

Gold Bar Waste Water Treatment Plant (GBWWTP) South Access Stairway

Site Location Study Pursuant to Bylaw 7188
Final Report



Prepared for:
EPCOR Water Services Inc.
Edmonton, Alberta

Under Contract to:
ISL Engineering and Land Services Ltd.
Edmonton, Alberta

Project Number EP-977
May 2022

Prepared by:
**Spencer Environmental
Management Services Ltd.**
Edmonton, Alberta





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Project Manager
Gold Bar Waste Water Treatment Plant
EPCOR Water Services Inc.
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Edmonton AB T5H 0E8

11 May 2022
File: EP-977

Dear Mr. Antonakis,

Re: Site Location Study Pursuant to Bylaw 7188 for Gold Bar Waste Water Treatment Plant South Access Stairway – Final Report

We are pleased to submit this pdf copy of the above-mentioned Site Location Study (SLS). This final report includes changes made to reflect City of Edmonton administration comments on the draft EIA and SLS. Changes are confined to the Introduction and the Alternative Location Review sections. For record keeping purposes, the EIA and SLS sign-off letter, including important City advisements and conditions, is appended to the SLS (Appendix C).

The required EIA has been prepared and is provided under separate cover.

Please contact either of the undersigned if you require additional information. Thank you for the opportunity to be of service.

Sincerely,

**Spencer Environmental
Management Services Ltd.**




Stephanie Jean, M.Sc., P.Biol.
Environmental Scientist




Lynn Maslen, M.Sc., P.Biol.
President

cc: Darin Hicks, P. Eng., ISL
Jesse Skipworth, P. Eng., ISL

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1.0 INTRODUCTION AND PROJECT LOCATION

EPCOR Water Services Inc. (EPCOR) owns and operates the Gold Bar Waste Water Treatment Plant (GBWWTP), located within City of Edmonton Gold Bar Park. The GBWWTP is a secure, fully fenced site, situated on the North Saskatchewan riverbank (Figure 1, Appendix A). The site has a main vehicular entrance gate on the west at 50 Street, a contractor vehicular access at the east site boundary and a pedestrian access gate on the south boundary. Visitors entering the plant on foot, approach the plant using a park shared-use path (SUP) that parallels the plant's south boundary and then approach the pedestrian gate by way of an informal, bare-earth path that connects the park SUP to the gate (Plate 1.1 and 1.2). In response to significant recent use of the south access gate, EPCOR is proposing to upgrade that entrance by installing a new, wider gate and replace the bare-earth path with a wooden stairway situated in the pathway alignment (Figure 2, Appendix A). The stairway component of the project would be located in the park, outside the boundaries of the GBWWTP.



Plate 1.1. View of proposed stairway location, looking north from the SUP toward existing pedestrian gate (05 August 2021). Exposed soil in the foreground is the result of a current City sodding program associated with SUP upgrades.



Plate 1.2. View of proposed stairway location, looking south from the existing pedestrian gate upslope to the SUP (05 August 2021).

The GBWWTP and the proposed stairway project is located within the boundaries of the City of Edmonton’s North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP) (Bylaw 7188). The location of project components outside of the EPCOR property and within Gold Bar Park triggers the need for an environmental review pursuant to Bylaw 7188. City of Edmonton ecological planners have determined that the appropriate level of review for the proposed project is an Environmental Impact Assessment (EIA) that will be subject to approval by City Council. Further, they have determined that a Site Location Study (SLS) must also be prepared (under separate cover) for the proposed project, as the stairway meets their definition of a major facility proposed for development on public lands. The SLS will also be subject to City Council approval. EPCOR has retained ISL Engineering and Land Services Ltd. (ISL) to complete the stairway design. ISL has retained Spencer Environmental Management Services Ltd. (Spencer Environmental) to complete the EIA and SLS for the proposed project.

This report comprises the Bylaw 7188 SLS for the new GBWWTP south access stairway. The EIA is provided under separate cover. The SLS report format and content follow the City’s Guide to Completing a Site Location Study Report, which was appended to the project-specific Terms of Reference for the EIA (Appendix B). This SLS addresses all components of the GBWWTP south access stairway project located on City-owned property within the NSRV ARP. For context, it also broadly describes the planned pedestrian gate upgrade although that gate is not subject to the Bylaw 7188 SLS. The content of this final SLS reflects our correspondence with the City during the period January to early May 2022.

2.0 GBWWTP SOUTH ACCESS STAIRWAY PROJECT SCOPE

2.1 Project Description and Scope

EPCOR currently receives site visitors through an existing pedestrian gate located near the centre of the south property fence. Visitors approach the gate by way of the Gold Bar Park SUP that parallels the southern fence line of the GBWWTP in combination with the bare-earth trail connecting the SUP to the gate (Plate 1.2). EPCOR is looking to improve this pedestrian visitor access to increase visitor safety. The existing path is a sloped bare-earth trail that is poorly suited to four-season use (Plates 1.1 & 1.2). It becomes muddy during wet periods and can accumulate ice during the winter season. The south access gate is used by visiting EPCOR employees, tour groups and RiverWatch elementary student tours. It receives significant use. For example, in 2018 the gate was used to accommodate 35 general tours (involving 643 people), and 4,342 visiting students; in 2019, there were 43 general tours (702 people), and 4,040 students (P. Antonakis, *pers. comm.*). Tours did not operate in 2020 due to COVID-19 restrictions.

EPCOR is proposing to replace the bare-earth path with a wooden stairway (Figure 4, Appendix A). The stairway would be located in the alignment of the existing path (Plate 4.1). The stairway design, provided in Appendix F, is compliant with City of Edmonton *Wood Stairs and Support Structure Standards* (2018). The stairway will be 3 m wide with a 3 m long wooden landing at the top of slope. Some site grading will be required to install the stairway. A gravel pad (~1 m long by 3 m wide) will connect the top of stairway to the existing SUP; a short 1.5 m wide concrete sidewalk will tie the stair bottom to the existing GBWWTP sidewalk that begins at the gate entrance. The existing security gate will be upgraded to a double gate with card reader and security camera (also shown in Appendix F). Very limited and selective tree removal will likely be required to accommodate the stairway, proposed tie-ins or upgraded security gate (EPCOR 2021). Minimal understorey vegetation removal will also be required.



Plate 4.1. Site of proposed stairway shown in orange; minimal vegetation removal is anticipated (05 August 2021).

