CONTRACTOR SHALL PATCH AND REPAIR ALL AREAS THAT ARE AFFECTED BY WORK
11. THE CONTRACTOR SHALL COORDINATE LOCATION OF STORAGE WITH OWNER PRIOR TO START OF WORK.
12. THE CONTRACTOR SHALL VERIFY THAT THE EXISTING UTILITIES CAN CARRY THE POWER AND NEEDS FOR TOOLS, PEOPLE AND WORKING AREA, AND BE SURE NOT TO OVERLOAD FACILITIES.
13. MINIMUM 50% CONSTRUCTION WASTES TO BE RECYCLED PER LEED SECTION MR2.1, MR2.2.
15. SEE SDOT STREET IMPROVEMENT PLANS (PROJECT NO. XXXXX) FOR WORK IN PUBLIC RIGHT-OF-WAY.

DEMOLITION PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN.

EXISTING CONSTRUCTION TO BE REMOVED.

DESIGN DEVELOPMENT

255 SOUTH KING STREET

255 S. KING STREET | SEATTLE, WASHINGTON

Freiheit & Ho architects
5209 Lake Washington Blvd NE | Ste 200 | Kirkland | WA | 98033 www.FHOARCH.COM TEL 425 827 2100

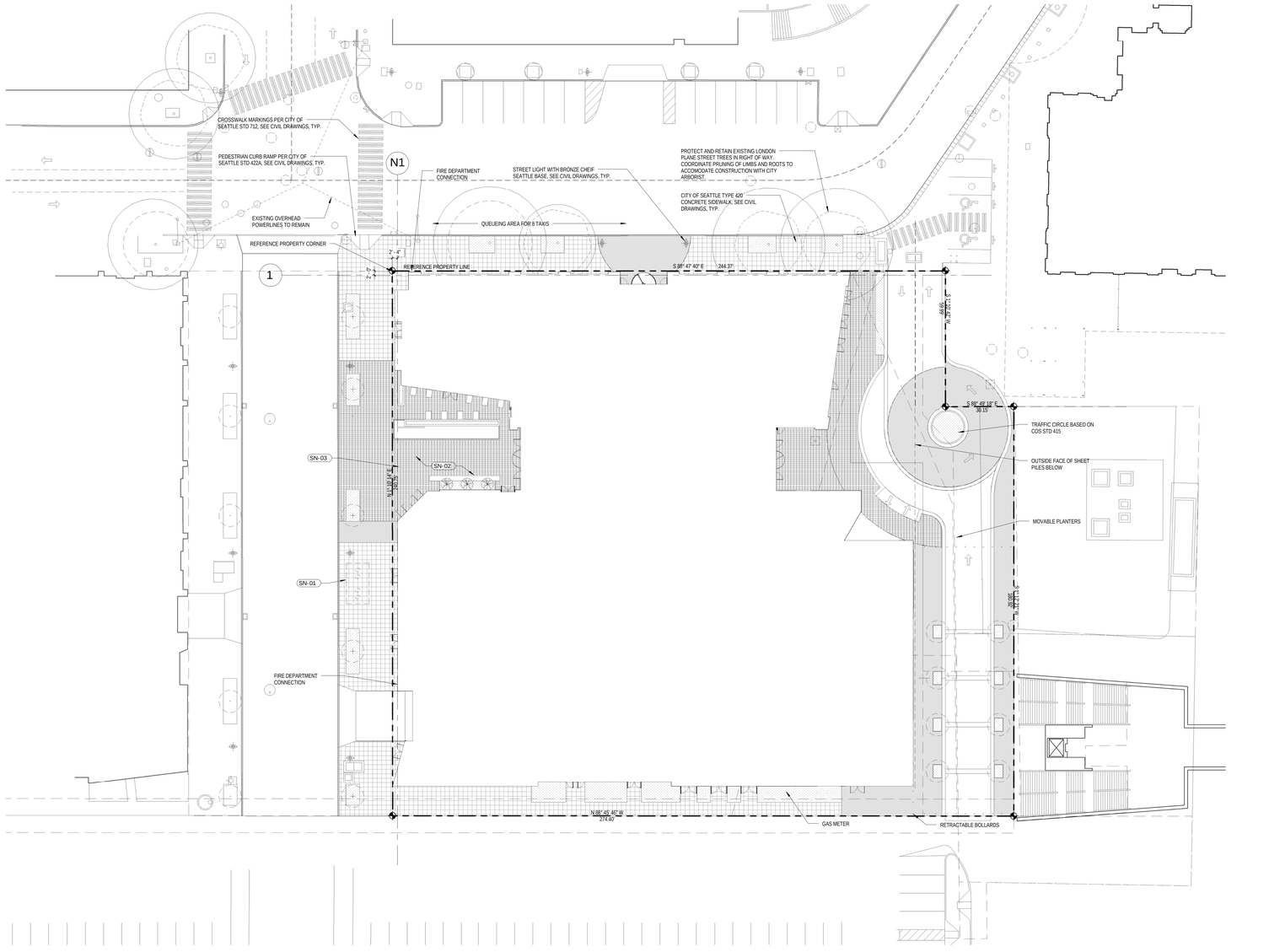
REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

SITE DEMOLITION PLAN

A2.00

PROJECT NUMBER A11-354

1/4/2013 10:15:04 AM C:\Revit Projects\A11-354 - Central - R2013 - 20121112_JCaudle.rvt



1 / A2.01 OVERALL SITE PLAN

Scale: 1" = 20'-0"

SITE PLAN KEYNOTES

SN 01 CONCRETE VAULT FOR GREASE INTERCEPTORS LOCATED BELOW CONCRETE SIDEWALK. SIZE TBD. SEE PLUMBING DRAWINGS FOR CONTAINED EQUIPMENT AND CONNECTIONS.

SN 02 SAND-SET PAVERS.

SN 03 TRENCH DRAIN PER PLUMBING.

SITE PLAN GENERAL NOTES

1. SEE SDOT STREET IMPROVEMENT PLANS (PROJECT NO. XXXXX) FOR WORK IN PUBLIC RIGHT-OF-WAY.

SITE PLAN LEGEND

X' - X" ELEVATION MARK (ABSOLUTE ELEVATION MARK)

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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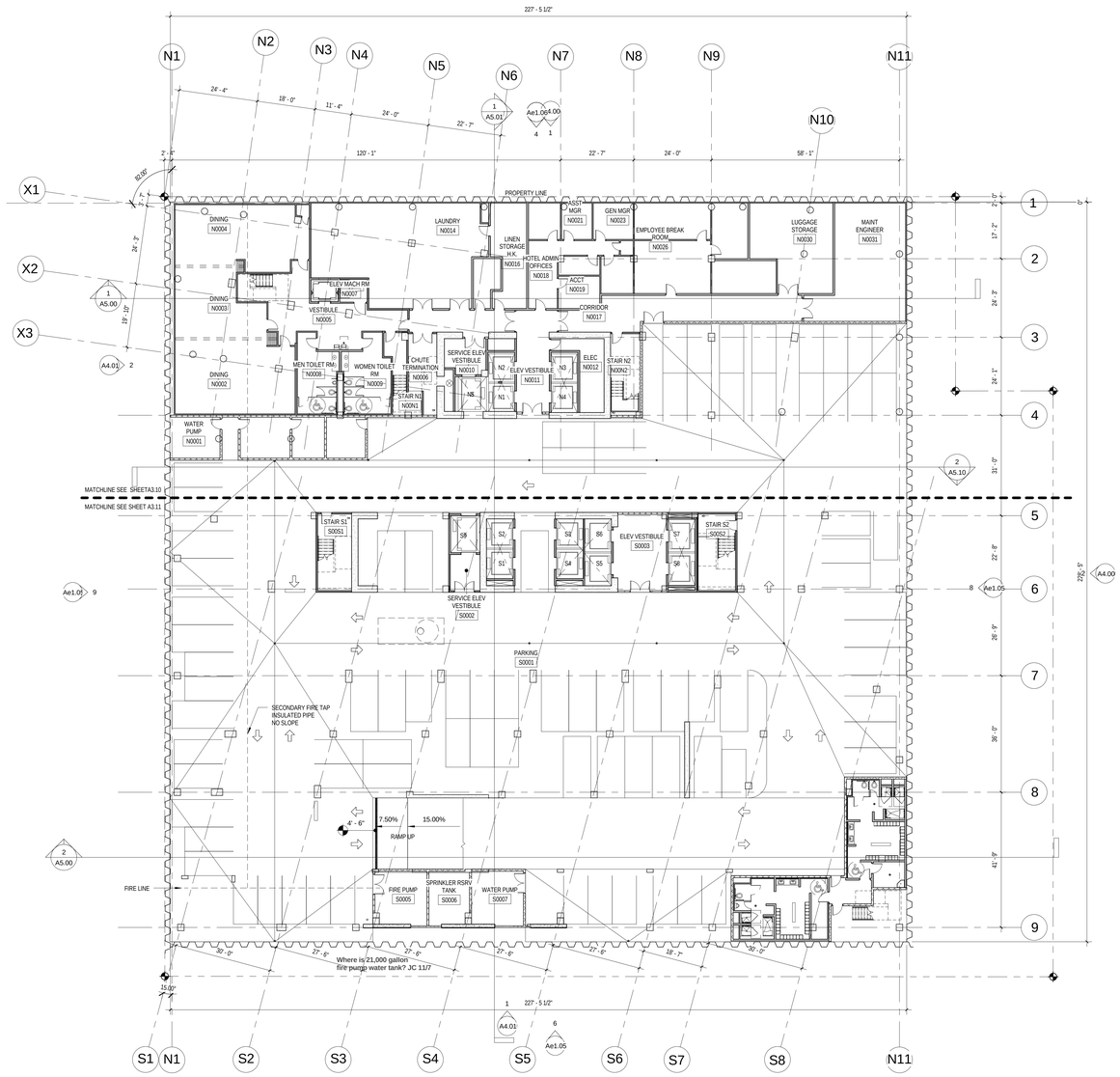
REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

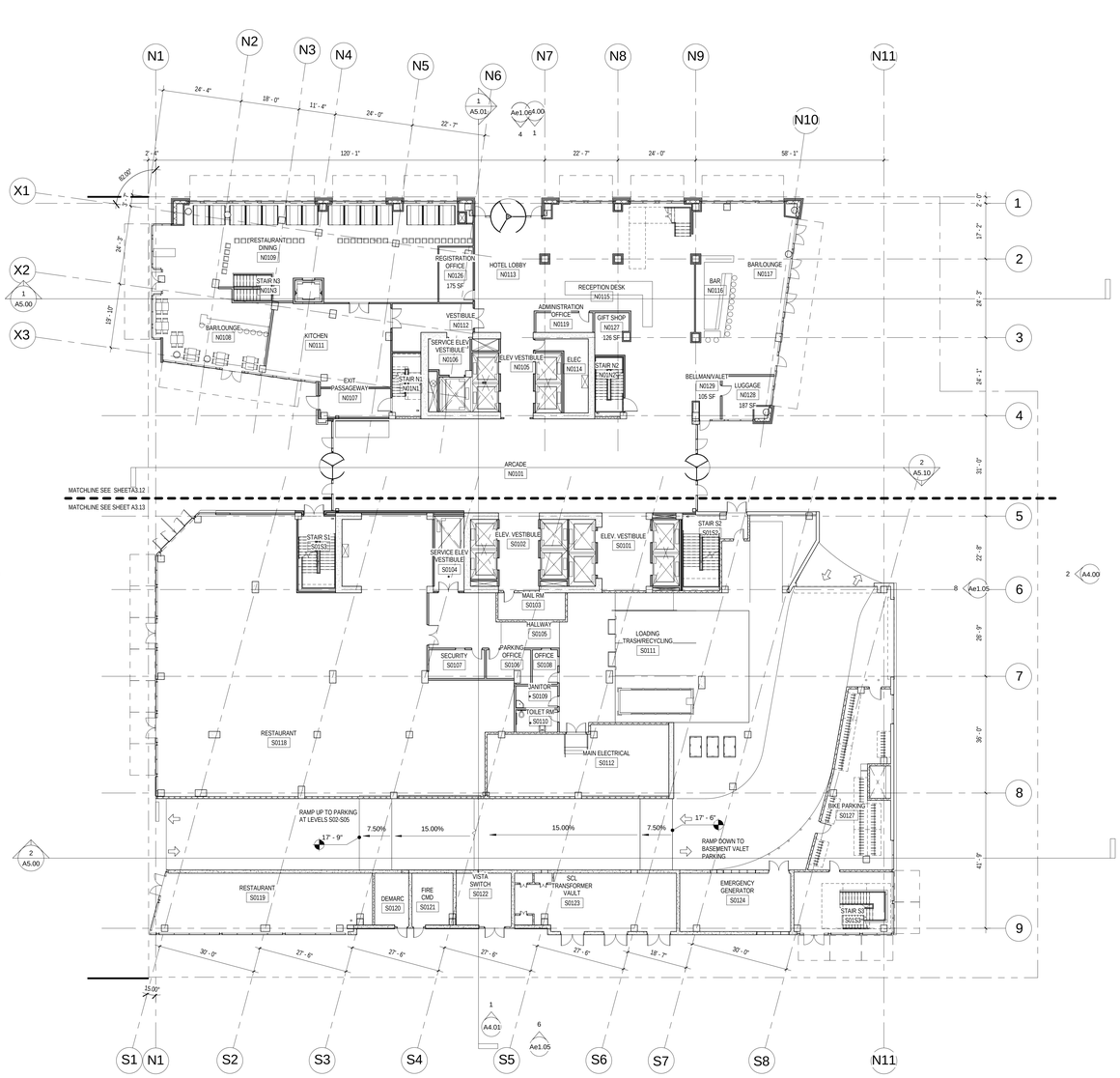
SITE PLAN

A2.01



1 A3.00 OVERALL BASEMENT PLAN

Scale: 1/16" = 1'-0"



2 A3.00 OVERALL LEVEL 01 PLAN

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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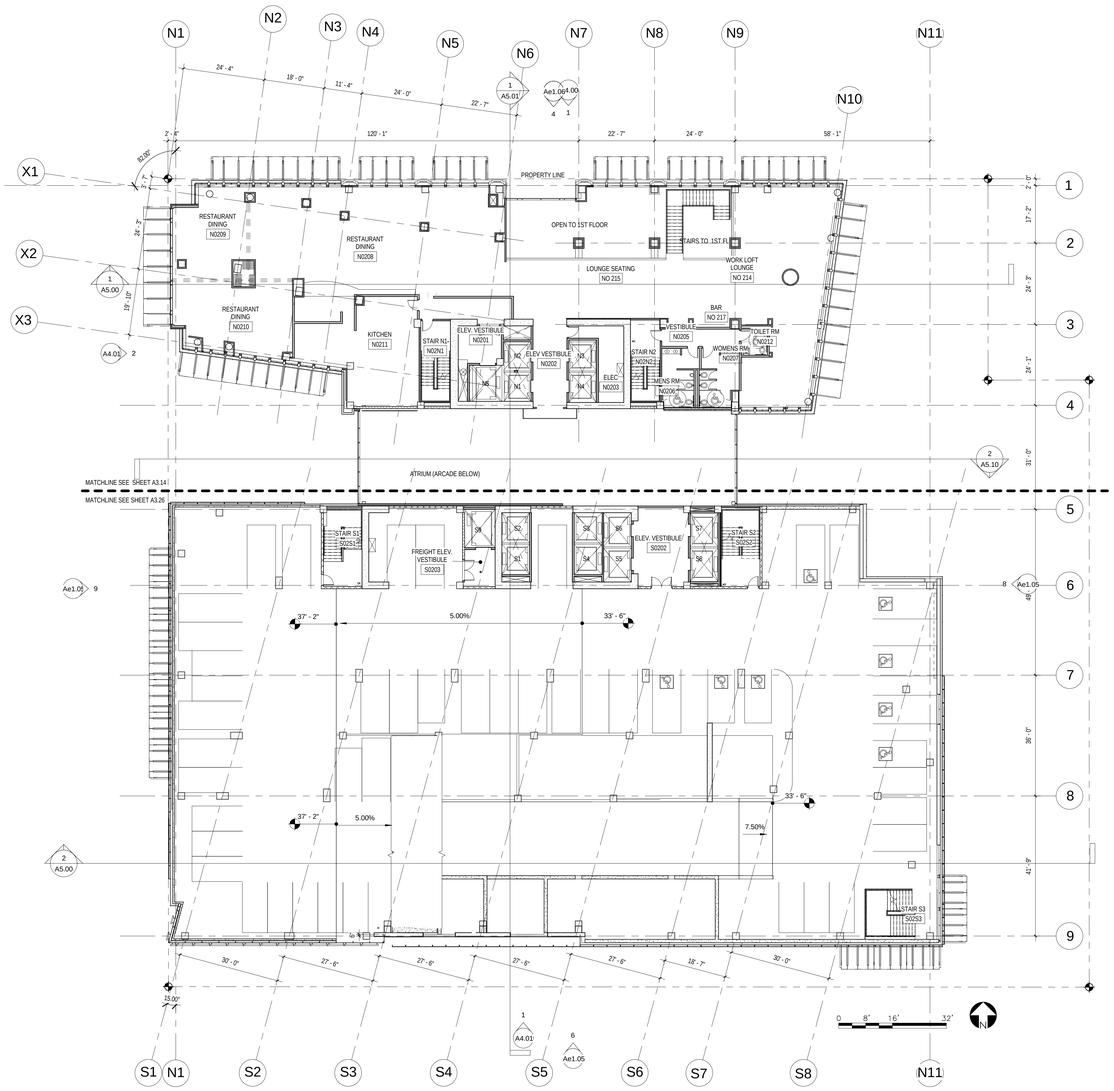
REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL BASEMENT/ LEVEL 01 PLANS

