City of Bellevue
Development Services Department
Land Use Staff Report

Proposal Name:	Bellevue Base Yard Lighting
Proposal Address:	1790 124th Avenue NE, Bellevue, WA 98005
Proposal Description:	Land Use approval of a Critical Areas Land Use Permit to install new lighting and electrical improvements including four (4) floodlight poles, five (5) junction boxes, and upgrade associated improvements within a category II wetland buffer, steep slope top of slope buffer; and, structure setbacks of a category II wetland, and type F-stream.
File Number:	23-106037-LO
Applicant:	Jennifer Ash, King County Metro Transit
Decisions Included:	Critical Areas Land Use Permit (Process II. 20.30P)
Planner:	Jordan Borst, Land Use Planner
State Environmental Policy Act Threshold Determination:	**Determination of Non-Significance** ***Reilly Pittman*** ***Planning Manager*** Elizabeth Stead, Environmental Coordinator Development Services Department
Director's Decision:	**Approval with Conditions** Rebecca Horner, Director Development Services Department ***Reilly Pittman*** By: ***Planning Manager*** Elizabeth Stead, Land Use Director

Application Date:	March 28, 2023
Notice of Application Date:	June 29, 2023
Decision Publication Date:	December 7, 2023
Project Appeal Deadline:	December 21, 2023

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Critical Areas Land Use Permit decision must be made to the City of Bellevue City Clerk's Office by 5 p.m. on the date noted above as the appeal deadline.

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Attachments:

1. SEPA Checklist
2. Mitigation Plan and Project Plans
3. Wetland Study and Critical Areas Report – ICF dated February 2023
4. Geotechnical Report – Riley Group dated December 2020

All other documents and materials can be found in the project file for 23-106037-LO.

I. Proposal Description

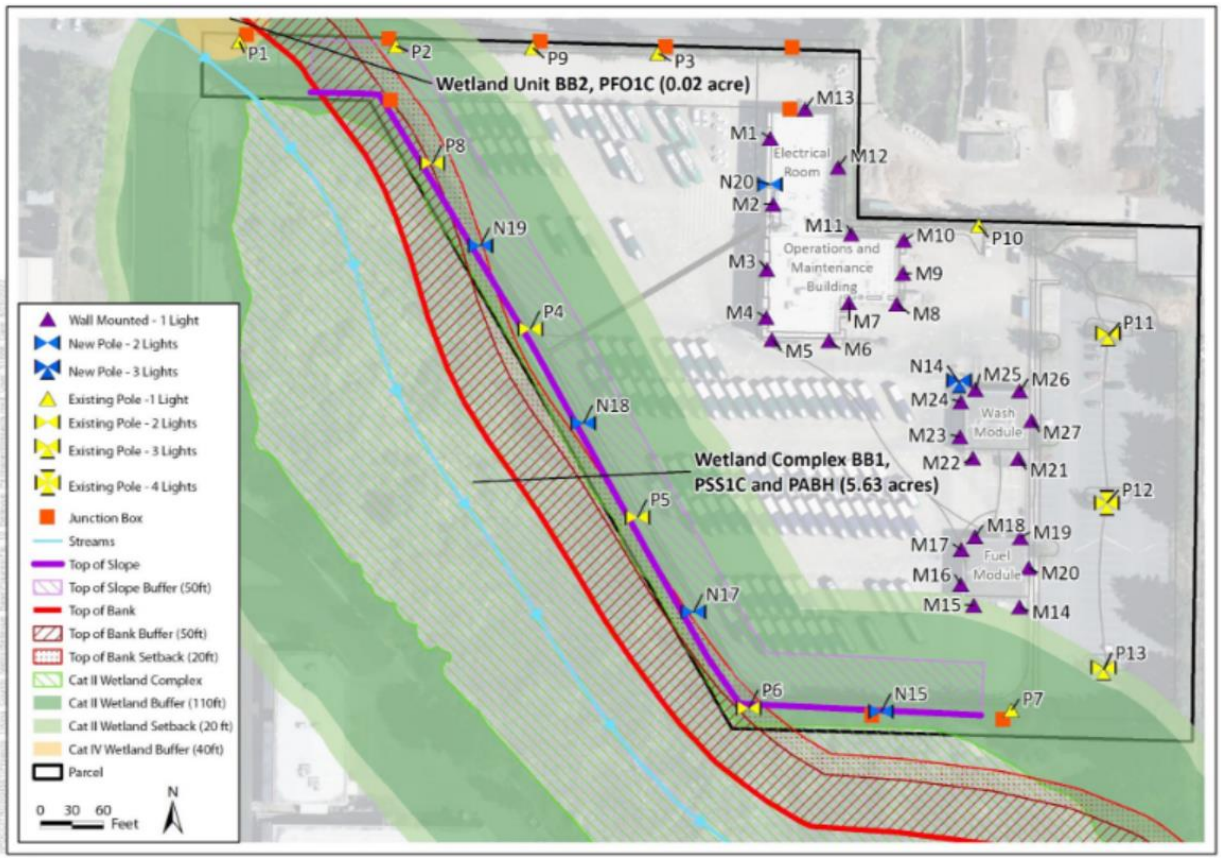
Approval of the Bellevue Base Yard Lighting project at the King County Metro Bellevue Base to upgrade the existing lighting system, which does not meet current minimum and average Washington State Department Labor & Industries' (L&I) lighting standards. L&I requires that an average of 3.0-foot candle (fc) 30 inches above surface level with no single light measure falling below 1.5 fc in the averaged area, pursuant to the Washington Administrative Code (WAC) 196-800-210. The average light levels minimum single light measurements throughout the site do not meet this standard and the proposed upgrade would meet light levels and uniformity requirements in addition to minimize light glare and spillover on nearby critical areas. Project construction and operations would occur within the 367,180-square-foot area of Bellevue Base, in the bus yard portion of Bellevue Base (project site). The work will occur within a category II wetland buffer; steep slope top of slope buffer; and, structure setbacks of a category II wetland, and Type F-stream. The main impacts to critical area, critical area buffer and critical area structure setbacks include:

- Installation of four (4) new 60 to 70-foot-high floodlight poles on concrete foundations along the southwestern property line. Each of these new poles will have two (2) flood lights installed. Two (2) more similar floodlight poles will be installed outside of a critical area, critical area buffer, or structure setback, with one (1) on the western side of operations and maintenance building, and another on the western corner of the wash building.
- Installation of five (5) junction boxes along the western panhandle, southwestern property lines. Another four (4) junction boxes will be installed on site outside of a critical area, critical area buffer, or structure setback.
- Temporary impacts associated with the excavation, trenching, and boring for the installation of below-grade power conduits and light pole footings.

The proposal will permanently impact area within a category II wetland buffer; steep slope top of slope buffer; and, structure setbacks of a category II wetland, and Type-F stream. The proposal will involve permanent and temporary impacts to impervious areas which are maintained as parking areas, pathways, open ground, and landscaped vegetation areas which the latter are primarily invasive understory. No significant trees are proposed to be removed. As mitigation, the proposal will remove invasive species within the wetland and stream buffers and replant the area. Areas of temporary impact of the paved parking area and open ground will be restored to current conditions.

A Critical Areas Land Use permit is required because the project will be located within category II and steep slope buffers; and, associated structure setbacks of a Type-f stream, and category II wetland. The project is an allowed activity per LUC 20.25H.055. **See Figure 1 below for project plan. See attachment 2 for project plans.**

Figure 1



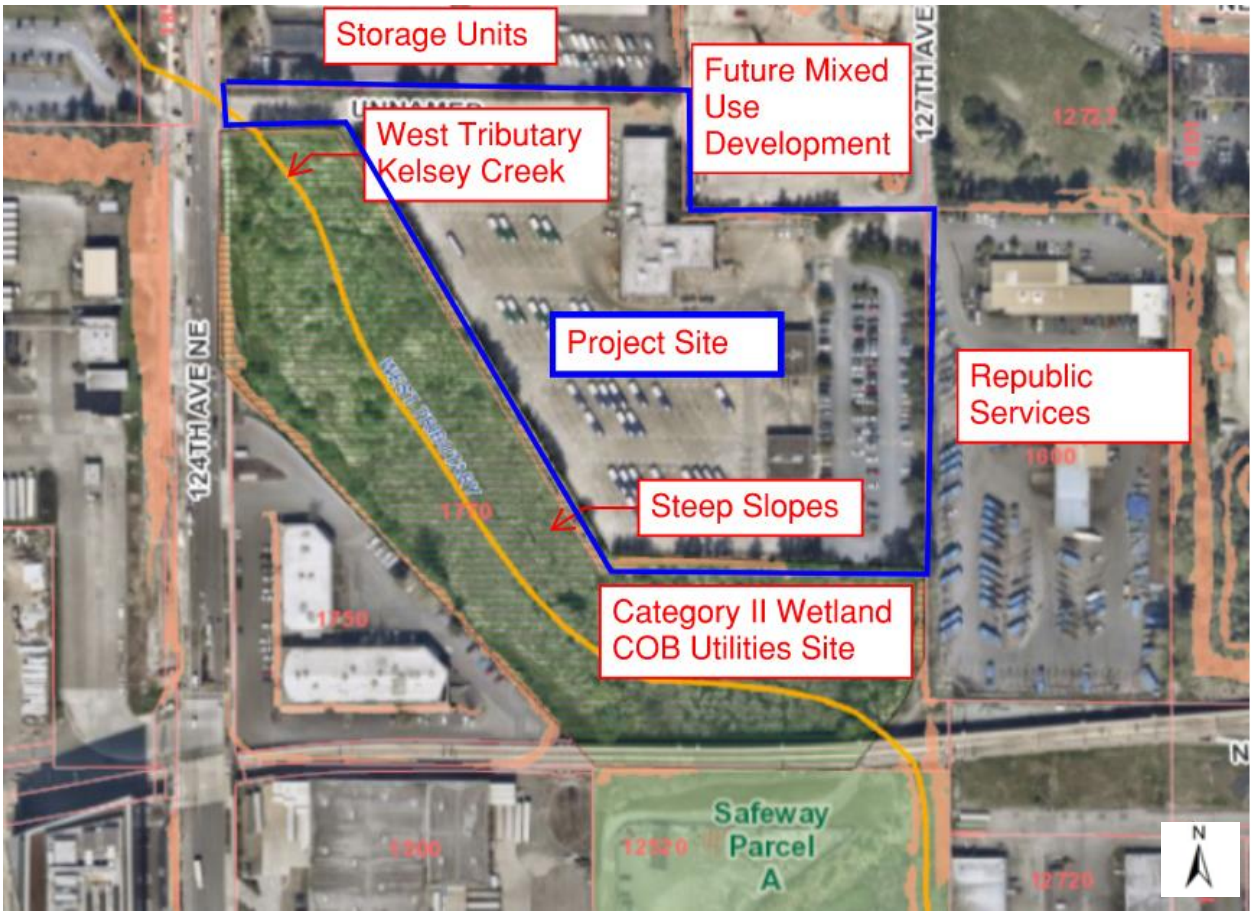
II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 1790 124th Avenue NE in the Bel-Red Subarea. The site is adjacent to 124th Avenue NE to the west and 127th Avenue NE to the east. The site is highly developed with paved areas and support buildings as a King County Metro transit base. The property obtains primary access from 124th Avenue NE with another access point from 127th Avenue NE.

A tributary to Kelsey Creek (West Tributary) and an adjacent category II wetland are located off-site to the south and west within a City of Bellevue Utilities property. A steep slope is located in the south portion of the site. North of the site is a public storage facility, and a mixed-use development under construction. Republic Services is located east of the site. **See Figure 2 below for project location and current site condition.**

Figure 2



B. Zoning

The property is zoned BR-OR-2. The King County Metro Bellevue Base facility is an existing use per LUC 20.25D.060. The continuation of the existing use and development is allowed in this zoning district.

C. Land Use Context

The property has a Comprehensive Plan Land Use Designation of BR-OR-2 (BelRed-Office/Residential Node 2). The continuation of the existing use and development is consistent with this land use.

D. Critical Areas – Functions and Values

i. Streams and Riparian Areas

Most of the elements necessary for a healthy aquatic environment rely on processes sustained by dynamic interaction between the stream and the adjacent riparian area (Naiman et al., 1992). Riparian vegetation in floodplains and along stream banks provides a buffer to help mitigate the impacts of urbanization (Finkenbine et al., 2000

in Bolton and Shellberg, 2001). Riparian areas support healthy stream conditions.

Riparian vegetation, particularly forested riparian areas, affect water temperature by providing shade to reduce solar exposure and regulate high ambient air temperatures, slowing or preventing increases in water temperature (Brazier and Brown, 1973; Corbett and Lynch, 1985).

Upland and wetland riparian areas retain sediments, nutrients, pesticides, pathogens, and other pollutants that may be present in runoff, protecting water quality in streams (Ecology, 2001; City of Portland 2001). The roots of riparian plants also hold soil and prevent erosion and sedimentation that may affect spawning success or other behaviors, such as feeding.

Both upland and wetland riparian areas reduce the effects of flood flows. Riparian areas and wetlands reduce and desynchronize peak crests and flow rates of floods (Novitzki, 1979; Verry and Boelter, 1979 in Mitsch and Gosselink, 1993). Upland and wetland areas can infiltrate floodflows, which in turn, are released to the stream as baseflow.

Stream riparian areas, or buffers, can be a significant factor in determining the quality of wildlife habitat. For example, buffers comprised of native vegetation with multi-canopy structure, snags, and down logs provide habitat for the greatest range of wildlife species (McMillan, 2000). Vegetated riparian areas also provide a source of large woody debris that helps create and maintain diverse in-stream habitat, as well as create woody debris jams that store sediments and moderate flood velocities.

Sparsely vegetated or vegetated buffers with non-native species may not perform the needed functions of stream buffers. In cases where the buffer is not well vegetated, it is necessary to either increase the buffer width or require that the standard buffer width be restored or revegetated (May 2003). Until the newly planted buffer is established the near-term goals for buffer functions may not be attained.

Riparian areas often have shallow groundwater tables, as well as areas where groundwater and surface waters interact. Groundwater flows out of riparian wetlands, seeps, and springs to support stream baseflows. Surface water that flows into riparian areas during floods or as direct precipitation infiltrates into groundwater in riparian areas and is stored for later discharge to the stream (Ecology, 2001; City of Portland, 2001).

ii. Wetlands

Wetlands provide important functions and values for both the human and biological environment—these functions include flood control, water quality improvement, and nutrient production. These “functions and values” to both the environment and the

citizens of Bellevue depend on their size and location within a basin, as well as their diversity and quality. While Bellevue's wetlands provide various beneficial functions, not all wetlands perform all functions, nor do they perform all functions equally well (Novitski et al., 1995). However, the combined effect of functional processes of wetlands within basins provides benefits to both natural and human environments. For example, wetlands provide significant stormwater control, even if they are degraded and comprise only a small percentage of area within a basin.

iii. Geologic Hazard Areas

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provides a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

iv. Habitat Associated with Species of Local Importance

Urbanization, the increase in human settlement density and associated intensification of land use, has a profound and lasting effect on the natural environment and wildlife habitat (McKinney 2002, Blair 2004, Marzluff 2005, Munns 2006), is a major cause of native species local extinctions (Czech et al 2000), and is likely to become the primary cause of extinctions in the coming century (Marzluff et al. 2001a). Cities are typically located along rivers, on coastlines, or near large bodies of water. The associated floodplains and riparian systems make up a relatively small percentage of land cover in the western United States, yet they provide habitat for rich wildlife communities (Knopf et al. 1988), which in turn provide a source for urban habitat patches or reserves. Consequently, urban areas can support rich wildlife communities. In fact, species richness peaks for some groups, including songbirds, at an intermediate level of development (Blair 1999, Marzluff 2005).Protected wild areas alone cannot be depended on to conserve wildlife species. Impacts from catastrophic events, environmental changes, and evolutionary processes (genetic drift, inbreeding, colonization) can be magnified when a taxonomic group or unit is confined to a specific area, and no one area or group of areas is likely to support the biological processes necessary to maintain biodiversity over a range of geographic scales (Shaughnessy

and O'Neil 2001). As well, typological approaches to taxonomy or the use of indicators present the risk that evolutionary potential will be lost when depending on reserves for preservation (Rojas 2007). Urban habitat is a vital link in the process of wildlife conservation in the U.S.

III. Consistency with Land Use Code Requirements

A. Zoning District Dimensional Requirements

The BR-OR-2 zoning dimensional requirements found in LUC 20.25D.080 are generally met by the proposal, but conformance will be verified during building permit review. All setbacks, height, lot coverage by structure, and impervious surface may be required to be verified by survey through the clearing and grading or building permit inspection process. **See Permit Related Conditions of Approval in Section X of this report.**

B. Critical Areas Requirements LUC 20.25H

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer.

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer, or structure setback from a critical area or buffer. The project proposes to install four floodlight poles, five junction boxes within a category II wetland buffer; steep slope top of slope buffer; and, structure setbacks of a category II wetland, and Type-F stream; and is subject to the performance standards found below:

i. Consistency with LUC Section 20.25H.055

New and Expanded Uses or Development. **LUC 20.25H.055.C.2.a**

New or expanded facilities and systems are allowed within the critical area or critical area buffer only where no technically feasible alternative with less impact on the critical area or critical area buffer exists. A determination of technically feasible alternatives will consider:

1. **The location of existing infrastructure;**
2. **The function or objective of the proposed new or expanded facility or system;**
3. **Demonstration that no alternative location or configuration outside of the critical area or critical area buffer achieves the stated function or objective, including construction of new or expanded facilities or systems outside of the critical area;**

4. **Whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of proposed disturbance; and**
5. **The ability of both permanent and temporary disturbance to be mitigated**

Finding: While the proposal does impact the top-of-slope, wetland, and stream buffers, the proposal avoids any impacts to any of the on and off-site critical areas. The proposal demonstrated that no alternative location or configuration will achieve the lighting improvements while still allowing sufficient continued operation of the bus yard facility. The areas impacted would replace existing impervious and paved areas or bare ground and weedy species, such as Himalayan blackberry, English ivy, or St John's wort. There is no feasible alternative location or configuration within the Bellevue Base that would have less impacts to critical areas or buffers and achieve the intended objective of the project. New temporary and permanent disturbance to critical areas and buffers will be restored or mitigated with the planting of native vegetation. **See Mitigation Related Conditions of Approval in Section X.**

New and Expanded Uses or Development. **LUC 20.25H.055.C.2.b**
If the applicant demonstrates that no technically feasible alternative with less impact on the critical area or critical area buffer exists, then the applicant shall comply with the following:

1. **Location and design shall result in the least impacts on the critical area or critical area buffer;**
   The project will take place outside of critical areas and in areas of degraded vegetative areas within the critical area buffers or in existing paved areas. This standard is met.

2. **Disturbance of the critical area and critical area buffer, including disturbance of vegetation and soils, shall be minimized;**
   The project avoids disturbance of critical area and minimizes impacts to buffers by disturbing existing paved areas and landscaping areas of bare ground and weedy species with low habitat potential. This standard is met.

3. **Disturbance shall not occur in habitat used for salmonid rearing or spawning or by any species of local importance unless no other technically feasible location exists;**
   The proposal has been designed to avoid the removal of trees and native vegetation and modifying existing contours by placing the new floodlight poles and junction boxes and associated lighting improvements within an impervious area or degraded areas already disturbed by prior development. This standard is met.

4. **Any crossing over of a wetland or stream shall be designed to minimize**

critical area and critical area buffer coverage and critical area and critical area buffer disturbance, for example by use of bridge, boring, or open cut and perpendicular crossings, and shall be the minimum width necessary to accommodate the intended function or objective; provided, that the Director may require that the facility be designed to accommodate additional facilities where the likelihood of additional facilities exists, and one consolidated corridor would result in fewer impacts to the critical area or critical area buffer than multiple intrusions into the critical area or critical area buffer;
The proposal will occur in an area of existing disturbance and development. No new crossing over of a wetland or stream is proposed. This standard is not applicable.

5. **All work shall be consistent with applicable City of Bellevue codes and standards;**
   All work proposed is consistent with applicable City of Bellevue codes and standards found in Titles 20 and 23. This standard is met.

6. **The facility shall not significantly change or diminish overall aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod;**
   No changes to aquatic area flow peaks, duration or volume or flood storage capacity, or hydroperiod are anticipated. This standard is met.

7. **Associated parking and other support functions, including, for example, mechanical equipment and maintenance sheds, must be located outside critical area or critical area buffer except where no feasible alternative exists; and;**
   No associated parking is proposed. The proposed lighting equipment and associated improvements are proposed in an area of degraded areas and prior disturbance. Additionally, the applicant has demonstrated there are no feasible alternative locations. This standard is met.

8. **Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.**
   Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan. **See Mitigation related Conditions of Approval in Section X**

ii. Consistency with LUC 20.25H.080 and LUC 20.25H.100

Finding: Based on review, the project is in conformance with the performance standards for development on sites with streams and wetlands found in LUC 20.25H.080 and LUC 20.25H.100. The proposed new and replaced floodlights atop

the new and existing poles will minimize light glare away from and spillover into the stream channel and wetland by shielding light from above and behind the bulbs, as well as directing and focusing the beam onto the bus yard. Additionally, the applicant states the large mature trees that are positioned between the floodlights along the northern boundary and adjacent properties would reduce potential spillover light. Project construction noise would be temporary and would result from the use of vehicles and equipment. Construction noise would occur during the regularly permitted hours for construction within the city limits of Bellevue outlined in the Bellevue City Code (BCC 9.18). The proposal will not generate toxic runoff. Runoff, including stormwater, would continue to be either drained via existing storm drains onsite or collected and disposed of at permitted facilities. Project operations would not generate treated water. No new additional stormwater treatment facilities are proposed. The edge of the buffer of the stream and wetland is currently densely vegetated, and that condition is not being changed by this project. Restoration planting is proposed in the stream and wetland buffers which will add additional vegetation. **See Mitigation Related Conditions of Approval in Section X of this report.**

iii. Consistency with LUC 20.25H.125

Finding: The steep slopes performance standards are incorporated into the project as found in the submitted Wetland Delineation and Critical Areas Report, in Attachment 3 of this staff report. The proposal is designed to minimize alterations to the steep slope critical areas and buffers. The proposed disturbance is limited to areas with existing infrastructure and open ground. As demonstrated in the geotechnical report (attachment 4), the proposed development will not result in a greater risk or a need for increased buffers on neighboring properties. Disturbed areas will be mitigated by a replanting plan. **See Mitigation Related Conditions of Approval in Section X of this report.**

IV. Public Notice and Comment

Application Date:	March 28, 2023
Public Notice (500 feet):	June 29, 2023
Minimum Comment Period:	July 13, 2023

The Notice of Application for this project was published in the City of Bellevue Weekly Permit Bulletin and Seattle Times on June 29, 2023. It was mailed to property owners within 500 feet of the project site. The City received a comment from the King County Wastewater Treatment Division (KCWTD) requesting construction drawings to ensure protection of the Wastewater Treatment Facility during construction.

Staff Response: As requested, the City shared this information with KCWTD.

V. Summary of Technical Reviews

A. Clearing and Grading

The Clearing and Grading Division of the Development Services Department reviewed the proposal for compliance with Clearing and Grading codes and standards and has approved the application. A commercial building permit with clearing and grading review is required and any plans submitted must be consistent with this approval. The site is subject to rainy season restrictions. **See Permit and Rainy Season Related Conditions of Approval in Section X of this report.**

B. Utilities

The Utilities Review section of Development Services Department reviewed the proposal for compliance with Utility codes and standards and has approved the application. The proposal will be required to maintain standard clearances to water, sewer, storm which will be reviewed under the building permit.

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist submitted with the application adequately discloses expected environmental impacts associated with the project. The City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, Building Code and other construction codes are expected to mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

A. Earth and Water

A temporary erosion and sedimentation control measures plan will be required. Erosion and sedimentation control requirements and BMPs will be reviewed by the Clearing and Grading Department as part of the future building permit. Erosion and sediment control best management practices include the installation of silt fencing around the work area, covering exposed soils, not working in wet conditions, etc. In addition, the restoration of native plantings will eliminate or greatly reduce potential erosion.

B. Plants and Animals

No vegetation removal other than invasive species is included in the proposal. The project restores and enhances vegetation to a degraded wetland and stream buffer. Provided the restoration is done correctly and given time, the resulting site will have improved function and value, reduced invasive species, and increase native vegetation coverage.

C. Noise

Any noise is regulated by Chapter 9.18 BCC.

VII. Changes to Proposal Due to Staff Review

No changes were made as of writing this staff report.

VIII. Decision Criteria

20.30P.140 Critical Area Land Use Permit Decision Criteria – Decision Criteria
The Director may approve, or approve with modifications an application for a Critical Area Land Use Permit if:

1. **The proposal obtains all other permits required by the Land Use Code;**
   The applicant must obtain a commercial building permit with clearing and grading review and other necessary construction permits before beginning any work. **See Permit Related Conditions of Approval in Section X of this report.**

2. **The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;**
   The proposal utilizes to the maximum extent the best available construction, design, and development techniques within reason to provide a result that has the least impact on the critical area and critical area buffer. All permanent disturbance will occur within developed areas consisting of impervious gravel, open ground, or degraded vegetation, including invasive and weedy species. No tree removal is proposed. This criterion is met.

3. **The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;**
   As discussed in Section III of this report, the performance standards of LUC 20.25H are being met or exceeded. This criterion is met.

4. **The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;**
   The proposed activity will not affect public services or facilities. This criterion is met.

5. **The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and**
   A mitigation planting plan has been submitted. The proposed planting will remove 125 square feet of invasive species within the wetland and stream buffer and replant the area with native vegetation. **See Mitigation Related Conditions of Approval in Section X of this report.**

6. **The proposal complies with other applicable requirements of this code.**
   As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code. This criterion is met.

IX. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the Critical Areas Land Use Permit to install four floodlight poles and five junction boxes, within a category II wetland buffer; steep slope top of slope buffer; and, structure setbacks of a category II wetland, and type F-stream, and associated improvements. **Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A commercial building permit with clearing & grading review is required and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.**

Note - Expiration of Critical Area Permit Approval: In accordance with LUC 20.30P.150, a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for a permit or other necessary development permits within one year of the effective date of the approval.

X. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

Applicable Ordinances	Contact Person
Clearing and Grading Code- BCC 23.76	Savina Uzunow, 425-452-7860
Utilities Code – BCC Title 24	Joshua Arreola, 425-452-5215
Land Use Code- BCC Title 20	Jordan Borst, 425-452-6997

The following conditions are imposed under the Bellevue City Code as referenced.

1. **Commercial Building Permit Required:** Approval of this Critical Areas Land Use Permit does not constitute an approval of any construction permit. A commercial building permit with clearing and grading review must be approved before construction can begin. Plans submitted as part of any permit application shall be consistent with the activity permitted under this approval.

   Authority: Land Use Code 20.30P.140, Clearing & Grading Code 23.76.035
   Reviewer: Jordan Borst, Land Use; Savina Uzunow, Clearing & Grading

2. **Geotechnical Review:** The project geotechnical engineer must review the final plans, including all foundation, retaining wall, shoring, and vault designs. A letter from the geotechnical stating that the plans confirm to the recommendations in the geotechnical report and any addendums and supplements must be submitted to the clearing & grading section prior to issuance of the construction permit.

   Authority: Clearing & Grading Code 23.76.050

Reviewer: Savina Uzunow, Clearing & Grading

3. **Geotechnical Monitoring:** The project geotechnical engineer of record or their representative must be on site during critical earthwork operations. The geotechnical engineer shall observe all excavations and fill areas. In addition, the engineer shall monitor the soil cuts prior to construction of rockeries and verify compaction in fill areas. The engineer must submit field report in writing to the DSD inspector for soils verification and foundation construction. All earthworks must be in general conformance with the recommendations in the geotechnical report.

   Authority: Clearing & Grading Code: 23.76.160.
   Reviewer: Savina Uzunow, Clearing & Grading

4. **Mitigation Planting:** The proposed mitigation planting shown on the submitted planting plan included in attachment 2 is required to be installed. The planting plan is required to be submitted and approved prior to grading permit issuance. All permanent and temporary disturbance is required to be mitigated and/or restored.

   Authority: Land Use Code 20.30P.140
   Reviewer: Jordan Borst, Land Use

5. **Monitoring:** The planting area shall be maintained and monitored for 5 years. Annual monitoring reports are to be submitted to Land Use each of the five years. The reports, along with a copy of the planting plan, can be sent to Jordan Borst at jborst@bellevuewa.gov or to the address below:

   Environmental Planning Manager
   Development Services Department
   City of Bellevue
   PO Box 90012
   Bellevue, WA 98009-9012

   Authority: Land Use Code 20.30P.140; 20.25H.220
   Reviewer: Jordan Borst, Land Use

6. **Land Use Inspection Required:** Inspection of mitigation planting must be completed by the Land Use Planner as part of the grading permit inspection process. A Land Use inspection will be added to the building permit.

   Authority: Land Use Code 20.25H.210
   Reviewer: Jordan Borst, Land Use

7. **Rainy Season Restrictions:** The project site is subject to rainy season restrictions. Specific approval from the Department of Planning and Community Development is required to begin or continue clearing & grading activities during the rainy season (Oct.1 through Apr. 30).

   Authority: Bellevue City Code 23.76.093.A,
   Reviewer: Savina Uzunow, Clearing & Grading

Development Services Department
Environmental Coordinator
450 110th Avenue NE
Bellevue, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPOSAL NAME:	Bellevue Base Yard Lighting
LOCATION:	1790 124th Avenue NE, Bellevue, WA 98005
FILE NUMBERS:	23-106027-LO
PROPONENT:	Jennifer Ash, King County Metro, (206) 477-5975, Jennifer.Ash@kingcounty.gov

DESCRIPTION OF PROPOSAL:

Critical Areas Land Use Permit approval to install new lighting and electrical improvements including four (4) floodlight poles, five (5) junction boxes, and upgrade associated improvements within a category II wetland buffer, steep slope top of slope buffer; and, structure setbacks of a category II wetland, and type F-stream, in order to meet current Washington State Department of Labor & Industries' (L&I) lighting standards. The proposed improvements will result in a 111-sf impact to these buffers and structure setbacks with the proposal to install 125-sf of mitigation planting.

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision.

DATE ISSUED: 12/7/2023

APPEAL DATE: 12/21/2023

A written appeal must be filed in the City Clerk's Office by 5 p.m. on the appeal date noted above.

This DNS may be withdrawn at any time if the proposal is modified so as to have significant adverse environmental impacts; if there is significant new information indicating a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project) or if the DNS was procured by misrepresentation or lack of material disclosure.

Reilly Pittman
Issued By: ***Planning Manager*** **for** **Date:** 12/7/23
Elizabeth Stead, Environmental Coordinator
Development Services Department

This SEPA Checklist was reviewed by Jordan Borst on 06/23/2023.

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal,** even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

A. Background Find help answering background questions

1. **Name of proposed project, if applicable:**

   King County Metro Bellevue Base Yard Lighting Replacement Project

2. **Name of applicant:**

   King County Metro Transit (Metro)

3. **Address and phone number of applicant and contact person:**

   Lawrence Chung,
   King County Metro Transit
   Transit Environmental Planner
   Phone (206) 263-5504
   lachung@kingcounty.gov
   201 South Jackson St.,
   MS KSC-TR-0431
   Seattle, WA 98104-3856

4. **Date checklist prepared:**

   06/13/2023

5. **Agency requesting checklist:**

   City of Bellevue

6. **Proposed timing or schedule (including phasing, if applicable):**

   The anticipated construction commencement date for this project is Summer 2023.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   The project is related to the King County Metro Bellevue Base Next Generation Wireless (NGW) Project. The conduits used by this project were constructed under and used by the Bellevue Base Next Generation Wireless (NGW) Project. A separate SEPA Checklist was previously submitted to assess the environmental impacts of the Bellevue Base Next Generation Wireless (NGW) Project.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   - Critical Areas Report

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- Geotechnical Report
- Washington State Department of Ecology (Ecology) Facility/Site Index
- Stream Habitat Assessment

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

In addition to the current project, there are three applications for proposals located in or near Bellevue Base that were or will be submitted for governmental approval in the future: 1) TDC NRV Battery Infrastructure Project at Bellevue Base by Metro, 2) Bellevue Base Next Generation Wireless (NGW) Project by Metro, and 3) 124th Avenue NE Corridor Project by City of Bellevue.

TDC NRV Battery Infrastructure Project at Bellevue Base by Metro
The scope of work for this project includes installation of three pedestal-type electrical vehicle chargers for Metro's non-revenue vehicles on the west side of the operations and vehicle maintenance building. Metro was working with Puget Sound Energy to reach a service agreement. In addition to electrical charger installation, other minor work might include adding wheel stops, bollards, and restriping parking spaces, etc.

Bellevue Base Next Generation Wireless (NGW) Project by Metro
The scope of work for this project is to upgrade the existing 4.9-gigahertz (GHz) wireless network to a 5-GHz wireless network using new Cisco wireless access points (WAPs) mounted on light poles or exterior building walls. This upgrade would improve communication between bus and operations office computer systems for data integration. Project construction and operation would occur in the bus yard portion of the Bellevue Base property. Twelve new Cisco WAPs would be installed throughout Bellevue Base's 367,180-square-foot area: four mounted on floodlight poles along the western boundary, six on the exterior of the operations and vehicle maintenance building, and two on the western corners of the fuel building. New conduit, conduit supports, and junction boxes would be installed to route power to the WAPs mounted on floodlight poles.

124th Avenue NE Corridor Project by City of Bellevue
This project is initiated by City of Bellevue (the city); Metro is reviewing the scope of work and is in negotiations with the city. The scope of work that Metro is aware of is stated in the following paragraphs:

The 124th Ave NE Corridor Project will regrade (steepen) Bellevue Base's driveway at 124th Ave NE approximately 135' in length x 36' maximum in width (width varies). The city will modify portions of Bellevue Base's storm drainage facilities. The existing landscape abutting the driveway will be removed and replaced. The existing light poles (1 at Bellevue Base) and 2 at East Base will be affected and replaced by the city.

The city plans to close Bellevue Base's driveway onto 124th Ave NE for approximately 3 months and detour the buses to 127th Ave NE. The city plans to install a temporary traffic signal at Northup Way and 127th Ave NE to help alleviate traffic impacts and bus detour delays.

Additionally, the adjacent property owner is planning to redevelop the property north of Bellevue Base for multifamily residences (two (2) fifty-unit condo buildings and 34 townhome units, and associated utilities and circulation roads) at parcel 2825059297, address 1733 127th Ave NE, City of Bellevue Pre-Development application number: 20 103752 DC. The city requires road improvements to 127th Ave NE for this development. Metro is one of five adjacent property owners that owns this private road. The city's zoning plan also shows a future greenway road, with half of which located on the northeast half of Bellevue Base and the other half of the road located on the

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neighbor planning the multifamily development. Metro has not been provided any updated proposed plans from the neighbor since pre-development concept plans were shared with Metro in the summer of 2020. Adjacent property redevelopment and city's +/-3 month driveway closure and detour to 127th Ave NE would impact traffic and bus operations.

10. List any government approvals or permits that will be needed for your proposal, if known.

- City of Bellevue critical areas land use permit
- City of Bellevue clearing and grading permit
- City of Bellevue electrical permit
- City of Bellevue building permit

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11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Metro is proposing the Bellevue Base Yard Lighting Replacement Project (project) at Bellevue Base to improve lighting throughout the 367,180-square-foot area property (project site; Figures 1 and 2). The project is needed to enhance worker safety and must comply with Washington State Department of Labor and Industries (L&I) light level requirements because the existing lighting is inconsistent with current standards and deemed inadequate under L&I light level requirements. Washington State requires an average of 3.0 foot candle (fc) 30 inches above surface level with no single light measurement falling below 1.5 fc in the averaged area (Washington Administrative Code [WAC] 296-800-210). Currently, the Bellevue Base entry has an average light level of 2.29 fc with a minimum single light measurement of 0.4 fc; the main bus yard has an average light level of 2.54 fc with a minimum single light measurement of 0.3 fc; and the employee parking lot has an average light level of 3.18 fc with a minimum single light measurement of 0.8 fc (Marks pers. comm.). None of these areas meet the Washington State L&I requirement for lighting levels. The project goal is to meet light level and uniformity requirements while also reducing light pollution and glare as established under WAC 296-800-210.

Currently, ten floodlights on the project site illuminate the bus yard along the outer perimeter of the site. The floodlights consist of fixtures mounted 40 to 50 feet above grade on ten concrete poles. Thirteen wall-mounted lights roughly 26 feet high surround the outside of the operations and vehicle maintenance building, seven wall-mounted lights between 15 and 16 feet high surround the wash building, and seven wall-mounted lights between 15 and 16 feet high surround the fuel building, for a total of twenty-seven wall-mounted building lights in the eastern portion of the bus yard. The employee parking lot to the east is illuminated using six floodlights mounted 40 feet above grade on three concrete poles. Each pole has two light fixtures mounted 180 degrees from each other (Appendix A, *Permit Set*, Drawings C1.06 through C1.08).

The project would replace all existing floodlight brackets, fixtures, and conductors back to the light control panel. Floodlight concrete poles would be maintained, and all wall-mounted building light fixtures would be replaced. Floodlight poles along the northern boundary would be mounted with one light fixture per pole. Floodlight poles along the southwestern boundary would be mounted with two light fixtures per pole except for P7 on the southeast corner, which would only have one mounted light fixture. In addition, the project would install three light fixtures atop two employee parking lot poles, P11 and P13, and four fixtures atop P12. New pole top tenons would be added atop existing employee parking lot poles. The project would involve installing six new approximately 60 to 70-foot-high steel floodlight poles mounted on concrete foundations at the project site. Four poles with two light fixtures would be installed along the southwestern perimeter of the bus yard, and one pole also with two light fixtures would be installed outside the west entrance of the operations and vehicle maintenance building. One pole with three light fixtures would be installed in the northwest corner of the wash building (Appendix A, Drawing C0.01). In total, the project would replace or install 64 light fixtures on 46 poles or wall-mounted brackets throughout the project site. New or replaced light fixtures would be mounted approximately 30 to 70 feet above grade on the poles, and replaced light fixtures would be mounted on 26 feet, 15 to 16 feet, and 15 to 16 feet above grade outside of the operations and vehicle maintenance building, the wash building, and the fuel building respectively.

All 64 of the new or replacement floodlights, employee parking lot lights, and wall-mounted building lights would use Musco Total Light Control fixtures. Three existing pole-mounted 1,000-watt halide bulb floodlights and the remaining existing pole-mounted 400-watt halide bulb floodlights would be

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changed to 400-watt light-emitting diode (LED) floodlight bulbs, except P11, P12, and P13, which are scheduled to use 130-watt LED bulbs. The proposed new six light poles are all scheduled to use 400-watt LED bulbs. The new wall-mounted building lights would use 130-watt LED bulbs.

New drilled pier pole foundations for poles N15, N17, N18, and N19 along the perimeter, and N14 and N20 near the wash building or operations and vehicle maintenance building respectively, would be 38 inches in diameter and 10 feet deep (Appendix A, Drawing S5.01). New conduits and nine new junction boxes would be installed to route power to the light poles. Excavation for junction box installation would be up to 4.5 feet long by 4 feet wide by 1.5 feet deep (Appendix A, Drawing C2.00, Note 4).

Conduits along the northern boundary and a portion of the southwestern boundary would be installed using directional boring. A total of 743 linear feet of directional boring under asphalt or in landscaping would occur. Directional boring would have a maximum depth of 13 feet (Appendix A, Drawing C2.11). Twelve soil pits would be used for entry and exit during directional boring. Receiving soil pit dimensions are approximately 5 feet long by 5 feet wide by 3.5 feet deep along the northern boundary; 5 feet long by 5 feet wide by 5 feet deep near P2; 15 feet long by 5 feet wide at the surface near P9; and 5 feet long by 4 feet wide by 3.5 feet deep near N17. Launching pit dimensions are approximately 15 feet long by 5 feet wide at the surface except for one launching pit near N15, which would be 15 feet long by 4.5 feet wide at the surface (Appendix A, Drawings C2.00 to C2.02, and C2.05). Up to five Fraser's photinia (*Photinia fraseri*) would be removed along the northern boundary due to boring soil pits. Existing plants, grade, or elevation would be restored to match existing conditions.

The remaining conduits would be installed in six other areas using trenching at a maximum of 6 feet below grade (Appendix A, Drawings C2.00 through C2.08). Only hand or compressed air excavation would be allowed for trenching in tree protection zones. Any subsurface disturbance along the southwestern boundary would take place in areas dominated by weedy species such as Himalayan blackberries (*Rubus armeniacus*), St. John's wort (*Hypericum perforatum*), perennial grasses, English ivy (*Hedera helix*), and bare ground. Existing grade or elevation would be restored to match existing conditions.

To facilitate conduit installation near existing structures, concrete would be removed using a sawcut to an approximate depth of 12 inches below surface. Specifically, a 50-foot-by-12-foot concrete rectangle would be removed between the cement curb and northern side of the operations and vehicle maintenance building's electrical room. Near the western entrance of the operations and vehicle maintenance building, an approximate 12-foot-by-12-foot square of concrete would be removed. This 12-foot-by-12-foot square would be reduced to 7.6 feet wide near the entrance to maintain building access during construction. Finally, a 24.6-foot-by-12-foot concrete rectangle would be removed adjacent to the northwest corner of the wash building (Appendix A, Drawings C2.02 and C2.08). Concrete would be restored as outlined in Drawings C2.09 and C2.10 of the Permit Set ensuring aligned joints to protect existing utilities.

New project elements, such as light pole foundations and junction boxes, along with trenching, directional boring soil pits, and concrete removal would result in approximately 1,660 square feet or 2,240 cubic feet of ground disturbance during construction. A total of 1,162 square feet of concrete or impervious surfaces would be replaced during project construction. Finally, roughly 111 square feet of new hard surfaces, from new pole foundations and junction boxes, would be created by the project (Appendix A, Drawing C0.01).

The project footprint would remain above the ordinary high water mark (OHWM) of the West Tributary of Kelsey Creek (West Tributary) and outside the wetland boundaries. Floodlight pole P1 and a new junction box are within the top of bank and Wetland Unit BB2 buffer. Poles N15, N17, N18, N19 and five new junction boxes are in the Wetland Complex BB1 buffer, could be within the

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top of steep slope boundary or buffer, and could be within the top of bank buffer or setback. Figure 3 has been provided to show the location of temporary construction impacts and new aboveground structures (i.e., new poles and junction boxes) in relation to critical area boundaries, buffers, and setbacks. The Bellevue Base may qualify for an exclusion from wetland and steep slope buffers and setbacks from the perimeter cement curb inward towards the established parking areas and operations and vehicle maintenance building (Figure 4) (LUC 20.25H.095.D.1.b and LUC 20.25H.120.B.2, respectively). It is dependent on the City to make this exclusionary decision.

Upon completion of the project, the Bellevue Base lighting system would provide increased safety and security, improved controllability of lights, and reduced glare and light pollution to surrounding areas.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Street address: 1790 124TH AVE NE, Bellevue, WA 98005

King County property parcel number: 2825059295

Legal description: POR PARCEL '1' REV CITY OF BELLEVUE SP #77-81 REC #7912319005 DESC AS FOLLOWS BEG AT CENTER OF STR 28-25-05 TH S 88-22-07 E 30 FT M/L TO NXN WITH E MGN OF 124TH AVE NE & W MGN OF PARCEL 3 OF SP NO 77-81 REVISED AF #7912319005 - TH N 00-42-15 E 813.76 FT M/L TO NW COR OF SD PARCEL '1' TH S 88-23-06 E ALG N MGN OF SD PARCEL '1' 626.88 FT M/L TO A COR OF SD PARCEL '1' TH S 00-47-17 W 60 FT TO TPOB TH N 88-23-06 W 467 FT PLW N MGN OF SD PARCEL '1' TH S 30-04-42 E 689.72 FT TH S 88-22-37 E 439 FT M/L TO NXN WITH E MGN OF SD PARCEL '1' TH N 00-52-25 E 489 FT M/L ALG SD E MGN TO A CORNER OF PARCEL '1' SD BEARING BEING IDENTICAL WITH N 00-52-19 E AS SHOWN ON E MGN OF PARCEL '1' OF SP 77-81 REVISED TH N 88-22-37 W 326.62 FT M/L TO A CORNER OF SD PARCEL '1' TH N 00-47-20 E 97.93 FT M/L TO TPOB TGW N 60 FT OF SD PARCEL '1' SD SP DAF - PARCEL 1,2,3 & 4 OF SP 77-81 REC #7712130634 SD SP DAF - W 330 FT OF SW 1/4 OF NE 1/4 OF STR 28-25-05 LESS N 132 FT THOF LESS W 30 FT THOF FOR ST TGW POR OF W 1/2 OF W 1/2 OF NE 1/4 OF SD SEC 28 LY SLY OF CO RD #833 LESS W 330 FT THOF LESS ANY POR FOR SR #520 TGW POR OF E 1/2 OF W 1/2 OF NE 1/4 OF SD SEC 28 LY SLY OF CO RD #833 LESS E 330 FT THOF LESS ANY POR FOR SR #520 TGW POR OF NW 1/4 OF SE 1/4 OF SD SEC 28 LY N OF A LN PLT & 394.4 FT SLY FR N LN THOF LESS S 300 FT THOF LESS E 300 FT THOF LESS W 30 FT FOR ST
Plat Block:
Plat Lot:

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B. Environmental Elements

1. Earth Find help answering earth questions

a. General description of the site:

The project site generally slopes from northwest to southeast with an approximate 4% slope. The site is generally flat, with the exception of the property boundaries to the southwest, south, northeast, and east. The southwestern and southern portions of the site, where the site borders the West Tributary, have the steepest slope of approximately 40%. The northeastern and eastern property boundaries were also documented as steep slopes in the City of Bellevue Critical Geologic Hazards Map (City of Bellevue 2018). However, these areas are well outside the project construction footprint.

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

b. What is the steepest slope on the site (approximate percent slope)?

40% is the steepest slope within the project site.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The project site has two mapped soil units (Figure 5). Soil Unit Sk, Seattle Muck, is mapped in the northwestern portion of the project site. This soil is found in depressions and formed from grassy organic material. It is frequently flooded, poorly drained, and considered hydric. The remainder of the project site is mapped as EvC, Everett very gravelly sandy loam, 8 to 15% slopes. This soil is formed from sandy or gravelly glacial outwash and is typically located along foot of slopes or shoulders. It is not flooded and is excessively drained; it is not considered hydric (USDA 2020).

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service, Seattle Muck is rated as prime farmland if drained. Everett very gravelly sandy loam, 8 to 15% slopes is rated as farmland of statewide importance (USDA 2020). However, the project site is in a highly developed urban area and is not within any Farmland Preservation Properties or Agricultural Production Districts per the King County Farmland Preservation Program Protected Farmland Map (King County 2019). Therefore, the project site should not have any agricultural land of long-term commercial significance.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Per the *2020 Critical Area Evaluation and Geotechnical Recommendations Yard Lighting Replacement for King County Metro Bellevue Base* memo by the Riley Group (2020) (Appendix D), the western portion of Bellevue Base was likely a fill slope which appeared to be stable with no signs of "previous settlement or failure." In addition, according to the site visit conducted in 2020, Metro's consultant observed steep slopes near the project site, but did not see any surface indications or history of unstable soils within the immediate vicinity of the project site.

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e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The ground impact by this project has an approximate surface area of 1,660 square feet and an approximate volume of 2,240 cubic feet due to directional boring and trenching during project construction.

Directional boring would be utilized to install conduits largely along the northern boundary and two other areas. A total of 743 linear feet of directional boring under asphalt or in landscaping would occur in three areas:

1) 499 feet along the northern boundary between P1 and JB#8 (Appendix A, Drawings C2.00 to C2.02).
2) 52 feet between JB#3, crossing under the entry driveway, and terminating north near P2 (Appendix A, Drawing C2.00).
3) 192 feet running under the asphalt between N15 and N17 (Appendix A, Drawing C2.05).

Directional boring would have a maximum depth of 13 feet (Appendix A, Drawing C2.11). Twelve soil pits would be used for entry and exit during directional boring. Receiving soil pit dimensions are approximately 5 feet long by 5 feet wide by 3.5 feet deep along the northern boundary; 5 feet long by 5 feet wide by 5 feet deep near P2; 15 feet long by 5 feet wide at the surface near P9; and 5 feet long by 4 feet wide by 3.5 feet deep near N17. Launching pit dimensions are approximately 15 feet long by 5 feet wide at the surface except for one launching pit near N15, which would be 15 feet long by 4.5 feet wide at the surface (Appendix A, Drawings C2.00 to C2.02, and C2.05).

Trenching would be utilized to install conduits in six areas at a maximum of 6 feet below grade. Conduits connecting existing and new junction boxes to new floodlight poles would be installed at approximately 2 feet deep. Trenching would occur:

1) Between the curb and the electrical room at the northern side of the operations and vehicle maintenance building (Appendix A, Drawing C2.02).
2) West of the operations and vehicle maintenance building entrance (Appendix A, Drawing C2.02).
3) The northwest corner of the wash building (Appendix A, Drawing C2.08).
4) Between poles N15 and P7 along the southern border (Appendix A, Drawings C2.05 and C2.06, Note 6).
5) Between JB#3 and P8 (Appendix A, Drawings C2.00 and C2.01).
6) From existing and new junction boxes to poles N15, N17, N18, and N19 (Appendix A, Drawings C2.03 through C2.05).

Only hand or compressed air excavation would be allowed for trenching in tree protection zones. Existing grade that is disturbed by directional boring or trenching to install conduits and junction boxes would be restored to match pre-disturbance conditions. Excavated soils, if suitable, would be used to backfill excavations after conduit installation.

f. Could erosion occur because of clearing, construction, or use? If so, generally describe.

During construction, clearing, grading, excavating, soil stockpiling, and other construction activities could temporarily reduce soil stability, resulting in erosion. The chance of significant erosion risk is low because clearing will be limited and best management practices (BMPs) to control erosion will be employed. Erosion Control regulated by BCC 23.76.

g. About what percent of the site will be covered with impervious surfaces after project

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construction (for example, asphalt or buildings)?

About 90% of the site is currently covered with impervious surfaces. New aboveground structures — six new floodlights (poles and fixtures) and nine new junction boxes — would increase hard surfaces and may reduce water infiltration and increase stormwater runoff in the area. The new floodlight poles or junction boxes would replace bare ground or weedy species, such as Himalayan blackberry, English ivy, or St. John's wort. Floodlight poles have a 38-inch diameter and would be buried 10 to 12 feet below ground with the remaining 60 feet above ground. The new junction boxes would generally measure 27.75 inches wide by 16.75 inches long and are typically 1 foot deep and flush with the ground surface. This increased hard surface area, approximately 111 square feet, is minimal in comparison to the remainder of the project site (approximately +0.03% of the project site), as well as when compared to the surrounding area, which is highly developed. The proposed project would not introduce any new pavement to expand the existing bus yard.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any.

A project specific Temporary Erosion and Sedimentation Control Plan (TESC) would be prepared. BMPs identified in the TESC would be followed to control the risk of erosion. In addition, existing vegetative ground cover would be preserved to the extent practicable. These measures would reduce or control erosion and subsequent sedimentation that might otherwise occur during ground disturbing activities. Erosion control is regulated by BCC 23.76.

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2. Air Find help answering air questions

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Emissions from construction vehicles and equipment may temporarily affect local air quality during construction of the project. The emission quantities have not been estimated; however, they are not expected to exceed local emissions standards.

Fugitive dust emissions may also occur as a result of clearing, excavating, and other construction activities. Potential for fugitive dust would be higher during dry, warm weather conditions when wind and construction equipment could create more dust.

Upon completion of project construction, there would be no project related air emissions. Vehicular emissions would not increase during the operation of the project. Emissions from maintenance activities are not expected to exceed local emissions standards.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No off-site sources of emissions or odors are anticipated to affect the project proposal.

c. Proposed measures to reduce or control emissions or other impacts to air, if any.

Air quality impacts would be temporary and limited to the period of construction. Construction crews would be required to implement measures to minimize impacts on air quality, including (but not limited to):

- Covering loads of excavated materials
- Cleaning vehicles and equipment prior to leaving the construction area
- Installing and maintaining construction area entrances and exits
- Removing soil deposited on public lands
- Performing proper vehicle maintenance

3. Water Find help answering water questions

a. Surface Water: Find help answering surface water questions

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

Yes. The West Tributary is a perennial stream that runs adjacent to the western and southern extent of the project site. In addition to the stream, two wetlands were identified immediately adjacent to the northern, western, and southern extent of the project site during the critical area investigation (Figure 6).

The West Tributary has been identified as a class F stream or fish bearing stream by the City of Bellevue and King County (City of Bellevue 2020; King County 2018). A hydrologically connected, seasonally flooded freshwater scrub-shrub wetland and permanently flooded aquatic bed pond were identified and labelled as Wetland Complex BB1 in the study area adjacent to the western and

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southern extent of the project site (USFWS 2019). Wetland Complex BB1 is a Category II wetland with a habitat score of 6. A roadside swale immediately north of Bellevue Base was identified as a seasonally flooded freshwater broad-leafed deciduous forest wetland in the study area. The swale was labelled as Wetland Unit BB2 and is a Category IV wetland with a habitat score of 4. The project site lies within the Kelsey Creek Basin, Lake Washington Watershed (WRIA 8), State Stream #08-0259 (City of Bellevue 2015 and 2017).

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   Yes. Four out of six new floodlight poles and five out of nine new junction boxes are within a critical area buffer or structural setback for the West Tributary and/or wetlands. The excavation and trenching/directional boring on a portion of the northern boundary, as well as on the western or southern boundaries of the parcel is within the top of bank, buffer or setback of the West Tributary, and critical area buffer or setback for Wetland Complex BB1 and Wetland Unit BB2. The project is designed to avoid any work below the OHWM of the West Tributary and outside the wetland boundaries. It is worth noting, a large portion of the Bellevue Base property is contained within 200 feet of the West Tributary and/or wetlands. No in-water work is needed to execute the project.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   No amount of fill, dredge, or discharge material would be placed in or removed from surface water, wetlands, or waterways. Directional boring would require water, which would be reclaimed water coming from a reclaimed-water truck on site, and all slurry material produced by directional boring would be collected, contained in a closed vessel and disposed of at a permitted off-site location. The project footprint would remain above the OHWM of the West Tributary and outside the wetland boundaries.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   No, the project would not require any surface water withdrawals or diversions. Directional boring would require water, but the water would be reclaimed water coming from a reclaimed-water truck on site.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   No, the project site is outside of the 100-year floodplain based on the Federal Emergency Management Agency (1995) Flood Insurance Rate Map for King County Washington Incorporated Areas.

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   The project would not discharge any waste materials to surface waters.

b. Ground Water: Find help answering ground water questions

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

   The project would not withdraw groundwater from a well for drinking water or other purposes. The project would not discharge water to groundwater.

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   The project would not discharge waste material into the ground from septic tanks or other sources.

c. Water Runoff (including stormwater):

a) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   Surface water runoff, including stormwater, would continue to be collected via storm drains onsite. During construction, surface water runoff will be treated by passive catch basin protection systems (i.e., plastic sheeting as shown on the TESC plans and stated in the SWPPP). Groundwater or other sediment laden water encountered would be pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. No additional surface water runoff treatment facilities are proposed.

b) **Could waste materials enter ground or surface waters? If so, generally describe.**

   During the site visit, Metro's consultant observed that groundwater was present 8 inches below ground surface at an elevation of 135 feet above sea level in the northern portion of Wetland BB1 complex at sampling point Bb-4 (Figure 6). Per King County iMAP (2020a), the paved curb located in the southwestern portion of the bus yard has the lowest elevation, which is approximately 140 feet above sea level. Based on this information, groundwater in Bellevue Base is estimated to be 5 feet below ground surface in some areas. Therefore, groundwater may be encountered during pole installation, directional boring, or trenching. There is a risk that groundwater quality may be impaired due to the accidental release or exposure to gasoline, oil, hydraulic fluids, and related materials from use and operation of construction equipment. To mitigate this risk, the potentially contaminated groundwater would be removed by using a vactor truck and taken to a permitted facility for treatment and disposal. However, since the project footprint would remain above the OHWM of the West Tributary and outside the wetland boundaries, the chance of waste materials entering surface water is relatively low. A project-specific TESC describing erosion and sediment control guidelines along with temporary and permanent erosion and sediment control measures would be developed to prevent waste materials from entering groundwater or surface waters.

c) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No, the project would not alter or otherwise affect drainage patterns in the vicinity of the site.

d) Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any.

A project-specific TESC describing erosion and sediment control guidelines along with temporary and permanent erosion and sediment control measures will be developed. The TESC, in conjunction with a project specific stormwater pollution plan (SWPPP) will describe measures to reduce or control any groundwater, stormwater, and drainage pattern impacts.

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4. Plants Find help answering plants questions

a. Check the types of vegetation found on the site:

☒ **deciduous tree: alder, maple, aspen, other:** Pacific willow, Pacific madrone, English hawthorn

☒ **evergreen tree: fir, cedar, pine, other:** Redwood

☒ **shrubs**

☒ **grass**

☐ **pasture**

☐ **crop or grain**

☐ **orchards, vineyards, or other permanent crops.**

☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**

☐ **water plants: water lily, eelgrass, milfoil, other**

☐ **other types of vegetation**

b. What kind and amount of vegetation will be removed or altered?

Up to five ornamental Fraser's photinia would be removed along northern boundary from boring soil pits. Surface disturbance would involve excavating, trenching, and/or directional boring for conduit, light pole, and junction box installations. Surface disturbance would take place within areas dominated by weedy species such as Himalayan blackberries, St. John's wort, perennial grasses, English ivy, and bare ground along the boundaries. Existing grade or elevation would be restored to match existing conditions.

c. List threatened and endangered species known to be on or near the site.

No threatened or endangered plant species are documented within or near the site (DNR 2020).

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.

Existing vegetation would be preserved to the extent practicable during construction (Appendix A, Drawings C1.09 and C1.10, Note 4). When construction is completed, areas disturbed during conduit installation and directional boring soil pits would be restored by replanting the areas with an upland seed mix containing native grasses, such as blue wildrye (*Elymus glaucus*), meadow barley (*Hordeum brachyantherum*), and California brome (*Bromus carinatus*). The seed mix would be from a native plant source within the Puget Sound lowlands. The mix would be true-to-name, cleaned, and weed free within acceptable tolerance limits. Since the surface disturbance would take place in areas dominated by weedy species or bare ground (both with low water storage), there should be no net loss in stormwater function when the area is revegetated with native grasses.

New permanent structures in critical areas and buffers would be mitigated at over a 1:1 ratio through enhancement of riparian vegetation onsite. Compensatory mitigation would be achieved by removing up to 125 square feet of invasive species and replanting with native tree, shrub, and groundcover species. Plants would be from a native plant source within the Puget Sound lowlands. All invasive removal and replanting would occur on the project site within the critical areas or associated buffers; no offsite mitigation is proposed. The potential mitigation area is currently dominated by St. John's wort and Himalayan blackberry. This mitigation would result in improved vegetative quality and habitat along the riparian corridor beyond the vegetation removed during project installation.

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e. List all noxious weeds and invasive species known to be on or near the site.

According to the King County Noxious Weed List, 7 plant species observed on or near the site are considered Class C noxious weeds. They are field bindweed (*Convolvulus arvensis*), English hawthorn (*Crataegus monogyna*), English ivy, Common St. Johnswort, reed canary grass, Himalayan blackberry, and Nonnative Cattail (*Typha* sp.; King County 2020b). In addition, purple loosestrife (*Lythrum salicaria*), a Class B noxious weed, was observed during field investigations. Finally, three plant species observed onsite are King County weeds of concern. These are English holly (*Ilex aquifolium*), creeping buttercup (*Ranunculus repens)*, and climbing nightshade (*Solanum dulcamara*).

5. Animals Find help answering animal questions

a. List any birds and other animals that have been observed on or near the site or are known to be on or near the site.

Examples include:

- **Birds: hawk, heron, eagle, songbirds, other:** woodpecker, hummingbird, American goldfinch, Red-winged blackbird, crow, Virginia rail
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

b. List any threatened and endangered species known to be on or near the site.

The Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) map documents resident coastal cutthroat (*Oncorhynchus clarki*) occurring within and migrating through the site (Figure 7; WDFW 2020a). WDFW SalmonScape also mapped Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), and steelhead (*Oncorhynchus mykiss*) gradient accessible habitat in the West Tributary (Figure 8; WDFW 2020b). Although the *2016 West Tributary Habitat Assessment* (Appendix E) also determined the tributary to be appropriate fish habitat, it stated that there was no spawning habitat along the project reach and that habitat quality suffered from a dense reed canary grass (*Phalaris arundinacea*). The assessment recommended revegetation with a mix of native trees, shrubs, and herbaceous species along with wood placement to improve habitat (Tetra Tech 2016). Finally, Ecology's *Puget Sound Watershed Characterization Project (2019)* notes the watershed basin is important for local salmonid habitat but has poor quality wetland, floodplain, and terrestrial habitats for other wildlife (Figure 9).

c. Is the site part of a migration route? If so, explain.

The project site is located along the Pacific Flyway migration route for birds. Since no riparian vegetation would be removed for this project, impacts on migrating birds are unlikely (Pacific Flyway Center 2021).

d. Proposed measures to preserve or enhance wildlife, if any.

Construction activities have been sited to avoid work in or around jurisdictional waters to protect existing resources.

e. List any invasive animal species known to be on or near the site.

The Kelsey Creek Basin is infested with the New Zealand Mud Snail (*Potamopyrgus antipodarum*).

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Although the species has yet to be detected in the onsite reach of Kelsey Creek, they have been detected in areas of Kelsey Creek that flow into this tributary (City of Bellevue 2020).

6. Energy and Natural Resources Find help answering energy and natural resource questions

1. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

   The project would require electricity to power the lights.

2. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

   The project would not affect any solar energy uses on adjacent properties.

3. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

   Energy-efficient lighting is an integral part of the finished project design. The original 1,000-watt halide bulb floodlights along the bus yard parameter in the Bellevue Base would be replaced with 400-watt LED lights, while the 400-watt halide bulb floodlights in the eastern employee parking lot would be replaced with 130-watt LED lights.

7. Environmental Health Find help with answering environmental health questions

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.

The project location, Metro's Bellevue Base, is an active transit operations and maintenance facility. The project site consists of a bus yard that currently houses 114 sixty-foot diesel-electric hybrid buses and 11 forty-foot electric Proterra buses, an employee parking lot, an operations and vehicle maintenance building, a wash building, and a fuel building. Operation and maintenance of the Metro fleet at Bellevue Base requires the storage and use of fuels, lubricants, antifreeze, and various chemicals associated with vehicle maintenance. A list of interactions with Ecology is included in Ecology's Facility/Site index (Appendix B; Ecology 2020a).

Two oil/water separator tanks are located southeast of the operations and vehicle maintenance building. Four underground storage tanks (USTs) for fuel (one unleaded gasoline, three diesel), are located west of the fuel building. Bellevue Base has a history of petroleum releases to the environment from the UST area and is listed by Ecology as Cleanup Site ID 6026 and Facility Site ID 39681715. Ecology lists unit status as "No Further Action Required" (Appendix C; Ecology 2020b).

In addition, the project location is within 750 feet west of another cleanup site, Rabanco Eastside Disposal, according to Ecology (see Illustration A below). The Rabanco Eastside Disposal site (Cleanup Site ID 10272, Facility Site ID 72258923) started cleanup and has petroleum contamination in soil confirmed above Model Toxics Control Act cleanup levels.

For this project, trenching/directional boring for conduit replacement/installation, and installation of floodlight poles and junction boxes would be the main activities requiring soil disturbance. Most ground disturbance areas would be along the northern, western, and southern boundaries within 5

feet of the perimeter curb.

Planned excavation to install new junction boxes or floodlight poles and the associated trenching/directional bore for conduits are unlikely to encounter contamination from ground disturbance based on the location of project construction in relation to cleanup sites discussed above. However, there is the potential for an area of unknown contamination to be within Bellevue Base. In addition, the use and maintenance of construction equipment also has the potential to release contaminants into the environment.

Metro would exercise all applicable BMPs to address potential contaminated soil and groundwater within the project site. For this project and subsequent projects in the vicinity of the historic release, Metro will follow Ecology's Guidance for Remediation of Petroleum Contaminated Sites (Guidance for Remediation of Petroleum Contaminated Sites (wa.gov)).

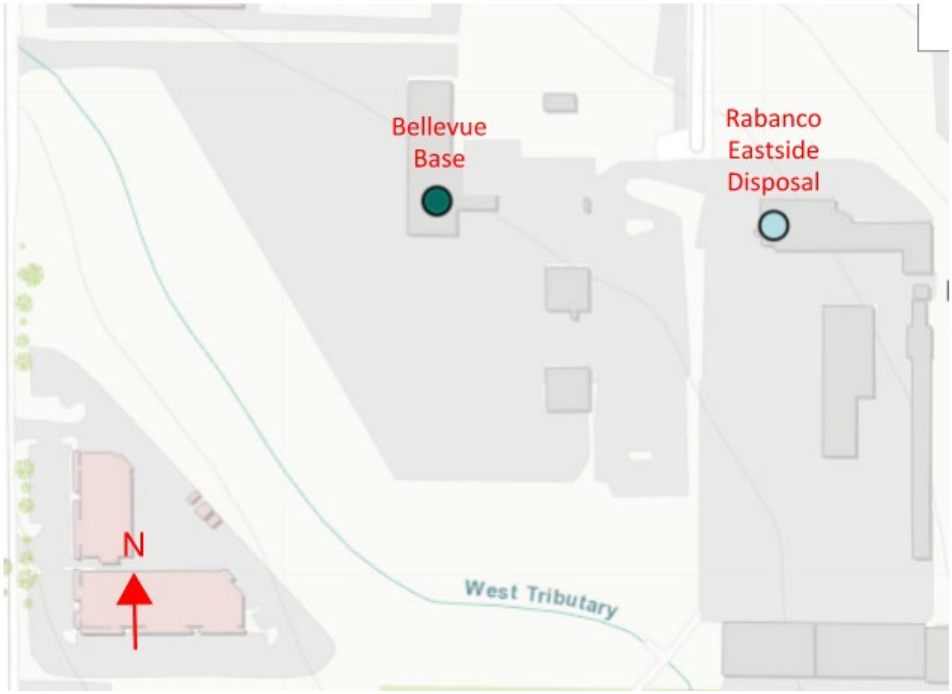

Illustration A. Cleanup Site Rabanco Eastside Disposal

1. Describe any known or possible contamination at the site from present or past uses.

Common hazardous wastes related to Bellevue Base operations include fuel, used shop towels, aerosol cans, batteries, solvents, and possibly used oil. As stated above, Bellevue Base has a history of spills and/or piping leaks associated with the USTs. Ecology's Facility/Site index noted USTs were used in Bellevue Base to contain regulated substances in 1984. From April 29, 1987 to December 31, 2009, Ecology documented Bellevue Base as a Hazardous Waste Generator, an interaction name applied to any facility that produces any quantity of hazardous waste. From January 1, 1991, to May 1, 2001, Bellevue Base was documented by Ecology as a Hazardous Waste Planner—a facility generating more than 2,640 pounds of hazardous waste per year. In 1992, Bellevue Base started to report to Ecology for storing 10,000 pounds or more of a hazardous chemical, or 500 pounds or less of an extremely hazardous chemical annually.

From June 25, 1997, to January 2, 1998, Ecology noted a historic leaking UST with the site being cleaned up with Ecology's oversight or review. On July 24, 1998, Bellevue Base obtained a general permit to discharge contaminated stormwater into state waters. Since December 31, 2005, Bellevue Base has had interactions with Ecology documented either as a Hazardous Waste Management

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Activity or a Hazardous Waste Generator (Appendix B; Ecology 2020a). As mentioned above, Bellevue Base received a No Further Action Determination from Ecology on January 2, 1998, stating that the release of total petroleum hydrocarbons into the soil and groundwater no longer poses a threat to human health or the environment (Appendix C; Ecology 2020b).

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   Planned excavation to install new floodlight poles and junction boxes or trenching/directional boring to install conduits are unlikely to encounter petroleum contamination originating from 1) the Rabanco Eastside Disposal site, 2) oil/water separator tanks southeast of the operations and vehicle maintenance building, USTs west of the fuel building, or 3) other currently unknown contamination in the project site during ground disturbance due to project construction location in relation to these cleanup sites (Figures 3 and 4).

   However, use and maintenance of construction equipment has the potential to release contaminants into the environment. As mentioned previously, Bellevue Base has existing USTs and distribution lines for fueling buses. BMPs will be implemented to avoid disturbing existing USTs and fuel distribution lines. Moreover, Ecology has issued a No Further Action Determination to Bellevue Base. Therefore, the risk of existing hazardous chemicals/conditions affecting the project is low.

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   The use and operation of construction equipment creates typical risks of exposure to gasoline, oil, hydraulic fluids, and related materials associated with accidental release. To reduce this risk, equipment maintenance and refueling would occur in a designated area and appropriate containment measures would be implemented in accordance with King County standard construction specifications.

   Operation would not generate or require any use or storage of toxic or hazardous chemicals over the operational life of the project.

4. **Describe special emergency services that might be required.**

   The need for special emergency services is not anticipated for the project. Construction will occur in a highly urbanized area where emergency services are readily available and entry to Bellevue Base is easily accessed should these services be needed.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   The contractor will prepare a detailed Spill Prevention Control and Countermeasures Plan, which would identify all contingencies in the event of an accidental spill of hazardous materials. Equipment will be refueled in a designated area, with absorbent pads in place and spill containment equipment present to reduce the potential for contaminants to reach surface or groundwater should any sort of accidental release occur. All heavy equipment will be inspected prior to operating each day during construction.

   The contractor will be required to develop a contaminated materials management plan. This plan will include the requirement that construction workers are trained to recognize suspected contaminated soil and groundwater. Should suspected contaminated material be encountered, the contractor will be required to halt work at that location. The suspect material will be tested to

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determine presence of contamination. If confirmed, contaminated material excavated or extracted will be isolated from the environment and disposed of per regulation. **Metro will follow Ecology's Guidance for Remediation of Petroleum Contaminated Sites** (Guidance for Remediation of Petroleum Contaminated Sites (wa.gov)), as appropriate.

The contractor will also be required to develop a site and project specific Health and Safety Plan covering all aspects of the Contractor's work activities related to the work and site conditions. This will include measures to protect workers from exposure to hazardous materials, including potential soil and groundwater contamination.

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Existing noise sources consist primarily of traffic and industrial activities near and at the project site. None of these existing sources of noise would affect the project.

   Noise control regulated by BCC 9.18.

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   Construction noise would be temporary and result from the use of vehicles and equipment. Project construction noise would occur during the regularly permitted hours for construction within the city limits of Bellevue outlined in the Bellevue City Code (BCC 9.18).

   Noise control regulated by BCC 9.18.

3. **Proposed measures to reduce or control noise impacts, if any.**

   Short-term increases in noise would be limited to the construction period. To minimize noise impacts on the surrounding land uses, construction activities would be conducted during daytime hours as outlined by Bellevue City Code (BCC 9.18).