2.2 Landscaping

Once construction is complete, excavations will be backfilled and areas near the stairway impacted by construction will be re-vegetated in accordance with applicable City of Edmonton design standards (EPCOR 2021).

2.3 Construction Schedule

Pending approvals from the City of Edmonton, construction of this project will start in spring 2022 and will be completed in 2022 (EPCOR 2021).

2.4 Construction Laydown Area and Access

Construction laydown areas will be located within the existing fence line of the GBWWTP (EPCOR 2021). Construction access will be through the existing security gate and via the park SUP. Limited trail closures are anticipated as a result of the proposed project.

2.5 Project Phases and Associated Key Activities

Key project phases include:

- Grubbing of the site;
- Rough grading;
- Structural pile installations;
- Stair construction;
- Access gate improvements; and
- Landscaping

2.6 Alternatives Considered

The existing pedestrian access gate was selected for its central location within the GBWWTP. The gate allows entry to the plant site in close proximity to office spaces, meeting rooms, and gathering spaces where tour groups can be provided an orientation and receive personal protective equipment. Alternative locations along the south fence line and in proximity to the east and west gates were considered but rejected for the following reasons: longer distances from offices and meeting rooms where visitors gather; all other locations would require installation of a new pedestrian access, including a gate and a dedicated walkway through the plant; visitors would be forced to walk through much more of the treatment plant site, including parallel to the treatment process infrastructure, construction areas and areas supporting higher vehicular traffic volumes, including trucks.

3.0 GBWWTP SOUTH ACCESS STAIRWAY LOCATION ANALYSIS AND JUSTIFICATION

3.1 Alternative Location Review

As this project is proposed in association with and to improve access to the existing GBWWTP, no alternative locations *remote to the GBWWTP* were examined.

Several local alternative locations for pedestrian access to the site were considered: the west and east vehicular accesses and other locations along the south site boundary particularly to the east where the existing SUP is closer to the shared EPCOR/Park property boundary. The vehicular accesses were considered unsuitable for pedestrian access from a safety and internal pedestrian circulation perspective. The intention of finding another gate location along the south boundary was to achieve a shorter access path from SUP to gate. The only potential location identified was to the east near the secondary clarifier. This location was considered unsuited for pedestrian access as it is already a vehicular pinch point (Plate 3.1).

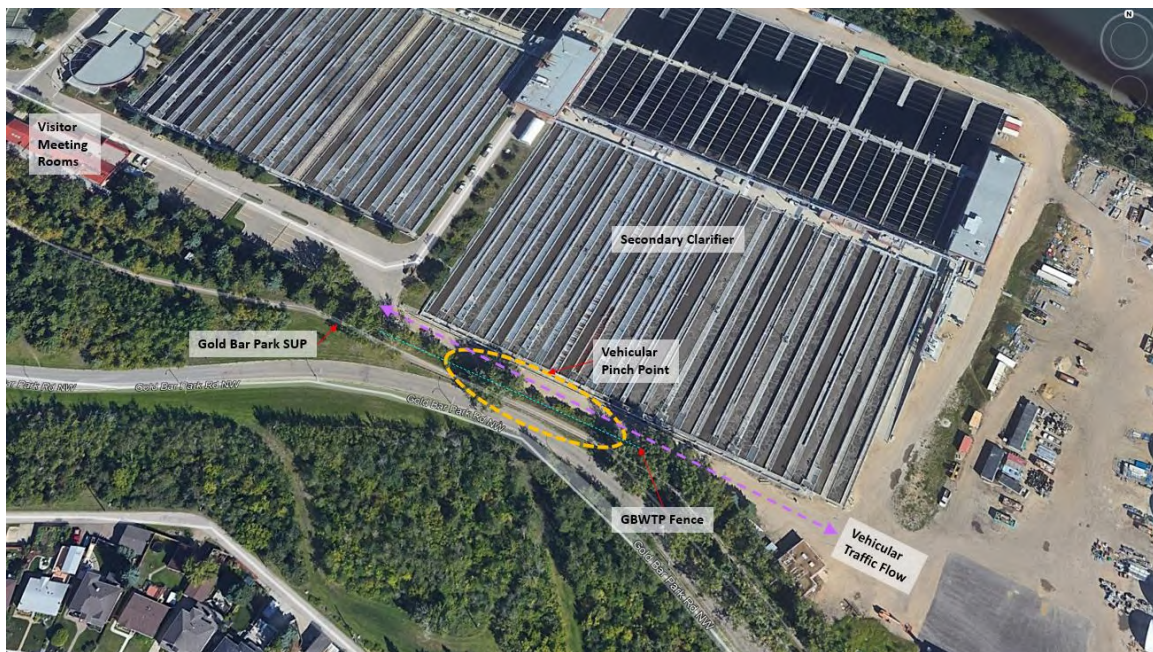


Plate 3.1. Potential alternate site considered by EPCOR.

Ultimately, the chosen location represents the safest means of providing pedestrian, public access to GBWWTP. Although this is a private site, EPCOR aims to be a good neighbour, which to that end, includes hosting the public and educating people, including school children, about operations through tours and on-site activities. These activities require safe access, which cannot be achieved to the same degree in other locations. EPCOR offers several arguments supporting the proposed stairway location on public land, summarized by category below.

Public Tours

Community education plays a key role in connecting Edmontonians to their neighbourhoods and the City of Edmonton promotes outreach, education, and partnerships to coordinate the conservation of the North Saskatchewan River Valley and Ravine System. Education and awareness is also an important part of EPCOR's role in monitoring and protecting the North Saskatchewan River, and the operation of our water and wastewater treatment facilities.

Tours of the Gold Bar Wastewater Treatment Plant enable the public to learn more about water treatment and the value of water. In addition to accommodating groups from accredited post-secondary institutions that have a focus on wastewater/environmental education, our partnership with RiverWatch helps students explore the North Saskatchewan River. We have a longstanding partnership with RiverWatch to support student learning. Over the past 18 years, more than 50,000 students have toured through our Gold Bar plant as part of the RiverWatch program. In the summer of 2018, Gold Bar was part of RiverWatch's new River Ambassador Program, which brought community members to our plant as part of an on-water learning experience.