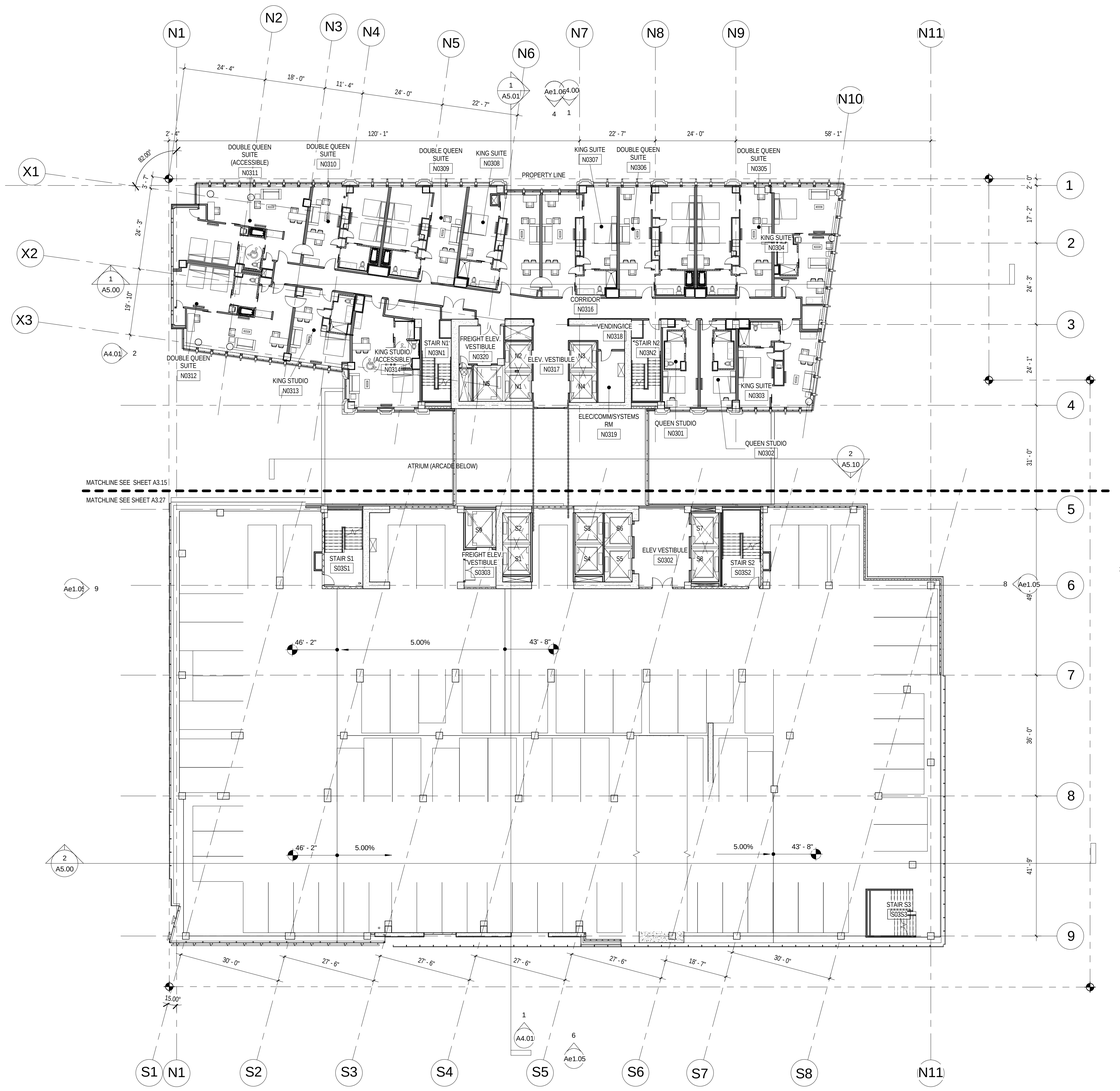
A3.00

PROJECT NUMBER A11-354



1 A3.01 OVERALL LEVEL N02/S02 PLAN

Scale: 1/16" = 1'-0"



2 A3.01 OVERALL LEVEL N03/S03 PLAN

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

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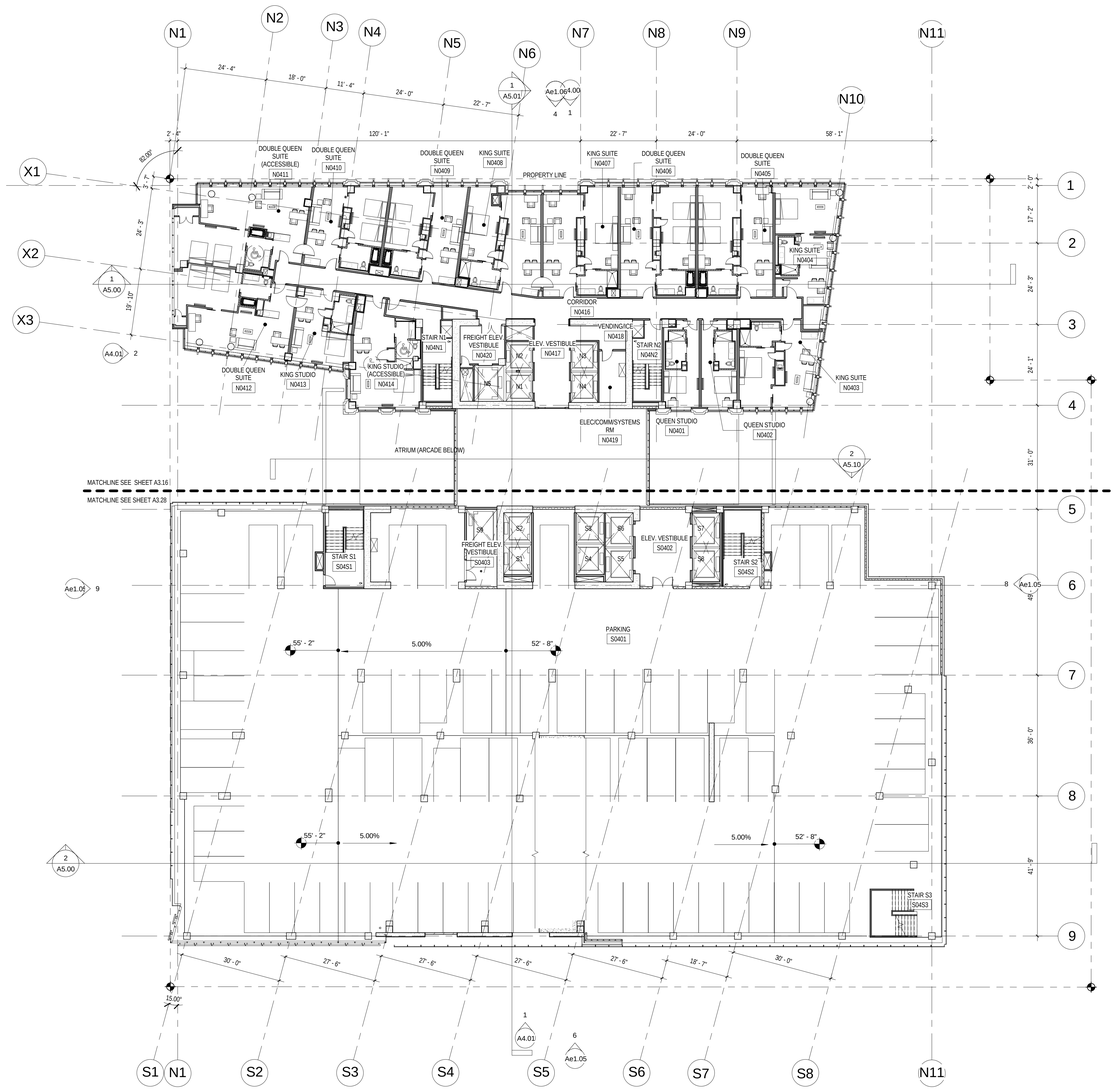
REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL LEVEL N02/S02/ LEVEL N03/S03 PLANS

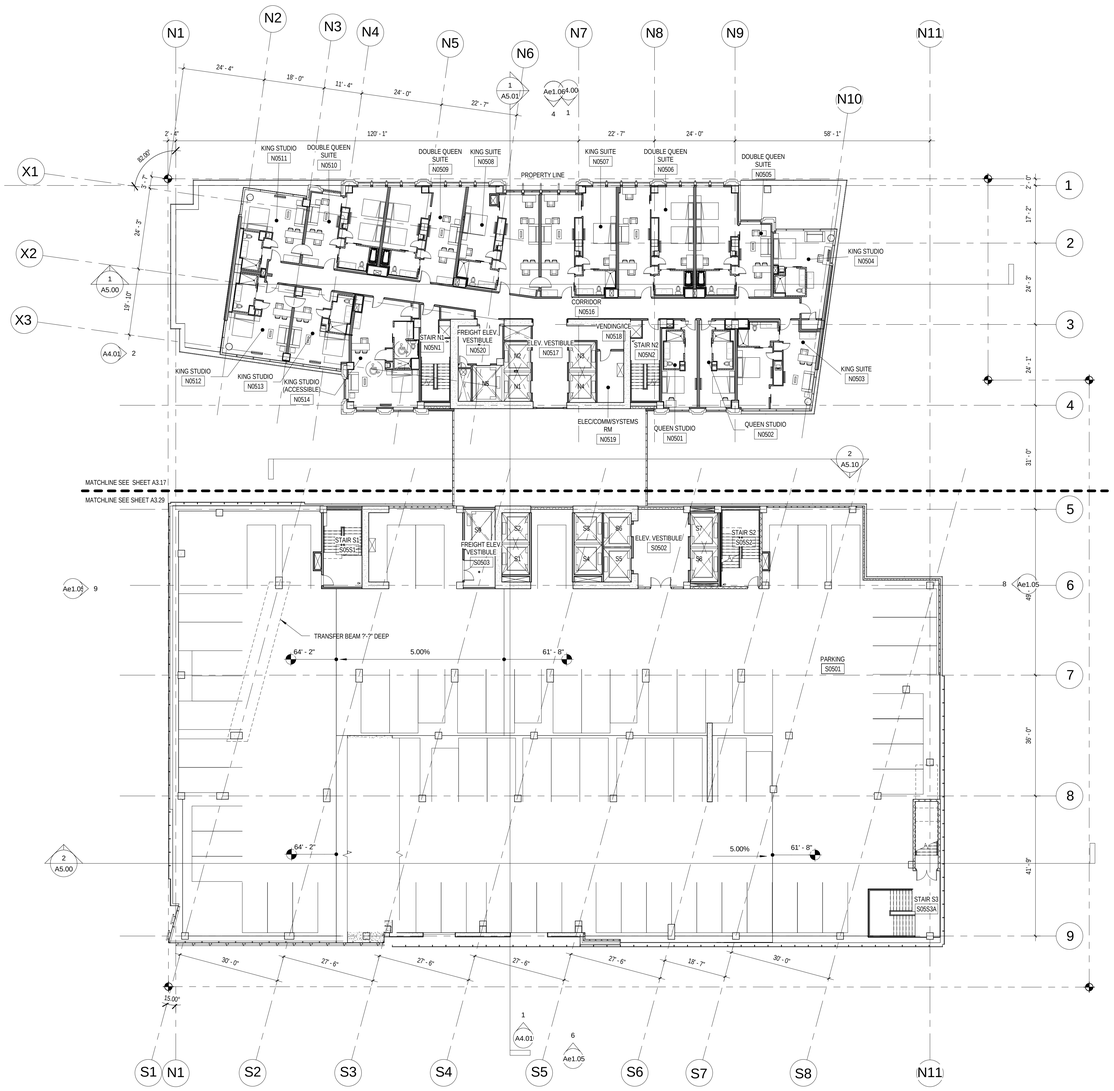
A3.01

PROJECT NUMBER A11-354



1 A3.02 OVERALL LEVEL N04/S04 PLAN

Scale: 1/16" = 1'-0"



2 A3.02 OVERALL LEVEL N05/S05 PLAN

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

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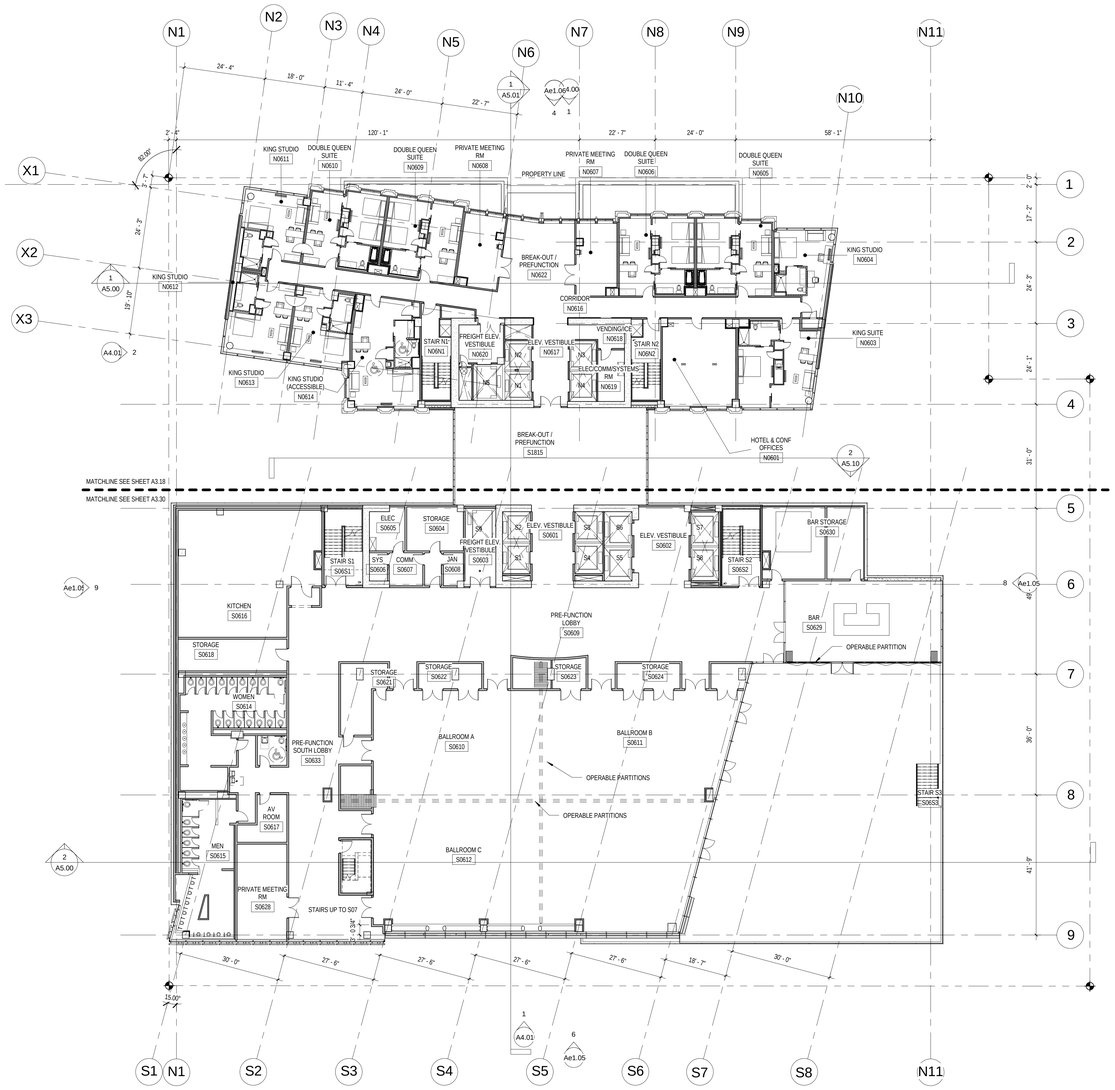
REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL LEVEL N04/S04/ LEVEL N05/S05 PLANS

