

Site Location Study Pursuant to Bylaw 7188

84 Street Renewal - Shared Use Pathway Final Report



Prepared for:
City of Edmonton
Integrated Infrastructure Services
Edmonton, Alberta

Project Number EP-934
May 2021

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





SPENCER ENVIRONMENTAL
M A N A G E M E N T S E R V I C E S L T D.

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Project Coordinator - Transportation Planning & Design
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City of Edmonton
12th Floor Edmonton Tower
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Edmonton AB T5J 0J4

10 May 2021
File: EP-934

Dear Mr. Rodriguez,

**Re: Site Location Study Pursuant to Bylaw 7188 for 84 Street Renewal SUP –
FINAL REPORT**

We are pleased to submit this pdf copy of the above-mentioned final Site Location Study (SLS). This report was finalized upon receipt of EIA and SLS sign-off from Administration (City Planning). There are no changes to the content of the draft report.

The final EIA 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

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1.0 INTRODUCTION AND PROJECT LOCATION

The City of Edmonton, Integrated Infrastructure Services is proposing to renew 84 Street from 98 Avenue to 106 Avenue to rehabilitate the aging roadway and maximize its asset life. That segment of 84 Street is located at the top of the river valley within the River Valley Riverside Neighbourhood, with the Forest Heights Neighbourhood located immediately to the east (Figure 1, Appendix A). The City has prepared a preliminary design of the rehabilitation of 84 Street. This project, funded by the Arterial Renewal Program, will involve road resurfacing, new curbing, sidewalks, bus pads, upgraded streetlights, signals, pedestrian flashers and installation of a segment of new Shared Use Path (SUP) west of 84 Street, between 101 Avenue and 105 Avenue. The new SUP segment will connect to an existing SUP north of 105 Avenue and to an existing sidewalk south of 101 Avenue (Plates 1.1 to 1.4) (Figures 2a-e, Appendix A).



Plate 1.1. Looking south across 101 Avenue at the existing sidewalk the proposed SUP will connect to (23 February 2021).



Plate 1.2. Looking north from 101 Avenue at proposed location of new SUP segment (23 February 2021).



Plate 1.3. Looking north across 105 Avenue at the existing SUP the proposed new SUP will connect to (23 February 2021).



Plate 1.4. Looking north from 105 Avenue at proposed location of new SUP segment (23 February 2021).

In the project area, the North Saskatchewan River Valley Area Redevelopment Plan (NSRV ARP) (Bylaw 7188) boundary runs along the east edge of 84 Street (Figure 1, Appendix A). All contemplated works are therefore subject to the Bylaw 7188 environmental review process. Roadworks components of the project, those situated within the existing 84 Street right-of-way, are the subject of a separate Bylaw 7188 Project Review Form (PRF), completed by the project proponent. City of Edmonton Ecological Planners have determined that the appropriate level of review for components to the west of 84 Street is an Environmental Impact Assessment (EIA) (under separate cover) that will be subject to approval by City Council. Further, they have determined that a Site Location Study (SLS) must also be prepared for those components. The trigger for an EIA and SLS addressing the SUP is the location of the required lands within two City-owned lots that form part of Forest Heights Park and the need to transfer those lands to road right-of-way. The City has retained Spencer Environmental Management Services Ltd. (Spencer Environmental) to complete the SUP EIA and SLS.

This report comprises the Bylaw 7188 SLS prepared for the new SUP, and associated boulevard west of 84 Street. 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.

2.0 84 STREET RENEWAL SUP PROJECT SCOPE

2.1 Project Description

A new Shared Use Path (SUP) is proposed for the west side of 84 Street, between 101 Avenue and 105 Avenue (City of Edmonton Integrated Infrastructure Services 2021, Appendix B). The SUP will be a 3 m wide, 750 m long asphalt path separated from 84 Street by a 4 m wide boulevard. The new property boundary will be situated 1 m west of the new SUP edge. Street lighting will be installed within the boulevard to meet pedestrian lighting standards (Rodriguez 2021). Light standard locations are not yet determined (and are not shown on the preliminary drawings, other than indicatively in one cross section). Light standard locations west of 84 Street will be coordinated with light standards east of 84 Street; 8 or 9 new light standards are anticipated for the new boulevard. Lighting installation will require subsurface work within the boulevard. South of 105 Avenue, an 85 m long concrete bus stop pad will be installed within the boulevard. South of that, the boulevard will be turfed and open space trees installed. Surface runoff from the new SUP and boulevard will drain into 84 Street to be collected by catch basins (Rodriguez 2021).