On a 90-minute walking tour of the Gold Bar Wastewater Treatment Plant, participants learn about:

- Gold Bar's innovative infrastructure
- The different processes involved in wastewater treatment and how water is safely returned to the North Saskatchewan River
- What keeps Gold Bar at the forefront of wastewater treatment technology in North America

In 2018 the gate was used to accommodate 35 general tours (involving 643 people), and 4,342 visiting students; in 2019, there were 43 general tours (702 people), and 4,040 students. (Tours have not been held in 2020 or 2021 due to COVID, but we expect to resume tours this year). Developing safe and reliable public access to the plant is important to the continued success of the public tours.

Safe Public Access

The City of Edmonton prioritizes public spaces that are accessible, safe, and easy to navigate and explore in all seasons. To ensure the safety of the public and our EPCOR employees, the proposed staircase improves safety and access for pedestrian visitors to the GBWWTP site.

The proposed stairway at the south gate access is a means of improving existing conditions at the existing visitor pedestrian access. Visitors currently approach the plant gate using a Gold Bar Park SUP and then the access gate by way of a connecting informal, bare-earth path, which deteriorates rapidly in sub-optimal conditions, such as rain.

In response to significant use, EPCOR is proposing to upgrade that entrance by installing a new, wider gate and replacing the bare-earth path with a wooden stairway situated in the existing pathway alignment. The wooden staircase would contribute to preventing slips,

trips and falls by adding physical safety improvements such as better traction in all types of weather, a stable, hard surface to walk on, and handrails to improve safety and balance.

Optimal Location for Safe Pedestrian Access

The GBWWTP currently has three other entrances, all designed only for vehicles: a main vehicular entrance gate on the west boundary at 50 Street, a secondary vehicular entrance further north on 50 Street for deliveries, and visitors and contractors driving into the site, and an exit gate at the east boundary. The vehicular accesses are considered unsuitable for pedestrian access from a safety and internal pedestrian circulation perspective. For example, entrance at either end would require visitors, including school groups, to walk through a large portion of the site, parallel to treatment process infrastructure, construction areas and areas supporting higher vehicular traffic volumes including trucks, to arrive at the meeting/orientation rooms, and all of this *before* safety briefings that take place in a dedicated space. In addition, the main gate along 50 Street has been closed for the past three years due to active construction on site; access via the northern gate along 50 Street has recently been reduced due to single lane vehicular traffic construction at a congested area just past the gate and is expected to have limited access for the next year and a half; and the east gate was previously impacted by construction in the area for completion of the Sanitary Grit building south west, and is currently adjacent to a civil construction and site grading project to the north. There are numerous other projects both planned and ongoing through the GBWWTP that have potential to impact safe access routes for visitors and tour groups entering from the 3 main vehicular access gates. The existing south pedestrian gate provides a safe, short access route to meeting spaces and personal protective equipment (PPE) storage that is typically free of construction activities.

The existing pedestrian access gate was selected for its central location within the GBWWTP. The gate allows entry to the plant site in proximity to office spaces, meeting rooms, and gathering spaces where tour groups can be provided an orientation and receive PPE (Figure 2, Appendix A). Alternative locations along the south fence line and in proximity to the east and west gates were considered but rejected for the following reasons: longer distances from offices and meeting rooms where visitors gather; all other locations would require installation of a new pedestrian access, including a gate and a dedicated walkway through the plant; visitors would be forced to walk through a larger area of the treatment plant site, including parallel to the treatment process infrastructure, construction areas and areas supporting higher vehicular traffic volumes, including trucks; the selected location will use an existing gate and internal walkway; finally, the selected location capitalizes on an existing clearing, locations further east would likely require comparatively more vegetation clearing.

Public Benefit

To increase the utility of the proposed stairway leading to the plant, EPCOR has committed to installing an interpretive sign on the fence near the new access gate. Adding signage or interactive features in this area can educate people about the services the wastewater treatment plant provides. Some options for the signage could draw inspiration from local history, honour Indigenous perspectives of water and the connections that many Nations have had to this site, and/or recognize the importance of water for all beings. The sign

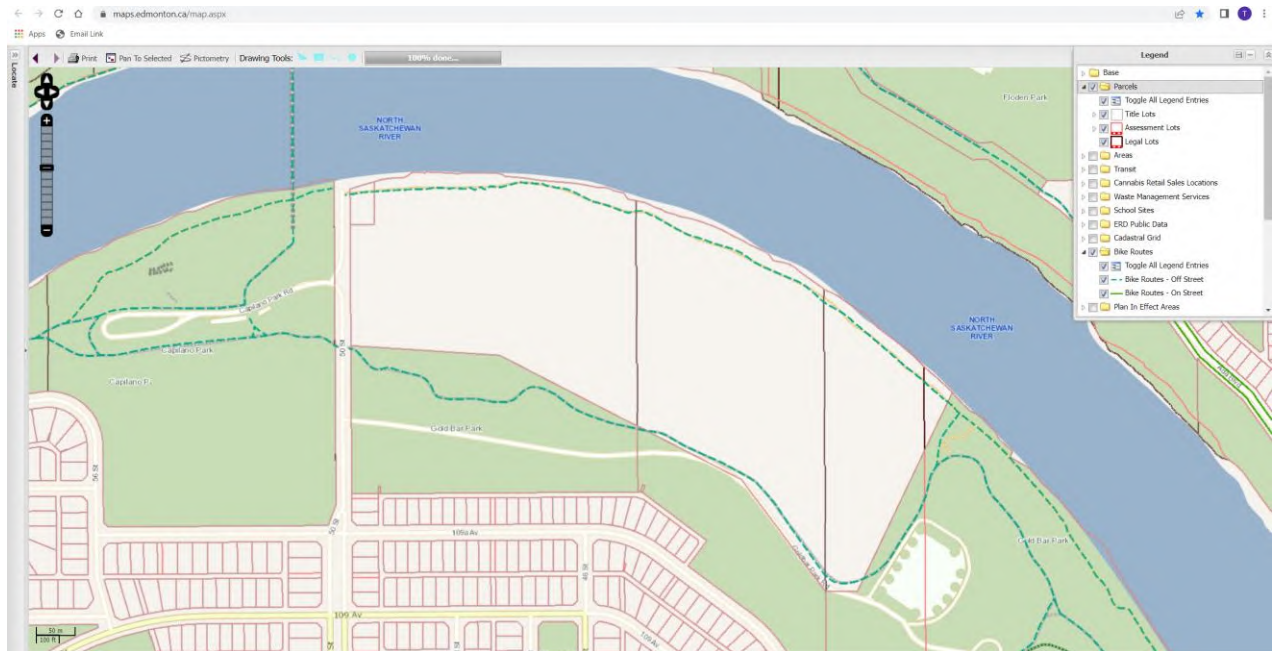
would be similar to the signs currently posted on the property fence further to the east and would be visible from the top of the stairs, inviting people to descend the stairs to learn more about GBWWTP.