A3.02

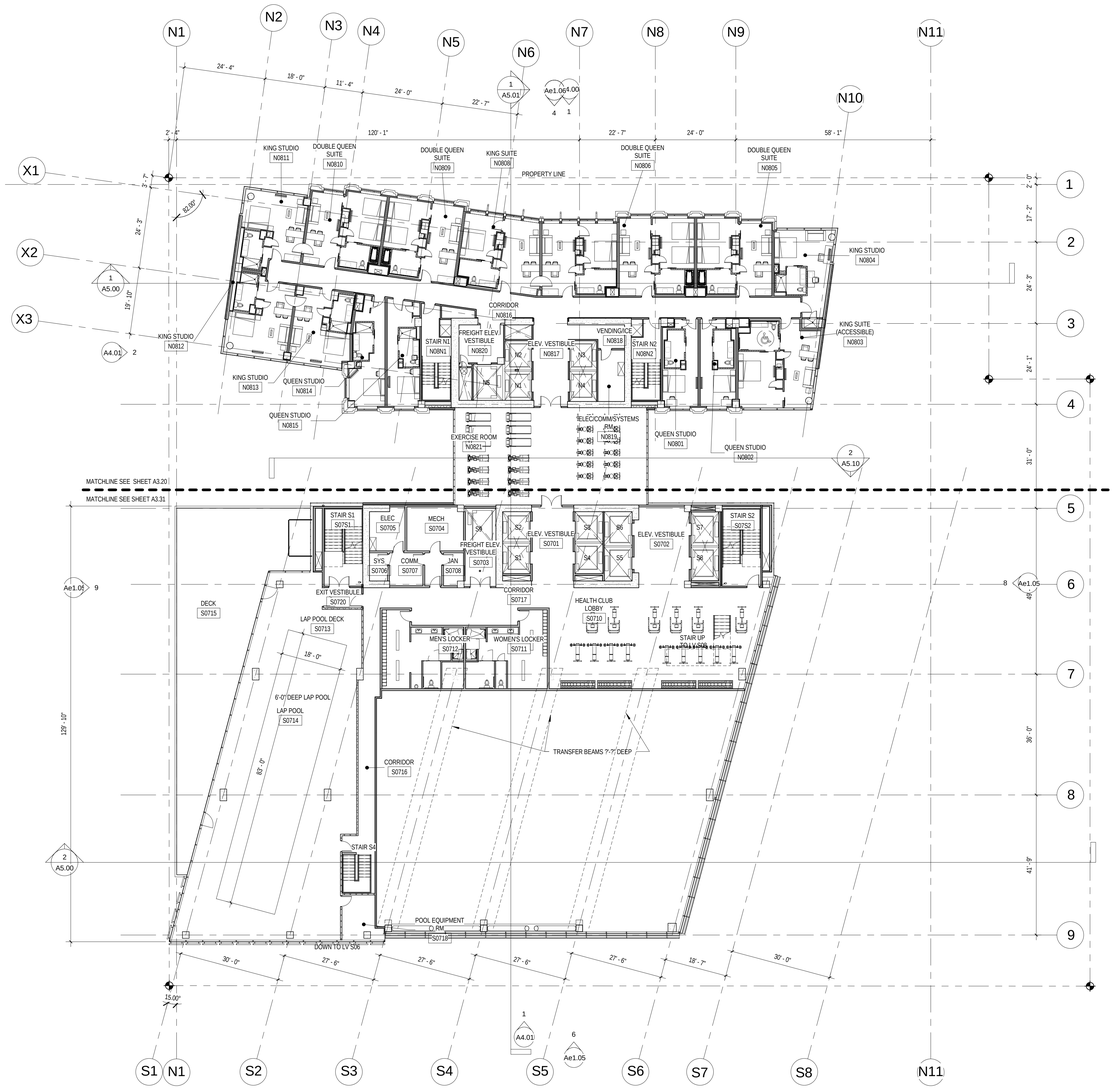
PROJECT NUMBER A11-354



1 A3.03 OVERALL LEVEL N06 THRU N07/S06 PLAN

Scale: 1/16" = 1'-0"

0 8' 16' 32'



2 A3.03 OVERALL LEVEL N08/S07 PLAN

Scale: 1/16" = 1'-0"

0 8' 16' 32'

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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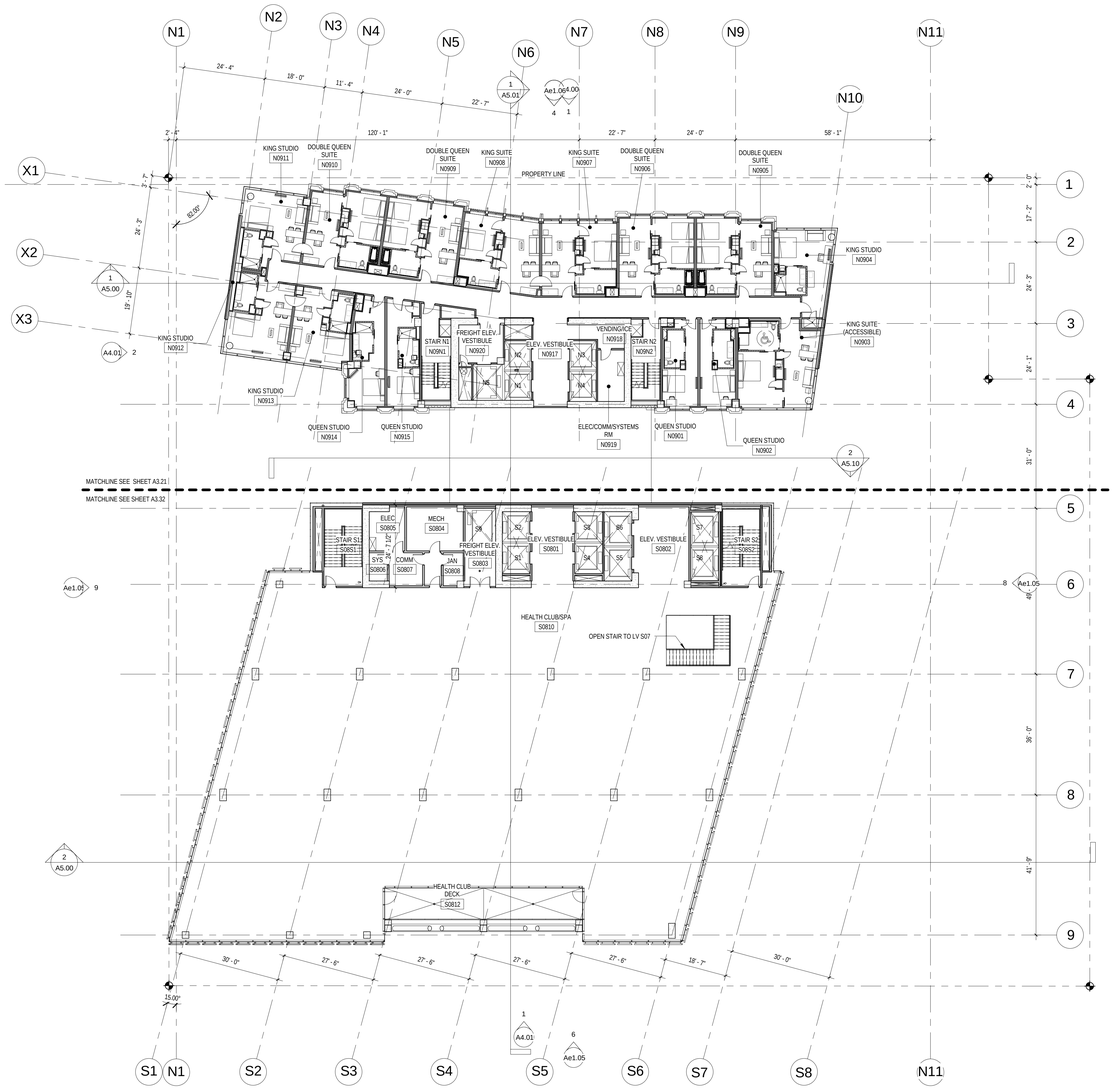
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL LEVEL N06/S06/ LEVEL N08/S07 PLANS

A3.03

PROJECT NUMBER A11-354



1 A3.04 OVERALL LEVEL N09 THRU N10/S08 PLAN

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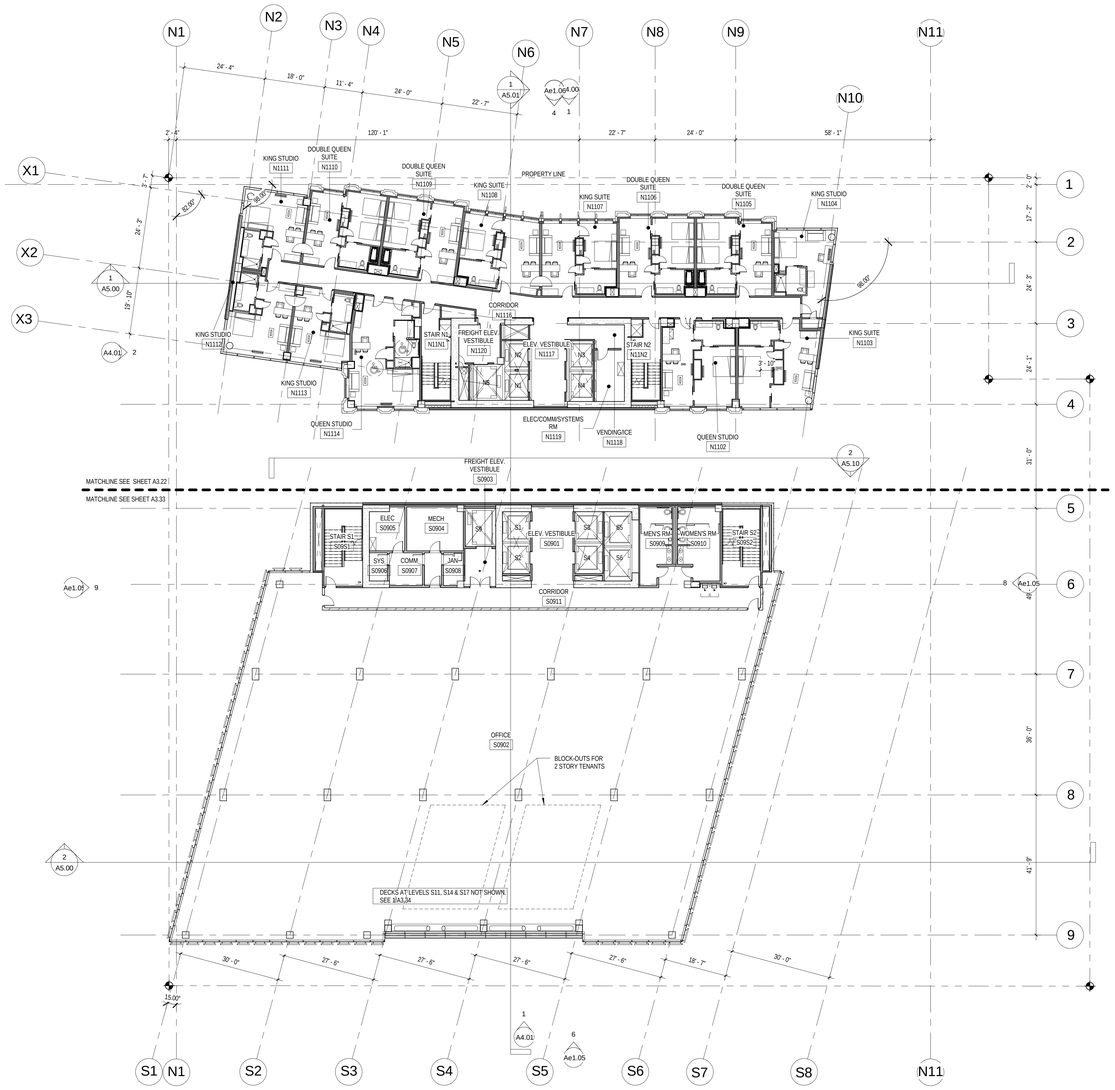

2 A3.04 OVERALL LEVEL N11 THRU N22/ LEVEL S09 THRU S17 PLANS

Scale: 1/16" = 1'-0"

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REV	DESCRIPTION	DATE
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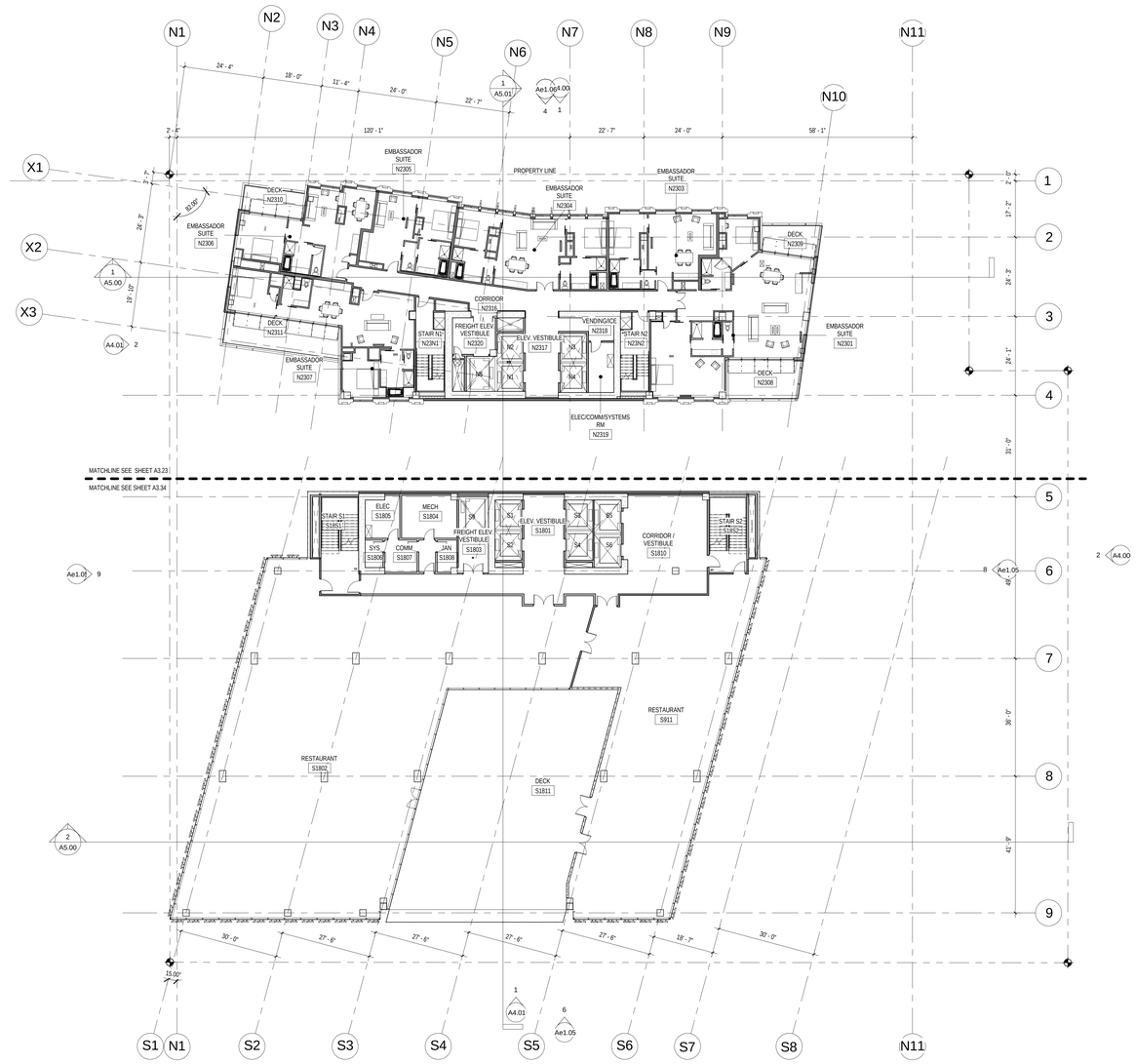
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL LEVEL N09/S08/ LEVEL N11 THRU N22/S09 THRU S17 PLANS