The total construction surface disturbance area will be ~ 750 m long x 8 m wide (4 m boulevard, 3 m SUP, 1 m temporary work area, with potential grading). SUP and boulevard construction will involve stripping of topsoil, compacting subsoil, placing a granular base and installing the asphalt path and bus stop pad. Excavation is anticipated to be limited to within 0.5 m of the ground surface, with some minor exceptions (City of Edmonton Integrated Infrastructure 2021, Appendix B).

2.2 Landscaping

Landscaping will include installation of ~55 open space trees (tree size and species not yet specified) in the newly created boulevard, installation of boulevard turf and turfing of any temporary disturbance west of the SUP.

2.3 Construction Schedule, Phasing, Key Activities

Construction is planned to occur during summer of 2022, phased as follows (Rodriguez 2021):

- Stage 1: Removal of topsoil and subsoil.
- Stage 2: Lay down of conduit and cabling for new streetlights.
- Stage 3: Soil compaction, granular base placement.
- Stage 4: Asphalt laying for path, concrete bus stop pad installation, streetlight standard and open space tree installation.

2.4 Construction Laydown Area and Access

It is likely that the project will require laydown areas on the west side of 84 Street, but the locations of laydown areas have not been identified at this time. Laydown areas are not planned for lands west of the new property boundary. Construction access will be via 84 Street.

3.0 84 STREET RENEWAL SUP LOCATION ANALYSIS AND JUSTIFICATION

3.1 *Alternative Location Review*

As this project is proposed in association with the larger 84 Street renewal no alternative locations either in or outside of the NSRV ARP were examined. The project attempts to balance limiting encroachment into Forest Heights Park while providing for an illuminated SUP that is separated from an arterial road by a 4m landscaped boulevard. The separation creates a safer and high-quality user experience.

3.2 *River Valley Dependencies*

This project has no river valley dependencies but is dependent on the identified location adjacent 84 Street, which happens to be located at the margin of the NSRV ARP. The SUP is a compatible fit with the proposed setting on the margin of a manicured park.

3.3 *Overview of Bylaws/Plans/Policies*

The proposed project is consistent with the main tenets of City Plan (2020). For example, put simply, the project is consistent with the City Plan intentions to enhance the City's active transportation network (particularly in connection with Edmonton's river valley and open spaces) and to plant two million new trees. Similarly, an effective SUP network is consistent with Breathe – Edmonton's Green Network Strategy, which aims to plan and sustain a healthy city by encouraging connection and integration of open space at the site, neighbourhood, city and regional levels. Finally, it is consistent with the NSRV ARP objective to allow for a series of parks and connecting trails in the plan area.

4.0 CONSTRAINTS ANALYSIS

Following is an 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 SUP and associated lighting. The proposed lighting provides the required security for use during non-daylight hours.

4.1 Social Constraints

The proposed SUP will redress an identified missing link in this neighbourhood's SUP/sidewalk network. West of 84 Street, between 101 and 105 Avenue turfed lands are informally used as a walking path. Providing an asphalt SUP to link with the existing sidewalk south of 101 Avenue and SUP north of 105 Avenue, will better support all modes of active transport that currently use the existing SUP and sidewalk. The project addresses an identified transportation need in the NSRV ARP.

4.2 Financial Constraints

The SUP is associated with the proposed renewal of this segment of 84 Street and will be financed as part of that project through the City's Arterial Renewal Program.

4.3 Environmental Constraints

There are no environmental constraints limiting the feasibility of this project to be located elsewhere nor are there environmental constraints limiting the project to the proposed location. The project is addressing a recreational/transportation need, not an environmental need or issue.

4.4 Institutional Constraints

This project addresses the City's institutional mandate to provide Edmontonians with an effective active transportation network.

5.0 CONCLUSION

As part of the 84 Street renewal project planned for 2022, the City is proposing to construct a new asphalt SUP west of 84 Street, between 101 and 105 avenues. The SUP will be separated from 84 Street by a boulevard. The north end of the boulevard will take the form of a bus stop pad, the remainder will be turfed. The project includes planting 55 new trees in the boulevard. The project will be located at the margin of the NSRV ARP, on the east edge of Forest Heights Park. The SUP will be constructed on flat tablelands, not in the river valley. The project is specific to this location as it is proposed to address a missing link in the neighbourhood SUP/sidewalk network and to form a component part of the larger 84 Street renewal. If proposed in another location it would fulfill a different purpose. The project location in the NSRV ARP is, therefore, essential.