In addition, with the connection to the SUP, the stairway would be available to the public for use in fitness training. The nine (9) step stairway, constructed to meet the City standard for rise and run, would be suitable for those wishing to engage in an entry-level stair workout. The stairway represents an addition to the City’s inventory of river valley stairs used by the public for fitness purposes.

EPCOR understands that some form of ownership/maintenance agreement between EPCOR and the City will be required and has identified such an agreement as a future task to be addressed once the stairway EIA and SLS are approved by Council.

History of Shared Property Use

The GBWWTP is surrounded by Gold Bar Park and there is a long history of cooperation between park managers, treatment plant managers and the public, aimed at enhancing co-existence of the two very different land uses. EPCOR continues to seek opportunities for improvements that increase public safety and reduce land use conflicts. To this end, and as an example past cooperation, two of the Gold Bar Park SUPS meander into and through undeveloped lands within the EPCOR GBWWTP property limits, as shown in Plates 3.2 and 3.3. In addition, a short segment of the Gold Bar Park access road also crosses into the GBWWTP property. The request to install a wooden stairway on park property to improve visitor pedestrian access to the plant can be viewed as an extension of this well-established cooperation with respect to cross boundary path placement.



*Assessment Lots= property boundary

Plate 4.2. Map showing an SUP (dashed green line) entering EPCOR property (Source: City of Edmonton SLIM Maps 2022)

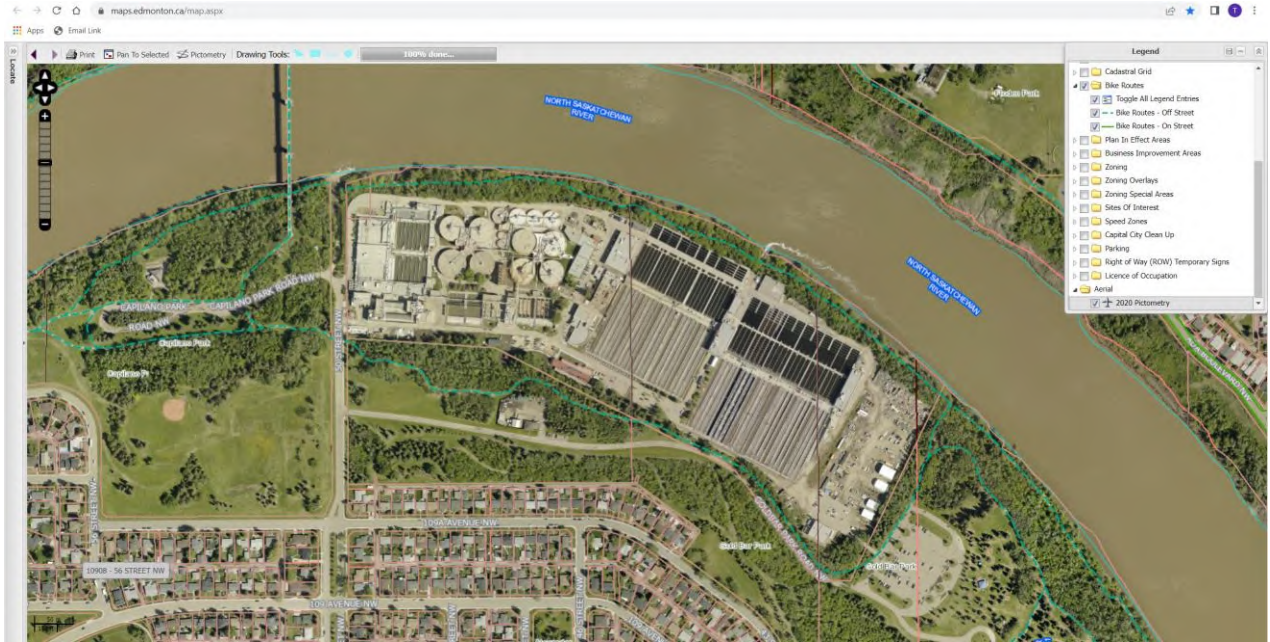


Plate 4.3. Aerial imagery showing an SUP (dashed green line) entering EPCOR property (Source: City of Edmonton SLIM Maps 2022)

3.2 River Valley Dependencies

This project is dependent on EPCOR’s GBWWTP in the river valley. A large proportion of visitors using the gates are RiverWatch students who learn about the relationship between waste water treatment and the NSR. These students arrive at Gold Bar Park by watercraft.

3.3 Overview of Bylaws/Plans/Policies

The proposed project is an important facet for delivering EPCOR’s outreach/education program. It is not inconsistent with City plans and policies. It will result in a wooden stairway that is available for public use. It may be used by some for exercise purposes, as is the case with some way river valley stairways, albeit at an entry level owing to the short stairway length. In this small way it is consistent with the City Plan intentions to enhance the City’s active transportation network.

4.0 CONSTRAINTS ANALYSIS

It is axiomatic that the proposed infrastructure must occur within the river valley as it is intended to provide access to the GBWWTP. Nonetheless, to fulfill the SLS Terms of Reference, following is a modified analysis of the social, financial, environmental and institutional constraints that make this project's location within the NSRV ARP (Bylaw 7188) essential (i.e., that limit the feasibility of locating this project outside of the NSRV ARP). This analysis applies to the stairway and tie-ins to the SUP and GBWWTP gate.

4.1 Social Constraints

The proposed stairway is in society's interest as it will enable EPCOR to provide safer pedestrian access to the treatment plant and therefore better execute their educational and public outreach programs. A bare-earth, sloped path open to the elements is a sub-optimal access to a pedestrian gate that is used by thousands of visitors per annum.

4.2 Financial Constraints

Financial constraints are not applicable in this case.

4.3 Environmental Constraints

The GBWWTP location near the North Saskatchewan River is essential to the GBWWTP operation.

4.4 Institutional Constraints

EPCOR proposes this new access path as a means of improving service to the public. The treatment plant's location within the river valley is driving the location of the stairway in the river valley.