A3.04

PROJECT NUMBER A11-354



DESIGN DEVELOPMENT

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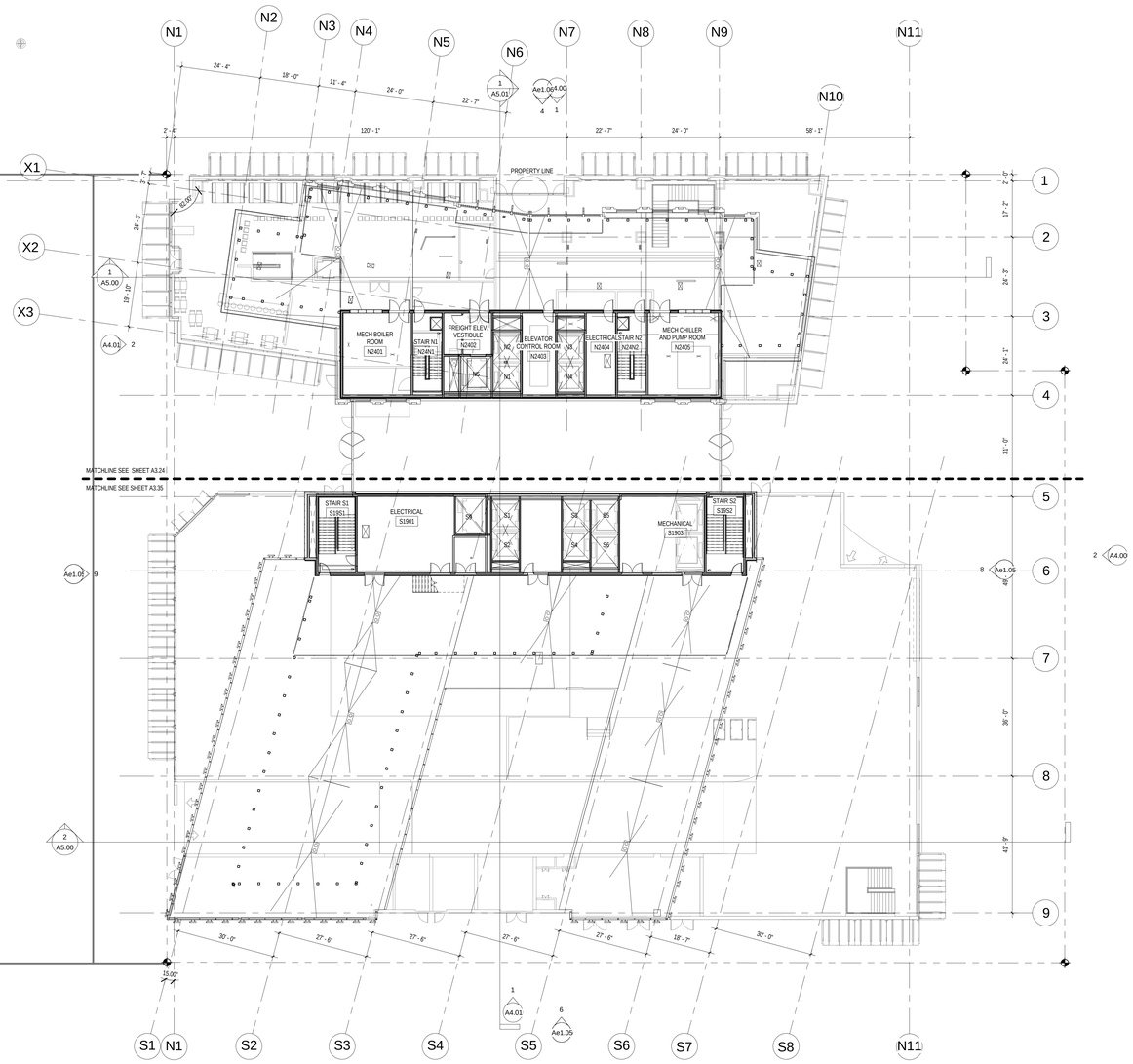
REV	DESCRIPTION	DATE
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

OVERALL LEVEL N23/S18 PLANS

A3.05

PROJECT NUMBER A11-354



1 A3.06 OVERALL ROOF PLAN

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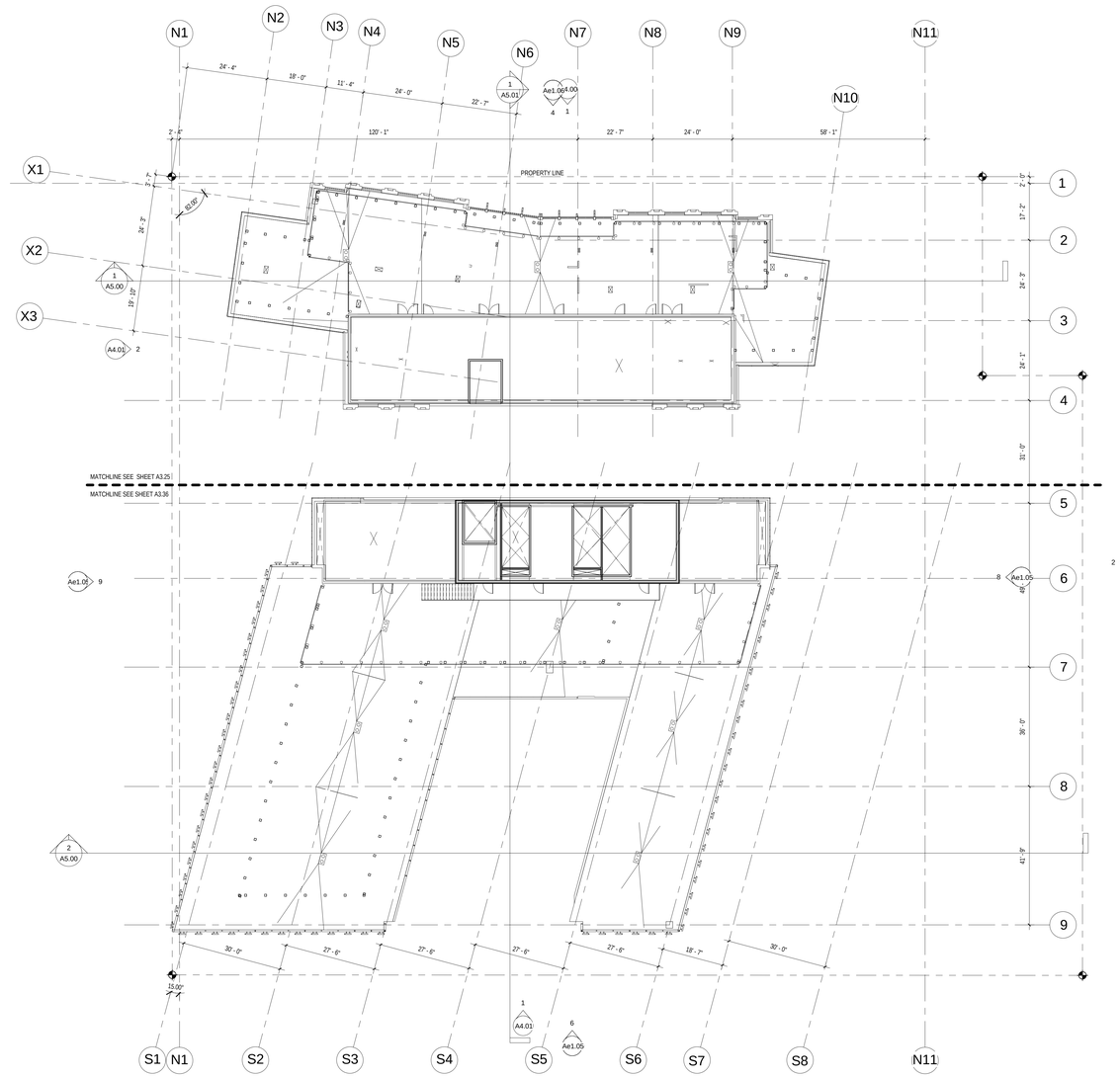

2 A3.06 OVERALL PENTHOUSE PLAN

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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REV	DESCRIPTION	DATE
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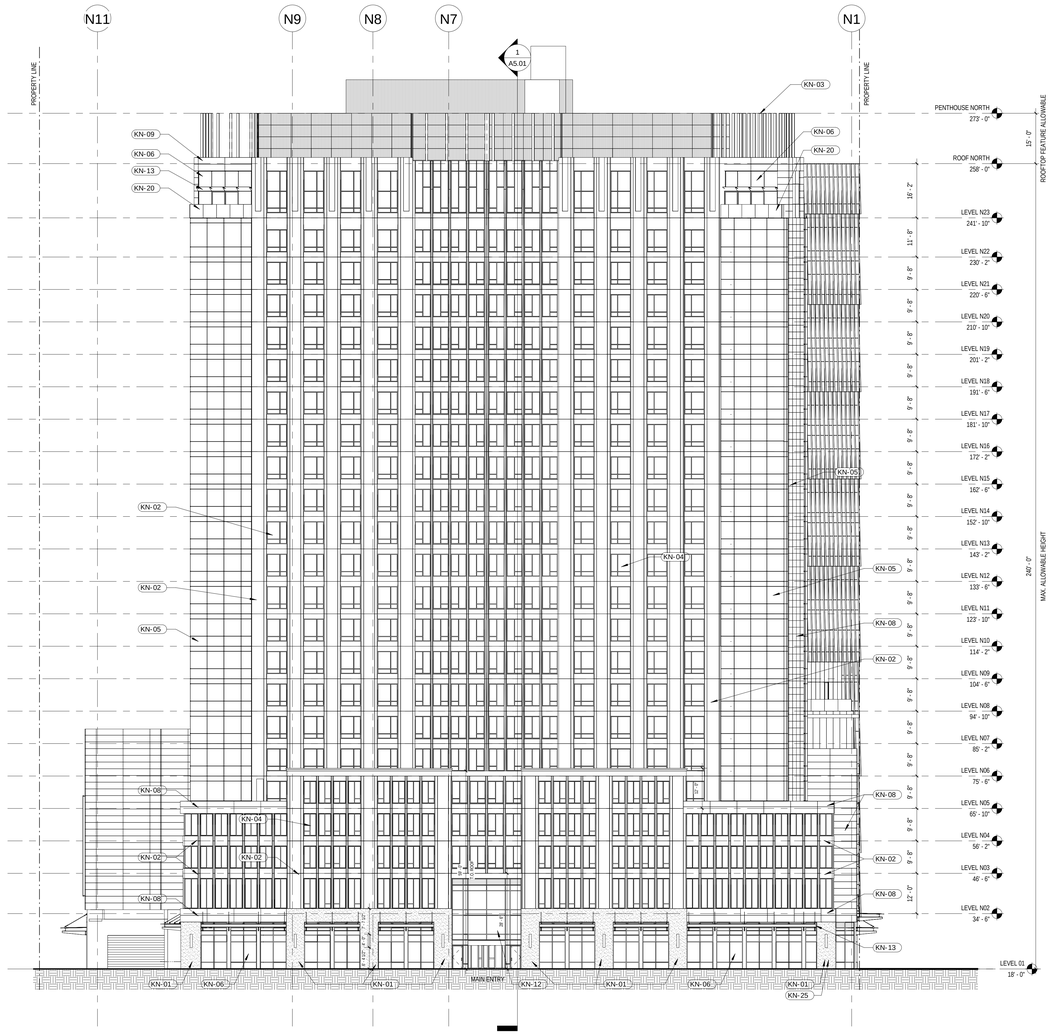
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

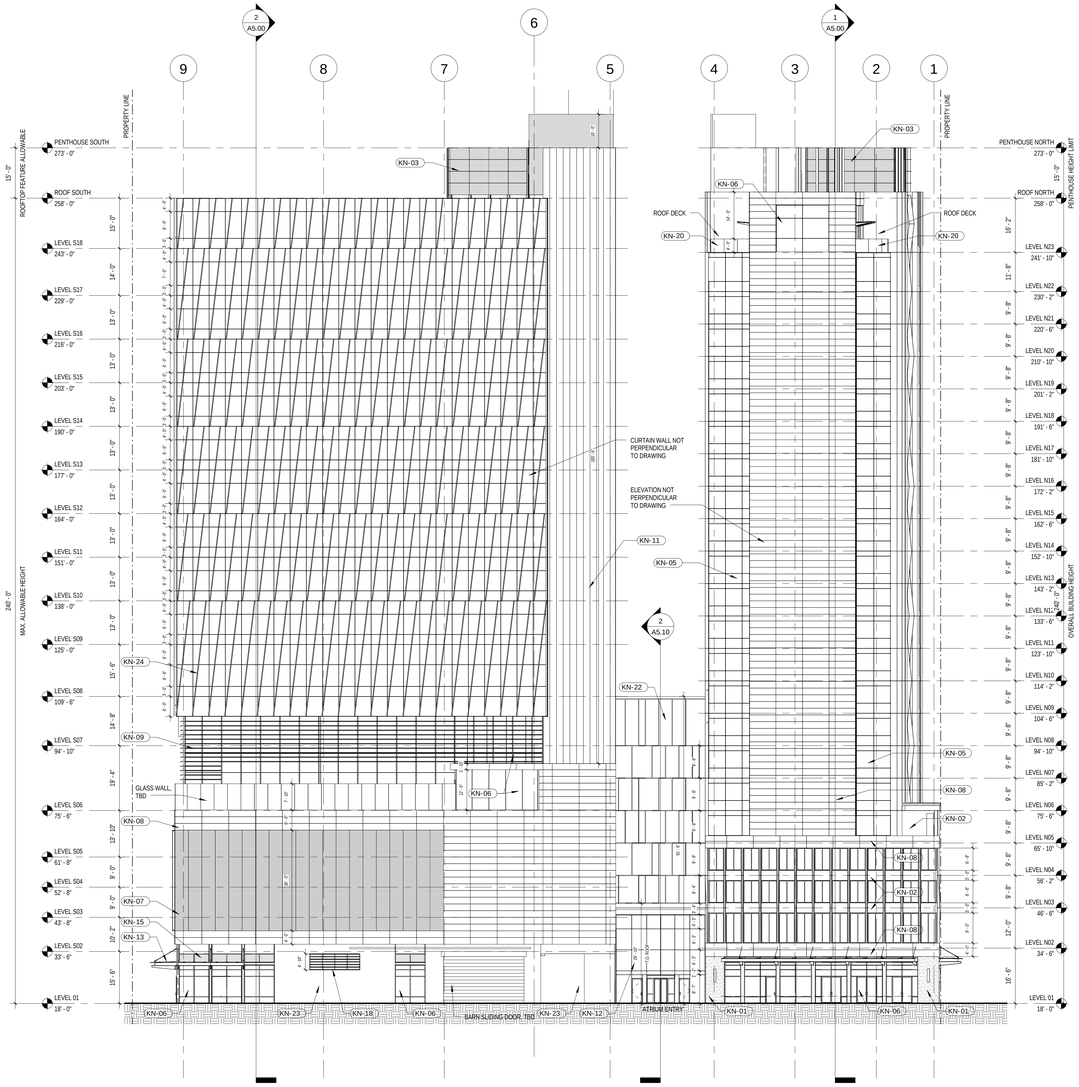
OVERALL ROOF & PENTHOUSE PLANS

A3.06



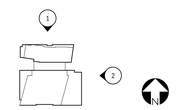
1 A4.00 OVERALL NORTH ELEVATION

Scale: 1/16" = 1'-0"



1 A4.00 OVERALL EAST ELEVATION

Scale: 1/16" = 1'-0"



ELEVATION KEY PLAN

Scale: 1" = 200'-0"