6.0 REFERENCES

6.1 *Literature Cited*

City of Edmonton Integrated Infrastructure. 2021. 84 Street: 98 Avenue to 106 Avenue Preliminary Design. Edmonton, Alberta.

Rodriguez, I. 2021. North Saskatchewan River Valley ARP Project Review Form: 84 Street (98 Ave to 106 Ave) Rehabilitation. Prepared for the City of Edmonton. Edmonton, Alberta.

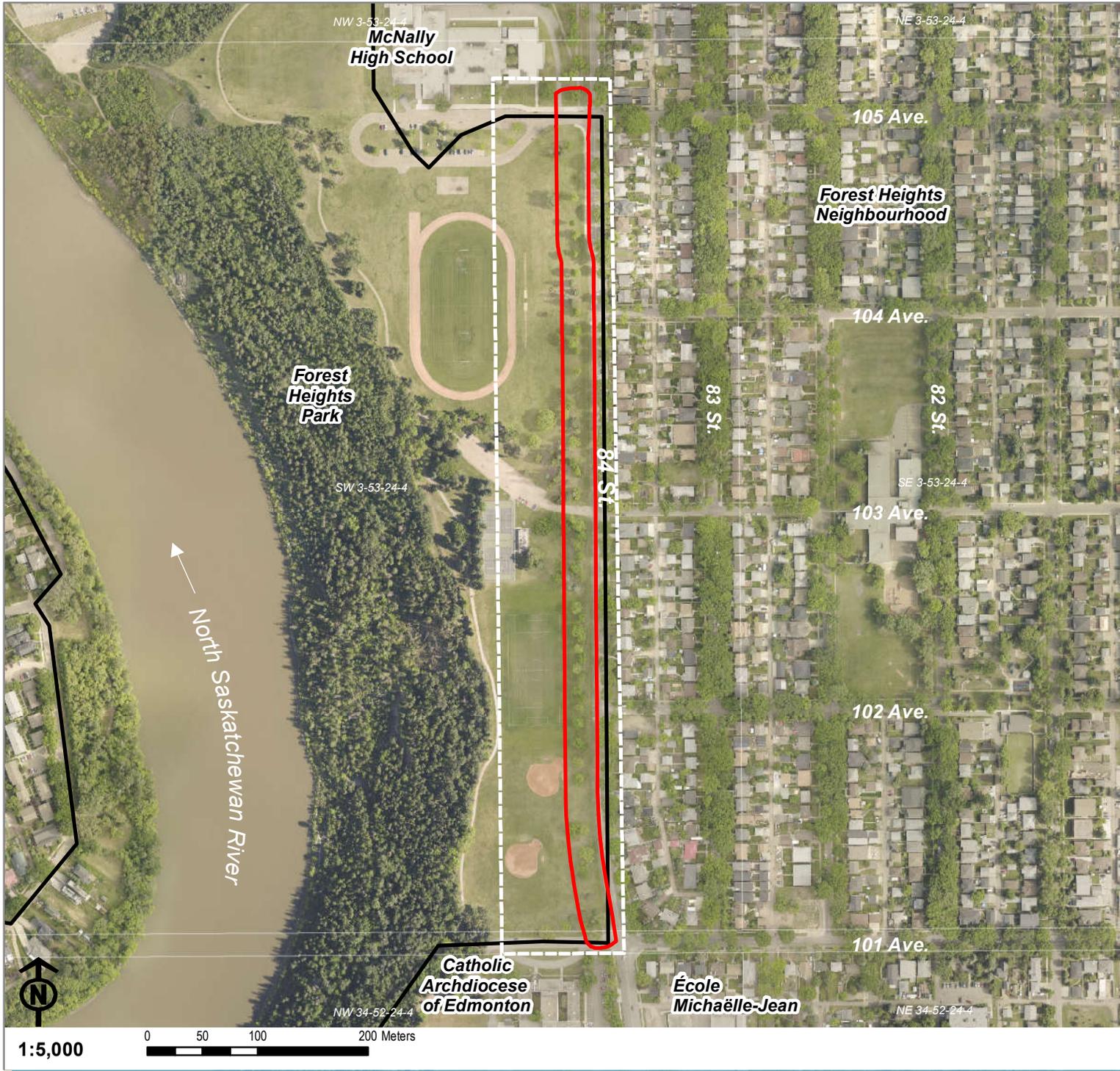
Appendix A. Figures

Figure 1. Project Overview

Figure 2. Enlargement Locations and Proposed SUP Scope of Work

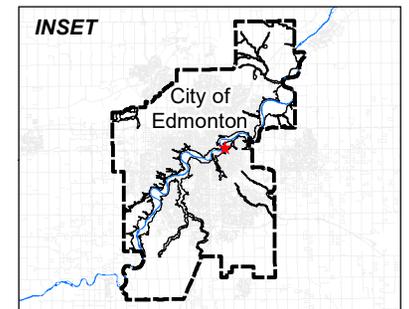
Figure 2a-e. Proposed SUP - Enlargement A-E