5.0 CONCLUSION

The project location in the NSRV ARP is essential as the project is intended to improve access to the GBWWTP, which is in Gold Bar Park. The specific selected location at the south fence line is well-considered as it provides for an optimal entry point for site visitors with respect to visitor safety and uninterrupted plant operations.

Note: On 05 May 2022, City administration issued a sign-off letter for the EIA and SLS (Appendix C), enabling EPCOR to proceed towards acquiring City Council approval of the EIA and SLS.

Appendix A. Figures

Figure 1. Project Area Location

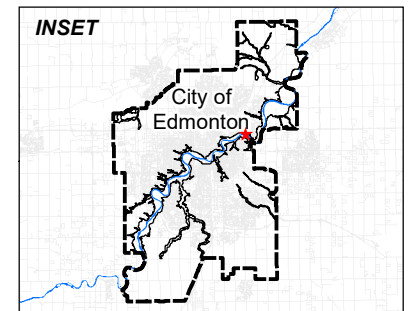
Figure 2. Proposed Stairway

Figure 1.
Project Area
Location
Gold Bar Wastewater
Treatment Plant
South Access
Stairway



Legend

- Local Study Area
- Bylaw 7188 Boundary (COE 2008)



Map Date: 24 August 2021
 Imagery Mosaic: May-July 2020 (COE)

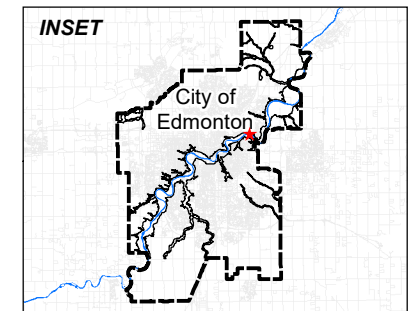
Figure 2.
Proposed Stairway
Gold Bar Wastewater
Treatment Plant
South Access
Stairway



Legend

- Local Study Area
 - Bylaw 7188 Boundary (COE 2008)
 - Proposed Stairway*
 - Existing Fenceline* (approx.)
 - Contours (COE 2018)
- Plant Communities (2021)****
- Deciduous Mixedwood Mixed Shrubs (DLM.1)
 - Manicured (M)

Aerial view does not accurately portray stairway interaction with vegetation.



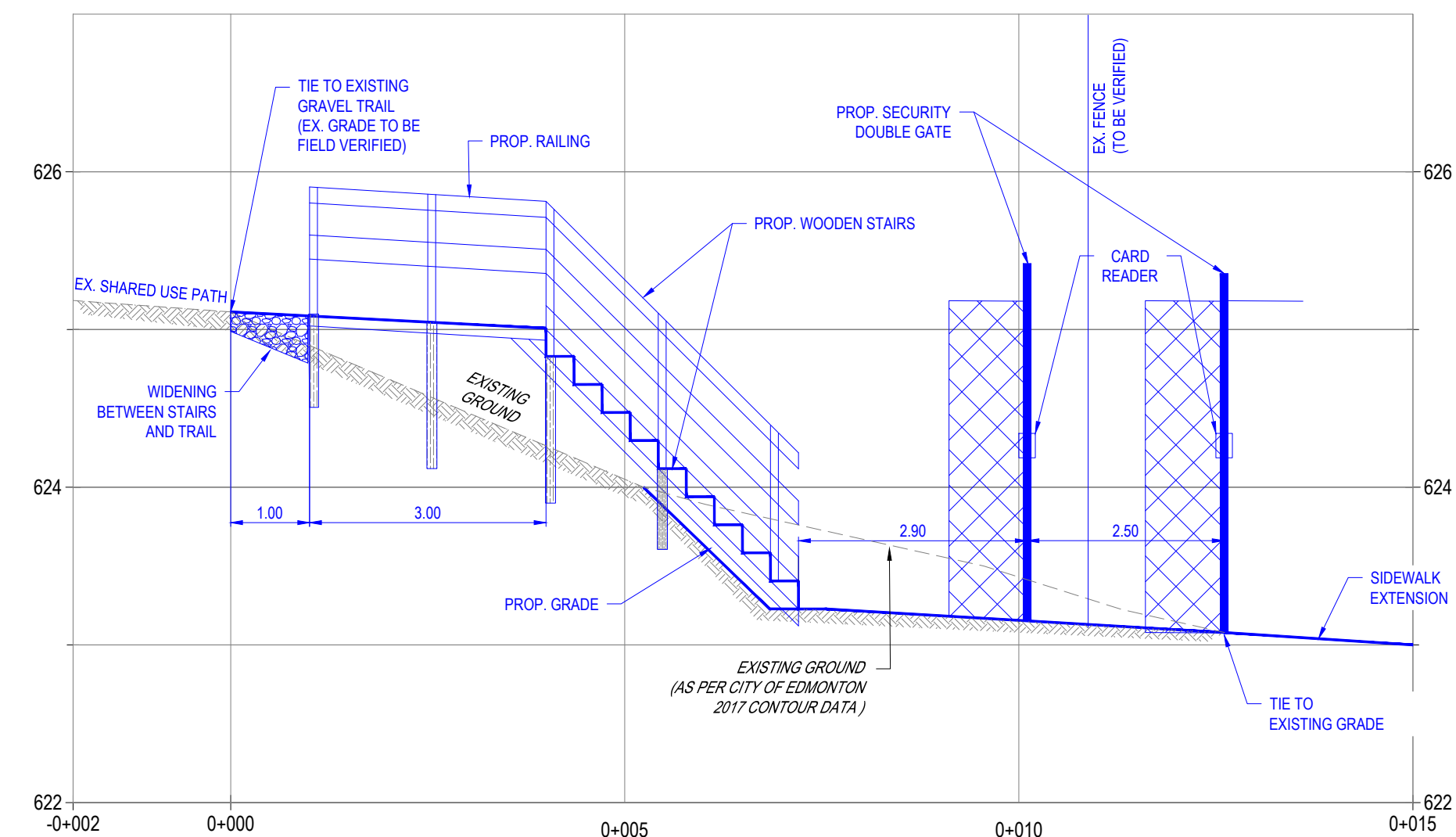
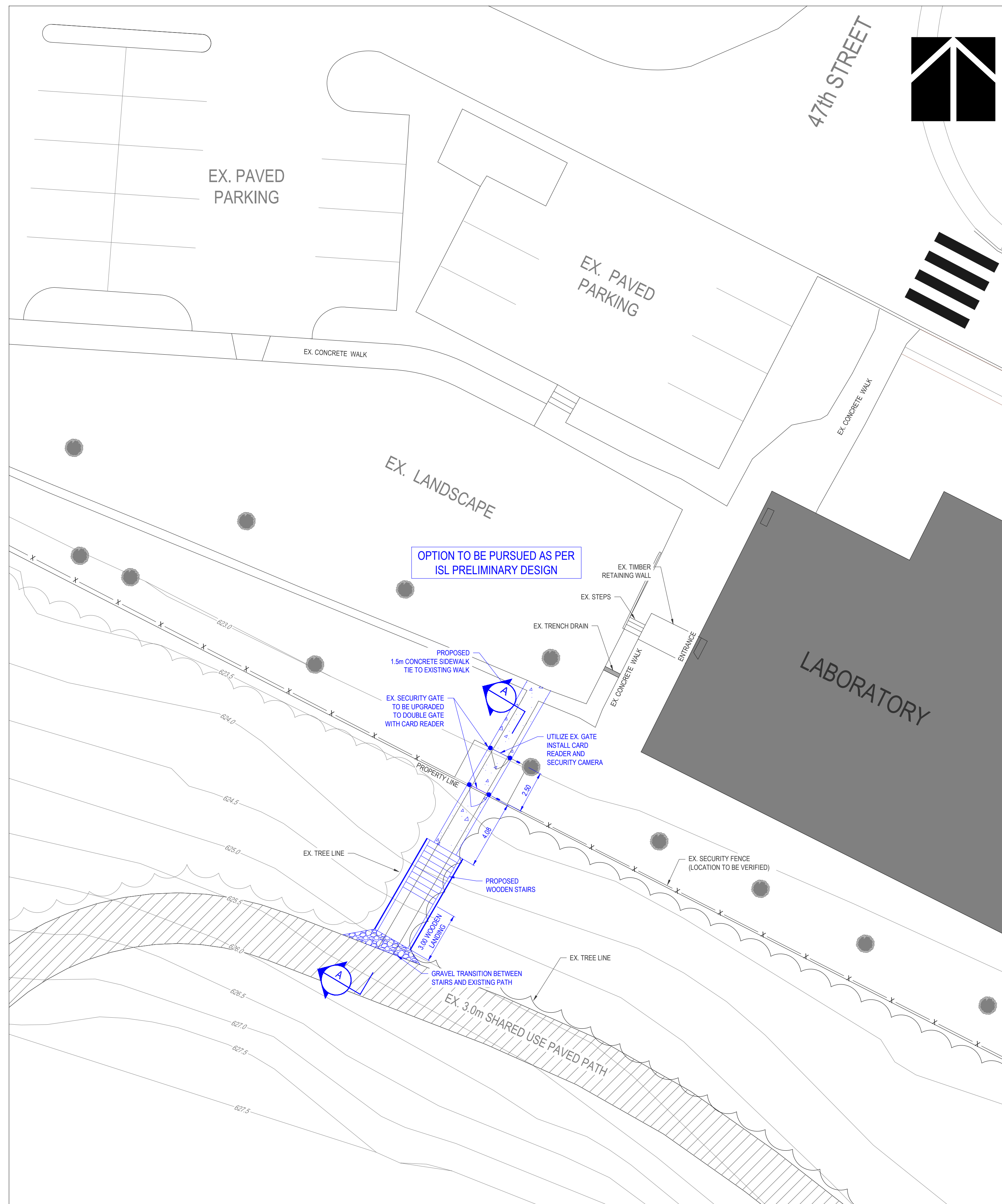
Map Date: 19 October 2021
 Imagery Mosaic: May-July 2020 (COE)