ELEVATION KEYNOTES

KN 01	STONE CLADDING: COLD SPRINGS GRANITE, MODEL N/A, COLOR IRIDIAN, FINISH ROCK PITCH/DIAMOND 300, SPEC SECTION 034500
KN 02	PRE-CAST CONCRETE PANEL SYSTEM: NORTHWEST PRECAST, MODEL CUSTOM, FINISH TBD, SPEC SECTION 034500
KN 03	ROOFTOP EQUIPMENT SCREEN: MFR TBD, MODEL TBD, FINISH TBD, SIZE TBD, SPEC SECTION DIV 07 TBD
KN 04	GUEST ROOM WINDOW: MODEL TBD, FINISH TBD. GLAZING: 1" IGU WITH COLOR TBD, MFR TBD (U-VALUE = X.XX, SGHC = X.XX, VT = X.XX)
KN 05	CURTAIN WALL SYSTEM: WALTERS & WOLF CURTAIN WALL, MODEL TBD, FLUROPOLYMER COATING 70%, COLOR TBD, VISION GLAZING: 1-1/8" IGU (3/8" OUTBOARD LITE , 1/2" AIR GAP, 1/4" INBOARD LITE) WITH COLOR TBD, MFR TBD (U-VALUE = 0.38, SGHC = 0.35, VT = X.XX). SPANDREL GLAZING: 1-1/8" IGU (3/8" OUTBOARD LITE , 1/2" AIR GAP, 1/4" INBOARD LITE) WITH COLOR TBD, MFR TBD (U-VALUE = X.XX, SGHC = X.XX, VT = X.XX)
KN 06	STOREFRONT SYSTEM: MODEL TBD, MFR TBD. GLAZING: 1" IGU WITH COLOR TBD, MFR TBD (U-VALUE = X.XX, SGHC = X.XX, VT = X.XX)
KN 07	DECORATIVE STAINLESS STEEL MESH: CAMBRIDGE ARCHITECTURAL, MODEL CUBIST MESH, ELLIPSE ATTACHMENTS, FINISH STAINLESS STEEL, SIZE 4' OC WIDE: 28' TO 30' HEIGHTS, SPEC SECTION DIV 10 TBD
KN 08	COMPOSITE METAL PANEL SYSTEM (HORIZONTAL): KEITH PANEL SYSTEMS, MODEL ALPOLIC PE SYSTEM, FINISH N/A, COLOR 4MM4MFS3.5 MICA MFS GREY (1112); 4MMFR8AZZ3.5 EM FR ZINC/ZINC, SIZE 2'X8' TYPICAL, SPEC SECTION 074113.23
KN 09	ALUMIUM SUNSHADE SYSTEM (HORIZONTAL): MODEL TBD, MFR TBD, PROFILE TBD, FINISH TBD.
KN 11	COMPOSITE METAL PANEL SYSTEM (VERTICAL): KEITH PANEL SYSTEMS, MODEL ALPOLIC PE SYSTEM, FINISH N/A, COLOR 4MM4SLX3.5 MTLC SLX BLUE, SIZE 2'X8' TYPICAL, SPEC SECTION 074113.23
KN 12	CURTAIN WALL SYSTEM (ATRIUM): MODEL TBD, MFR TBD. GLAZING: TBD (U-VALUE = X.XX, SHGC = X.XX, VT = X.XX)
KN 13	CANOPY: TBD.
KN 14	STOREFRONT SYSTEM WITH METAL INFILL PANELS: MODEL TBD, MFR TBD. PANELS: MFR TBD, FINISH TBD, COLOR TBD.
KN 15	PRE-FINISHED METAL LOUVERS TO MATCH ADJACENT STOREFRONT FINISH. INSTALL INSULATED BLANK OFF PANELS BEHIND UNUSED LOUVERS.
KN 16	PRE-FINISHED METAL LOUVER FOR SCL VAULT EXHAUST.
KN 17	STOREFRONT SYSTEM WITH METAL LOUVER INFILL PANELS: MODEL TBD, MFR TBD. PANELS: MFR TBD, FINISH TBD, COLOR TBD. INSTALL INSULATED BLANK OFF PANELS BEHIND UNUSED LOUVERS.
KN 18	LOUVER PANELS DESIGNATED FOR BELOW GRADE GARAGE EXHAUST.
KN 19	OVERHEAD COILING DOORS: MFR TBD, MODEL TBD, FINISH TBD, SIZE TBD, SPEC SECTION 083323
KN 20	GLASS RAILING: TBD
KN 22	(STAGGERED) CURTAIN WALL SYSTEM (ATRIUM): MODEL TBD, MFR TBD. GLAZING: TBD (U-VALUE = X.XX, SHGC = X.XX, VT = X.XX)
KN 23	ARCHITECTURAL FINISHED CONCRETE, TBD
KN 24	DIAGONAL EXTRUSION SYSTEM: MODEL TBD, MFR TBD, PROFILE TBD, FINISH TBD.
KN 25	FIRE DEPARTMENT CONNECTION (FDC) LOCATION

ELEVATION GENERAL NOTES

1. "*" INDICATES SAFETY GLAZING.

ELEVATION LEGEND

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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REV	DESCRIPTION	DATE
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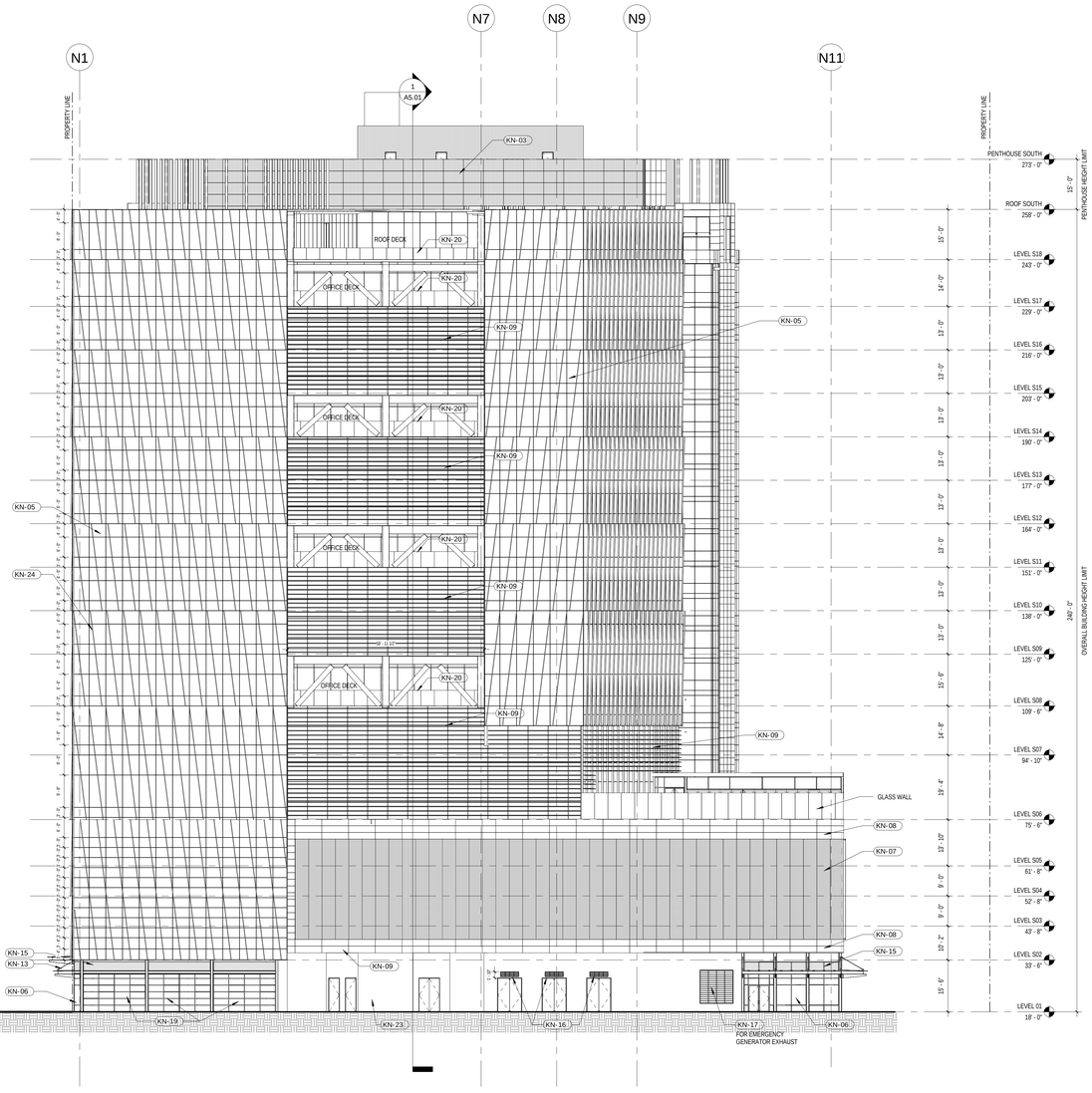
	DD 95%	12/17/2012
	EAST BLOCK MUP REVISION	12/19/2012
	DD 100%	01/04/2013

OVERALL NORTH/EAST ELEVATIONS

A4.00

PROJECT NUMBER A11-354



1 A4.01 OVERALL SOUTH ELEVATION

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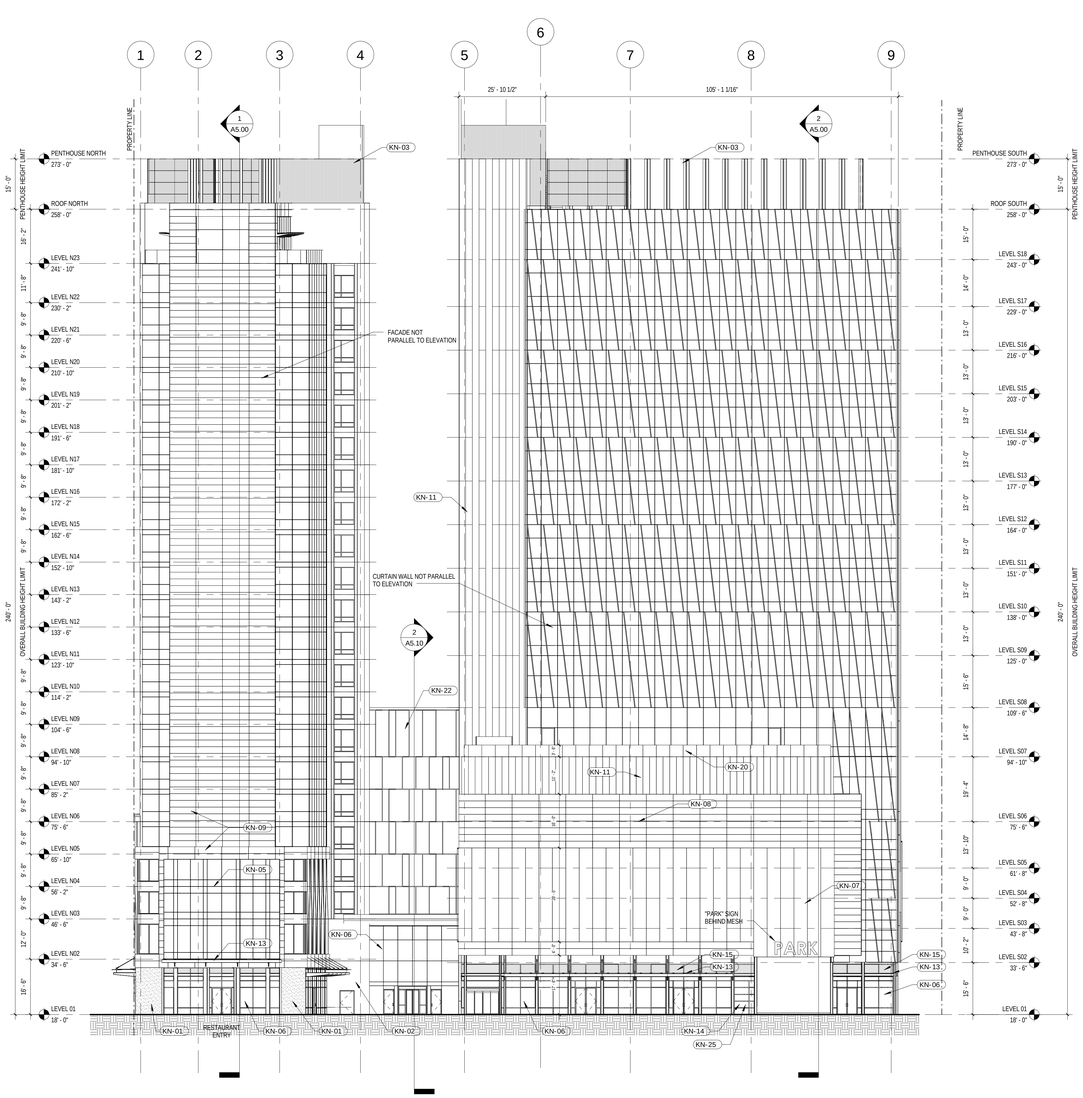

2 A4.01 OVERALL WEST ELEVATION

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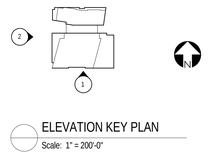

ELEVATION KEY PLAN

Scale: 1" = 200'-0"

ELEVATION KEYNOTES

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ELEVATION GENERAL NOTES

1. "" INDICATES SAFETY GLAZING.

ELEVATION LEGEND

DESIGN DEVELOPMENT

255 SOUTH KING STREET

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520E Lake Washington Blvd. NE | Ste 260 | Kirkland | WA | 98033 www.FHARCH.COM TEL 425 827 2100

REV	DESCRIPTION	DATE
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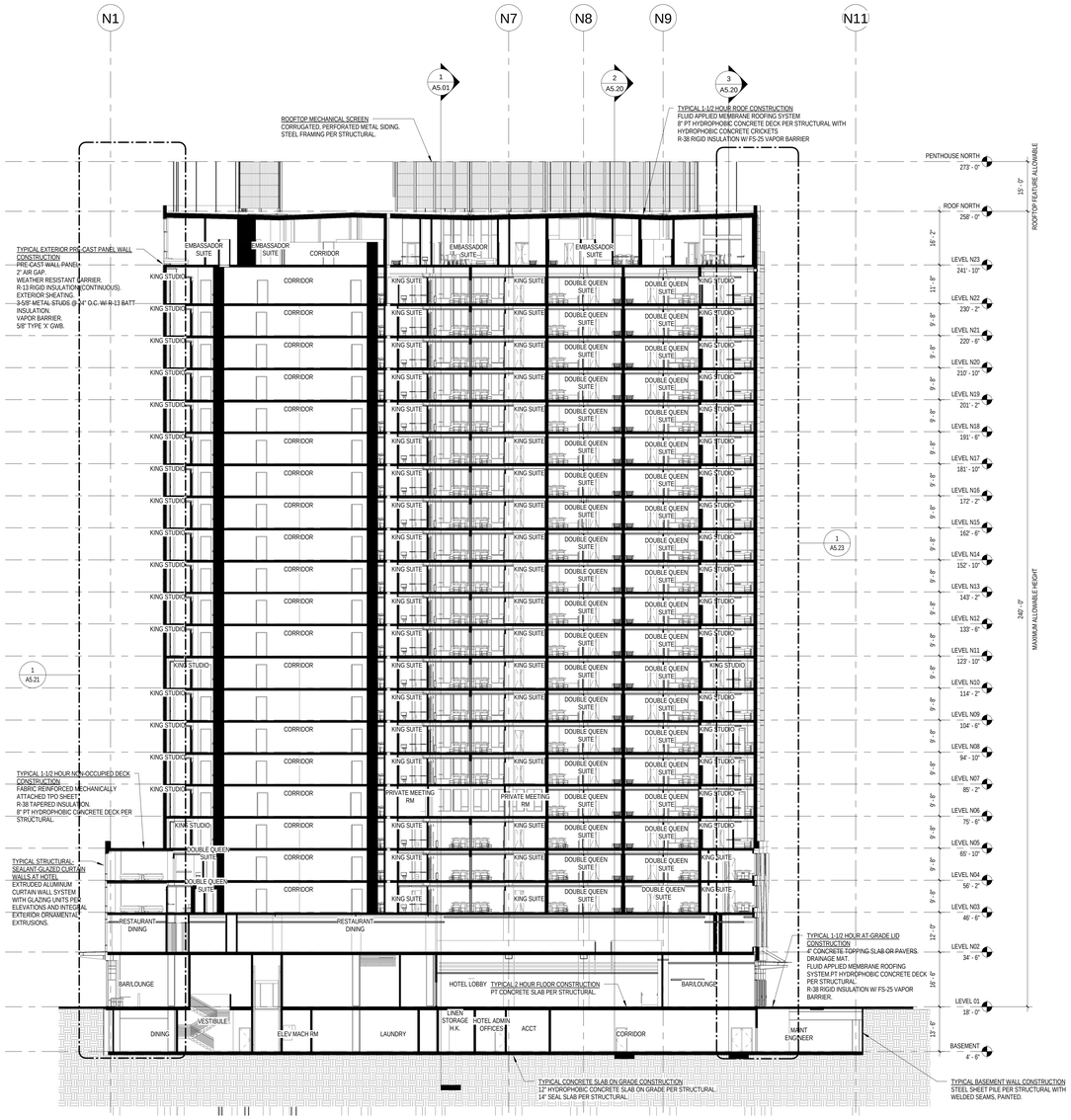
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	EAST BLOCK MUP REVISION	12/19/2012
	DD 100%	01/04/2013