Figure 1.
Project Area Location
84 Street Renewal - SUP



Legend

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

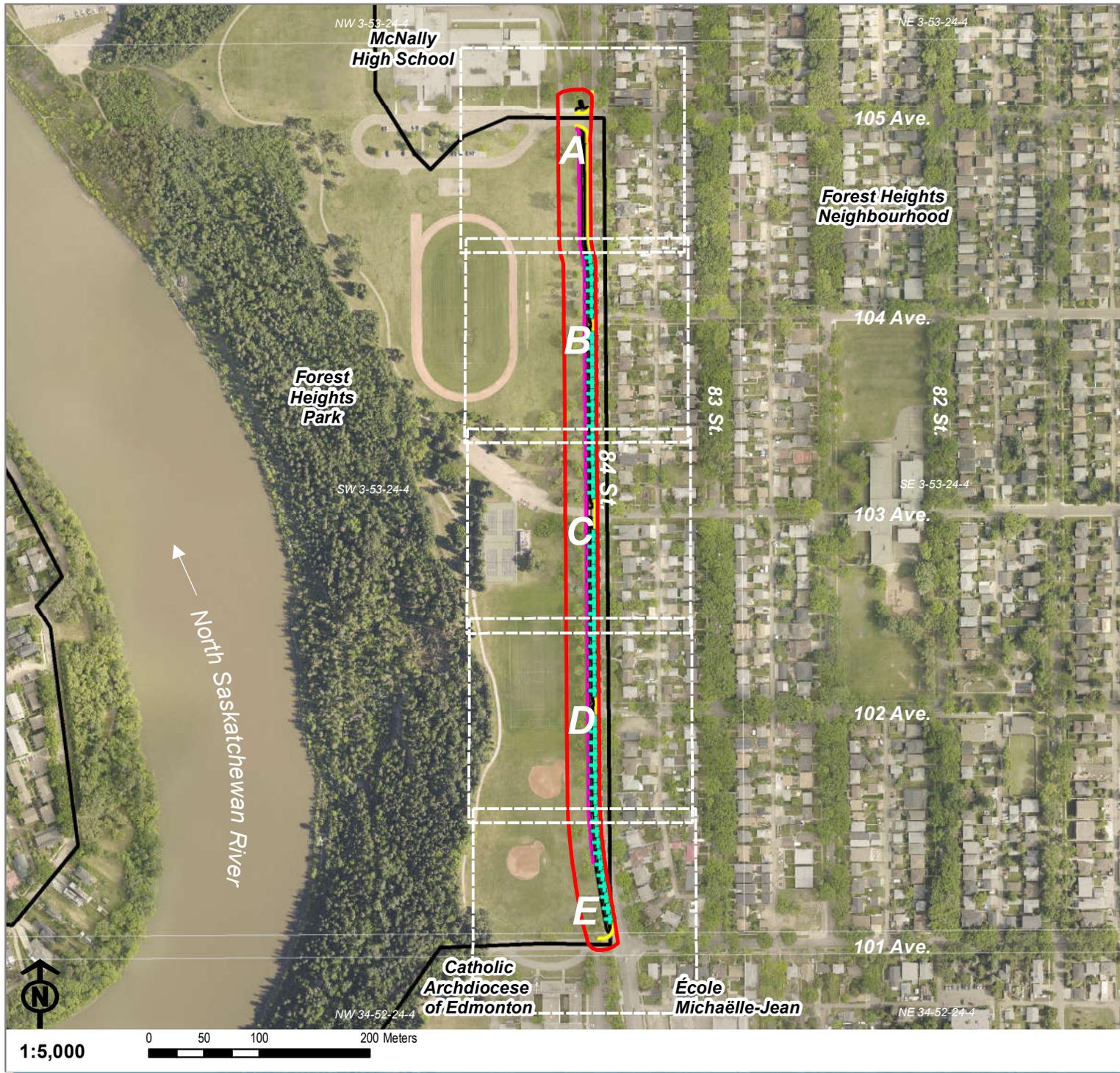


Map Date: 16 March 2021
 Imagery Mosaic: May-July 2019 (COE)