*ISL Engineering and Land Services Ltd (2021).
 **Plant community classification follows the Urban Ecological Field Guide for the City of Edmonton, Alberta, Canada (City of Edmonton 2015).
 ***Tree canopy obscures much of the manicured nature of the GBWTP grounds.

Appendix B: Preliminary Design

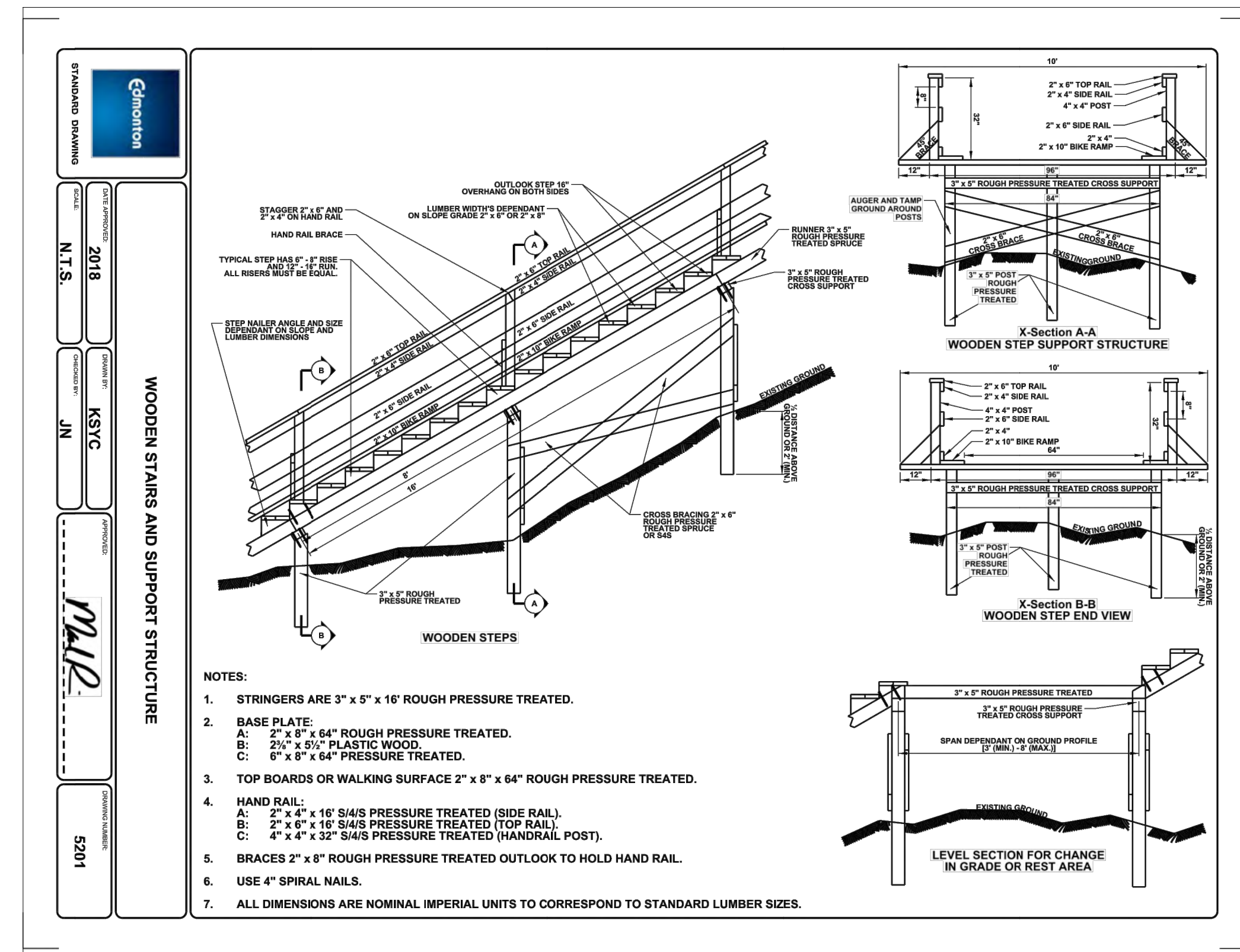
Tony Tieu / Jul 31 20 / G:\Projects\1500015587_Gold_Bar_Stewalk_Improvements02_CADD\20_Drafting\201_Detail\Design\West Gate And South Gate -150.dwg