OVERALL SOUTH/WEST ELEVATIONS

A4.01

PROJECT NUMBER: A11-354



1 A5.00 EAST-WEST SECTION A

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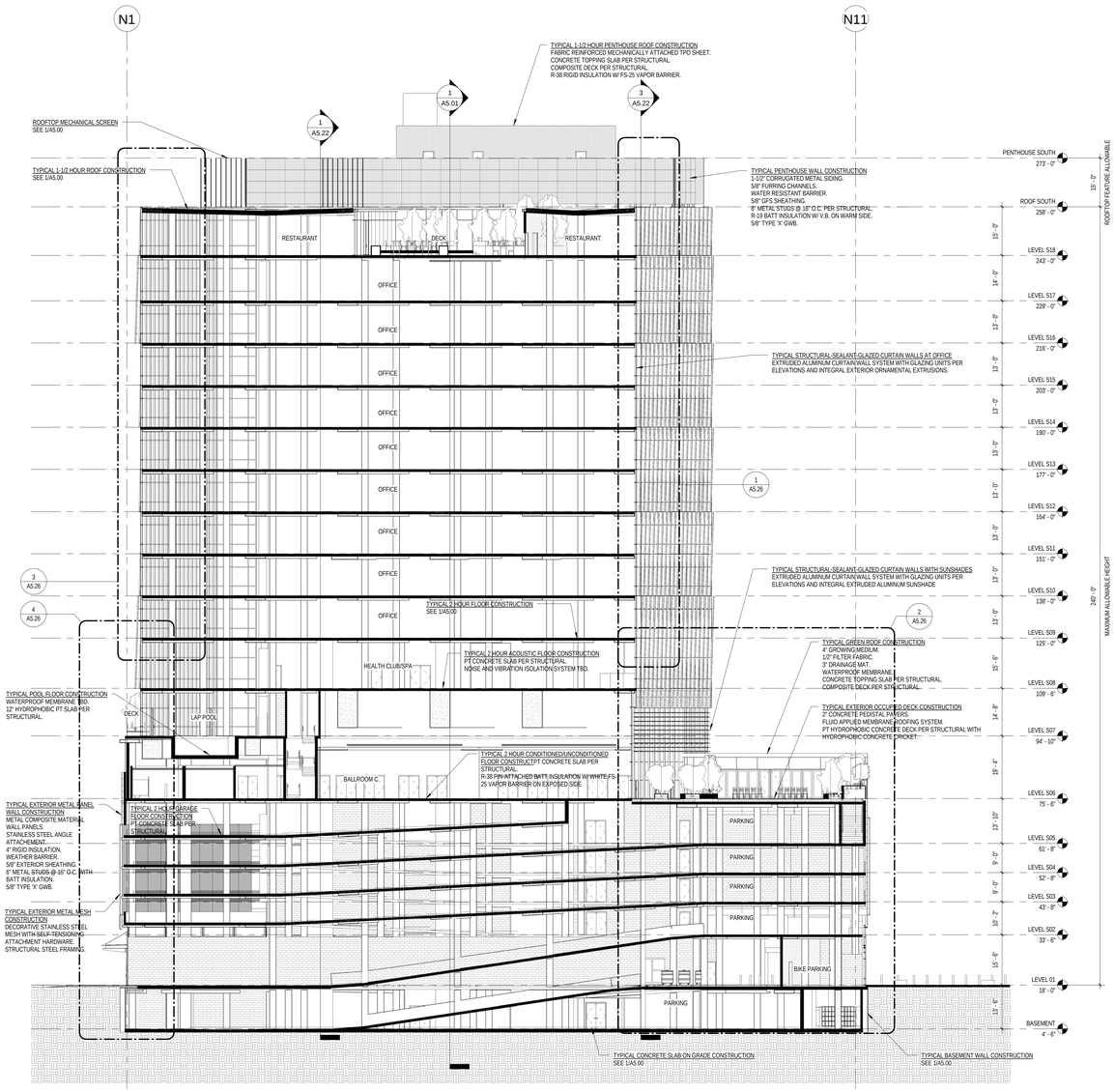

2 A5.00 EAST-WEST SECTION B

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

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REV	DESCRIPTION	DATE
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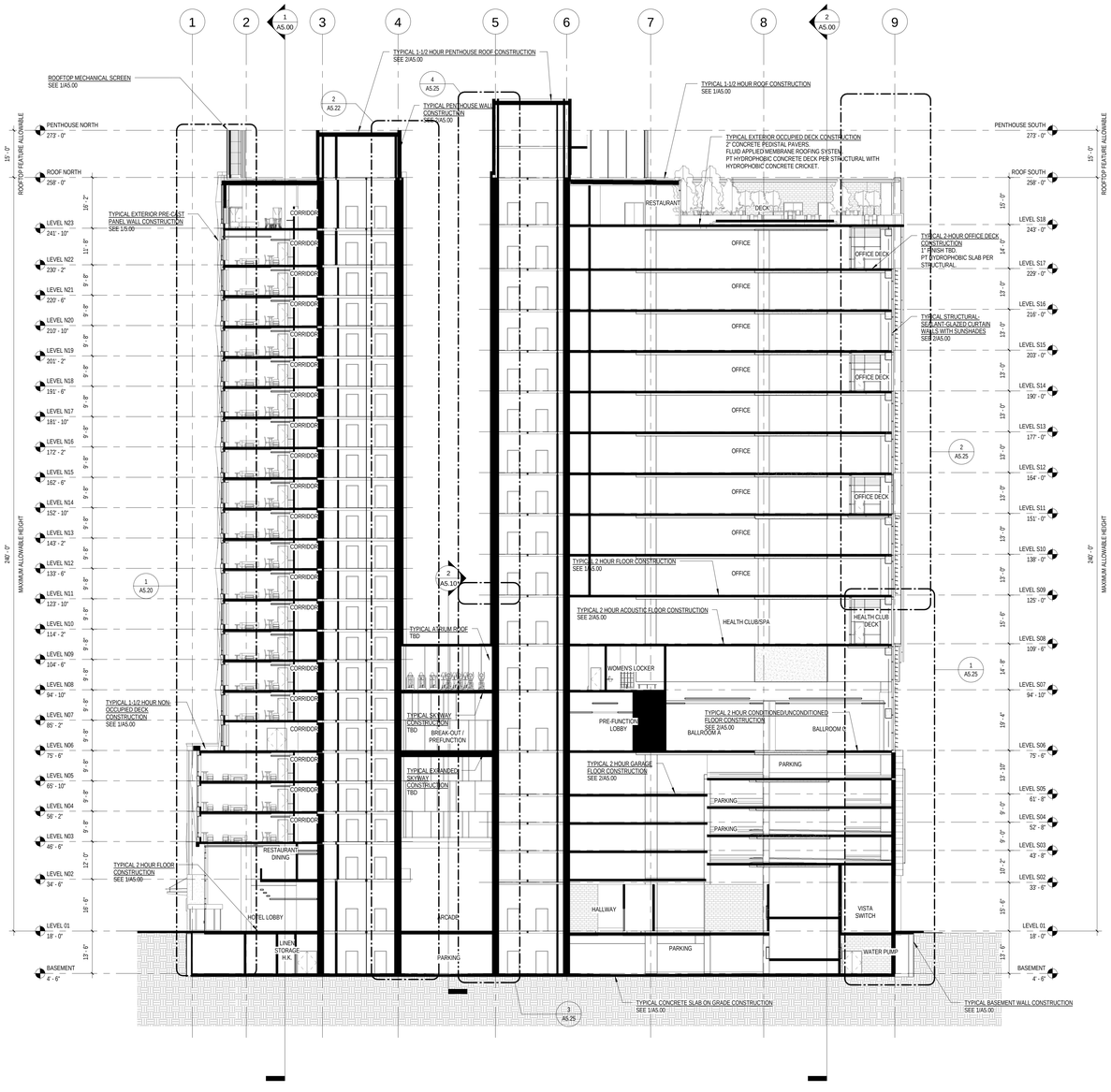
	DD 95%	12/17/2012
	DD 100%	01/04/2013

EAST-WEST SECTIONS

A5.00

PROJECT NUMBER A11-354



1 A5.01 NORTH-SOUTH SECTION A

Scale: 1/16" = 1'-0"

DESIGN DEVELOPMENT

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REV	DESCRIPTION	DATE
	DD START	08/31/2012
	DD 60%	10/30/2012
	DD 95%	12/17/2012
	DD 100%	01/04/2013

NORTH-SOUTH SECTION

A5.01

PROJECT NUMBER: A11-354

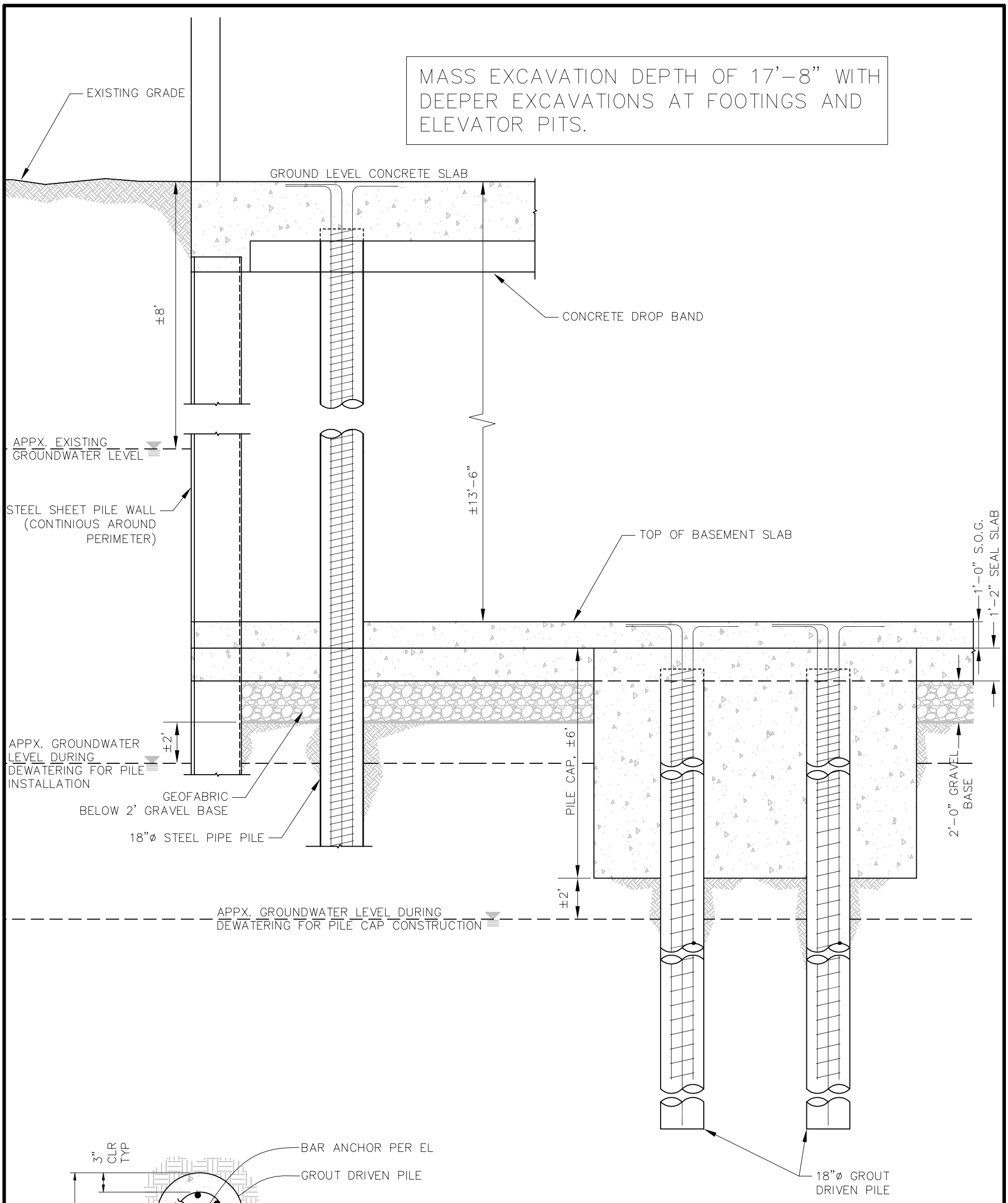

QWEST FIELD
CENTURYLINK


tle Lighting

APPENDIX B

North Lot Pile and Excavation Exhibit

MASS EXCAVATION DEPTH OF 17'–8" WITH DEEPER EXCAVATIONS AT FOOTINGS AND ELEVATOR PITS.



SECTION

R:\2011\0\11090\3\Drawings\Plots\01–3PILEEXHIBIT11090.dwg 5/15/2012 10:42:27 AM PDT

NORTH LOT

PILE AND EXCAVATION EXHIBIT

NOT TO SCALE

D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
10604 NE 38th PLACE, SUITE 101
KIRKLAND, WA 98033
425.827.3063 OFFICE
800.962.1402 TOLL FREE
425.827.2423 FAX
www.drstrong.com

APPENDIX C

Compliance Monitoring Plan

Final Compliance Monitoring Plan
North Lot Property
Seattle, Washington

September 27, 2012

Prepared for

North Lot Development, LLC

and

255 S. King Street LP

LANDAU ASSOCIATES
130 2nd Avenue South
Edmonds, WA 98020
(425) 778-0907

TABLE OF CONTENTS

FIGURES

TABLES

INTRODUCTION

This Compliance Monitoring Plan outlines the approach for follow-up groundwater (both the west and east parcels) and indoor air monitoring (east parcel only) as part of the implementation of the preferred remedial action alternative for cleanup of contamination at the North Lot Property (Property), located at the southeastern corner of the intersection of South King Street and Occidental Avenue South in Seattle, Washington (Figure 1). 255 S. King Street LP is currently negotiating with North Lot Development LLC (NLD) regarding the proposed purchase of the east parcel of the Property. NLD conducted the necessary investigations to characterize soil, soil vapor, and groundwater conditions at the Property to complete the Remedial Investigation (RI) report (Landau Associates 2011a) and the Feasibility Study (FS) report (Landau Associates 2011b). The FS report also develops and evaluates remedial action alternatives and identifies the preferred remedial action alternative to address the contamination on the west parcel of the Property consistent with NLD's development plan, and the requirements of the Washington State Model Toxics Control Act (MTCA; Chapter 173-340 WAC). An FS Addendum (Landau Associates 2012) has been submitted to the Washington State Department of Ecology (Ecology) to document the development plan proposed by 255 S. King Street LP following its purchase of the east parcel of the Property and the proposed associated revised cleanup action for the east parcel of the Property. The cleanup action proposed by 255 S. King Street LP as part of its development plan is presented in the revised Cleanup Action Plan for the east parcel.

This monitoring plan was prepared by Landau Associates for NLD and 255 S. King Street LP to detail the proposed groundwater compliance monitoring that would be conducted for the Property (including both the west and east parcels), and the indoor air compliance monitoring associated with the proposed cleanup action for the east parcel. The results of groundwater and indoor air monitoring would provide sufficient information to evaluate and document compliance with MTCA and the Property-specific cleanup levels identified in the FS and FS Addendum.

The groundwater monitoring for the west and east parcels would be conducted concurrently to evaluate groundwater conditions and document that contaminants are not migrating off-Property at concentrations greater than the Property-specific cleanup levels. The indoor air monitoring would evaluate indoor air quality and document that vapor intrusion does not pose a potential threat to users of the below-ground garage that would be constructed as part of the revised development plan for the east parcel.