   Noise control regulated by BCC 9.18.

8. Land and Shoreline Use Find help answering land and shoreline use questions

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The project site is the Bellevue Base Facility for King County Metro Transit Department.

The surrounding parcels are a mixture of commercial, business, and industrial uses with residential properties farther to the north and west.

The project would not affect current land uses on nearby or adjacent properties (City of Bellevue 2019).

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The project site has not been used as working farmlands or working forest lands. The project site is located in an industrialized area of Bellevue that is highly built out.

1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

   There are no working farms or forest lands in the area.

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c. Describe any structures on the site.

The project site has three buildings onsite. The larger building of the three contains office space and bus bays for the maintenance of a fleet of transit buses. The two smaller buildings are the wash building and the fuel building, and they are used for cleaning and fueling the buses, respectively.

d. Will any structures be demolished? If so, what?

No structures would be demolished as a result of the project.

e. What is the current zoning classification of the site?

The project site is currently zoned as BR-R (Bel-Red Residential; City of Bellevue 2019).

f. What is the current comprehensive plan designation of the site?

The current comprehensive plan designation of the site is BelRed-Residential.

g. If applicable, what is the current shoreline master program designation of the site?

No part of the site is within any designated shorelines.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes. Steep slopes are also documented by the City located outside or along the northeastern, eastern, southern, and southwestern property boundaries of Bellevue Base. In addition, though outside the proposed project footprint, both King County and the City of Bellevue document the West Tributary as a stream or designated critical area running adjacent to the southern and southwestern property boundaries of Bellevue Base.

i. Approximately how many people would reside or work in the completed project?

The project would not result in an increase in staff.

j. Approximately how many people would the completed project displace?

The project would result in no displacement impacts; no measures are proposed.

k. Proposed measures to avoid or reduce displacement impacts, if any.

The project would result in no displacement impacts; no measures are proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.

The project would not change any land uses; no measures are proposed.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any.

There are no nearby agricultural or forest lands of long-term commercial significance near the project site; no measures are proposed.

9. Housing Find help answering housing questions

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

No housing units would be provided.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

No housing units would be eliminated.

c. Proposed measures to reduce or control housing impacts, if any.

The project would not result in housing impacts; no measures are proposed.

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10. Aesthetics Find help answering aesthetics questions

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The tallest structure would be floodlights which would be 60 - 70 feet above grade. The principal exterior building material for the poles and fixtures would be metal.

b. What views in the immediate vicinity would be altered or obstructed?

Six new light poles would be installed in Bellevue Base. However, Bellevue Base is in a developed area and the project site already has existing light poles. No views in the immediate vicinity would be significantly altered or obstructed.

c. Proposed measures to reduce or control aesthetic impacts, if any.

The project would not significantly alter the aesthetics of the current site use; no measures to reduce or control aesthetic impacts are proposed.

11. Light and Glare Find help answering light and glare questions

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

The project would replace or install 64 light fixtures on 46 poles or wall-mounted building lights throughout the project site. These lights would be operational during hours of low light. Currently, the Bellevue Base bus yard has an average light level of 2.54 fc with a minimum single-light measurement of 0.3 fc, which is below Washington State requirements. After implementation of the project, the average light level in the bus yard would be raised to 5.19 fc, with the minimum single-light measurement, 30 inches above surface level, measuring 1.50 fc. This is a 2.65 fc net gain average across the Bellevue Base (Figures 10 and 11). The entry, which has a current average of 2.29 fc, would also increase to 4.53 fc (Marks pers. comm., King County Metro and Musco Engineering Associates 2020).

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No, light or glare from the finished project would rectify an existing safety hazard for Metro employees. The new light levels would not interfere with existing views.

c. What existing off-site sources of light or glare may affect your proposal?

No existing off-site sources of light or glare would affect the project.

d. Proposed measures to reduce or control light and glare impacts, if any.

Impacts from light and glare were considered during project design. The Musco Total Light Control Fixture was selected based on its ability to minimize light glare and spillover by shielding light from above and behind the bulbs, as well as directing/focusing the beam onto the Bellevue Base bus yard. Modeling of the anticipated unavoidable maximum vertical spillover light levels from this product onto the West Tributary and Wetland Complex BB1 was completed. The northern and eastern property boundaries were not included in modeling since 1) the east-northeast floodlights are largely in the middle of an employee parking lot then followed by a steep slope which would reduce or block light onto adjacent properties; 2) the new floodlights adjacent to operations and vehicle maintenance building and the wash building, and the wall-mounted building lights are in the

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middle of the bus yard and are located adjacent to buildings, which would prevent light from entering into neighboring properties; and 3) the large mature trees that are positioned between the floodlights along the northern boundary and adjacent properties would reduce potential spillover light. Seasonal variation to light exposure from the project onto the West Tributary or identified wetlands was not analyzed as it is expected light exposure would not change through the year since trees surrounding the project area are coniferous.

Based on modeling of the Musco Total Light Control Fixture, the anticipated unavoidable maximum vertical spillover light levels, or obtrusive light, adjacent to the Wetland Complex BB1 would average 0.04 fc with a range 0.1 to 1.7 fc, compared to an average of 0.8 fc with a range of 1.8 to 44.2 fc from the existing HID lights (Table 1 and Figure 12) (Manimtim pers comm.). In addition, vertical spillover light would not extend beyond approximately 45 feet into Wetland Complex BB1. (Figure 13; King County Metro and Musco Engineering Associates 2020). Light fixtures would be angled to minimize spillover into critical areas. Overall, unavoidable maximum vertical spillover light levels near the West Tributary and Wetland Complex BB1 are expected to decrease with the installation of the Musco Total Light Control Fixtures when compared to existing conditions.

Table 1. Obtrusive Light Comparison between Existing Conditions and Musco Light Fixtures Without Trees Placed (Non-growing Season) onto the West Tributary and Wetland Complex BB1

Legs	Existing HID Lighting (fc)	Musco Light Fixtures (fc)
Maximum L1	1.8	1.7
Maximum L2	44.2	0.1
Maximum L3	6.4	0.3
Average L1	0.5	0.08
Average L2	0.53	0.01
Average L3	1.36	0.02

Source: Manimtim pers comm.

Notes: L1 = Northern leg; L2 = North to south leg; L3 = Southern leg (see Figure 12)

Light spillover into Wetland Unit BB2 would also be reduced through use of Musco Total Light Control Fixtures. However, since this Category IV wetland has little to no wildlife habitat and is not associated with a fish-bearing stream, the current Wetland Unit BB2 function would not be affected or changed due to a difference in artificial light levels.

Prior to installation, Musco Total Light Control Fixtures would be tested at the facility to ensure the vertical spillover light would not exceed the modeled spillover levels. After installation, field measurements would be taken to verify required light levels are met. If requirements are not met, Metro would evaluate how to adapt or readjust light fixtures to meet requirements.

12. Recreation Find help answering recreation questions

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are limited recreational opportunities in the immediate vicinity of the project site. King County's Eastrail multi-use trail is located approximately 1,418 feet west of the project site. Eastrail provides opportunities for nonmotorized recreation and transportation.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No, the proposed project would not displace any existing recreational uses.

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c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.

There are no recreational opportunities provided by the project. The project would have no impact on recreation; no measures are proposed.

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13. Historic and Cultural Preservation Find help answering historic and cultural preservation questions

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

There are no recorded, reported, or suspected cultural resources in the project vicinity.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Per *Cultural Resources Screening for Bellevue Base TDC Yard Light Replacement (1139372)*, KING 7308 is the ethnographic placename *Te3u* for Northrup Creek. Waterman (1922:191) provides no translation for this name. 45-KI-854 is the Midlakes Pioneer Cemetery. The cemetery included numerous Japanese families. It was reportedly moved in 1970, although not all of the graves have been confirmed. There are no other recorded, reported or suspected cultural resources within ½ mile of the project. (Appendix F)

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The cultural resources screening was conducted by King County Archaeologist Tom Minichillo on August 23, 2022, using the Department of Archeological and Historic Preservation WISAARD database and the King County Cultural Resource Protection Project database. Mr. Minichillo's screening report concluded that the general setting of the project on an existing graded and paved roadway and within existing buildings with no recorded, reported, or suspected sites in the vicinity suggests a low likelihood for buried intact prehistoric archaeological deposits. The project site is not within a historic district. As a result, no further cultural resources review was needed.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

No measures are proposed because no known resources would be affected. In accordance with state law, if any suspected human remains or archaeological deposits are encountered during construction, then all activities will cease in that area while county policies are complied with.

14. Transportation Find help with answering transportation questions

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

124th Avenue NE is the primary arterial that provides bus access to the facility. Non-bus vehicles access the facility via 127th Avenue NE. 127th Avenue NE provided temporary bus access for a few months in 2021 and could be used to provide temporary bus access in the future if necessary but would serve as secondary access.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

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No transit routes or stops are immediately adjacent to or serve the project site. The closest transit is Route 249 on Northup Way with a stop approximately 0.23 mile north of the project site. The alignment of Routes 226 and 232 on Bel-Red Road have transit stops approximately 0.5 mile south of the project site.

c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No, the project would not require any new or improved roads, streets, pedestrian, bicycle, or state transportation facilities.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No, the project would not use water, rail, or air transportation. The Link Light Rail Spring District Station is approximately 0.33 mile southwest of the project site. However, the station currently has not commenced service and the project would not use the rail service.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The project would not affect the number of vehicular trips following construction.

f. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No, the project would not interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area because this is an urban area.

g. Proposed measures to reduce or control transportation impacts, if any.

Primary impacts on transportation would occur during the construction period and are consisted of vehicular trips moving machinery and equipment in and out of the construction site via 124th Avenue NE. Peak construction is expected to require twenty (20) vehicular trips per day. Since the project is entirely contained within the Bellevue Base, impacts on traffic outside of the project site are expected to be minimal and a project traffic control plan may not be needed or required. Once construction is completed, transportation impacts are expected to return to pre-construction condition.

15. Public Services Find help answering public service questions

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No, the project would not result in an increased need for public services.

b. Proposed measures to reduce or control direct impacts on public services, if any.

No measures are needed to reduce or control direct impacts on public services. The project would not affect the need for public services in the region.

16. Utilities Find help answering utilities questions

a. Circle utilities currently available at the site:
electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The area electrical utility is Puget Sound Energy (PSE). PSE already has a power meter to monitor energy consumption for Bellevue Base, and the proposed project's energy consumption would not require a service modification with PSE. PSE's system ends at the power meter. Metro would need to modify the electrical system, which involves the replacement and installation of conduit to provide power for the floodlight poles and wall-mounted building lights, downstream of the power meter. No further discussions with PSE would be required for this project.

C. Signature Find help about who should sign

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

JB, 6/23/2023

X Lawrence Chung

Type name of signee: Lawrence Chung

Position and agency/organization: Transit Environmental Planner, King County Metro Transit

Date submitted: 6/13/2023

D. Supplemental sheet for nonproject actions Find help for the nonproject actions worksheet

IT IS NOT REQUIRED to use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

    - **Proposed measures to avoid or reduce such increases are:**

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

    - **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

3. **How would the proposal be likely to deplete energy or natural resources?**

    - **Proposed measures to protect or conserve energy and natural resources are:**

JB, 6/23/2023

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

    - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

    - **Proposed measures to avoid or reduce shoreline and land use impacts are:**

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

    - **Proposed measures to reduce or respond to such demand(s) are:**

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

JB, 6/23/2023

Appendices

Appendix A Permit Set
Appendix B Washington State Department of Ecology Facility/Site Index
Appendix C Washington State Department of Ecology No Further Action Determination
Appendix D Critical Area Evaluation and Geotechnical Recommendations
Appendix E West Tributary Habitat Assessment
Appendix F Cultural Resources Screening for Bellevue Base TDC Yard Light Replacement (1139372)

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JB, 6/23/2023

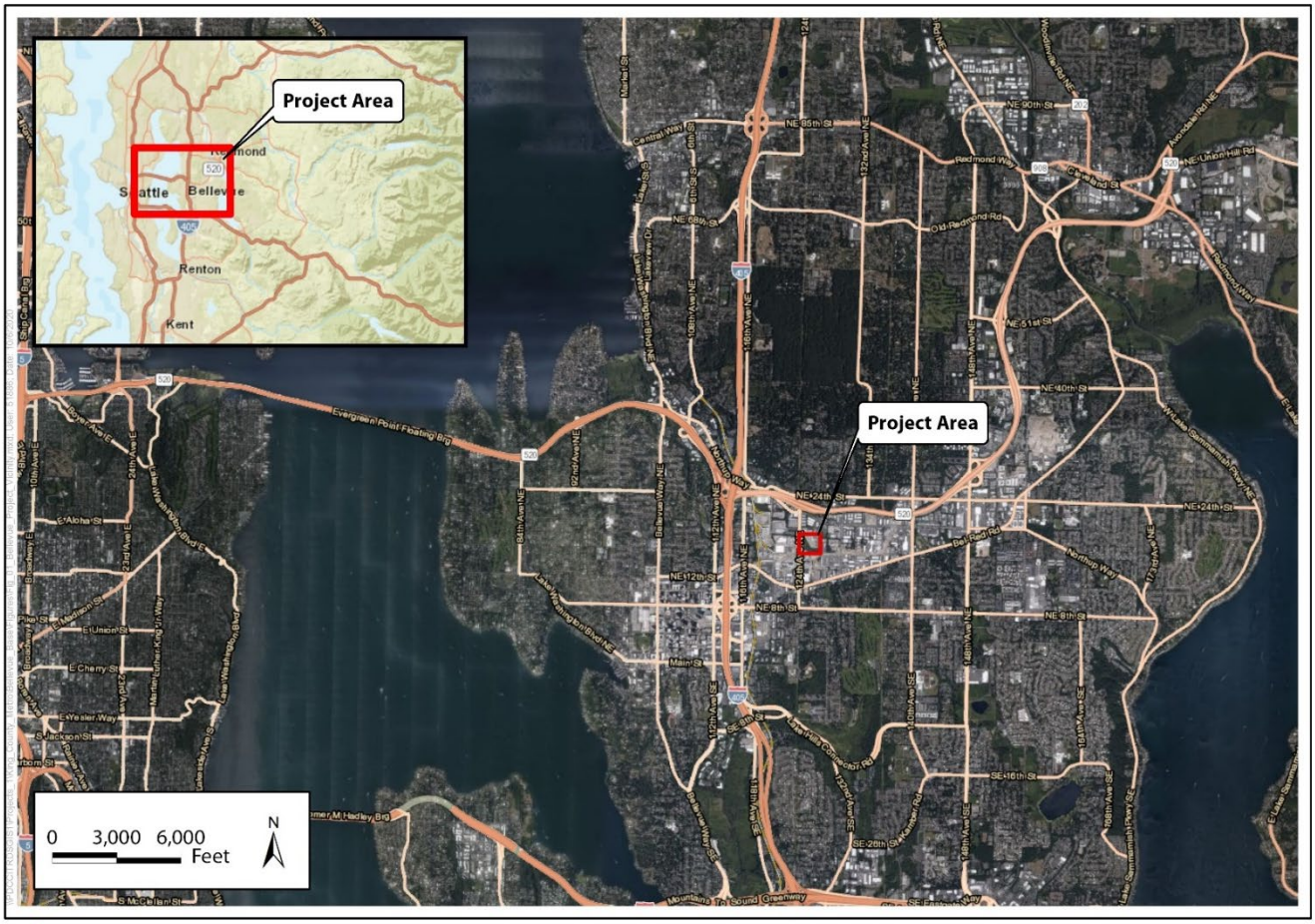


Figure 1
Bellevue Base Project Vicinity

JB, 6/23/2023

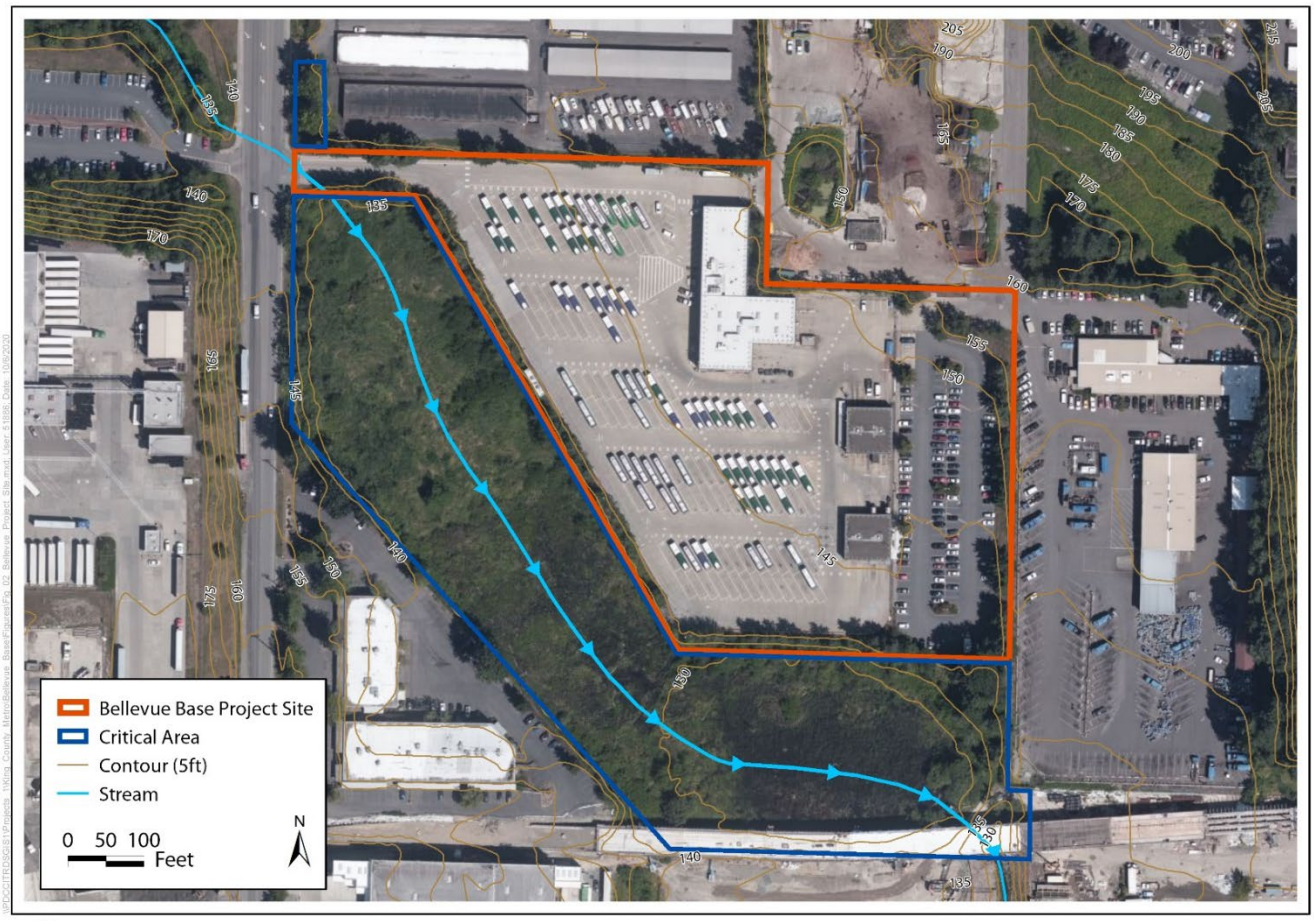


Figure 2
Bellevue Base Project Site and Adjacent Critical Areas

JB, 6/23/2023

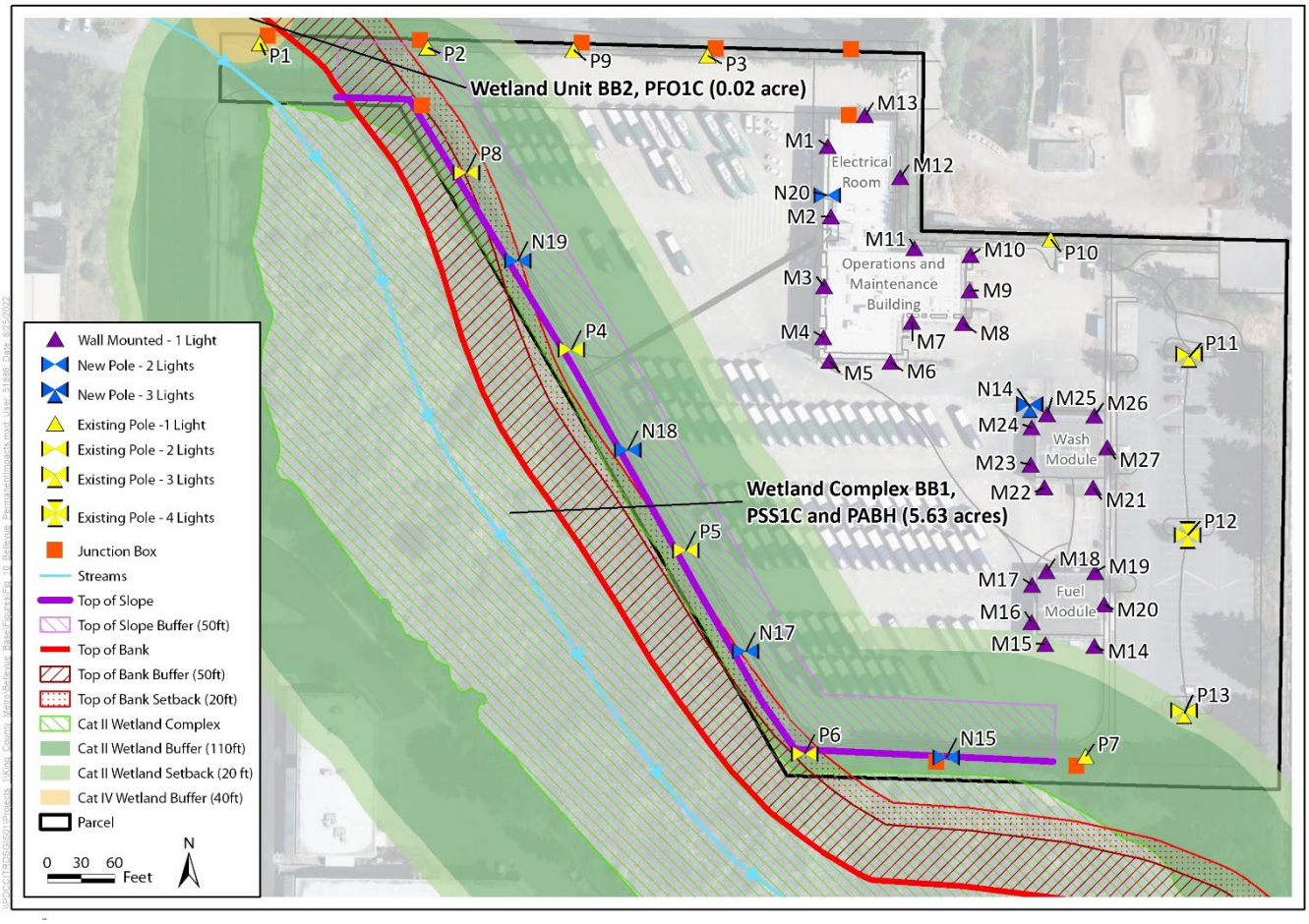


Figure 3[1]
Permanent Impacts (No Buffer and Setback Exclusions)

[1] Construction elements not to scale in Figure 3.

JB, 6/23/2023

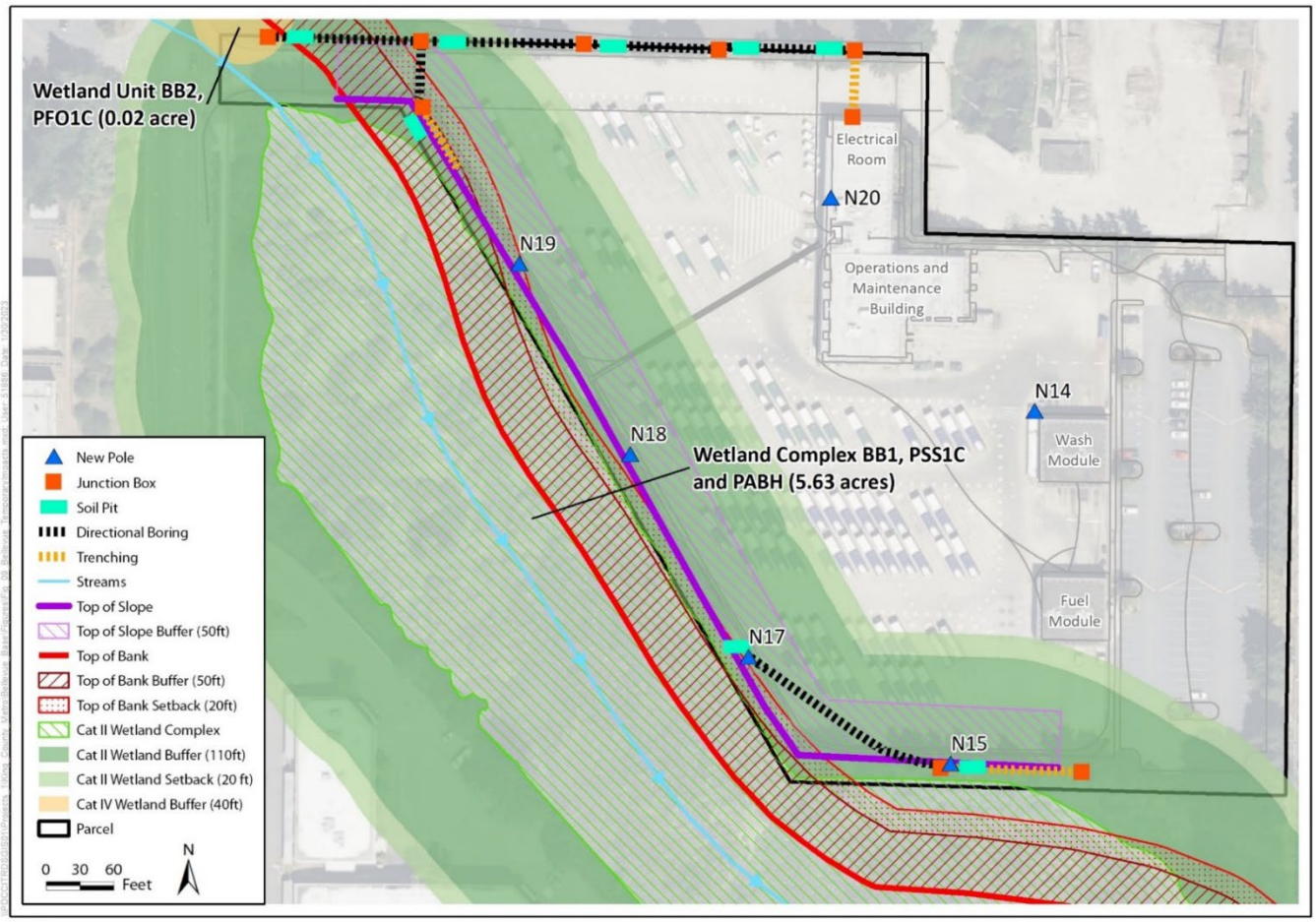


Figure 4[2]
Temporary Impacts during Construction (No Buffer and Setback Exclusions)

[2] Construction elements not to scale in Figure 4. Trenching between N20 and N14 to buildings and N15, N17, N18, and N19 to associated junction boxes are not shown as trench elements are too small to be visible.

JB, 6/23/2023

Figure 5
Soil Units Mapped in the Project Area, as indicated by orange box, and Hydric Soil Rating (NRCS 2019)

JB, 6/23/2023

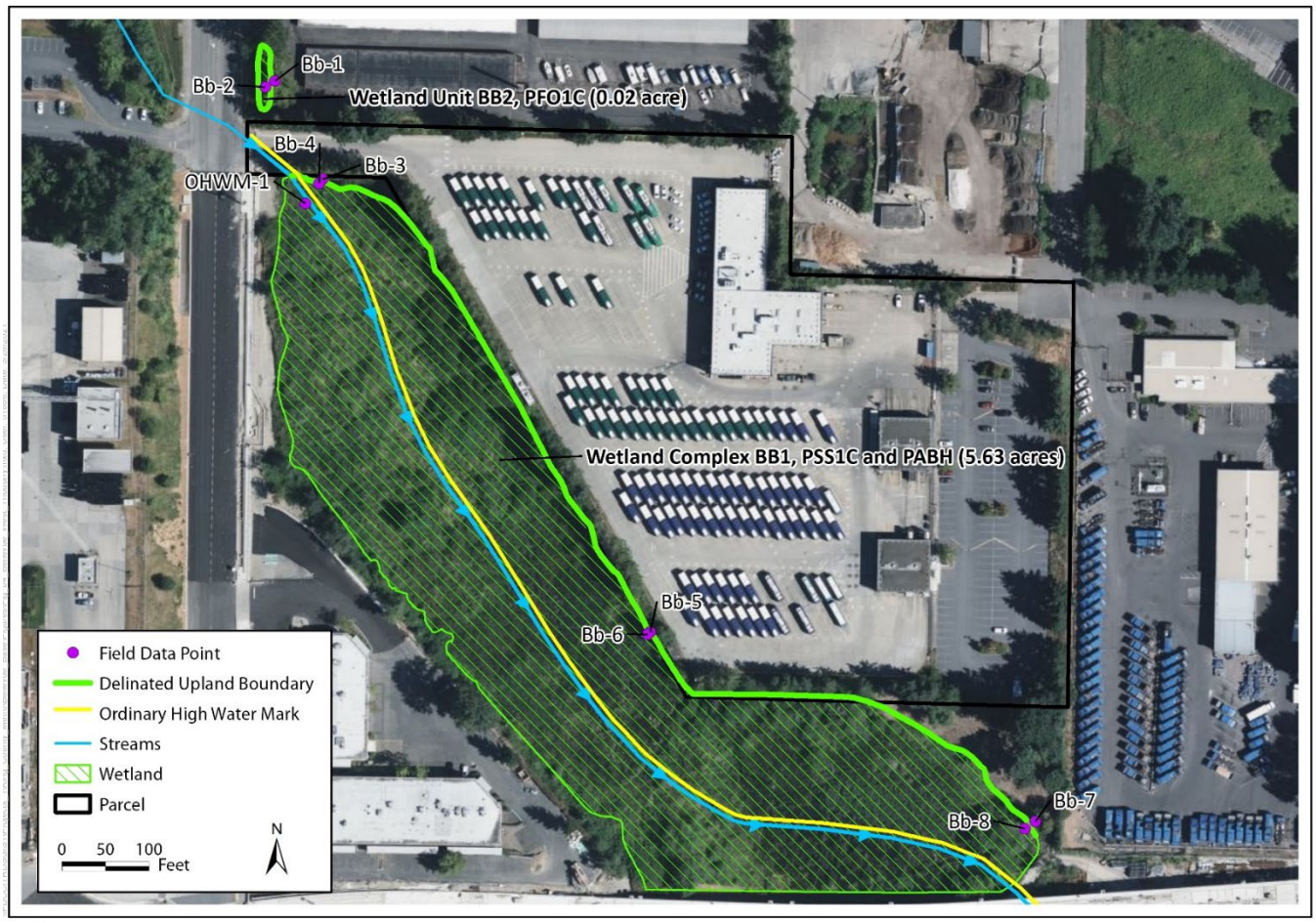
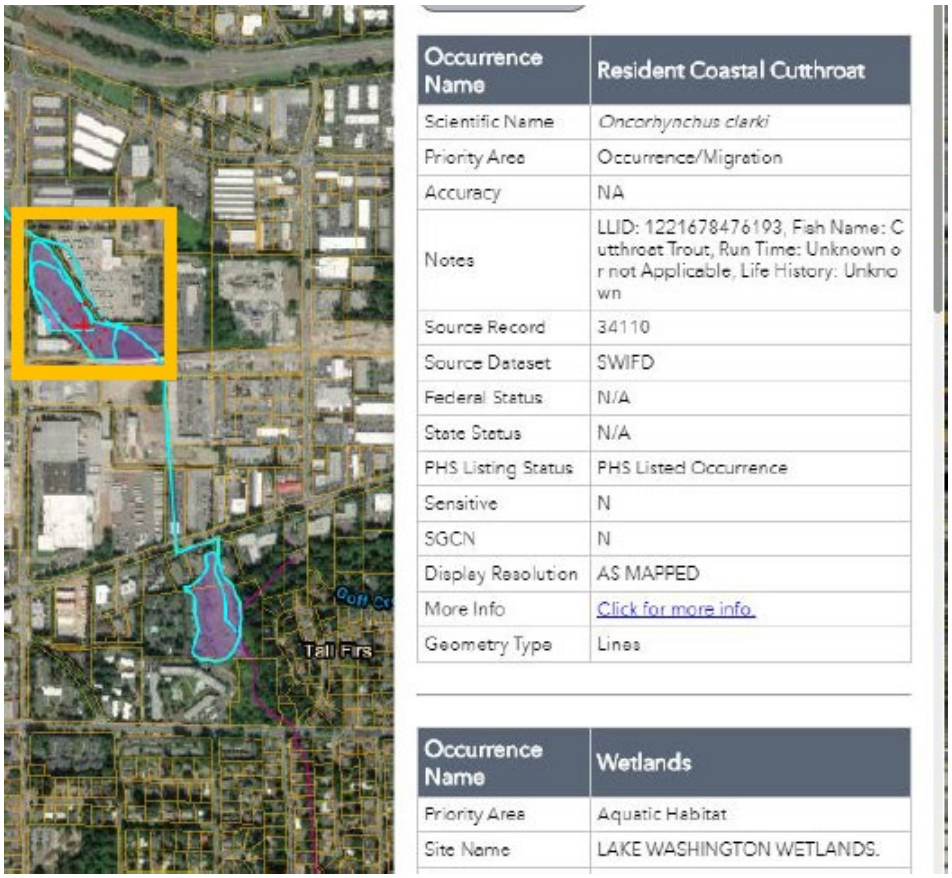


Figure 6
West Tributary OHWM Determination, Wetland Delineation, and Sample Plots

JB, 6/23/2023



Occurrence Name	Resident Coastal Cutthroat
Scientific Name	*Oncorhynchus clarki*
Priority Area	Occurrence/Migration
Accuracy	NA
Notes	LLID: 1221678476193, Fish Name: Cutthroat Trout, Run Time: Unknown or not Applicable, Life History: Unknown
Source Record	34110
Source Dataset	SWIFD
Federal Status	N/A
State Status	N/A
PHS Listing Status	PHS Listed Occurrence
Sensitive	N
SGCN	N
Display Resolution	AS MAPPED
More Info	Click for more info
Geometry Type	Lines

Occurrence Name	Wetlands
Priority Area	Aquatic Habitat
Site Name	LAKE WASHINGTON WETLANDS.

Figure 7
WDFW Priority Habitat Species Map. Project Area indicated by orange box.

Figure 8
WDFW SalmonScape Map. Though showing Spring Chinook, this range is identical for Winter and Summer steelhead, Coho, and Summer Chinook. Project Area is indicated by black box.

JB, 6/23/2023

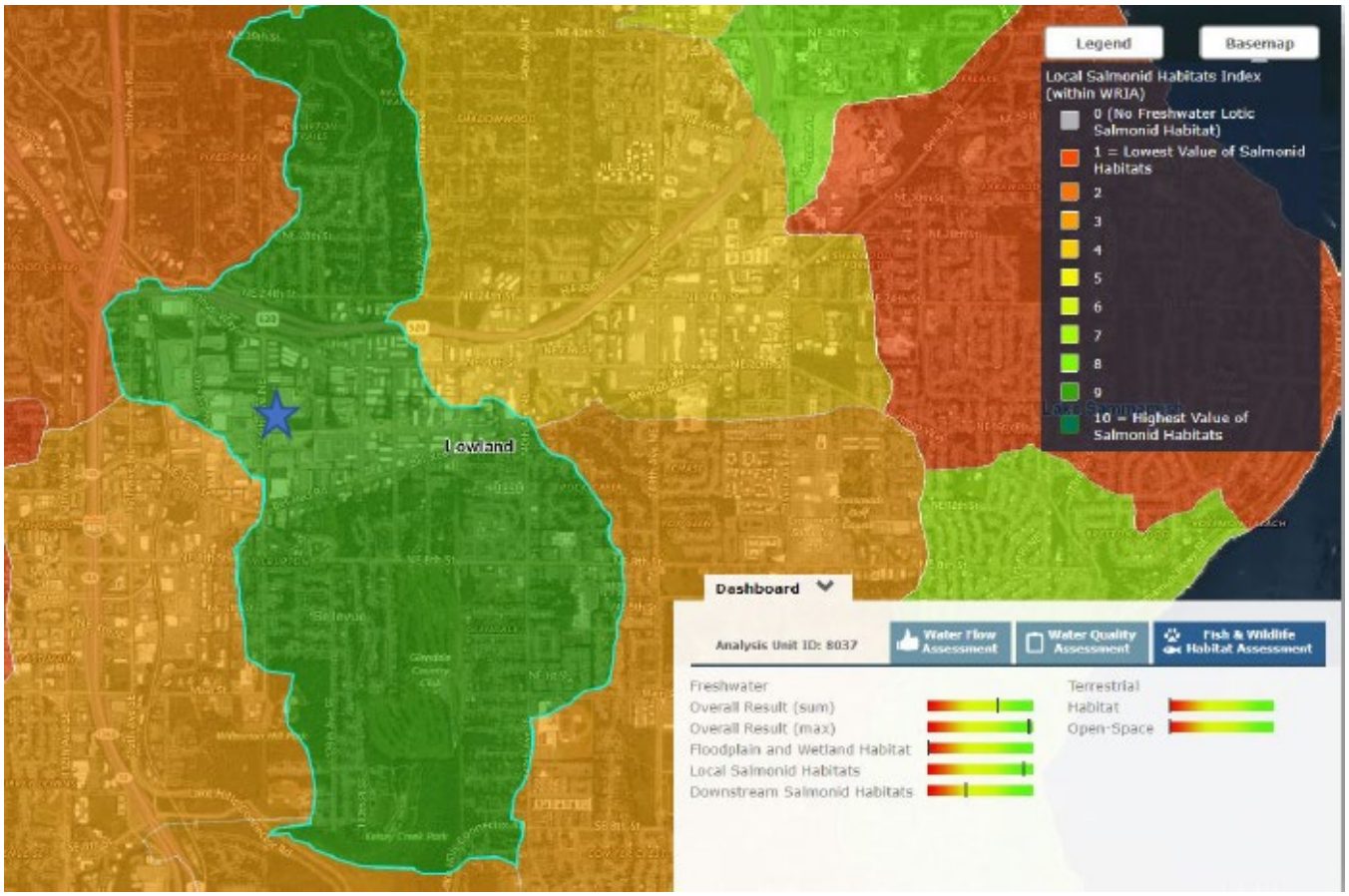


Figure 9
Ecology's Puget Sound Watershed Characterization Project Fish and Wildlife Habitat Assessment. Project Area indicated by blue star.

JB, 6/23/2023

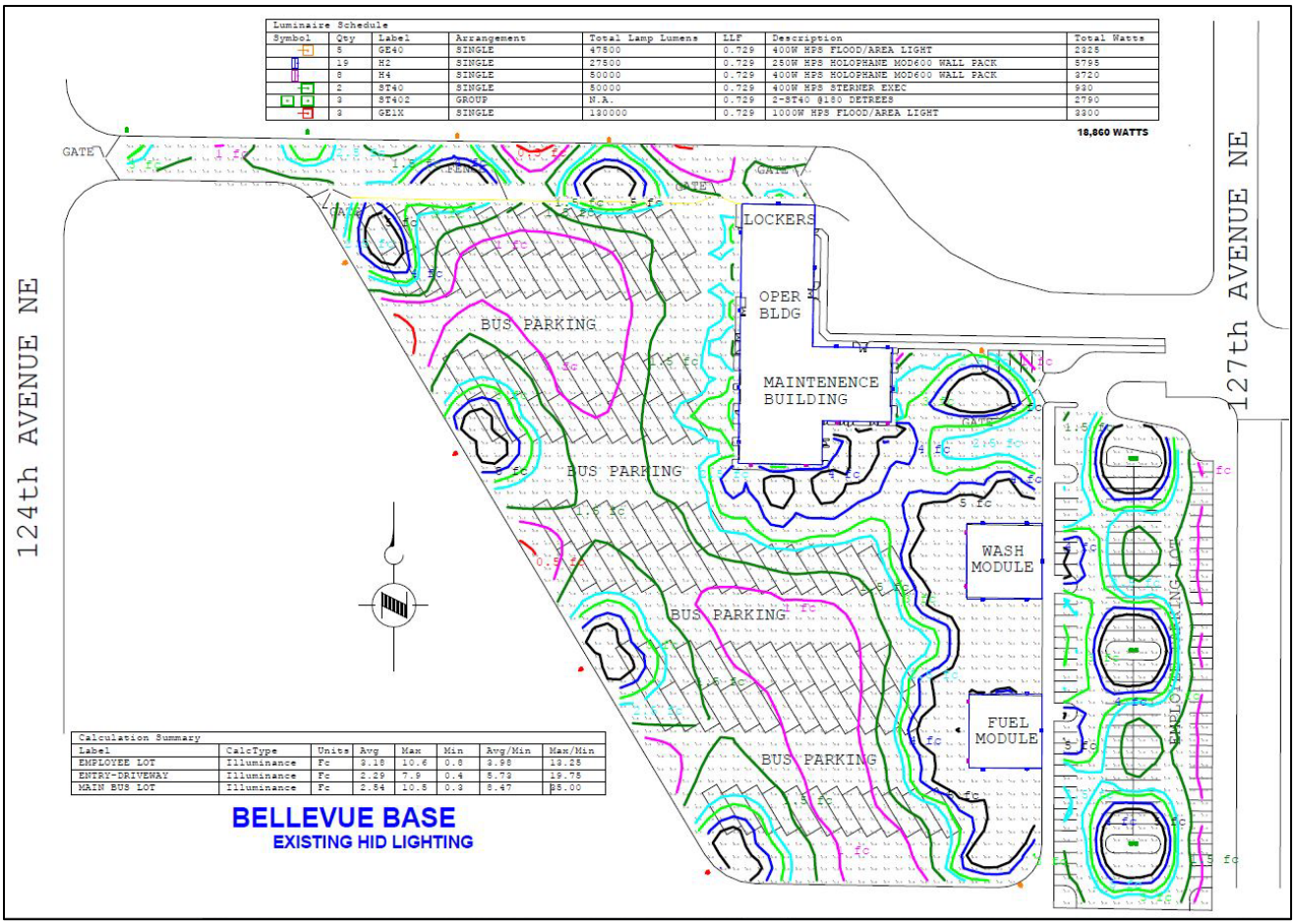


Figure 10
Model of Existing HID Lighting Levels

JB, 6/23/2023

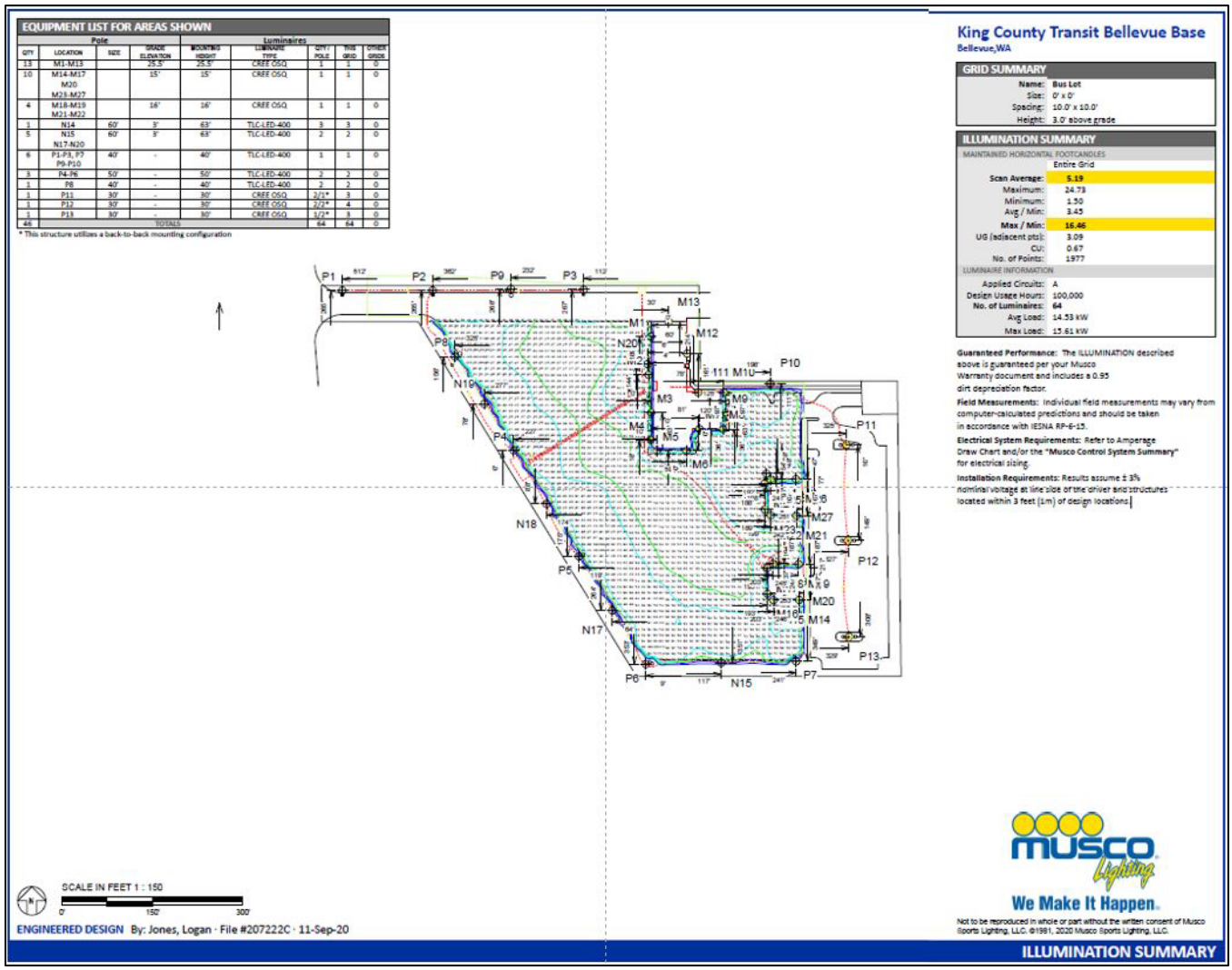


Figure 11
Model of Proposed Project LED Lighting Levels in the Bus Lot

JB, 6/23/2023

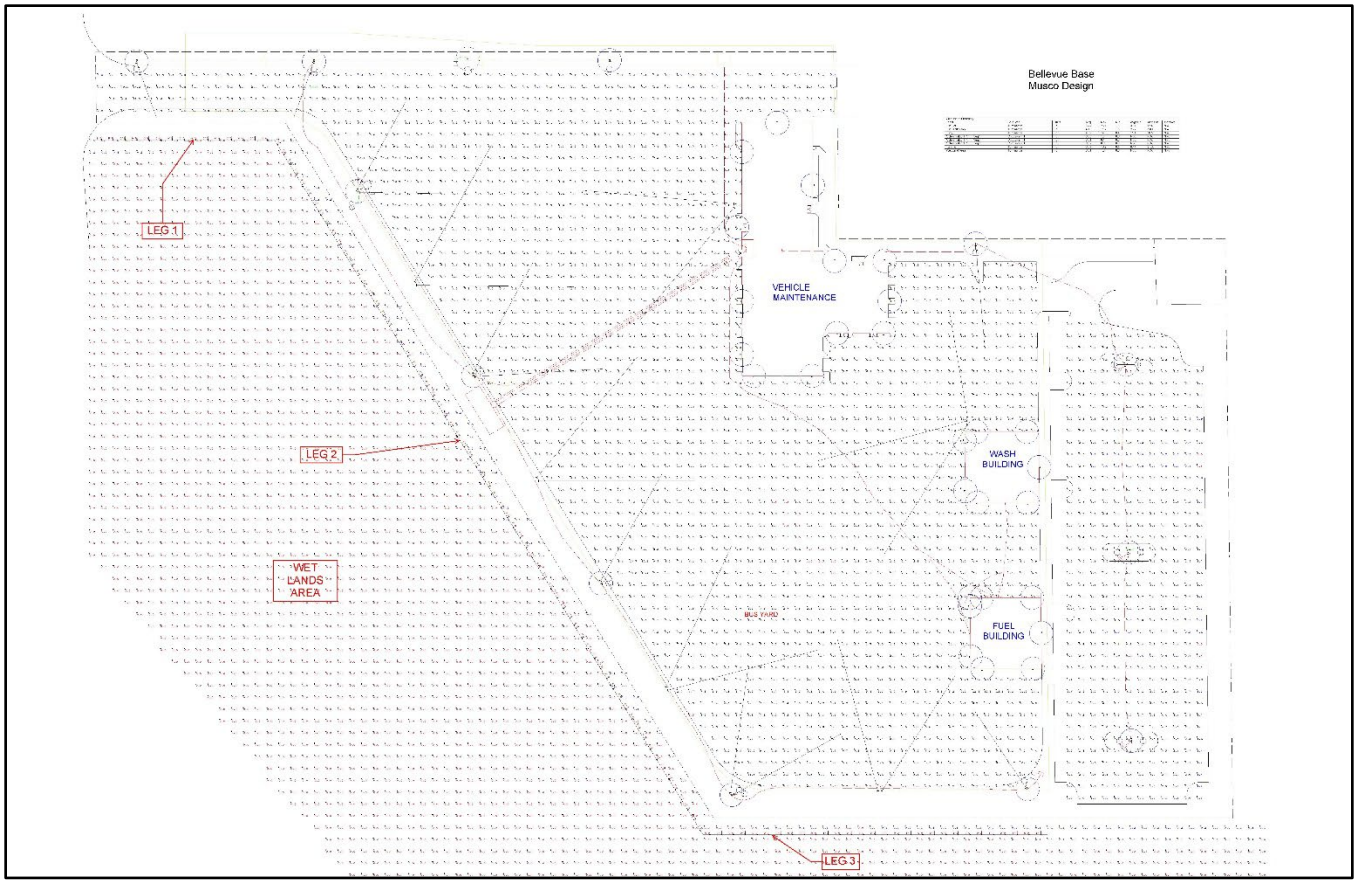


Figure 12
Modeling Areas or Legs for Musco Fixtures Obtrusive Light Comparison

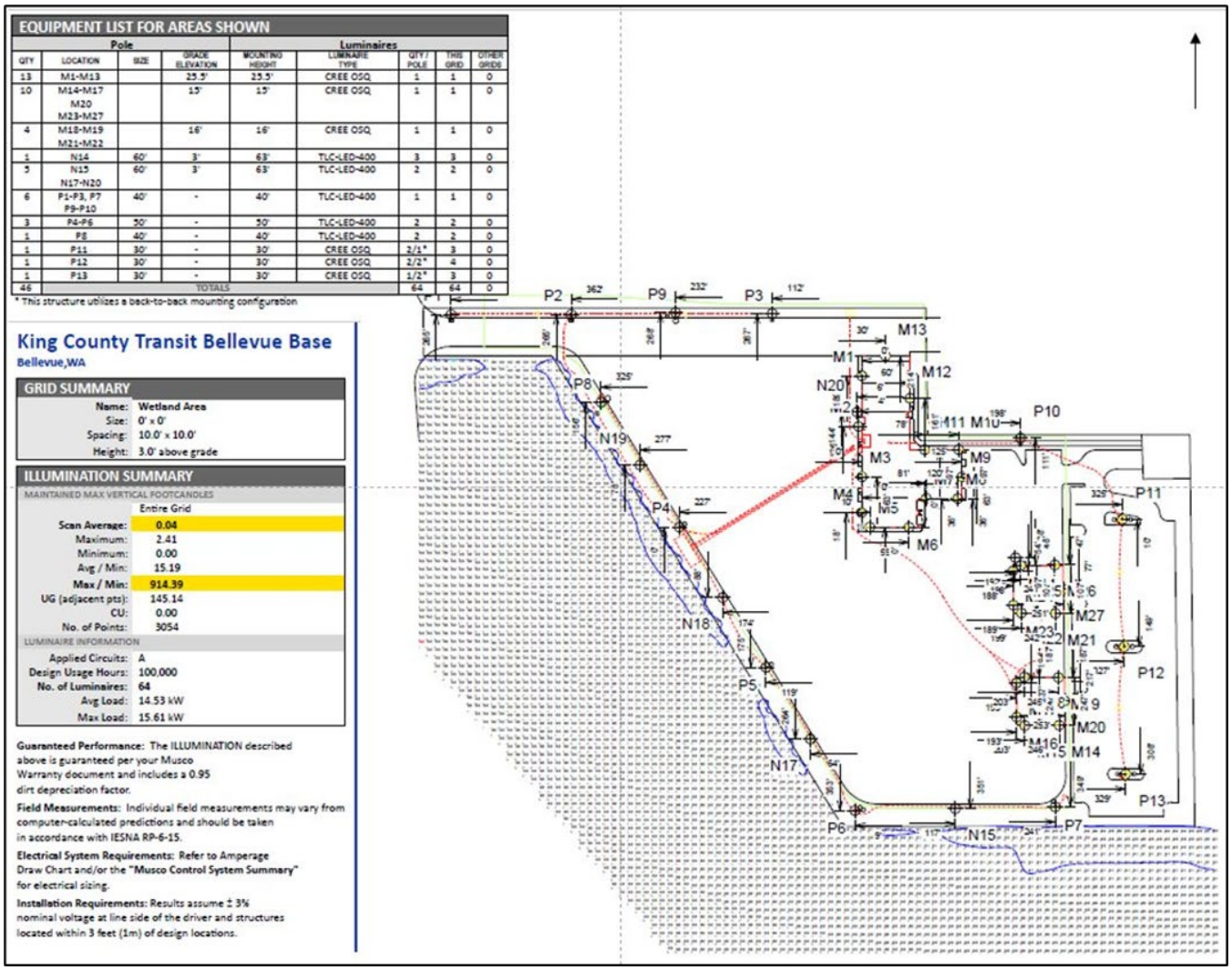


Figure 13
Musco Fixtures Obtrusive Light Spillover into Wetland Complex BB1

JB, 6/23/2023

Vicinity Map

Map Generated on: 06/23/2023

TYPICAL SECTION AND DETAIL REFERENCING SYSTEM

(1) THE SECTION IS CUT ON DRAWING A101:

- SECTION LETTER
- ELEVATION LETTER

A / A3.01 — A/A2.01

DRAWING ON WHICH SECTION/ELEVATION APPEARS.

(2) ON DRAWING A105 THIS SECTION IS IDENTIFIED:

SECTION B / A1.01
SCALE:

- SECTION LETTER
- DRAWING ON WHICH SECTION WAS TAKEN.

(3) DETAILS ARE CROSS-REFERENCED IN A SIMILAR MANNER, EXCEPT THAT DETAILS ARE IDENTIFIED BY NUMBERS RATHER THAN BY LETTERS.

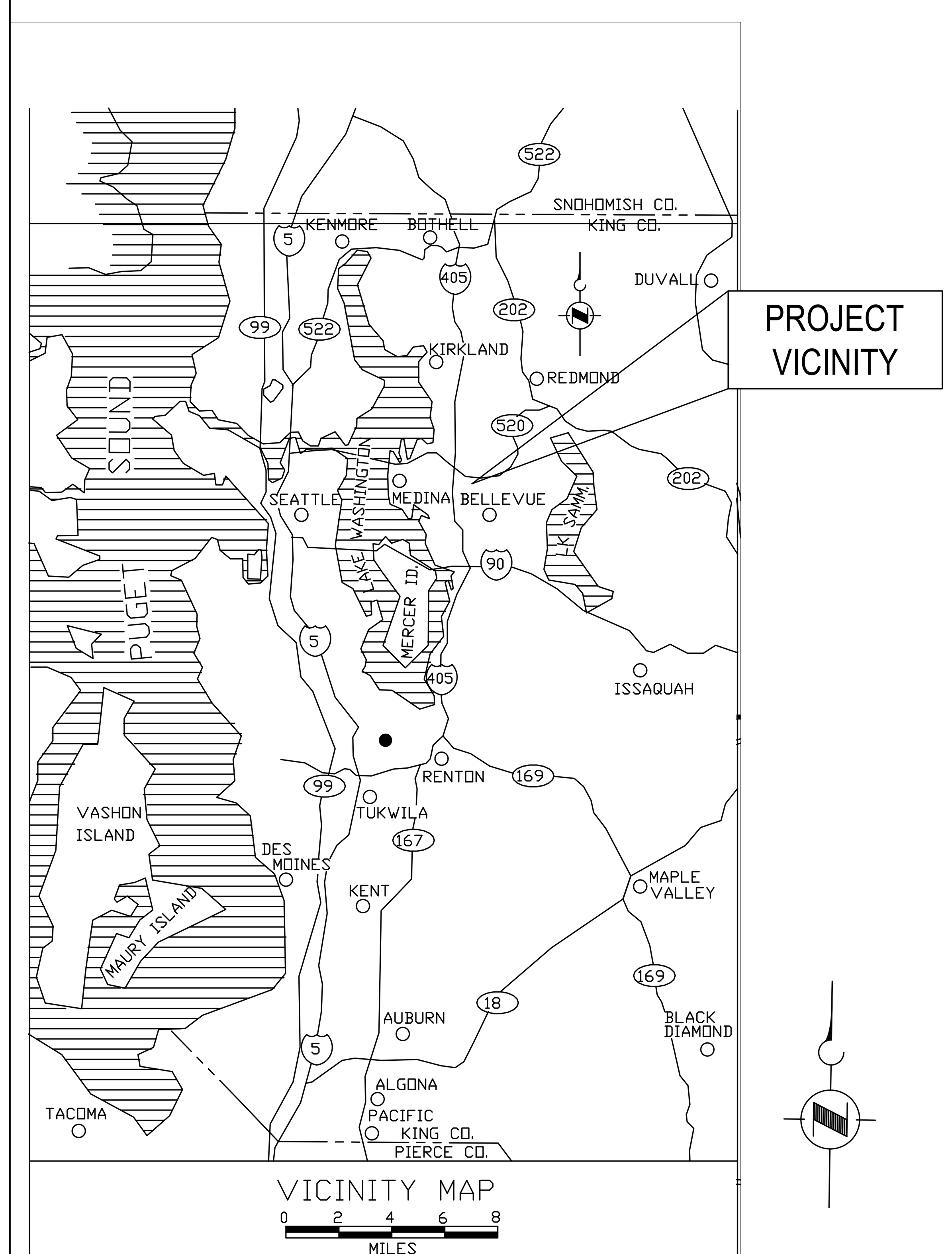
DRAWING NUMBERING SYSTEM KEY:

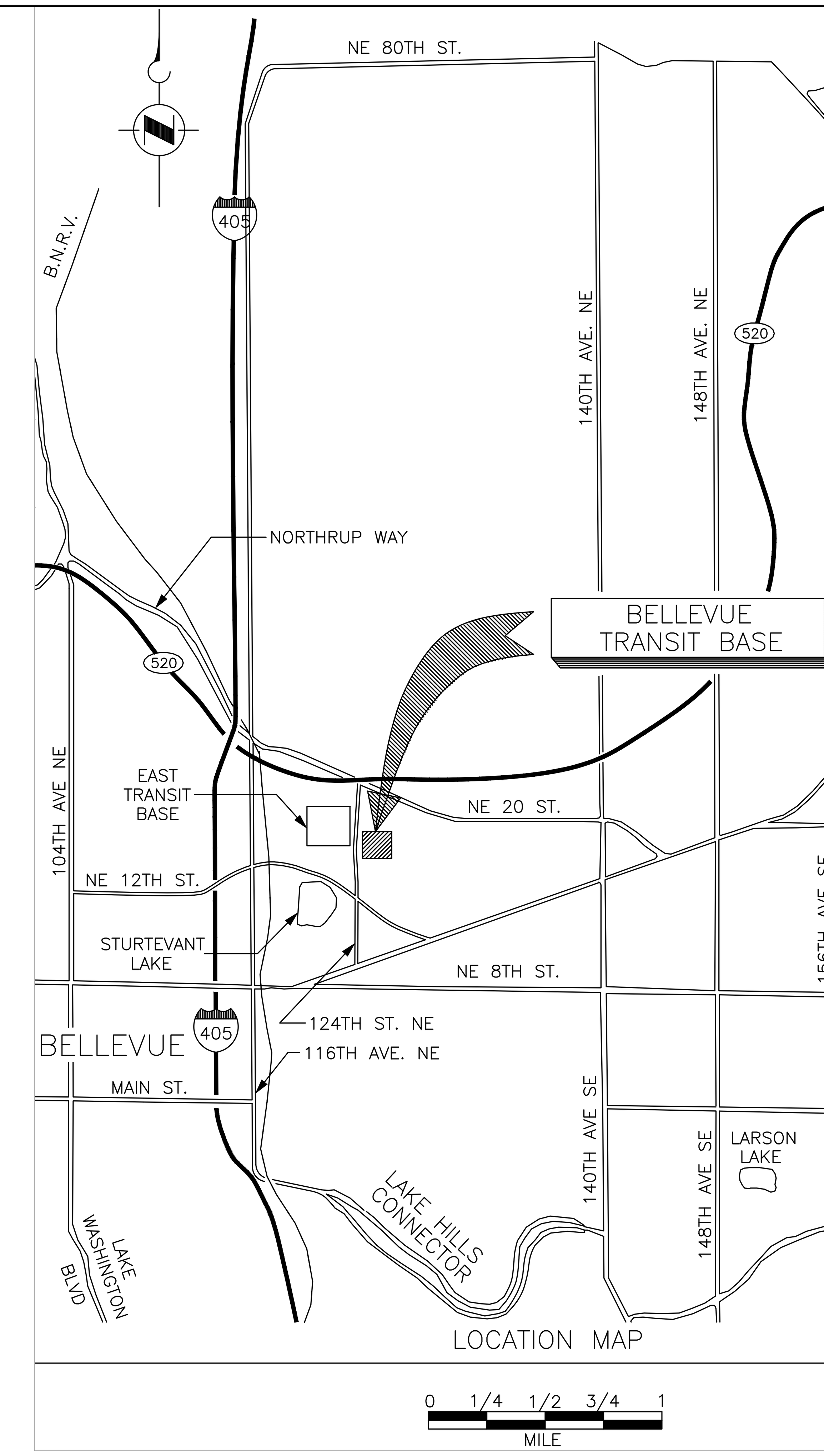
DISCIPLINE (limit per project use)		DESIGNATED CATEGORY (limit per actual series use)	
G	GENERAL	0	GENERAL
C	CIVIL	1	PLANS
L	LANDSCAPE	2	ELEVATIONS
A	ARCHITECTURE	3	SECTIONS
S	STRUCTURAL	4	ENLARGED PLANS
M	MECHANICAL	5	DETAILS
FP	FIRE PROTECTION	6	SCHEDULES & DIAGRAMS
E	ELECTRICAL	7	USER DEFINED
T	TROLLEY	8	USER DEFINED
TC	TRAFFIC CONTROL	9	3D VIEWS
TS	TRAFFIC SIGNAL		
U	URBAN DESIGN		

AREA LOCATION (FOR PROJECTS WITH MULTIPLE LOCATIONS) — **2 C1.01**

- DISCIPLINE
- DESIGNATOR
- SEPARATOR
- SEQUENTIAL DRAWING NUMBER WITHIN DISCIPLINE AND DESIGNATED CATEGORY

VICINITY MAP





ABBREVIATIONS:

A	AMPS
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CCT	CORRELATED COLOR TEMPERATURE
CKT	CIRCUIT
COMM	COMMUNICATIONS
E	EXISTING
GBO	GREEN BUILDING ORDINANCE
HDPE	HIGH DENSITY POLYETHYLENE
HH	HANDHOLE
HP	HORSEPOWER
HOA	HAND-OFF-AUTO
JB	JUNCTION BOX
K	KELVIN
KVA	KILOVOLT AMPS
LED	LIGHT EMITTING DIODE
LTS	LIGHTS
N##	NEW POLE IDENTIFIER
PB	PULL BOX
P##	POLE IDENTIFIER
R	RELAY
RGS	RIGID STEEL
XFMR	TRANSFORMER
Ø	PHASE

GENERAL NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE NFPA 70. A COPY OF THE APPROVED PLAN, MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
2. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL BUILDING UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID HARM TO ANY OTHER BUILDING UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
3. THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS REQUIRED TO PROTECT EXISTING BUILDING UTILITIES, EQUIPMENT OR BUILT-IN FURNISHINGS REMAINING IN THE WORK AREA DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS PRIOR TO START OF WORK.
5. ALL DEMOLITION DEBRIS MUST BE DISPOSED OF LEGALLY, OFF SITE. DISPOSAL SHALL COMPLY WITH KING COUNTY GBO.