1 CROSS-SECTION A-A
SECTION H-1:75; V-1:37.5

- NOTE:**
1. CONTOURS SHOWN AS PER CITY OF EDMONTON 2017 RECORD.
 2. FENCE ALIGNMENT TO BE VERIFIED.

NOTE: THIS DRAWING IS HALF SCALE WHEN PRINTED TO 11" x 17" FORMAT



- NOTES:**
1. STRINGERS ARE 3" x 5" x 16" ROUGH PRESSURE TREATED.
 2. BASE PLATE:
A: 2" x 8" x 64" ROUGH PRESSURE TREATED.
B: 2 1/2" x 5 1/2" PLASTIC WOOD.
C: 6" x 8" x 64" PRESSURE TREATED.
 3. TOP BOARDS OR WALKING SURFACE 2" x 6" x 64" ROUGH PRESSURE TREATED.
 4. HAND RAIL:
A: 2" x 4" x 16" S4/S PRESSURE TREATED (SIDE RAIL).
B: 2" x 6" x 16" S4/S PRESSURE TREATED (TOP RAIL).
C: 4" x 4" x 32" S4/S PRESSURE TREATED (HANDRAIL POST).
 5. BRACES 2" x 8" ROUGH PRESSURE TREATED OUTLOOK TO HOLD HAND RAIL.
 6. USE 4" SPIRAL NAILS.
 7. ALL DIMENSIONS ARE NOMINAL IMPERIAL UNITS TO CORRESPOND TO STANDARD LUMBER SIZES.

2 WOODEN STAIRS
DETAIL N.T.S.

6			
5			
4			
3			
2	ISSUED FOR COST ESTIMATION	JH	20.FEB.21
1	ISSUED FOR DISCUSSION	JH	19.NOV.26
No.	DESCRIPTION	BY	DATE

REVISIONS			

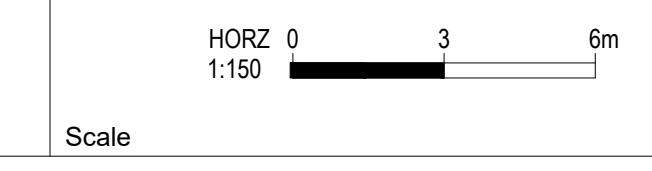
ISL

EPCOR UTILITIES INC.

**GOLD BAR
WASTEWATER TREATMENT PLANT
ULTIMATE PEDESTRIAN SYSTEM**

**PEDESTRIAN ACCESS UPGRADE
SOUTH GATE**

Drawn: JH	Drawing No.
Designed: JS	15587
Design Checked: DH	AP
Discipline Review: DH	05
Date: 19.NOV.26	Sheet No.
Date: 19.NOV.26	5



Appendix C: Administration Sign-Off Letter



May 05, 2022

Reference No. 417860574-001

To: Lynn Maslen, Spencer Environmental Management Services Ltd.

From: Achyut Adhikari, Planning and Environment Services

Subject: AA21-70 Gold Bar WasteWater Treatment Plant (GBWWTP) South Access Stairway EIA and SLS- Sign off

We have completed review of the Gold Bar WasteWater Treatment Plant (GBWWTP) South Access Stairway Project Environmental Impact Assessment (EIA) and Site Location Study (SLS) reports. This letter is a sign off that the Administration has no further concerns with the proposed development under the North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP).

Please note the proposed development meets the definition of a major facility, and as such, City Council must approve the EIA and SLS, and must deem the proposed location in the River Valley as essential, to ensure the policy requirements of the NSRV ARP are satisfied. In addition, the following advisements and conditions apply to the project:

Comments from EPCOR Drainage

No concerns, outside of the concerns identified by WASS.

Comments from EPCOR Water and Sewer

The stairway is proposed to be built on top of a shallow sanitary main, just north of the shared-use trail. Detailed plans for the location of the piles will need to be reviewed and approved prior to construction. Plans are to be submitted to wass.drainage@epcor.com for review.

Our records indicate that no water services exist within the area of the proposal directly off EPCOR mains.

Note: There is a shallow 200mm sanitary main beneath the proposed stairway just north of the shared use trail.

The owner/developer must conform to the requirements of the City of Edmonton Erosion and Sedimentation Control Guidelines and Field Manual. If you have any questions about this reply, please contact this office at 780-496-5444, or e-mail us at wass.drainage@epcor.com.

Comments from Urban Growth and Open Space Strategy (Urban Planning and Environment):

We have reviewed the Gold Bar WasteWater Treatment Plant (GBWWTP) South Access Stairway Project. In general, the EIA report identified major environmental impacts and appropriate approaches for mitigation measures. The project team should ensure all the EIA outlined mitigation measures are communicated to the contractor for the implementation and follow up if necessary.

The project team should provide a detailed restoration and landscaping plan once the details on tree removal are identified for the completion of the overall project.



We would recommend avoiding large spruce trees for removal and explore options for retention if possible.