SITE BACKGROUND

The 3.85-acre property is located in an area of municipal, commercial, and residential properties, as shown on Figure 2. Based on the Phase I Environmental Site Assessment completed by Landau Associates (2007), a rail yard was operated at the Property from the late 1800s until the late 1960s and several sets of railroad tracks were present on the Property. Structures associated with the rail yard included engine maintenance buildings, paint shops, track switching areas, and materials storage areas. In addition, two gasoline stations were formerly located in the northwestern corner of the Property at different times between the late 1930s and approximately 1966. King County purchased the Property in the 1970s to facilitate construction of the Kingdome stadium to the south of the Property. The Kingdome was later demolished and replaced with the current CenturyLink Field and Event Center development. The Property has been used as a parking lot since the 1970s.

SOIL AND GROUNDWATER INVESTIGATIONS

The investigations conducted to date to characterize soil, groundwater, and soil vapor at the Property include the Phase II investigation, the RI field investigation, the supplemental investigation, the data gaps investigation, and the soil vapor investigation. The findings of the Phase I, Phase II, and additional soil and groundwater investigations are included in the RI report (Landau Associates 2011a). The results of the soil vapor investigation are presented in the Focused Soil Vapor Investigation report (Landau Associates 2010). The results of the data gaps and soil vapor investigations are included in the FS report (Landau Associates 2011b).

Based on the investigations conducted for the RI/FS, the extent of impacts to groundwater from soil contamination at the Property appears to be limited. There is no evidence of soil contaminants leaching to groundwater or of contaminants in groundwater migrating off-Property at concentrations greater than the cleanup levels. Therefore, the alternatives that were evaluated in the FS provide for the protection of groundwater through the cleanup of soils and/or through passive measures, such as a cap. Long-term groundwater compliance monitoring and contingent groundwater treatment (if the compliance monitoring indicates off-Property migration of contaminants in groundwater at concentrations greater than the cleanup levels) are included in five of the six remedial action alternatives described in the FS, including the preferred alternative for the west parcel, and in the revised alternative for the east parcel presented in the FS Addendum.

GROUNDWATER COMPLIANCE MONITORING

The groundwater compliance monitoring would include the installation of additional groundwater monitoring wells, groundwater monitoring and sample collection at the new wells and at two existing wells, and laboratory analysis of groundwater samples. These elements are described in further detail below.

GROUNDWATER POINT OF COMPLIANCE

The standard point of compliance for groundwater is throughout groundwater at the Property. The proposed conditional point of compliance for groundwater for protection of surface water quality is the property boundary or as close to the property boundary as practicable. For a conditional point of compliance [in accordance with WAC 173-340-720(8)(c, d)], there must be a demonstration that it is not practicable to meet the cleanup levels throughout the site in a reasonable restoration timeframe and that all practicable methods of treatment are to be used in the site cleanup. As described in Section 8.2.2 of the FS report and Section 3.0 of the FS Addendum, the preferred remedial action alternatives for the west and east parcels are permanent to the maximum extent practicable, and meet these two criteria. Therefore, the proposed conditional point of compliance for groundwater is the Property boundary for most of the Property and as close to the Property boundary as practicable in the northeastern portion of the east parcel where the creosote-like material is present along the Property boundary because it is not feasible to install a compliance monitoring well within the creosote-like material.

The attainment of cleanup levels in groundwater would be evaluated at the conditional point of compliance using a network of monitoring wells.

GROUNDWATER MONITORING WELLS

The compliance monitoring would be conducted using existing off-Property wells MW-16D and MW-18D, and up to four additional wells installed at selected locations based on the existing groundwater flow and analytical data with the screened intervals, as shown in Table 1. The selected locations for the proposed compliance monitoring wells are as follows:

- MW-16D and MW-18D: Two existing off-Property monitoring wells located to the north of the east parcel of the Property and hydraulically downgradient of where the creosote-like material is present at the base of the fill material in the northeastern corner of the Property.
- MW-19: A new monitoring well located along the north Property boundary of the west parcel near the eastern extent of the former gasoline station area.
- MW-20: A new monitoring well located along the north Property boundary of the west parcel, near the northwestern corner of the Property adjacent to the former gasoline station area.

- MW-21: A new monitoring well located along the east Property boundary of the east parcel near the southeastern corner of the Property, hydraulically upgradient of the Property and hydraulically downgradient of upgradient off-Property areas with elevated arsenic concentrations in groundwater.
- MW-22: A new monitoring well located along the east Property boundary of the east parcel near the northeastern corner of the Property, hydraulically upgradient of the Property and hydraulically downgradient of upgradient off-Property areas with elevated arsenic concentrations in groundwater.

The proposed locations of off-Property wells MW-16D and MW-18D, and the four selected new monitoring well locations are shown on Figure 3.

The new monitoring wells would be constructed in accordance with Washington State Minimum Standards for Construction and Maintenance of Wells (WAC 173-160). Qualified field personnel would oversee the drilling and well installation activities, and maintain a detailed record of the well construction. The soil encountered during drilling would be field-screened for evidence of contamination, and soil samples would be collected and archived for possible laboratory analysis if evidence of contamination is encountered. All of the new wells would be shallow monitoring wells and would be constructed with 2-inch-diameter, flush-threaded, Schedule 40 polyvinyl chloride (PVC) pipe and 10-foot screens with 0.020-inch machine-slotted casing, and filter pack material consisting of pre-washed, pre-sized number 10/20 silica sand. The well screens would be placed from 5 to 15 feet (ft) below ground surface to intersect the water table. The filter pack would be placed from the bottom of the well to approximately 2 ft above the top of the screen. Filter pack material would be placed slowly and carefully to avoid bridging of material. A bentonite seal would be placed above the filter pack material to within about 3 ft of the ground surface. Grout would be used to backfill the boring to the subgrade for placement of the protective cover. The well installation depths, screen intervals, and sampling parameters are shown in Table 1.

The groundwater monitoring wells would be developed to improve their hydraulic connection with groundwater to obtain representative water samples and water elevations measurements. The wells would be developed at least 24 hours after completion to avoid compromising the surface seal. The wells would be developed by appropriate combinations of surging, bailing, or pumping.

GROUNDWATER MONITORING WELL SAMPLING

The new monitoring wells and existing wells MW-16D and MW-18D would be sampled using a peristaltic pump and single-use polyethylene tubing. Low-flow sampling techniques (EPA/540/S-95/504) would be used. Samples would be collected directly from the sampling equipment into laboratory-supplied containers and stored on ice in a cooler. Groundwater samples collected for metals analysis would be field-filtered using a 0.45-micron inline filter. Groundwater samples collected from monitoring

wells would be designated with the well number (e.g., CMW-19) and the date the sample was collected in month day year format (e.g., CMW-19-072212). The samples would be logged on a chain-of-custody form and submitted to an Ecology-accredited laboratory following proper chain-of-custody protocols. The transportation and handling of samples would be accomplished in a manner that protects the integrity of the samples. Samples would be delivered or sent by courier to the laboratory within 24 hours of sample collection.

Groundwater samples would be submitted to the laboratory and analyzed for the list of constituents shown in Table 1, and by the analytical methods shown in Table 2. These consist of benzene, toluene, ethylbenzene, and xylenes (BTEX) by U.S. Environmental Protection Agency (EPA) Method 8021; gasoline-range total petroleum hydrocarbons (TPH-G) and diesel-range total petroleum hydrocarbons (TPH-D) by Ecology-approved Methods NWTPH-Gx and NWTPH-Dx; polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270 SIM; and dissolved metals (i.e., arsenic, cadmium, chromium, lead, mercury, copper, and zinc) by EPA Method 200.8 except mercury, which would be analyzed by EPA Method 7471.0.

EQUIPMENT DECONTAMINATION AND MANAGEMENT OF INVESTIGATION-DERIVED WASTE

All non-disposable sampling equipment would be decontaminated between uses. Downhole drilling and sampling equipment would be decontaminated between uses at each boring location. Any visible contamination would be removed with paper towels prior to decontamination. Soil and decontamination and purge water generated during the field activities would be contained in labeled drums for storage on site pending the results of the laboratory analysis of the groundwater samples. Soil and water would be disposed of appropriately at a permitted facility based on the analytical results for the groundwater samples and available soil analytical data from previous Property investigations. Disposable equipment and clothing would be disposed of as solid waste.

GROUNDWATER SAMPLING QUALITY ASSURANCE/QUALITY CONTROL

The accuracy of the data would be determined through recovery of spiked surrogates, matrix spikes, duplicates, and spiked laboratory control samples. Control limits for spike recovery would be laboratory acceptance limits generated according to EPA guidelines. Blind field duplicates would be collected at a frequency of 1 per 20 samples, so 1 blind duplicate sample would be submitted per groundwater sampling event. The duplicate would be collected by alternately filling sample containers for the original sample and the corresponding duplicate sample for every container filled to decrease the variability between duplicates. One laboratory-supplied trip blank would also be included with each cooler shipped to the laboratory.

INDOOR AIR MONITORING

Samples of indoor air would be collected for laboratory analysis from the below-ground garage of the proposed building on the east parcel to document indoor air quality and assess the potential for vapor intrusion of contaminants due to the presence of the creosote-like material in the subsurface in the northeastern portion of the east parcel. An initial round of baseline samples would be collected following completion of the construction of the below-ground garage and then samples would be collected for three subsequent quarters for a total of four rounds of monitoring. The analytical results for the indoor air samples would be compared to applicable cleanup levels and the need for mitigation and or additional sampling and analysis would be evaluated. The proposed indoor air sampling methodology is discussed below.

INDOOR AIR SAMPLE COLLECTION AND QUALITY ASSURANCE PROCEDURE

Each round of indoor air sampling would consist of the collection of one 8-hour, time-weighted average (TWA) sample from each of two proposed locations within the below-ground garage area: one sample from the parking area and one sample from an office or other use area within the garage. The TWA samples would be collected using 6-L laboratory-certified evacuated Summa canisters that are integrated passive air samplers. Each Summa canister would be equipped with a pressure gauge and a calibrated critical orifice air flow controller. One location would require a co-locator attachment from the laboratory, so that a duplicate sample can be collected. To sample air from the receptor breathing space, the canister inlet valves would be placed approximately 3 ft above floor surface for an office or other work area location where receptors would typically be seated, and approximately 5 ft above floor surface in the parking area, where receptors would typically be standing. Canisters would be clearly labeled with signs indicating the purpose of the canisters and that the canisters are not to be interfered with or moved.

The TWA Summa canisters would be evacuated to a vacuum pressure of 25 to 30 inches mercury (Hg) by the laboratory prior to sampling in the field, and would be used to collect a sample over an 8-hour period. A final vacuum pressure reading greater than ambient (i.e., zero inches Hg) indicates a valid sample; however, canister closure would be targeted for 5 inches Hg to provide a margin of safety. Canister pressures would be checked within 1 to 2 hours after beginning sampling to evaluate whether the air flow controllers are functioning properly. Observed hourly pressure loss greater than one-eighth of the initial pressure would be considered indicative of a faulty flow controller. Any canisters observed to have a faulty flow controller would be replaced with a backup canister and flow controller.

INDOOR AIR LABORATORY ANALYSIS

Following sample collection, the Summa canisters would be shipped under chain-of-custody protocols to TestAmerica (or to a comparable air specialty laboratory) for analysis for benzene using EPA Method TO-15 low-level analysis. The indoor air analytical results would be compared to the MTCA Method B air cleanup level of 0.32 micrograms per cubic meter.

Following the four rounds of sampling, the data would be evaluated to assess the potential threat to users of the below-ground garage due to vapor intrusion and the need for any further monitoring or mitigation, if warranted. Background sources of benzene are common in indoor air, especially in newly-constructed buildings and parking garages. A detection of benzene above the indoor air cleanup level would not necessarily indicate that vapor intrusion is impacting indoor air. If indoor air cleanup levels are exceeded during more than one consecutive sampling event, mitigation (such as adjusting the ventilation system) or an alternative sampling approach may be initiated (such as performing isotope analysis on sub-slab soil gas and indoor air samples during subsequent indoor air sampling events). The alternative sampling approach would provide additional data to evaluate whether vapor intrusion is resulting in the concentrations observed in the indoor air.

REPORTING

Following completion of groundwater and indoor air monitoring activities, and after receipt from the laboratory, the analytical results would be tabulated and subjected to a quality assurance/quality control review. The findings of the groundwater and indoor air compliance monitoring would be incorporated into compliance reports for submittal to Ecology. The groundwater and indoor air compliance monitoring results would be presented to Ecology in separate compliance reports to allow for the different compliance monitoring schedules.

PROJECT SCHEDULE

The proposed installation and development of the four new monitoring wells would be coordinated with the development schedules for each portion of the Property to avoid having newly installed wells damaged or destroyed during subsequent construction. The initial well installation is anticipated to require about 3 to 4 days in the field. Sampling and analysis of the six monitoring wells is anticipated to require 2 days in the field for each sampling event. Receipt of the analytical results is anticipated approximately 2 weeks after sample submittal, based on a standard turnaround time from the laboratory. Groundwater compliance reports would be submitted to Ecology approximately 6 to 8 weeks following receipt of the final analytical data, according to the schedule presented below.

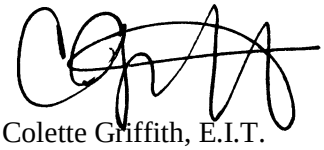
Sampling and analysis of monitoring wells during the first 5 years is anticipated to occur quarterly for the first year and then annually for the next 4 years of monitoring; however, the frequency of monitoring would be determined based on the groundwater analytical results and whether analytes are detected at concentrations greater than the cleanup levels. If a well sample indicates a detected concentration of one or more constituents greater than the respective cleanup level, the well would be re-sampled and the data re-evaluated. If the re-sampling indicates one or more constituents at concentrations greater than the applicable cleanup level, then a remediation contingency plan would be developed and implemented. After 5 consecutive years with no analyte detections greater than the cleanup levels, both the monitoring frequency and the number of sampling locations would be reduced, as appropriate, based on site conditions at the time and upon approval from Ecology. Groundwater compliance monitoring would conclude after 30 years with no analyte detections greater than the cleanup levels. All changes to the groundwater compliance monitoring schedule would be approved in advance by Ecology based on the evaluation of site conditions at the time.

The indoor air sampling would be coordinated with the development schedule for the east parcel. As discussed above, the first indoor air sampling event would take place following completion of the below-ground garage in the building on the east parcel. Samples would be collected from two locations within the basement of the building for four quarters. After four quarters of sampling have been completed, the sample analytical results would be evaluated. If the benzene concentration in one or more of the indoor air samples is greater than the cleanup level for two consecutive rounds, mitigation, additional monitoring, and/or alternative sampling measures would be initiated to address the detected concentrations and evaluate whether the concentrations above the cleanup level are associated with vapor intrusion as described above. If indoor air benzene concentrations are below the cleanup level—or demonstrated to be associated with non-vapor intrusion background sources—the indoor air compliance monitoring would be discontinued following the initial four rounds of sampling. All changes to the indoor air compliance monitoring schedule would be approved in advance by Ecology based on the evaluation of site conditions at that time.

* * * * *

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.