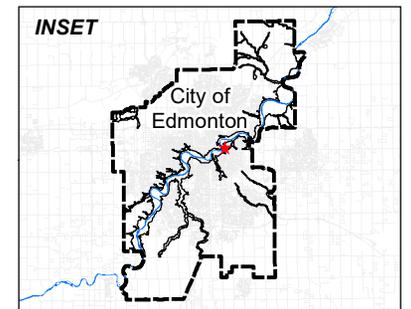
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2.
Enlargement Locations
and Proposed SUP
Scope of Work
84 Street Renewal - SUP



Legend

- Inset Frame
- Local Study Area
- Bylaw 7188 Boundary (COE, 2008)
- Proposed Shared Use Path*
- Proposed Bus Pad*
- Proposed Trees*
- Proposed Property Line*
- 84 Street Curb*

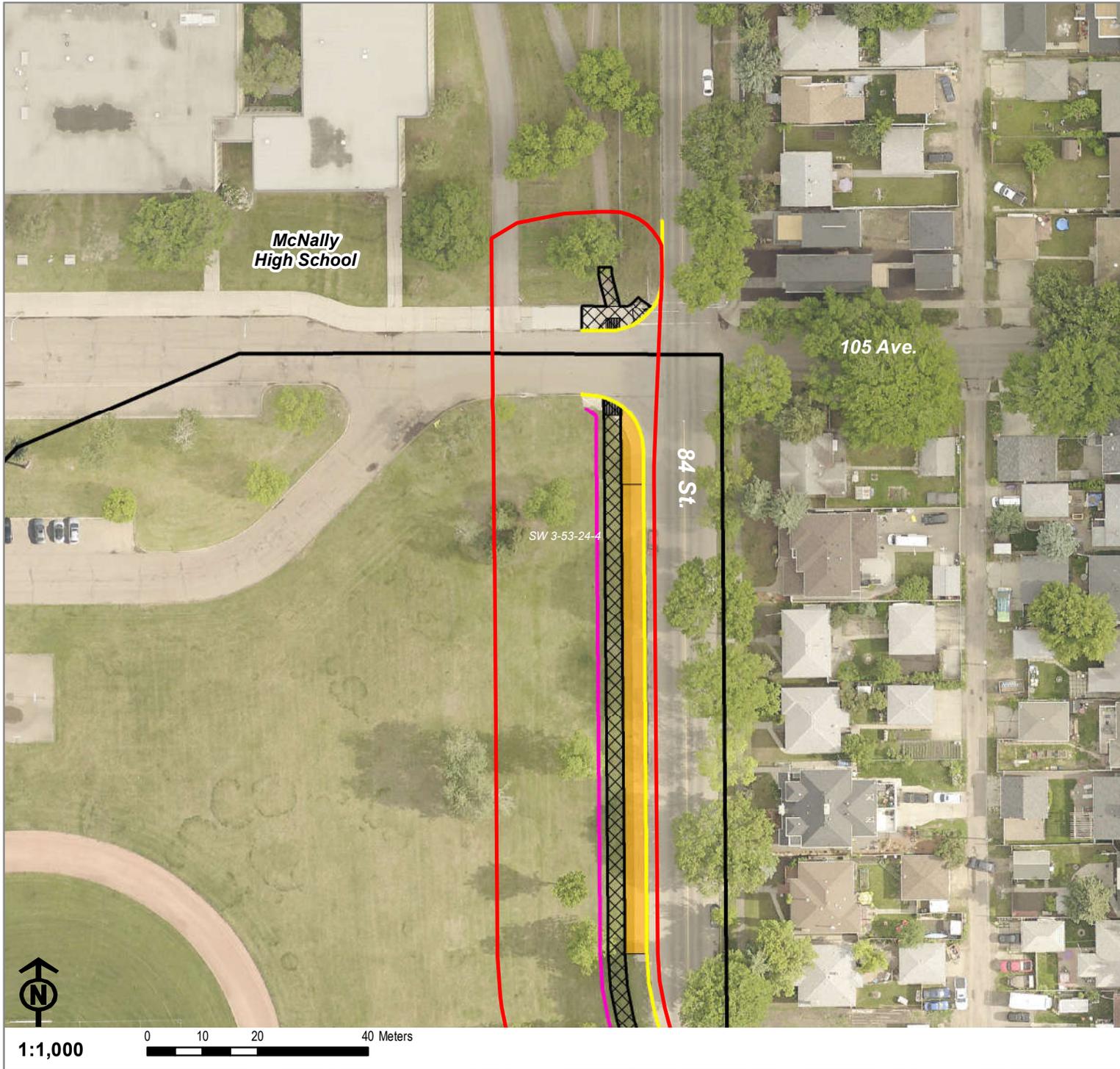


Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



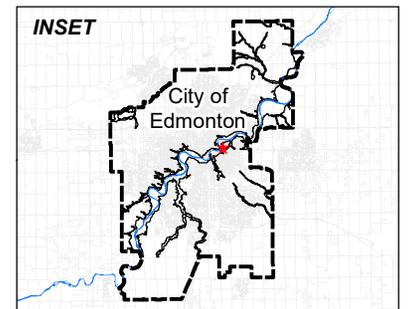
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2a.
Proposed SUP
– Enlargement A
84 Street Renewal - SUP



Legend

-  Local Study Area
-  Bylaw 7188 Boundary (COE, 2008)
-  Proposed Shared Use Path*
-  Proposed Bus Pad*
-  Proposed Trees*
-  Proposed Property Line*
-  84 Street Curb*



Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



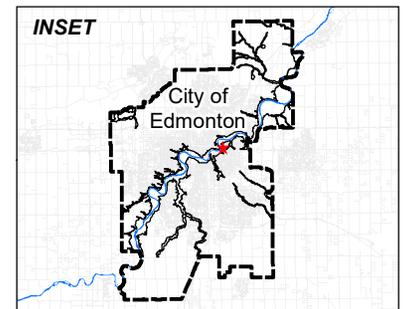
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2b.
Proposed SUP
– Enlargement B
84 Street Renewal - SUP