SHEET INDEX

PERMIT SET

No.	REVISION	BY	APP'D	DATE

Stantec

IES Integrity Energy Services
1505 NW Gilman Blvd, Suite 1 Issaquah, WA 98027 Ph (206)566-7525 Ph (844)411-4437

CHRISTOPHER A. ... STATE OF WASHINGTON 31353 REGISTERED PROFESSIONAL ENGINEER
11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

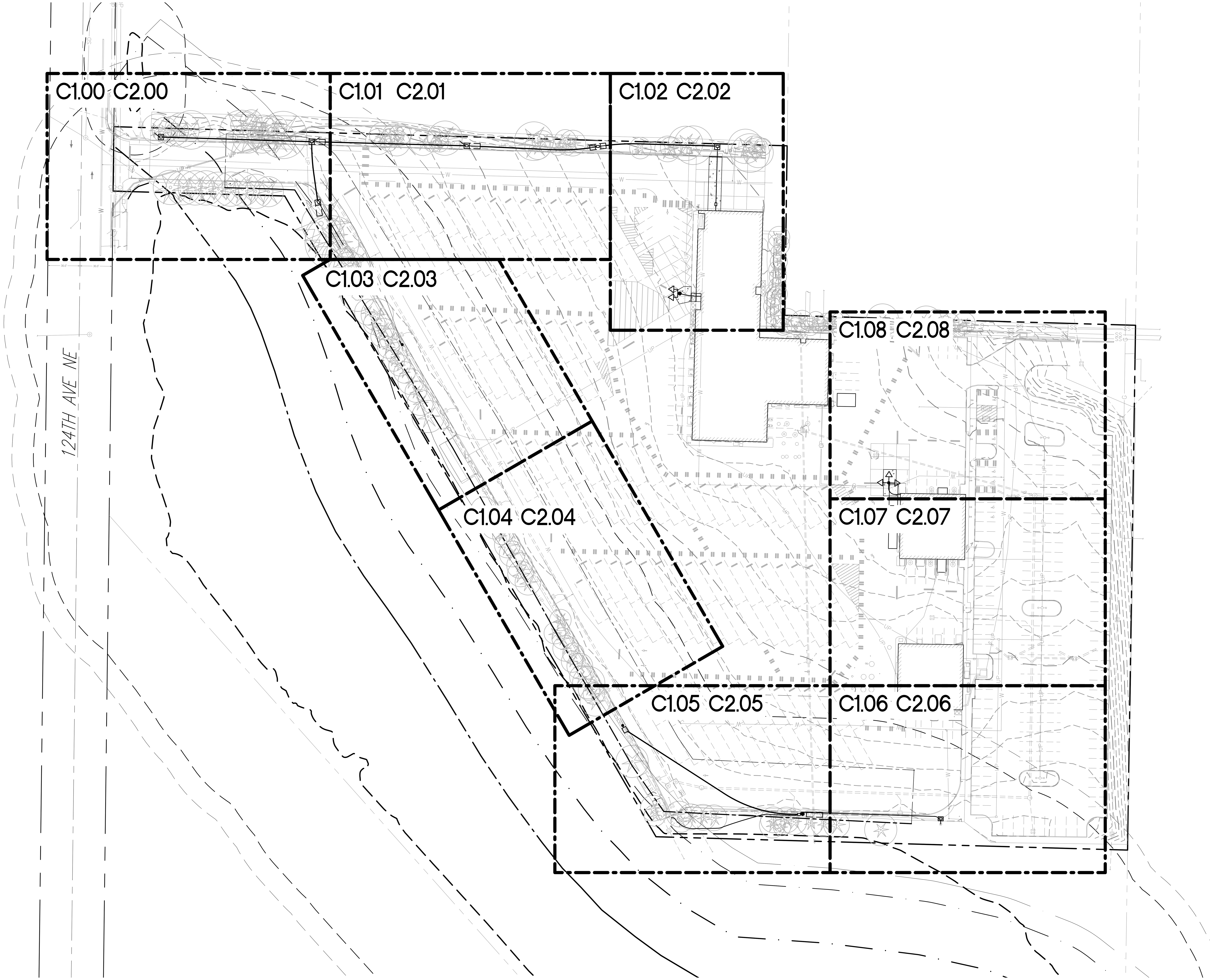
INDEX TO DRAWINGS

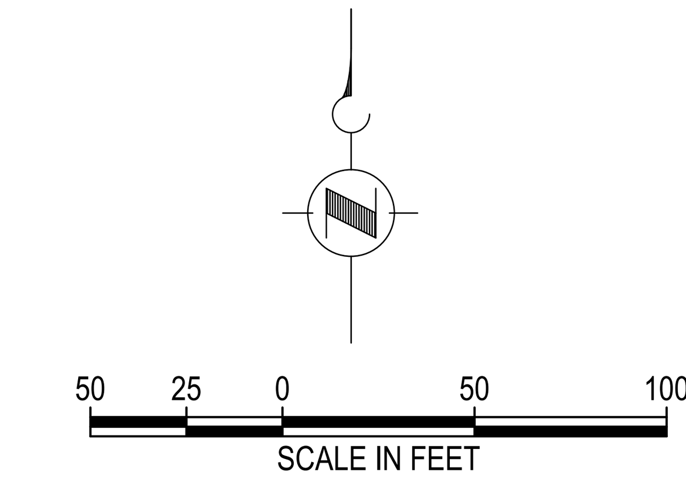
DATE: 10/27/2022

DRAWING NO: G0.01

SHEET NO: 1 OF 39

\\US1305-F01\WORKGROUP\2048\ACTIVE\204821607\D_WORKING_FILES\10_ELECTRICAL\02_CAD\03_SHEETS\G001 Oct 31, 2022 11:14 AM By:JWITTMIER





SHEET LIST TABLE

SHEET NO	DESCRIPTION
C0.00	KEY MAP
C0.01	SITE PLAN B
C1.00	DEMO AND EROSION CONTROL PLAN
C1.01	DEMO AND EROSION CONTROL PLAN
C1.02	DEMO AND EROSION CONTROL PLAN
C1.03	DEMO AND EROSION CONTROL PLAN
C1.04	DEMO AND EROSION CONTROL PLAN
C1.05	DEMO AND EROSION CONTROL PLAN
C1.06	DEMO AND EROSION CONTROL PLAN
C1.07	DEMO AND EROSION CONTROL PLAN
C1.08	DEMO AND EROSION CONTROL PLAN
C1.09	DEMO AND EROSION CONTROL NOTES
C1.10	DEMO AND EROSION CONTROL DETAILS
C2.00	GRADING, PAVING, AND UTILITY PLAN
C2.01	GRADING, PAVING, AND UTILITY PLAN
C2.02	GRADING, PAVING, AND UTILITY PLAN
C2.03	GRADING, PAVING, AND UTILITY PLAN
C2.04	GRADING, PAVING, AND UTILITY PLAN
C2.05	GRADING, PAVING, AND UTILITY PLAN
C2.06	GRADING, PAVING, AND UTILITY PLAN
C2.07	GRADING, PAVING, AND UTILITY PLAN
C2.08	GRADING, PAVING, AND UTILITY PLAN
C2.09	PAVEMENT RESTORATION DETAILS
C2.10	PAVEMENT RESTORATION DETAILS
C2.11	BORING PROFILES
C2.12	BORING PROFILES

811
Know what's below.
Call two business days before you dig.

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

IES Integrity Energy Services
1505 NW Gilman Blvd, Suite 1
Issaquah, WA 98027
Ph: (206) 566-7525
Ph: (844) 411-4437

LPD engineering pllc
1932 First Ave
Suite 201
Seattle, WA 98101
p. 206.725.1211
f. 206.973.5344
www.lpdengineering.com

MARC J. SERVIZI
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
8/17/23

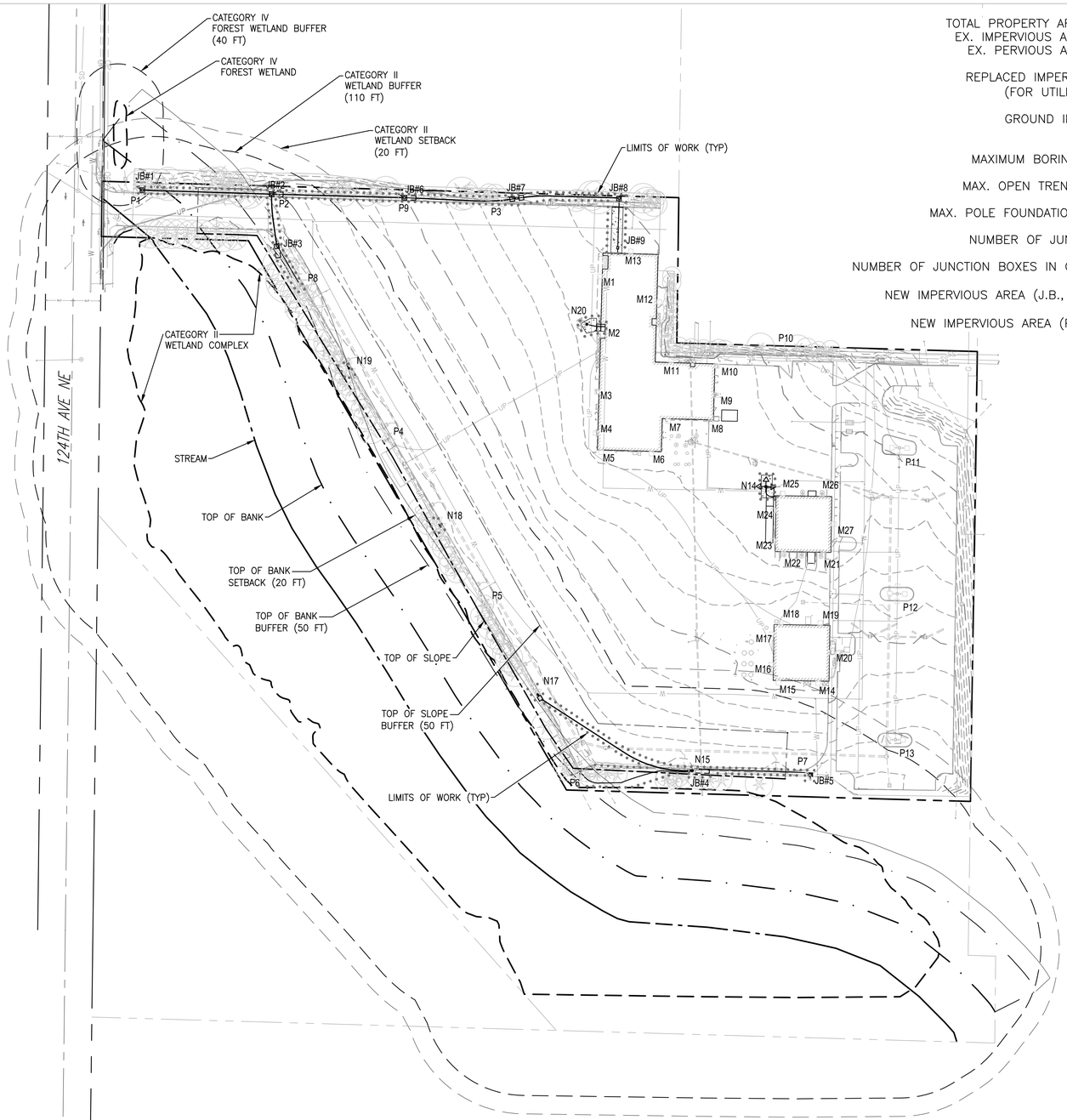
DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
KEY MAP

DATE: 10/31/2022
DRAWING NO: C0.00
SHEET NO: 2 OF 40

S:\lpd engineering pllc\Projects\integrity energy services\king county metro bellevue base\Design\SHEETS\KEY_BELL.dwg | Layout: C2.00
PLOTTED: Aug 17, 2023-01:20:59pm By kims
XREFS: BASE_BELL.dwg; TB_BELL.dwg; EX BASE_BELL.dwg; PROFILE_BELL.dwg
IMAGES: 2023-08-17 MJS.tif;



TOTAL PROPERTY AREA = 8.43 ACRES
EX. IMPERVIOUS AREA = 7.15 ACRES
EX. PERVIOUS AREA = 1.28 ACRES

REPLACED IMPERVIOUS = 1,162 SF
(FOR UTILITIES INSTALLATION)

GROUND IMPACT = 1,660 SF
= 2,240 CF

MAXIMUM BORING DEPTH = 13 FT

MAX. OPEN TRENCH DEPTH = 6 FT

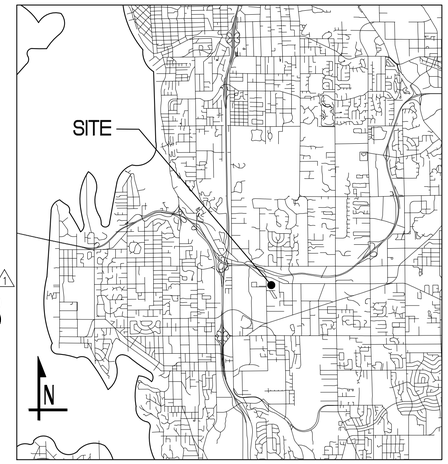
MAX. POLE FOUNDATION DEPTH = 12 FT

NUMBER OF JUNCTION BOXES = 9

NUMBER OF JUNCTION BOXES IN CRITICAL AREA = 5 (1)

NEW IMPERVIOUS AREA (J.B., POLES) = 111 SF

NEW IMPERVIOUS AREA (PAVEMENT) = 0 SF



VICINITY MAP

SCALE: 1"=1 MILE

NOTES:
1. SURVEY PER BUSH ROED & HITCHINGS, INC, NOVEMBER 2021.
2. CRITICAL AREAS PER GPS DATA PREPARED BY ICF, DECEMBER 2020.

BELLEVUE BASE VEHICLE MAINTENANCE & OPERATIONS BUILDING

OWNER: KING COUNTY
ADDRESS: 1790 124TH AVE NE
BELLEVUE, WASHINGTON 98005

PARCEL #: 7912319005

SURVEYOR'S DESCRIPTION:
PARCEL 1, CITY OF CITY OF BELLEVUE SHORT PLAT NUMBER 77-81 (REVISED) RECORDED UNDER RECORDING NUMBER 7912319005, IN KING COUNTY, WASHINGTON;

EXCEPT THAT PORTION LYING SOUTHERLY OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE EASTERLY MARGIN OF NORTHEAST 124TH STREET, 60.00 FEET SOUTHERLY OF THE NORTHWESTERLY MOST CORNER OF SAID PARCEL 1;
THENCE SOUTH 88°22'29" EAST, PARALLEL WITH THE NORTH LINE OF SAID PARCEL 1, A DISTANCE OF 159.79 FEET;
THENCE SOUTH 30°04'40" EAST, A DISTANCE OF 689.57 FEET;
THENCE SOUTH 88°22'37" EAST, A DISTANCE OF 439.16 FEET TO A POINT ON THE EAST LINE OF SAID PARCEL 1 AND THE TERMINUS OF SAID LINE;

ALSO, EXCEPT THAT PORTION LYING NORTHERLY OF THE FOLLOWING DESCRIBED LINE:

COMMENCING AT THE NORTHWESTERLY MOST CORNER OF SAID PARCEL 1;
THENCE SOUTH 88°22'29" EAST, ALONG THE NORTH LINE THEREOF, A DISTANCE OF 626.91 FEET TO THE POINT OF BEGINNING OF SAID LINE;
THENCE SOUTH 00°47'17" WEST, A DISTANCE OF 157.93 FEET;
THENCE SOUTH 88°22'37" EAST, A DISTANCE OF 326.65 FEET TO A POINT ON THE EAST LINE OF SAID PARCEL 1 AND THE TERMINUS OF SAID LINE.

SITUATE IN THE CITY OF BELLEVUE, COUNTY OF KING, STATE OF WASHINGTON.

140 70 0 70 140
SCALE IN FEET

LEGEND

	PROPERTY LINE
230	EX CONTOUR (INDEX)
231	EX CONTOUR
	EX BUILDING
	LIMITS OF WORK
	CONCRETE PAVEMENT
MX	BUILDING MOUNTED LIGHT
JBX	NEW JUNCTION BOX
PX	EX POLE, NEW LIGHTING
NX	NEW POLE

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PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023
2				
3				
4				

IES Integrity Energy Services
1505 NW Gilman Blvd, Suite 1, Issaquah, WA 98027
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1932 First Ave
Suite 201
Seattle, WA 98101
p. 206.725.1211
f. 206.973.5344
www.lpdengineering.com

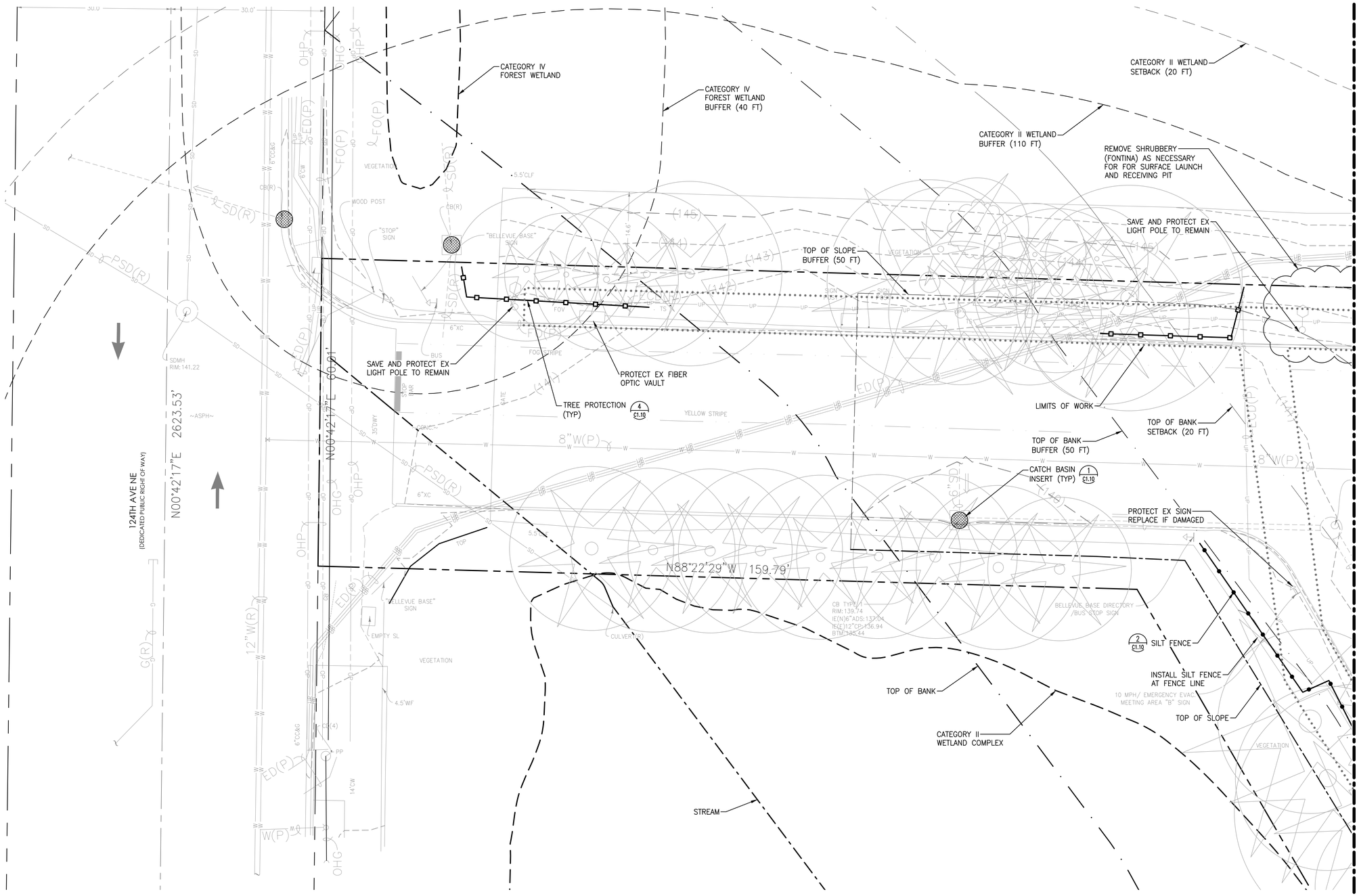
MARC J. SERVIZI STATE OF WASHINGTON 22855 REGISTERED PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
SITE PLAN B

DATE: 10/31/2022
DRAWING NO: C0.01
SHEET NO: 3 OF 40



10 5 0 10 20
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- EX BUILDING
- LIMITS OF WORK
- CATCH BASIN INSERT
- SILT FENCE
- SAWCUT LINE
- CONCRETE REMOVAL
- EX TREE TO REMAIN
- TREE PROTECTION

NOTES

1. PROTECT ALL EXISTING UTILITIES, PAVEMENT, CURB, TREES, STRUCTURES, AND OTHER FACILITIES UNLESS SHOWN TO REMOVE.
2. PROTECT TREES AND ROOTS. SEE DETAIL 4, SHEET C1.10 AND NOTES, SHEET C1.09.
3. CATCH BASIN INSERTS ON ALL CATCH BASINS WITHIN 300' OF SOIL DISTURBANCE

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No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023
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MARC J. SERVIZI — STATE OF WASHINGTON — 22550 — REGISTERED PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

DEMO AND EROSION CONTROL PLAN

DATE:	10/31/2022
DRAWING NO:	C1.00
SHEET NO: OF	4 40

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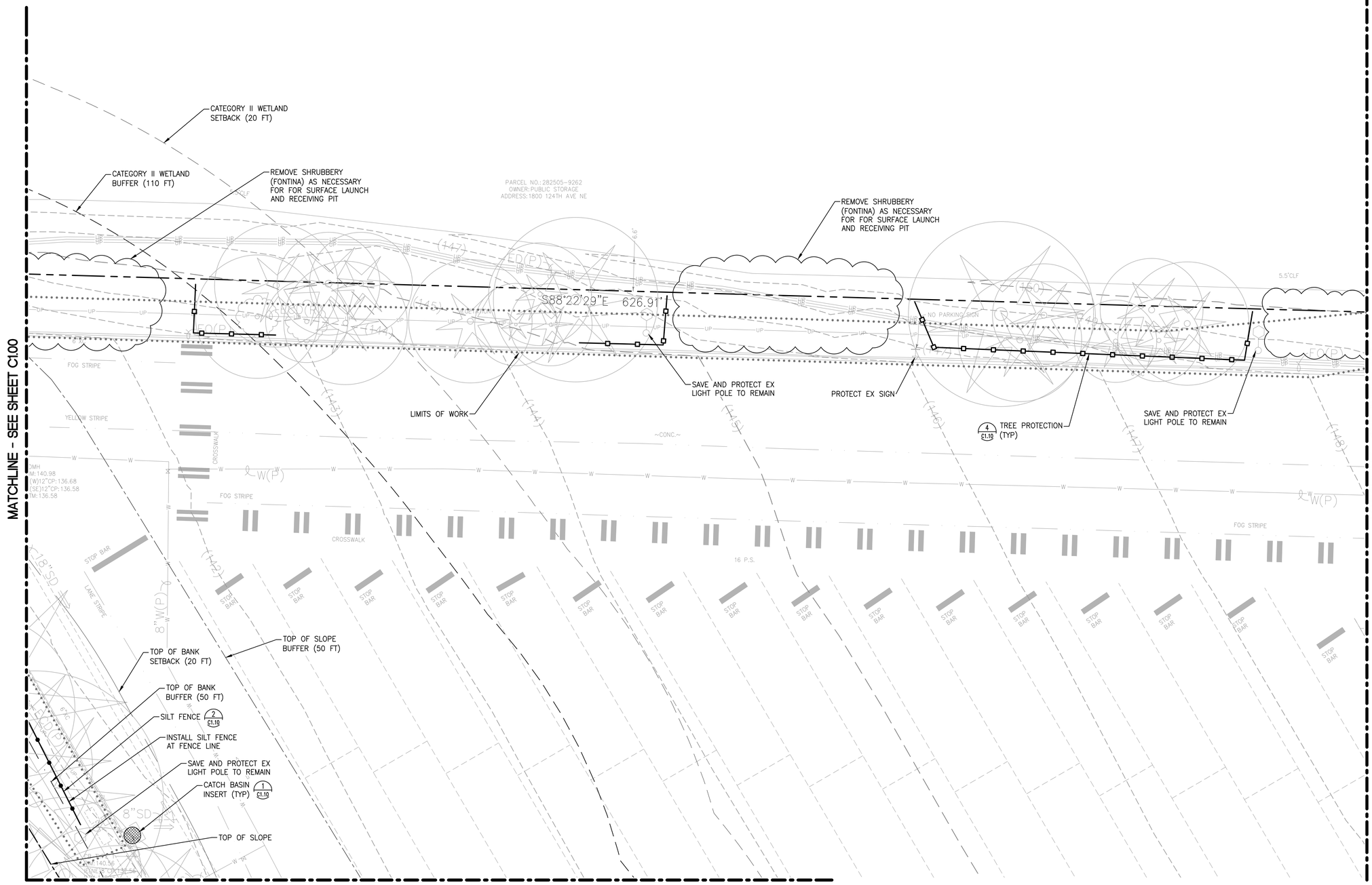

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SCALE IN FEET

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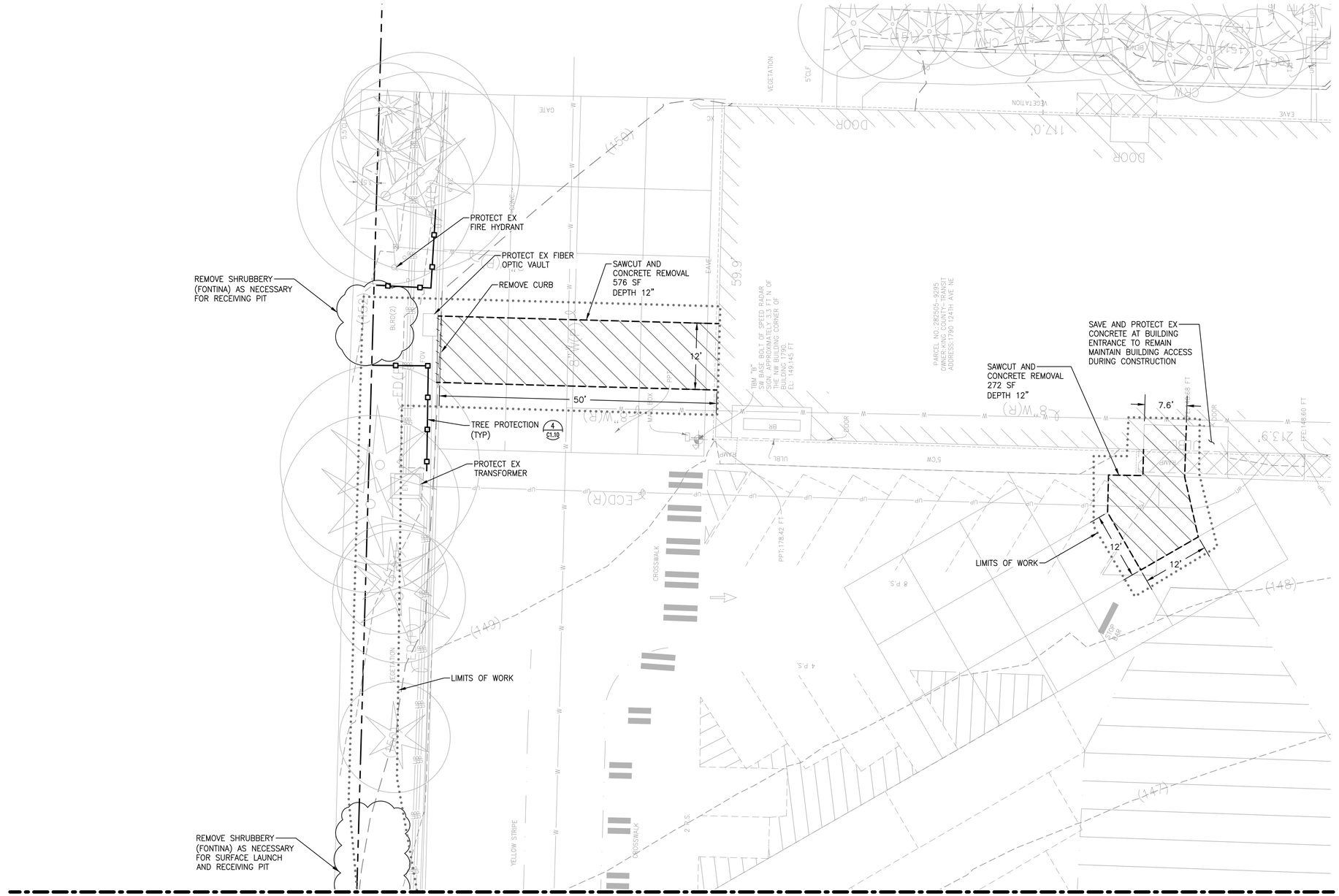
DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

DEMO AND EROSION CONTROL PLAN

DATE:	10/31/2022
DRAWING NO:	C1.01
SHEET NO: OF	5 40



MATCHLINE - SEE SHEET C1.01

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SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
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MARC J. SERVIZI — STATE OF WASHINGTON — 23555 — REGISTERED PROFESSIONAL ENGINEER
8/17/23

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DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
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BELLEVUE BASE

DEMO AND EROSION CONTROL PLAN

DATE:	10/31/2022
DRAWING NO:	C1.02
SHEET NO: OF	6 40

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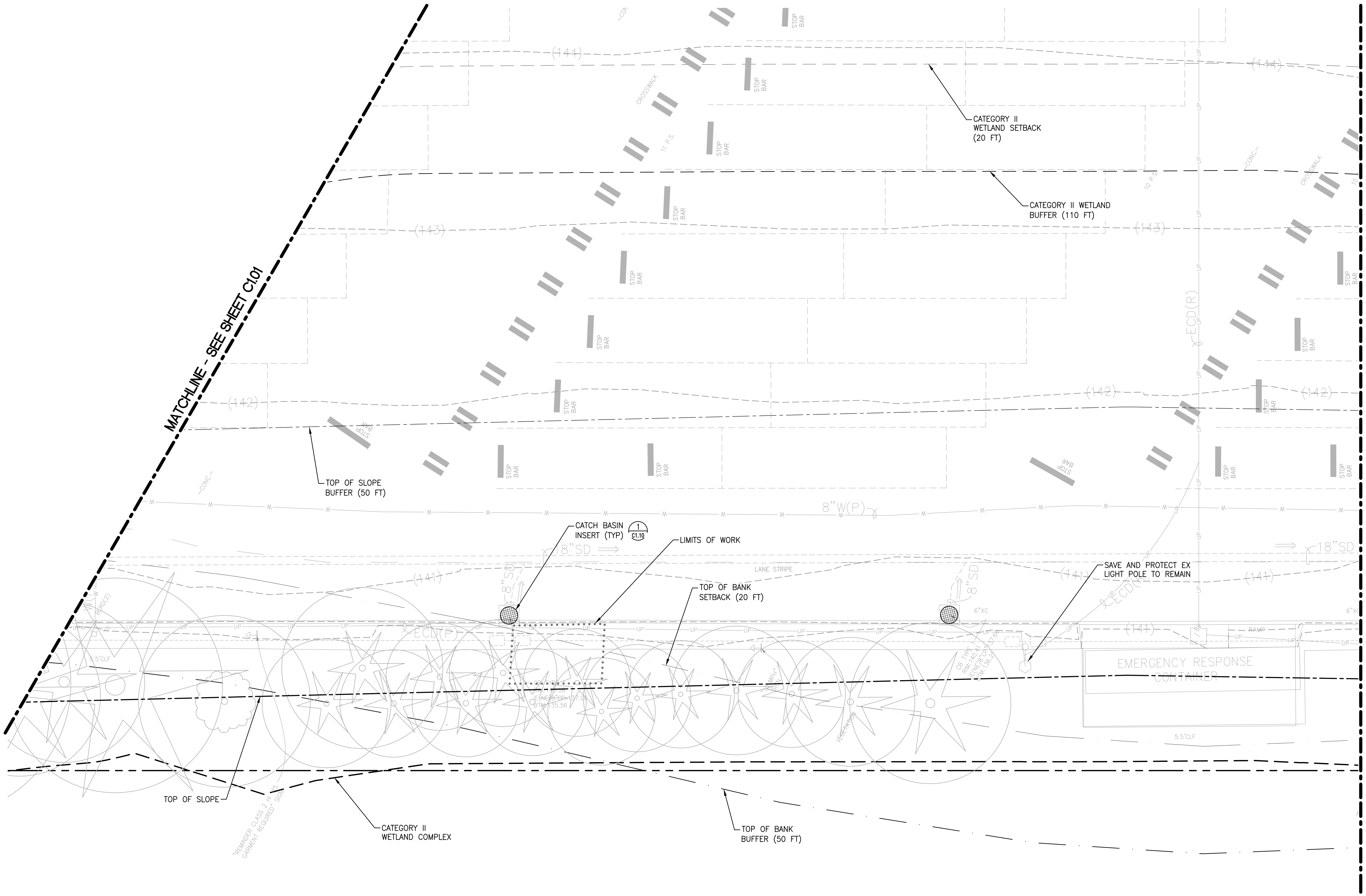

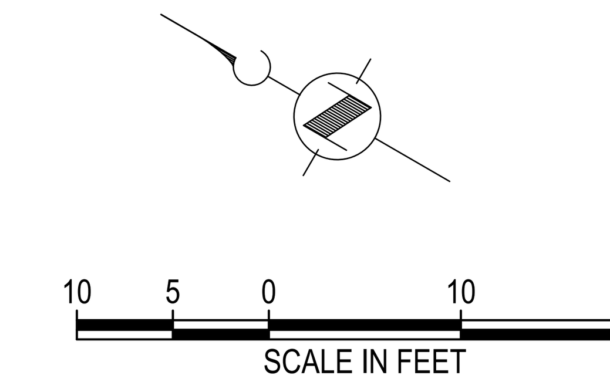

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
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No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

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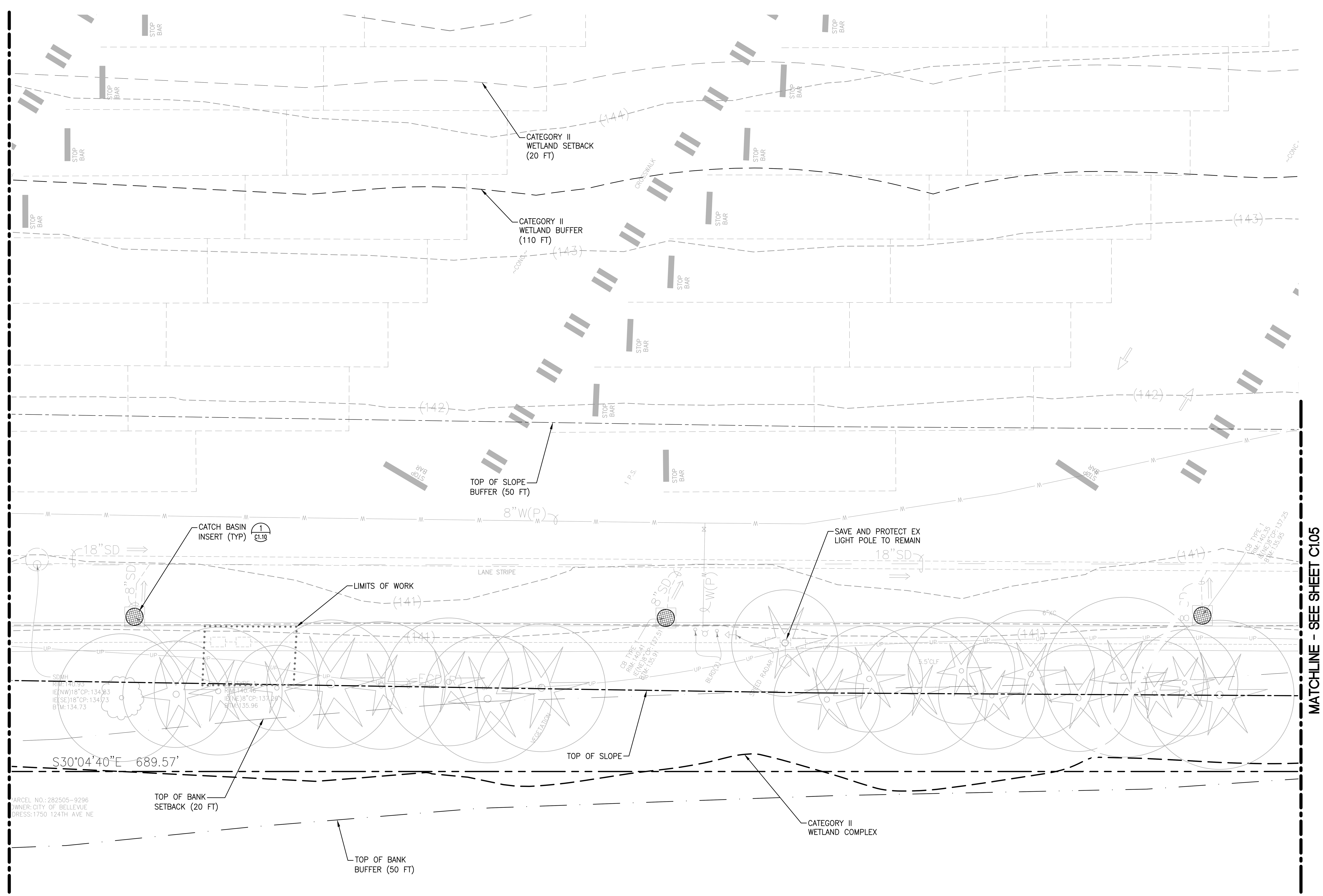
MARC J. SERVIZI
STATE OF WASHINGTON
PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL PLAN

DATE: 10/31/2022
DRAWING NO: C1.03
SHEET NO: 7 OF 40



SCALE IN FEET: 10 5 0 10 20

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- EX BUILDING
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MARC J. SERVIZI — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — 8/17/23

DESIGNED: MARC SERVIZI
APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER
CHECKED: MARC SERVIZI
PROJECT NO: 1139372
CHECKED: K. CHANG
CONTRACT NO: 2020-798

King County METRO

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YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL PLAN

DATE: 10/31/2022
DRAWING NO: C1.04
SHEET NO: 8 OF 40

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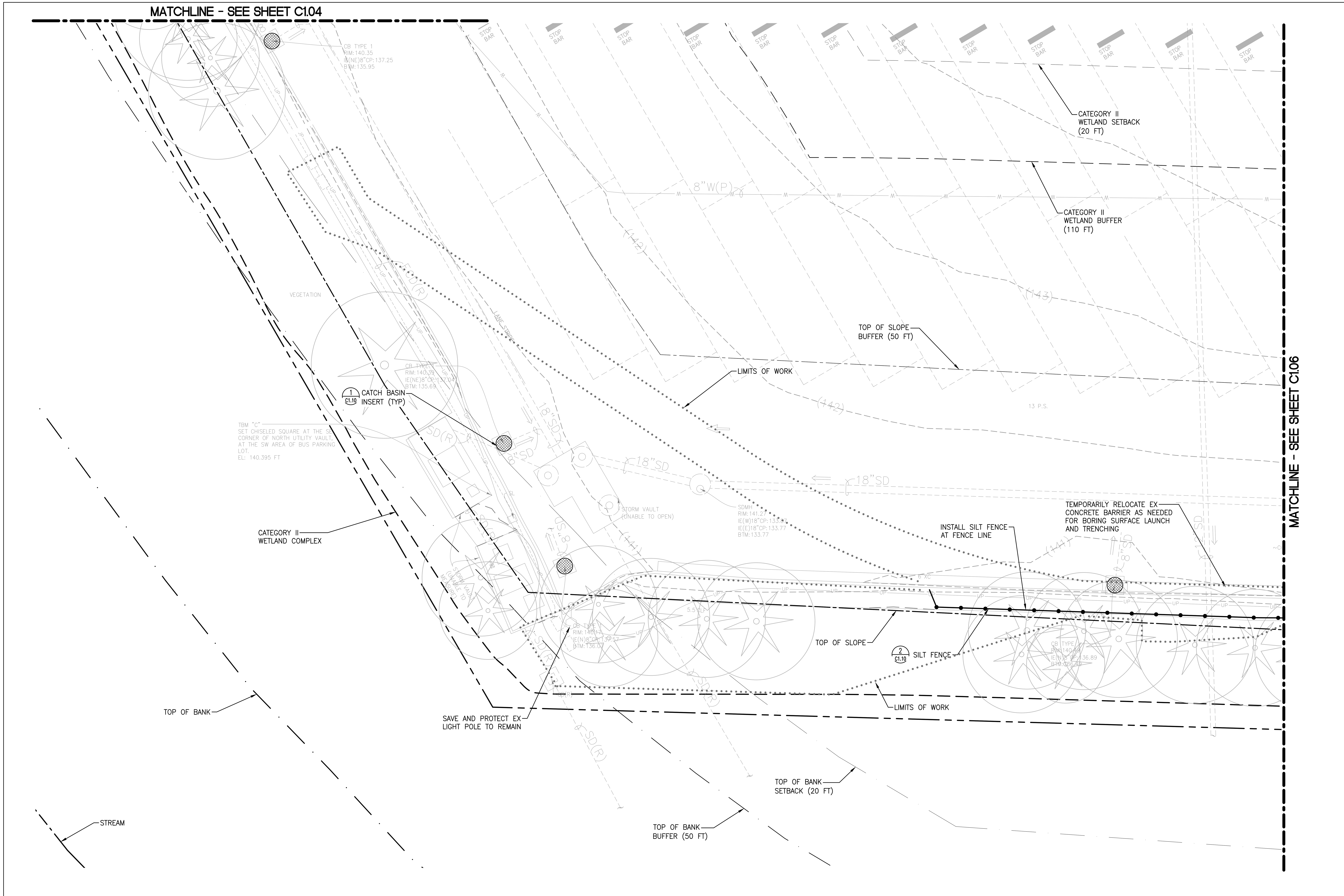

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- EX BUILDING
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MARC J. SERVIZI, STATE OF WASHINGTON, PROFESSIONAL ENGINEER, 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL PLAN

DATE: 10/31/2022
DRAWING NO: C1.05
SHEET NO: 9 OF 40

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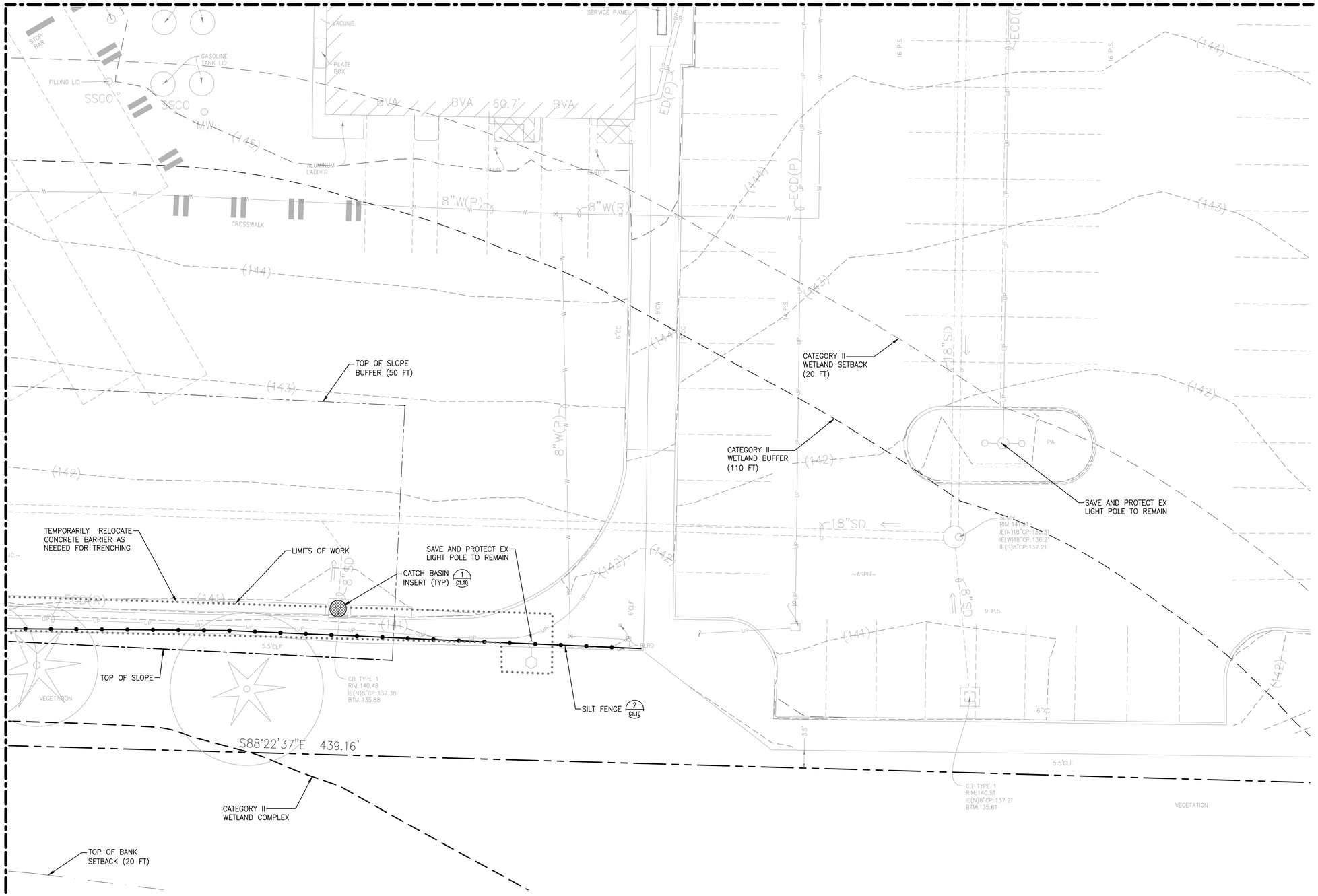
MATCHLINE - SEE SHEET C1.07

MATCHLINE - SEE SHEET C1.05



10 5 0 10 20
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
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MARC J. SERVIZI STATE OF WASHINGTON 22555 REGISTERED PROFESSIONAL ENGINEER 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

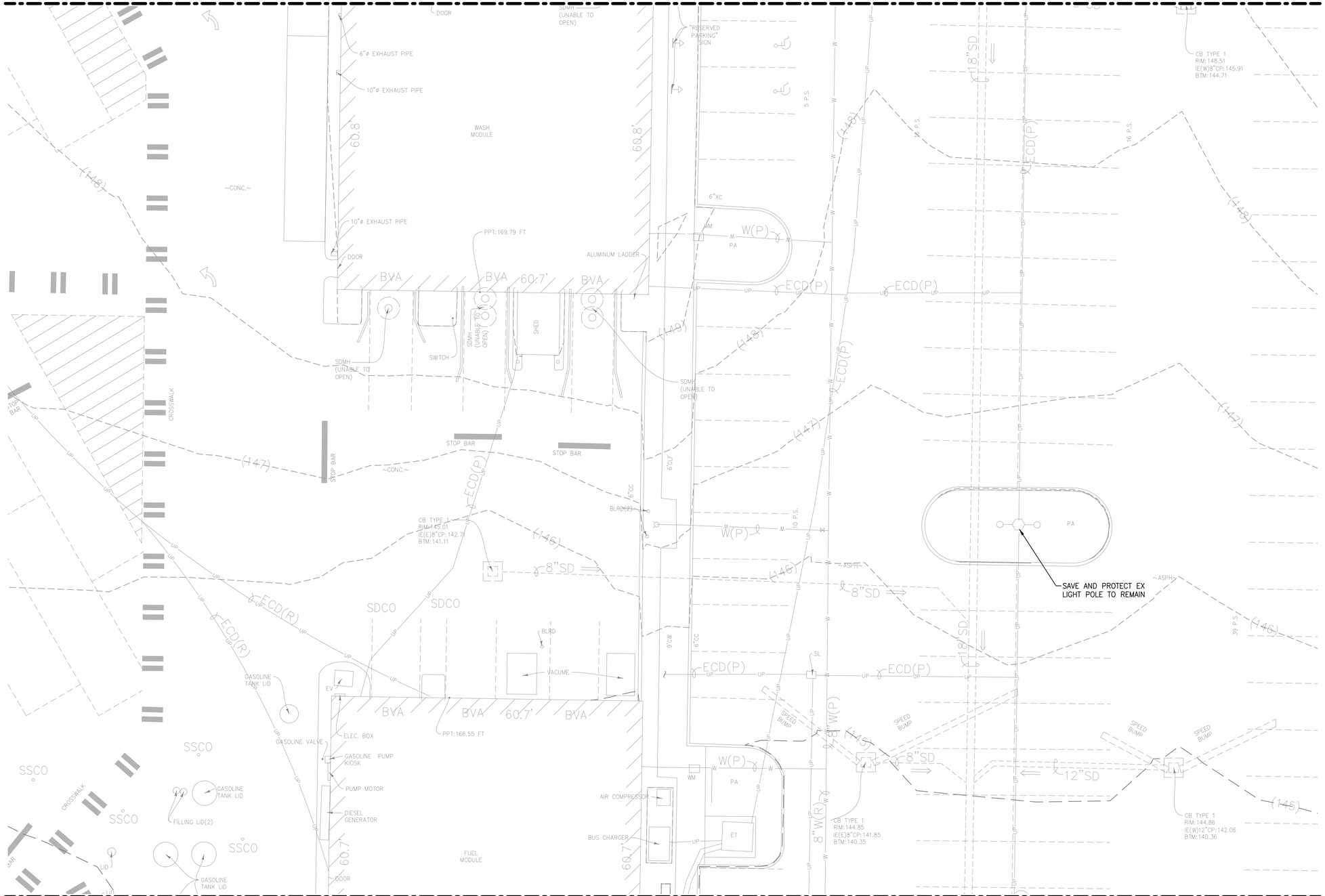
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

DEMO AND EROSION CONTROL PLAN

DATE:	10/31/2022
DRAWING NO:	C1.06
SHEET NO: OF	10 40

MATCHLINE - SEE SHEET C1.08



MATCHLINE - SEE SHEET C1.06

10 5 0 10 20
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- PROPERTY LINE
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MARC J. SERVIZI STATE OF WASHINGTON 19555 REGISTERED PROFESSIONAL ENGINEER 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

DEMO AND EROSION CONTROL PLAN

DATE:	10/31/2022
DRAWING NO:	C1.07
SHEET NO: OF	11 40

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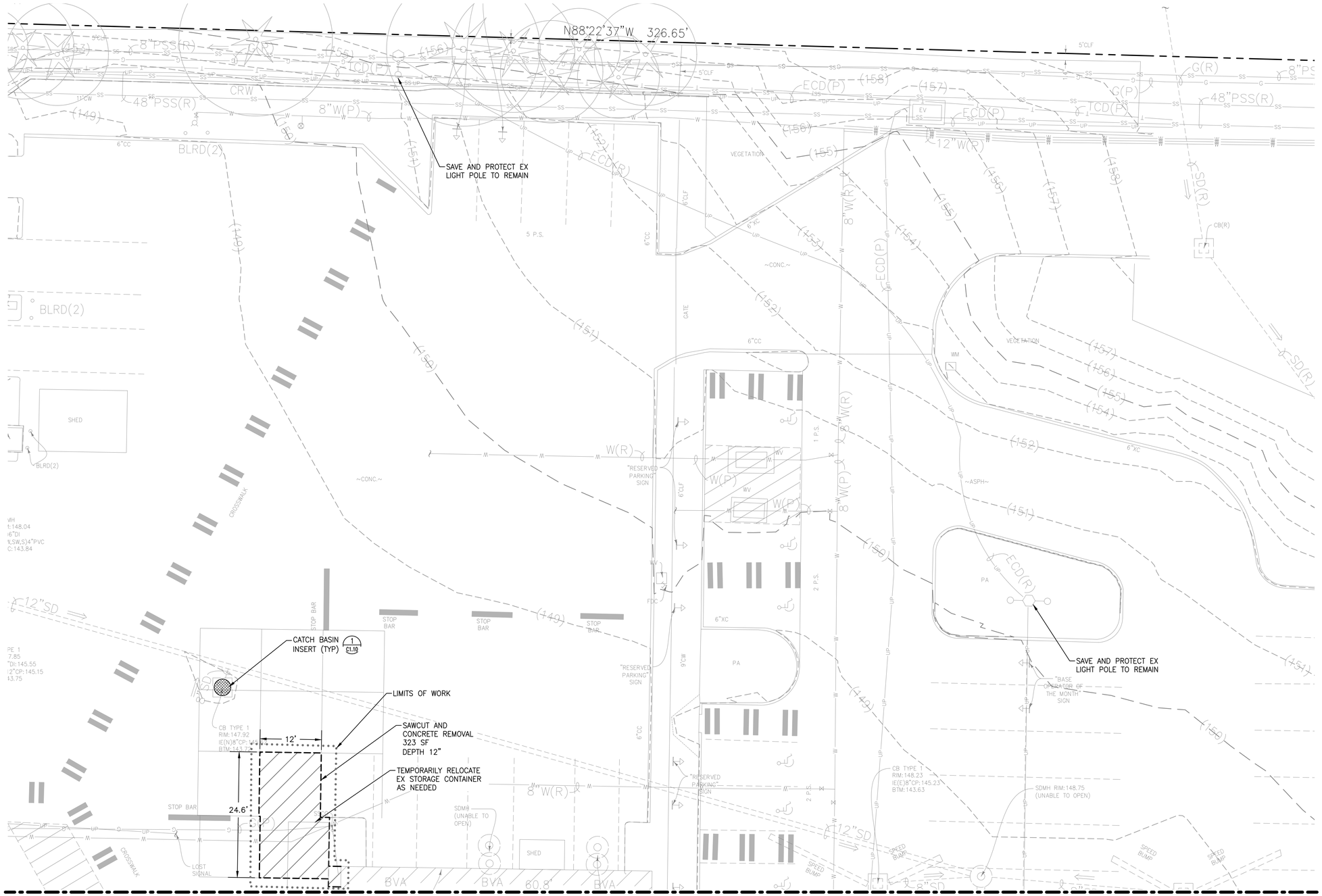

10 5 0 10 20
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MARC J. SERVIZI STATE OF WASHINGTON 19555 REGISTERED PROFESSIONAL ENGINEER 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL PLAN

DATE: 10/31/2022
DRAWING NO: C1.08
SHEET NO: 12 OF 40

GENERAL NOTES

1. EXISTING CONDITIONS:
   - A. CONTACT ALL NECESSARY UTILITY PURVEYORS TO COORDINATE UTILITY CUTOFFS AND REMOVALS. VERIFY THAT ALL APPROPRIATE SERVICES HAVE BEEN DISCONNECTED.
   - B. CONFORM TO LOCAL GOVERNING REQUIREMENTS REGARDING NOISE CONTROL.
   - C. MAINTAIN SAFE VEHICULAR AND PEDESTRIAN TRAFFIC ROUTES:
2. ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, ALLEYS, SIDEWALKS, AND ADJACENT FACILITIES.
3. DO NOT CLOSE OR OBSTRUCT STREETS, FIRE LANES, SIDEWALKS, ALLEYS OR PASSAGEWAYS WITHOUT PERMISSION FROM AUTHORITIES HAVING JURISDICTION.
4. IF REQUIRED BY GOVERNING AUTHORITIES, PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS.
   - A. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES AT POINTS OF CONNECTION PRIOR TO COMMENCING WORK ON NEW UTILITY THAT IS TO BE CONNECTED TO THE EXISTING UTILITY. COORDINATE WITH OWNER'S REPRESENTATIVE IF ACTUAL CONDITIONS ARE AT VARIANCE WITH PLANS.
   - B. VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES SUFFICIENTLY IN ADVANCE OF CONSTRUCTION TO ALLOW FOR COORDINATION AND MITIGATION OF CONFLICTS WITHOUT DOWN TIME.
5. DIMENSIONS AND LAYOUTS:
   - A. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVING ALL BENCHMARKS AND STAKES AND IS REQUIRED TO REPLACE ANY STAKES OR BENCHMARKS THAT ARE DISPLACED OR MISSING.
   - B. THE CONTRACTOR IS RESPONSIBLE FOR REVIEW OF ALL UTILITY PURVEYOR AND CITY RECORDS RELATIVE TO THE EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR AVOIDING DAMAGE TO THESE FACILITIES AND SHALL RESTORE ALL UTILITIES AT CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR IS TO NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY IF UNDERGROUND UTILITIES NOT SHOWN ON RECORD DOCUMENTS ARE ENCOUNTERED.
   - C. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING, SETTING AND MARKING ALL LINE LOCATION STAKES. A QUALIFIED LAYOUT ENGINEER, SURVEYOR, OR TECHNICAL SPECIALIST MUST BE ASSIGNED TO THE CONTRACTOR'S CREW FOR THIS WORK AND SHALL BE ON SITE AT ALL TIMES WHEN WORK REQUIRING CONTROL IS BEING PERFORMED, TOGETHER WITH ALL NECESSARY EQUIPMENT, SUPPLIES AND INSTRUMENTS RELATED THERETO. THIS EQUIPMENT AND PERSONNEL MUST BE AVAILABLE, AT NO ADDITIONAL COST TO THE OWNER OR OWNER'S REPRESENTATIVE, FOR THE PURPOSE OF VERIFYING LAYOUT AND CERTIFYING THE ACCURACY OF WORK ON THE SITE.
6. REGULATORY REQUIREMENTS:
   - A. COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND SAFETY REGULATIONS. IF THERE ARE ANY CONFLICTS AMONG REFERENCED STANDARDS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
   - B. OBTAIN ALL NECESSARY PERMITS.
7. SAFETY SYSTEMS:
   - A. PROTECT ALL EXCAVATION IN EXCESS OF FOUR-FEET IN DEPTH WITH A SAFETY SYSTEM CONFORMING TO THE REFERENCED REQUIREMENTS.
   - B. THE CONTRACTOR'S EXCAVATION SAFETY SYSTEM SHALL BE DESIGNED BY A QUALIFIED PERSON AND MEET THE REFERENCED REQUIREMENTS.
   - C. ALL EXCAVATION NOT REQUIRING TRENCH SAFETY SYSTEMS SHALL ALSO MEET THE WISHA SAFETY STANDARDS AND CITY OF BELLEVUE REQUIREMENTS.
8. EXCAVATION:
   - A. MATERIALS NOT DESIGNATED FOR SALVAGE SHALL BE BROKEN UP, LOADED, AND LEGALLY DISPOSED OF BY THE CONTRACTOR. CARE SHALL BE TAKEN REMOVING ITEMS TO ENSURE THAT DAMAGE DOES NOT OCCUR TO THE EXISTING TREES AND IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE. ALL REMOVALS SHALL BE ACCOMPLISHED BY MAKING A NEAT VERTICAL SAWCUT AT THE LIMITS OF REMOVAL. ALL CONCRETE WALK REMOVALS SHALL BE SAWCUT AT THE NEXT ADJACENT JOINT. ADJACENT MATERIALS DESIGNATED TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR DURING THE WORK SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
   - B. SPRINKLE EXCAVATED MATERIAL AND ACCESS ROADS AS NECESSARY TO LIMIT DUST TO THE LOWEST PRACTICABLE LEVEL. DO NOT USE WATER TO SUCH AN EXTENT AS TO CAUSE FLOODING, CONTAMINATED RUNOFF, OR ICING.
   - C. IN THE EVENT THE CONTRACTOR ENCOUNTERS UTILITY LINES NOT SHOWN ON THE SITE PLAN OR OTHERWISE INDICATED TO BE SAVED, REMOVED, OR ABANDONED, THE LOCATION OF SUCH LINES SHALL BE MARKED IN THE FIELD AND THE OWNER'S REPRESENTATIVE NOTIFIED.
9. FILL MATERIALS:
   - A. ALL MATERIAL WHICH IS PROPOSED TO BE USED AS FILL, BEDDING OR BACKFILL SHALL BE GRADED AND TESTED FOR MOISTURE CONTENT AND COMPACTABILITY. GRADATION AND TEST RESULTS SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE BY THE OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT OF FILL. SEE SPECIFICATIONS FOR INFORMATION AND RESTRICTIONS ON THE USE OF RECYCLED MATERIAL AS FILL.
   - B. MATERIAL USED IN FILLING SHALL BE APPROPRIATE TO THE SITE AND THE INTENDED USE OF THAT PORTION OF THE SITE.
   - C. TOPSOIL SHALL NOT BE USED AS A FILL MATERIAL.
   - D. NO FROZEN OR THAWING MATERIAL SHALL BE USED IN A FILL.
   - E. COMMON FILL MATERIAL SHALL CONSIST OF ON-SITE EXCAVATED SOILS FREE OF ORGANIC AND DELETERIOUS MATERIAL AND OF SUCH SIZE AND GRADATION THAT THE SPECIFIED COMPACTION CAN BE READILY ATTAINED. THE MOISTURE OF COMMON FILL MATERIAL AT THE TIME OF PLACEMENT SHALL BE WITHIN A RANGE OF ONE PERCENT ABOVE TO TWO PERCENT BELOW THE OPTIMUM MOISTURE CONTENT FOR COMPACTION.
   - F. GRAVEL BORROW: PER SECTION 9-03.14(1) OF WSDOT.
   - G. STRUCTURAL FILL SHALL BE NON-ORGANIC SOIL, ACCEPTABLE TO THE OWNER'S REPRESENTATIVE, PLACED IN MAXIMUM 8-INCH LOOSE LIFTS, WITH EACH LIFT BEING COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY USING ASTM:D 1557. STRUCTURAL FILL SHALL BE PLACED AND COMPACTED WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT.
10. COMPACTION:

    REQUIRED COMPACTION: COMPACT FILLS AND BACKFILLS TO THE FOLLOWING MINIMUM RELATIVE COMPACTION (PERCENTAGE OF MAXIMUM DRY DENSITY DETERMINED IN ACCORDANCE WITH ASTM D1557).

LOCATIONS	REQUIRED MINIMUM RELATIVE COMPACTION
UTILITY TRENCHES:	95%
UNDER WALKS AND PAVING:	95%
AGAINST WALLS:	90%
PLANTING AND LANDSCAPE AREAS:	85%
OTHER:	95%

11. FIELD QUALITY CONTROL:
    - A. THE OWNER'S TESTING AGENCY SHALL PERFORM TESTING. THE OWNER'S TESTING IS ONLY TO VERIFY CONFORMANCE WITH THE PROJECT PLANS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THAT THE WORK MEETS THE REQUIREMENTS OF THE SPECIFICATIONS AND THE CITY OF BELLEVUE.

NTS
GENERAL NOTES 1

CITY OF BELLEVUE CLEARING AND GRADING STANDARD NOTES

1. ALL CLEARING & GRADING CONSTRUCTION MUST BE IN ACCORDANCE WITH CITY OF BELLEVUE (COB) CLEARING & GRADING CODE, CLEARING & GRADING DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES, AND STANDARDS. THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THESE REQUIREMENTS. ANY VARIANCE FROM ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE CITY OF BELLEVUE DEVELOPMENT SERVICES (DSD) PRIOR TO CONSTRUCTION. IT SHALL BE THE SOLE RESPONSIBILITY OF THE APPLICANT AND THE PROFESSIONAL CIVIL ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS. ALL CORRECTIONS SHALL BE AT NO ADDITIONAL COST OR LIABILITY TO THE COB.
2. APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
3. A COPY OF THE APPROVED PLANS AND DRAWINGS MUST BE ON-SITE DURING CONSTRUCTION. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING OF CONSTRUCTION.
4. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
7. ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
8. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
9. CLEARING SHALL BE LIMITED TO THE AREAS WITHIN THE APPROVED DISTURBANCE LIMITS. EXPOSED SOILS MUST BE COVERED AT THE END OF EACH WORKING DAY WHEN WORKING FROM OCTOBER 1ST THROUGH APRIL 30TH. FROM MAY 1ST THROUGH SEPTEMBER 30TH, EXPOSED SOILS MUST BE COVERED AT THE END OF EACH CONSTRUCTION WEEK AND AT THE THREAT OF RAIN.
10. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
11. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT.
12. THE CONTRACTOR MUST MAINTAIN A SWEEPER ON SITE DURING EARTHWORK AND IMMEDIATELY REMOVE SOIL THAT HAS BEEN TRACKED ONTO PAVED AREAS AS RESULT OF CONSTRUCTION.
13. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
14. ANY EXCAVATED MATERIAL REMOVED FROM THE CONSTRUCTION SITE AND DEPOSITED ON PROPERTY WITHIN THE CITY LIMITS MUST BE DONE IN COMPLIANCE WITH A VALID CLEARING & GRADING PERMIT. LOCATIONS FOR THE MOBILIZATION AREA AND STOCKPILED MATERIAL MUST BE APPROVED BY THE CLEARING AND GRADING INSPECTOR AT LEAST 24 HOURS IN ADVANCE OF ANY STOCKPILING.
15. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
16. FINAL SITE GRADING MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM 5% SLOPE, PER THE INTERNATIONAL RESIDENTIAL CODE (IRC) R401.3.
17. INSTALL AMENDED SOILS ON ALL DISTURBED SOILS NOT COVERED BY HARD SURFACE IN ACCORDANCE WITH THE CITY OF BELLEVUE BMP T5.13.

NTS
CITY OF BELLEVUE CLEARING AND GRADING STANDARD NOTES 2

TREE PROTECTION NOTES

1. CONTRACTOR SHALL PREPARE A TREE, SOIL, AND VEGETATION PROTECTION WORK PLAN. NOTE AND PHOTOGRAPH CONDITIONS OF EXISTING TREES FOR REVIEW BY CITY INSPECTOR AND KC METRO.
2. CONTRACTOR SHALL NOTIFY THE ENGINEER AND CITY INSPECTOR 72 HOURS MIN. PRIOR TO BOTH DEMOLITION AND EXCAVATION WITHIN THE TREE DRIP LINE.
3. AIR SPADING REQUIRED. ALL TRENCH EXCAVATION IN THE TREE DRIP LINE SHALL BE PERFORMED TO FULL DEPTH AND WIDTH OF EXCAVATION WITH AN AIRSPADE. RETAIN ALL STRUCTURAL ROOTS (1 INCH OR GREATER) ACROSS TRENCHES.
4. AVOID DAMANGE TO ROOTS DURING CONCRETE SAWCUTTING, DEMOLITION, EXCAVATION, AND TRENCHING.
5. REMOVE PAVEMENT WITHIN TREE DRIP LINE BY SAWCUTTING FREQUENTLY (12 TO 18 INCHES O.C.) TO ALLOW SMALL PIECES TO BREAK OUT. IF PART OF PAVEMENT IS FIRMLY ATTACHED TO ROOTS GREATER THAN 1-INCH, PRUNE ROOTS UNDER SUPERVISION OF KC METRO.
6. PROTECT TREE ROOTS AFTER EXPOSURE DUE TO CONCRETE REMOVAL, AIRSPADING, AND OTHER CONSTRUCTION ACTIVITY. ONLY EXCAVATE AND EXPOSE AREA OF ROOTS THAN CAN BE BACKFILLED AND COVERED WITHIN ONE WORKING DAY. MAINTAIN MOIST SUBGRADE CONDITION UNTIL BACKFILL IS INSTALLED.
7. TRENCH BACKFILL IN CRITICAL ROOT ZONE SHALL BE COS MINERAL AGGREGATE TYPE 24 OR 22. TOP 8" SHALL BE COMPOST AMENDED PER COS STD 142. GRASS RESTORATION BY HYDROSEEDING.
8. USE OF BACKHOE IN TREE DRIP LINE IS PROHIBITED.
9. KEEP TREE ADEQUATELY WATERED UNTIL SIDEWALK IS REPLACED AND TRENCH IS BACKFILLED.

NTS
TREE PROTECTION NOTES 3

NTS
NOT USED 4

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

Integrity Energy Services
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MARC J. SERVIZI
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL NOTES

DATE: 10/31/2022
DRAWING NO: C1.09
SHEET NO: 13 OF 40

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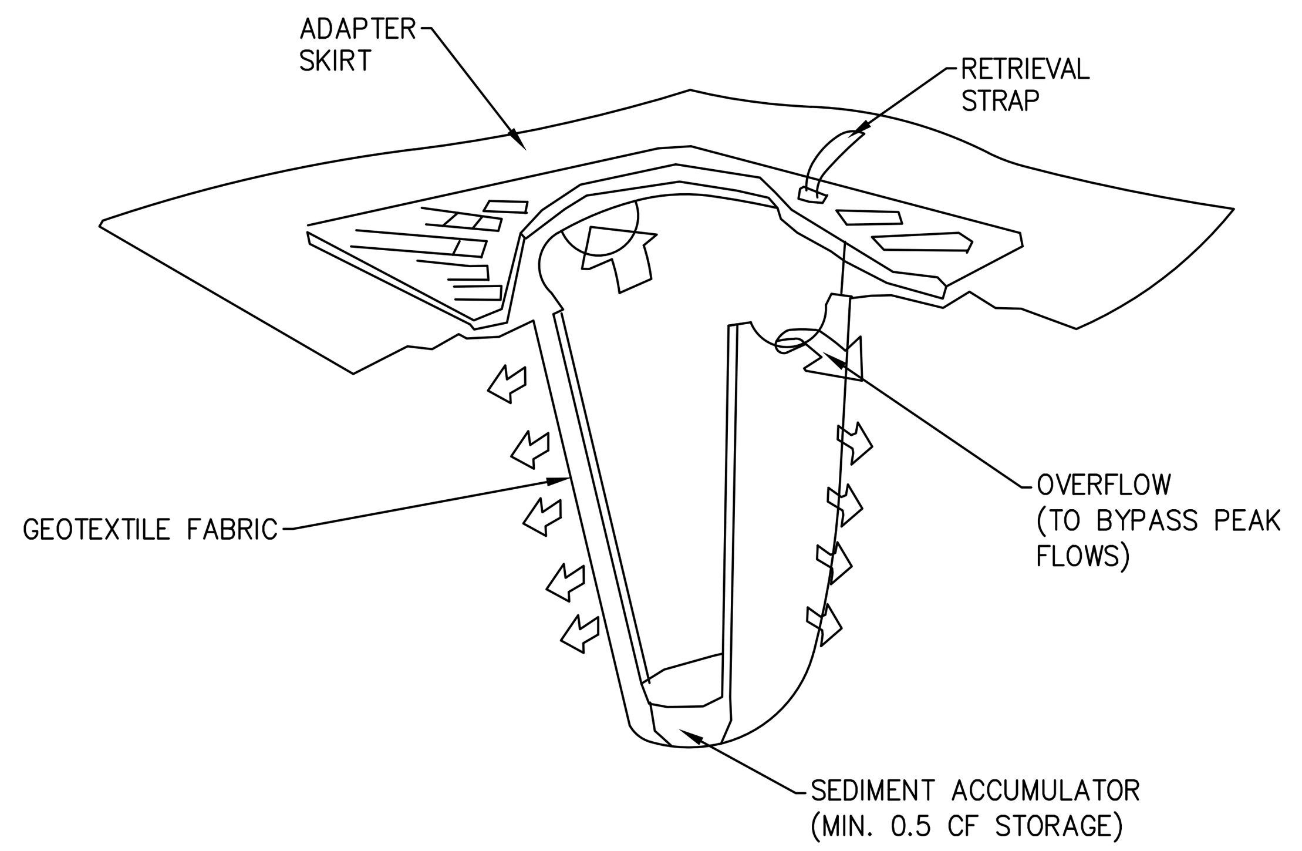

SCHEMATIC DETAIL

PROVIDE "STREAMGUARD SEDIMENT CATCH BASIN INSERT" OR APPROVED EQUAL
MANUFACTURER'S NAME: BOWHEAD ENVIRONMENTAL & SAFETY
ADDRESS: P.O. BOX 375 PRESTON, WA 98050
TELEPHONE: FOR INFORMATION: (800) 909-3677
WWW.SHOPBOWHEAD.COM

NTS
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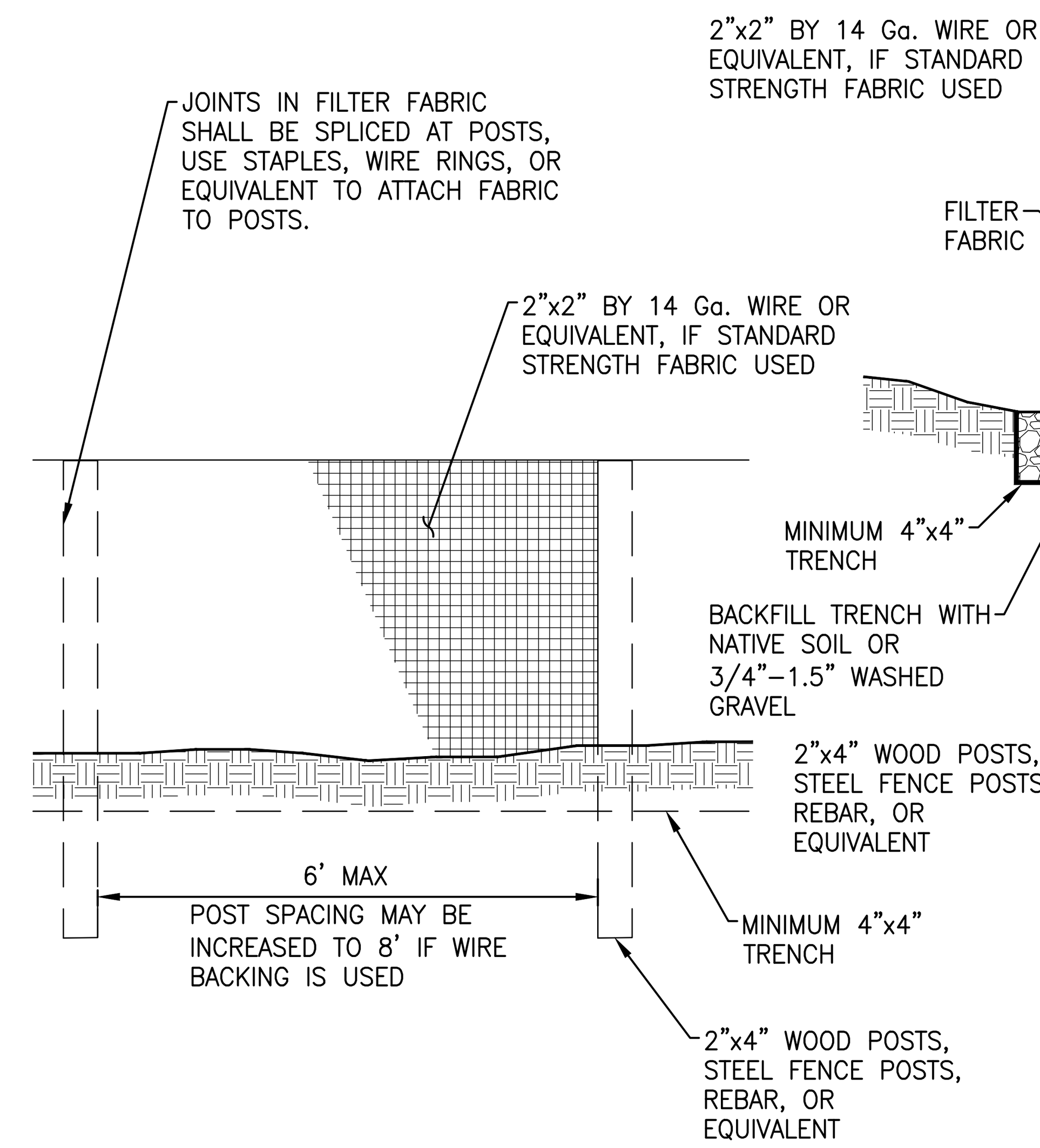

NTS
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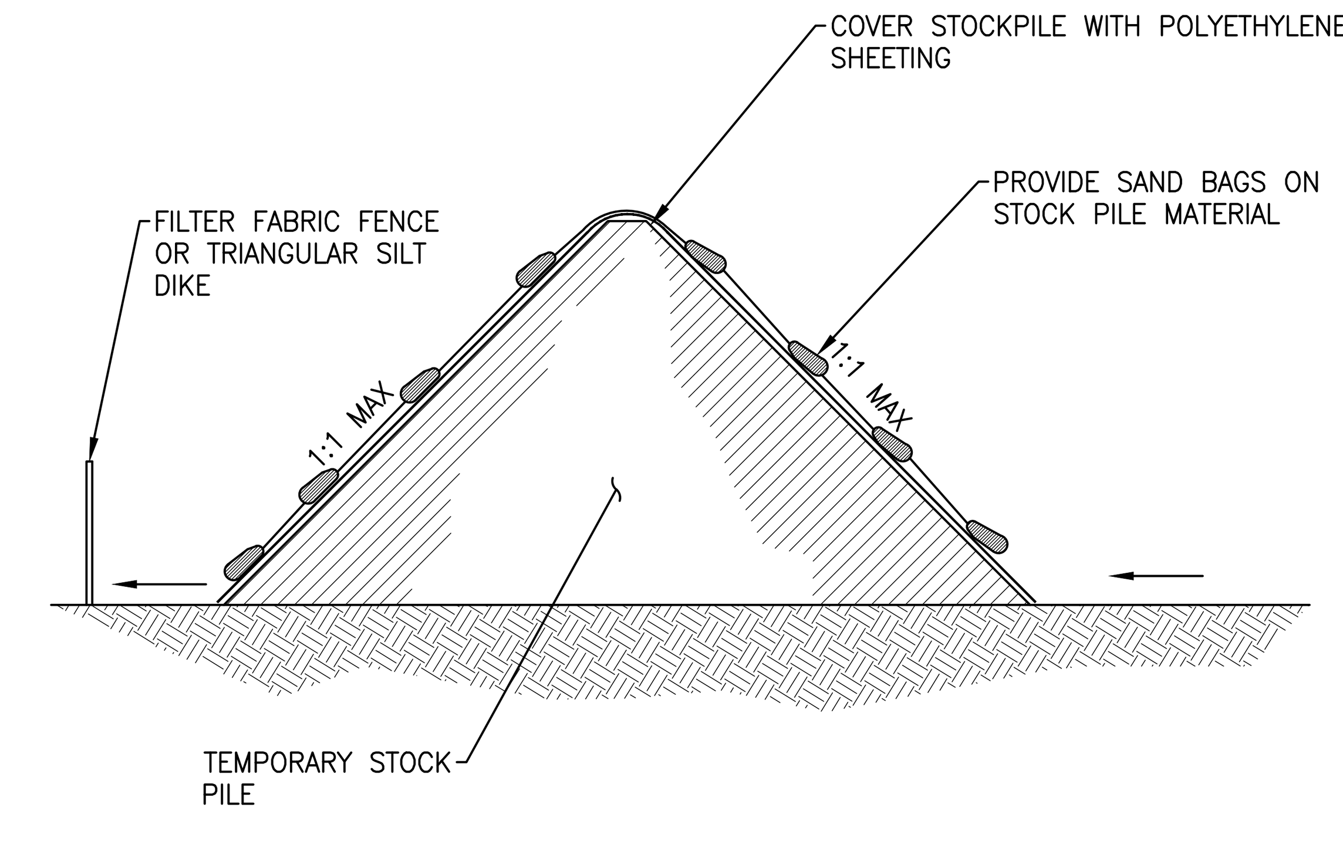
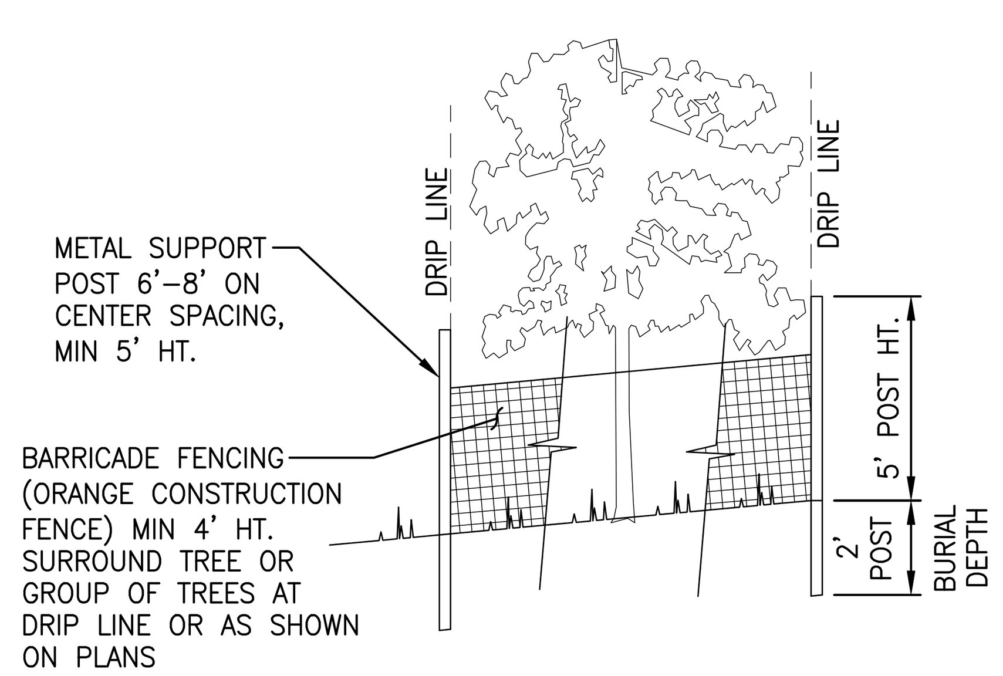


NOTES:
COMPACT STOCK PILE MATERIAL PER GEOTECHNICAL RECOMENDATIONS

NTS
STOCKPILE PROTECTION 3



NOTES:

1. A 4 FOOT HIGH TEMPORARY FENCE MUST BE PLACED AT THE DRIP LINE OF TREES PRIOR TO THE COMMENCEMENT OF CLEARING OR EARTHWORK. NOTIFY THE CLEARING AND GRADING INSPECTOR TO GET BOTH THE INSPECTION AND WRITTEN APPROVAL OF FLAGGED TREES AND TEMPORARY PROTECTION FENCING AROUND TREES TO BE SAVED PER THE APPROVED CLEARING AND GRADING PLAN.
2. NO STOCKPILING OF MATERIAL AND NO VEHICULAR TRAFFIC ARE ALLOWED WITHIN THE LIMITS OF THE DRIPLINE, THE TEMPORARY FENCING, UNLESS APPROVED BY THE ARBORIST. FILLING, EXCAVATION, AND CLEARING MUST BE ACCOMPLISHED BY HAND METHODS ONLY UNLESS APPROVED BY ARBORIST.
3. ROOTS OF TREES TO BE SAVED WHICH ARE DAMAGED DURING CONSTRUCTION MUST BE TREATED IN THE FOLLOWING WAY: FOR DAMAGED ROOTS OVER 1" IN DIAMETER, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION OF THE ROOT ALL EXPOSED ROOTS WILL BE TEMPORARILY COVERED WITH DAMP BURLAP OR WOOD SHAVINGS TO PREVENT DRYING AND COVERED WITH EARTH AS SOON AS POSSIBLE.