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CMG/TLS/ccy

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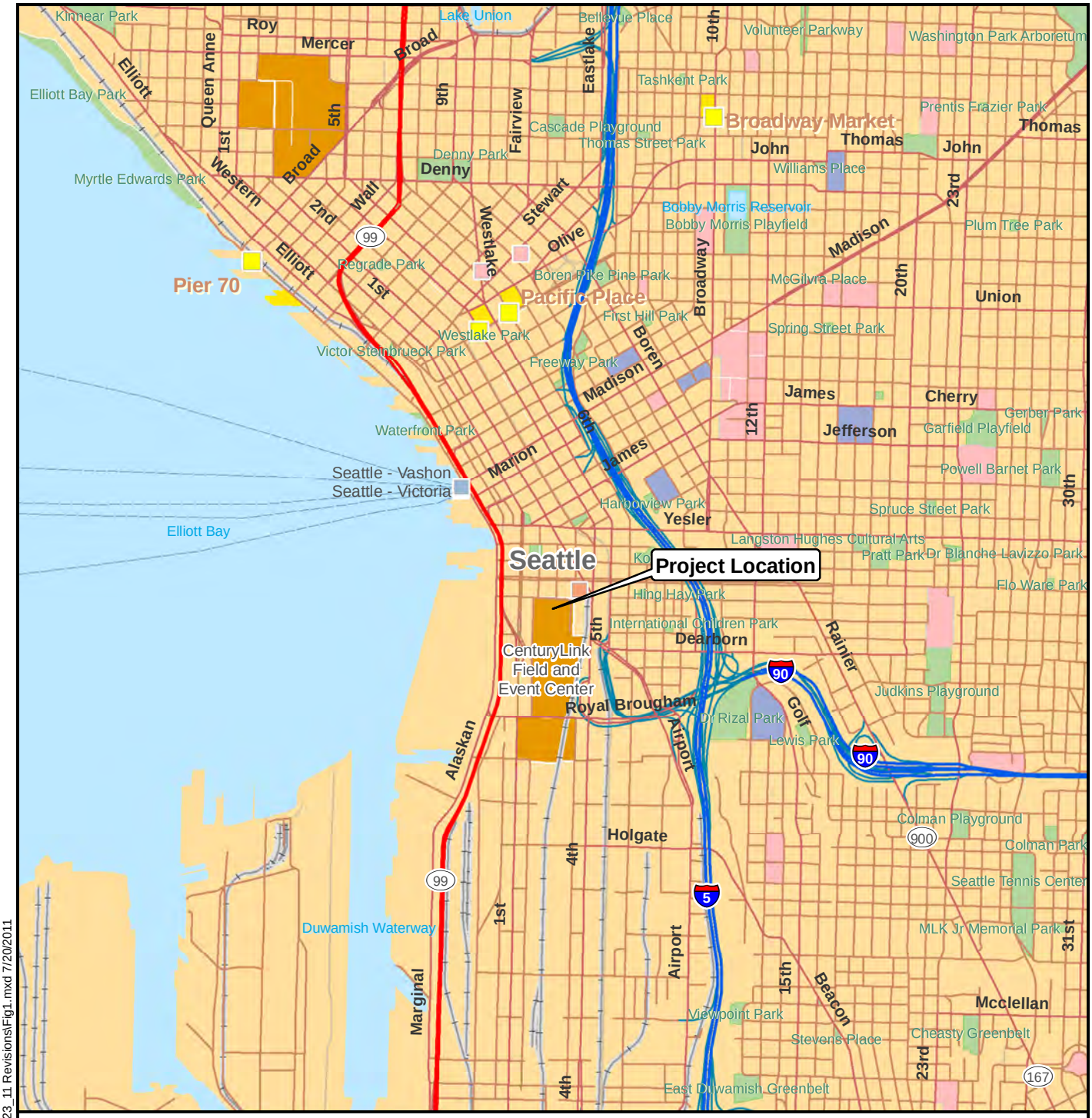

Data Source: ESRI 2008

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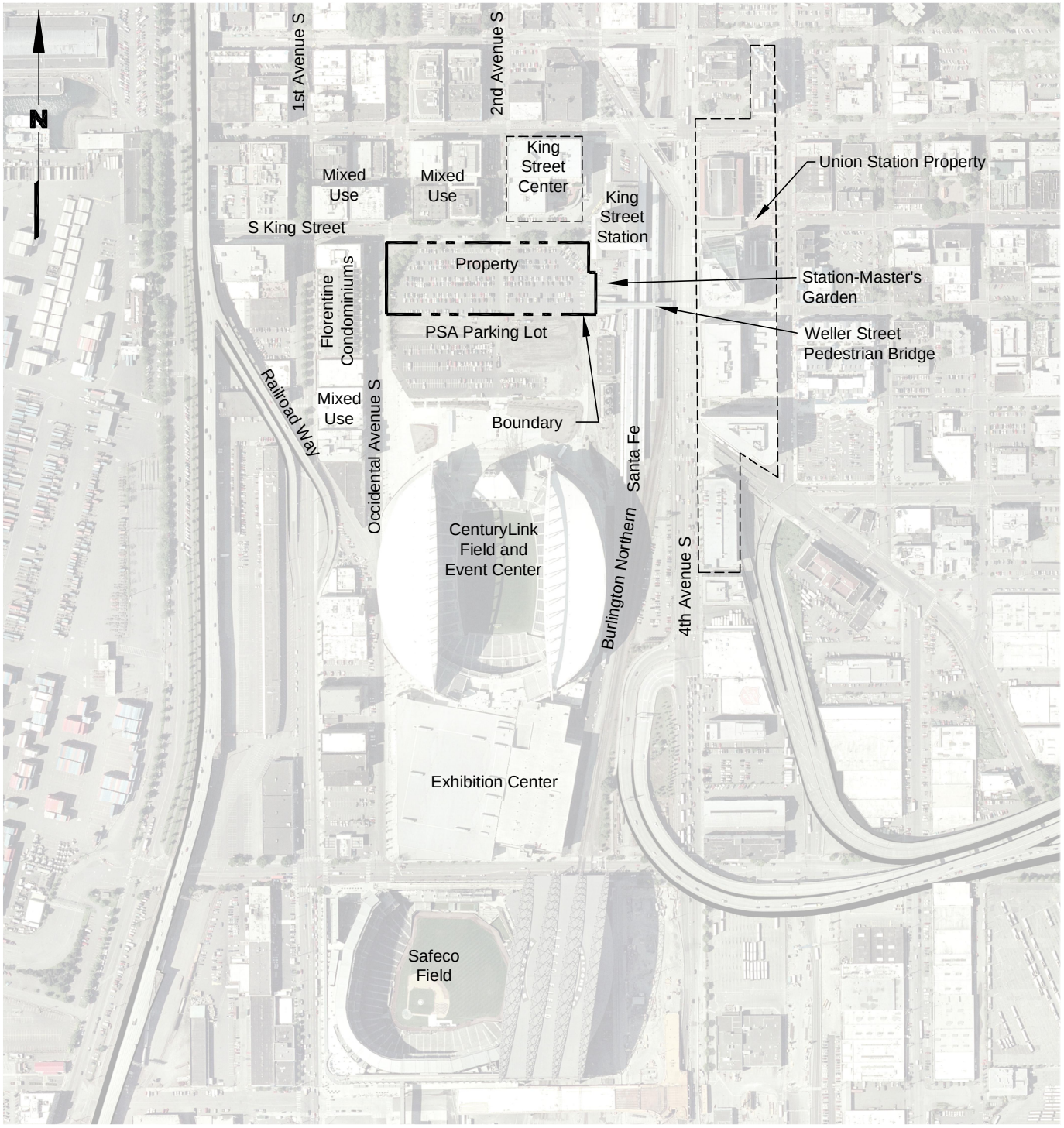
North Lot Development Seattle, Washington	**Vicinity Map**	Figure 1



Qwest Field | V:\1014\050\Conceptual\Figure 2.dwg (A) "Figure 2" 7/20/2011

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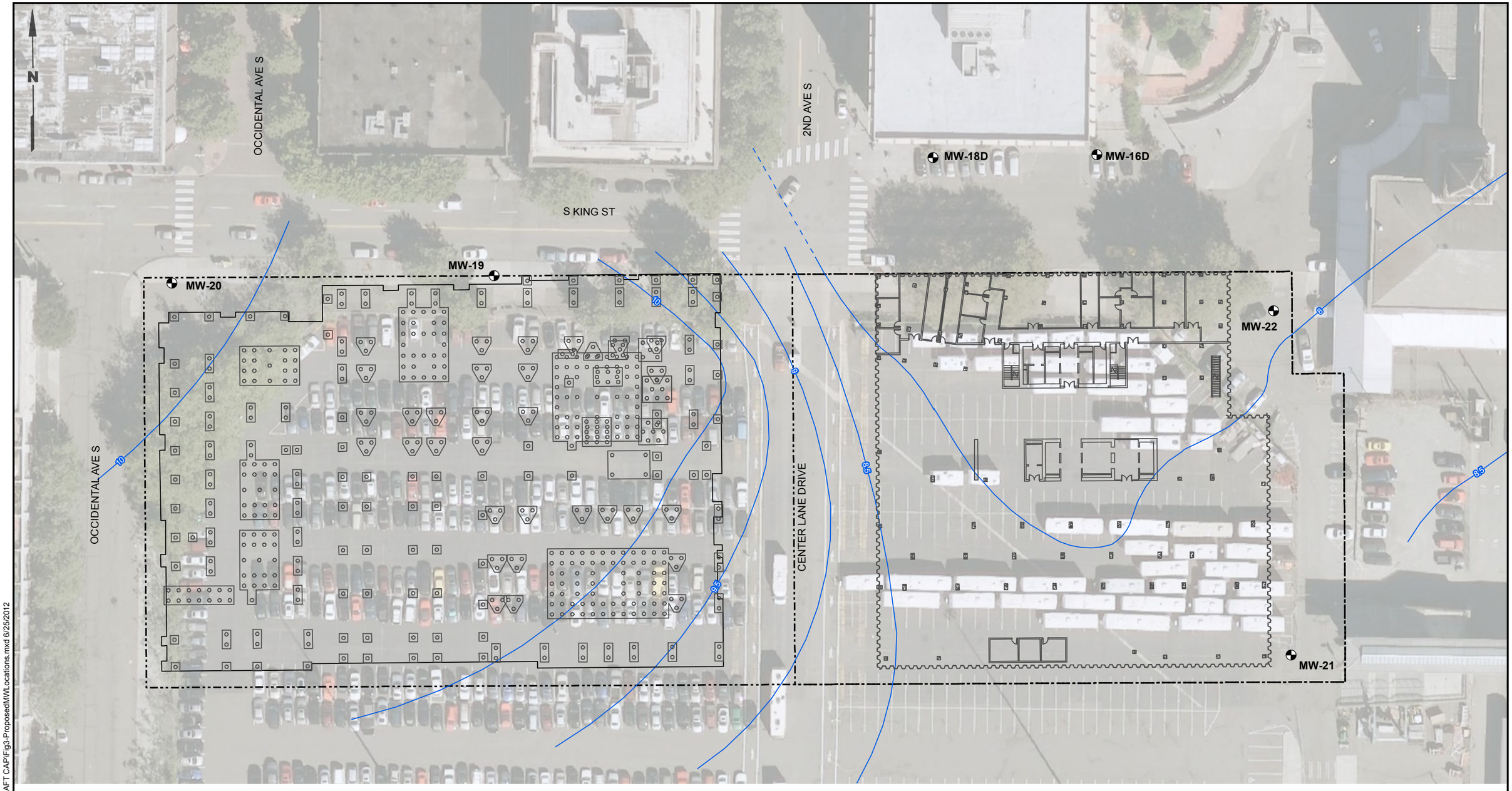
North Lot Development
Seattle, Washington

Property Plan and Surrounding Area

Figure
2



Legend

- Proposed Monitoring Well Location
- Property Boundary
- 9.5 Groundwater Elevation Contour (ft)

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.
2. Building foundation plans from North Lot Development CAD files, dated February 25, 2011.

Data Source: Triad Boundary Survey, King County

0 60 120

Scale in Feet

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North Lot Development Seattle, Washington	**Proposed Compliance Monitoring Well Locations**	Figure 3

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TABLE C-1
SAMPLING LOCATION AND ANALYSIS MATRIX
NORTH LOT DEVELOPMENT - SEATTLE, WASHINGTON

Sample Location	Sample Depth/ Screened Interval	Drilling Method for Well Installation	Constituents for Analysis				
			BTEX (a)	TPH-G (b)	TPH-D (c)	PAHs (d)	Metals (e)
MW-16D (f)	12 to 22 ft	NA	✓	✓	✓	✓	✓
MW-18D (f)	12 to 22 ft	NA	✓	✓	✓	✓	✓
MW-19, -20, -21, and -22	5 to 15 ft	HSA	✓	✓	✓	✓	✓

Notes:

(a) BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
(b) TPH-G = Gasoline-range Petroleum Hydrocarbons
(c) TPH-D = Diesel-range Petroleum Hydrocarbons
(d) PAHs = Polycyclic Aromatic Hydrocarbons
(e) Metals = Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, and Zinc
(f) Existing off-Property monitoring well
NA = Not applicable; well already installed.
HSA = Hollow-Stem Auger

TABLE C-2
ANALYTICAL METHODS
NORTH LOT DEVELOPMENT - SEATTLE, WASHINGTON

Analysis	Medium	Analytical Method	Reporting Limits (a)
Metals (b)	Water	200.8/6010B/7470A	0.02 to 20 µg/L
PAHs (c)	Water	8270D-SIM	1.0 µg/L
TPH-G (d)	Water	NWTPH-Gx	0.25 mg/L
TPH-D (e)	Water	NWTPH-Dx	0.25 mg/L
BTEX (f)	Water	8021	1 µg/L

Notes:

(a) Target reporting limits
(b) Metals = Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, and Zinc
Metals analysis by EPA Method 200.8 (arsenic and lead), EPA Method 6010B (cadmium, chromium, copper, and zince), and EPA Method 7470A (mercury).
(c) PAHs = Polycyclic Aromatic Hydrocarbons
(d) TPH-G = Gasoline-range Petroleum Hydrocarbons
(e) TPH-D = Diesel-range Petroleum Hydrocarbons
(f) BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes
µg/L = Micrograms per liter
mg/kg = Milligrams per kilogram

APPENDIX D

Cleanup Action Construction Schedule

TABLE D-1
CLEANUP ACTION SCHEDULE
NORTH LOT PROPERTY
SEATTLE, WASHINGTON

Activity/Area	Description	Duration/Start Date
EAST PARCEL		
Construction Design and Engineering Plans	• Submit Draft Engineering Design Report (EDR) to Ecology that includes: – Soil and water handling and disposal plan – Stormwater Pollution Prevention Plan (SWPPP) – Dust Suppression Plan – Health and Safety Plan for construction workers – Engineering Plans for the cap – Operation and Maintenance plans for the long term management of the cap • Submit Final EDR to Ecology	Submitted within 30 days of the Consent Decree effective date Submitted within 30 days after Ecology approval of the Draft EDR
Construction Site Preparation	• Preparation for construction will include removal of approximately 18 inches of surface material (asphalt, gravel, soil) across the eastern parcel.	Planned start date: within 3 months of the Final EDR submittal to Ecology
Under Building Footprint	• East parcel building footprint – Drive sheet piles (1 month after completion of construction site preparation) – Mass excavation/tiebacks/excavation for pile caps/remove obstructions (10 months after completion of construction site preparation) – Drive piles (10 months after completion of construction site preparation) – Construct concrete slab and vapor barrier (12 months after completion of construction site preparation)	12 months after completion of construction site preparation (see individual dates)
Sidewalk Area Outside Building Footprint/ Landscape Scope	• North, West, South Sidewalk – Remove 5 feet of soil in landscape/planter areas ▪ Place barrier at bottom and backfill with clean soil – Construct concrete barrier/surface cap	24 months after completion of construction site preparation
Sidewalk Area Outside Building Footprint/ Landscape Scope	• East Sidewalk – Remove 5 feet of soil in landscape/planter areas ▪ Place barrier at bottom and backfill with clean soil – Construct concrete barrier/surface cap	24 months after completion of construction site preparation
Private Drive	• East Sidewalk – Remove 5 feet of soil in landscape/planter areas ▪ Place barrier at bottom and backfill with clean soil – Construct concrete barrier/surface cap	24 months after completion of construction site preparation
Construction Progress Reports	• Submit monthly construction progress reports to Ecology	To be submitted monthly throughout construction duration
Cleanup Action Report and As Built Drawings	• Submit As built drawings and Draft Cleanup Action Report to Ecology • Submit Final Cleanup Action Report to Ecology	Within 120 days of completion of construction, as provided in detailed scheduled in EDR Within 60 days of receiving Ecology's approval of the Draft Cleanup Action Report

Activity/Area	Description	Duration/Start Date
EAST AND WEST PARCEL		
Institutional Controls and Compliance Monitoring	• Institutional controls and groundwater/vapor intrusion compliance monitoring will be implemented on the East and West Parcels following completion of construction on the East Parcel (as outlined below)	Following construction completion
	– Recording of the environmental covenant	Done within 60 days of Ecology's approval of the final CAR/as-builts
	– Installation of compliance monitoring wells	Completed on the West Parcel. East Parcel monitoring wells to be installed within 4 weeks following completion of building foundation and at-grade work.
	– Groundwater Compliance Monitoring: Sampling	To be initiated Property-wide following installation of east block monitoring wells. First groundwater compliance monitoring event will take place approximately 1 week following installation of east block wells.
	– Groundwater Compliance Monitoring: Reporting	The first groundwater compliance report will be submitted to Ecology approximately 6 to 8 weeks following receipt of final analytical data
	– Vapor Intrusion Monitoring: Sampling	To be initiated following completion of the below-ground garage in the East Parcel building.
	– Vapor Intrusion Monitoring: Reporting	Quarterly data will be presented to Ecology via email. An annual report will be prepared to evaluate the sample results.