Legend

- Local Study Area
- Bylaw 7188 Boundary (COE, 2008)
- Proposed Shared Use Path*
- Proposed Bus Pad*
- + Proposed Trees*
- Proposed Property Line*
- 84 Street Curb*



Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



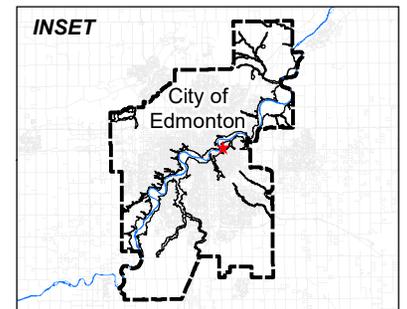
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2c.
Proposed SUP
– Enlargement C
84 Street Renewal - SUP



Legend

-  Local Study Area
-  Bylaw 7188 Boundary (COE, 2008)
-  Proposed Shared Use Path*
-  Proposed Bus Pad*
-  Proposed Trees*
-  Proposed Property Line*
-  84 Street Curb*



Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



1:1,000 0 10 20 40 Meters

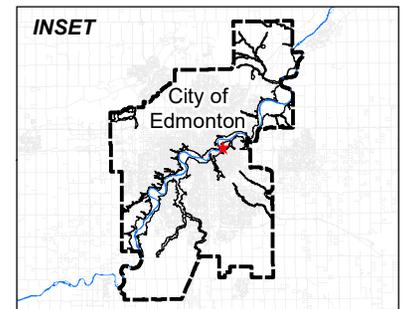
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2d.
Proposed SUP
- Enlargement D
84 Street Renewal - SUP



Legend

-  Local Study Area
-  Bylaw 7188 Boundary (COE, 2008)
-  Proposed Shared Use Path*
-  Proposed Bus Pad*
-  Proposed Trees*
-  Proposed Property Line*
-  84 Street Curb*