NTS
TREE PROTECTION 4

NTS
NOT USED 5

NTS
NOT USED 6

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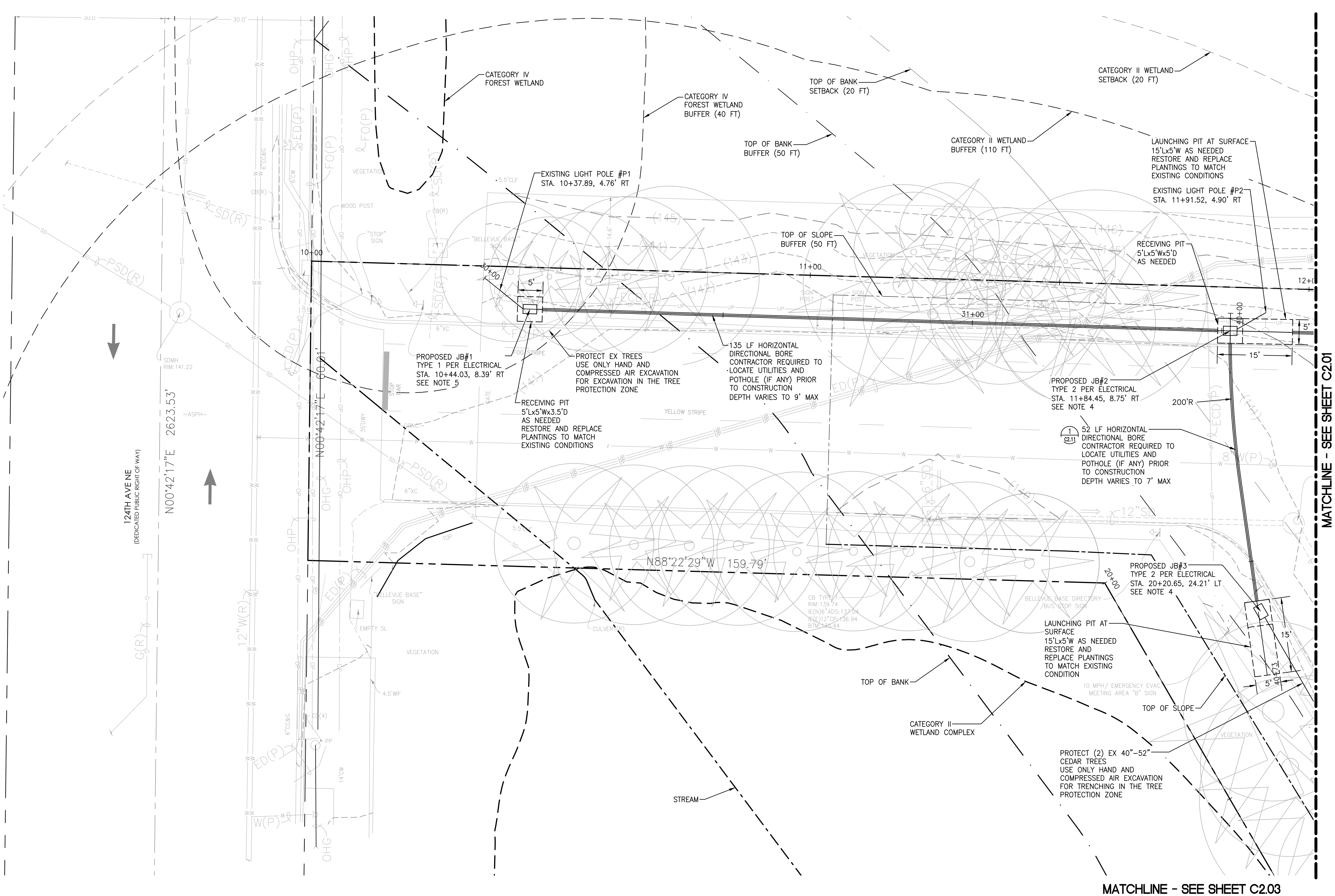
MARC J. SERVIZI
STATE OF WASHINGTON
PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
DEMO AND EROSION CONTROL DETAILS

DATE: 10/31/2022
DRAWING NO: C1.10
SHEET NO: 14 OF 40



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LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- TOP OF SLOPE
- EX BUILDING
- CONCRETE PAVEMENT
- DIRECTIONAL BORE
- TRENCH/CONDUIT
- BORE PIT

NOTES

1. SET JUNCTION BOXES AND HANDHOLDS TO MATCH EXISTING GRADE
2. RESTORE GROUND SURFACE TO MATCH EXISTING CONDITIONS.
3. PROTECT ALL TREES AND ROOTS. SEE TESC PLANS.
4. APPROXIMATE EXCAVATION DIMENSIONS FOR TYPE 2 JB = 4.5'L X 4'W X 1.5'D
5. APPROXIMATE EXCAVATION DIMENSIONS FOR TYPE 1 JB = 3.5'L X 3'W X 1.5'D
6. TYPICAL MAXIMUM TRENCH DEPTH=6'
7. MAXIMUM BORING DEPTH=13'
8. AT ALL LOCATIONS WHERE STRIPING OR MARKING IS REMOVED, FURNISH AND INSTALL REPLACEMENT PAINT STRIPING TO MATCH EXISTING CONDITIONS PER SECTION 32 17 23 PAVEMENT MARKINGS AND SIGNAGE.

811 Know what's below. Call two business days before you dig.

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MARC J. SERVIZI, STATE OF WASHINGTON, PROFESSIONAL ENGINEER, 8/17/23

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CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

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SHEET NO: 15 OF 40

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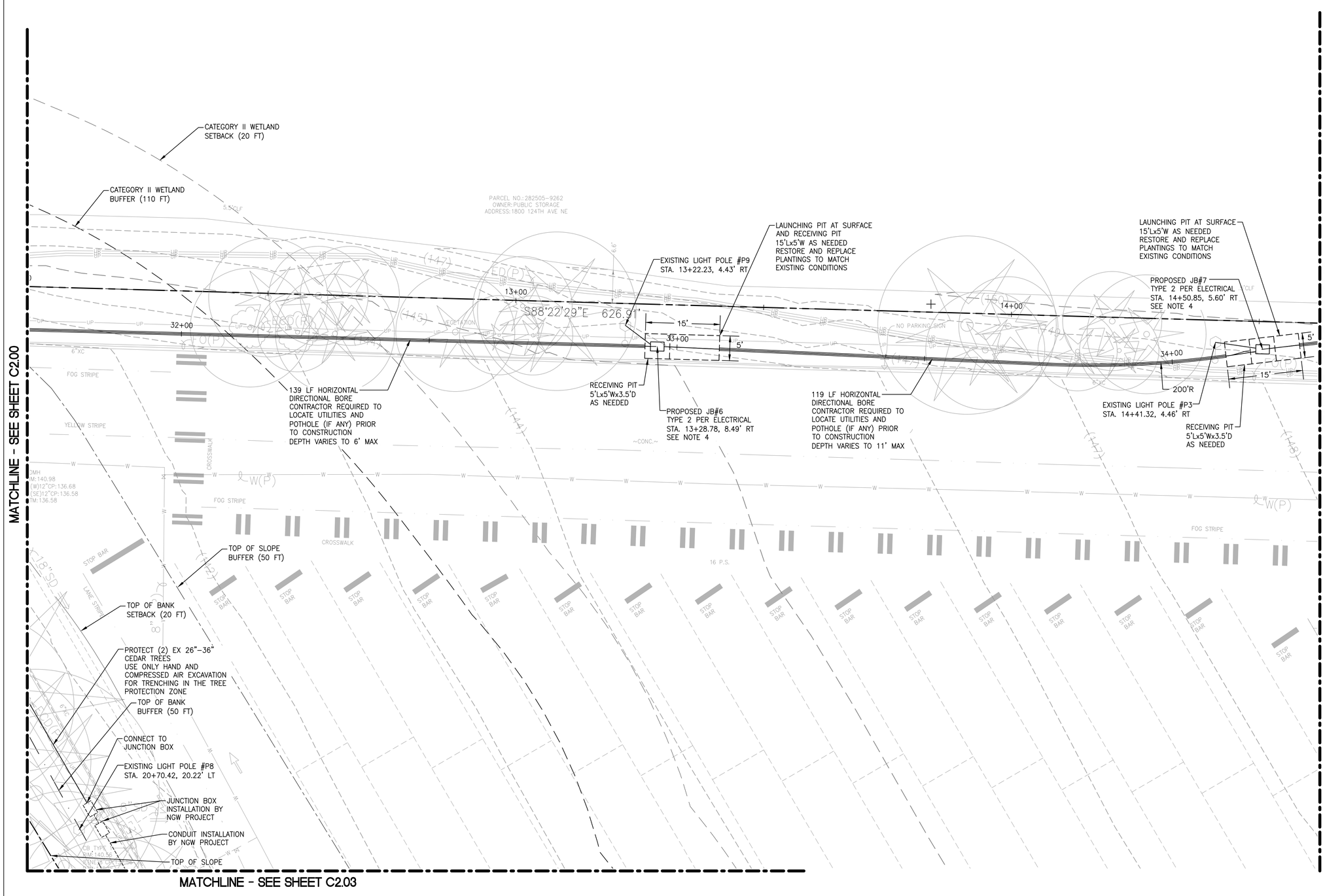

LEGEND

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811 Know what's below. Call two business days before you dig.

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MARC J. SERVIZI — STATE OF WASHINGTON — 22855 — REGISTERED PROFESSIONAL ENGINEER — 8/17/23

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CHECKED: MARC SERVIZI	PROJECT NO: 1139372
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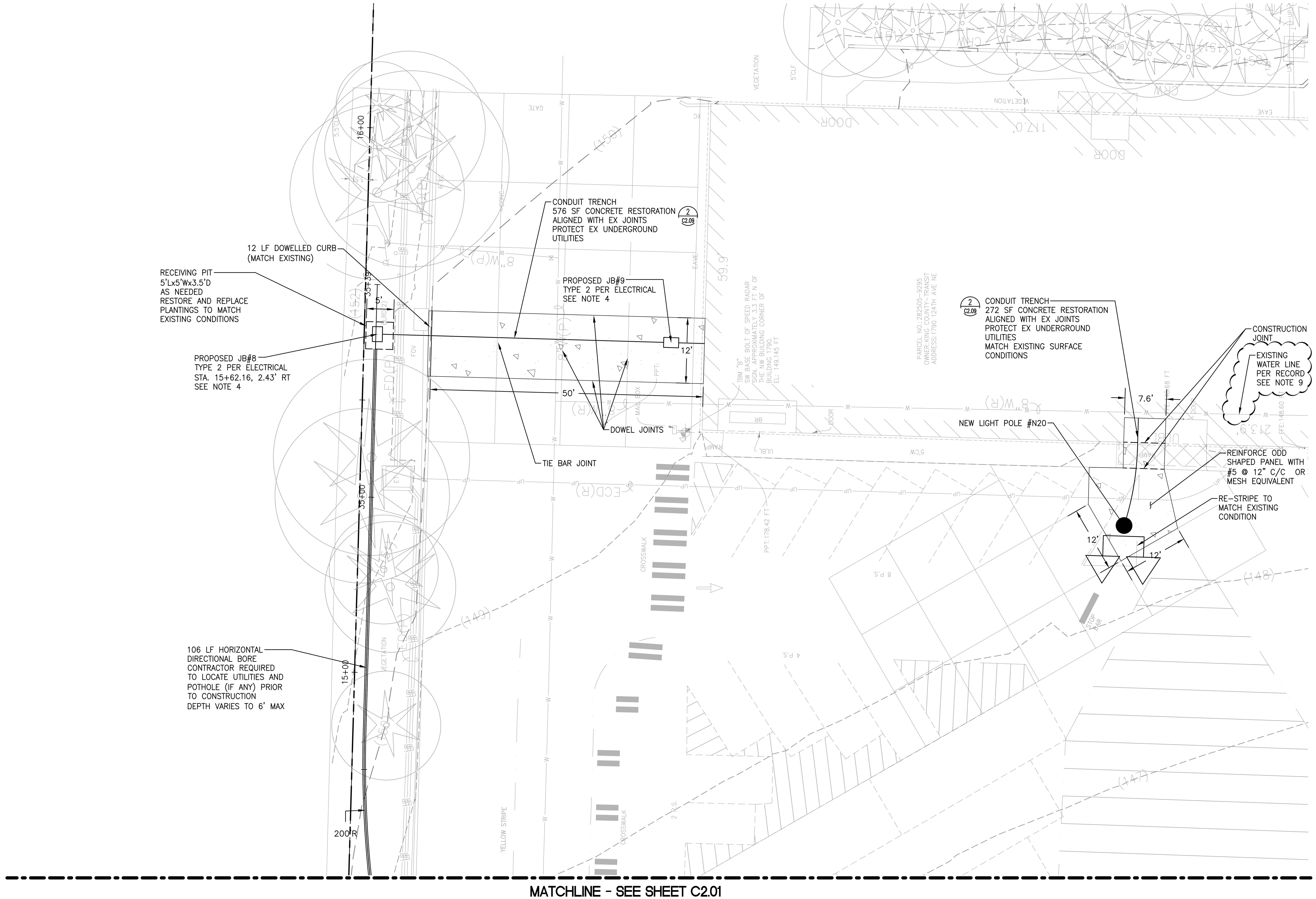
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.01
SHEET NO: 16 OF 40



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9. POTHOLE WATERLINE IN ADVANCE OF THE WORK TO CONFIRM LOCATION OF WATER LINE. ADJUST POLE LOCATION AS NECESSARY TO ENSURE POLE LOCATION AND ASSOCIATED CONDUIT IS MINIMUM 5 FT FROM WATER LINE AND NOT WITHIN 10' OF BACK OF THRUST BLOCK.

Know what's below.
Call two business
days before you dig.

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

Integrity Energy Services
1505 NW Gilman Blvd, Suite 1
Issaquah, WA 98027

LPD engineering pllc
1932 First Ave
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f. 206.973.5344
www.lpdengineering.com

MARC J. SERVIZI
STATE OF WASHINGTON
PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.02
SHEET NO: 17 OF 40

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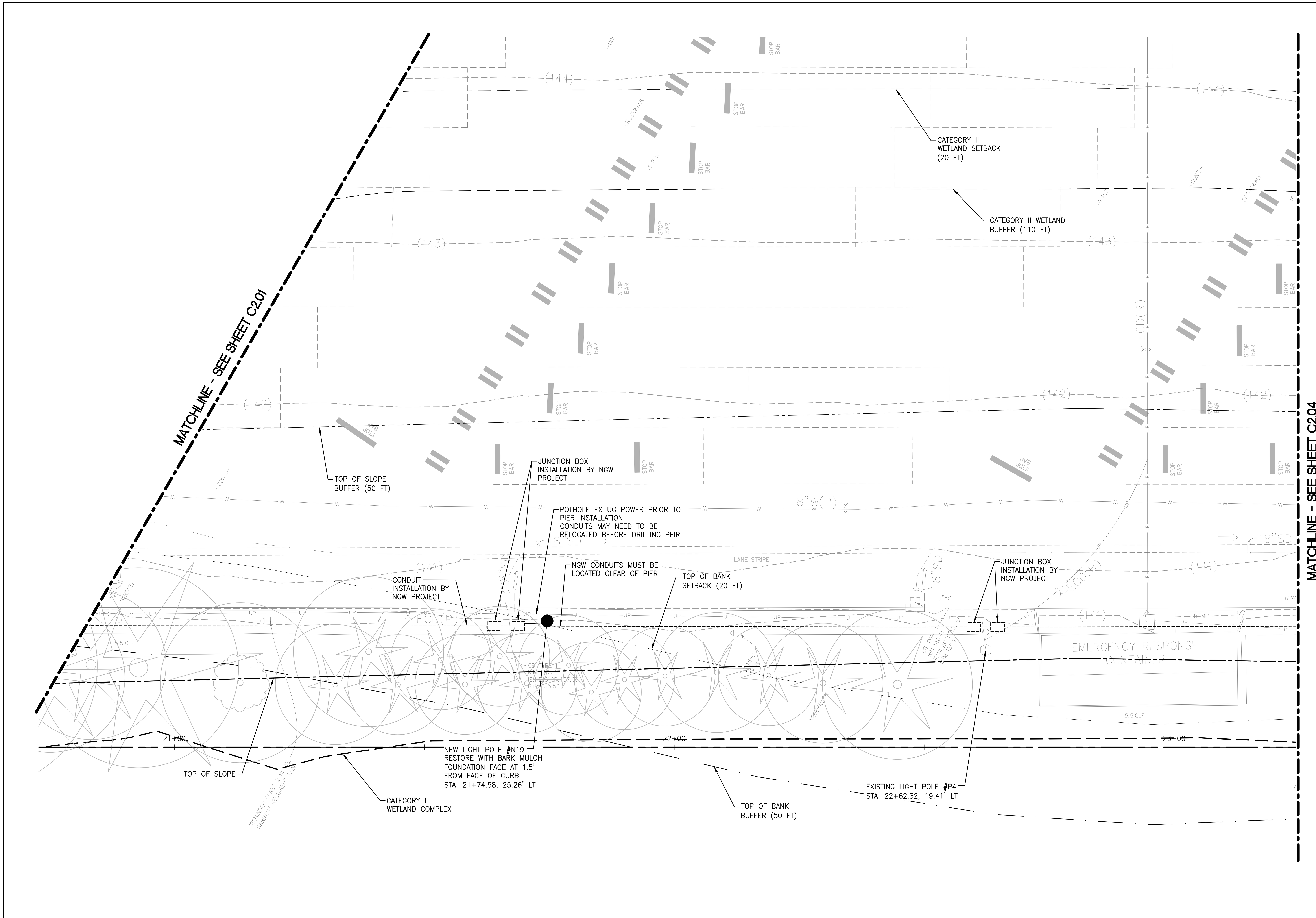

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- TOP OF SLOPE
- EX BUILDING
- CONCRETE PAVEMENT
- DIRECTIONAL BORE
- TRENCH/CONDUIT
- BORE PIT

NOTES

1. SET JUNCTION BOXES AND HANDHOLDS TO MATCH EXISTING GRADE
2. RESTORE GROUND SURFACE TO MATCH EXISTING CONDITIONS.
3. PROTECT ALL TREES AND ROOTS. SEE TESC PLANS.
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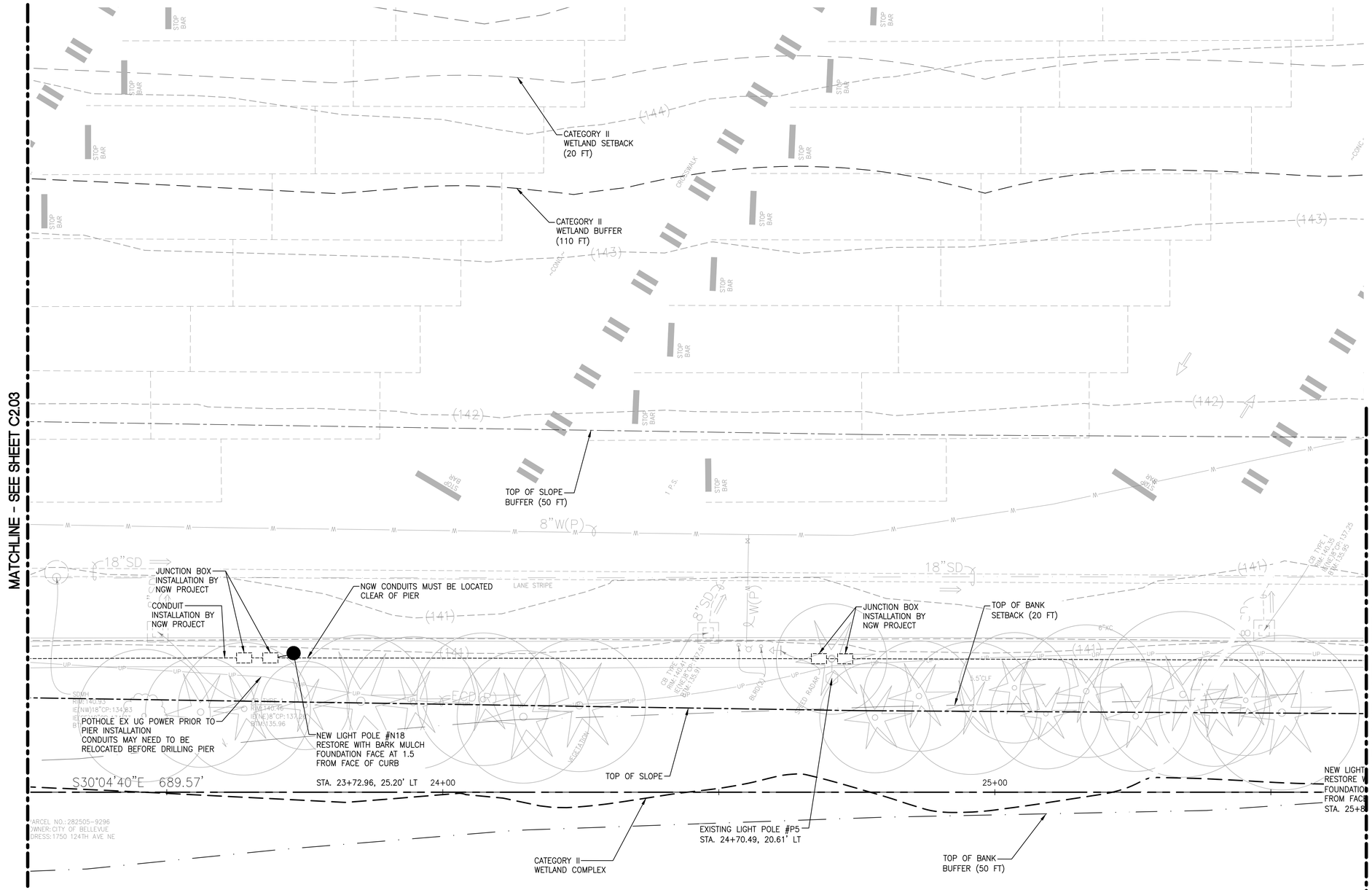
MARC J. SERVIZI, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER, 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.03
SHEET NO: 18 OF 40



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SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
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MARC J. SERVIZI — STATE OF WASHINGTON — 19855 — REGISTERED PROFESSIONAL ENGINEER — 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

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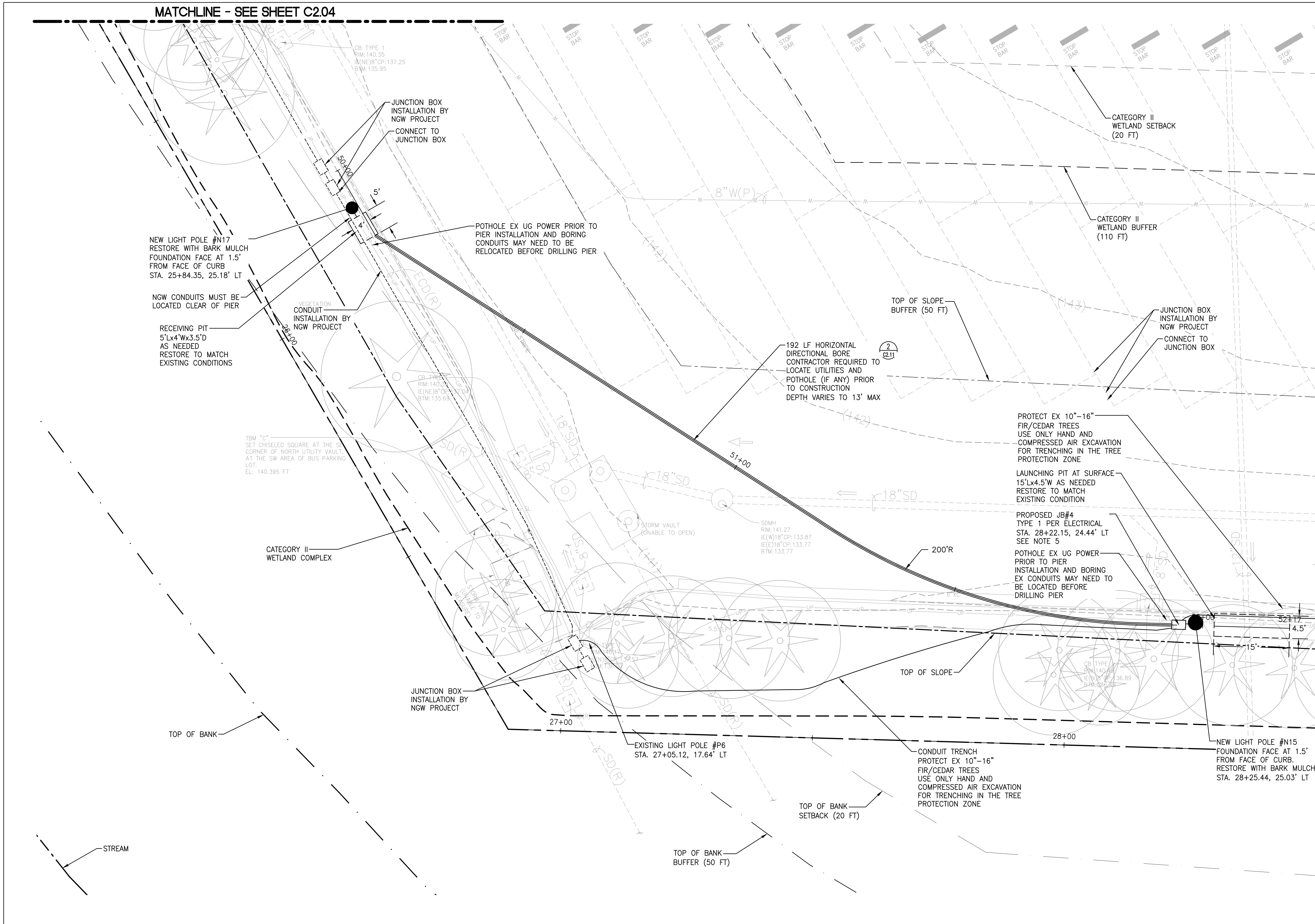
GRADING, PAVING, AND UTILITY PLAN

DATE:	10/31/2022
DRAWING NO:	C2.04
SHEET NO: OF	19 40



MATCHLINE - SEE SHEET C2.04
MATCHLINE - SEE SHEET C2.06
JUNCTION BOX INSTALLATION BY NGW PROJECT
CONNECT TO JUNCTION BOX
NEW LIGHT POLE #N17 RESTORE WITH BARK MULCH FOUNDATION FACE AT 1.5' FROM FACE OF CURB STA. 25+84.35, 25.18' LT
NGW CONDUITS MUST BE LOCATED CLEAR OF PIER
RECEIVING PIT 5'Lx4'Wx3.5'D AS NEEDED RESTORE TO MATCH EXISTING CONDITIONS
CONDUIT INSTALLATION BY NGW PROJECT
POTHOLE EX UG POWER PRIOR TO PIER INSTALLATION AND BORING CONDUITS MAY NEED TO BE RELOCATED BEFORE DRILLING PIER
CATEGORY II WETLAND SETBACK (20 FT)
CATEGORY II WETLAND BUFFER (110 FT)
TOP OF SLOPE BUFFER (50 FT)
192 LF HORIZONTAL DIRECTIONAL BORE CONTRACTOR REQUIRED TO LOCATE UTILITIES AND POTHOLE (IF ANY) PRIOR TO CONSTRUCTION DEPTH VARIES TO 13' MAX
JUNCTION BOX INSTALLATION BY NGW PROJECT
CONNECT TO JUNCTION BOX
PROTECT EX 10"-16" FIR/CEDAR TREES USE ONLY HAND AND COMPRESSED AIR EXCAVATION FOR TRENCHING IN THE TREE PROTECTION ZONE
LAUNCHING PIT AT SURFACE 15'Lx4.5'W AS NEEDED RESTORE TO MATCH EXISTING CONDITION
PROPOSED JB#4 TYPE 1 PER ELECTRICAL STA. 28+22.15, 24.44' LT SEE NOTE 5
POTHOLE EX UG POWER PRIOR TO PIER INSTALLATION AND BORING EX CONDUITS MAY NEED TO BE LOCATED BEFORE DRILLING PIER
200'R
CATEGORY II WETLAND COMPLEX
JUNCTION BOX INSTALLATION BY NGW PROJECT
TOP OF SLOPE
TOP OF BANK
EXISTING LIGHT POLE #P6 STA. 27+05.12, 17.64' LT
CONDUIT TRENCH PROTECT EX 10"-16" FIR/CEDAR TREES USE ONLY HAND AND COMPRESSED AIR EXCAVATION FOR TRENCHING IN THE TREE PROTECTION ZONE
NEW LIGHT POLE #N15 FOUNDATION FACE AT 1.5' FROM FACE OF CURB. RESTORE WITH BARK MULCH STA. 28+25.44, 25.03' LT
TOP OF BANK SETBACK (20 FT)
TOP OF BANK BUFFER (50 FT)
STREAM
50+00
51+00
26+00
27+00
28+00
5'
4'
4.5'
15'
8"W(P)
18"SD
STORM VAULT (UNABLE TO OPEN)
STOP BAR
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
- EX CONTOUR
- TOP OF SLOPE
- EX BUILDING
- CONCRETE PAVEMENT
- DIRECTIONAL BORE
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NOTES

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MARC J. SERVIZI STATE OF WASHINGTON PROFESSIONAL ENGINEER 8/17/23

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DRAWN: KIM SCHROEDER	
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CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.05
SHEET NO: 20 OF 40

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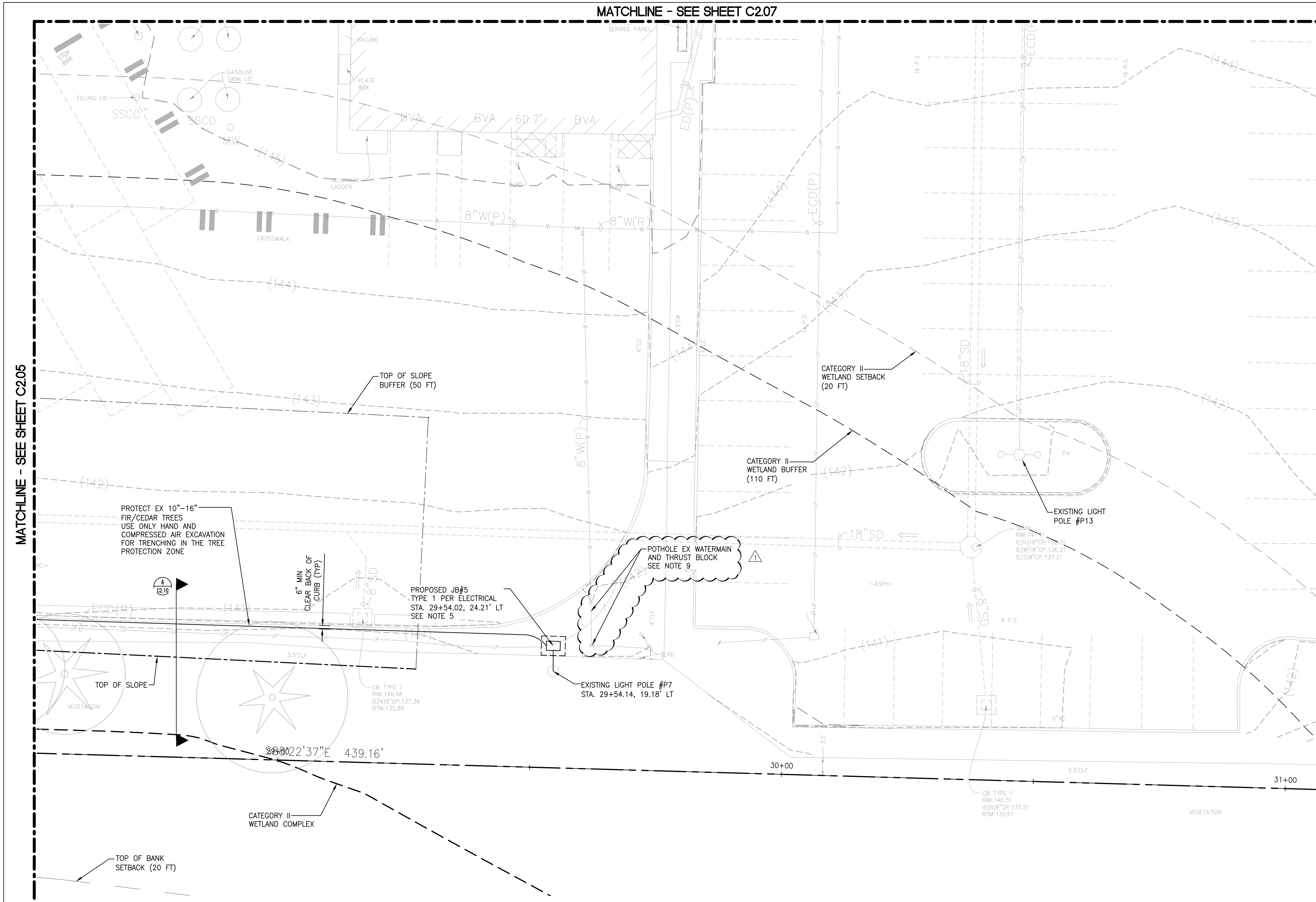

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX)
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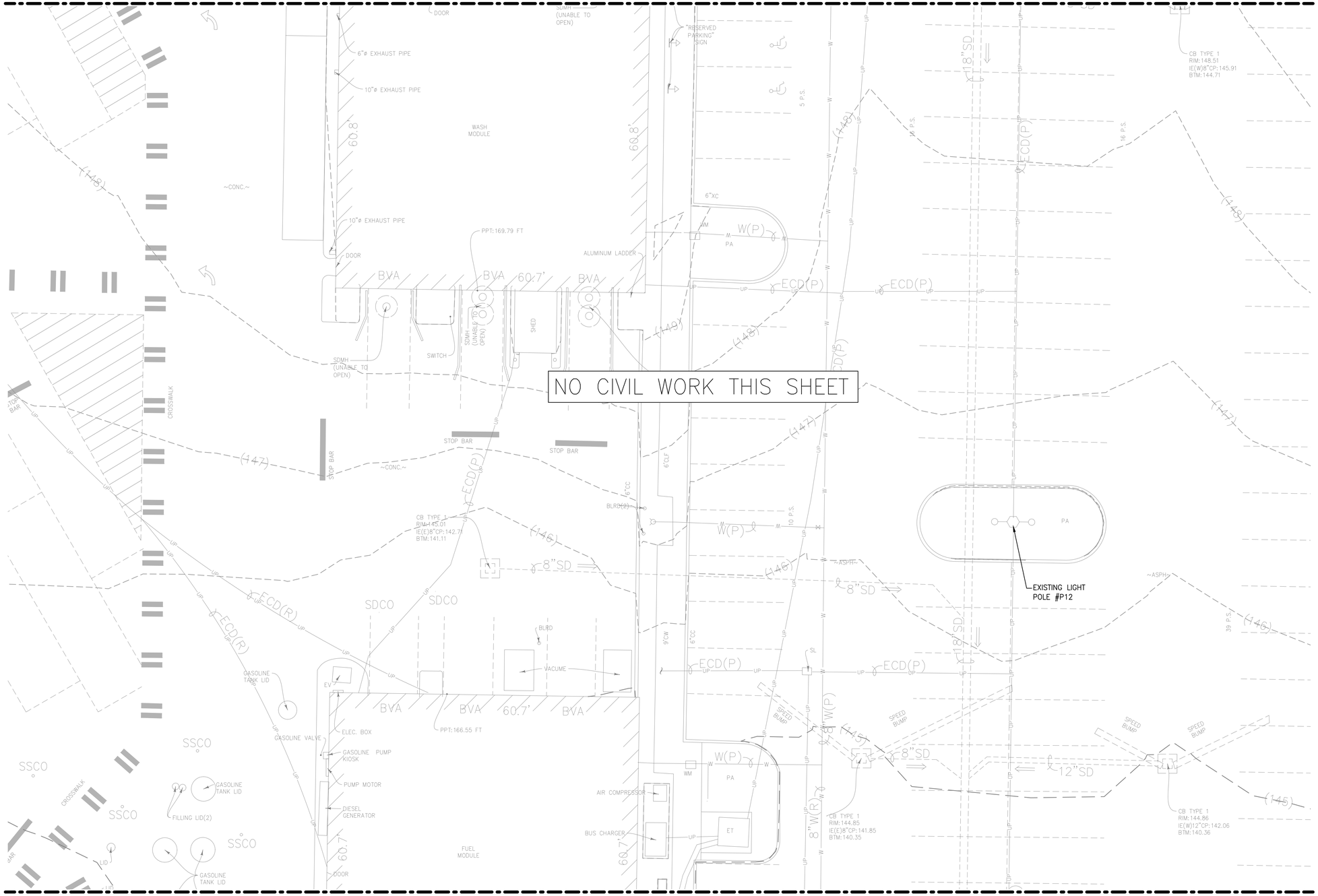
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.06
SHEET NO: 21 OF 40

MATCHLINE - SEE SHEET C2.08



MATCHLINE - SEE SHEET C2.06

10 5 0 10 20
SCALE IN FEET

LEGEND

- PROPERTY LINE
- EX CONTOUR (INDEX) (230)
- EX CONTOUR (231)
- TOP OF SLOPE
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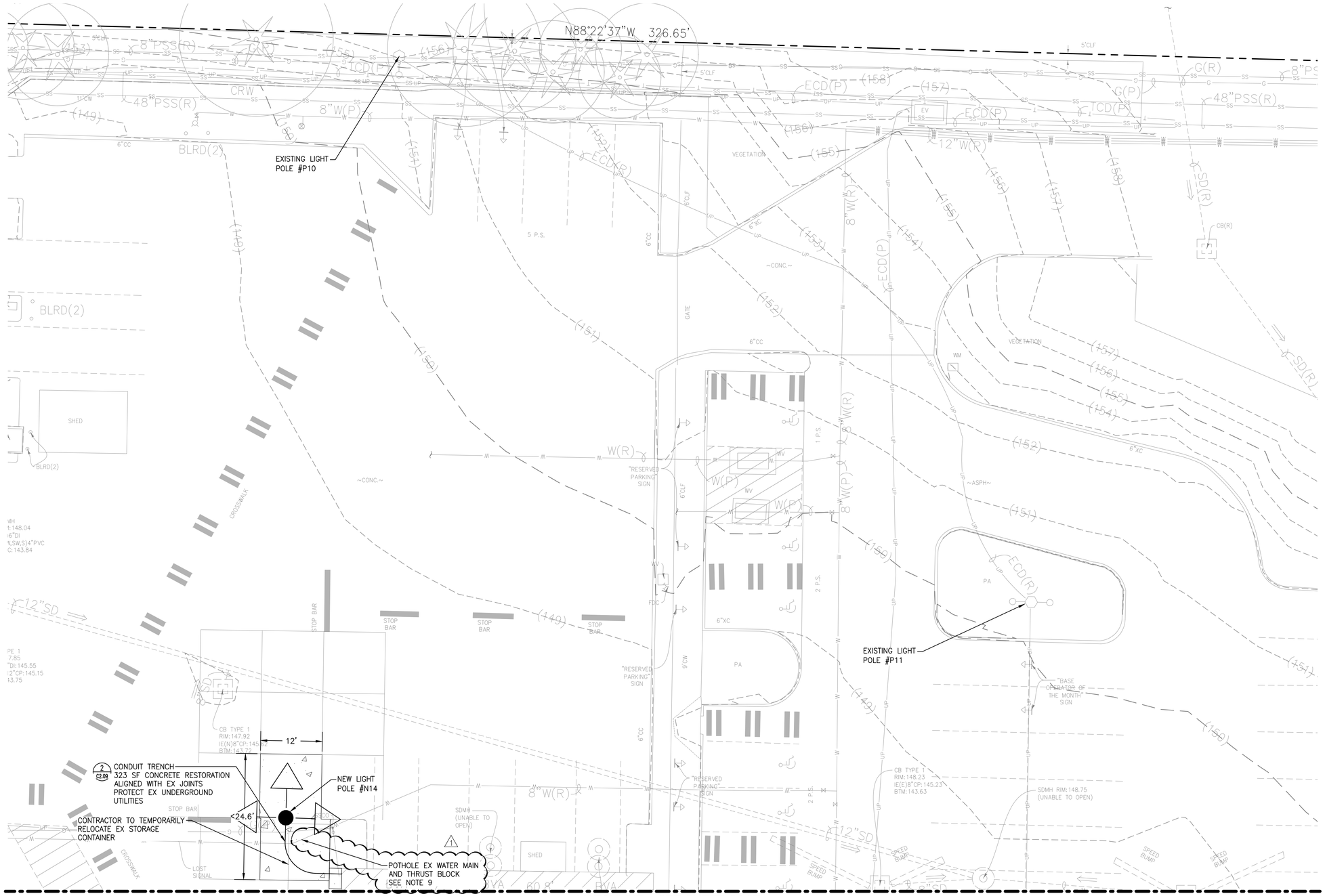
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.07
SHEET NO: OF 22 40



MATCHLINE - SEE SHEET C2.07

10 5 0 10 20
SCALE IN FEET

LEGEND

- PROPERTY LINE
- 230 EX CONTOUR (INDEX)
- 231 EX CONTOUR
- TOP OF SLOPE
- EX BUILDING
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MARC J. SERVIZI STATE OF WASHINGTON 19855 PROFESSIONAL ENGINEER 8/17/23

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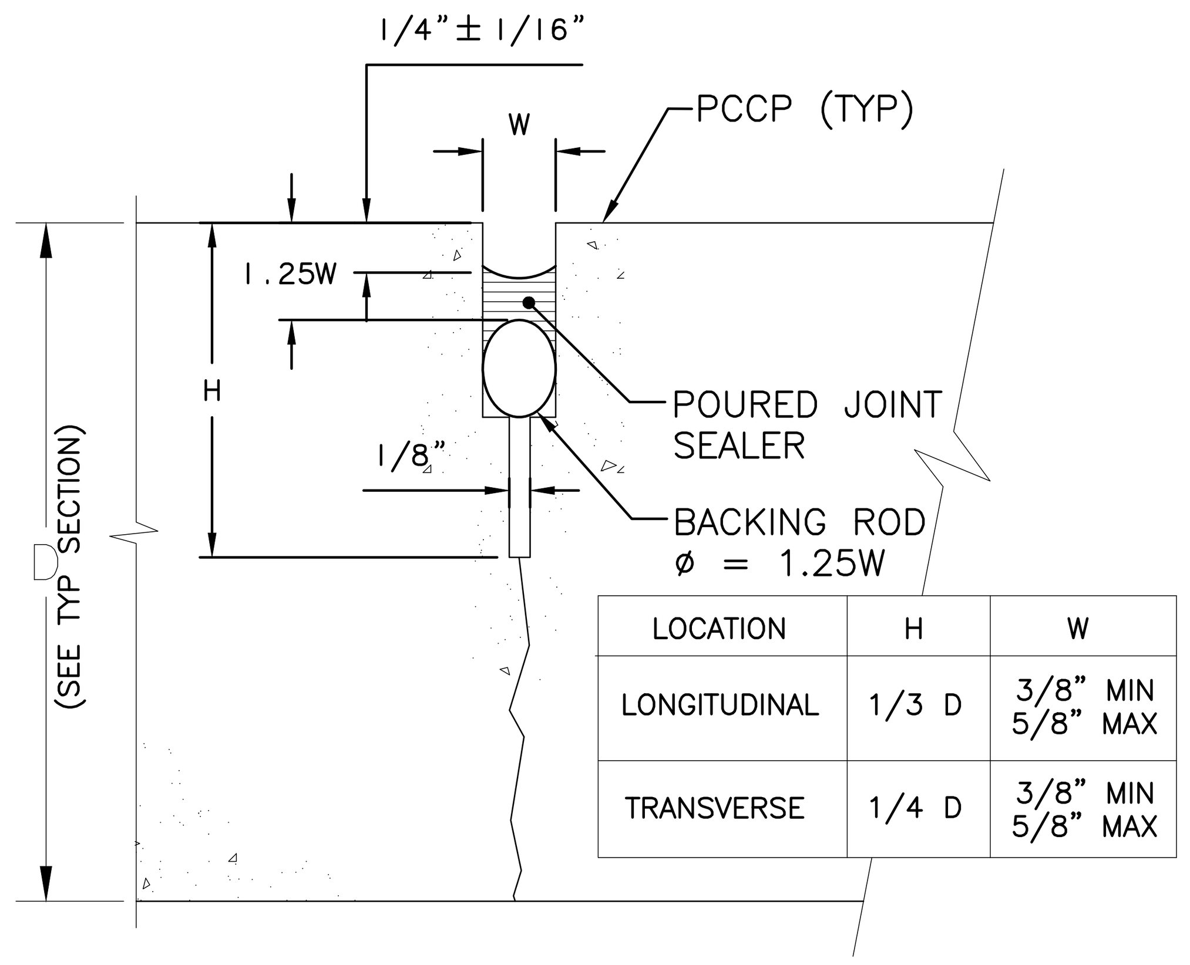
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

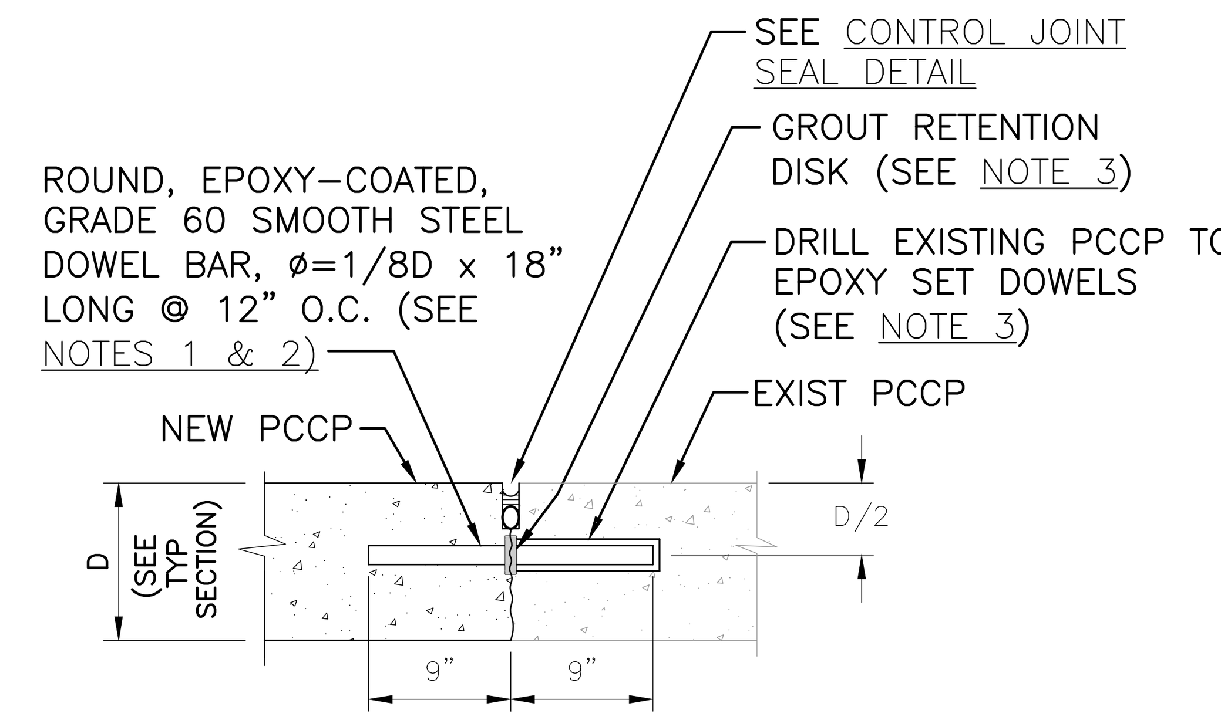
METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
GRADING, PAVING, AND UTILITY PLAN

DATE: 10/31/2022
DRAWING NO: C2.08
SHEET NO: OF 23 40

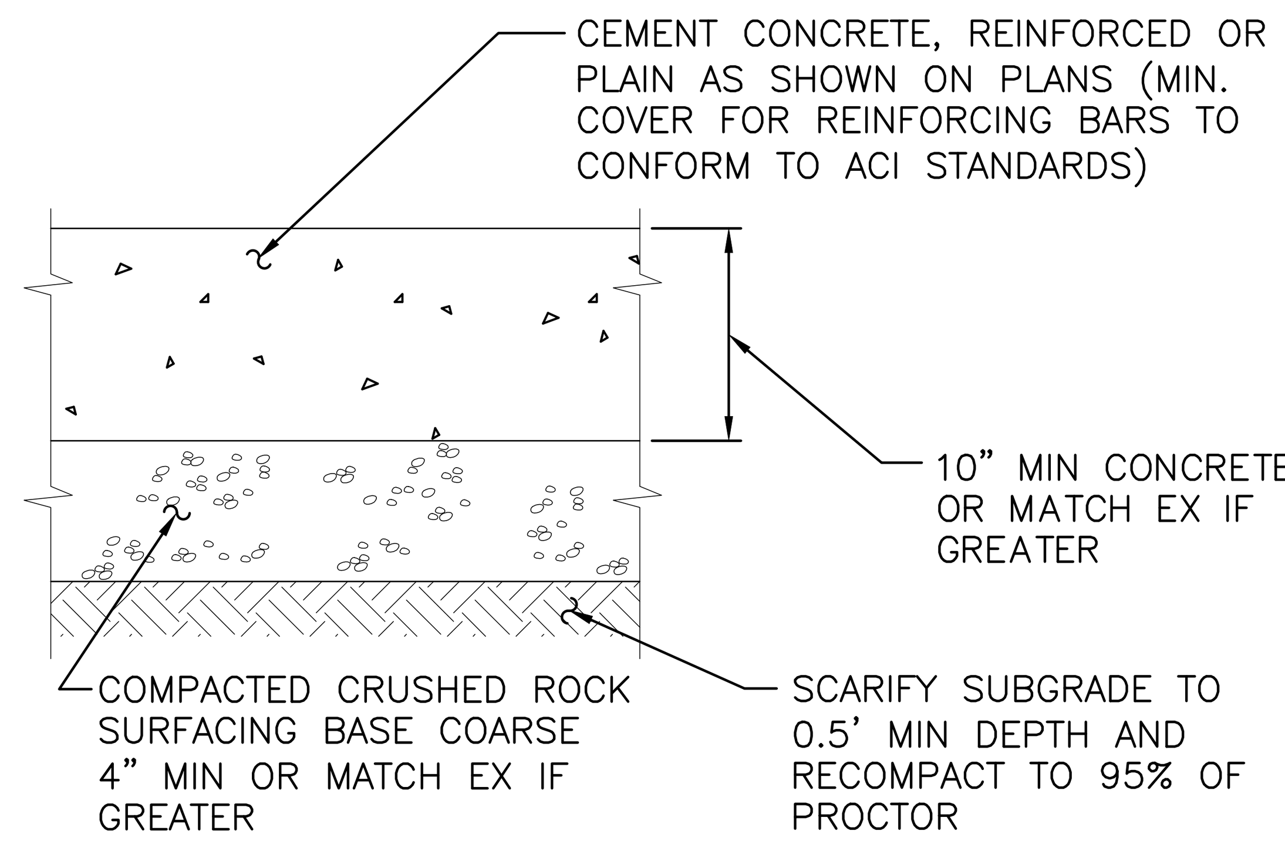


LOCATION	H	W
LONGITUDINAL	1/3 D	3/8" MIN 5/8" MAX
TRANSVERSE	1/4 D	3/8" MIN 5/8" MAX

CONTROL JOINT SEAL
(NTS)



CONSTRUCTION JOINT
LONGITUDINAL OR TRANSVERSE
(NTS)

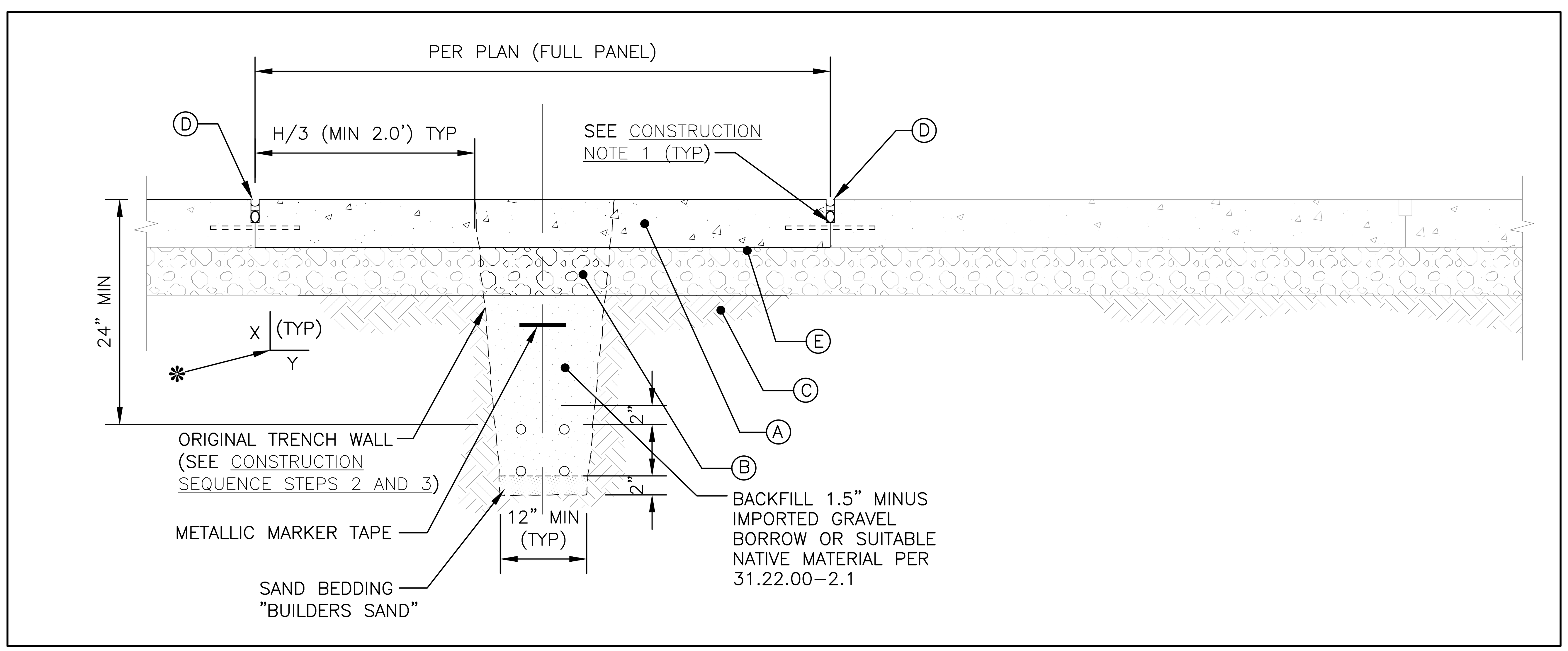


TYPICAL
NEW PCCP PAVEMENT SECTION
(NTS)

NOTES:

1. SET BARS AT 90° FROM ALL POINTS OF THE FACE OF THE PCCP PANELS.
2. DOWEL BARS TO BE TECTYL COATED e.g. TECTYL506 OR DTM MODIFIED WAX OR EQUIVALENT.
3. SET DOWEL BARS FOR JOINTS BETWEEN NEW AND EXISTING PCCP FOLLOWING THE SUBSEQUENT PROCEDURES:
   - A. DRILL HOLES ON EXISTING PCCP PANELS THAT ARE 1/16" LARGER IN DIAMETER THAN THE DOWEL BARS AND AT 90° FROM ALL POINTS OF THE FACE OF THE PANELS. REMOVE DEBRIS FROM HOLES BY BLOWING THEM WITH COMPRESSED AIR. ENSURE THAT THE HOLES ARE DRY.
   - B. AFTER THE PROJECT REPRESENTATIVE HAS VERIFIED COMPLIANCE WITH "A" ABOVE, PLACE SUFFICIENT EPOXY GROUT IN THE BACK OF THE HOLES TO COMPLETELY FILL THE GAP BETWEEN THE DOWELS AND THE WALL OF THE HOLES. USE FLEXIBLE TUBES OR CARTRIDGES WITH LONG NOZZLES TO ENSURE THAT THE GROUT IS PLACED AT THE BACK OF THE HOLES.
   - C. AFTER PLACING THE GROUT AS DESCRIBED IN "B" ABOVE, PLACE A THIN, PLASTIC GROUT RETENTION DISK OVER THE DOWELS SO THEY WILL REST AGAINST THE FACE OF THE EXISTING PCCP PANELS AND PREVENT THE GROUT MATERIAL FROM FLOWING OUT OF THE HOLES. WITH THE RETENTION DISKS IN PLACE, INSERT THE DOWELS INTO THE HOLES WITH A TWISTING MOTION SO THAT THE MATERIAL IN THE BACK OF THE HOLES IS FORCED OUT AND AROUND THE DOWELS. USE CHAIRS, OR OTHER PRODUCT OF NON-CORRODING MATERIAL, TO MAINTAIN THE DOWELS AT THE CENTER OF THE HOLES, AND AT 90° FROM THE FACE OF THE PANEL.
   - D. OBTAIN APPROVAL OF THE DOWEL INSTALLATION FROM THE PROJECT REPRESENTATIVE PRIOR TO PROCEEDING WITH PLACEMENT OF NEW PCCP.

PCC PAVEMENT AND JOINT DETAILS 1



PCCP REPAIR OVER TRENCH
(NTS)

CONSTRUCTION NOTES

1. REMOVE PANEL SECTIONS AT EXISTING JOINTS. FULL PANEL REPLACEMENT ONLY SAWCUT PERIMETER OF PANELS AT JOINT AND PROTECT PANEL EDGES. SPALLED EDGES WILL REQUIRE REPLACEMENT OF ENTIRE PANELS.

CONSTRUCTION SEQUENCE

1. REMOVE EXISTING PCCP TO THE WIDTH REQUIRED.
2. BACKFILL TRENCH TO 0.5' BELOW EXISTING SUBGRADE ELEVATION AND COMPACT TO 95%. SEE SPECIFICATION SECTION 31 22 00 FOR BACKFILLING REQUIREMENTS.
3. IF DETERMINED NECESSARY BY THE PROJECT REPRESENTATIVE, REMOVE AND REPLACE THE SUBGRADE MATERIAL AND COMPACT TO 95% OF MAXIMUM DENSITY PER PROCTOR. OTHERWISE, CONTINUE WITH 4.
4. AFTER OBTAINING COMPACTION APPROVAL FROM THE PROJECT REPRESENTATIVE, PLACE AND COMPACT BASE AND SUBBASE MATERIAL IF SHOWN. (SEE (E)).
5. CONSTRUCT NEW PCCP OF THE CLASS AND THICKNESS SHOWN, AND/OR SPECIFIED (SEE (A) AND SPECS).

CONSTRUCTION DETAILS

- (A) 10" MIN. CONCRETE CLASS 4000 PER WSDOT 6-02.3(2), MATCH EX THICKNESS.
- (B) 6" CRUSHED ROCK COMPACT TO 95%.
- (C) UNDISTURBED SOIL.
- (D) SAWCUT AND CONSTRUCTION JOINT PER DETAIL, THIS SHEET.
- (E) ADD CRUSHED ROCK AS DIRECTED BY PROJECT REPRESENTATIVE TO MATCH GRADE. COMPACT TO 95%.

PCCP REPAIR DETAIL 2

PERMIT SET

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King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
PAVEMENT RESTORATION DETAILS

DATE: 10/31/2022
DRAWING NO: C2.09
SHEET NO: 24 OF 40

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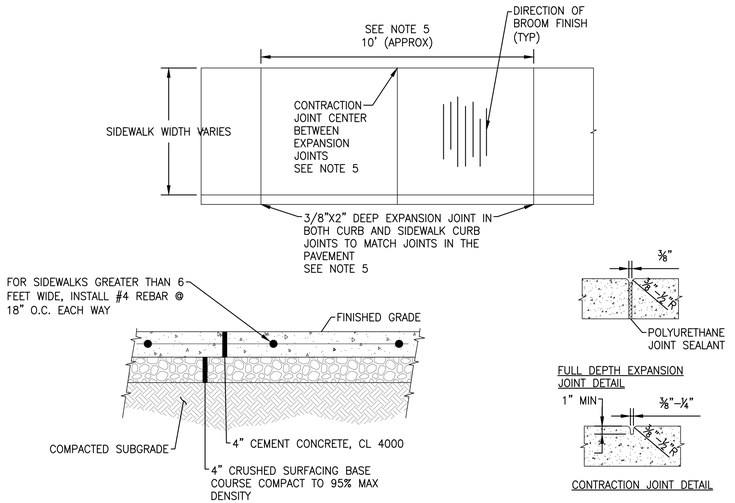
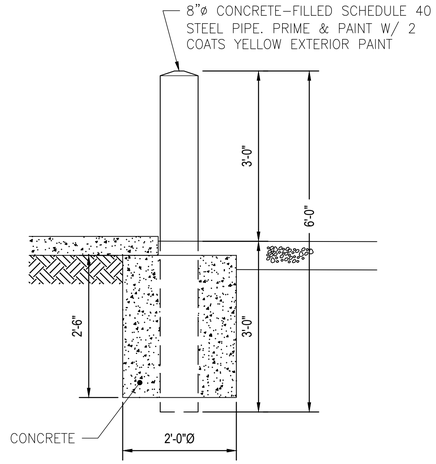


NOTE:

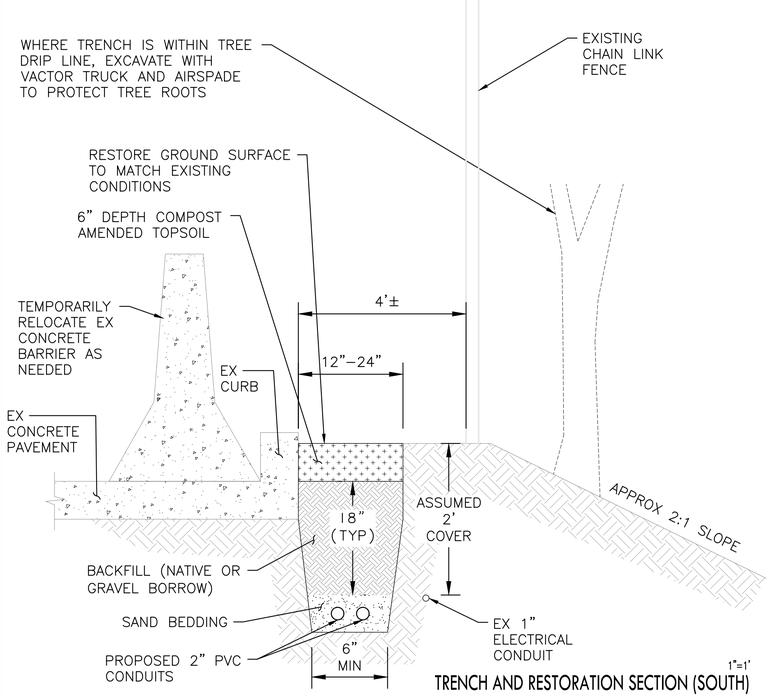
1. CONCRETE SHALL BE AIR ENTRAINED CLASS 4000 PER SECTION 6-02 OF WSDOT STANDARD SPECIFICATIONS.
2. FINISH: LIGHT FINISH WITH A STIFF BROOM PERPENDICULAR TO CURB. FOR GRADES OVER 4% FINISH WITH A STIPPLE BRUSH.
3. REMOVAL/REPLACEMENT OF CEMENT CONCRETE CURB SHALL BE FROM EXPANSION JOINT TO EXPANSION JOINT UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. LIDS FOR JUNCTION BOXES AND UTILITY VAULTS SHALL BE NON-SKID.
5. JOINT LAYOUT WILL BE PER PLAN.