The project should implement best construction practices to avoid invasive spread during construction considering the sensitive natural environment within the close proximity of the project area. Also, the project should consider options to avoid conflict with wildlife habitat during the construction period.

Comments from Environmental Planning- Planning Coordination (Urban Planning and Environment)

I have reviewed the EIA and SLS study prepared for the Goldbar WWTP stair replacement. The reports adequately address any issues, and there are no comments or concerns for the project from Environmental Planning.

Comments from Infrastructure Planning & Design (Engineering Services):

It is understood that Shawn McArthur from our geotechnical group is familiar with the site and based on his knowledge of the site he has determined that further geotechnical assessment is not required for this project. I would therefore have no further questions or comments on this circulation.

Comments from Community and Recreation Facilities (River Valley Parks and Facilities):

No comments

Comments from Civic Events and Festivals

No comments

Comments from Partnership and Event Attraction Strategy:

No comment

Comments from Parks and Roads Services (Urban Forestry)

Urban Forestry has no concerns with the project proposal and any impact to inventoried trees in the area. Please adhere to the conditions set out by Natural Areas Operations as it pertains to natural trees within the adjacent stands.

Comments from Parks and Roads Services (Natural Areas Operations)

Please ensure the landscape/restoration plans are circulated and reviewed by naturalareaoperations@edmonton.ca prior to approval.

An approved Tree Preservation Plan will be required prior to construction which must be included in the application for a Tree Permit, as per the Public Tree Bylaw 18825. Please note that any grading for the staircase will impact the adjacent vegetation and this should be taken into consideration.

Any public communication for the project should include details on the tree removals required and restoration.

General Conditions for vegetation removal:

- Upon approval of the plan, a site meeting with Natural Areas will be required to review construction plans and tree protection. This meeting will need to be scheduled a minimum of four weeks in advance of the construction start date. This is to review access points,



placement of all permanent or temporary construction material required for this project, and to determine tree protection requirements for construction within 5 meters of any City tree or 10 meters from a natural stand. For any vegetation removal, please ensure the area has been clearly staked. Note the laydown area fencing must be installed outside the dripline of any adjacent trees.

- Please be advised that all costs associated with pruning, removal, tree damage, or replacement shall be covered by the Proponent as per the Corporate Tree Management Policy. Natural Areas will schedule and carry out all required tree work involved with this project. Please contact naturalareaoperations@edmonton.ca to arrange this meeting.
- Any soil damage or compaction compromising the tree's root system within the parkland space shall be corrected by and at a cost to the Proponent. Please be advised that all costs associated with soil remediation, watering, and tree protection shall be covered by the Proponent as per the Corporate Tree Management Policy.
- Please note that the removal of vegetation has the opportunity to impact birds and bird habitat. Protection of migratory and non-migratory birds is legislated federally and provincially and enforceable regardless of whether or not individual environmental reviews conducted in accordance with the River Valley Bylaw include discussions of these topics. The onus is on the individual or company conducting habitat disturbance or construction activities to ensure that due diligence has been exercised to avoid harm to migratory and non-migratory birds. Individuals or companies that do not avoid harm to most wildlife species risk prosecution under the *Wildlife Act* and, in some cases, the *Species at Risk Act*. In the case of migratory birds, prosecution under the *Migratory Birds Convention Act* is also possible.

Comments from Parks and Roads Services (Parkland Management)

- EPCOR is required to obtain a Parkland Access Permit, please advise EPCOR to reach out to prsparklandmanagement@edmonton.ca to request this permit. Please note Parkland Management requires a minimum of 4 weeks prior to start of access to complete the permit requirements.

Comments from Parks and Roads Services (Land Development):

When designing the Landscape for this project:

1. Please supply a detailed landscape design to scale. Shrub and tree symbols shall be shown at mature spread with no overlap on the landscape drawing. Service levels and ease of maintenance must be considered in all landscape design for this project.
2. Please incorporate naturalized plantings in lieu of mass ornamental planting in all landscaped areas. Naturalization is supported by the City of Edmonton as a means to provide more sustainable landscapes, to enhance biodiversity, and to provide educational opportunities. We encourage naturalized planting that meets construction standards and that is sustainable. Note: Please consider our current service levels when designing shrub beds. Designs incorporating monocot grasses, and daylilies are encouraged.
3. Please ensure that the vegetation used is native to the Central Parkland Ecoregion to help ensure survival.
4. All plant and tree material design and selection must be reviewed and approved by Open Space Operations and Urban Forestry.
5. Please define all mow and no mow areas. Please ensure all turf transitions from mow to non mow naturalized area planting or vegetation are staged in height where possible.



6. Please consider that vehicles and equipment accessing the paths may be heavy for maintenance program purposes (i.e. water trucks, bucket trucks, etc). This infrastructure should be built to accommodate this type of heavier maintenance vehicle or equipment.
7. Please consider that any granular road, trail or path may not be cleared in the winter. If maintenance is required the surface must be a hard surface.
8. Please follow the City of Edmonton Design and Construction Standards Volume 5 - Landscaping (2021).

General Conditions:

1. All mitigation measures and commitments outlined by City reviewers must be incorporated into the construction work plan.
2. The proponent is responsible for seeking approval for any other regulatory permits from provincial and federal agencies.
3. Please contact the Neighborhood Resource Coordinator Erin Flaherty (780-288-8673) in the area to ensure appropriate community notification.
4. For potential impacts to City parks and facilities:
 - a. Hard surface access/haul routes are preferred.
 - b. Please ensure restoration of the site occurs and meets existing site conditions. All damages to parkland must be restored to City of Edmonton Construction Standards and City Operations' satisfaction.
 - c. Noxious weeds shall be managed and controlled as required within any fenced area and should be the responsibility of the contractor/department during construction.
 - d. Signage must be posted indicating a project contact person and phone number for inquiries.
5. All trail closures shall adhere to the City's Trail Closure Procedures. All trail closure activities must be approved through River Valley Operations prior to construction and closure of trails. Please contact **Braeden Holmstrom** (Team Leader, River Valley & Horticulture) at **587-986-2841** or **braeden.holmstrom@edmonton.ca** to obtain the necessary trail closure approvals. This shall be done a minimum of two weeks in advance of planned construction.
6. Please attach this letter for any further City of Edmonton approvals.

Should you have any questions or concerns, please contact me by e-mail or by phone at 780-442-0695.

Regards,

Achyut Adhikari