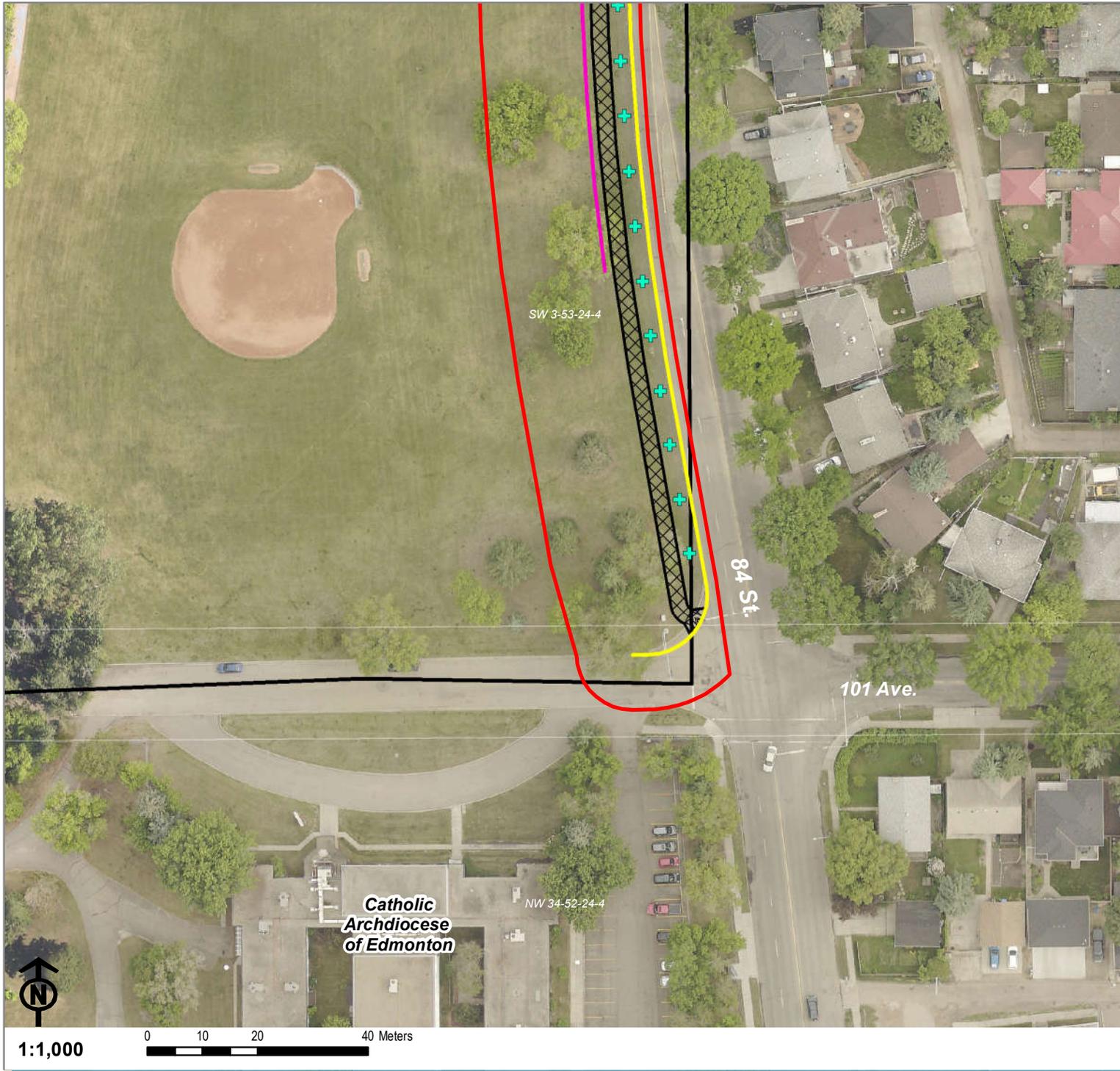


Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



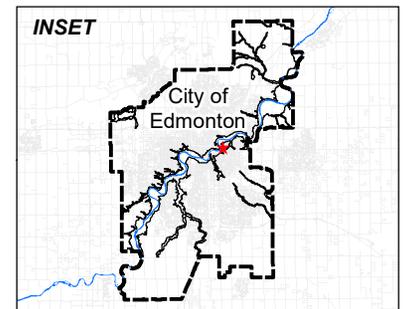
*Preliminary plan provided by the City of Edmonton (2021).