NTS **1** CONCRETE WALKWAY



NTS **2** BOLLARD

NTS **3** NOT USED



1"=1' TRENCH AND RESTORATION SECTION (SOUTH) **4**

NTS **5** NOT USED

NTS **6** NOT USED

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023
2				
3				
4				

Integrity Energy Services
1505 NW Gilman Blvd, Suite 1 Issaquah, WA 98027
Ph (206)866-7025 Ph (646)411-4437

LPD engineering pllc www.lpdengineering.com
1932 First Ave Suite 201 Seattle, WA 98101 p. 206.725.1211 f. 206.973.5344

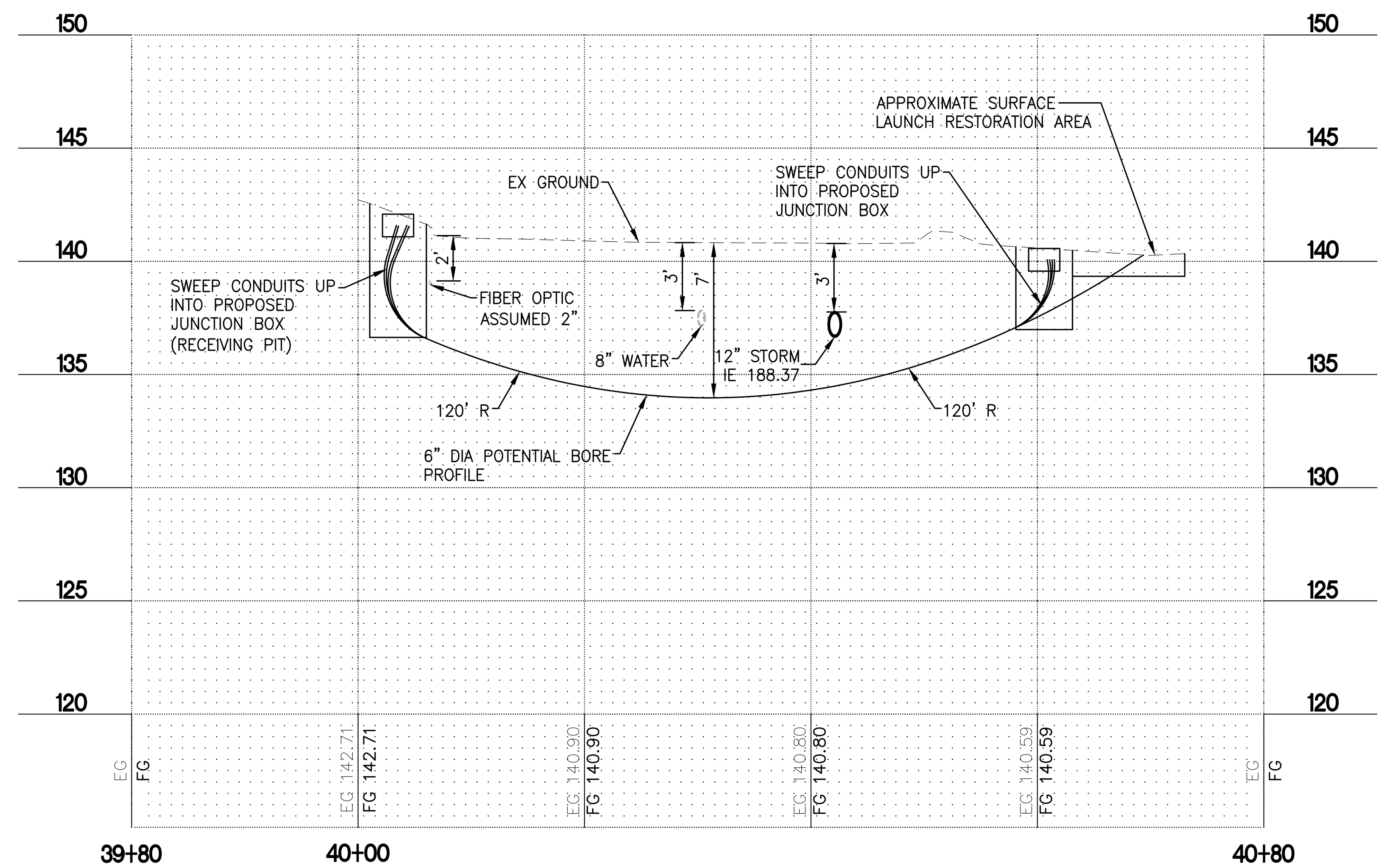
MARC J. SERVIZI — STATE OF WASHINGTON — 22855 — REGISTERED PROFESSIONAL ENGINEER — 8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

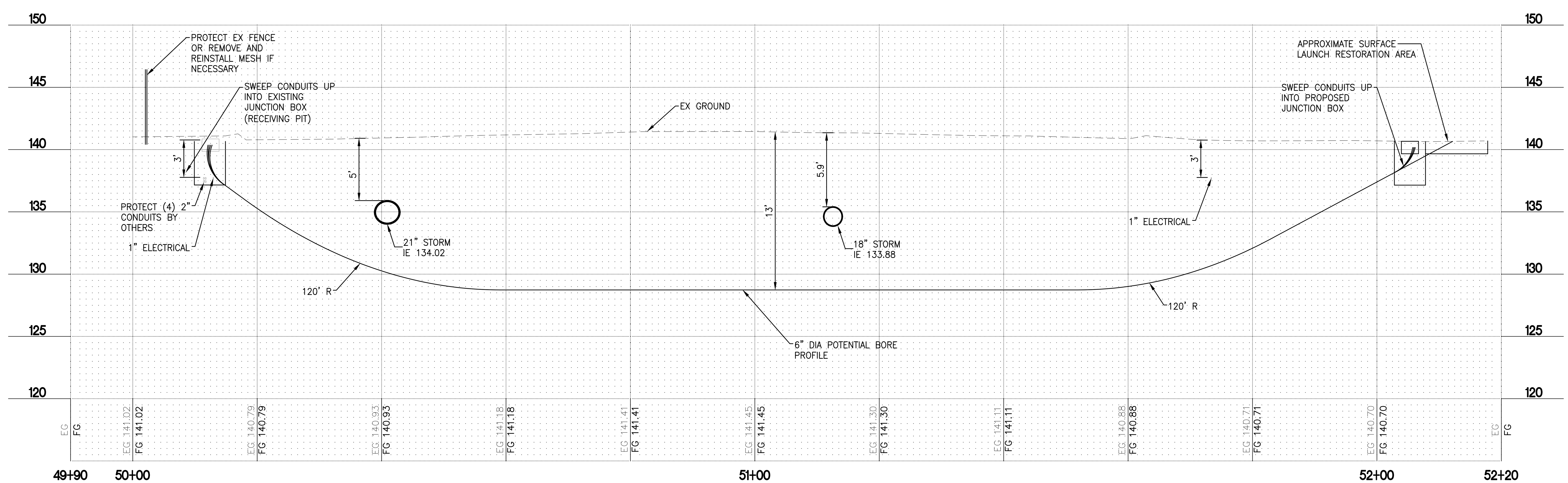
METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
PAVEMENT RESTORATION DETAILS

DATE:	10/31/2022
DRAWING NO:	C2.10
SHEET NO: OF	25 40



H 1" = 10'; V 1" = 5'

BORING - ALIGNMENT A 1



H 1" = 10'; V 1" = 5'

ALIGNMENT B 2

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PLOTTED: Aug 17, 2023-01:22:41pm By: kims
XREFS: TB_BELL.dwg; PROFILE_BELL.dwg; BASE_BELL.dwg; EX BASE_BELL.dwg
IMAGES: 2023-08-17 MJS.tif;

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

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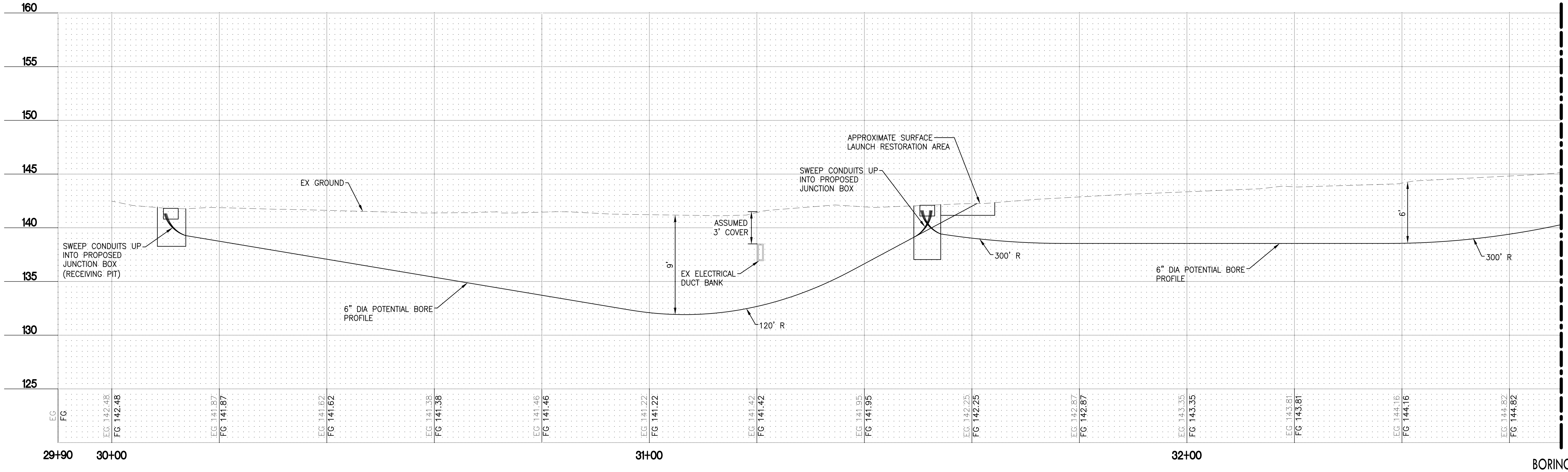
MARC J. SERVIZI, STATE OF WASHINGTON, PROFESSIONAL ENGINEER
8/17/23

DESIGNED: MARC SERVIZI	APPROVED: C. REYNOLDS
DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

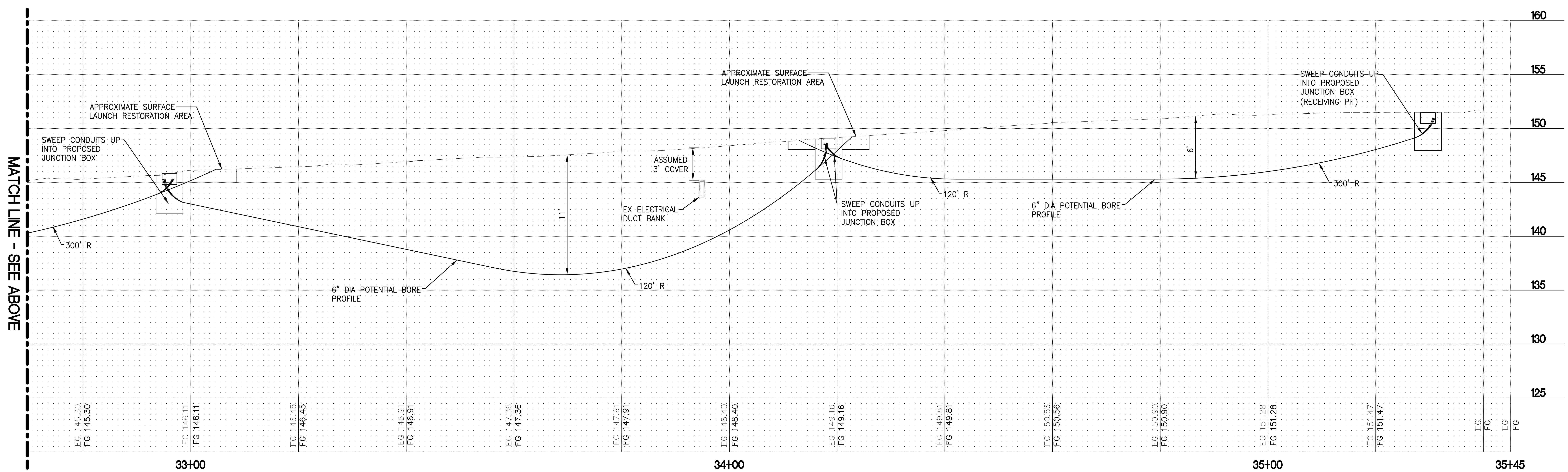
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
BORING PROFILES

DATE: 10/31/2022
DRAWING NO: C2.11
SHEET NO: 26 OF 40



H 1" = 10'; V 1" = 5'
BORING - ALIGNMENT C 1



H 1" = 10'; V 1" = 5'
ALIGNMENT C 2

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV-1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	MJS		08/17/2023

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MARC J. SERVIZI
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
8/17/23

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DRAWN: KIM SCHROEDER	
CHECKED: MARC SERVIZI	PROJECT NO: 1139372
CHECKED: K. CHANG	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
BORING PROFILES

DATE: 10/31/2022
DRAWING NO: C2.12
SHEET NO: 27 OF 40

GENERAL NOTES

DESIGN PARAMETERS:
INTERNATIONAL BUILDING CODE, 2018 EDITION (ASCE 7-16)
GENERAL: RISK CATEGORY II
WIND: V_{ult}= 98 MPH, EXPOSURE C, K_{zt} = 1.00
SEISMIC: SITE CLASS D, DESIGN CATEGORY D,
I_e = 1.00, S_s = 1.295g, S_1 = 0.497g, S_{DS}= 0.863g, S_{D1}= 0.498g, R = 1.5

GEOTECHNICAL PARAMETERS
ALLOWABLE END BEARING SOIL PRESSURE: 2,000 PSF OR SIDE FRICTION: 750 PSF
ALLOWABLE LATERAL SOIL BEARING PRESSURE: 250 PSF/FT
REFERENCE GEOTECHNICAL REPORT BY RILEY GROUP INC. DATED DEC. 4, 2020.

EXISTING STRUCTURE:

EXISTING STRUCTURAL DIMENSIONS AND MEMBER SIZES ARE FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO FABRICATION. THE CONTRACTOR SHALL VERIFY THE ACTUAL CONFIGURATION OF EXISTING CONSTRUCTION AND THE CONDITION OF THE STRUCTURE BEFORE BEGINNING WORK. ANY DISCREPANCIES OR UNSOUND CONDITIONS SHALL BE REPORTED TO THE ENGINEER FOR RESOLUTION BEFORE BEGINNING WORK. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATING TO MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

REINFORCED CONCRETE:

UNLESS OTHERWISE NOTED, ALL CONCRETE SHALL BE AS FOLLOWS:
f'c = 4,500 PSI, @ 28 DAYS MAXIMUM W/C = 0.45, MINIMUM 5 1/2 SACKS OF CEMENT PER CUBIC YARD.

THE USE OF FLY ASH, OTHER POZZOLANS, SILICA FUME, OR SLAG SHALL CONFORM TO ACI 318 SECTIONS 4.3.1 AND 4.4.2. MAXIMUM AMOUNT OF FLY ASH SHALL BE 25% OF TOTAL CEMENTITIOUS CONTENT. SUBMIT LABORATORY TEST RESULTS TO SER FOR APPROVAL PRIOR TO CONSTRUCTION. SUBMIT MIX DESIGNS. SEE SPECIFICATIONS FOR ADMIXTURES.

MAXIMUM FREE DROP OF THE CONCRETE LIMITED TO 6'-0". CONCRETE MUST BE PLACED BY TREMIE OR PUMPING TECHNIQUES. THE TOP 12"-0" SHOULD BE THOROUGHLY CONSOLIDATED BY MECHANICAL VIBRATION DURING PLACEMENT.

REINFORCEMENT:

UNLESS OTHERWISE NOTED, REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60 UON. SUBMIT REINFORCING STEEL SHOP DRAWINGS WITH DETAILS INCLUDING HOOKS AND BENDS PER ACI 315 MANUAL OF STANDARD PRACTICE AND ACI 318.

FIELD BENDING OF ASTM A615 REINFORCING BAR SIZES #3 TO #5 MAY BE FIELD BENT COLD THE FIRST TIME. OTHER BARS REQUIRE PREHEATING. DO NOT TWIST BARS. BARS SHALL NOT BE BENT PAST 45 DEGREES.

DOWEL BAR ANCHORS (DBA) SHALL CONFORM TO ASTM A496 AND SHALL BE THE SIZE AND LENGTH SHOWN ON THE DRAWINGS. WELDED HEADED STUD (WHS) ANCHORS SHALL CONFORM TO ASTM A108 AND SHALL BE 3/4" DIAMETER UNLESS NOTED OTHERWISE. STUD LENGTHS AFTER WELD SHALL BE AS SHOWN ON THE DRAWINGS. ALL DBA & WHS SHALL BE AUTOMATICAALY END WELDED IN SHOP OR FIELD WELDED WITH EQUIPMENT RECOMMENDED BY THE MANUFACTURER.

ALL REINFORCING STEEL CALLOUTS ARE IN INCHES ON CENTER UNLESS OTHERWISE NOTED.

REINFORCING SPLICES SHALL CONFORM TO ACI 301 SECTION 3.3.2.7. REFER TO TABLE R2 FOR TYPICAL REINFORCEMENT LAP SPLICES. LAP SPLICE LENGTHS INDICATED ON INDIVIDUAL SHEETS SHALL CONTROL OVER THE SCHEDULE. MECHANICAL OR WELDED CONNECTIONS NOT NOTED ON THE PLANS MAY BE USED WHEN APPROVED BY THE SER. MECHANICAL SPLICES CALLED OUT ON THE PLANS SHALL BE TYPE 1 (UON). TYPE 1 SPLICES SHALL DEVELOP 125% OF THE YIELD CAPACITY OF THE SPLICED BARS IN BOTH TENSION AND COMPRESSION. TYPE 2 SPLICES SHALL DEVELOP THE SPECIFIED TENSILE STRENGTH OF THE SPLICED BARS IN TENSION IN ADDITION TO MEETING THE TYPE 1 SPLICE REQUIREMENTS.

GROUT:

CEMENTITIOUS GROUT - 5,000 PSI MINIMUM 7-DAY CUBE STRENGTH PER ASTM C1157-11. GROUT TO BE PREMIXED, NON-SHRINK "MASTERFLOW 928 GROUT" BY MASTER BUILDERS OR APPROVED EQUAL. USE SPECIFIC GROUT MIX RECOMMENDED BY MANUFACTURE FOR EACH GROUT APPLICATION AND FOLLOW MANUFACTURER'S INSTRUCTIONS.

EPOXY GROUT SHALL BE MIN f'c = 10,000 PSI AT 7 DAYS.

ANCHOR BOLTS:

ANCHOR BOLTS, ASTM F1554, GR 55 WITH CLASS 1A THREADS, UNLESS NOTED OTHERWISE. FURNISH ANCHOR BOLTS PREFABRICATED WITH MATCHING DOUBLE HEAVY HEX NUTS JAMMED AT THE END EMBEDDED IN CONCRETE. FURNISH HARDENED PLATE WASHERS, LOCK WASHERS, AND MATCHING HEAVY HEX NUTS FOR SECURING THE BASE PLATE TO THE ANCHOR RODS. SPECIAL INSPECTION REQUIRED. SET ALL ANCHOR BOLTS BY TEMPLATE.

HOOKED ANCHOR BOLTS SHALL NOT BE USED. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR BOLTS WHILE PLACING CONCRETE. ANCHOR BOLTS SHALL HAVE SUFFICIENT LENGTH TO PROVIDE THE MINIMUM EMBEDMENT SHOWN ON THE DRAWINGS, MEASURED FROM THE FACE OF THE CONCRETE TO THE NEAR FACE OF THE DOUBLE NUT, WITH ADEQUATE EXTENSION AS REQUIRED TO RECEIVE THE BASE PLATE WITH FULL THREAD PROJECTION FOR NUT INSTALLATION.

ANCHOR INSTALLATION SHALL BE COORDINATED WITH REINFORCING AND FORMWORK. CONTRACTOR TO COORDINATE ALL ANCHOR BOLT REQUIREMENTS WITH VENDOR SUPPLIED POLE ANCHORS.

SCREW ANCHORS:

"TITEN HD" BY SIMPSON STRONG-TIE ANCHOR SYSTEMS (ICC-ESR-2713) OR "HUS-EZ" BY HILTI FASTENING SYSTEMS (ICC-ESR-3027) OR "WEDGE BOLT+" BY POWERS FASTENERS (ICC-ESR-2526) OR APPROVED EQUAL. ICC CERTIFICATION REQUIRED. SPECIAL INSPECTION REQUIRED.

DRILL-IN EXPANSION BOLTS:

"KWIK-BOLT TZ" BY HILTI FASTENING SYSTEMS (ICC-ESR-1917), "STRONG BOLT 2" BY SIMPSON STRONG-TIE ANCHOR SYSTEMS (ICC-ESR-3037) OR APPROVED EQUAL. ICC CERTIFICATION REQUIRED. SPECIAL INSPECTION REQUIRED.

GROUTING REINFORCING BARS AND BOLTS:

REINFORCING BARS AND BOLTS EMBEDDED IN EXISTING CONCRETE SHALL BE GROUTED INTO HOLES DRILLED INTO THE EXISTING CONCRETE. HOLES MAY BE CUT BY EITHER ROTARY PERCUSSION DRILLING FOLLOWED BY AIR BLOWOUT WITH OIL-FREE COMPRESSED AIR OR DIAMOND CORE BORING FOLLOWED BY WATER FLUSH. THE CONTRACTOR SHALL CHIP AWAY A SUFFICIENT QUANTITY OF CONCRETE COVER FOR EXISTING REINFORCING TO ASSURE LOCATION OF DRILL HOLES SO THAT THEY CLEAR EXISTING REINFORCING. CONSULT MANUFACTURER'S RECOMMENDATIONS FOR PROPER INSTALLATION METHODS, INCLUDING PRE-WETTING HOLES.

FOR REINFORCING BARS EMBEDDED LESS THAN 2'-0", INSTALL A MEASURED AMOUNT OF GROUT INTO THE BOTTOM OF THE HOLE WITH A CAULKING GUN EQUIPPED WITH AN EXTENSION NOZZLE. INSERT THE BAR OR BOLT DISPLACING THE GROUT AND SECURE IT IN THE CENTER OF THE HOLE. REMOVE EXCESS GROUT FROM AROUND THE HOLES BEFORE IT HARDENS.

GROUT FOR BONDING REINFORCING BARS AND BOLTS INTO EXISTING CONCRETE SHALL BE AN APPROVED EPOXY BONDING AGENT. APPROVED ADHESIVE GROUTS INCLUDE HILTI HIT ADHESIVE ANCHOR (ICC-ES ER-4419) OR APPROVED EQUAL. PROVIDE POSITIVE PROTECTION SO DOWELS ARE NOT DISTURBED DURING CURING.

ANCHORAGE INTO EXISTING CONCRETE:

ALL FASTENERS ATTACHING TO EXISTING CONCRETE MUST HAVE THE CONCRETE SURFACE OR HOLE BE CLEANED AND PREPARED PER MANUFACTURER'S REQUIREMENTS FOR THE TYPE OF ANCHOR BEING USED.

INSTALL ONLY WHERE SPECIFICALLY SHOWN IN THE DETAILS OR ALLOWED BY SER. ALL POST-INSTALLED ANCHORS TYPES AND LOCATIONS SHALL BE APPROVED BY THE SER AND SHALL HAVE A CURRENT ICC-EVALUATION SERVICE REPORT THAT PROVIDES RELEVANT DESIGN VALUES NECESSARY TO VALIDATE THE AVAILABLE STRENGTH EXCEEDS THE REQUIRED STRENGTH. SUBMIT CURRENT MANUFACTURER'S DATA AND ICC ESR REPORT TO SER FOR APPROVAL REGARDLESS OF WHETHER OR NOT IT IS A PRE-APPROVED ANCHOR. ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE TO ICC-ESR AND MANUFACTURER'S INSTRUCTIONS. NO REINFORCING BARS SHALL BE DAMAGED DURING INSTALLATION OF POST-INSTALLED ANCHORS.

FOUNDATION PILES:

DRILLED CONCRETE CAISSONS

REFERENCE STANDARDS: DRILLED CAISSONS SHALL CONFORM TO ALL REQUIREMENTS OF THE FOLLOWING DOCUMENTS, EXCEPT AS MODIFIED BELOW:

ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE"
ACI 543 "RECOMMENDATIONS FOR DESIGN, MANUFACTURE AND INSTALLATION OF CONCRETE PILES
IBC SECTIONS 1807 AND 1808

CONCRETE STRENGTH: DRILLED PIER CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH f'c = 4,000 PSI AT 28 DAYS. CONTRACTOR TO REFER TO POLE MANUFACTURER DRAWINGS FOR HIGHER CONCRETE STRENGTH REQUIREMENTS.

DRILLED PIER DIAMETERS: DRILLED PIER DIAMETERS SHALL BE AS NOTED ON THE DRAWINGS AND DETAILS.

INSTALLATION: INSTALL IN ACCORDANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. A GEOTECHNICAL ENGINEER OR REPRESENTATIVE OF IS RECOMMENDED TO BE AVAILABLE AT THE TIME OF FOUNDATION INSTALLATION TO VERIFY THE SOIL DESIGN PARAMETERS. SUBMIT PROPOSED DRILLING PROCEDURE, INCLUDING TOLERANCES, TO THE GEOTECHNICAL AND STRUCTURAL ENGINEERS FOR REVIEW PRIOR TO DRILLING.

SUBMIT MIX DESIGN. REINFORCING STEEL, DETAILS AND SUBMITTALS AS NOTED FOR REINFORCED CONCRETE.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE PLACEMENT. TEMPORARY CASINGS OR DRILLERS SLURRY MAY BE USED TO STABILIZE THE EXCAVATION DURING INSTALLATION. CASINGS MUST BE REMOVED PRIOR TO CONCRETE PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN DROP EXCEEDS 6'-0".

PRECAST-PRESTRESSED CONCRETE BASE FOUNDATIONS

PRESTRESSED CONCRETE HOLLOW CYLINDER BASES TO BE PROVIDED BY MUSCO SPORTS LIGHTING LLC, ICC REPORT ESR-3765. PRECAST BASES SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C1804 REQUIREMENTS. BASES SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES, APPROVED PLANS AND MUSCO MANUFACTURER'S REQUIREMENTS.

PRECAST BASE CONCRETE BACKFILL REQUIREMENTS:
f'c = 3,000 PSI, @ 28 DAYS MAXIMUM W/C = 0.45.

ALL EXCAVATIONS MUST BE FREE OF LOOSE SOIL AND DEBRIS PRIOR TO FOUNDATION INSTALLATION AND CONCRETE BACKFILL PLACEMENT. CONCRETE BACKFILL MUST BE PLACED WITH A TREMIE WHEN SLURRY OR WATER IS PRESENT WITHIN THE EXCAVATION OR WHEN DROP EXCEEDS 6'-0". CONTRACTOR SHALL PROVIDE BRACING FOR PRECAST BASE IN UNFILLED EXCAVATION AS REQUIRED TO MAINTAIN VERTICAL PLUMB DURING CONCRETE BACKFILL

MISCELLANEOUS:

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, AND SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. IF ANY ERROR OR OMISSION APPEARS IN THESE DRAWINGS, SPECIFICATIONS, OR OTHER DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF SUCH OMISSION OR ERROR BEFORE PROCEEDING WITH THE WORK, OR ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY THE SAME.

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS SUCH AS OSHA AND DOSH (DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH). CONTRACTOR IS RESPONSIBLE TO ADHERE TO OSHA REGULATIONS REGARDING STEEL ERECTION ITEMS SPECIFICALLY ADDRESSED IN THE LATEST OSHA REGULATIONS. BOLTING AND FIELD WELDING AT ALL MEMBER CONNECTION IS TO BE COMPLETED PRIOR TO THE RELEASE OF THE MEMBER FROM THE HOISTING MECHANISM UNLESS REVIEWED AND APPROVED BY THE GENERAL CONTRACTOR'S TEMPORARY BRACING AND SHORING DESIGN ENGINEER.

THE ENGINEER HAS NOT BEEN RETAINED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM THEIR WORK.

REFER TO MECHANICAL, CIVIL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF DUCT OPENINGS, PIPING, CONDUITS, ETC, NOT SHOWN.

SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED PRIOR TO FABRICATION.

REFER TO THE PRODUCT SPECIFICATIONS ISSUED AS PART OF THE CONTRACT DOCUMENTS FOR INFORMATION SUPPLEMENTAL TO THESE STRUCTURAL DRAWINGS.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING DETAILS AND ACCURACY OF THE WORK, FOR THE TECHNIQUES OF ASSEMBLY, AND FOR PERFORMING WORK IN A SAFE AND SECURE MANNER.

THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTORS RESPONSIBILITY TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY THE SER OF ANY ARCHITECTURAL, MECHANICAL, ELECTRICAL OR PLUMBING LOAD IMPOSED ONTO THE STRUCTURE THAT DIFFERS FROM, OR THAT IS NOT DOCUMENTED ON THE ORIGINAL CONTRACT DOCUMENTS (ARCHITECTURAL / STRUCTURAL / MECHANICAL / ELECTRICAL AND PLUMBING DRAWINGS).

PLAN AND DETAIL NOTES AND SPECIFIC LOADING DATA PROVIDED ON INDIVIDUAL PLANS DETAIL DRAWINGS SUPPLEMENTS INFORMATION IN THE STRUCTURAL GENERAL NOTES.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. CONFLICT BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.

THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO EARTHWORK, FOUNDATIONS, SHORING, AND EXCAVATION. ANY UTILITY INFORMATION SHOWN ON THE DRAWINGS AND DETAILS IS APPROXIMATE AND NOT NECESSARILY COMPLETE.

ALTERNATE PRODUCTS OF SIMILAR STRENGTH, NATURE AND FORM FOR SPECIFIED ITEMS MAY BE SUBMITTED WITH ADEQUATE TECHNICAL DOCUMENTATION TO THE ARCHITECT/ENGINEER FOR REVIEW. ALTERNATE MATERIALS THAT ARE SUBMITTED WITHOUT ADEQUATE TECHNICAL DOCUMENTATION OR THAT SIGNIFICANTLY DEVIATE FROM THE DESIGN INTENT OF MATERIALS SPECIFIED MAY BE RETURNED WITHOUT REVIEW. ALTERNATES THAT REQUIRE SUBSTANTIAL EFFORT TO REVIEW WILL NOT BE REVIEWED UNLESS AUTHORIZED BY THE OWNER.

DEFERRED ENGINEERING SUBMITTALS:

SHOP DRAWINGS AND CALCULATIONS FOR DEFERRED ENGINEERING SUBMITTAL ITEMS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF [STATE] AND SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.

DEFERRED ENGINEERING SUBMITTAL ITEMS SHALL INCLUDE THE FOLLOWING:

- STEEL LIGHTING POLES

DESIGN OF PREFABRICATED, BIDDER-DESIGNED, MANUFACTURED, PRE-ENGINEERED, OR OTHER FABRICATED PRODUCTS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

- DESIGN CONSIDERS TRIBUTARY DEAD, LIVE, WIND, AND EARTHQUAKE LOADS IN COMBINATIONS.
- DESIGN SHALL CONFORM TO THE SPECIFICATIONS AND REFERENCE STANDARDS OF THE GOVERNING CODE.
- SUBMITTALS SHALL INCLUDE:
  - CALCULATIONS PREPARED, STAMPED AND SIGNED BY THE SSE DEMONSTRATING CODE CONFORMANCE.
  - ENGINEERED COMPONENT DESIGN DRAWINGS ARE PREPARED, STAMPED AND SIGNED BY THE SSE.
  - PRODUCT DATA, TECHNICAL INFORMATION AND MANUFACTURER'S WRITTEN REQUIREMENTS AND AGENCY APPROVALS AS APPLICABLE.

SPECIAL INSPECTIONS:

SPECIAL INSPECTIONS SHALL MEET THE REQUIREMENTS OF IBC CHAPTER 17.

INSPECTION NOTES:

THE CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY SECTION 110 OF THE INTERNATIONAL BUILDING CODE. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE CITY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.

CONTINUOUS INSPECTION IS REQUIRED DURING THE PERFORMANCE OF THE WORK WHERE REQUIRED BY THE BUILDING CODE/LOCAL JURISDICTION/MANUFACTURER'S REQUIREMENTS UNLESS OTHERWISE SPECIFIED.

THE SPECIAL INSPECTOR MUST BE CERTIFIED TO PERFORM THE TYPES OF INSPECTION SPECIFIED AND SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT THE REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.

SPECIAL INSPECTORS SHALL:

BE UNDER THE SUPERVISION OF A WA STATE REGISTERED CIVIL ENGINEER.

OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS.

FURNISH INSPECTION REPORTS TO THE BUILDING DEPARTMENT AND ENGINEER. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN, IF NOT CORRECTED, TO THE BUILDING DEPARTMENT AND ENGINEER.

SUBMIT A FINAL REPORT, SIGNED BY A WA STATE REGISTERED CIVIL ENGINEER, STATING THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

SPECIAL INSPECTIONS REQUIRED:

CONCRETE:

-CONCRETE STRENGTH (WHERE f'c IS GREATER THAN 2,500 PSI, EXCEPT SLAB ON GRADE), SLUMP, AIR CONTENT AND MIX DESIGN AND AS REQUIRED BY IBC SECTION 1705.3.
-CONTINUOUS INSPECTION OF CONCRETE PLACEMENT AS REQUIRED BY ACI 318.
-PERIODIC INSPECTION OF PLACEMENT OF REINFORCEMENT, BOLTS, EMBEDS IN CONCRETE.

CAST-IN-PLACE DEEP FOUNDATION ELEMENTS:

-CONTINUOUS OBSERVATION OF DRILLING OPERATIONS & MAINTAIN COMPLETE & ACCURATE RECORDS FOR EACH PIER
-CONTINUOUS VERIFICATION OF LOCATIONS, PLUMBNESS, DIAMETER, EMBEDMENT LENGTH. RECORD CONCRETE VOLUMES.
-FOUNDATION CONCRETE ELEMENTS ARE SUBJECT TO CONCRETE SPECIAL INSPECTIONS REQUIREMENTS

MISCELLANEOUS:

-POST-INSTALLED ANCHORS TO CONCRETE.

APPLICABLE CODES AND STANDARDS:

BUILDING CODE	INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION
ACI	AMERICAN CONCRETE INSTITUTE, "BUILDING CODE FOR STRUCTURAL CONCRETE" (ACI 318), 2014 EDITION
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (AISC 360-2016 EDITION)
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION, "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" (ANSI / AISC 341), 2016 EDITION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" (ASCE 7), 2016 EDITION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM INTERNATIONAL)
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS A2.4), 2017 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1), 2017 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS D1.4), 2017 EDITION
AWS	AMERICAN WELDING SOCIETY, "STRUCTURAL WELDING CODE - STEEL" (AWS D1.8), 2017 EDITION
ICC	INTERNATIONAL CODE COUNCIL, INTERNATIONAL CODE COUNCIL - EVALUATION SERVICE (ICC-ES)
MSJC	THE MASONRY SOCIETY. "BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES AND RELATED COMMENTARIES" (TMS 402 / ACI 530), 2016 EDITION

SUPPORT OF NON-STRUCTURAL/NON-BUILDING EQUIPMENT AND STRUCTURES SHALL COMPLY WITH THE APPLICABLE CODE AS NOTED BELOW:

NFPA 13
ASCE 7-2016 CH 13 AND CH 15
IBC 2018

PERMIT SET

No.	REVISION	BY	APP'D	DATE

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GREGORY J. LEE — STATE OF WASHINGTON — 47387 — PROFESSIONAL ENGINEER

DESIGNED: SB	APPROVED: C. REYNOLDS
DRAWN: LJ	
CHECKED: S. VALLEJO	PROJECT NO: 1139372
CHECKED:	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
STRUCTURAL GENERAL NOTES

DATE:	10/27/2022
DRAWING NO:	S0.01
SHEET NO: OF	28 40

ABBREVIATIONS

(A)	ABOVE (AT BEAMS OR COLUMNS)
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADJ	ADJACENT; ADJUST
ADDL	ADDITIONAL
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE; ALTERNATIVE
APPROX	APPROXIMATE; APPROXIMATELY
ARCH	ARCHITECT; ARCHITECTURAL
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIAL
AWS	AMERICAN WELDING SOCIETY
B	BOTTOM (BEAM AND JOIST SCHEDULES ONLY)
(B)	BELOW (AT BEAMS OR COLUMNS)
BL	BUILDING LINE
BLDG	BUILDING
BOT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
CANT	CANTILEVER
CDF	CONTROLLED DENSITY FILL
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CL	CENTER LINE
CLR	CLEAR
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTJ	CONTROL JOINT; CONTRACTION JOINT
CTR	CENTER
CY	CUBIC YARD
DBA	DOWEL BAR ANCHOR
DBL	DOUBLE
DEMO	DEMOLISH; DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIAA	DRILLED-IN ADHESIVE ANCHOR
DIAG	DIAGONAL
DIEB	DRILLED-IN EXPANSION BOLT
DIM	DIMENSION
DL	DEAD LOAD
DN	DOWN
do	DITTO
DP	DEEP
DWG	DRAWING
(E)	EXISTING
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EL	ELEVATION (HEIGHT)
ELEC	ELECTRICAL
ELEV	ELEVATION (VIEW); ELEVATOR
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY, END WALL
EXIST	EXISTING
FDN	FOUNDATION
FF	FAR FACE
FLR	FLOOR
FS	FAR SIDE
FT	FOOT; FEET
FTG	FOOTING
FUT	FUTURE
GALV	GALVANIZED
GEN	GENERAL
GND	GROUND
GR	GRADE
HEF	HORIZONTAL EACH FACE
HIF	HORIZONTAL INSIDE FACE
HOF	HORIZONTAL OUTSIDE FACE
HORIZ	HORIZONTAL
HT	HEIGHT
H&V	HORIZONTAL & VERTICAL
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH; INCHES
JT	JOINT
JST	JOIST
K	KIP; KIPS (1000 POUNDS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LB	POUND
LF	LINEAL FEET
LL	LIVE LOAD
LONGIT	LONGITUDINAL
LRFD	LOAD & RESISTANCE FACTOR DESIGN
LSH	LONG SLOTTED HOLES

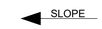
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
N/A	NOT APPLICABLE
NF	NEAR FACE
NIC	NOT IN CONTRACT
No	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZED
P/C	PRECAST
PCF	POUNDS PER CUBIC FOOT
PERP	PERPENDICULAR
PL	PLATE (STEEL); PLATE (WOOD); PROPERTY LINE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVT	PAVEMENT
R	RADIUS
RC	REINFORCED CONCRETE
REF	REFERENCE
REINF	REINFORCED; REINFORCEMENT; REINFORCING
REM	REMAINDER
REQD	REQUIRED
RET	RETAINED; RETAINING
RND	ROUND
RO	ROUGH OPENING
RW	RETAINING WALL
S	SOUTH; S SERIES STEEL SHAPE
SCHED	SCHEDULE
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD (ABKJ)
SFRS	SEISMIC FORCE-RESISTING SYSTEM
SH PL	SHEAR PLATE
SHT	SHEET
SHTG	SHEETING
SIM	SIMILAR
SK	SKETCH
SLBB	SHORT LEGS BACK TO BACK
SMRF	SPECIAL MOMENT RESISTING FRAME
SOG	SLAB ON GRADE
SP	SPIRAL
SPA	SPACE; SPACES; SPACING
SPEC	SPECIFICATION
SPF	SPRUCE PINE-FIR
SQ	SQUARE
SS	STAINLESS STEEL
SSE	SPECIALTY STRUCTURAL ENGINEER
SSL	SHORT SLOTTED HOLE
ST	STRUCTURAL TEE FROM S SERIES STEEL SHAPE
STA	STATION
STD	STANDARD
STG	STAGGER; STAGGERED
STIFF	STIFFENER
STIRR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SUPT	SUPPORT
SUSP	SUSPENDED
SVC	SERVICE
SW	SHEAR WALL; SHEAR WALLS
SYMM	SYMMETRICAL
T&B	TOP AND BOTTOM
THD	THREADS, THREADED
THK	THICK
THRU	THROUGH
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL; TOP OF SLAB
TOW	TOP OF WALL
TRANSV	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
UON	UNLESS OTHERWISE NOTED
VEF	VERTICAL EACH FACE
VERT	VERTICAL
VIF	VERTICAL INSIDE FACE, VERIFY IN FIELD
VOF	VERTICAL OUTSIDE FACE
W	WEST; W SERIES STEEL SHAPE
W/	WITH
W/O	WITHOUT
WWF	WELDED WIRE FABRIC

XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG
YD	YARD
&	AND
@	AT
Ø	DIAMETER; ROUND
'	FOOT; FEET
"	INCH; INCHES
#	NUMBER; POUND

SYMBOL LEGEND

OPENINGS (PLAN OR SECTION)

SLOPE

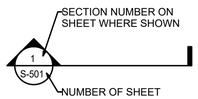


PITCH (ELEVATION OR SECTION)

WORK POINT

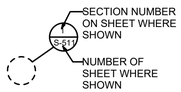
NORTH ARROW (PLAN)

SECTION MARK



SUB-SECTION MARK

DETAIL MARK

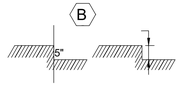


ELEVATION MARK

REVISION MARK

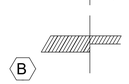
FOOTING SYMBOL

STEP IN ELEVATION OF SLAB

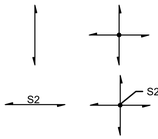


CHANGE OF SLOPE IN TOP OF SLAB

CHANGE OF SLAB THICKNESS



SPAN DIRECTION



SLAB MARK

ONE WAY TWO WAY

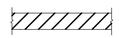
CONCRETE

EXISTING CONCRETE (PLAN OR ELEVATION OR SECTION)

CONCRETE (PLAN)

CONCRETE (SECTION)

PRECAST CONCRETE



WELDED WIRE FABRIC

REINFORCING

HOOKED REBAR

COUPLER

CONNECTORS

CONNECTORS

BOLTS

HEADED ANCHOR STUDS (HAS)
WELDED HEADED STUDS (WHS)
WELDED SHEAR CONNECTOR (WSC)

CIP CONCRETE ANCHOR BOLTS (AB)

DRILLED-IN EXPANSION BOLT (DIEB)

DRILLED-IN ADHESIVE ANCHOR (DIAA)

MISCELLANEOUS MATERIALS

EARTH

GRAVEL

GROUT/SAND

ROCK

ASPHALTIC CONCRETE PAVING

ALUMINUM

PERMIT SET

No.	REVISION	BY	APP'D	DATE

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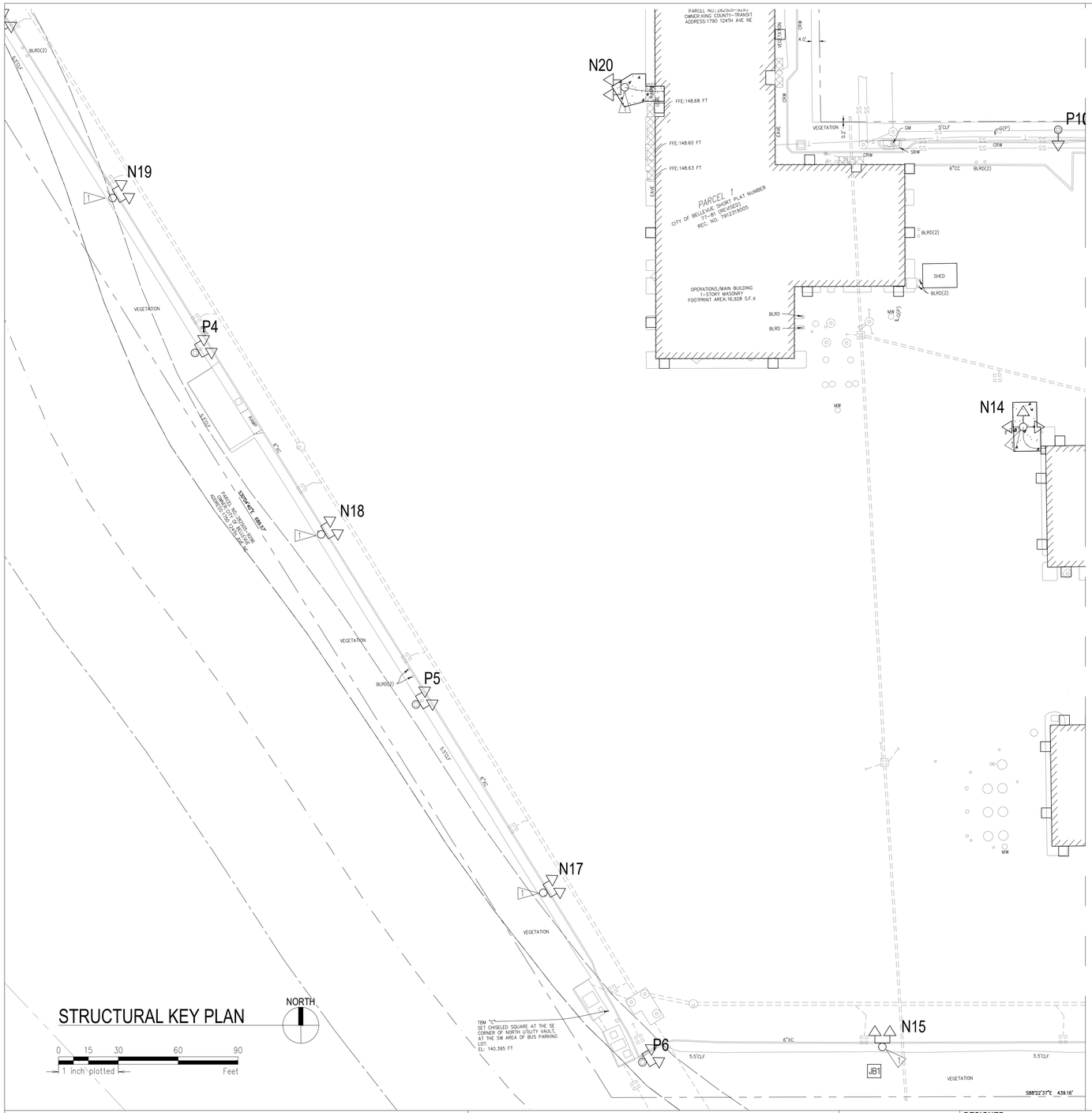
GREGORY J. LEE — STATE OF WASHINGTON — 37387 — PROFESSIONAL ENGINEER

DESIGNED: SB	**APPROVED:** C. REYNOLDS
DRAWN: LJ	
CHECKED: S. VALLEJO	**PROJECT NO:** 1139372
CHECKED:	**CONTRACT NO:** 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
STRUCTURAL
ABBREVIATIONS & SYMBOLS

DATE:	10/27/2022
DRAWING NO:	S0.02
SHEET NO: OF	29 40



STRUCTURAL KEY PLAN

POLE & DRILLED PIER FOUNDATION SCHEDULE

POLE ID	POLE TYPE	HEIGHT	FIXTURE QTY	FOUNDATION	REF.
N14	LSS60AA	60'–0"	3	DRILLED PIER	1/S5.01
N15	LSS60AA	60'–0"	2	DRILLED PIER	1/S5.01
N17	LSS60AA	60'–0"	2	DRILLED PIER	1/S5.01
N18	LSS60AA	60'–0"	2	DRILLED PIER	1/S5.01
N19	LSS60AA	60'–0"	2	DRILLED PIER	1/S5.01
N20	LSS60AA	60'–0"	2	DRILLED PIER	1/S5.01

FLAG NOTES:

1. PROVIDE NEW GALVANIZED STEEL POLE W/ BASE PLATE AND NEW DRILLED PIER FOUNDATION. REF 1/S5.01 FOR ADDITIONAL INFORMATION. POLES, FIXTURES, ELECTRICAL ITEMS AND INSTALLATION PER MUSCO LIGHTING

PERMIT SET

No.	REVISION	BY	APP'D	DATE

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GREGORY J. LEE
STATE OF WASHINGTON
47387
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

DESIGNED: SB	**APPROVED:** C. REYNOLDS
DRAWN: LJ	
CHECKED: S. VALLEJO	**PROJECT NO:** 1139372
CHECKED:	**CONTRACT NO:** 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

STRUCTURAL SITE PLAN

DATE:	10/27/2022
DRAWING NO:	S1.01
SHEET NO: OF	30 40

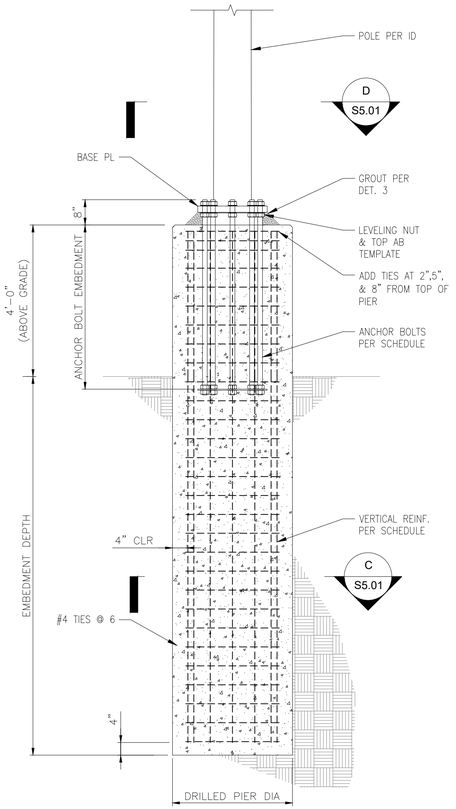
POLE IDENTIFICATION

POLE ID (PER KEY PLAN)	POLE TYPE	FND TYPE	FIXTURE COUNT	FIXTURE AND ACCESSORIES EPA (FT^2)
N14	LSS60AA	DRILLED PIER	3	6.9
N15, N17-N20	LSS60AA	DRILLED PIER	2	6.0

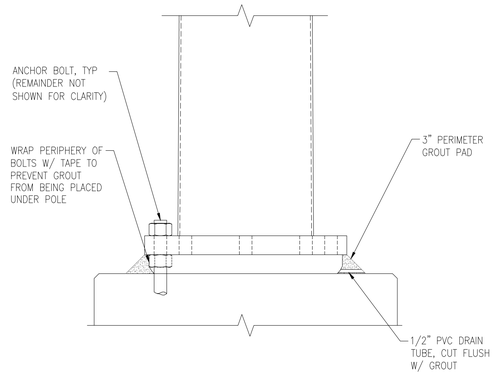
DRILLED PIER FOUNDATION & BASE PLATE SCHEDULE

POLE ID (PER KEY PLAN)	DRILLED PIER DIA	VERTICAL REINF.	PIER EMBEDMENT DEPTH	ANCHOR BOLTS QTY & DIA (IN)	ANCHOR BOLT EMBED	BASE PLATE			
						BASE PL SIZE	BOLT CIRCLE DIA	BOLT HOLE	CENTER HOLE DIA
N14,N15,N17-N20	38"	12-#6	10'-0"	(8)-1 1/2" DIA	48" MIN	2" THK x 22" DIA RND	17.5"	1 5/8"	7"

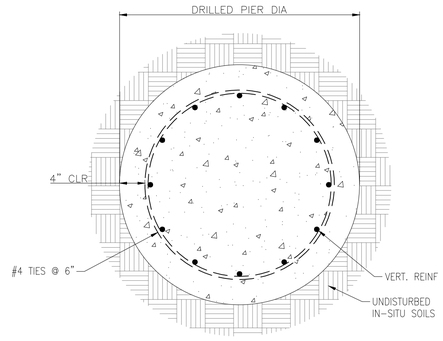
1. BASE PL, Fy=36 KSI, PER MFR.
2. ANCHOR BOLTS, Fy=55 KSI, PER MFR.
3. REF PLAN FOR POLE IDENTIFICATION, TYPE OF FDN & LOCATIONS.



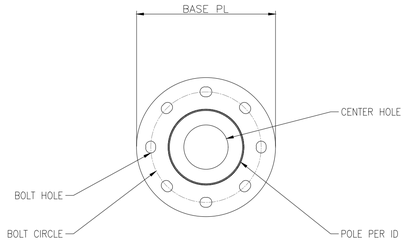
1 DRILLED PIER POLE FDN ELEVATION
1/2" = 1'-0"



3 GROUT DETAIL
1" = 1'-0"



C SECTION AT CONCRETE PIER
1" = 1'-0"



D SECTION AT STEEL POLE
1" = 1'-0"

PERMIT SET

No.	REVISION	BY	APP'D	DATE

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GREGORY J. LEE — STATE OF WASHINGTON — 21387 — PROFESSIONAL ENGINEER

DESIGNED: SB	**APPROVED:** C. REYNOLDS
DRAWN: LJ	
CHECKED: S. VALLEJO	**PROJECT NO:** 1139372
CHECKED:	**CONTRACT NO:** 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE
STRUCTURAL DETAILS

DATE:	10/27/2022
DRAWING NO:	S5.01
SHEET NO: OF	31 40

GENERAL NOTES:

1. EXISTING PARKING LOT AND ENTRY/DRIVEWAY LIGHTING CIRCUITS, POLES, AND LIGHTS SHALL REMAIN.
2. REFER TO 1/E5.01 FOR EXISTING POLE DEMOLITION DETAIL.
3. REFER TO E6.01 FOR ONE-LINE DIAGRAM.
4. REFER TO E6.02 FOR PANEL SCHEDULES.
5. PROVIDE TEMPORARY LIGHTING TO MAINTAIN LIGHTING LEVELS OF THE BUS YARD THROUGHOUT CONSTRUCTION. COORDINATE STAGING AND LOCATIONS WITH OWNER.

FLAG NOTES:

1. MAINTAIN AND PROTECT EXISTING CONCRETE POLE. DEMOLISH FLOODLIGHTS, BRACKETS, AND CONDUCTORS BACK TO LIGHTING CONTROL PANEL. ABANDON EXISTING CONDUIT IN PLACE.
2. DEMOLISH EXISTING LIGHT FIXTURE. MAINTAIN AND PROTECT EXISTING CONDUIT AND CONDUCTORS TO FIXTURE.
3. MAINTAIN AND PROTECT EXISTING PARKING LOT POLE. DEMOLISH FLOODLIGHTS, BRACKETS, AND CONDUCTORS BACK TO LIGHTING CONTROL PANEL.
4. DEMO CONDUCTORS BACK TO SOURCE. MAINTAIN EXISTING CONDUIT.
5. DEMOLISH EXISTING YARD LIGHTING CONDUCTORS. MAINTAIN AND PROTECT ALL OTHER EXISTING CIRCUITS.

ELECTRICAL SITE PLAN - DEMOLITION

SCALE: 1" = 30'

0 15 30 60 90

1 inch plotted — Feet

SYMBOLS LEGEND:

- EXISTING POLE MOUNTED METAL HALIDE LIGHT, WATTAGE AS INDICATED ON SCHEDULE
- EXISTING DOUBLE POLE MOUNTED METAL HALIDE LIGHT, WATTAGE AS INDICATED ON SCHEDULE
- HH — EXISTING HANDHOLE
- EXISTING UNDERGROUND CONDUIT
- DEMO HATCH
- CIRCUIT DEMO HATCH – ABANDON EXISTING UNDERGROUND CONDUIT
- BUILDING LIGHT

EXISTING FLOODLIGHT POLE SCHEDULE

POLE	HEIGHT	FLOODLIGHTS	FLOODLIGHT WATTAGE
P1	40'-0"	1	400W
P2	40'-0"	1	400W
P3	40'-0"	1	400W
P4	50'-0"	1	1000W
P8	40'-0"	1	400W
P9	40'-0"	1	400W
P10	40'-0"	1	400W
P11	40'-0"	2	400W

EXISTING BUILDING LIGHT SCHEDULE

FIXTURE	HEIGHT	BUILDING LIGHTS
M1	26'-0"	1
M2	26'-0"	1
M3	26'-0"	1
M4	26'-0"	1
M5	26'-0"	1
M6	26'-0"	1
M7	26'-0"	1
M8	26'-0"	1
M9	26'-0"	1
M10	26'-0"	1
M11	26'-0"	1
M12	26'-0"	1
M13	26'-0"	1

PERMIT SET

No.	REVISION	BY	APP'D	DATE

Stantec

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CHRISTOPHER ... STATE OF WASHINGTON 31353 REGISTERED PROFESSIONAL ENGINEER 11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ELECTRICAL SITE PLAN - DEMOLITION

DATE: 10/27/2022

DRAWING NO: ED1.01

SHEET NO: 32 OF 40

EXISTING FLOODLIGHT POLE SCHEDULE

POLE	HEIGHT	FLOODLIGHTS	FLOODLIGHT WATTAGE
P5	50'–0"	1	1000W
P6	50'–0"	1	1000W
P7	40'–0"	1	400W
P12	40'–0"	2	400W
P13	40'–0"	2	400W

EXISTING BUILDING LIGHT SCHEDULE

FIXTURE	HEIGHT	BUILDING LIGHTS
M14	15'–0"	1
M15	15'–0"	1
M16	15'–0"	1
M17	15'–0"	1
M18	16'–0"	1
M19	16'–0"	1
M20	15'–0"	1
M21	16'–0"	1
M22	16'–0"	1
M23	15'–0"	1
M24	15'–0"	1
M25	15'–0"	1
M26	15'–0"	1
M27	15'–0"	1

SYMBOL LEGEND:

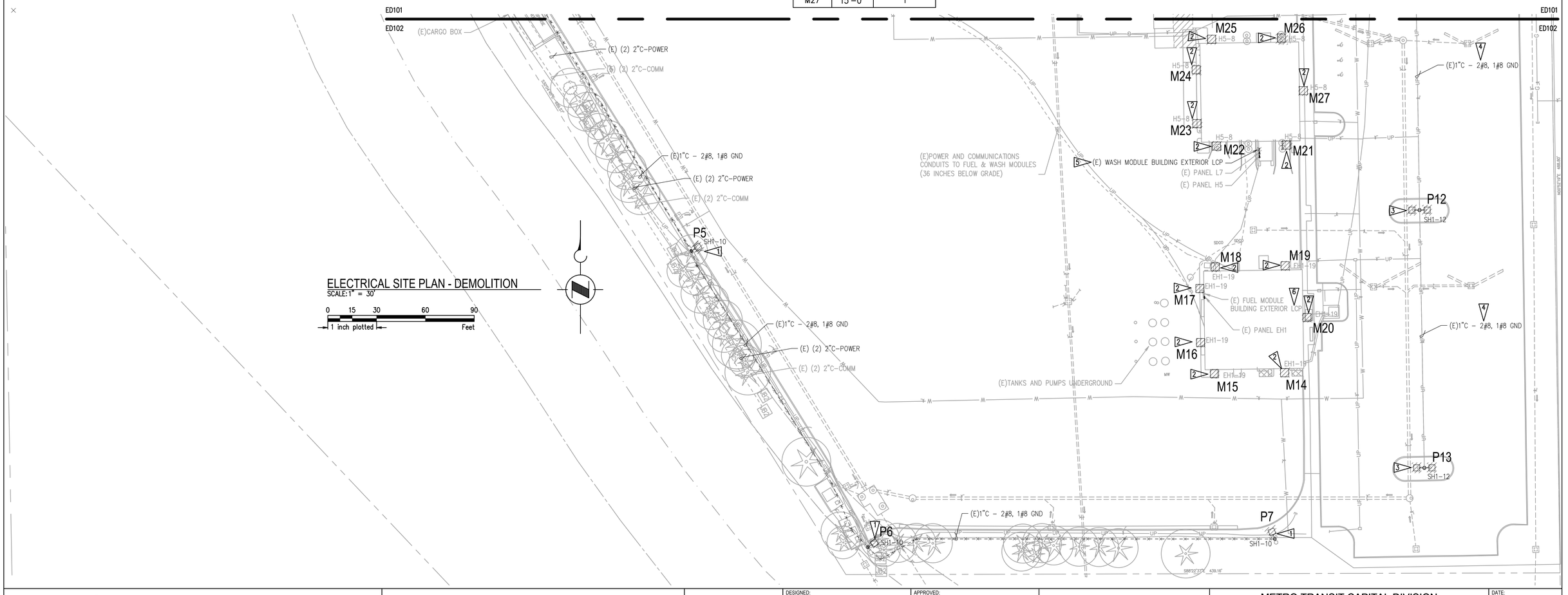
- EXISTING POLE MOUNTED METAL HALIDE LIGHT, WATTAGE AS INDICATED ON SCHEDULE
- EXISTING DOUBLE POLE MOUNTED METAL HALIDE LIGHT, WATTAGE AS INDICATED ON SCHEDULE
- EXISTING HANDHOLE
- EXISTING UNDERGROUND CONDUIT
- DEMO HATCH
- CIRCUIT DEMO HATCH – ABANDON EXISTING UNDERGROUND CONDUIT
- BUILDING LIGHT

GENERAL NOTES:

1. EXISTING PARKING LOT AND ENTRY/DRIVEWAY LIGHTING CIRCUITS, POLES, AND LIGHTS SHALL REMAIN.
2. REFER TO 1/E5.01 FOR EXISTING POLE DEMOLITION DETAIL.
3. REFER TO E6.01 FOR ONE–LINE DIAGRAM.
4. REFER TO E6.02 FOR PANEL SCHEDULES.
5. PROVIDE TEMPORARY LIGHTING TO MAINTAIN LIGHTING LEVELS OF THE BUS YARD THROUGHOUT CONSTRUCTION. COORDINATE STAGING AND LOCATIONS WITH OWNER.

FLAG NOTES:

1. MAINTAIN AND PROTECT EXISTING CONCRETE POLE. DEMOLISH FLOODLIGHTS, BRACKETS, AND CONDUCTORS BACK TO LIGHTING CONTROL PANEL.
2. DEMOLISH EXISTING LIGHT FIXTURE. MAINTAIN AND PROTECT EXISTING CONDUIT AND CONDUCTORS TO FIXTURE.
3. MAINTAIN AND PROTECT EXISTING PARKING LOT POLE. DEMOLISH FLOODLIGHTS, BRACKETS, AND CONDUCTORS BACK TO LIGHTING CONTROL PANEL.
4. DEMO CONDUCTORS BACK TO SOURCE. MAINTAIN EXISTING CONDUIT.
5. DEMO EXISTING LIGHTING CONTROL CABINET AND WIRE GUTTER BELOW. MAINTAIN EXISTING LIGHTING CONTACTOR CONTROL POWER CONNECTION AND EXTEND TO NEW LIGHTING CONTROL/CONTACTOR PANEL. MAINTAIN EXISTING BUILDING LIGHTING CIRCUIT AND EXTEND TO NEW LIGHTING CONTROL/CONTACTOR PANEL.
6. MAINTAIN AND PROTECT EXISTING LCP.



ELECTRICAL SITE PLAN - DEMOLITION

SCALE: 1" = 30'

0 15 30 60 90

1 inch plotted — Feet

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1				
2				
3				
4				

Stantec

IES Integrity Energy Services
1505 NW Gilman Blvd, Suite 1
Issaquah, WA 98027
Ph (206)566-7525
Ph (844)411-4437

CHRISTOPHER A. ANOD — STATE OF WASHINGTON — 31353 — REGISTERED PROFESSIONAL ENGINEER
11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ELECTRICAL SITE PLAN - DEMOLITION

DATE: 10/27/2022
DRAWING NO: ED1.02
SHEET NO: 33 OF 40

FLOODLIGHT POLE SCHEDULE

POLE	HEIGHT	FLOODLIGHTS/ AREA LIGHTS	LIGHT WATTAGE
P1	40'–0"	1	400W
P2	40'–0"	1	400W
P3	40'–0"	1	400W
P4	50'–0"	2	400W
P8	40'–0"	2	400W
P9	40'–0"	1	400W
P10	40'–0"	1	400W
P11	30'–0"	3	130W
N19	60'–0"	2	400W
N20	60'–0"	2	400W

BUILDING LIGHT SCHEDULE

FIXTURE	HEIGHT	BUILDING LIGHTS	LIGHT WATTAGE
M1	26'–0"	1	130W
M2	26'–0"	1	130W
M3	26'–0"	1	130W
M4	26'–0"	1	130W
M5	26'–0"	1	130W
M6	26'–0"	1	130W
M7	26'–0"	1	130W
M8	26'–0"	1	130W
M9	26'–0"	1	130W
M10	26'–0"	1	130W
M11	26'–0"	1	130W
M12	26'–0"	1	130W
M13	26'–0"	1	130W

SYMBOL LEGEND:

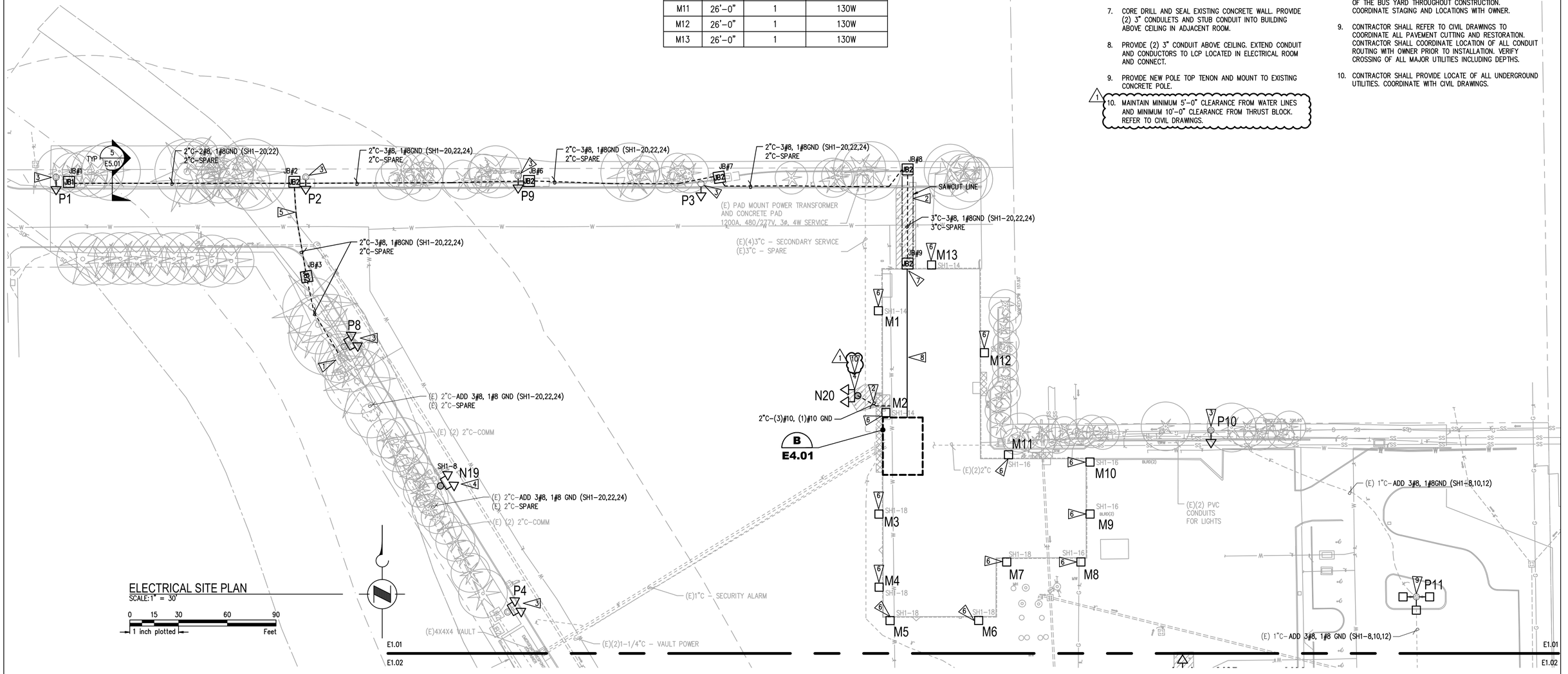
- LED FLOODLIGHT, 400 WATT, 4500K, 480 VOLT
- LED AREA LUMINAIRE, 130 WATT, 4000K, 480 VOLT
- HH — EXISTING HANDHOLE
- EXISTING UNDERGROUND CONDUIT
- JB1 — JUNCTION BOX – WSDOT TYPE 1
- JB2 — JUNCTION BOX – WSDOT TYPE 2

FLAG NOTES:

1. EXTEND NEW CONDUIT TO EXISTING JUNCTION BOX.
2. SAWCUT EXISTING CONCRETE AND PAVED SURFACES TO INSTALL NEW CONDUITS. PATCH AND REPAIR ALL CONCRETE AND PAVEMENT UPON INSTALLATION OF CONDUITS TO MATCH EXISTING SURFACE. REFER TO CIVIL DRAWING C2.02.
3. PROVIDE NEW FLOODLIGHTS, BRACKET, AND DRIVER ENCLOSURE ON EXISTING POLE. REFER TO DETAIL 2 ON E5.01 AND PROVIDE QUANTITY OF FLOODLIGHTS PER FLOODLIGHT SCHEDULE AND EQUIPMENT AS INDICATED ON EXISTING POLE.
4. PROVIDE NEW GALVANIZED STEEL POLE AND FOUNDATION. REFER TO DETAIL 3 ON E5.01 FOR ADDITIONAL INFORMATION.
5. REFER TO CIVIL DRAWING C2.00 FOR DIRECTIONAL BORING. PROVIDE (2) 2" SCHEDULE 80 HDPE CONDUITS.
6. PROVIDE BUILDING MOUNTED LIGHT AND MOUNT AT EXISTING LOCATION. CONNECT TO EXISTING CIRCUIT/CONDUCTORS. CONNECT TO NEW LIGHTING CONTACTOR PANEL. REFER TO E4.01 FOR LOCATION.
7. CORE DRILL AND SEAL EXISTING CONCRETE WALL. PROVIDE (2) 3" CONDULETS AND STUB CONDUIT INTO BUILDING ABOVE CEILING IN ADJACENT ROOM.
8. PROVIDE (2) 3" CONDUIT ABOVE CEILING. EXTEND CONDUIT AND CONDUCTORS TO LCP LOCATED IN ELECTRICAL ROOM AND CONNECT.
9. PROVIDE NEW POLE TOP TENON AND MOUNT TO EXISTING CONCRETE POLE.
10. MAINTAIN MINIMUM 5'–0" CLEARANCE FROM WATER LINES AND MINIMUM 10'–0" CLEARANCE FROM THRUST BLOCK. REFER TO CIVIL DRAWINGS.

GENERAL NOTES:

1. ALL EXISTING CONDUIT AND JUNCTION BOX LOCATIONS ARE APPROXIMATE AND ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL PROVIDE CONDUIT ROUTING AND JUNCTION BOX LOCATION PLAN FOR REVIEW AND APPROVAL BY OWNER PRIOR TO EXCAVATION.
2. TRENCHES AROUND THE PERIMETER OF THE BUS YARD CURB SHALL BE ROUTED WITHIN 5 FEET OF THE CURB LINE ALONG THE ENTIRE LENGTH OF THE TRENCH.
3. REFER TO E6.01 FOR ONE–LINE DIAGRAM.
4. REFER TO E6.02 FOR PANEL SCHEDULES.
5. REFER TO E5.02 FOR LIGHTING CONTACTOR DIAGRAMS.
6. MAINTAIN AND PROTECT ALL EXISTING UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED. CONTRACTOR TO PROVIDE LOCATE PRIOR TO ANY EXCAVATION.
7. COORDINATE EXACT CONDUIT RUNS IN THE VEHICLE MAINTENANCE BUILDING WITH EXISTING CONDITIONS.
8. PROVIDE TEMPORARY LIGHTING TO MAINTAIN LIGHTING LEVELS OF THE BUS YARD THROUGHOUT CONSTRUCTION. COORDINATE STAGING AND LOCATIONS WITH OWNER.
9. CONTRACTOR SHALL REFER TO CIVIL DRAWINGS TO COORDINATE ALL PAVEMENT CUTTING AND RESTORATION. CONTRACTOR SHALL COORDINATE LOCATION OF ALL CONDUIT ROUTING WITH OWNER PRIOR TO INSTALLATION. VERIFY CROSSING OF ALL MAJOR UTILITIES INCLUDING DEPTHS.
10. CONTRACTOR SHALL PROVIDE LOCATE OF ALL UNDERGROUND UTILITIES. COORDINATE WITH CIVIL DRAWINGS.



ELECTRICAL SITE PLAN

SCALE: 1" = 30'

0 15 30 60 90

1 inch plotted — Feet

PERMIT SET				
1	REV–1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	CBF		8/17/2023
No.	REVISION	BY	APP'D	DATE

Stantec

IES Integrity Energy Services
1505 NW Gilman Blvd, Suite 1
Issaquah, WA 98027
Ph (206)566-7525
Ph (844)411-4437

STATE OF WASHINGTON — 31353 — REGISTERED PROFESSIONAL ENGINEER
11/22/22

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ELECTRICAL SITE PLAN

DATE:	10/27/2022
DRAWING NO:	E1.01
SHEET NO: OF	34 40

FLOODLIGHT POLE SCHEDULE

POLE	HEIGHT	FLOODLIGHTS/ AREA LIGHTS	LIGHT WATTAGE
P5	50'–0"	2	400W
P6	50'–0"	2	400W
P7	40'–0"	1	400W
P12	30'–0"	4	130W
P13	30'–0"	3	130W
N14	60'–0"	3	400W
N15	60'–0"	2	400W
N17	60'–0"	2	400W
N18	60'–0"	2	400W

BUILDING LIGHT SCHEDULE

FIXTURE	HEIGHT	BUILDING LIGHTS	LIGHT WATTAGE
M14	15'–0"	1	130W
M15	15'–0"	1	130W
M16	15'–0"	1	130W
M17	15'–0"	1	130W
M18	16'–0"	1	130W
M19	16'–0"	1	130W
M20	15'–0"	1	130W
M21	16'–0"	1	130W
M22	16'–0"	1	130W
M23	15'–0"	1	130W
M24	15'–0"	1	130W
M25	15'–0"	1	130W
M26	15'–0"	1	130W
M27	15'–0"	1	130W

SYMBOL LEGEND:

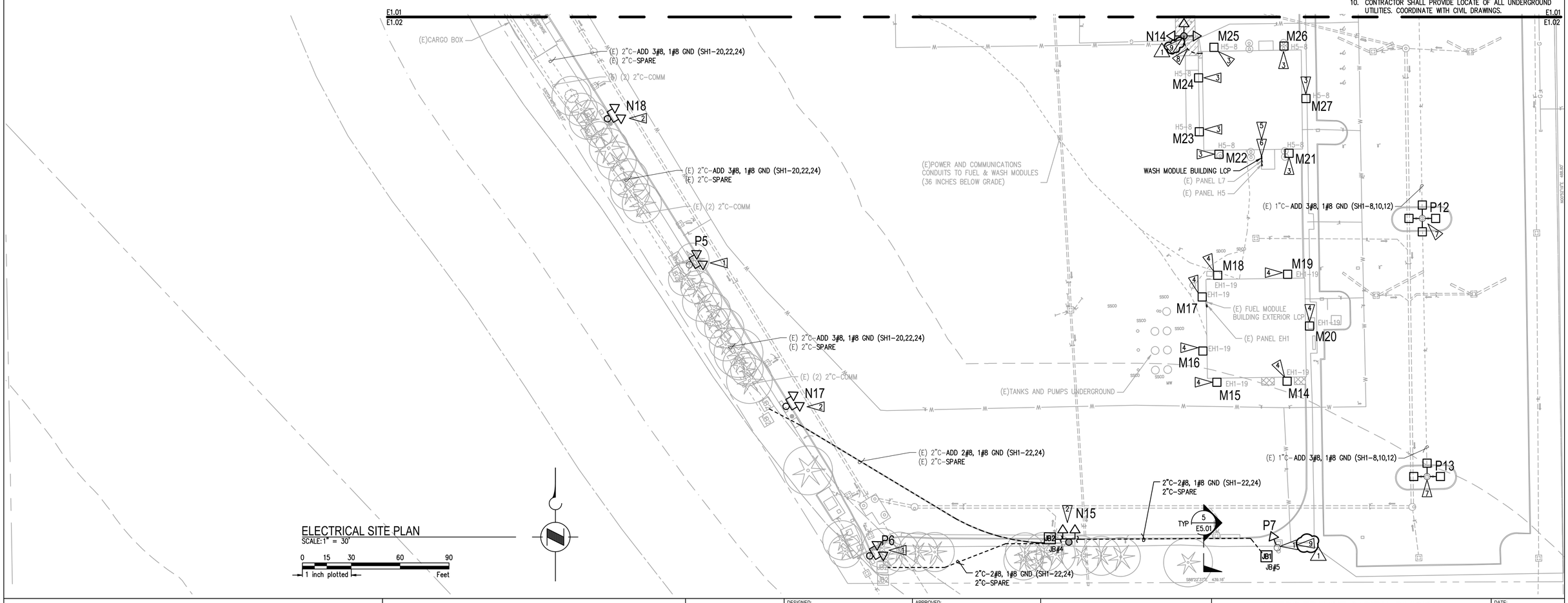
- LED FLOODLIGHT, 400 WATT, 4500K, 480 VOLT
- LED AREA LUMINAIRE, 130 WATT, 4000K, 480 VOLT
- HH — EXISTING HANDHOLE
- EXISTING UNDERGROUND CONDUIT
- JB1 — JUNCTION BOX – WSDOT TYPE 1
- JB2 — JUNCTION BOX – WSDOT TYPE 2

FLAG NOTES:

1. PROVIDE NEW FLOODLIGHTS, BRACKET, AND DRIVER ENCLOSURE ON EXISTING POLE. REFER TO DETAIL 2 ON E5.01 AND PROVIDE QUANTITY OF FLOODLIGHTS PER FLOODLIGHT SCHEDULE AND EQUIPMENT AS INDICATED ON EXISTING POLE.
2. PROVIDE NEW GALVANIZED STEEL POLE AND FOUNDATION. REFER TO DETAIL 3 ON E5.01 FOR ADDITIONAL INFORMATION. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION.
3. PROVIDE BUILDING MOUNTED LIGHT AND MOUNT AT EXISTING LOCATION. CONNECT TO EXISTING CIRCUIT/CONDUCTORS VIA EXISTING FUEL MODULE BUILDING LCP. CONNECT TO NEW LIGHTING CONTACTOR PANEL IN WASH MODULE BUILDING.
4. PROVIDE BUILDING MOUNTED LIGHT AND MOUNT AT EXISTING LOCATION. CONNECT TO EXISTING CIRCUIT/CONDUCTORS VIA EXISTING FUEL MODULE BUILDING LCP.
5. PROVIDE 1"C FOR YARD LIGHTING CONTROL ANTENNA. MOUNT ANTENNA ON BUILDING EXTERIOR CORNER AT ROOFLINE TO PROVIDE LINE OF SITE TO YARD LIGHTING POLE N14. COORDINATE MOUNTING AND INSTALLATION REQUIREMENTS WITH MANUFACTURER. INSTALLATION SHALL NOT IMPACT ROOF OR EXISTING PARAPET WATERPROOFING.
6. PROVIDE NEW LIGHTING CONTROL/CONTACTOR CABINET IN NEMA 3R ENCLOSURE. COORDINATE SIZE OF PANEL WITH MANUFACTURER. PROVIDE NEW WIRE GUTTER TO MATCH EXISTING BEING DEMOLISHED. PROVIDE NEW LIGHTING CONTACTORS, HOA SWITCHES, AND DIMMER SWITCHES. CONNECT TO EXISTING PHOTOCELL. REPLACEMENT OF THE EXISTING LIGHTING CONTACTOR CABINET SHALL BE LIMITED TO DAYTIME HOURS ONLY AND SHALL BE COMPLETED IN ONE DAY TO MAINTAIN POWER TO LIGHTS.
7. PROVIDE NEW POLE TOP TENON AND MOUNT TO EXISTING CONCRETE POLE.
8. SAWCUT EXISTING CONCRETE. PROVIDE 1"C–3#10, 1#10GND (H5–13,15,17). PROVIDE SCHEDULE 40 PVC CONDUIT UNDERGROUND TO POLE. PROVIDE RIGID CONDUIT SWEEP FROM BELOW GRADE TO RIGID CONDUIT ABOVE GRADE. PROVIDE CONDULETTE AND CORE DRILL INTO BUILDING. PROVIDE CONDUIT TO NEW WASH MODULE BUILDING EXTERIOR LCP.
9. MAINTAIN MINIMUM 5'–0" CLEARANCE FROM WATER LINES AND MINIMUM 10'–0" CLEARANCE FROM THRUST BLOCK. REFER TO CIVIL DRAWINGS. (1)

GENERAL NOTES:

1. ALL EXISTING CONDUIT AND JUNCTION BOX LOCATIONS ARE APPROXIMATE AND ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL PROVIDE CONDUIT ROUTING AND JUNCTION BOX LOCATION PLAN FOR REVIEW AND APPROVAL BY OWNER PRIOR TO EXCAVATION.
2. TRENCHES AROUND THE PERIMETER OF THE BUS YARD CURB SHALL BE ROUTED WITHIN 5 FEET OF THE CURB LINE ALONG THE ENTIRE LENGTH OF THE TRENCH.
3. REFER TO E6.01 FOR ONE–LINE DIAGRAM.
4. REFER TO E6.02 FOR PANEL SCHEDULES AND LOAD CALCULATIONS.
5. REFER TO E5.02 FOR LIGHTING CONTACTOR DIAGRAMS.
6. MAINTAIN AND PROTECT ALL EXISTING UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED. CONTRACTOR TO PROVIDE LOCATE PRIOR TO ANY EXCAVATION.
7. COORDINATE EXACT CONDUIT RUNS IN THE VEHICLE MAINTENANCE BUILDING WITH EXISTING CONDITIONS.
8. PROVIDE TEMPORARY LIGHTING TO MAINTAIN LIGHTING LEVELS OF THE BUS YARD THROUGHOUT CONSTRUCTION. COORDINATE STAGING AND LOCATIONS WITH OWNER.
9. CONTRACTOR SHALL REFER TO CIVIL DRAWINGS TO COORDINATE ALL PAVEMENT CUTTING AND RESTORATION. CONTRACTOR SHALL COORDINATE LOCATION OF ALL CONDUIT ROUTING WITH OWNER PRIOR TO INSTALLATION. VERIFY CROSSING OF ALL MAJOR UTILITIES INCLUDING DEPTHS.
10. CONTRACTOR SHALL PROVIDE LOCATE OF ALL UNDERGROUND UTILITIES. COORDINATE WITH CIVIL DRAWINGS.



ELECTRICAL SITE PLAN
SCALE: 1" = 30'

0 15 30 60 90
1 inch plotted — Feet

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1	REV–1 CITY OF BELLEVUE UTILITY REVIEW COMMENTS	CBF		8/17/2023

Stantec

IES Integrity Energy Services
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Ph (206)566-7525 Ph (844)411-4437

CHRISTOPHER PERRY — STATE OF WASHINGTON — 31353 — REGISTERED PROFESSIONAL ENGINEER
11/22/22

DESIGNED:	APPROVED:
CBF	C. REYNOLDS
DRAWN:	
AUU	
CHECKED:	PROJECT NO:
CPF	1139372
CHECKED:	CONTRACT NO:
S. ANOD	2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ELECTRICAL SITE PLAN

DATE: 10/27/2022
DRAWING NO: E1.02
SHEET NO: 35 OF 40

SYMBOL LEGEND:

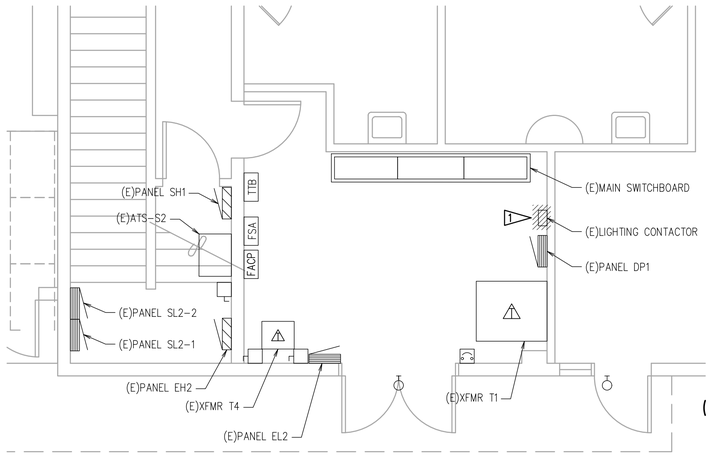
- JB2 — JUNCTION BOX – WSDOT, TYPE 2
- PB — EXISTING PULL BOX
- EXISTING TRANSFORMER
- HH — EXISTING HANDHOLE
- UNDERGROUND CONDUIT
- EXISTING UNDERGROUND CONDUIT

GENERAL NOTES:

1. ALL EXISTING CONDUIT AND JUNCTION BOX LOCATIONS ARE APPROXIMATE AND ARE SHOWN FOR SCHEMATIC PURPOSES ONLY. CONTRACTOR SHALL PROVIDE CONDUIT ROUTING AND JUNCTION BOX LOCATION PLAN FOR REVIEW AND APPROVAL BY OWNER PRIOR TO EXCAVATION.
2. REFER TO E6.01 FOR ONE-LINE DIAGRAM.
3. REFER TO E6.02 FOR PANEL SCHEDULES AND LOAD CALCULATIONS.
4. REFER TO E5.02 FOR LIGHTING CONTACTOR DIAGRAMS.
5. MAINTAIN AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. CONTRACTOR TO PROVIDE LOCATE PRIOR TO ANY EXCAVATION.
6. COORDINATE EXACT CONDUIT RUNS IN THE VEHICLE MAINTENANCE BUILDING WITH EXISTING CONDITIONS.

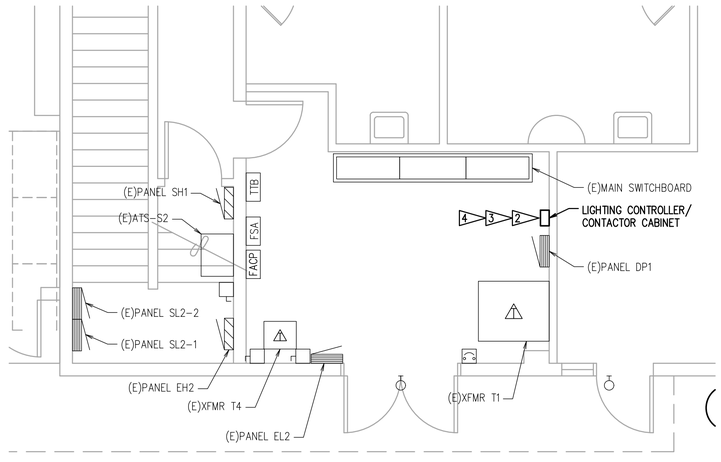
FLAG NOTES:

1. DEMOLISH EXISTING YARD LIGHTING CONTROL PANEL. MAINTAIN EXISTING CONDUIT FROM LIGHTING CONTROL PANEL TO EXISTING PANEL SH1 AND UNDERGROUND CONDUIT TO SITE LIGHTING.
2. PROVIDE NEW LIGHTING CONTACTOR CABINET SIMILAR TO EXISTING CONTACTOR CABINET TYPE. NEW CONTACTOR CABINET SHALL FIT IN EXISTING LCP LOCATION. PROVIDE NEW LIGHTING CONTACTORS, HOA SWITCHES, AND DIMMER SWITCHES PER DIAGRAM 2 ON SHEET E5.01. CONNECT TO EXISTING PHOTOCELL.
3. PROVIDE 1"C TO ROOF FOR YARD LIGHTING CONTROL ANTENNA. MOUNT ANTENNA AT ROOF TO PROVIDE LINE OF SITE TO YARD LIGHTING POLES. COORDINATE MOUNTING AND INSTALLATION REQUIREMENTS WITH MANUFACTURER. INSTALLATION SHALL NOT IMPACT ROOF OR EXISTING PARAPET WATERPROOFING.
4. PROVIDE (2) 3"C AND CONDUCTORS FROM LIGHTING CONTROLLER/ CONTACTOR CABINET TO NEW EXTERIOR JB1 JUNCTION BOX TO THE NORTH OF THE BUILDING. REFER TO E1.01 FOR ADDITIONAL INFORMATION.



ENLARGED ELECTRICAL DEMO PLAN — A / E4.01
SCALE: AS INDICATED

0 2 4 8 12
1 inch plotted — Feet
If measurement is other than 1 inch then the plot is reduced.



ENLARGED ELECTRICAL PLAN — B / E4.01
SCALE: AS INDICATED

0 2 4 8 12
1 inch plotted — Feet
If measurement is other than 1 inch then the plot is reduced.

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1				
2				
3				
4				

Stantec

IES Integrity Energy Services
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Ph (206)566-7525
Ph (844)411-4437

CHRISTOPHER F. CPF — STATE OF WASHINGTON — 31353 — REGISTERED PROFESSIONAL ENGINEER
11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

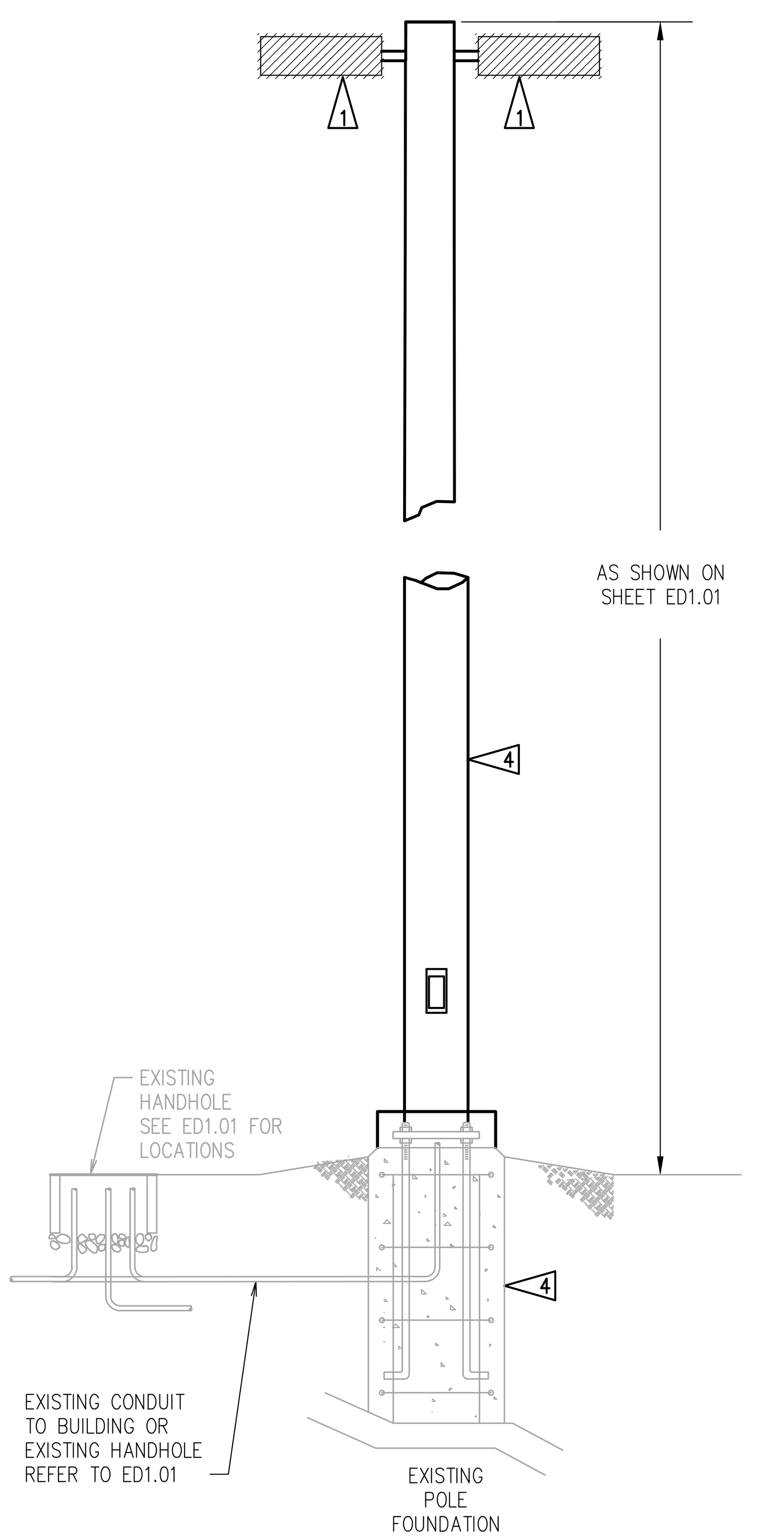
METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ENLARGED ELECTRICAL PLAN

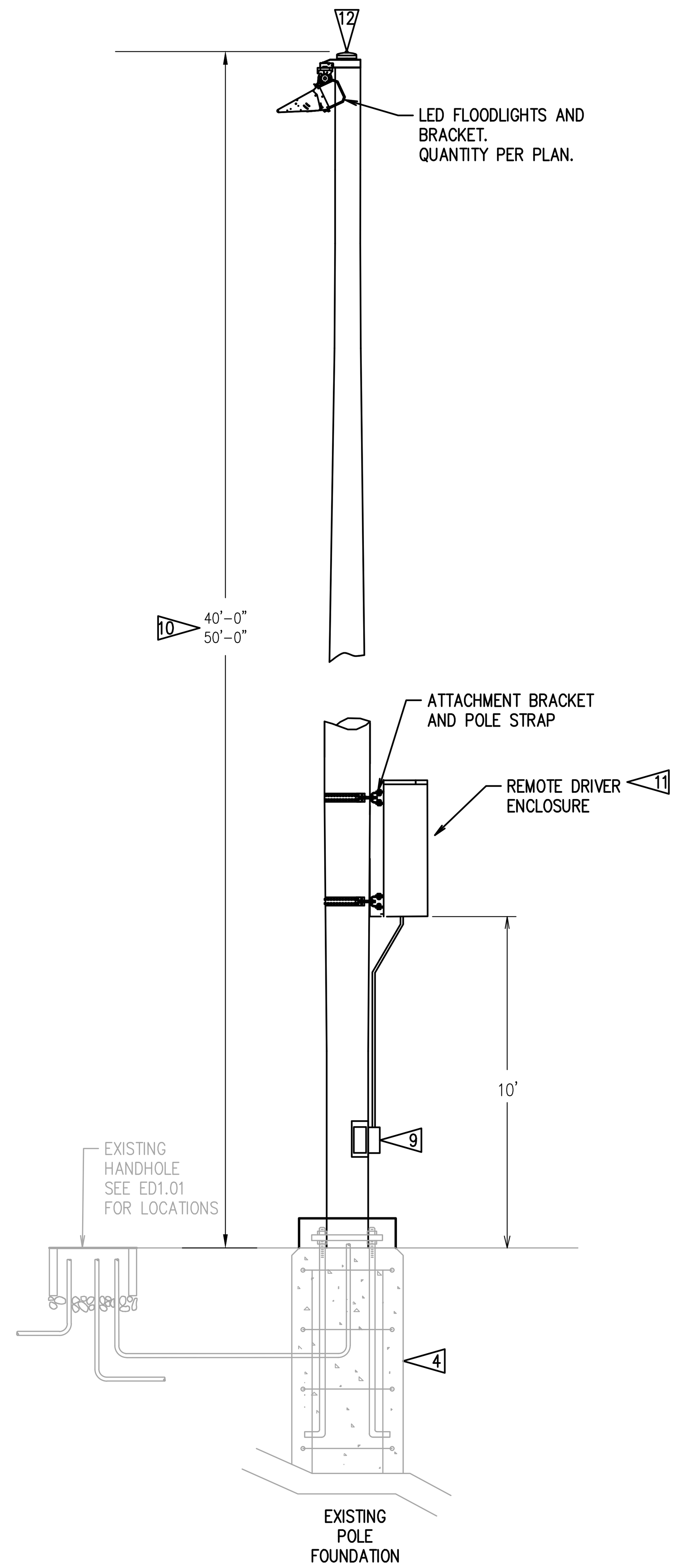
DATE:	10/27/2022
DRAWING NO:	E4.01
SHEET NO: OF	36 40

SHEET FLAG NOTES:

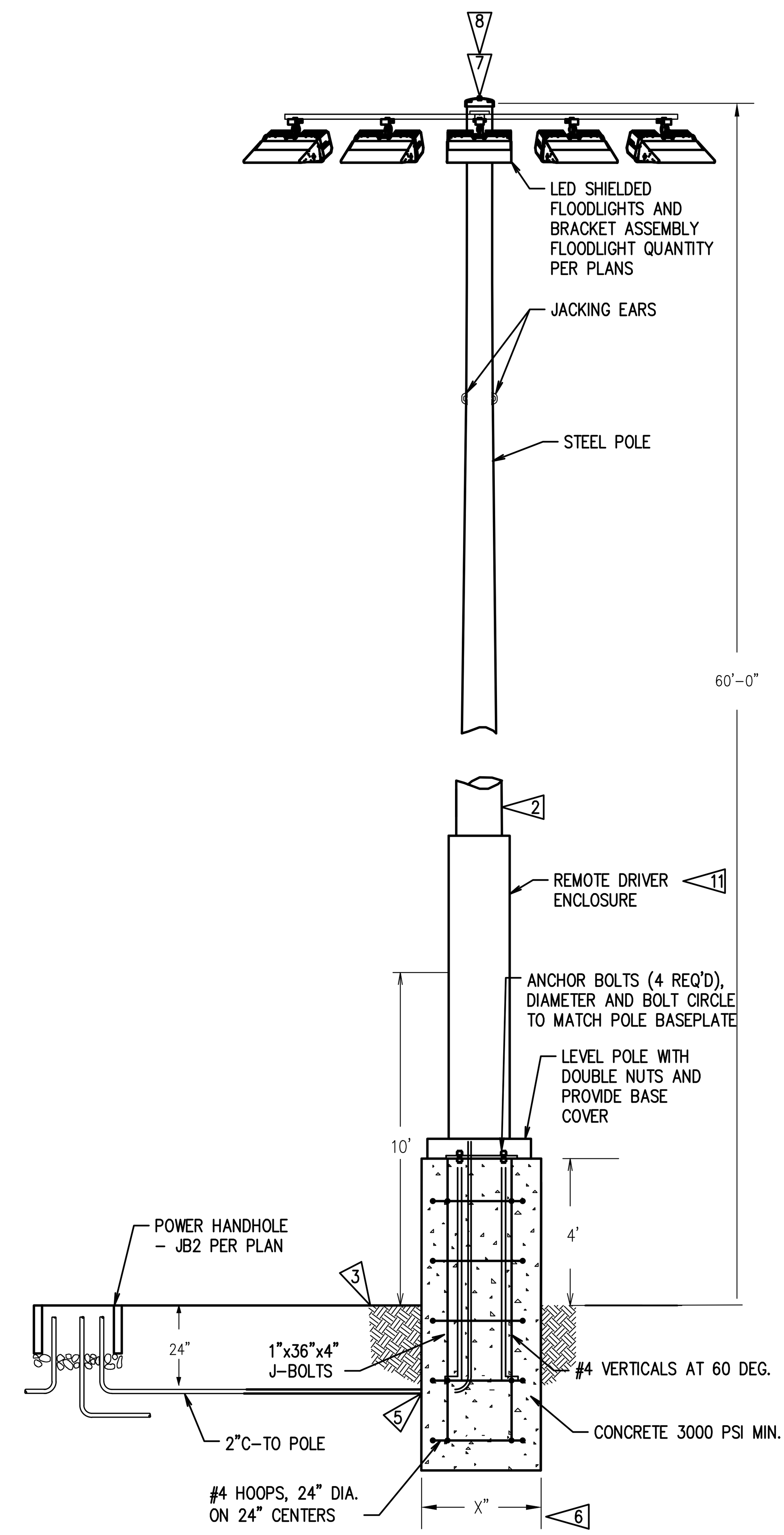
1. DEMOLISH EXISTING FLOODLIGHT(S) AND BRACKETS. DEMOLISH CIRCUITS BACK TO MAIN ELECTRICAL PANEL UNLESS OTHERWISE NOTED. PROVIDE PLUGS FOR EXISTING CONDUIT OPENINGS AND BOLT TAPS. REFER TO SHEETS ED1.01 AND ED1.02 FOR LUMINAIRE QUANTITIES.
2. STRUCTURAL CALCULATIONS FOR GALVANIZED STEEL POLE PROVIDED BY MANUFACTURER.
3. MATCH EXISTING GRADE.
4. MAINTAIN AND PROTECT EXISTING CONCRETE POLES. REFER TO SHEET ED1.01.
5. PROVIDE CONDUITS THROUGH ACCESS HOLE AND TURN UP INSIDE FLOODLIGHT POLE. EXTEND CONDUIT TO ADJACENT JUNCTION BOX. (POWER AND COMM).
6. REFER TO STRUCTURAL DRAWINGS FOR POLE FOUNDATION DETAILS.
7. REFER TO FLOODLIGHT POLE SCHEDULE ON E1.01 FOR FLOODLIGHT QUANTITY.
8. REFER TO DETAIL 4 THIS DRAWING FOR ADDITIONAL INFORMATION.
9. PROVIDE CONDULET HUB. EXTEND CONDUCTORS THROUGH POLE TO EXISTING ADJACENT HANDHOLE. EXTEND FLOODLIGHT CONDUCTORS INSIDE POLE
10. POLE HEIGHT AS SHOWN ON ED1.01.
11. LOCATE REMOTE DRIVER ENCLOSURE ON BACKSIDE OF POLE TO BE ON OPPOSITE SIDE OF BUS TRAVEL.



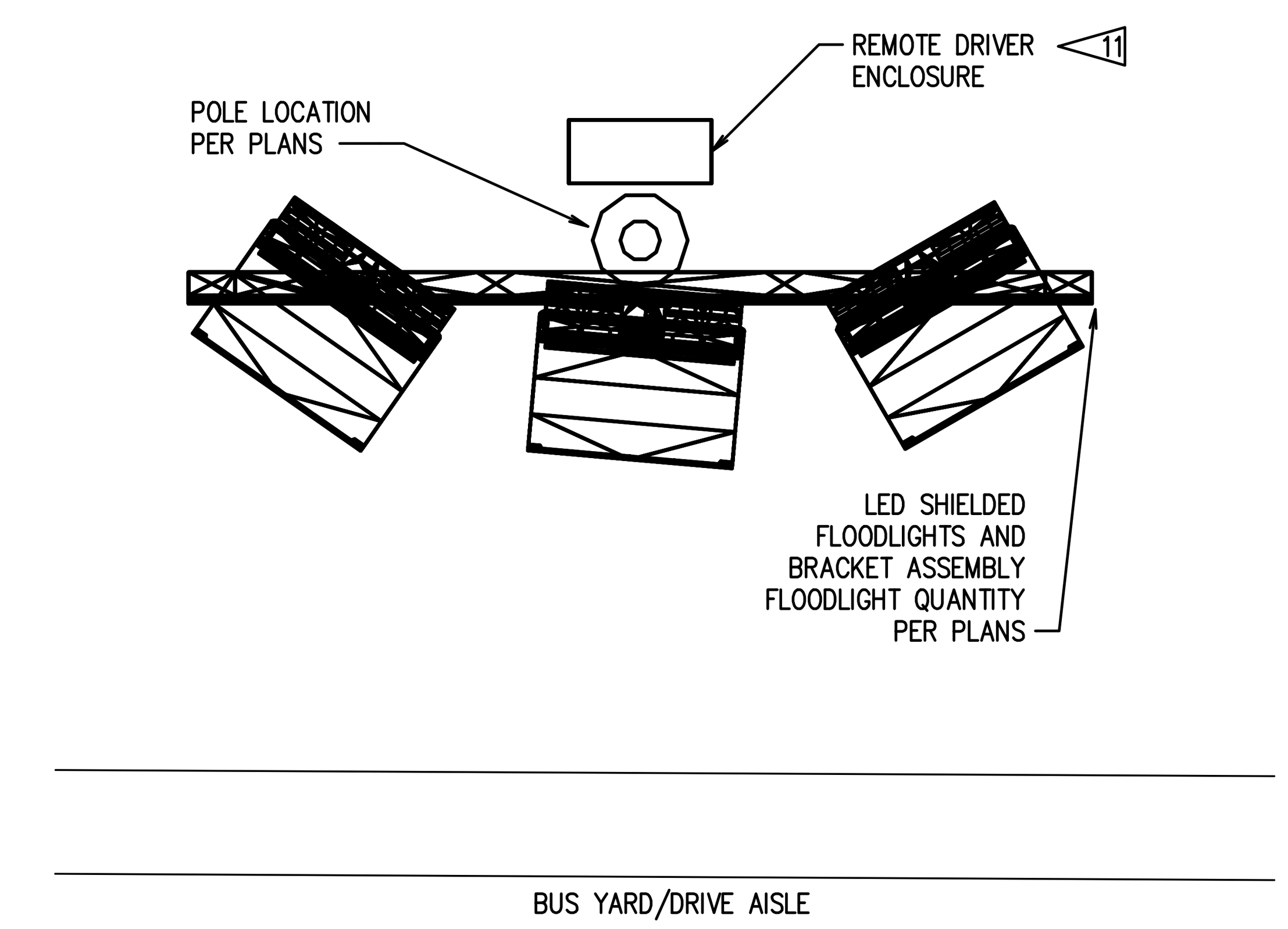
1 EXISTING CONCRETE POLE DETAIL - DEMO
E5.01 SCALE: NONE



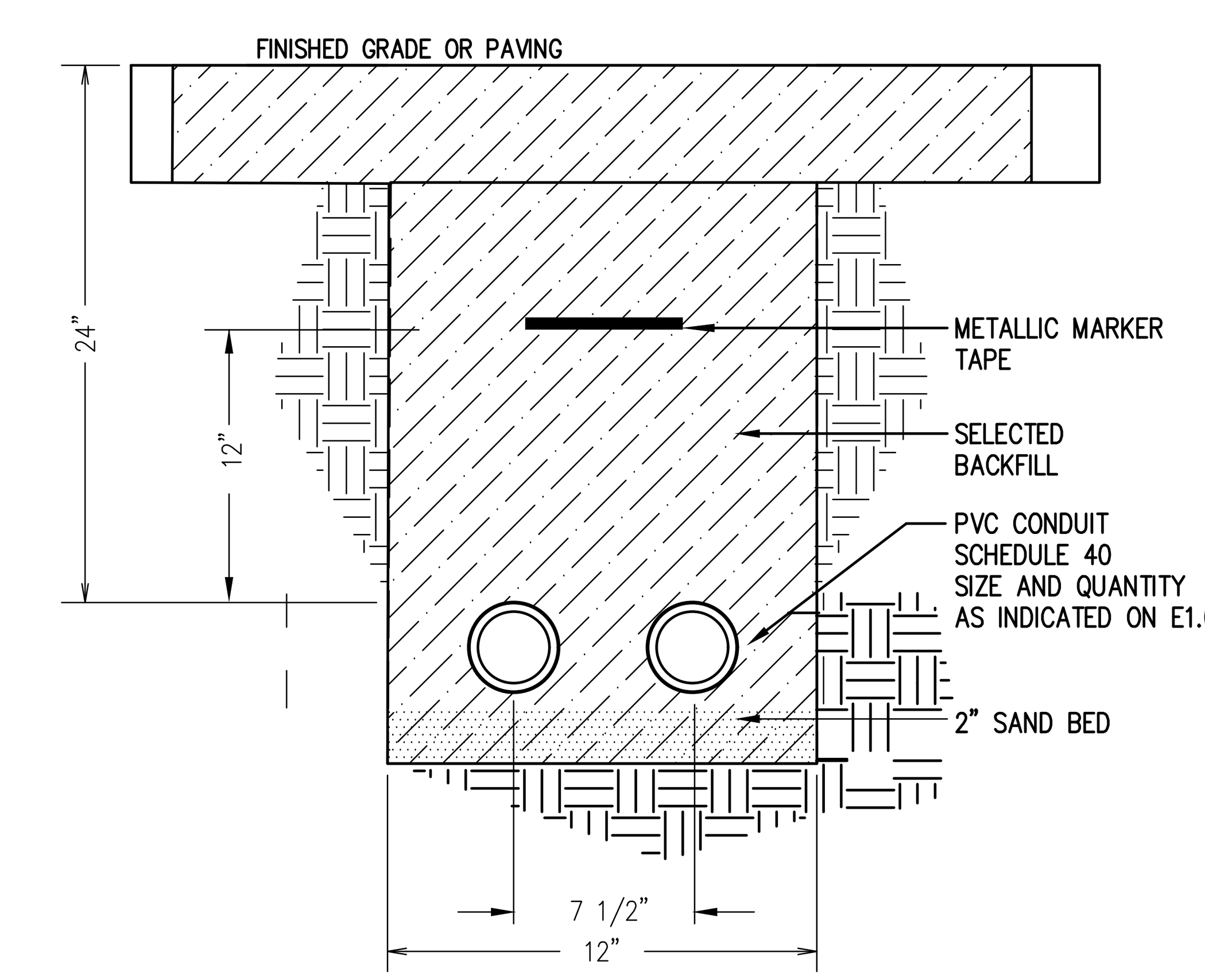
2 EXISTING CONCRETE POLE DETAIL -REVISED
E5.01 SCALE: NONE



3 NEW FLOODLIGHT POLE - N14, N15, N17, N18, N19, N20
E5.01 SCALE: NONE



4 TYPICAL FLOODLIGHT POLE TOP VIEW
E5.01 SCALE: NONE



5 TYPICAL DIRECT BURIED CONDUIT DETAIL
E5.01 SCALE: NONE

PERMIT SET

No.	REVISION	BY	APP'D	DATE

Stantec

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CHRISTOPHER ... STATE OF WASHINGTON 31353 REGISTERED PROFESSIONAL ENGINEER
11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

DETAILS

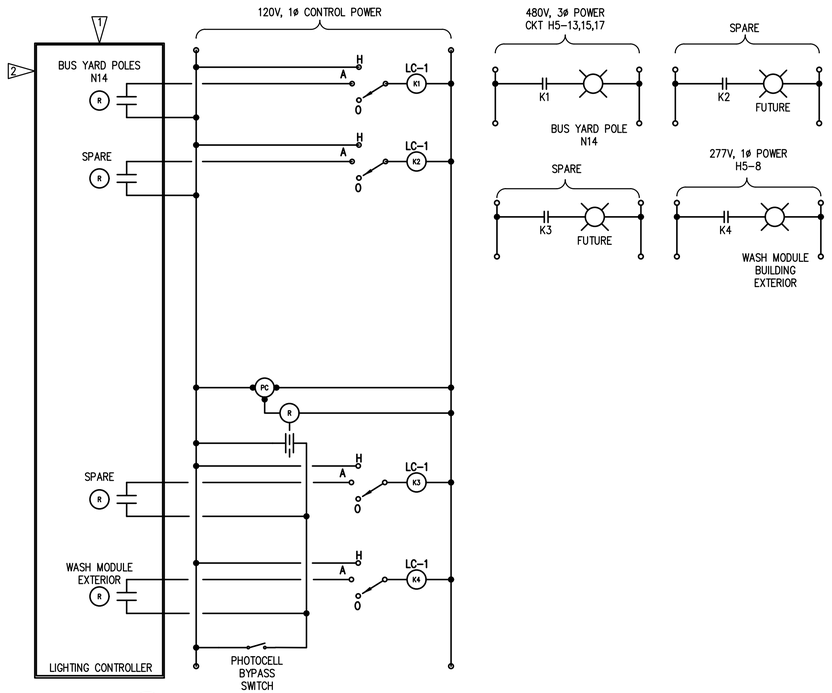
DATE: 10/27/2022
DRAWING NO: E5.01
SHEET NO: 37 OF 40

LEGEND:

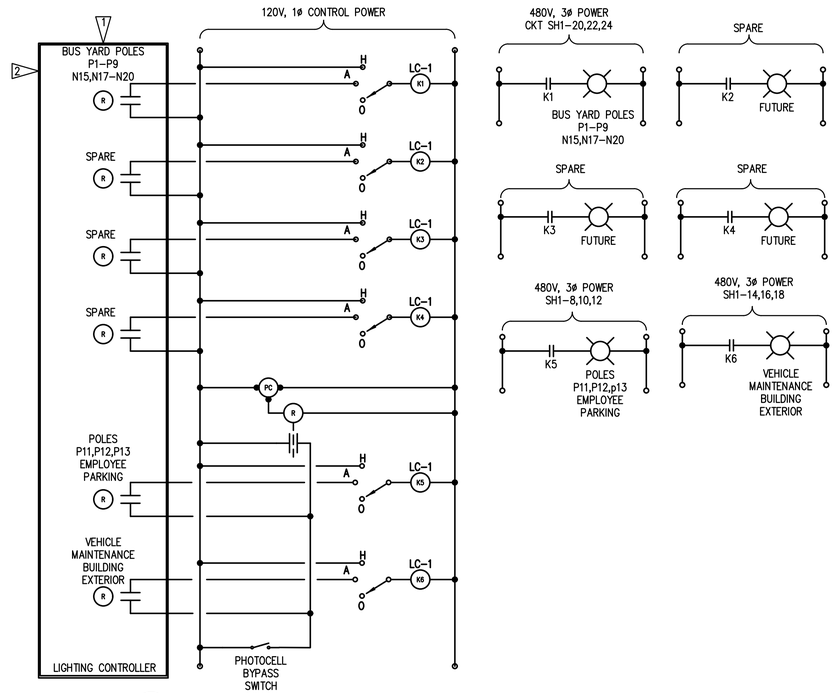
LC-1	LIGHTING CONTACTOR 3P30A
H / A / O	HOA SWITCH, SQUARE D 9001 SERIES
PC	PHOTOCELL 105-285 V. 1800 VA.
	POLE LIGHTS/POLE MOUNTED REMOTE DRIVER
KX	RELAY
KX	NORMALLY OPEN CONTACTOR

SHEET FLAG NOTES:

1. NEW CONTACTOR ENCLOSURE, CONTROLS, AND CONTACTS LOCATED IN THE VEHICLE MAINTENANCE BUILDING ELECTRICAL ROOM. REFER TO E4.01.
2. PROVIDE 3 LIGHT DIMMING LEVELS FOR BUS YARD LIGHTS.



1 E5.02 WASH MODULE - LIGHTING CONTROL DIAGRAM
SCALE: NONE



2 E5.02 VEHICLE MAINTENANCE BUILDING - LIGHTING CONTROL DIAGRAM
SCALE: NONE

PERMIT SET

No.	REVISION	BY	APP'D	DATE
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11/22/2022

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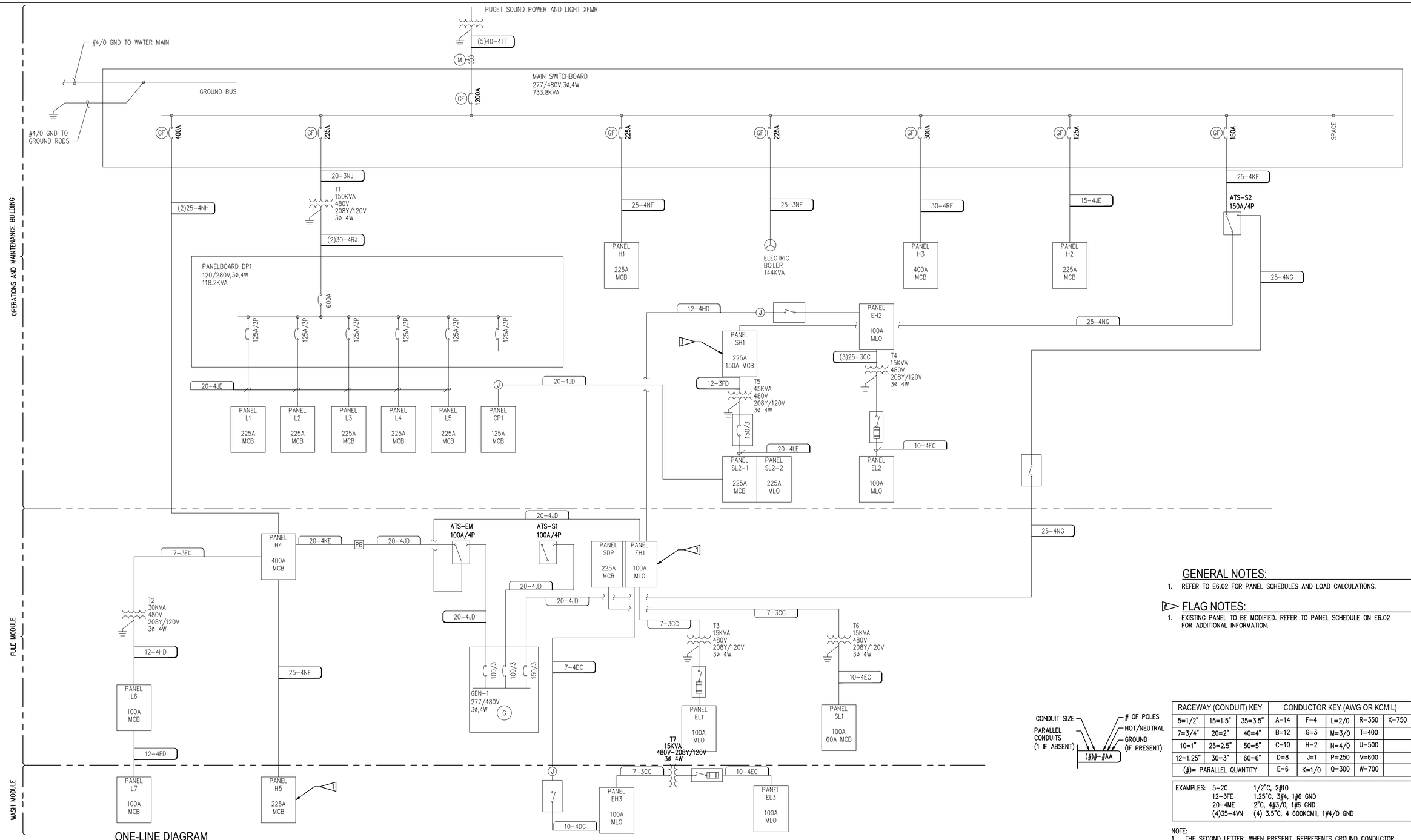
King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

WIRING DIAGRAMS

DATE: 10/27/2022
DRAWING NO: E5.02
SHEET NO: 38 OF 40



ONE-LINE DIAGRAM
SCALE: NONE

GENERAL NOTES:

1. REFER TO E6.02 FOR PANEL SCHEDULES AND LOAD CALCULATIONS.

FLAG NOTES:

1. EXISTING PANEL TO BE MODIFIED. REFER TO PANEL SCHEDULE ON E6.02 FOR ADDITIONAL INFORMATION.

RACEWAY (CONDUIT) KEY			CONDUCTOR KEY (AWG OR KCMIL)				
5=1/2"	15=1.5"	35=3.5"	A=14	F=4	L=2/0	R=350	X=750
7=3/4"	20=2"	40=4"	B=12	G=3	M=3/0	T=400	
10=1"	25=2.5"	50=5"	C=10	H=2	N=4/0	U=500	
12=1.25"	30=3"	60=6"	D=8	J=1	P=250	V=600	
(#)= PARALLEL QUANTITY			E=6	K=1/0	Q=300	W=700	

EXAMPLES:
5-2C 1/2"C, 2#10
12-3FE 1.25"C, 3#4, 1#6 GND
20-4ME 2"C, 4#3/0, 1#6 GND
(4)35-4VN (4) 3.5"C, 4 600KCMil, 1#4/0 GND

NOTE:
1. THE SECOND LETTER, WHEN PRESENT, REPRESENTS GROUND CONDUCTOR.

PERMIT SET

No.	REVISION	BY	APP'D	DATE
1				
2				
3				
4				

Stantec

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CHRISTOPHER F. BUSH — STATE OF WASHINGTON — 31353 — REGISTERED PROFESSIONAL ENGINEER
11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

ELECTRICAL ONE-LINE DIAGRAM

DATE: 10/27/2022
DRAWING NO: E6.01
SHEET NO: 39 OF 40

Panel SH1

Stantec												Panel
Name	SH1 277/480V	3 PH 4W 150A						Main CB			Type: Panelboard	
Location								Surface Mounted			14,000 AIC	
Serves:								Single Lugs				

#	Description	Load	CB	*	A	B	C	CB	*	Load	Description	#	Flag
1#	Motors HHWP-1	2.11	15/3	CB	X			70/3	CB	7.14	Misc PANEL SL2 VIA T5	2#	
3#	-------HHWP-1	2.11	-------	---		X		-------	---	8.84	-------PANEL SL2 VIA T5	4#	
5#	-------HHWP-1	2.11	-------	---			X	-------	---	7.03	-------PANEL SL2 VIA T5	6#	
7#	Mech VAV-111	1.18	15/1	CB	X			20/3	CB	0.43	Lighting PARKING LOT POLES P11,P12,P13	8*	3
9#	Space	0.00	0/1			X		-------	---	0.43	-------PARKING LOT POLES P11,P12,P13	10*	3
11#	Space	0.00	0/1				X	-------	---	0.43	-------PARKING LOT POLES P11,P12,P13	12*	3
13#	Lighting DISPATCH, COMM, ELEV RMS	1.31	20/1	CB	X			20/3	CB	1.50	Lighting EXTERIOR	14#	2
15#	Lighting ELEC, REST RMS	0.45	20/1	CB		X		-------	---	1.55	-------EXTERIOR	16#	2
17#	Lighting BOILER RM	0.19	20/1	CB			X	-------	---	3.02	-------EXTERIOR	18#	2
19#	Motors SF-1	1.33	15/3	CB	X			30/3	CB	3.07	Lighting YARD POLES P1-P9,N15,N17-N19,N20	20*	1
21#	-------SF-1	1.33	-------	---		X		-------	---	3.07	-------YARD POLES P1-P9,N15,N17-N19,N20	22*	1
23#	-------SF-1	1.33	-------	---			X	-------	---	3.07	-------YARD POLES P1-P9,N15,N17-N19,N20	24*	1
25#	Space	0.00	0/1		X			0/1		0.00	Space	26#	
27#	Space	0.00	0/1			X		0/1		0.00	Space	28#	
29#	Space	0.00	0/1				X	0/1		0.00	Space	30#	
31#	Space	0.00	0/1		X			0/1		0.00	Space	32#	
33#	Space	0.00	0/1			X		0/1		0.00	Space	34#	
35#	Space	0.00	0/1				X	0/1		0.00	Space	36#	
37#	Space	0.00	0/1		X			0/1		0.00	Space	38#	
39#	Space	0.00	0/1			X		0/1		0.00	Space	40#	
41#	Space	0.00	0/1				X	0/1		0.00	Space	42	

		PH A	PH B	PH C	* Circuit Breaker Code	
Rev:						
Revised Ckts Marked * Existing Ckts Marked #	Connected KVA	18.05	17.77	17.17	G = GFCI	H = HID Rated
204821607					S = Shunt Trip	C = HACR Rated
File: V:\2048\active\204821607\d_working_files\10_electrical\03_analysis\204821607 KCM Bellevue B					D = Switching Duty	# = See Note
					A = AFCI	

Notes: EXISTING PANELBOARD.

Load Type	Conn KVA	NEC Demand Factor	Dem. KVA	Dem. Amp	NEC Feed %	NEC Feed Amps
Lighting	10.50	x 100%	10.50	13	x 125%	16
Recorded Demanc	20.78	x 125%	25.98	31	x 100%	31
* Recorded Demand calculated as 20.78kVA x 100% S.A.F. x 100% O.A.F.						
	31.28	38 Amps	36.48	44		47

Panel EH1

Stantec												Panel
Name	EH1 277/480V	3 PH 4W 225A						Main CB			Type: Panelboard	
Location:	FUEL MODULE							Surface Mounted			0 AIC	
Serves:								Single Lugs				

Flag	#	Description	Load	CB	*	A	B	C	CB	*	Load	Description	#
	1	Other T3 TRANSFORMER	5.00	30/3	CB	X			100/3	CB	9.00	Other PANEL EH-2	2
	3	-------T3 TRANSFORMER	5.00	-------	---		X		-------	---	6.40	-------PANEL EH-2	4
	5	-------T3 TRANSFORMER	5.00	-------	---			X	-------	---	8.00	-------PANEL EH-2	6
	7	Lighting WASH MODULE EMERG. LIGHTS	1.26	20/1	CB	X			30/3	CB	11.63	Mech AIR COMPRESSOR CA-4	8
	9	Spare	0.00	20/1	CB		X		-------	---	11.63	-------AIR COMPRESSOR CA-4	10
	11	Spare	0.00	20/1	CB			X	-------	---	11.63	-------AIR COMPRESSOR CA-4	12
	13	Lighting LIGHTS	1.26	20/1	CB	X			30/3	CB	11.63	Mech AIR COMPRESSOR CA-3	14
	15	Lighting LIGHTS	1.80	20/1	CB		X		-------	---	11.63	-------AIR COMPRESSOR CA-3	16
	17	Lighting LIGHTS	2.16	20/1	CB			X	-------	---	11.63	-------AIR COMPRESSOR CA-3	18
2	19	Lighting OUTSIDE LIGHTS AROUND FUEL MOD	0.91	20/1	CB	X			20/1	CB	0.00	Spare	20
	21	Lighting EMERGENCY LIGHTS	0.00	20/1	CB		X		20/1	CB	0.00	Spare	22
	23	Spare	0.00	20/1	CB			X	20/1	CB	0.00	Spare	24
	25	Spare	0.00	20/1	CB	X			0/1		0.00	Space	26
	27	Space	0.00	0/1			X		0/1		0.00	Space	28
	29	Space	0.00	0/1				X	0/1		0.00	Space	30
	31	Space	0.00	0/1		X			0/1		0.00	Space	32
	33	Space	0.00	0/1			X		0/1		0.00	Space	34
	35	Space	0.00	0/1				X	0/1		0.00	Space	36
	37	Space	0.00	0/1		X			0/1		0.00	Space	38
	39	Space	0.00	0/1			X		0/1		0.00	Space	40
	41	Space	0.00	0/1				X	0/1		0.00	Space	42
	43	Space	0.00	0/1		X			0/1		0.00	Space	44
	45	Space	0.00	0/1			X		0/1		0.00	Space	46
	47	Space	0.00	0/1				X	0/1		0.00	Space	48

		PH A	PH B	PH C	* Circuit Breaker Code	
Rev:						
Revised Ckts Marked * Existing Ckts Marked #	Connected KVA	40.68	36.45	38.41	G = GFCI	H = HID Rated
204821607					S = Shunt Trip	C = HACR Rated
File: \\us1305-f01\workgroup\2048\active\204821607\d_working_files\10_electrical\03_analysis\204					D = Switching Duty	# = See Note
					A = AFCI	

Notes:

Load Type	Conn KVA	NEC Demand Factor	Dem. KVA	Dem. Amps	NEC Feed %	NEC Feed Amps
Lighting	7.39	x 100%	7.39	9	x 125%	11
Mech	69.75	x 100%	69.75	84	125% of Largest	94
Other	38.40	x 0%	0.00	0	x 100%	0
	115.54	139 Amps	77.14	93		105

Panel H5

Stantec												Panel
Name	H5 277/480V	3 PH 4W 225A						Main CB			Type: Panelboard	
Location:	WASH MODULE							Surface Mounted			0 AIC	
Serves:								Single Lugs				

Flag	#	Description	Load	CB	*	A	B	C	CB	*	Load	Description	#	Flag
	1	Space	0.00	0/1		X			20/1	CB	1.71	Lighting STEAM CLEAN LANE	2	
	3	Space	0.00	0/1			X		20/1	CB	1.46	Lighting WASH LANES	4	
	5	Space	0.00	0/1				X	20/1	CB	1.28	Lighting WASH LANES	6	
	7	Mech EF-14	0.40	20/3	CB	X			20/1	CB	0.91	Lighting OUTSIDE LIGHTS AROUND WASH MOD	8	2
	9	-------EF-14	0.40	-------	---		X		20/1	CB	0.00	Spare	10	
	11	-------EF-14	0.40	-------	---			X	20/1	CB	0.00	Spare	12	
3	13*	Lighting BUS YARD POLE N14 (NOTE 1)	0.40	20/3	CB	X			20/1	CB	0.00	Lighting LIGHTS	14	
3	15*	-------BUS YARD POLE N14 (NOTE 1)	0.40	-------	---		X		20/1	CB	0.00	Spare	16	
3	17*	-------BUS YARD POLE N14 (NOTE 1)	0.40	-------	---			X	20/1	CB	0.00	Spare	18	
	19	Mech EF-15	0.40	20/3	CB	X			20/1	CB	0.00	Spare	20	
	21	-------EF-15	0.40	-------	---		X		20/1	CB	0.00	Spare	22	
	23	-------EF-15	0.40	-------	---			X	20/1	CB	0.00	Spare	24	
	25	Space	0.00	0/1		X			0/1		0.00	Space	26	
	27	Space	0.00	0/1			X		0/1		0.00	Space	28	
	29	Space	0.00	0/1				X	0/1		0.00	Space	30	
	31	Space	0.00	0/1		X			0/1		0.00	Space	32	
	33	Space	0.00	0/1			X		0/1		0.00	Space	34	
	35	Space	0.00	0/1				X	0/1		0.00	Space	36	
	37	Space	0.00	0/1		X			0/1		0.00	Space	38	
	39	Space	0.00	0/1			X		0/1		0.00	Space	40	
	41	Space	0.00	0/1				X	0/1		0.00	Space	42	
	43	Space	0.00	0/1		X			0/1		0.00	Space	44	
	45	Space NA	0.00	0/1			X		200/3	CB	0.00	Other BUS WASHER PANEL	46	
	47	Space NA	0.00	0/1				X	-------	---	0.00	-------BUS WASHER PANEL	48	
	49	Space NA	0.00	0/1		X			-------	---	0.00	-------BUS WASHER PANEL	50	

		PH A	PH B	PH C	* Circuit Breaker Code	
Rev:						
Revised Ckts Marked * Existing Ckts Marked #	Connected KVA	3.82	2.66	2.48	G = GFCI	H = HID Rated
204821607					S = Shunt Trip	C = HACR Rated
File: \\us1305-f01\workgroup\2048\active\204821607\d_working_files\10_electrical\03_analysis\204					D = Switching Duty	# = See Note
					A = AFCI	

Notes: EXISTING PANELBOARD. NOTE 1: CONNECT TO EXISTING SPARE CIRCUIT BREAKER.

Load Type	Conn KVA	NEC Demand Factor	Dem. KVA	Dem. Amps	NEC Feed %	NEC Feed Amps
Lighting	6.56	x 100%	6.56	8	x 125%	10
Mech	2.40	x 100%	2.40	3	125% of Largest	3
	8.96	11 Amps	8.96	11		13

FLAG NOTES:

1. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE AND CONNECT CIRCUIT TO NEW BUS YARD POLE MOUNTED LIGHTS.
2. REVISED LOAD ON EXISTING CIRCUIT.
3. CONNECT NEW PARKING LOT POLE MOUNTED LIGHTS TO EXISTING CIRCUIT BREAKER.

PANEL SCHEDULE KEY

PNL SH1	PNL EH1
	PNL H5

PERMIT SET

No.	REVISION	BY	APP'D	DATE

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CHRISTOPHER B... STATE OF WASHINGTON 31353 REGISTERED PROFESSIONAL ENGINEER 11/22/2022

DESIGNED: CBF	APPROVED: C. REYNOLDS
DRAWN: AUU	
CHECKED: CPF	PROJECT NO: 1139372
CHECKED: S. ANOD	CONTRACT NO: 2020-798

King County METRO

METRO TRANSIT CAPITAL DIVISION
YARD LIGHTING
BELLEVUE BASE

PANEL SCHEDULES

DATE: 10/27/2022
DRAWING NO: E6.02
SHEET NO: 40 OF 40

Xref .\EB SMFD BORD.dwg

KING COUNTY METRO BELLEVUE BASE YARD LIGHTING REPLACEMENT PROJECT

WETLAND DELINEATION AND CRITICAL AREA REPORT

PREPARED FOR:

King County Metro
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PREPARED BY:

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February 2023

ICF. 2023. King County Metro Bellevue Base Yard Lighting Replacement Project, Wetland Delineation and Critical Area Report. Final. February. Seattle, WA. Prepared for King County Metro, Seattle, WA.

Contents

Tables and Figures

Acronyms and Abbreviations

bgs	below ground surface
Corps	U.S. Army Corps of Engineers
King County Metro	King County Transit Metro
CWA	Clean Water Acct
DNR	Washington State Department of Natural Resources
Ecology	Washington State Department of Ecology
EPA	Environmental Protection Agency
FAC	facultative
FACU	facultative upland
FACW	facultative wet
fc	foot candle
GMA	Growth Management Act
GPS	Global Positioning System
HGM	hydrogeomorphic
HUC	hydrologic unit code
LED	light emitting diode
LUC	land use code
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	obligate
OHWM	ordinary high water mark
RCW	Revised Code of Washington
Regional Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region
SEPA	State Environmental Policy Act
SWPPP	Stormwater Pollution Prevention Plan
TESC	temporary erosion sediment control
UPL	upland
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Area

Chapter 1
Introduction

1.1 Background

King County Metro Transit (King County Metro) is proposing the Bellevue Base Yard Lighting Replacement Project (project) to improve lighting at Bellevue Base. In accordance with City of Bellevue Land Use Code (LUC) 20.25H.005, the presence or absence of critical areas, such as wetlands, streams, steep slopes, and wildlife habitat, must be determined within a project site. ICF is supporting King County Metro to determine the location of critical areas and associated buffers, possible impacts from the project, and feasible mitigation measures.

1.2 Project Description

The project is needed to enhance worker safety and must comply with Washington State Department of Labor and Industries (L&I) light level requirements because the existing lighting is out of date with current standards. Project construction and operation would occur within the 367,180-square-foot area of Bellevue Base, including the bus yard portion of Bellevue Base and the employee parking lot to the east (project site). Bellevue Base was originally established in 1983, and contains the employee parking lot, bus parking area, vehicle maintenance and operations building, a fuel building, and a wash building. A tributary to Kelsey Creek (West Tributary) runs northwest to southeast along the western and southern boundaries of the project site along with an associated freshwater emergent wetland.

The existing lighting system was deemed inadequate under L&I light level requirements. Washington State requires an average of 3.0 foot candle (fc) 30 inches above surface level with no single light measurement falling below 1.5 fc in the averaged area (Washington Administrative Code [WAC] 296-800-210). Currently, the Bellevue Base entry has an average light level of 2.29 fc with a minimum single light measurement of 0.4 fc; the main bus yard has an average light level of 2.54 fc with a minimum single light measurement of 0.3 fc; and the employee parking lot has an average light level of 3.18 fc with a minimum single light measurement of 0.8 fc (Marks pers comm.). None of these areas meet the Washington State L&I requirement for light levels. The project goal is to meet light level and uniformity requirements while also reducing light pollution and glare as established under WAC 296-800-210.

Currently, ten floodlights on the project site illuminate the bus yard along the outer perimeter of the site. The floodlights consist of fixtures mounted 40 to 50 feet above grade on ten concrete poles. Thirteen wall-mounted lights roughly 26 feet high surround the outside of the operations and vehicle maintenance building, seven wall-mounted lights between 15- and 16-feet high surround the wash building, and seven wall-mounted lights between 15- and 16-feet high surround the fuel building, for a total of twenty-seven wall-mounted building lights in the eastern portion of the bus yard. The employee parking lot to the east is illuminated using six floodlights mounted 40 feet above grade on three concrete poles. Each pole has two light fixtures mounted 180 degrees from each other (Appendix A, *Permit Set*, Drawings C1.06 through C1.08).

The project would replace all existing floodlight brackets, fixtures, and conductors back to the light control panel. Floodlight concrete poles would be maintained, and all wall-mounted building light fixtures would be replaced. Floodlight poles along the northern boundary would be mounted with one light fixture per pole. Floodlight poles along the southwestern boundary would be mounted with two light fixtures per pole except for P7 on the southeast corner, which would only have one mounted light fixture. In addition, the project would install three light fixtures atop two employee parking lot poles, P11 and P13, and four fixtures atop the P12. New pole top tenons would be added atop existing employee parking lot poles. The project would involve installing six new approximately 60 to 70-foot-high steel floodlight poles mounted on concrete foundations at the project site. Four poles with two light fixtures would be installed along the southwestern perimeter of the bus yard, and one pole also with two light fixtures would be installed outside the west entrance of the operations and vehicle maintenance building. One pole with three light fixtures would be installed in the northwest corner of the wash building (Appendix A, Drawing C0.01). In total, the project would replace or install 64 light fixtures on 46 poles or wall-mounted brackets throughout the project site. New or replaced light fixtures would be mounted approximately 30 to 70 feet above grade on the poles and replaced light fixtures would be mounted on 26 feet, 15 to 16 feet, and 15 to 16 feet above grade outside of the operations and vehicle maintenance building, the wash building, and the fuel building respectively.

All 64 of the new or replacement floodlights, employee parking lot lights, and wall-mounted building lights would use Musco Total Light Control fixtures. Three existing pole-mounted 1000-watt halide bulb floodlights and the remaining existing pole-mounted 400-watt halide bulb floodlights would be changed to 400-watt light emitting diode (LED) floodlight bulbs, except for P11, P12, and P13, which are scheduled to use 130-watt LED bulbs. The proposed new six light poles are all scheduled to use 400-watt LED bulbs. The new wall-mounted building lights would use 130-watt LED bulbs.

New drilled pier pole foundations for poles N15, N17, N18, and N19 along the perimeter, and N14 and N20 near the wash building or operations and vehicle maintenance building respectively, would be 38 inches in diameter and 10 feet deep (Appendix A, Drawing S5.01). New conduits and nine new junction boxes would be installed to route power to the light poles. Excavation for junction box installation would be up to 4.5 feet long by 4 feet wide by 1.5 feet deep (Appendix A, Drawing C.200, Note 4).

Conduits along the northern boundary and a portion of the southwestern boundary would be installed using directional boring. A total of 743 linear feet of directional boring under asphalt or in landscaping would occur in three areas:

- 499 feet along the northern boundary between P1 and JB#8 (Appendix A, Drawings C2.00 to C2.02).
- 52 feet between JB#3, crossing under the entry driveway, and terminating north near P2 (Appendix A, Drawing C2.00).
- 192 feet running under the asphalt between N15 and N17 (Appendix A, Drawing C2.05).

Directional boring would have a maximum depth of 13 feet (Appendix A, Drawing C2.11). Twelve soil pits would be used for entry and exit during directional boring. Receiving soil pit dimensions are approximately 5 feet long by 5 feet wide by 3.5 feet deep along the northern boundary; 5 feet long by 5 feet wide by 5 feet deep near P2; 15 feet long by 5 feet wide at the surface near P9; and 5 feet long by 4 feet wide by 3.5 feet deep near N17. Launching pit dimensions are approximately 15 feet

long by 5 feet wide at the surface except for one launching pit near N15, which would be 15 feet long by 4.5 feet wide at the surface (Appendix A Drawings C2.00 to C2.02, and C2.05). Up to five Fraser's photinia (*Photinia fraseri*) would be removed along the northern boundary due to boring soil pits. Existing plants, grade, or elevation would be restored to match existing conditions.

Trenching would be used to install conduits in six areas at a maximum of 6 feet below grade. Conduits connecting existing and new junction boxes to new floodlight poles would be installed approximately 2 feet deep. Trenching would occur:

- Between the curb and the electrical room at the northern side of the operations and vehicle maintenance building (Appendix A, Drawing C2.02).
- West of the operations and vehicle maintenance building entrance (Appendix A, Drawing C2.02).
- The northwest corner of the wash building (Appendix A, Drawing C2.08).
- Between poles N15 and P7 along the southern border (assuming trench is 2 feet wide by 6 feet deep) (Appendix A, Drawings C2.05 and C2.06, Note 6).
- Between JB#3 and P8 (Appendix A, Drawings C2.00 and C2.01).
- From existing and new junction boxes to poles N15, N17, N18, and N19 (Appendix A, Drawings C2.03 through C2.05).

Only hand or compressed air excavation would be allowed for trenching in tree protection zones. For increased efficiency, portions of conduit trenching/directional boring and junction box installation along the southwestern boundary would occur under a previous project prior to light fixture installation. Subsurface disturbance along the southwestern boundary would take place in areas dominated by weedy species such as Himalayan blackberries (*Rubus armeniacus*), St. John's wort (*Hypericum perforatum*), perennial grasses, English ivy (*Hedera helix*), and bare ground. Existing grade or elevation would be restored to match existing conditions.

To facilitate conduit installation near existing structures, concrete would be removed using a sawcut to an approximate depth of 12 inches below surface. Specifically, a 50-foot-by-12-foot concrete rectangle would be removed between the cement curb and northern side of the operations and vehicle maintenance building's electrical room. Near the western entrance of the operations and vehicle maintenance building, an approximate 12-foot-by-12-foot square of concrete would be removed. This 12-foot-by-12-foot square would be reduced to 7.6 feet wide near the entrance to maintain building access during construction. Finally, a 24.6-foot-by-12-foot concrete rectangle would be removed adjacent to the northwestern corner of the wash building (Appendix A, Drawings C2.02 and C2.08). Concrete would be restored as outlined in Drawings C2.09 and C2.10 of the Permit Set ensuring aligned joints to protect existing utilities.

New project elements, such as light pole foundations and junction boxes, along with trenching, directional boring soil pits, and concrete removal would result in approximately 1,660 square feet or 2,240 cubic feet of ground disturbance during construction. A total of 1,162 square feet of concrete or impervious surfaces would be replaced during project construction. Finally, roughly 111 square feet of new hard surfaces, from new pole foundations and junction boxes, would be created by the project (Appendix A, Drawing C0.01).

Upon completion of the project, the Bellevue Base lighting system would provide increased safety and security, improved controllability of lights, and reduced glare and light pollution to surrounding areas.

Chapter 2
Regulatory Framework

2.1 Local Regulations

The Washington State Growth Management Act (GMA) of 1990 requires that comprehensive growth plans be developed by counties and cities with state oversight. The GMA specifically lists five "critical areas" for which local governments must designate and develop protection and enhancement programs. These five areas are fish and wildlife habitat, wetlands, aquifer recharge areas, flood hazard areas, and geological hazard areas. In the City of Bellevue's Critical Area Ordinance and Land Use Code, these areas include Streams and Riparian Areas (LUC 20.25H.075), Wetlands (LUC 20.25H.095), Habitats for Species of Local Importance (LUC 20.25H.150), Frequently Flooded Areas (LUC 20.25H.175), and Geological Hazard Areas (LUC 20.25H.120). Projects that would be within these critical areas or associated buffers and structural setbacks are required to complete a critical area report and Washington State Environmental Policy Act (SEPA) checklist as part of obtaining a City of Bellevue Critical Areas Land Use permit (City of Bellevue 2019).

2.1.1 Buffers and Structural Setbacks

Associated critical area buffers and structural setbacks are described in LUC 20.25H.035 and summarized in Table 1 below. Wetland buffers and setbacks are determined through the Washington State Department of Ecology (Ecology) wetland rating system's overall category and habitat score, unless they are already included in an established Native Growth Protection Areas or Native Growth Protection Easements plan. If a wetland buffer or structural setback extends into a primary structure established prior to August 1, 2006, this buffer or structural setback shall be modified to exclude the structure (LUC 20.25H.095.D.1.b).[1]

Table 1. Wetland Critical Area Buffer and Structural Setback

Wetland Category	Habitat Score	Buffer (feet)	Structural Setback (feet)
I	8-9	225	20
	5-7	110	
	3-4	75	
II	8-9	225	20
	5-7	110	
	3-4	75	
III	8-9	225	15
	5-7	110	
	3-4	60	
IV	All	40	None

[1] The classification of legal nonconforming primary structure, subject to City of Bellevue's interpretation, could be applicable to the Bellevue Base and the project could be exempt from wetland buffer and setback requirements as the entire Bellevue Base was established well before August 1, 2006.

Stream buffers and structural setbacks are typically determined through Washington State Department of Natural Resources (DNR) stream type (LUC 20.25H.075.B). However, per City of Bellevue ordinance, streams within the Kelsey Creek basin have specific buffer and setback ordinances. As such, the entire reach of the West Tributary, Kelsey Creek basin is required to have a 50-foot buffer and additional 20-foot setback from the top of bank (LUC 20.25H.075.C.1.c and LUC 20.25H.075.D.2.c). Top of bank is defined by the City of Bellevue as an area 50 feet out beyond a break that is flatter than 3:1 (LUC 20.50.048).

Steep slope buffers and structural setbacks are determined from the top or toe of slope. From the toe of slope, the City of Bellevue requires a 75-foot setback with no mandatory buffer (LUC 20.25H.120.C.2.b); at the top of slope, a 50-foot buffer with no mandatory structural setback is required (LUC 20.25H.120.B.1.b). As previously stated, if a steep slope buffer or structural setback extends into a primary structure established prior to August 1, 2006, this buffer or structural setback shall be modified to exclude the structure (LUC 20.25H.120.B.2).

Project construction and operation would create a permanent impact by the installation of new structures in identified critical areas or their associated buffers/setbacks as well as increased lighting at the project site. Further details on application of the City of Bellevue Critical Area Ordinance code are discussed in Chapter 5.

2.2 State Regulations

Ecology requires and regulates permits for discharges into state waters and wetlands under the state Water Pollution Control Act and federal Clean Water Act (CWA) Water Quality Certification (Section 401). Ecology has authority under the Water Pollution Control Act to regulate any change in the physical, biological, or chemical properties of any waters of Washington (Revised Code of Washington [RCW] 90.48.020). Additionally, under the Washington State Hydraulic Code, a Hydraulic Project Approval is required from the Washington Department of Fish and Wildlife (WDFW) for any changes to a wetland or stream that may affect hydrology downstream (WAC Chapter 220-660). The Hydraulic Project Approval typically also requires a SEPA determination from the local government to analyze current conditions and possible impacts from a proposed project (RCW Chapter 43.21C). Since the project work does not result in discharge into state waters and wetlands or change to downstream hydrology during project construction or operation, these permits should not be required.

2.3 Federal Regulations

Any project or development that discharges dredged and fill material into a water of the United States is required to obtain a nationwide or individual permit from the U.S. Army Corps of Engineers (Corps) (33 United States Code [U.S.C.] Section 1251 et seq.; CWA Section 404). Since the project work would not result in discharge or fill into waters of the United States during project construction or operation, this permit would not be required. As no navigable waterway is within the King County Metro Bellevue Base, any streams or wetlands identified during the delineation would not be regulated under Section 10 of the Rivers and Harbors Act.

2.3.1 Determination of Potentially Jurisdictional Ditches

Jurisdictional ditches have the potential to provide functions such as water quality treatment, sediment removal, and stormwater conveyance. In the past, ditches could be regulated by the Corps if they met criteria demonstrating they have a direct and significant connection to a regulated water of the United States. On June 20, 2020, the Navigable Waters Protection Rule (NWPR) (84 Federal Register 56626) became final, removing potentially jurisdictional ditches from being considered a water of the United States. However, on August 30, 2021, the U.S. District Court for the District of Arizona's order vacated NWPR in the case of Pascua Yaqui Tribe v. U.S. Environmental Protection Agency. Based on this court ruling, the agencies have ceased implementation of the NWPR nationwide and are reverting to the pre-2015 definition of "waters of the United States." This definition became the final rule on December 30, 2022. As noted in the December 2022 EPA *Final Rule: Revised Definition of "Waters of the United States" Fact Sheet,* the final rule reestablishes two criteria to determine if a waterway or ditch is considered jurisdictional. First, the drainage has a "permanent, standing, or continuous flow" flowing into a traditional navigable waterway, territorial sea, or interstate waters. Second, the drainage could "significantly affect the chemical, physical, or biological integrity of traditional navigable waters, the territorial seas, or interstate waters."

The final rule also outlines exclusions for what should not be considered "waters of the United States." These include:

- Ephemeral or intermittent ditches excavated wholly in and draining only upland or to dry land; this includes roadside ditches.
- Swales or erosional features that receive minimal input (low flow and little volume with short duration).
- Artificial irrigated areas that would be considered upland without applied water.
- Artificial lakes or ponds resulting from excavation or diking and used exclusively for agriculture or livestock purposes.
- Artificial reflecting or swimming pools.

No jurisdictional ditches were identified in the study area.

Chapter 3
Methods

3.1 Desktop Analysis

Prior to fieldwork, the potential for critical areas to be present at the project site and adjacent areas was evaluated by conducting a desktop analysis using the following sources. Figures generated from agency websites are provided in Appendix B, *Agency Online Mapping Resources.*

- Aerial photographs viewed in Google Earth
- City of Bellevue Stream and Critical Areas Map (City of Bellevue 2018a)
- City of Bellevue Geologic Hazards Map (City of Bellevue 2018b)
- Ecology Puget Sound Watershed Characterization Project (Washington State Department of Ecology 2019)
- Flood Insurance Rate Map for King County Washington Incorporated Areas, Panel 53033C0368G (Federal Emergency Management Agency 1995)
- King County iMaps (King County 2020)
- Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2019)
- NRCS WETS table (National Water and Climate Center 2020)
- Bellevue Base Expansion Project NEPA Documented Categorical Exclusion (King County Metro 1994).
- Tetra Tech West Tributary Habitat Assessment, Final Report (Tetra Tech 2016)
- U.S. Geological Survey (USGS) 7.5-minute series Kirkland quadrangle topographic map (USGS 2017a)
- USGS 7.5-minute series Mercer Island quadrangle topographic map (USGS 2017b)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) data (USFWS 2020)
- WDFW Priority Habitats and Species: Maps (WDFW 2020a)
- WDFW SalmonScape (WDFW 2020b)
- Washington Natural Heritage Program, rare and imperiled species and plant communities (DNR 2019)

3.2 Fieldwork

The wetland delineation was conducted using the methods outlined in the Corps' 1987 *Wetlands Delineation Manual* (Environmental Laboratory 1987) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Regional Supplement) (Environmental Laboratory 2010). The stream ordinary high water mark

(OHWM) was established within the property boundary per Ecology's *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Ecology 2016).

ICF collected field data on September 22, 2020; wetland boundaries were documented using the Regional Supplement data forms. Wetland boundaries were identified using sample plots where data on vegetation, soils, and observable hydrology was collected. Eight sample plots were recorded to document wetland and adjacent upland conditions; the data forms are presented in Appendix C, *U.S. Army Corps of Engineers Wetland Delineation Data Forms*, and Appendix D, *Washington State Department of Ecology OHWM Determination Forms*. The associated Wetland Rating Forms are presented in Appendix E, *Washington State Department of Ecology Wetland Rating Forms*. Prior to the field survey, hydrological conditions were reviewed to determine if hydrological conditions could be considered wet, normal, or dry (Appendix F, *WETS Tables*). A photo log of existing conditions along the West Tributary and the southwestern steep slope is provided in Appendix G, *Photo Log*, and a plant list of vegetation observed during fieldwork is provided in Appendix H, *Study Area Plant List*.

Wetland boundaries and sample plot locations were flagged in the field and recorded using a submeter global positioning system (GPS) unit. Formal sample plot locations were marked in the field using pink flags labeled with the sample ID.

3.2.1 Hydrology

Wetland hydrology is defined as soil inundation or saturation for sufficient duration to develop hydric soils that support vegetation typically adapted for life in periodically anaerobic soil conditions (Environmental Laboratory 1987, 2010). Primary indicators of wetland hydrology include inundation (i.e., standing water), saturation in the upper 12 inches of the soil column, shallow water table (upper 12 inches), water marks or lines on adjacent stationary objects (e.g., trees), sediment deposits or drift lines on vegetation, oxidized rhizospheres along living roots, and water-stained leaves, among others. The presence of two or more secondary hydrology indicators also satisfies the Corps' criteria for evidence of wetland hydrology. Secondary indicators include surface drainage patterns, a dry-season water table, shallow aquitard, saturation on aerial photography, geomorphic position, or facultative (FAC)-neutral test (Environmental Laboratory 2010).

3.2.2 Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded for sufficient duration during the growing season to develop anaerobic (i.e., reducing) conditions in the upper layers (Environmental Laboratory 1987, 2010). Hydric soils were identified in the field by digging soil pits to at least a 16-inch depth, where possible, and examining the soil profile for hydric soil indicators as defined by the National Technical Committee for Hydric Soils (NRCS 2018). A soil may be considered hydric if any one of the following indicators is present.

- More than 50% organic material in the upper horizon.
- Strong sulfidic odor.
- Morphological characteristics that meet specific hydric soil indicators (NRCS 2018; Environmental Laboratory 1987, 2010).

Soil texture, matrix color, and presence of redoximorphic features, depleted matrix, or other relevant hydric soil indicators were recorded on the Regional Supplement field data forms (Appendix C). Soil hue, value, and chroma were determined using the Munsell Soil Color Chart System (Munsell Color Services 2000).

3.2.3 Hydrophytic Vegetation

Hydrophytic vegetation are plants that have adapted a tolerance for prolonged periods of saturation or inundation. Under normal conditions, hydrophytic vegetation is considered present if more than 50% of the dominant species from each stratum—tree, shrub, vine, and herbaceous—are classified as obligate (OBL), facultative wet (FACW), and/or FAC, according to the U.S. Fish and Wildlife Service (USFWS) publication *The National Wetland Plant List: 2016 Wetland Ratings* (Lichvar et al. 2016). These classifications are based on the likelihood a certain plant species occurs within a wetland, as shown in Table 2.

Table 2. Plant Species Indicator Category Definitions

Category	Definition
Obligate (OBL)	Plants that almost always occur in wetlands (estimated probability >99%) under natural conditions.
Facultative wet (FACW)	Plants that usually occur in wetlands (estimated probability 67%–99%) but are occasionally found in nonwetland areas.
Facultative (FAC)	Plants that are equally likely to occur in wetlands or nonwetlands (estimated probability 33%–67%).
Facultative upland (FACU)	Plants that usually occur in nonwetlands (estimated probability 67%–99%).
Upland (UPL)	Plants that usually occur in nonwetlands (estimated probability >99%) under natural conditions.

Source: Lichvar et al. 2016.

Plant species were identified using standard taxonomic references (Cooke 1997; Pojar and Mackinnon 2004; Hitchcock and Cronquist 1973). Dominant species were determined by using the 50/20 rule, where dominants are the most abundant species that individually or collectively account for more than 50% of the total coverage of vegetation in the stratum (layer), plus any other species that, by itself, accounts for at least 20% of the total, as shown in the data forms (Appendix C). All plant species encountered at a sample plot are listed in the data forms, which, when taken together, provide a full picture of the vegetation community.

3.2.4 Determination of Wetland Classifications

Cowardin vegetation class and hydrogeomorphic (HGM) class information are required to determine the functions of wetlands and to inform mitigation design if unavoidable impacts on wetlands are proposed. Cowardin vegetation class was determined based on the USFWS wetland classification system (Cowardin et al. 1979). HGM class was determined in the field using the guiding document *A Hydrogeomorphic Classification for Wetlands* (Brinson 1993).

3.2.5 Wetland Functional Assessment

Wetlands were rated according to the guidelines set forth in the *Washington State Wetland Rating System for Western Washington* (Hruby 2014) (Appendix F). The functional assessment is based on three major groups of functions that wetlands perform: water quality improvement, hydrologic functions, and wildlife habitat. Each function is given equal importance in setting the category for a wetland. The ratings for each function are divided into site potential, landscape potential, and value. The rating for each function can be useful in determining how well a wetland performs each function. The functional analysis informs local wetland buffer requirements and mitigation planning so that wetland creation, restoration, or enhancement areas compensate for the functions specific to the affected wetlands. As mentioned previously, this rating is often used by local agencies to determine required buffers.

Chapter 4
Results

4.1 Existing Conditions

4.1.1 Project Setting

Bellevue Base is located at 1790 124th Avenue NE, Bellevue, WA 98005 (Figure 1). The project site, where construction and operation of the project would occur, is a 367,180-square-foot area within Bellevue Base bus yard and eastern employee parking lot (Figure 2). The project site is in Section 28, Township 25N, Range 5E; central coordinates 47.625901°, -122.172798°. The King County Metro property parcel number is 2825059295. The project site is in a highly developed setting with a Republic Services garbage collection to the east, Public Storage to the north, and 124th Avenue NE west of the site entrance. The West Tributary runs northwest to southeast along the southwestern boundary of the project site along with an associated freshwater emergent wetland.

4.1.2 Critical Area Study Extent

The critical area study extent focused on the project site, as defined above, and the potential critical areas immediately adjacent to the project site (study area; Figure 2). Four potential critical areas were identified during initial project desktop assessment, including the West Tributary and associated wetland to the south, steep slopes also to the south of the project site, and a small depressional wetland swale immediately north of the bus entry. During desktop assessment, no critical areas were identified along the east or northeast boundaries; however, these areas were still surveyed during field work to confirm absence or presence of critical areas, and results are presented in Section 4.2.4, *Steep Slopes*, and Section 4.3, *Wetland and Stream Delineation Results*.

4.2 Desktop Assessment Results

4.2.1 U.S. Geological Survey Topographic Map

The West Tributary is mapped as a blue line feature at the bottom of the 7.5-minute U.S. Geological Survey (USGS) Kirkland topographic map (USGS 2017a). This feature continues in the 2017 7.5-minute USGS Mercer Island topographic map (USGS 2017b) flowing south into Kelsey Creek, which drains west into Mercer Slough and then into Lake Washington, a Traditional Navigable Waterway.

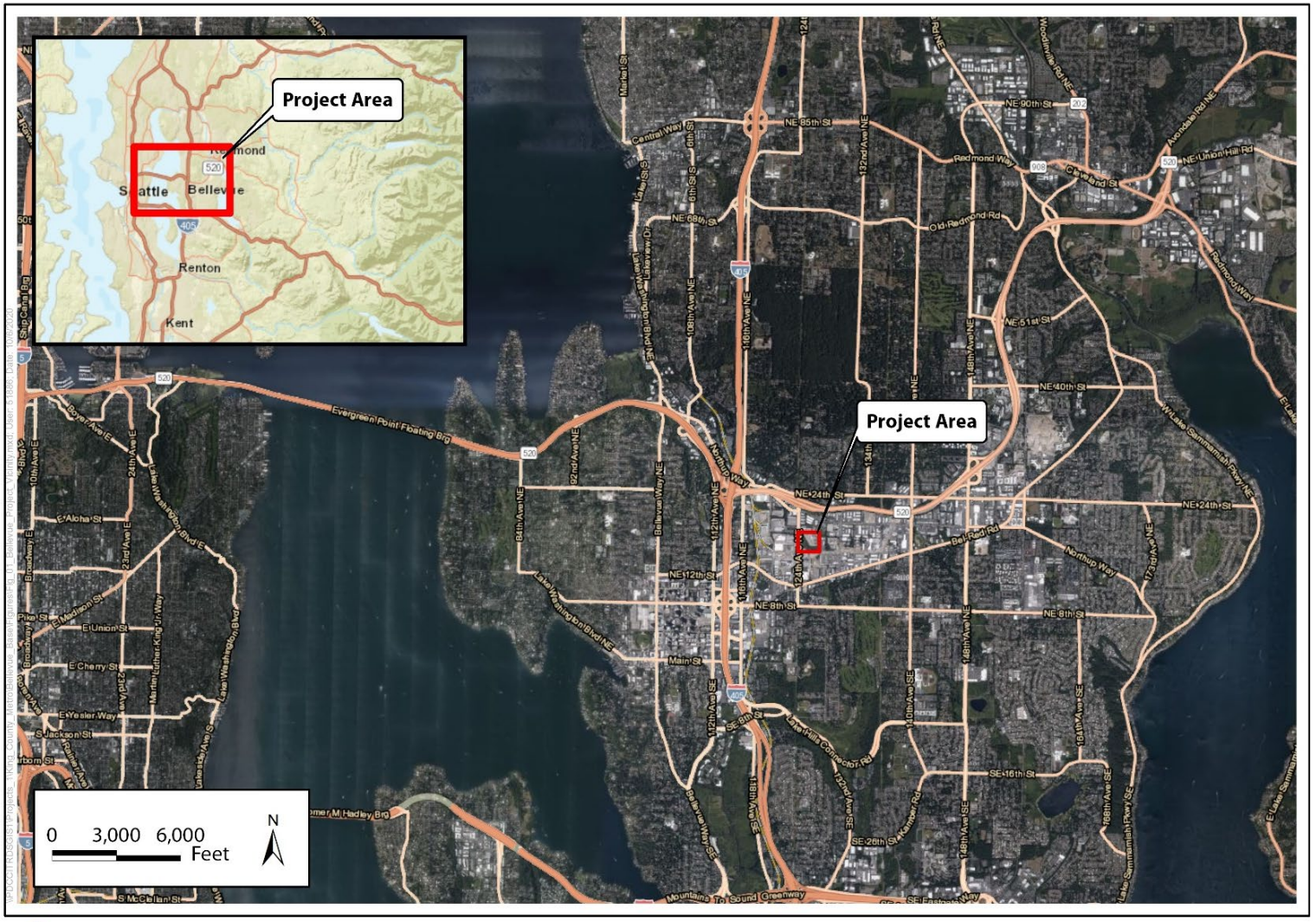

Figure 1. Bellevue Base Project Vicinity

Figure 2. Bellevue Base Project Site and Adjacent Critical Areas

4.2.2 Hydrology

The project site is in the Cedar-Sammamish Watershed (Water Resource Inventory Area [WRIA] 8, hydrologic unit code [HUC] 17110012) (King County 2020). Historically, this area was almost entirely valley bottom forests with associated floodplain wetlands (Collins et al. 2003). Currently, the Kelsey watershed subbasin is largely developed, with 12% remaining as forested and less than 2% wetlands remaining (King County 2018).

The principal hydrological driver within the area is precipitation that drains into the West Tributary and associated wetland from surface or groundwater pathways. Several culverts draining into the wetland from the west and east were noted along with a temporary stormwater construction drainage observed and associated with the Sound Transit light rail construction off of 124th Avenue NE (Appendix G). Large storm events result in the tributary overtopping and flooding the surrounding wetland. Runoff from these storm events is likely magnified due to the high concentration of hard surfaces surrounding the creek (USGS 2012). Prior to the field survey, precipitation was drier the previous 3 months when compared to historical conditions. However, there was precipitation four days prior to the field survey so hydrological indicators were expected to be apparent (Appendix F).

The project site is outside of the 100-year floodplain based on the Federal Emergency Management Agency (1995) *Flood Insurance Rate Map for King County Washington Incorporated Areas*.

4.2.3 Natural Resources Conservation Soil Survey

The project site has two mapped soil units (Appendix B, Figure A). Soil Unit Sk, Seattle Muck, is mapped in the northwest portion of the project site. This soil is found in depressions and formed from grassy organic material. It is frequently flooded, poorly drained, and considered hydric. The remainder of the project site is mapped as EvC, Everett very gravelly sandy loam, 8 to 15% slopes. This soil is formed from sandy or gravelly glacial outwash and is typically located along foot slopes or shoulders. It is not flooded and is excessively drained; it is not considered hydric.

4.2.4 Steep Slopes

A steep slope was observed along the southwestern boundary of the project site. Sections of this area, as well as the northeastern and eastern property boundaries, were documented as steep slopes in the City of Bellevue Critical Geologic Hazards Map (Appendix B, Figure B; City of Bellevue 2018b). No slope stability issues or landslide hazards were identified in King County iMap (King County 2020). Since no ground disturbance would be conducted along the northeastern and eastern property boundaries, they were not considered further.

The southwestern boundary was not identified as a steep slope (greater than 40%) in the 1994 *Bellevue Base Expansion Project NEPA Documented Categorical Exclusion* report (King County Metro 1994: Exhibit C). The report does note that the general area's topography is largely due to cut-and-fill grading activities during initial development. A 2020 *Critical Area Evaluation and Geotechnical Recommendations Yard Lighting Replacement for King County Metro Bellevue Base* memo by the Riley Group, a licensed technical geologist, noted the southwestern slope, adjacent to the wetland, was likely a fill slope (Appendix I, *Geotechnical Report – The Riley Group 2020*). In addition, the report concluded the slope appeared stable with no signs of "previous settlement or failure". Possible

impacts from the project and mitigation measures for steep slopes are discussed in Chapter 5, *Impacts and Mitigation Assessment*.

4.2.4.1 Required Buffer and Structural Setback

Based on City of Bellevue Ordinance Codes discussed in Chapter 2, a 50-foot buffer from top of slope is required along the southwestern boundary of the project site (Figure 3). This buffer is entirely contained within the Bellevue Base bus parking area. As described immediately above, this area has been cut and filled but has also been shown to be stable with no historical evidence of landslides or other geologic instabilities. This buffer is likely to be eligible for exclusion since the Bellevue Base was initially built in 1983 (LUC 20.25H.095.D.1.b).

Figure 3. Steep Slope and Associated Buffer

4.2.5 Wetland and Stream Inventories

The NWI maps the wetland associated with the West Tributary as a seasonally flooded forested wetland in the western portion and a permanently flooded aquatic bed pond in the eastern portion (Appendix B, Figure C). The *Bellevue Base Expansion Project NEPA Documented Categorical Exclusion* documented an isolated depressional wetland immediately north of the bus entry, parallel to 124th Ave NE (King County Metro 1994). The City of Bellevue maps the West Tributary as a stream in its GIS Streams shapefile (City of Bellevue 2018a). A *West Tributary Habitat Assessment* by Tetra Tech (2016) for the City of Bellevue determined the tributary was an F-type, or fish bearing, for the entire reach. King County iMap (King County 2020) also documents the West Tributary immediately south of the project site.

4.2.6 Fish and Wildlife Habitat

The WDFW Priority Habitats and Species (PHS) map documents resident coastal cutthroat (*Oncorhynchus clarki*) occurring within and migrating through the site (Appendix B, Figure D; WDFW 2020a). WDFW SalmonScape also mapped Chinook (*Oncorhynchus tshawytscha*), coho (*Oncorhynchus kisutch*), and steelhead (*Oncorhynchus mykiss*) gradient accessible habitat in the West Tributary (Appendix B, Figure E; WDFW 2020b). Although the 2016 *West Tributary Habitat Assessment* also determined the tributary to be appropriate fish habitat, it additionally stated that there was no spawning habitat along the project reach and that habitat quality suffered from a dense reed canary grass (*Phalaris arundinacea*). The report recommended revegetation with a mix of native trees, shrubs, and herbaceous species along with wood placement to improve habitat (Tetra Tech 2016). Finally, Ecology's *Puget Sound Watershed Characterization Project* notes the watershed basin is important for local salmonid habitat but has poor quality wetland, floodplain, and terrestrial habitats for other wildlife (Appendix B, Figure F; Ecology 2019).

At the time of the field survey, Northern flicker (*Colaptes auratus*), Anna's hummingbird (*Calypte anna*), Marsh wren (*Cistothorus palustris*), Song sparrow (*Melospiza melodia*), Downy woodpecker (Dryobates pubescens), American goldfinch (*Spinus tristis*), Golden-crowned kinglet (*Regulus satrapa*), Cedar waxwing (*Bombycilla cedrorum*), Red-winged blackbird (*Agelaius phoeniceus*), Great blue heron (*Ardea herodias*), American crow (*Corvus brachyrhynchos)*, and Virginia rail (*Rallus limicola*) were either seen or heard within the wetland complex. Plant diversity was good with 36 different plant species observed, most in the herb layer and an equal number of tree and shrub species (Appendix H). Of the 35 species, nine are considered Class C noxious weeds or weeds of concern by King County. In addition, purple loosestrife (*Lysimachia vulgaris*), a Class B noxious weed, was observed during ICF field work and mapped by King County on August 8, 2020 (King County 2020). Finally, according to the Washington Natural Heritage Program (DNR 2020), no threatened or endangered plant species are documented within or near the site.

Outside of the wetland complex and steep slope, the project site is completely paved, with a small wash building, a small fuel building, and a larger operations and vehicle maintenance building on site. In summary, although the West Tributary and associated wetland complex providing some fish, aquatic, and wildlife habitat, the overall project site habitat potential is low because it is largely developed and used for bus parking.

4.3 Wetland and Stream Delineation Results

The study area was surveyed September 22, 2020. Two wetlands were identified, and the West Tributary OHWM determined. Figure 4 shows the delineated wetlands, West Tributary OHWM, and all sample locations (Appendices C and D).

4.3.1 Wetland Complex BB1, PSS1C, and PABH (5.63 acres)

A hydrologically connected, seasonally flooded freshwater scrub-shrub wetland and permanently flooded aquatic bed pond were identified in the study area. The riverine wetland boundary is defined by the toe of slope along the northern wetland boundary. The western portion of the ponded feature is also defined by the north toe of slope, which becomes less steep to the east where a large upland bench is present, followed by a steep slope, and then King County Metro employee parking lot. Since these wetland features are hydrologically and spatially connected—water flowing northwest to southeast through both—they would be treated as one wetland complex (Hruby 2014).

4.3.1.1 Vegetation

There is one vegetative community in the wetland complex. The vegetative community has an herb layer dominated by reed canary grass (FACW) and broadleaf cattails (*Typha latifolia*, OBL) with willow thickets (*Salix* sp.) scattered throughout. The wetland and aquatic bed pond boundaries were dominated by reed canary grass in the herb layer, Himalayan blackberries in the shrub layer at the toe of slope, and Pacific willow (*Salix lucida*. ssp. *Lasiandra*, FACW) and western red cedar (*Thuja plicata*, FAC) dominate in the tree layer. Herbs observed, but not dominant, in the western emergent wetland included field horsetail (*Equisetum arvense*, FAC), water parsley (*Oenanthe javanica,* OBL), creeping buttercup (*Ranunculus repens*, FAC), and large leaf avens (*Geum macrophyllum*, FAC) with Indian plum (*Oemleria cerasiformis*, FACU), salmonberry (*Rubus spectabilis*, FAC), Douglas' meadowsweet (*Spiraea douglasii,* FACW) observed in the shrub layer. Red osier dogwood (*Cornus alba,* FACW) and nootka rose (*Rosa nutkana,* FAC) were noted near the aquatic bed pond boundary with slough sedge (*Carex obnupta*, OBL) and common monkeyflower (*Mimulus guttas* spp*. Guttas*, OBL) in the aquatic bed. Redwood and big leaf maple were noted the tree layer in the study area.

This plant community meets the Corps' criteria for hydrophytic vegetation based on the dominance test.

4.3.1.2 Soils

The emergent wetland was composed of black silt loam (10YR 2/1) in the top 5 inches below ground surface (bgs) with gleyed, gray to dark gray (5/N and 4/N) sandy to silt soil beneath (BB-4 and BB-6, Loamy Gleyed Matrix [F2] indicator). A redox concentration along root pore linings was also noted in plot BB-4 while hydrogen sulfur odor was noted in BB-6 (A4 hydric indicator). BB-8, at the boundary of the aquatic bed pond, had very dark gray mucky sand (7.5YR 3/1, Sandy Mucky Mineral [S1] indicator) up to 7-inches bgs with very dark gray sand beneath (5Y 3/1). A hydrogen sulfur order was also noted within this soil pit. These soils meet the hydric soil indicator requirements and the Corps' criteria for wetland soils.

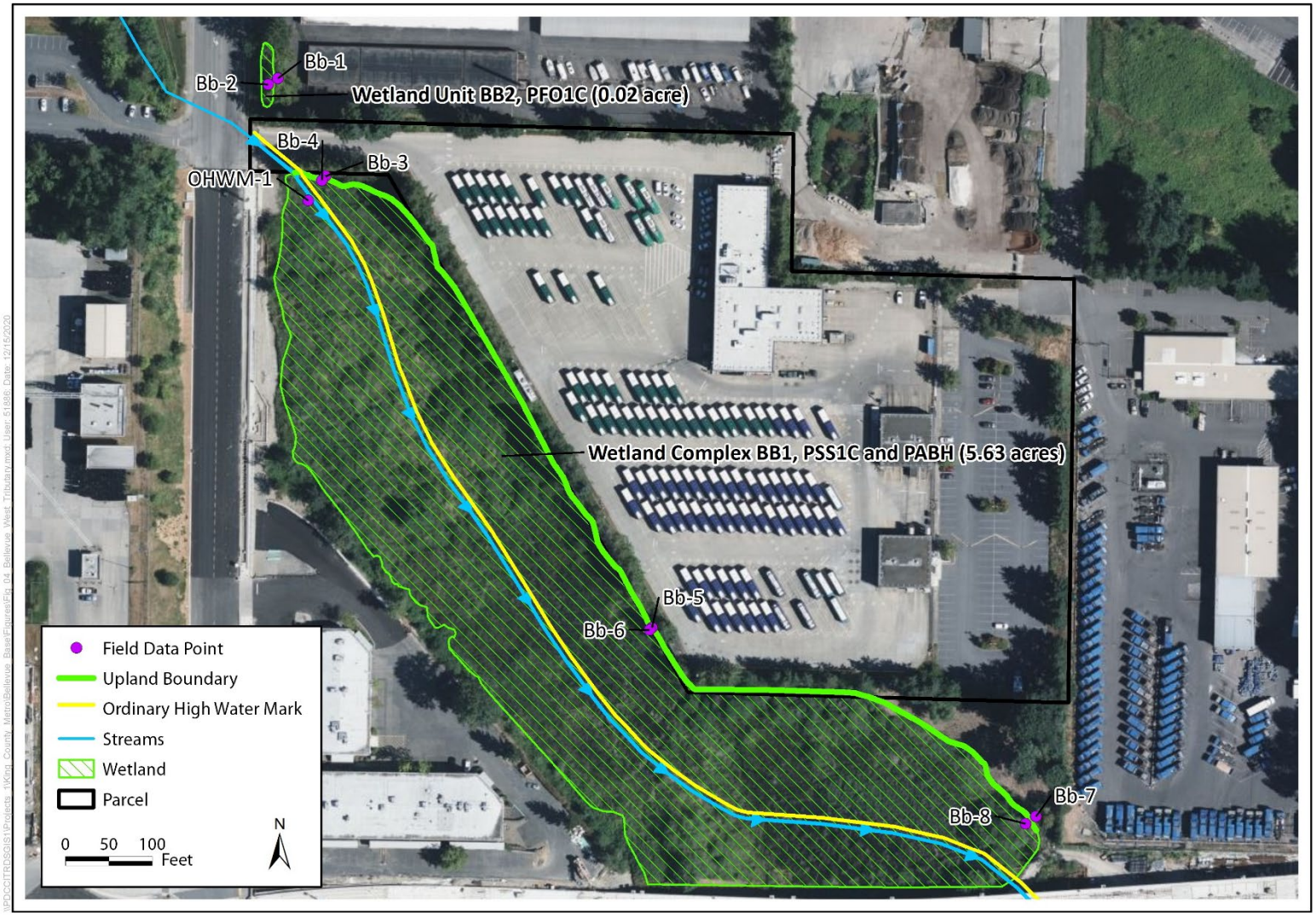

Figure 4. West Tributary OHWM Determination, Wetland Delineation, and Sample Plots

4.3.1.3 Hydrology

Hydrology in the wetland is unidirectional and primarily driven through precipitation. Storm events cause the West Tributary to overtop onto the emergent wetland and flow into the aquatic bed pond. This water then flows downstream into the West Tributary as surface water or groundwater.

A high water table of 8 inches bgs or less was observed in soil pits BB-4 and BB-8. Surface water was observed within BB-6 and close to BB-8. These are both primary hydrological indicators and meet the Corps' criteria for wetland hydrology.

4.3.1.4 Adjacent Uplands

The adjacent upland area was above toe of slope at the base of a steep hillside. Vegetation was dominated by western red cedar in the tree layer, Himalayan blackberry (*Rubus armeniacus*) in the shrub layer, and reed canary grass and hedge false bindweed (*Calystegia sepium*, FAC) in the understory. Hazelnut (*Corylus cornuta*, FACU) and English holly (*Ilex aquifolium*, FACU) were also observed in the shrub layer with English ivy (FACU) in the herb layer. This plant community meets the Corps' criteria for hydrophytic vegetation based on the dominance test. BB-3 had very dark grayish (10YR 3/2) sandy loam with dense roots. BB-5 had black (10YR 2/1) silt loam in the top 8 inches bgs followed by very dark gray to gray (7.5YR 3/1 and 7.5YR 5/1) silt loam with some redox concentrations in the matrix. BB-7 had very dark gray silt loam up to 10 inches bgs followed by dark gray sand (5YR 4/1). None of these soil pits had hydric soil indicators or met the Corps' criteria for wetland soils. No surface water, high ground water table, saturation, or any other primary hydrological indicators were observed in upland plots.

4.3.1.5 Functional Assessment

The wetland function of the Wetland Complex BB1 was assessed to determine appropriate buffers and setbacks under City of Bellevue Ordinance Codes (Section 4.3.3.1, *Required Buffers and Structural Setbacks*).

Water Quality and Hydrology

The wetland complex is a large, bowled area with dense vegetation so it can slow and store a large amount of water. Based on the 1994 *Bellevue Base Expansion Project NEPA Documented Categorical Exclusion* report, the wetland complex is important for stormwater storage and is designated as one of the City of Bellevue's stormwater detention ponds (King County Metro 1994). This was supported by the number of culverts observed along the wetland perimeter (Appendix G). In addition, though there are no water quality issues in the project vicinity, this wetland is still likely to improve water quality by allowing contaminants common in urban stormwater runoff to settle out of the water column improving water quality downstream.

Habitat

Although the wetland unit has a good amount of plant diversity and special habitat features, it is also dominated by invasive plant species and isolated in a highly developed setting, so it has limited ability to provide quality habitat within a landscaped setting, resulting in a moderate value to society.

Summary

The wetland unit was found to be a Category II due to its large size and moderate to high level of function within an isolated and disturbed setting. The wetland rating summary calculation is provided below.

Improving Water Quality – 6
Hydrologic – 9
Habitat – 6
Total – 21

4.3.2 Wetland Unit BB2, PFO1C (0.02 acre)

A roadside swale immediately north of Bellevue Base was identified as a seasonally flooded freshwater broad-leafed deciduous forest wetland in the study area. The forest wetland boundary is defined by the toe of slope along its western and eastern boundaries. This depressional wetland is fed by stormwater runoff, which flows into a culvert at the south end and then into the Wetland Complex BB1. Since this wetland is hydrologically independent of Wetland Complex BB1, it was not considered as part of that complex (King County Metro 1994: Exhibit C; Hruby 2014).

4.3.2.1 Vegetation

There is one vegetative community in the wetland unit. The vegetative community was dominated by an ornamental maple tree (*Acer* sp., FAC) and lodgepole pine (*Pinus contorta*, FAC) in the tree layer, sitka willow (*Salix sitchensis*, FACW) and a California laurel (FAC) in the shrub stratum, and reed canary grass in the herb layer. This plant community meets the Corps' criteria for hydrophytic vegetation based on the dominance test.

4.3.2.2 Soils

The wetland consisted of black to very dark gray sandy loam to a depth of 15 inches bgs (10YR 2/1 to 7.5YR 3/1). A hydrogen sulfur odor was noted (A4 hydric indicator) and the soil meets the Corps' criteria for wetland soils.

4.3.2.3 Hydrology

Wetland Unit BB2 hydrology is unidirectional and primarily driven through precipitation. Storm events cause stormwater to flow into the depression wetland from the road and storage facility and flow into stormwater catchment and then into Wetland Complex BB1.

A high water table of 11 inches was observed with saturation at 9 inches bgs in soil pits. Surface water was observed immediately west of the sample plot. These are both primary hydrological indicators and meet the Corps' criteria for wetland hydrology.

4.3.2.4 Adjacent Uplands

The adjacent upland area was above toe of slope of a steep hillside. Vegetation was dominated by identical species as the wetland vegetative community. This plant community meets the Corps' criteria for hydrophytic vegetation based on the dominance test. Wetland Unit BB2 had very dark brown (10YR 2/2) sandy loam throughout the profile with dense roots in the top 5 inches bgs. No

hydric soil indicators or Corps' criteria for wetland soils were met. No surface water, high ground water table, saturation, or any other primary hydrological indicators were observed in the upland plot.

4.3.2.5 Functional Assessment

The wetland function of Wetland Unit BB2 was assessed in order to determine appropriate buffers and setbacks under City of Bellevue Ordinance Codes (Section 4.3.3.1, *Required Buffers and Structural Setbacks*).

Water Quality and Hydrology

The small wetland unit has dense vegetation within a roadside swale in a highly developed setting. Based on the setting, the wetland has the potential to improve water quality and reduce flooding and erosion in an urban area. However, given the small area wetland water storage potential is low. In addition, there is no flooding or pollutant problems in the project vicinity, so the value to society is also low.

Habitat

This small wetland is isolated with paved surfaces immediately adjacent on all sides. Hydrology is driven through stormwater runoff and is not connected to a waterway or riparian corridor. Given the size, isolation, and setting in a highly developed area, the wetland has little ability and potential to provide wildlife habitat.

Summary

The wetland unit was found to be a Category IV due to its moderate to low level of function within an isolated and disturbed setting. The wetland rating summary calculation is provided below.

Improving Water Quality – 6
Hydrologic –5
Habitat – 4
Total – 18

4.3.2.6 Required Buffers and Structural Setback

Based on City of Bellevue Ordinance Codes discussed in Chapter 2, *Regulatory Framework*, a Category II wetland, Wetland Complex BB1, with a habitat score of 6 is required to have a 110-foot buffer, with an additional 20-foot structural setback. A Category IV wetland, Wetland Unit BB2, is required to have a 40-foot buffer with no structural setback. Given Bellevue Base was established in 1983, these requirements may exclude the existing footprint. However, any new development or construction must adhere to or mitigate for impacts in these areas. Full buffer extent is shown in Figure 5. The Wetland Complex BB1 buffer does contain a narrow, vegetated hillside surrounding the wetland but, outside of this, the area is largely in paved or developed areas with Bellevue Base bus parking area to the north, light rail construction to the south, 124th Avenue NE to the west, and Republican Services garbage collection parking lot to the east. As a result, the buffer provides minimal protection or functional lift in terms of wetland habitat, water quality improvement, or hydrology. Similarly, the Wetland Unit BB2 buffer is almost entirely within paved areas with 124th

Avenue NE to the west, Bellevue Base driveway to the south, and public storage to the north and east.

4.3.3 West Tributary to Kelsey Creek (922 linear feet)

The West Tributary to Kelsey Creek appeared to have a sandy channel bottom ranging from 3 to 5 feet wide through the project site. OHWM was determined by top of bank as defined in the *Ecology's Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Ecology 2016).[2] Surface water along this reach likely overtops the channel bank flooding into Wetland Complex BB1 during storm events. OHWM was determined by undeveloped soil profiles, incised banks, and lack of vegetation below OHWM (OHMW-1, Appendix D).

4.3.3.1 Required Buffer and Structural Setback

Based on City of Bellevue Ordinance Codes discussed in Chapter 2, *Regulatory Framework*, all new construction on developed or undeveloped areas along the West Tributary in the Kelsey Creek basin are required to have a 50-foot buffer from the top of bank with an additional 20-foot structural setback from the buffer (Figure 6). As part of the permitting process, any development within these areas must mitigate for possible impacts from the project. Portions of the buffer and structural setback lay within the Bellevue Base bus parking area and provide minimal wildlife habitat or hydrological improvements to the West Tributary to Kelsey Creek.

[2] Ecology's definition of "top of bank" is different from the City of Bellevue's definition of "top of bank" as discussed and defined in Section 2.1, *Local Regulations.*

Figure 5. Wetland and Associated Buffers and Setback

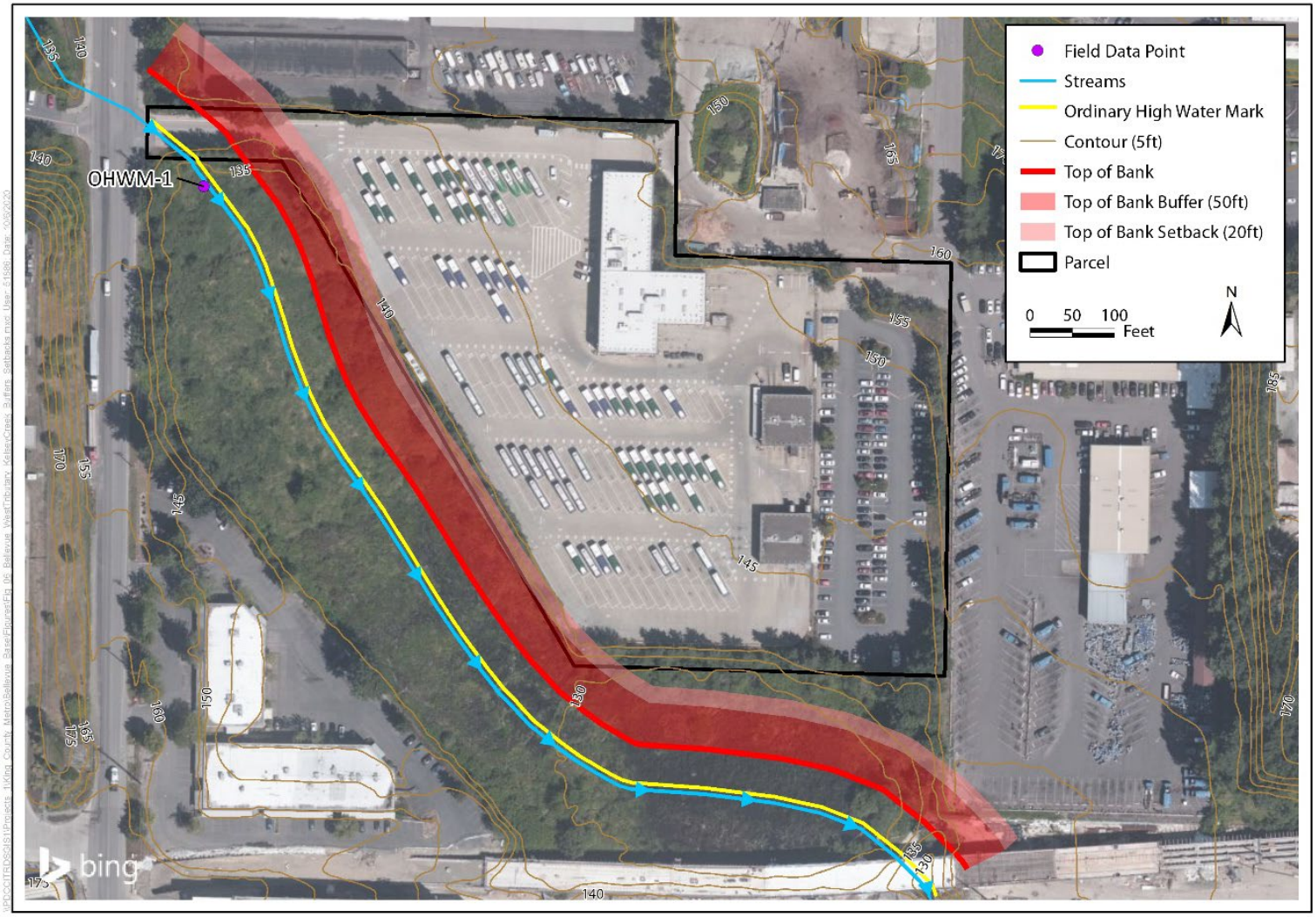

Figure 6. West Tributary to Kelsey Creek and Associated Buffers and Structural Setback

4.4 Limitations

The results and conclusions expressed herein represent ICF's professional judgment based on the information available; no other warranty, expressed or implied, is made. Final determinations for wetland boundaries and categories are the responsibility of the regulating resource agencies. Wetland boundaries can be altered by changes in land use, hydrology, or climate. If a physical change occurs in the basin, or if 5 years pass before the project is constructed, another wetland delineation should be conducted.

Chapter 5
Application of City of Bellevue Regulations

The proposed project would require addressing the application of the City of Bellevue Critical Area Ordinance code, specifically, as follows.

5.1 LUC 20.25H.075.C.1.c: Designation of Critical Areas and Buffers, Streams, West Tributary, Kelsey Basin

General performance standards outlined in LUC 20.25H.080 would be followed and are listed below. Mitigation through avoidance and minimization of impacts to West Tributary would be accomplished by design measures discussed in Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, Section 6.6, *Mitigation Sequencing* (LUC 20.25H.085). In addition, the required setback for open waterways may be modified in developed areas if the project would not affect stream function or habitat (LUC 20.25H.075.D.4).

5.1.1 LUC 20.25H.080 Performance Standards—Streams

Development on sites with a Type S or F stream or associated critical area buffer shall incorporate the following performance standards in design of the development, as applicable.

1. Lights shall be directed away from the stream.

   New light fixtures would be angled away from the West Tributary to minimize spillover. Project design measures were used to avoid increased light and glare from project operations. These design measures are discussed in Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing,* Section 6.6, *Mitigation Sequencing* (LUC 20.25H.085).

2. Activity that generates noise such as parking lots, generators, and residential uses shall be located away from the stream or any noise shall be minimized through use of design and insulation techniques.

   For the project, construction noise would be temporary and would result from the use of vehicles and equipment. Construction noise would occur during the regularly permitted hours for construction within the city limits of Bellevue outlined in the Bellevue City Code (BCC 9.18). Once construction is completed, noise from operation of the floodlights would be minimal and compatible with the surrounding urban setting.

3. Toxic runoff from new impervious area shall be routed away from the stream.

   The project would not generate toxic runoff. Surface water runoff, including stormwater, would continue to be collected via storm drains onsite. During construction, surface water will be treated by passive catch basin protection systems (i.e., plastic sheeting as shown on the Temporary Erosion Sediment Control (TESC) plans and stated in the Stormwater Pollution Prevention Plan (SWPPP)). Groundwater or other sediment laden water encountered would be

pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. This conveyance system would be isolated from, and would not drain into, the West Tributary.

4. Treated water may be allowed to enter the stream critical area buffer.

   No water used or encountered during construction would drain into the West Tributary waterway. Any potentially contaminated water caused by construction or slurry produced by directional boring would be removed by methods such as using a vactor truck. The potentially contaminated water or slurry would be taken to a permitted facility for treatment and disposal. Groundwater or other sediment laden water encountered would be pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. Stormwater drains associated with the City stormwater conveyance system may be located in the top of bank or the associated buffer or setback. However, this conveyance system would be isolated from, and would not drain into, the West Tributary.

   Project operations would not generate treated water. No new additional stormwater treatment facilities are proposed.

5. The outer edge of the stream critical area buffer shall be planted with dense vegetation to limit pet or human use.

   The vegetation immediately adjacent and upslope of West Tributary currently comprises dense vegetation protected from access to the Bellevue Base property by a chain-link fence. The project would not remove or degrade this riparian vegetation. An additional 125 square feet of riparian buffer would be enhanced through removal of Himalayan blackberries or St. John's wort and replanted with native tree, shrub, and groundcover species, such as bitter cherry (*Prunus emarginata*), beaked hazelnut (*Corylus cornuta*), cluster rose (*Rosa pisocarpa*), beach strawberry (*Fragaria chiloensis*), or redwood sorrel (*Oxalis oregana*) (Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, Section 6.6, *Mitigation Sequencing*).

6. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream critical area buffer shall be in accordance with the City of Bellevue's *Environmental Best Management Practices*, now or as hereafter amended.

   The project would be contained within 5 feet of the existing bus yard curb line and would not increase the use of pesticides, insecticides, and fertilizers.

7. All applicable standards of Chapter 24.06 BCC, Storm and Surface Water Utility Code, are met.

   The project would meet all applicable standards of Chapter 24.06 BCC, Storm and Surface Water Utility Code.

5.2 LUC 20.25H.095.D.1.b: Designation of Critical Areas and Buffers, Wetlands, Buffers and Setbacks on Sites with Existing Development

Buffer averaging was considered but found not to be possible since it would need a 75% or greater width reduction of the required buffer dimensions (LUC 2025H.095.D.2.a.vii). Project elements have been designed to minimize their footprint in relation to critical areas, buffers, and setbacks (LUC 20.25H.105; Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, *Section 6.6.1, Avoidance Measures*). General performance standards outlined in LUC 20.25H.100 would be followed and are outlined as follows.

5.2.1 LUC 20.25H.100 Performance Standards—Wetlands

Development on sites with a wetland or wetland critical area buffer shall incorporate the following performance standards in design of the development, as applicable.

1. Lights shall be directed away from the wetland.

New light fixtures would be angled away from the Wetland Complex BB1 and Wetland Unit BB2 to minimize spillover. Project design measures were used to avoid increased light and glare from project operations. These design measures are discussed in Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, Section 6.6, *Mitigation Sequencing* (LUC 20.25H.085).

2. Activity that generates noise such as parking lots, generators, and residential uses shall be located away from the wetland, or any noise shall be minimized through use of design and insulation techniques.

For the project, construction noise would be temporary and would result from the use of vehicles and equipment. Construction noise would occur during the regularly permitted hours for construction within the city limits of Bellevue outlined in the Bellevue City Code (BCC 9.18). Once construction is completed, noise from operation of the floodlights would be minimal and compatible with the surrounding urban setting.

3. Toxic runoff from new impervious area shall be routed away from the wetlands.

The project would not generate toxic runoff. Surface water runoff, including stormwater, would continue to be collected via storm drains onsite. During construction, surface water will be treated by passive catch basin protection systems (i.e., plastic sheeting as shown on the Temporary Erosion Sediment Control (TESC) plans and stated in the Stormwater Pollution Prevention Plan (SWPPP)). Groundwater or other sediment laden water encountered would be pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. This conveyance system would be isolated from, and would not drain into, the wetlands or wetland critical area buffers.

4. Treated water may be allowed to enter the wetland critical area buffer.

No water used or encountered during construction would drain into the wetland critical areas or buffers. Any potentially contaminated water caused by construction or slurry produced by directional boring would be removed by methods such as using a vactor truck. The potentially contaminated water or slurry would be taken to a permitted facility for treatment and disposal.

Groundwater or other sediment laden water encountered would be pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. Stormwater drains associated with the City stormwater conveyance system may be located within the wetland buffers. However, this conveyance system would be isolated from, and would not drain into, the wetlands or wetland critical area buffers.

Project operations would not generate treated water. No new additional stormwater treatment facilities are proposed.

5. The outer edge of the wetland critical area buffer shall be planted with dense vegetation to limit pet or human use.

Existing dense vegetations grow immediately adjacent to the outer edges of Wetland Complex BB1 and Wetland Unit BB2 and within the wetland buffers. The vegetations surrounding the two wetlands are protected from access to the Bellevue Base property by chain-link fences. In addition, the project would not remove or degrade the wetland vegetations. An additional 125 square feet of wetland buffer would be enhanced through removal of Himalayan blackberries or St. John's wort and replanted with native tree, shrub, and groundcover species such as bitter cherry, beaked hazelnut, cluster rose, beach strawberry, or redwood sorrel (Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, Section 6.6, *Mitigation Sequencing*).

6. Use of pesticides, insecticides and fertilizers within 150 feet of the edge of the stream buffer shall be in accordance with the City of Bellevue's *Environmental Best Management Practices*, now or as hereafter amended.

The project would be contained within 5 feet of the existing bus yard curb line and would not increase the use of pesticides, insecticides, and fertilizers.

7. All applicable standards of Chapter 24.06 BCC, Storm and Surface Water Utility Code, are met (Ord. 6417, 5-21-18, § 34; Ord. 5680, 6-26-06, § 3). Development is designed to minimize impervious surfaces within critical areas and buffers.

The project would meet all applicable standards of Chapter 24.06 BCC, Storm and Surface Water Utility Code (Ord. 6417, 5-21-18, § 34; Ord. 5680, 6-26-06, § 3). The existing impervious surface in the Bellevue Base may be "grandfathered" in by the City of Bellevue and considered legal nonconforming.

5.3 LUC 20.25H.120.A.2: Designation of Critical Areas and Buffers, Geologic Hazard, Steep Slopes

Performance standards outlined in LUC 20.25H.125 would be followed as part of the project and are discussed below. Specifically, the project would avoid alterations to the current slope contour and elevation. Avoidance and minimization measures are further discussed in Chapter 6, *Project Alternatives, Impacts, and Mitigation Sequencing*, Section 6.6, *Mitigation Sequencing*. The required toe of slope setback may be modified if shown the project would not increase geological hazards during construction or the life of the project (LUC 20.25H.120.C.3).

5.3.1 LUC 20.25H.125 Performance Standards—Steep Slopes

1. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography.

Trenching for conduit installation would be returned to preconstruction conditions with the same final elevation and contour (Appendix A, C2.00 Note 2). All new poles and junction boxes would minimize alteration of the natural slope contour and work to preserve the natural landform (LUC 20.25H.125.A and B).

2. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.

The project design limits placing new floodlight poles and junction boxes to within 5 feet of the existing bus yard curb line to minimize the impact and keep new poles and junction boxes as far away from critical areas and the natural landforms and vegetation as possible. Replaced floodlights, floodlight brackets, fixtures, and conductors would be installed on existing poles or buildings and, therefore, would have no ground disturbance of their own. Finally, the *Critical Area Evaluation and Geotechnical Recommendations Yard Lighting Replacement for King County Metro Bellevue Base* (Riley Group 2020) concluded the site slopes were stable and suitable for the proposed project construction (Appendix I).

3. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties.

The project underwent a geotechnical evaluation by an engineer or geologist licensed in the state of Washington to determine if performance standards for steep slopes are met with no impact, onsite or offsite, from the project. The report concluded slope stability would not be affected by construction or operation of the project and should be exempt from critical area requirements. The report also listed minimization measures and recommendations to be incorporated into the final design drawings and construction specifications, such as a temporary erosion sediment control (TESC) plan and use of structural fill (LUC 20.25H.145; Appendix I). Therefore, the project would not increase risk or require an increased buffer on neighboring properties.

4. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall.

The project would not require construction of graded artificial slopes or retaining walls.

5. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer.

The proposed project would use existing poles, equipment, and buildings as much as feasible while still meeting the mandatory WAC lighting standards; thereby minimizing new impervious surfaces within critical areas and associated buffers.

6. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria.

Trenching for conduit installation connecting poles N17, N18, and N19 to existing junction boxes, and between two new junction boxes and poles N15 and P7 could be within slopes in excess of 40% (Appendix A, Drawings C2.03 through C2.06). This impact would be temporary, and the affected area would be returned to preconstruction conditions with the same final elevation and contour. If required by the City of Bellevue, additional precaution measures can be addressed during the Clear and Grade approval process.

7. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation.

The project would not require a building foundation wall.

8. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification.

Trenching for conduit installation connecting poles N17, N18, and N19 to existing junction boxes, and between two new junction boxes and poles N15 and P7 could be within slopes in excess of 40% (Appendix A, Drawings C2.03 through C2.06). This impact would be temporary, and the affected area would be returned to preconstruction conditions with the same final elevation and contour. If required by the City of Bellevue, additional precaution measures can be addressed during the Clear and Grade approval process.

9. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types.

No parking or garages would be constructed as part of the project.

10. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210. (Ord. 5680, 6-26-06, § 3).

Temporary impacts in critical areas from trenching and directional boring for conduit installation would be restored to preconstruction conditions with the same final elevation and contour. These areas would be restored by replanting with an upland seed mix containing native grasses, such as blue wildrye (*Elymus glaucus*), meadow barley (*Hordeum brachyantherum*), and California brome (*Bromus carinatus*). The seed mix would be from a native plant source within the Puget Sound lowlands. The mix would be true-to-name, cleaned, and weed free within acceptable tolerance limits. New permanent disturbance within critical area boundaries, buffers, and setbacks would be mitigated by removing invasive species such as Himalayan blackberries or St. John's wort and replanted with native tree, shrub, and groundcover species such as bitter cherry, beaked hazelnut, cluster rose, beach strawberry, or redwood sorrel.

Figure 7[3] has been provided to show the location of temporary construction impacts and new aboveground structures (i.e., new poles and junction boxes) in relation to critical area boundaries, buffers, and setbacks. The Bellevue Base may qualify for an exclusion from wetland and steep slope

[3] Construction elements not to scale in figures. Trenching between N20 and N14 to buildings and N15, N17, N18, and N19 to associated junction boxes are not shown as trench elements are too small to be visible.

buffers and setbacks from the perimeter cement curb inward towards the established parking areas and operations and vehicle maintenance building (Figure 8) (LUC 20.25H.095.D.1.b and LUC 20.25H.120.B.2, respectively). It is dependent on the City to make this exclusionary decision.

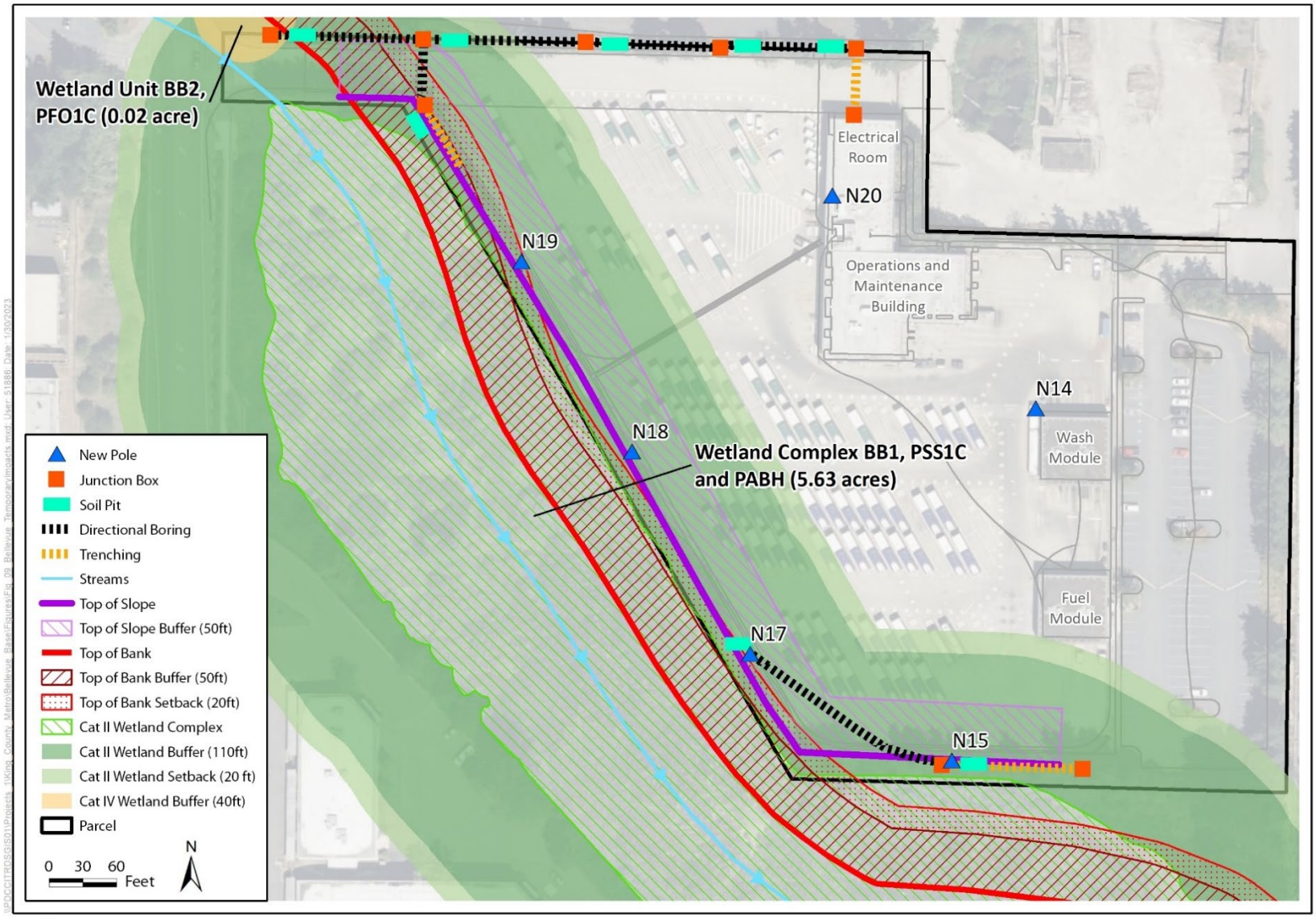

Figure 7. Temporary Impacts during Construction (No Buffer and Setback Exclusions)

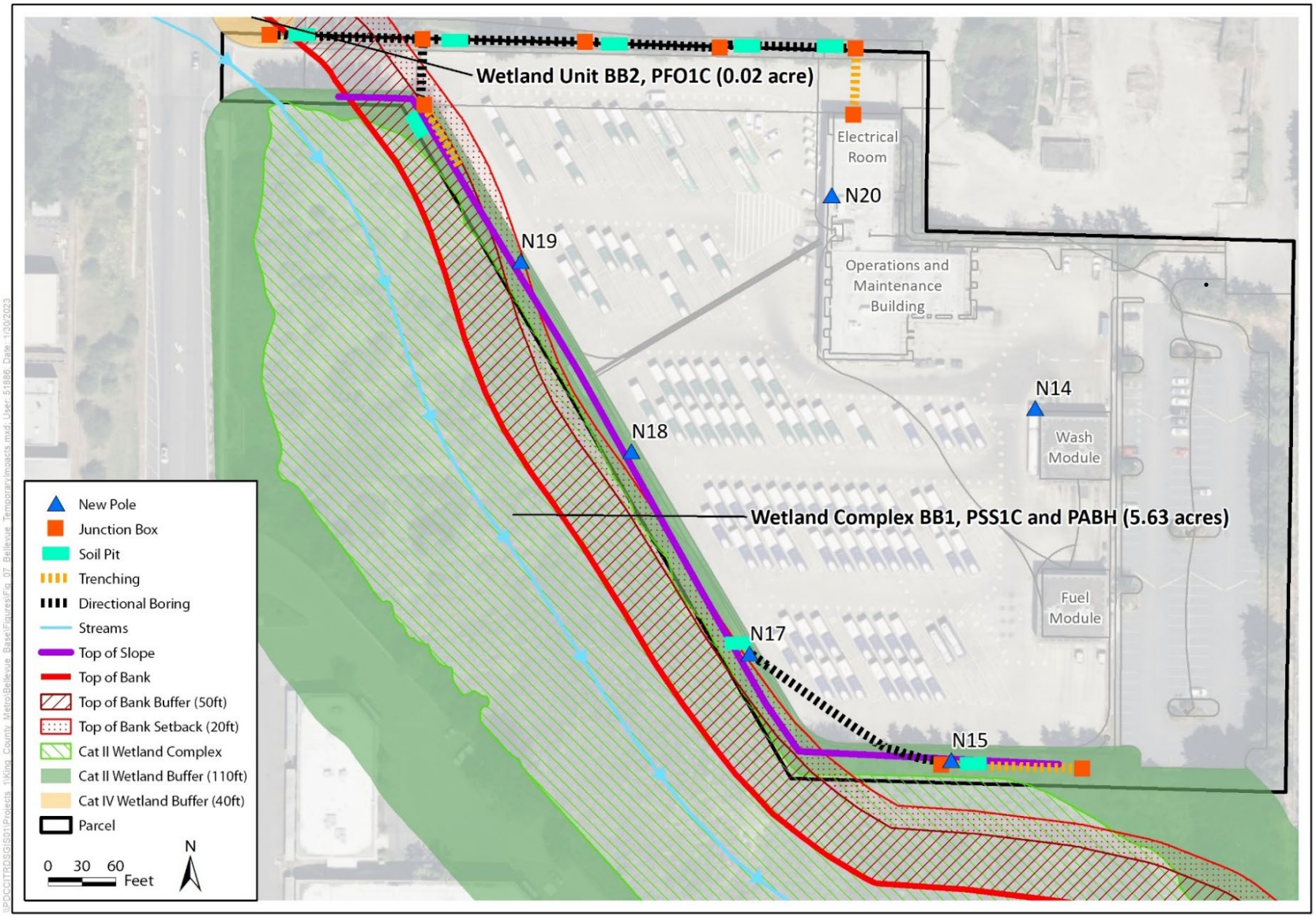

Figure 8. Temporary Impacts during Construction (with Buffer and Setback Exclusions)

Chapter 6
Project Alternatives, Impacts, and Mitigation Sequencing

This section discusses the considered project designs, temporary and permanent impacts from the project, and implemented mitigation measures (avoidance, minimization, and compensatory mitigation) to reduce the effects on critical areas and stormwater.

6.1 Alternative Analysis

As part of the project construction design, six alternatives were considered to address the project goals and purpose and limit impacts on critical areas: Alternative 1: Additional Perimeter Lighting; Alternative 2: Additional Perimeter and Yard Lighting; Alternative 3: Catenary Lighting System; Alternative 4: In-Grade Lighting; Alternative 5: Lighting on Buses; and a no-build option (Appendix J, *Bellevue Base Yard Lighting Alternatives Analysis – Integrity Energy Services*).

6.1.1 Alternative 1: Additional Perimeter Lighting

This alternative would install light fixtures on existing and new poles along the perimeter of the bus yard. It would meet WAC lighting level requirements and have minimal impacts on bus parking and operations while potential risks—light pollution and glare—would be minimized through fixture selection. This alternative would be the most energy efficient compared to other alternatives. It was identified as the preferred alternative based on the limited disruption to bus yard operations and maintenance.

6.1.2 Alternative 2: Additional Perimeter and Yard Lighting

This alternative would install new fixtures on existing poles along the perimeter of the bus yard, as well as on new poles in the bus yard. It would meet WAC lighting level requirements and reduce risk of light and glare since new poles are positioned within the bus yard. However, Alternative 2 would produce a safety concern for yard operations because the new poles would become obstacles, and bus drivers would need to navigate around them. The new poles would also reduce bus parking spaces and disrupt yard operations during construction and maintenance.

6.1.3 Alternative 3: Catenary Lighting System

This alternative would suspend lights on cables over the bus yard, requiring installation of new poles in the bus parking area. It would meet WAC lighting level requirements and reduce risk of light and glare from the new poles being positioned in the bus yard. Alternative 3 would have the same disadvantages as Alternative 2. The cable could affect birds and wildlife, and lighting along the cable may be affected due to freezing temperatures.

6.1.4 Alternative 4: In-Grade Lighting

This alternative would install in-grade light fixtures between each row of buses in the bus yard. This alternative would not meet the WAC lighting level or dark sky ordinances. In addition, it would be difficult to maintain during yard operations.

6.1.5 Alternative 5: Lighting on Buses

This alternative would install light fixtures on the side of each bus. This alternative would meet WAC lighting requirements when buses are present, would use existing infrastructure, and would not affect operations. However, when buses are not present, this alternative would no longer meet WAC and safety lighting requirements.

6.1.6 No Build

A no-build alternative was considered nonviable since it would not address the project purpose.

6.2 Temporary Impacts

No temporary filling, dredging, or discharge into the West Tributary or Wetland Complex BB1 or Wetland Unit BB2 would occur as part of project construction. The project is designed to avoid any work below the OHWM of the West Tributary. No in-water work or work within the wetland footprint for Wetland Complex BB1 or Wetland Unit BB2 is required or would occur. Ground disturbance activity is likely within the top of steep slopes, wetland buffers, and within the top of bank. See Figure 7 for ground disturbance and other demolition and boring locations in relation to critical area boundaries, buffers, and setbacks. See Figure 8 for if City of Bellevue determines the Bellevue Base, built in the 1980s, would qualify for a wetland and steep slope exclusion of buffers and/or setbacks starting at the perimeter cement curb extending towards the established bus parking area and operations and vehicle maintenance building (LUC 20.25H.095.D.1.b and LUC 20.25H.120.B.2, respectively).

During construction, clearing, grading, excavating, soil stockpiling, and other construction activities that temporarily remove vegetation, reduce soil stability, or increase soil erosion could occur. Trenching and boring for conduit installation and light pole footings would also require soil disturbance. Soil disturbance would occur on a slight slope within fill material.

Fugitive dust emissions may also occur due to clearing, excavating, and other construction activities. Potential for fugitive dust emissions would be higher during dry, warm weather conditions when wind and construction equipment create more dust. Increased noise or light during construction from heavy construction equipment and related vehicles is also possible.

Emissions from construction vehicles and equipment may temporarily affect local air quality during construction of the project. The emissions quantities have not been estimated; however, given the scope of the project and duration of construction, they are not expected to exceed local emissions standards.

6.3 Permanent Impacts

During operations, light fixtures and poles would not affect air quality or create emissions. Vehicular emissions would also not increase during the operation of the project. Operation of new and replaced light fixtures would not result in any permanent filling, dredging, or discharge into the West Tributary or Wetland Complex BB1 or Wetland Unit BB2. The project would remain above OHWM. However, this project would create permanent effects from the installation of new permanent structures and increased lighting in identified critical areas or their associated buffers. These effects are discussed further below.

6.3.1 New Permanent Structures

New aboveground structures, i.e., six new floodlights (poles and fixtures) and nine new junction boxes, were considered as a permanent impact. Since the ground surface would be returned to the existing condition—the same elevation and contour as before trenching or directional boring—conduit installation was considered a temporary impact. Along the southwestern boundary, based on City of Bellevue designation for critical areas (20.25H), four new floodlights (poles and fixtures) and three new junction boxes could be within the top of a steep slope or associated buffer (LUC 20.25H.120; City of Bellevue 2018b). These new aboveground structures would also be within a Wetland Complex BB1 buffer along with a new junction box near Pole P7 (LUC 20.25H. 095.D.1a). A new junction box near Pole P1 would be within top of bank and the buffers for both Wetland Complex BB1 and Wetland Unit BB2 (this assumes no exclusion; with exclusion the new junction box near Pole P1 would be outside the Wetland Complex BB1 buffer). Poles N17 and N19, as well as one new junction box are within the top of bank buffer or setback for the West Tributary to Kelsey Creek (LUC 20.25H.075). See Figure 9 for the locations of new aboveground structures (i.e., new poles and junction boxes) in relation to critical area boundaries, buffers, and setbacks without exclusions. Figure 10 provides the locations of new aboveground structures in relation to critical area boundaries, buffers, and setbacks if the City of Bellevue determines exclusions apply.

The new floodlight poles would replace bare ground or weedy species, such as Himalayan blackberry, English ivy, or St. John's wort, and are 70 feet tall with a 38-inch diameter. The poles would be buried 10 feet below ground, with the remaining 60 feet above ground. The new junction boxes would generally measure 27.75 inches wide by 16.75 inches long and are typically 1 foot deep and flush with the ground surface; these would also replace bare ground or a weedy understory. All new permanent structures would increase hard surfaces and may reduce water infiltration and increase stormwater runoff in the area. However, this increased area is minimal in comparison to the remainder of the project site (approximately +0.03% of the project site), as well as when compared to the surrounding area, which is highly developed.

The new permanent structures would be compliant with City of Bellevue performance standards (LUC 20.25H.080.A, LUC 20.25H.100, and LUC 20.25H.125). The most applicable of these standards is the standard for steep slopes (LUC 20.25H.125). Specifically, all new poles and junction boxes will minimize alteration of the natural slope contour and would work to preserve the natural landform (LUC 20.25H.125.A and B). In addition, as mentioned in Section 4.2.4*, Steep Slopes*, the project had a geotechnical evaluation by an engineer and geologist licensed in the State of Washington, who determined the earthwork was minor and would not result in adverse effects due to construction or operation of the project and therefore should be exempt from critical area requirements (LUC 20.25H.145; Appendix I).

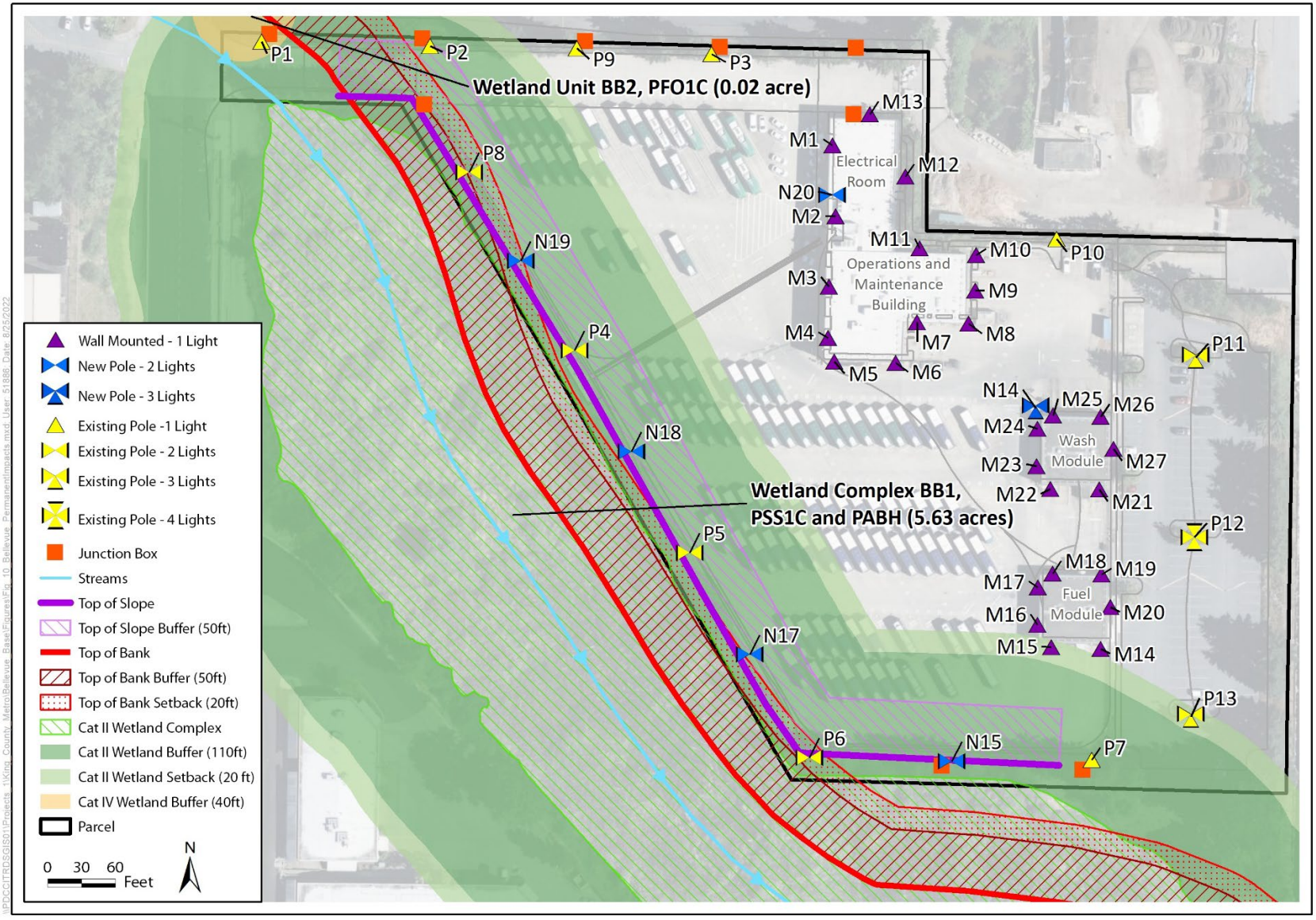

Figure 9. Permanent Impacts (No Buffer and Setback Exclusions)

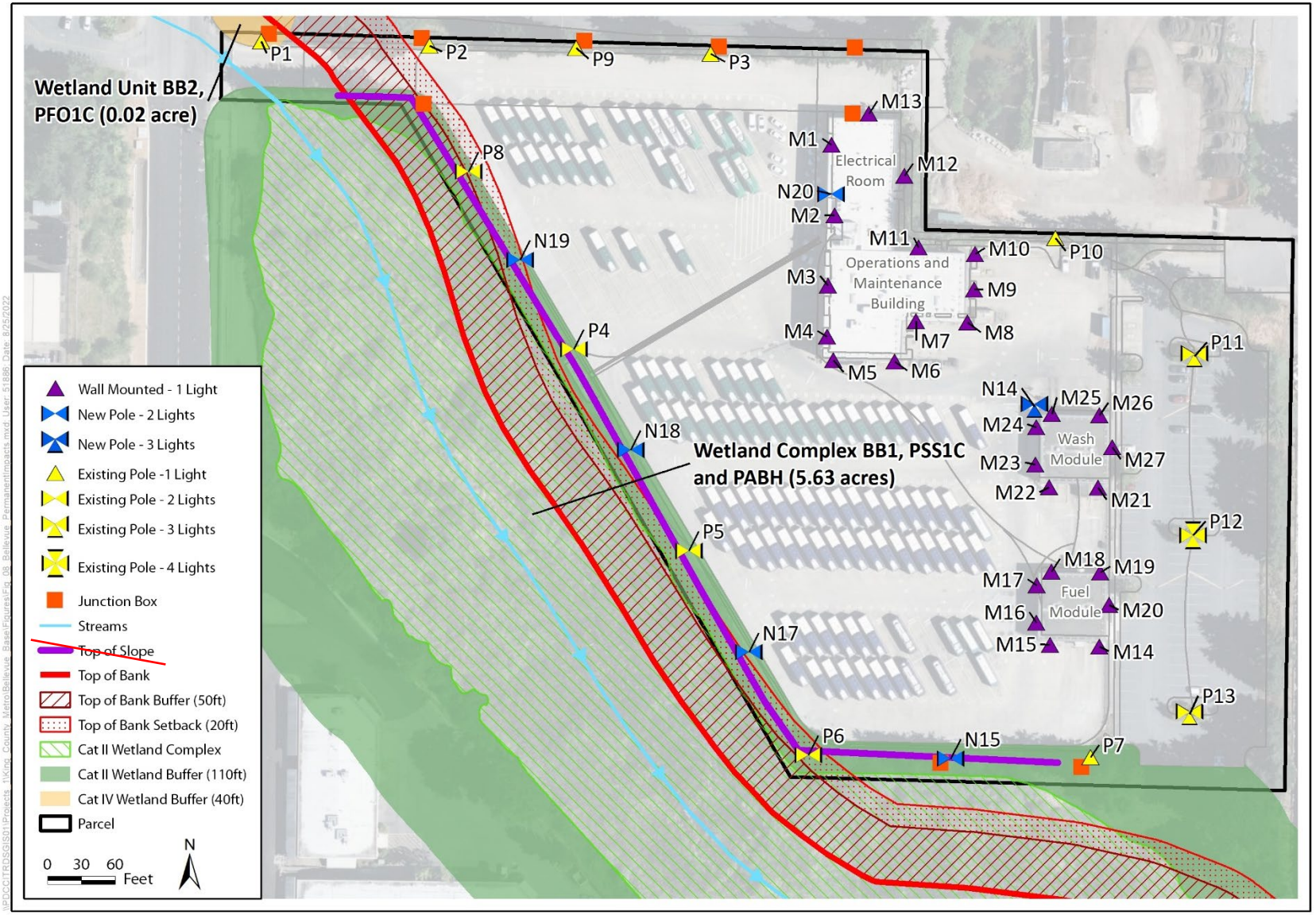

Figure 10. Permanent Impacts (with Buffer and Setback Exclusions)

The new permanent structures within the wetland buffer would be surrounded and would replace weedy species such as Himalayan blackberries, St. John's wort, or bare ground, which have low habitat potential. These buffer functions are unlikely to be affected by the new permanent structures and improve or change over the life of the project.

Similarly, the new permanent structures within the top of bank for the West Tributary to Kelsey Creek buffer are surrounded by weedy species at the top of a slope, which provides little to no riparian or aquatic habitat, hydrological protection, or benefit to the waterway. The new permanent structures would have little or no impact on the West Tributary to Kelsey Creek.

6.3.2 Increased Lighting

Of the 51 light fixtures to be installed atop existing mounts on light poles or buildings, 17 would be within critical areas, buffers, or setbacks of a steep slope, top of bank for the West Tributary, or Wetland Complex BB1 or Wetland Unit BB2. Of the 13 proposed light fixtures on new light poles, 8 are within critical areas, buffers, or setbacks of a steep slope, the top of bank for the West Tributary, or Wetland Complex BB1. See Figure 9 for locations of light fixtures in relation to critical area boundaries, buffers, and setbacks. However, if City of Bellevue determines that the wetland and steep slope exclusion of buffers and setbacks apply, see Figure 10.

Washington State requires an average of 3.0 fc 30 inches above surface level with no single light measurement falling below 1.5 fc in the averaged area (WAC 296.800-210). Currently, the Bellevue Base bus yard has an average light level of 2.54 fc with a minimum single-light measurement of 0.3 fc, which is below Washington State requirements. After implementation of the project, the average light level in the bus yard would be raised to 5.19 fc, with the minimum single light measurement, 30 inches above surface level, measuring 1.50 fc. This is a 2.65 fc net gain average across the Bellevue Base bus yard (Figures 11 and 12). The entry, which has a current average of 2.29 fc, would also increase to 4.53 fc (Marks pers. comm., King County and Musco Engineering Associates 2020).

However, additional light could negatively affect the fish-bearing West Tributary and wetland/riparian corridor habitat. Streetlamps have been shown to increase predation due to loss of protective cover during the night, when fish frequently migrate and feed (FishBio 2018). Fish are also more active at night and willing to leave protective, dark, hiding spots when exposed to nighttime artificial light; this higher risk behavior results in an increase in predation as well (Forschungsverbund 2018). In addition, the amount of light reaching the West Tributary and associated wetland could vary over the year depending on tree and shrub canopy. During the growing season, the impact from artificial light is reduced due to leaves blocking or filtering this light. This vegetative barrier is reduced in the late fall and winter when deciduous trees and shrubs lose their leaves. The southwestern property boundary is dominated by evergreen trees, Western red cedars, and Himalayan blackberries, which keep most of their leaves through the winter (Appendix C). Therefore, the seasonal change of light spillover to the West Tributary and Wetland Complex BB1 during fall or winter would be minimal. Impacts to Wetland Unit BB2 are unlikely given the small footprint and low to no wildlife or aquatic habitat within the wetland. In addition, this small wetland is surrounded by evergreen tree canopies, which shield the small depression from overhead light.

Given the potential impact from additional light on the West Tributary to Kelsey Creek and Wetland Complex BB1, the project would comply with City of Bellevue performance standards for stream, top

of bank, and wetland buffers with light being directed away from the stream channel and wetland (LUC 20.25H.080.A.1 and LUC 20.25H.100.A). Impacts would be further reduced or mitigated through design measures discussed in Section 6.6 *Mitigation Sequencing*.

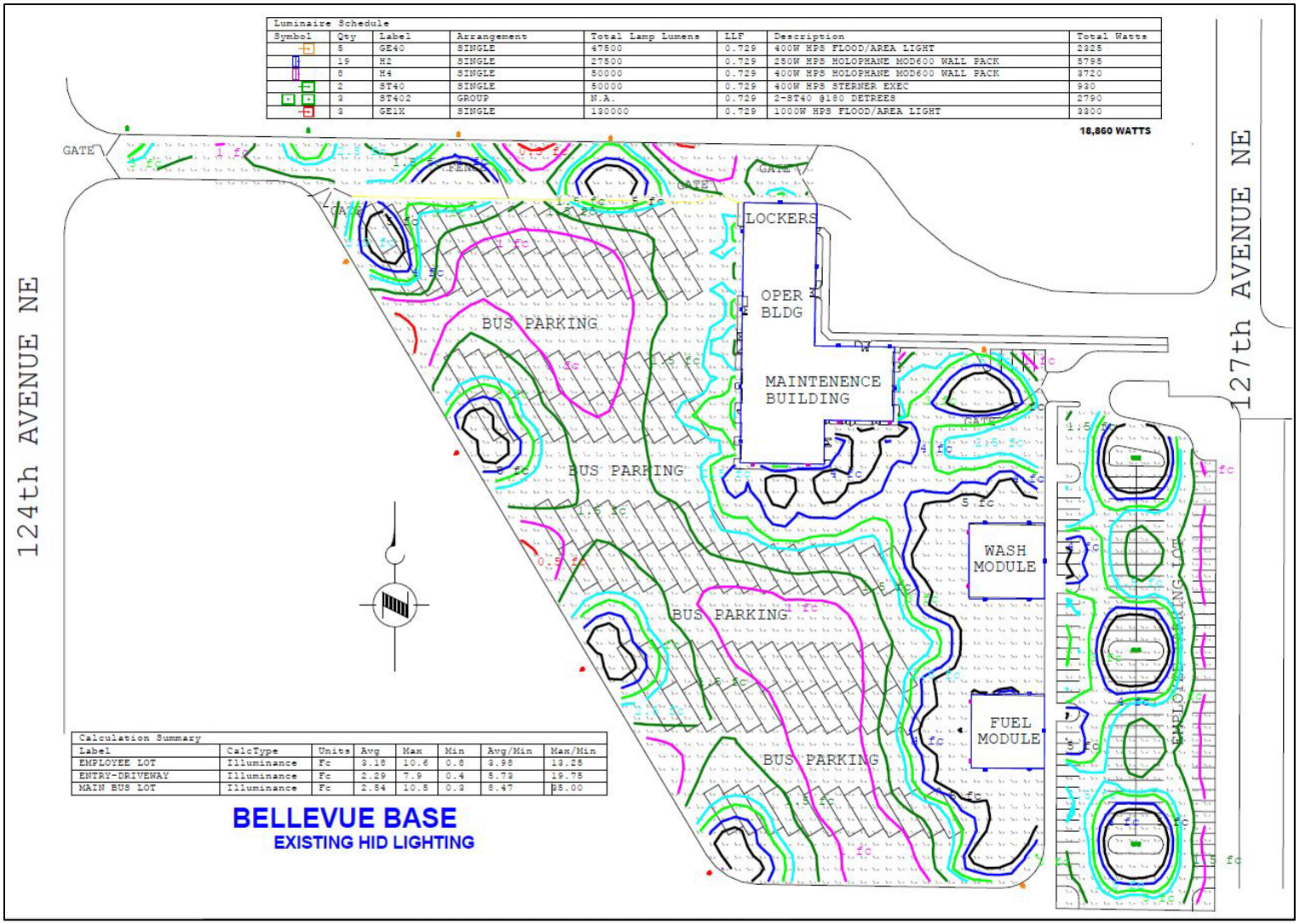

Figure 11. Model of Existing HID Lighting Levels

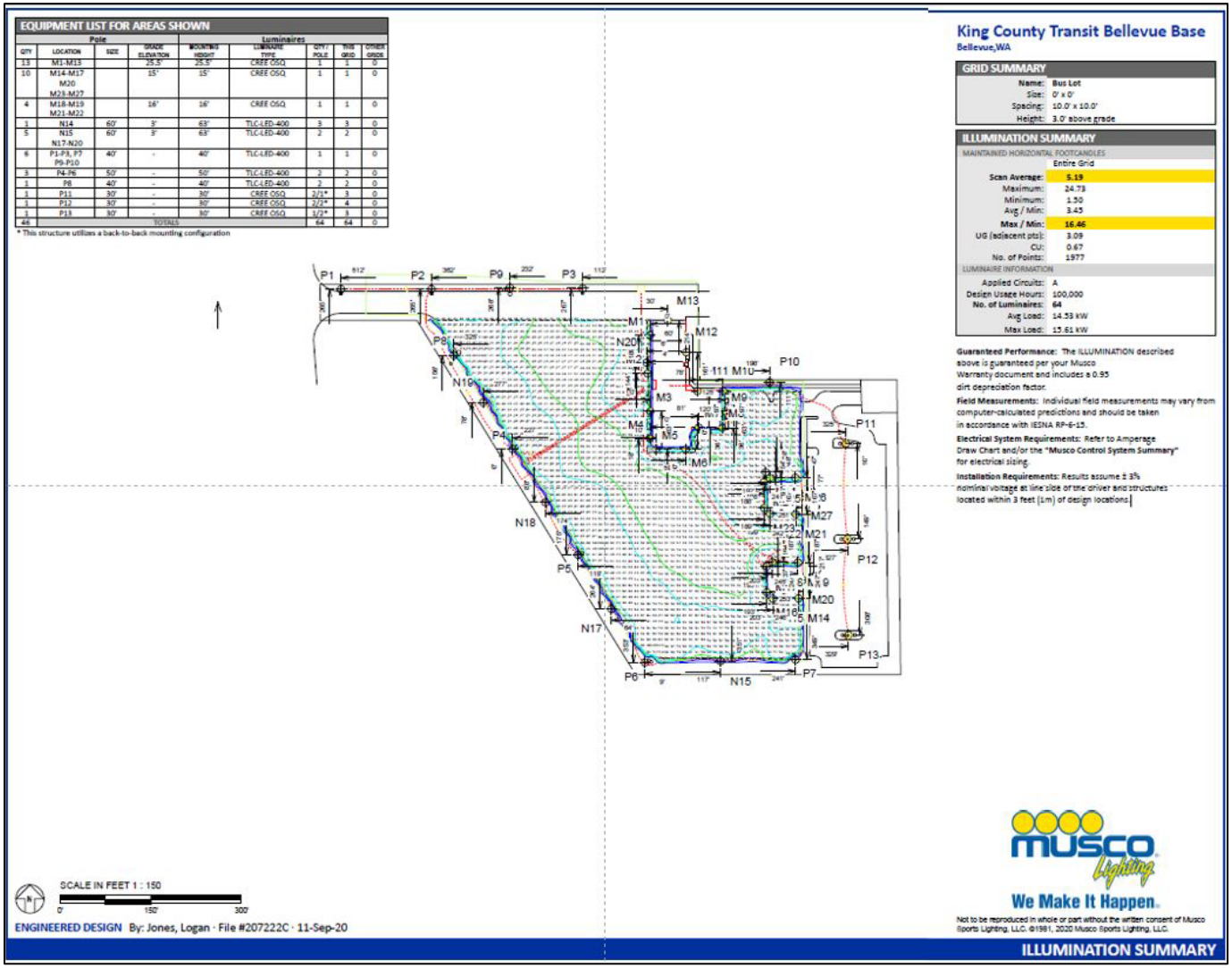

Figure 12. Model of Proposed Project LED Lighting Levels in the Bus Lot

6.3.3 Cumulative Impacts

Per City of Bellevue LUC 20.25H.250.B.4, cumulative impacts from the project were considered. The project would have minimal impacts on steep slopes, the West Tributary to Kelsey Creek, and the associated wetland due to new aboveground structures and additional light. The new aboveground structures would be relatively small and would not increase total hard surfaces in comparison to the remainder of the project site and surrounding area, which are highly developed and consist mainly of impervious surfaces. Increased lighting would not have an impact on steep slope conditions, and the new aboveground structures would be unlikely to increase slope instability, especially after implementation of best management practices and other mitigation measures. Finally, increased light or spillover would be mitigated through design measures resulting in a lower light level directed to the stream and wetland area than is currently present (see Section 6.3.6.2, *Permanent Impacts, Increased Lighting*).

6.3.4 Impacts on Critical Area Buffers and Setbacks

Currently, the West Tributary to Kelsey Creek's top of bank, buffer, and setback are partially contained within the Bellevue Base bus yard. This paved surface does not provide any habitat or hydrological protection or benefit to the waterway. The construction area would be in the West Tributary's top of bank, buffer, and setback and is surrounded by weedy species at the top of a slope, providing little to no riparian or aquatic habitat, hydrological protection, or benefit to the waterway. In addition, no trees or shrubs within the critical area, buffer, or setback along Bellevue Base's southwestern property boundary would be removed. Finally, the new permanent structures would have little or no impact on the West Tributary to Kelsey Creek.

Similarly, the wetland buffers are largely within a highly developed setting providing minimal protection or functional lift for wetland habitat, hydrology, or water quality. The wetland buffer for Wetland Complex BB1 within the construction area is composed of weedy species at the top of a slope, resulting in low water storage or habitat potential. Figures 7 and 9 overlay all applicable buffers and setbacks over the temporary and permanent project elements, without exclusions. The wetland buffer for Wetland Unit BB2 within the construction area is composed of a landscaping strip comprised of mulch and ornamental trees. In addition, construction and operation of the project would occur within areas of the wetland buffers that have previously been developed with the existing underground conduits and floodlights. These buffer functions are unlikely to improve or change over the life of the project. While project operation would not greatly improve the riparian corridor, there would be little to no project impacts from the new permanent structures or spillover lighting, due to application of performance standards discussed above.

Although steep slope buffers are likely to be excluded based on LUC 20.25H.120.B.2, the 50-foot buffer is fully contained within the Bellevue Base bus yard (Figures 7 and 9). This paved area is level and historically has been stable with no reported landslides, slumping, or other geologic instability.

6.4 Mitigation Sequencing

Potential impacts from construction and operation of the project have been considered during the project design process. Any impacts that cannot be avoided, addressed by construction design, or minimized will require further mitigation. The subsections below discuss mitigation sequencing of temporary and permanent impacts through avoidance, minimization, and—if necessary—compensatory mitigation as required under LUC 20.25H.215.

6.4.1 Avoidance

This section discusses the avoidance measures that would be applied to the project during mitigation sequencing.

6.4.1.1 Temporary Impacts

The project is designed to avoid any construction activities below the OHWM of the West Tributary. No in-water work or work within the wetland footprints is required or would occur during project construction or operation. Laydown construction zones would be kept to the paved parking area. All construction would be contained to the Bellevue Base paved or landscaped areas. Designated access routes would be used to stay on paved surfaces and avoid soil compaction.

6.4.1.2 Permanent Impacts

The project is designed to avoid any operation activities below the OHWM of the West Tributary or within the boundaries of Wetland Complex BB1 or Wetland Unit BB2.

New Permanent Structures

Avoidance measures were applied during design to reduce permanent impacts from the new permanent structures from the project. Project placement was designed to avoid any increased geological hazards or impacts on the West Tributary or Wetland Complex BB1 or Wetland Unit BB2 on the project site or in the surrounding area. The project would use existing poles, equipment, and buildings as much as feasible while still meeting the mandatory WAC lighting standards; thereby minimizing new impervious surfaces within critical areas and associated buffers.

No trees or riparian vegetation would be removed due to either project construction or operations. Up to five ornamental shrubs, Fraser's photinia, may be removed along the northern boundary. Shrub removal would be limited to space needed for boring pit installation. New permanent structures would be within a landscaped vegetation, which has low habitat potential and moderate runoff coefficient. Wetland and buffer functions are unlikely to be significantly affected by the new permanent structures, improve, or change over the life of the project. However, stormwater function may be reduced due to new hard surfaces within the wetland buffer, thus increasing stormwater runoff and reducing localized permeability.

Increased Lighting

Impacts from light and glare were considered during the project design alternative analysis. Those alternatives which would not meet the dark skies requirements were not carried forward.

6.4.2 Minimization Measures

6.4.2.1 Temporary Impacts

Best management practices and construction techniques would be implemented to reduce possible impacts from construction on steep slopes. A project-specific SWPPP would be prepared to reduce or control erosion that might otherwise occur during ground-disturbing activities. Best management practices and TESC identified in the SWPPP would be followed to control the risk of erosion. In addition, existing vegetation would be preserved to the extent practicable (Appendix A, Drawings C1.09 and Drawing C1.10 Note 4). Erosion control and SWPPP practices would also ensure no stormwater discharge or erosion into Wetland Complex BB1, Wetland Unit BB2, or the West Tributary. The SWPPP would include a dewatering plan to address the risk of contaminating groundwater, if encountered. In addition to these primary elements, the SWPPP would also specify that the extent of soil and vegetative disturbance would be minimized by control fencing or other means, and that the extent of soil disturbed at any given time would be minimized. The SWPPP would be retained at the construction site.

Laydown construction zones would be kept to the paved parking area. All construction material would be stored to the northeast side of a chain-link fence separating the West Tributary, Wetland Complex BB1, and Wetland Unit BB2 from the Bellevue Base bus yard. All demolition debris would be taken offsite and disposed of at a permitted facility.

Surface water runoff, including stormwater, would continue to be collected via storm drains onsite. During construction, surface water will be treated by passive catch basin protection systems (i.e., plastic sheeting as shown on the TESC plans and stated in the SWPPP). Groundwater or other sediment laden water encountered would be pumped to a 55-gallon (mininum) drum and allowed for the particulates to settle out prior to discharge into the existing stormwater conveyance system. No additional surface water runoff treatment facilities are proposed.

Groundwater may also be encountered during pole installation, directional boring, or trenching. There is a risk that groundwater quality may be impaired due to the accidental release or exposure to gasoline, oil, hydraulic fluids, and related materials from use and operation of construction equipment. To minimize this risk, the potentially contaminated groundwater would be removed by using a vactor truck and taken to a permitted facility for treatment and disposal. Directional boring for conduit installation could be up to 13 feet below ground surface. Any slurry produced by directional boring would also be removed by methods such as using a vactor truck and taken to a permitted facility for treatment and disposal.

The project would address and reduce air quality impacts by implementing such measures as covering loads, installing and maintaining construction area entrances and exits, and performing proper vehicle maintenance. Areas of ground disturbance would be watered as necessary to reduce fugitive dust. To minimize noise and potential increased light impacts on the surrounding land uses, construction activities would be conducted during daytime hours.

6.4.2.2 Permanent Impacts

The below discussion summarizes minimization measures, which would be applied during the placement of the new permanent structures and during the project operation.

New Permanent Structures

Project placement of new poles and junction boxes should be such that there is minimal to no increase of geologic hazards at the project site or in the surrounding area. The corresponding geotechnical report, per LUC 20.25H.145, investigates the impact of the project on slope stability along the southern and northern boundaries (Appendix I). The report concludes slope stability will not be impacted by construction or operation of the project and should be exempt from critical area requirements. The report also lists minimization measures and recommendations to be incorporated into the final design drawings and construction specifications, such as an erosion and sediment control plan, use of structural fill, and light foundation design.

In addition, the siting of new light poles and junction boxes design measures included placing poles and junction boxes within 5 feet of the existing bus yard curb line. The intent of placing new permanent structures within 5 feet of the existing bus yard curb line is to minimize the siting impact and keep the poles as far away from the critical areas—West Tributary top of bank, the boundaries of Wetland Complex BB1 and Wetland Unit BB2, and top of slope—as possible. In addition, the project would not alter the contour of any existing slopes on site, and contractors should return any disturbed areas to preconstruction conditions.

Increased Lighting

Impacts from light and glare were considered during project design. The Musco Total Light Control Fixture was selected based on its ability to minimize light glare and spillover by shielding light from above and behind the bulbs, as well as directing/focusing the beam onto the Bellevue Base bus yard. Modeling of the anticipated unavoidable maximum vertical spillover light levels from this product onto the West Tributary and Wetland Complex BB1 was completed. The northern and eastern property boundaries were not included in modeling since 1) the east-northeast floodlights are largely in the middle of an employee parking lot then followed by a steep slope which would reduce or block light onto adjacent properties; 2) the new floodlights adjacent to operations and vehicle maintenance building and the wash building, and the wall-mounted building lights are in the middle of the bus yard and are located adjacent to buildings, which would prevent light from entering into neighboring properties; and 3) the large mature trees that are positioned between the floodlights along the northern boundary and adjacent properties would reduce potential spillover light. Seasonal variation to light exposure from the project onto the West Tributary or identified wetlands was not analyzed as it is expected light exposure would not change through the year since trees surrounding the project area are coniferous.

Based on modeling of the Musco Total Light Control Fixture, the anticipated unavoidable maximum vertical spillover light levels, or obtrusive light, adjacent to the Wetland Complex BB1would average 0.04 fc with a range from 0.1 to 1.7 fc, compared to an average of 0.8 fc with a range of 1.8 to 44.2 fc from the existing HID lights (Table 3 and Figure 13) (Manimtim pers comm.). In addition, vertical spillover light would not extend beyond approximately 45 feet into Wetland Complex BB1. (Figure 14) (King County Metro and Musco Engineering Associates 2020). Light fixtures would be angled to minimize spillover into critical areas. Overall, unavoidable maximum vertical spillover light levels near the West Tributary and Wetland Complex BB1 are expected to decrease with the installation of the Musco Total Light Control Fixtures when compared to existing conditions.

Light spillover into Wetland Unit BB2 would also be reduced through use of Musco Total Light Control Fixtures. However, since this Category IV wetland has little to no wildlife habitat and is not

associated with a fish-bearing stream, the current Wetland Unit BB2 function would not be affected or changed due to a difference in artificial light levels.

Prior to installation, Musco Total Light Control Fixtures would be tested at the facility to ensure the vertical spillover light would not exceed the modeled spillover levels. After installation, field measurements would be taken to verify required light levels are met. If requirements are not met, King County Metro would evaluate how to adapt or readjust light fixtures to meet requirements.

Table 3. Obtrusive Light Comparison between Existing Conditions and Musco Light Fixtures Without Trees Placed (Non-growing Season) onto the West Tributary and Wetland Complex BB-1

Legs	Existing HID Lighting (fc)	Musco Light Fixtures (fc)
Maximum L1	1.8	1.7
Maximum L2	44.2	0.1
Maximum L3	6.4	0.3
Average L1	0.5	0.08
Average L2	0.53	0.01
Average L3	1.36	0.02

Source: Manimtim pers comm.
Notes: L1 = Northern leg; L2 = North to south leg; L3 = Southern leg

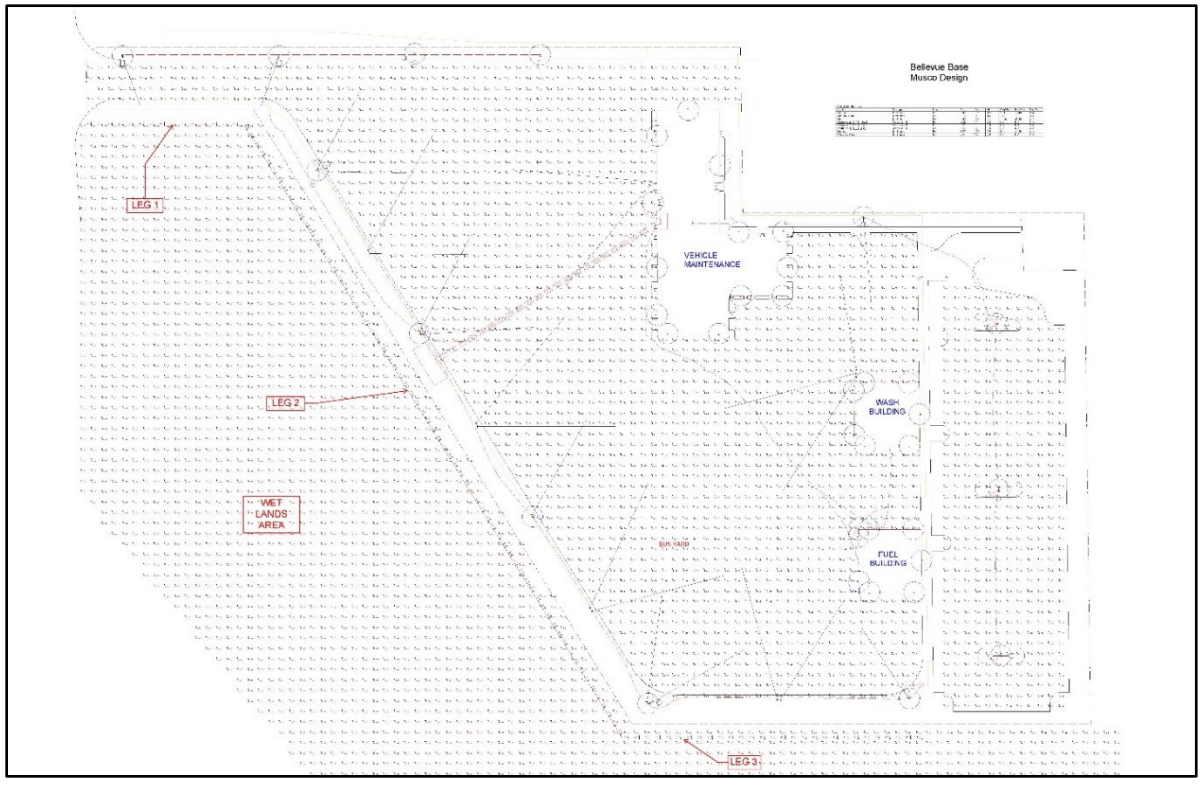

Figure 13. Modeling Areas or Legs for Obtrusive Light Comparison

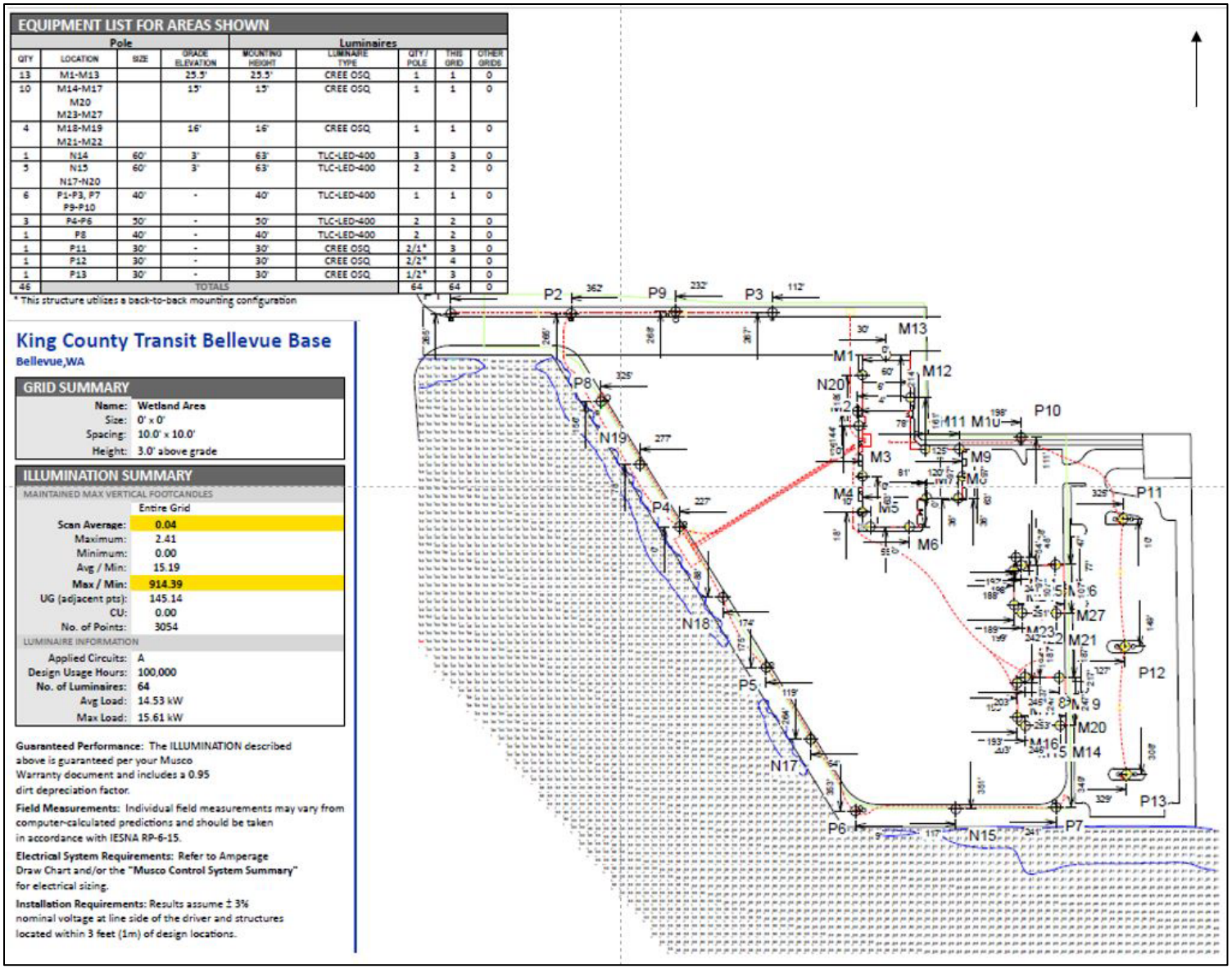

Figure 14. Musco Fixtures Obtrusive Light Spillover into Wetland Complex BB1

6.4.3 Available Compensatory Mitigation Measures for Temporary and Permanent Impacts

Compensatory mitigation was considered for both temporary and permanent impacts per LUC 20.25H.215C(1)-(3). This section focuses on the mitigation for permanent impacts and the cumulative gain from mitigation. To best address project impacts, all proposed available mitigation measures would occur within the critical areas or associated buffers at the project site. No off-site mitigation is proposed.

6.4.3.1 New Permanent Structures

The project could result in up to four new poles and five new junction boxes in a top of slope boundary or buffer; top of bank boundary, buffer, or setback; and/or wetland buffers. A compensatory mitigation discussion for both temporary and permanent impacts in relation to these permanent structures is provided below.

1. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.*

Design measures would ensure that all new light poles and junction boxes minimize alteration of the natural contour and preserve the natural landform (LUC 20.25H.125.A and B). Groundcover disturbed due to conduit installation and surrounding the new permanent structures would be replaced with native grasses. Due to bus yard operations and existing trees in the project area, planting native trees and shrubs in the project footprint would not be possible. However, areas of temporary disturbance in critical areas or associated buffers would be restored by replanting with an upland seed mix containing native grasses, such as blue wildrye, meadow barley, and California brome. The seed mix would be from a native plant source in the Puget Sound lowlands. The mix would be true-to-name, cleaned, and weed free within acceptable tolerance limits. To comply with LUC 20.25H.215D, monitoring of newly seeded areas per City of Bellevue's approval conditions would be conducted by Metro; thus, providing a means for identifying changes needed in maintenance or monitoring methods, identifying potential problems, and recommending corrective actions.

Compensatory mitigation due to the loss of stormwater function from new hard surfaces within the wetland buffer and top of bank for the West Tributary is discussed below.

2. *Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.*

Metro would continue to implement best management practices during project operations to avoid and minimize impacts of all identified critical areas over the life of the project. This would include maintaining already established trees and shrubs within the property, as well as monitoring reseeded and newly planted areas per City of Bellevue's approval conditions to ensure adequate coverage of native trees, shrubs, and groundcover.

3. *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.*

New permanent structures within critical areas and buffers would be mitigated through enhancement of current riparian and wetland vegetation onsite. No offsite mitigation is proposed. Impacts within top of bank for the West Tributary would be mitigated at a 1:1 ratio per LUC

20.25H.085A.1 & 20.25H.085B. Impacts on wetland buffers would be mitigated at a 1:1 ratio per LUC 20.25H.105C.3. The total new hard surface area created by new floodlight poles and new junction boxes is approximately 111 square feet. For compensatory mitigation, Metro intends to exceed the required 1:1 mitigation ratio and is proposing to remove up to 125 square feet of invasive species and replant with native tree, shrub, and groundcover species (Table 4). Plants would be from a native plant source in the Puget Sound lowlands. All invasive removal and replanting would occur on the project site in the critical areas or associated buffers. Specifically, the western property boundary near JB#3 has been identified as a potential mitigation area (Figure 15). It is currently dominated by St. John's wort. This mitigation would result in improved vegetative quality and habitat along the riparian corridor. Based on placement and plant species, this mitigation would provide greater function than what would be removed during project installation. The plantings would also replace and exceed the permeability lost from the new floodlight poles and junction boxes, resulting in no loss of stormwater function on site.

Table 4. Planting Schedule [a]

Plant Species	Quantity [b]	Spacing	Characteristics
Bitter cherry *Prunus emarginata*	2	9 feet on center	Forage and habitat for wildlife; grows well in drier sites in full sun.
Beaked hazelnut *Corylus cornuta*	3	6 feet on center	Grows up to 15 feet tall. Good wildlife habitat, grows well in drier soil, shade tolerant.
Cluster rose *Rosa pisocarpa*	2	4.5 feet on center	Grows 7 to 5 feet tall, pink flowers, prefers wetter soil (plant along western border towards wetland).
Beach strawberry [c] *Fragaria chiloensis*	15	2 feet on center	Forage for birds, rapid spreader, evergreen, prefers dry soil and shade intolerant (plant upslope towards curb).
Redwood-sorrel [c] *Oxalis oregana*	15	1.5 feet on center	Highly tolerant rapid spreader that grows well in wetland buffers in full to partial sun.

[a] Planting area totals 125 square feet.

[b] Quantities represent upper limit and may be adjusted based on grouping onsite during planting.

[c] Groundcover will not be planted within 2 feet of shrubs.

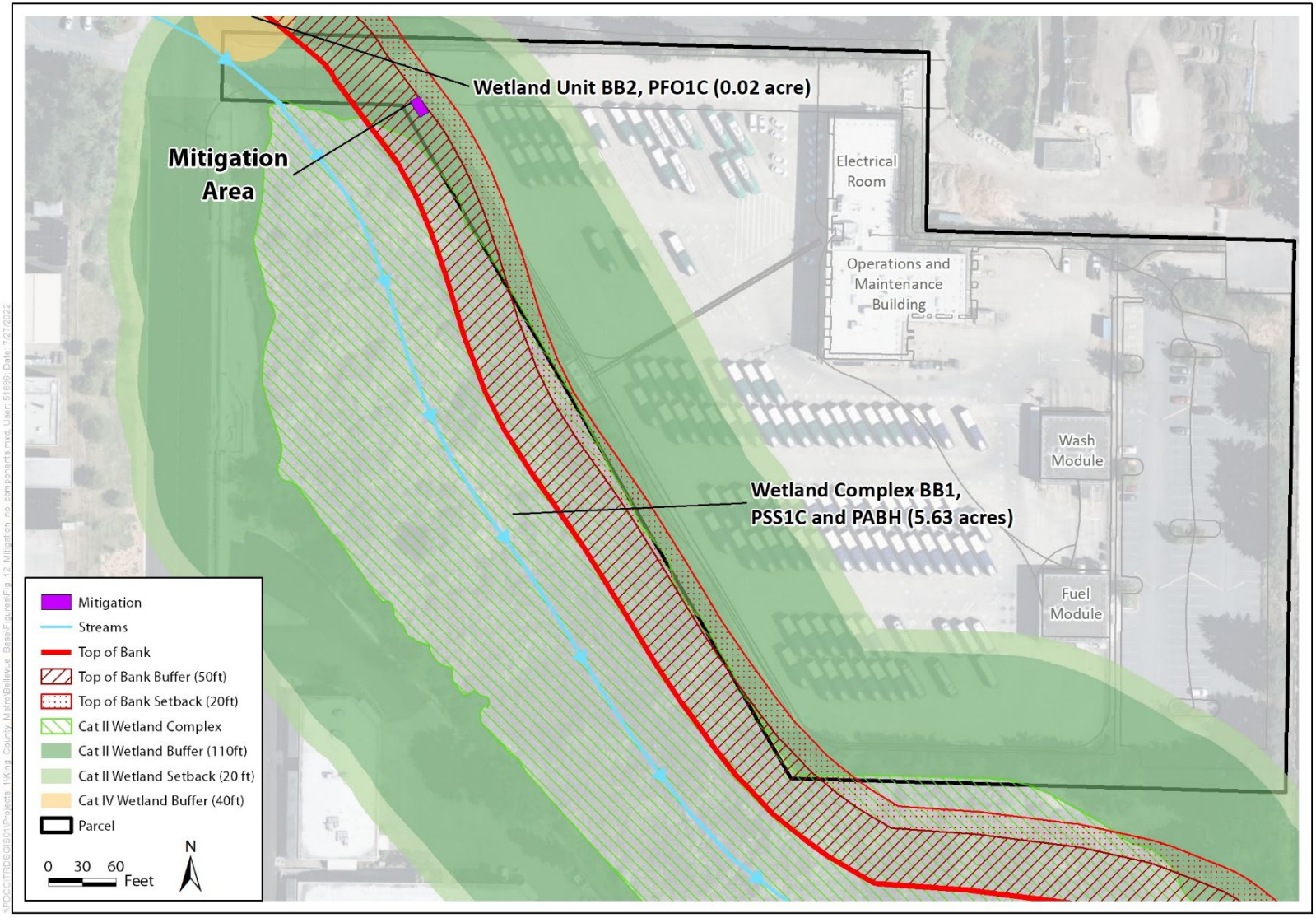

Figure 15. Potential Compensatory Mitigation Areas within Bellevue Base with Top of Bank and Wetland Boundaries, Buffers, and Setbacks.

6.4.3.2 Increased Lighting

Temporary impacts associated with increased lighting would be limited to the construction of floodlights and wall-mounted lights and addressed in Section 6.4.2.1, *Minimization Measures, Temporary Impacts*. The following paragraphs would focus only on the permanent impacts of increased lighting.

1. *Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.*

The proposed project should not have an impact on critical areas, buffers, or setbacks from increased lighting. Light fixtures would be angled to minimize spillover into critical areas. The Musco Total Light Control Fixtures would be selected such that they would minimize light, glare, and spillover by shielding light from above and behind the bulbs, as well as directing/focusing the beam onto the Bellevue Base (Appendix A, Drawing E5.01). Finally, based on modeling and distance between the creek channel and top of slope along much of the project area, vertical spillover light would not likely reach the West Tributary or other aquatic habitat in the study area.

Impact avoidance and minimization would be verified prior to installation. Light fixtures would be tested at the facility and verified in the field after installation to ensure the vertical spillover light would not exceed the expected spillover levels modeled.

2. *Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.*

Metro would implement best management practices during project operations to ensure continued avoidance of all identified critical areas.

3. *Compensating for the impact by replacing, enhancing, or providing substitute resources or environments*

To stay compliant with LUC 20.25H.215D, Metro would test Musco Light Fixtures at the facility to ensure the vertical spillover light would not exceed the expected spillover levels modeled. After installation, field measurements would be taken to verify required light levels are met. In the unlikely event that spillover levels are exceeded even with the employment of design minimization measures, Metro would evaluate how to adapt/readjust light fixtures to ensure the spillover light stay within the expected spillover levels modeled. Metro would work closely with the City of Bellevue to explore the necessary avenues to compensate for the impact.

6.4.3.3 Cumulative Gain from Available Mitigation Measures

Because all proposed available mitigation would be from vegetation enhancement, hydrology through the West Tributary and the associated wetland would largely function as it did before the project. However, additional shading from tree maintenance and protection on the project site may reduce water temperature and improve water quality. Additionally, because this is a fish-bearing stream in a highly developed setting, these habitat improvements would be important toward improving the overall health of the creek locally and downstream and would mitigate possible project impacts.

Chapter 7
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Appendix I
Geotechnical Report – The Riley Group, 2020

December 4, 2020

Mr. Matt Montagner
Integrity Energy Services, Co
14405 Southeast 36th Street, Suite 210
Bellevue, Washington 98006

RE: Critical Area Evaluation and Geotechnical Recommendations
Yard Lighting Replacement for King County Metro Bellevue Base
1790 124th Avenue Northeast
Bellevue, Washington 98005
RGI Project # 2020-545-1

References: Geotechnical Engineering Report for Johnathan's Storage Facility, prepared by Earth Consultants, Inc. dated December 23, 1977
Phase I Site Assessment Report for Metro Bellevue Base Facility, prepared by Herrera Environmental Consultants dated November 5, 1992

Dear Mr. Montagner:

As requested, The Riley Group, Inc. (RGI) has performed a reconnaissance of the site on November 10, 2020. Our services were completed in accordance with our proposal 2020-545-PRP1 dated October 23, 2020 and authorized by Mark Foster on November 17, 2020.

PROJECT DESCRIPTION

The subject site consists of a parcel of land (King County Parcel #282505-9295) and located at 1790 124th Avenue Northeast in Bellevue, Washington. The property was developed in 1983 and is occupied by three buildings of about 28,144 square feet used for van pool operations in the northeastern and middle portion of the site, a bus yard in the western portion of the site, and an employee and visitor parking area in the eastern portion of the site.

RGI understands that King County Metro intends to improve the bus yard lighting by installing several new poles and installing new electrical conduit along the western perimeter. Based on review of City of Bellevue Critical Hazards Maps, the area to the west and south of the site is mapped as a wetland. The City of Bellevue requires a critical area report for the project permit. RGI's understanding of the project is based on a site plan prepared by Musco Lighting dated September 11, 2020.

Based on the current plan, RGI expects no major earthwork will be needed for the project.

SITE CONDITIONS

The subject property includes a parcel of land with a total area of about 8.44 acres. The site is bound to the north by a storage facility, to the east by a cement/gravel operation, and to the west and south by a wetland. The site location is shown on Figure 1.

The property is relatively level across the site with an elevation difference of less than 5 feet. Based on our observation and evaluation, the existing site seems to be raised by several feet of fill along the west portion of the site during original construction. The slope along the wetland

seems to be a fill slope. Photos 1 through 4 show the slope condition along the west property boundary.

Photo 1 Western Property Boundary – View from North

Photo 2 Western Property Boundary – View from South

Photo 3 Northern Property Boundary - View from West

Photo 4 Existing Light Pole – Along Western Property Boundary

GEOLOGY AND SOIL

Review of the *Geologic Map of the Kirkland Quadrangle, Washington* by James P. Minard (1983) indicates that the soil throughout of the site is mapped as Recessional Outwash (Map Unit Qvr) which is stratified sand and gravel with minor silt and clay deposited by meltwater streams issuing from the receding Vashon ice sheet. Based on our review of the referenced reports performed for the site and site immediately north of the site, the native soils appear to be generally similar to what was described in the geology map.

GEOLOGIC HAZARD AREAS

Regulated geologically hazardous areas include erosion, landslide, earthquake, wetland, or other geological hazards. RGI has reviewed the City of Bellevue Land Use Code (LUC) Section 20.25H.095, the area to the west of the site is a wetland. For new development close to the wetland area, a buffer/setback is generally required.

The proposed project will not be able to comply with a buffer and setback requirement. In order to be exempted from the standard buffer/setback, a critical area report will be needed.

RGI also assessed the potential for liquefaction of the site's soil during an earthquake. Review of the *Liquefaction Susceptibility Map of King County, Washington* by Stephan P. Palmer, etc., (2004) indicates the soils in the area are mapped as having a low to moderate liquefaction susceptibility during a seismic event.

SITE EVALUATION

On November 10, 2020, RGI's project geologist and principal engineer performed a reconnaissance to evaluate the site condition. We evaluated the existing poles along the western property line. We did not find any signs of previous settlement or failure. No seeps or springs were observed on the slope face through most of the property. The slope is vegetated with vines, ferns, and mixed brush, with localized small- to medium-diameter deciduous trees scattered throughout the slope.

Based on our observations, the site slopes are stable in their current configuration and condition. We didn't find any signs indicating any major failure in the past.

CONCLUSIONS

Based on our current understanding of the project, the three additional poles will be added along the western property line, one along the southern property line, one in the eastern portion of the property, and electrical conduits will be installed. The proposed earthwork is minor and will not impact the wetland. Provided the recommendations in this report are followed, the proposed construction should be exempted from the critical area requirement.

RECOMMENDATIONS

Geotechnical Considerations

Based on our study, the site is suitable for the proposed construction from a geotechnical standpoint. Detailed recommendations regarding the geotechnical design considerations are provided in the following sections. These recommendations should be incorporated into the final design drawings and construction specifications.

Erosion and Sediment Control

Potential sources or causes of erosion and sedimentation depend on construction methods, slope length and gradient, amount of soil exposed and/or disturbed, soil type, construction sequencing and weather. The impacts on erosion-prone areas can be reduced by implementing an erosion and sedimentation control plan. The plan should be designed in accordance with applicable city and/or county standards.

RGI recommends the following erosion control Best Management Practices (BMPs):

- Scheduling site preparation and grading for the drier summer and early fall months and undertaking activities that expose soil during periods of little or no rainfall
- Establishing a quarry spall construction entrance
- Installing siltation control fencing or anchored straw or coir wattles on the downhill side of work areas
- Covering soil stockpiles with anchored plastic sheeting
- Directing runoff away from exposed soils and slopes
- Decreasing runoff velocities with check dams, straw bales or coir wattles
- Confining sediment to the project site
- Inspecting and maintaining erosion and sediment control measures frequently

Permanent erosion protection should be provided by reestablishing vegetation using hydroseeding and/or landscape planting. Until the permanent erosion protection is established, site monitoring should be performed by qualified personnel to evaluate the effectiveness of the erosion control measures. Provisions for modifications to the erosion control system based on monitoring observations should be included in the erosion and sedimentation control plan.

Structural Fill

RGI recommends the trench backfill in accordance with the following recommendations for structural fill.

The suitability of excavated site soils and import soils for compacted structural fill use will depend on the gradation and moisture content of the soil when it is placed. As the amount of fines (that portion passing the U.S. No. 200 sieve) increases, soil becomes increasingly sensitive to small changes in moisture content and adequate compaction becomes more difficult or impossible to achieve. Soils containing more than about 5 percent fines cannot be consistently compacted to a dense, non-yielding condition when the moisture content is more than 2 percent above or below optimum. Optimum moisture content is that moisture that results in the greatest compacted dry density with a specified compactive effort.

Non-organic site soils are only considered suitable for structural fill provided that their moisture content is within about two percent of the optimum moisture level as determined by American Society of Testing and Materials D1557-09 Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557).

Excavated site soils may be suitable for re-use as structural fill if the soil's moisture can be properly controlled. If soils are stockpiled for future reuse and wet weather is anticipated, the stockpile should be protected with plastic sheeting that is securely anchored. Even during dry weather,

moisture conditioning (such as, windrowing and drying) of site soils to be reused as structural fill may be required. Even during the summer, delays in grading can occur due to excessively high moisture conditions of the soils or due to precipitation. If wet weather occurs, the upper wetted portion of the site soils may need to be scarified and allowed to dry prior to further earthwork, or may need to be wasted from the site.

Some of the site soils are moisture sensitive and may require moisture conditioning prior to use as structural fill. If on-site soils are or become unusable, it may become necessary to import clean, granular soils to complete site work that meet the grading requirements listed in Table 1 to be used as structural fill.

Table 1 Structural Fill Gradation

U.S. Sieve Size	Percent Passing
4 inches	100
No. 4 sieve	75 percent
No. 200 sieve	5 percent *

*Based on minus 3/4 inch fraction.

Prior to use, an RGI representative should observe and test all materials imported to the site for use as structural fill. Structural fill materials should be placed in uniform loose layers not exceeding 10 inches and compacted to 95 percent of the soil's maximum density as determined by ASTM D1557.

Placement and compaction of structural fill should be observed by RGI. A representative number of in-place density tests should be performed as the fill is being placed to confirm that the recommended level of compaction is achieved.

Light Pole Foundations

RGI understands that Musco Sports Lighting system will be used for the project. The pole foundation is precast concrete base that will be set directly into the ground and backfilled with concrete. RGI recommends that the diameter and depth of holes be designed by a structural engineer to make sure that it will provide enough support. RGI recommends that the pole foundation hole be drilled using a drill rig to minimize the site disturbance and amount of earthwork. The minimum diameter and depth of the foundation should be 2 feet and 8 feet, respectively.

The pole foundations should be designed by a structural engineer based on the size of the pole and loading conditions. The soil parameters in Table 2 and Figure 3 should be used for the foundation design.

Table 2 Foundation Design

Design Parameter	Value
Allowable Bearing Capacity – Native soil	2,000 psf[1]
Passive pressure (equivalent fluid pressure)	200 pcf[2]
Side friction	750 psf[1]
Minimum foundation diameter	2 feet
Minimum foundation depth	8 feet

[1]. psf = pounds per square foot

[2]. pcf = pounds per cubic foot

The allowable foundation bearing pressures apply to dead loads plus design live load conditions. For short-term loads, such as wind and seismic, a 1/3 increase in this allowable capacity may be used. RGI recommends not including the upper 2 feet of soil in the computation of passive pressures and side friction because they can be affected by weather or disturbed by future grading activity. The passive pressure value assumes the foundation will be constructed neat against competent soil and includes a safety factor of about 1.5.

With the drilled pier foundations designed in accordance with the recommendations in this section, maximum total post-construction settlement of less than one inch should be expected.

Utilities

Based on current plan, electrical conduits will be installed between the fence and curb along the western property line. RGI believes that the electrical conduits can be installed at any convenient location without any concern.

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) specifications. For site utilities located within the right-of-ways, bedding and backfill should be completed in accordance with City of Bellevue specifications. At a minimum, trench backfill should be placed and compacted as structural fill. Where utilities occur below unimproved areas, the degree of compaction can be reduced to a minimum of 90 percent of the soil's maximum density as determined by the referenced ASTM D1557. As noted, soils excavated on site may not be suitable for use as backfill material. Imported structural fill meeting the gradation provided in Table 1 may need to be imported for use as trench backfill.

LIMITATIONS

This letter is the property of RGI, Integrity Energy, Co, and their designated agents. Within the limits of the scope and budget, this letter was prepared in accordance with generally accepted geotechnical engineering practices in the area at the time this letter was issued. The report is an evaluation of the site based on available information. No geotechnical exploration was performed in this scope of work. The report can only be used in project planning and preliminary design. No other warranty, expressed or implied, is made. Site safety, excavation support, and dewatering requirements are the responsibility of others.

The analyses and recommendations presented in this letter are based upon visual observation of the slope, no explorations or slope stability analysis was completed in preparation of this letter. Variations in soil and groundwater conditions can occur over time.

Please call us at (425) 415-0551 if you have any questions or need additional information.

Respectfully submitted,

THE RILEY GROUP, INC.

State of Washington 2698 Licensed Geologist 12/4/2020

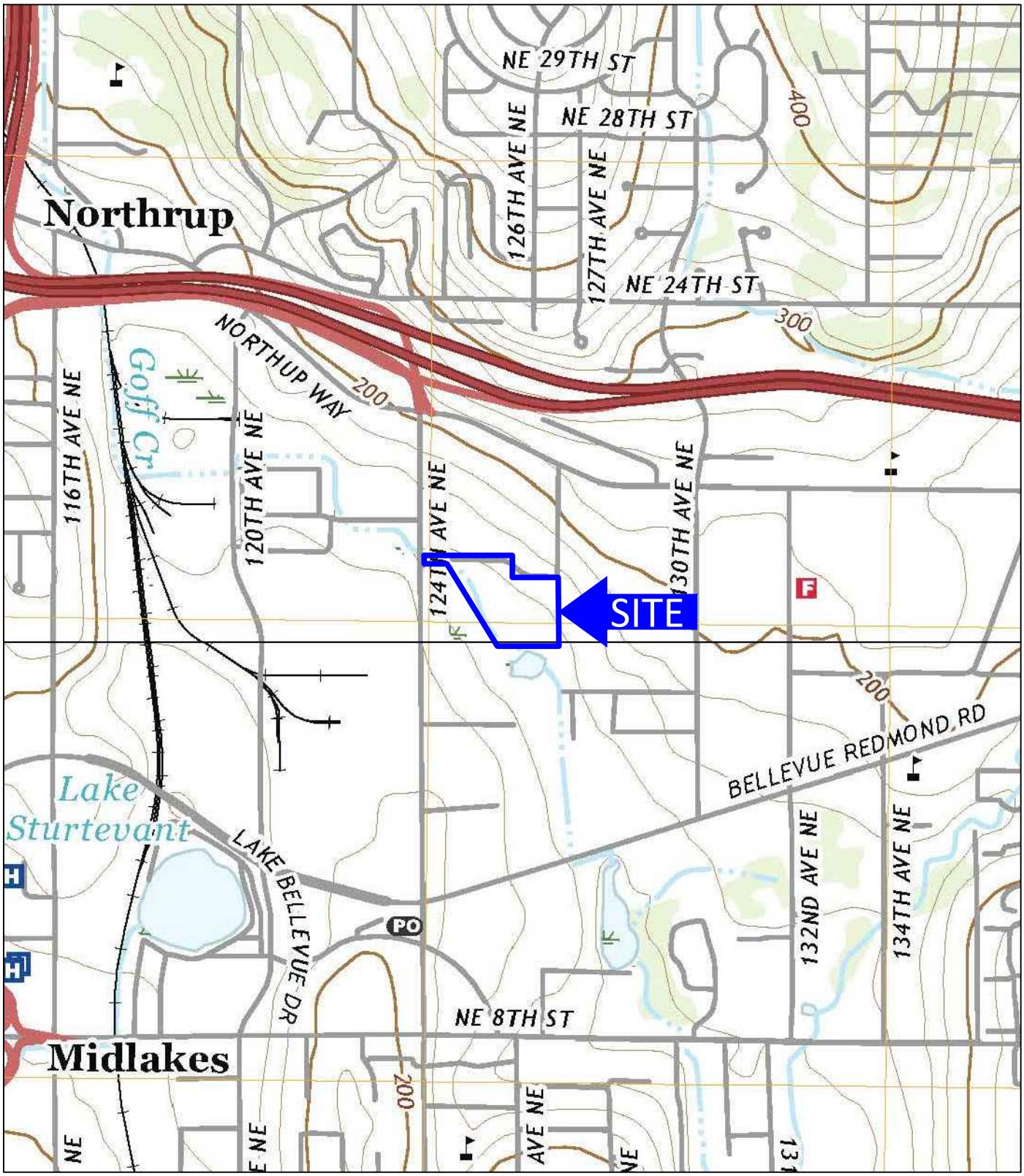
ERIC L. WOODS

RICKY RUNQI WANG STATE OF WASHINGTON 35013 REGISTERED PROFESSIONAL ENGINEER 12/4/2020

Eric L. Woods, LG
Project Geologist

Ricky R. Wang, PhD, PE
Principal Engineer

Attachments: Figure 1 Vicinity Map
Figure 2 Site Plan
Figure 3 Light Pole Foundation Design



USGS, 2020, Kirkland, Washington
USGS, 2020, Mercer Island, Washington
7.5-Minute Quadrangle

Approximate Scale: 1"=1000'

0 500 1000 2000

N

RILEYGROUP
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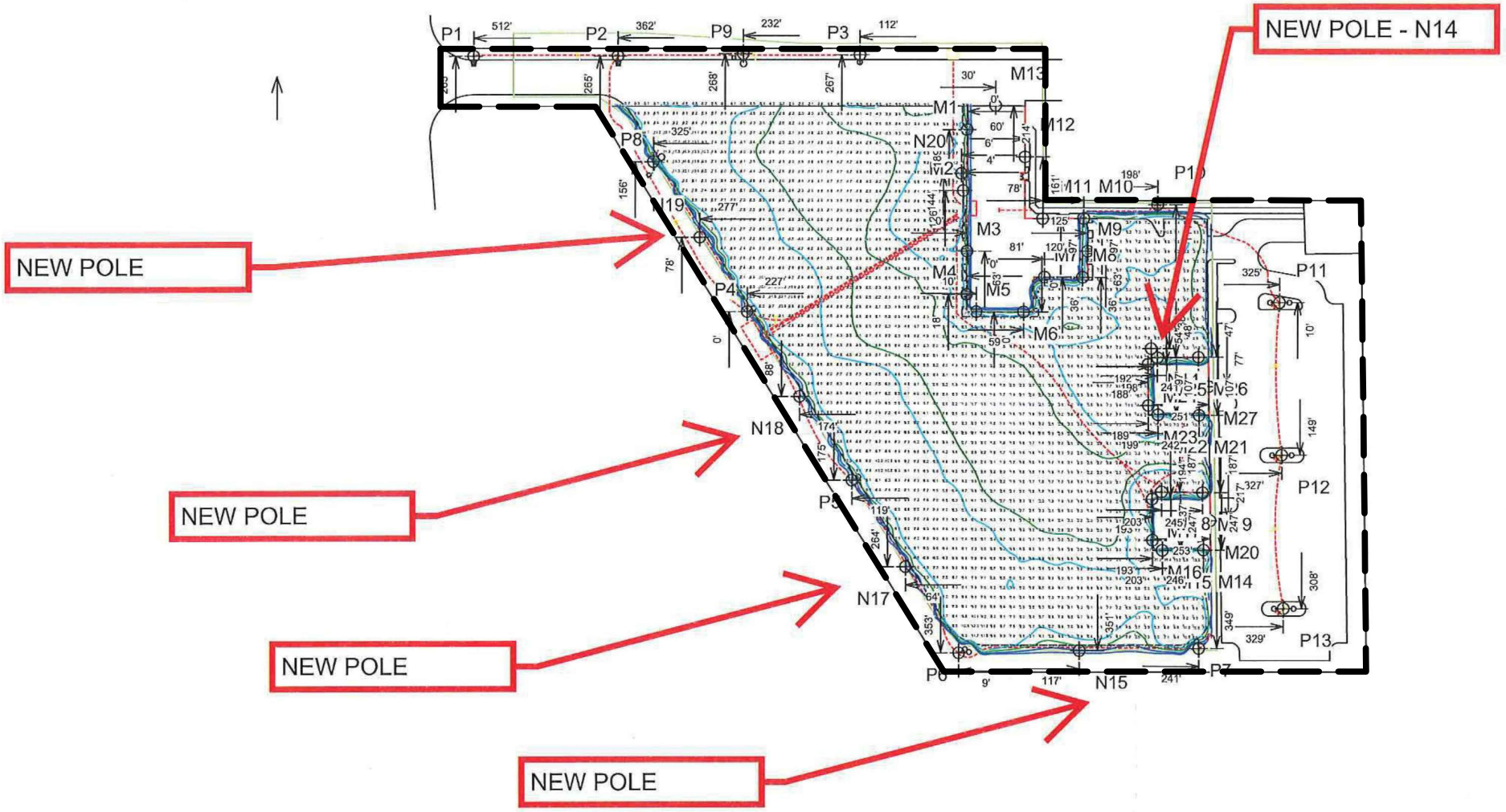
Bothell, Washington 98011
Phone: 425.415.0551
Fax: 425.415.0311

KC Metro Bellevue Base		Figure 1
RGI Project Number: 2020-545-1	Site Vicinity Map	Date Drawn: 12/2020
Address: 1790 124th Avenue Northeast, Bellevue, Washington 98005		



Approximate Scale: 1"=160'

0 80 160 320

N

= Site boundary

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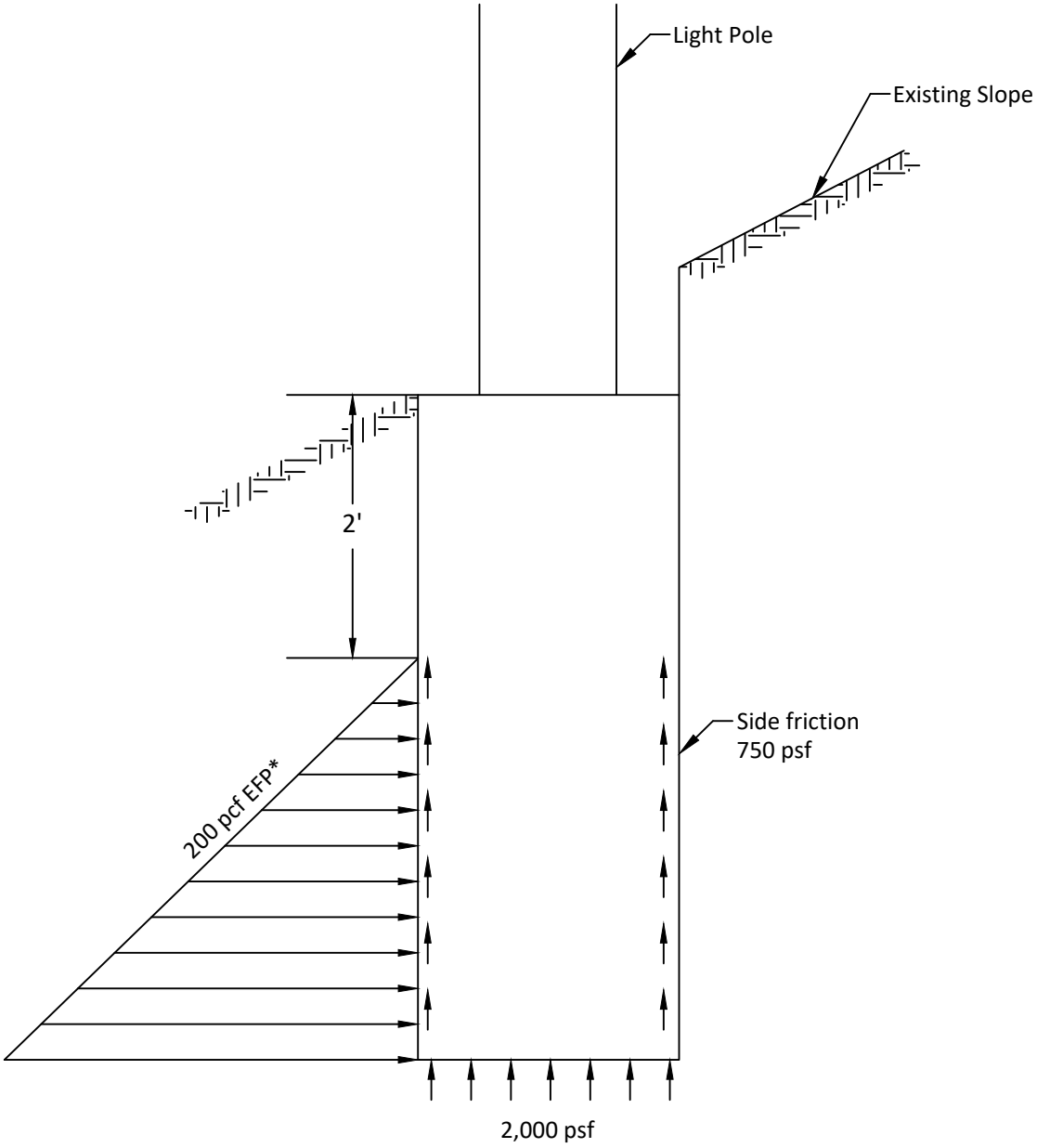
KC Metro Bellevue Base		Figure 2
RGI Project Number: 2020-545-1	Site Plan	Date Drawn: 12/2020
Address: 1790 124th Avenue Northeast, Bellevue, Washington 98005		

DESIGN PARAMETERS
FOR LIGHT POLE FOUNDATION



* A Safety Factor of 1.5 is included

Not to Scale

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KC Metro Bellevue Base		Figure 3
RGI Project Number: 2020-545-1	Light Pole Foundation Design	Date Drawn: 12/2020
Address: 1790 124th Avenue Northeast, Bellevue, Washington 98005		