Figure 2e.
Proposed SUP
- Enlargement E
84 Street Renewal - SUP



Legend

- Local Study Area
- Bylaw 7188 Boundary (COE, 2008)
- Proposed Shared Use Path*
- Proposed Bus Pad*
- Proposed Trees*
- Proposed Property Line*
- 84 Street Curb*



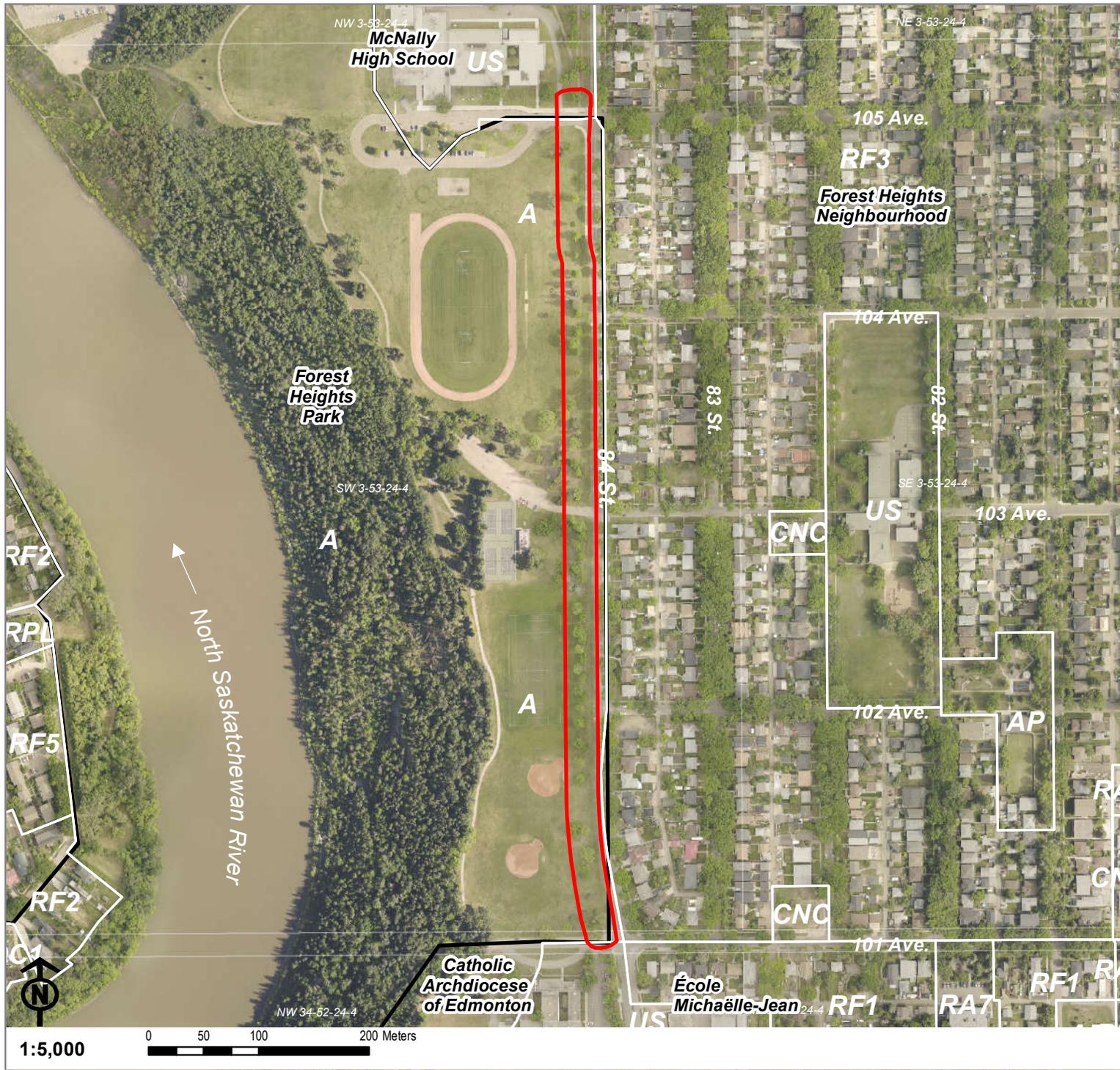
Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



1:1,000 0 10 20 40 Meters

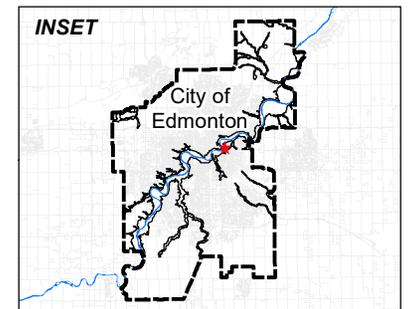
*Preliminary plan provided by the City of Edmonton (2021).

Figure 3.
Land Use and Zoning
84 Street Renewal - SUP



Legend

- Local Study Area
- Bylaw 7188 Boundary (COE, 2008)
- A Zoning (COE, 2020)
 Zoning A = Metropolitan Recreation Zone

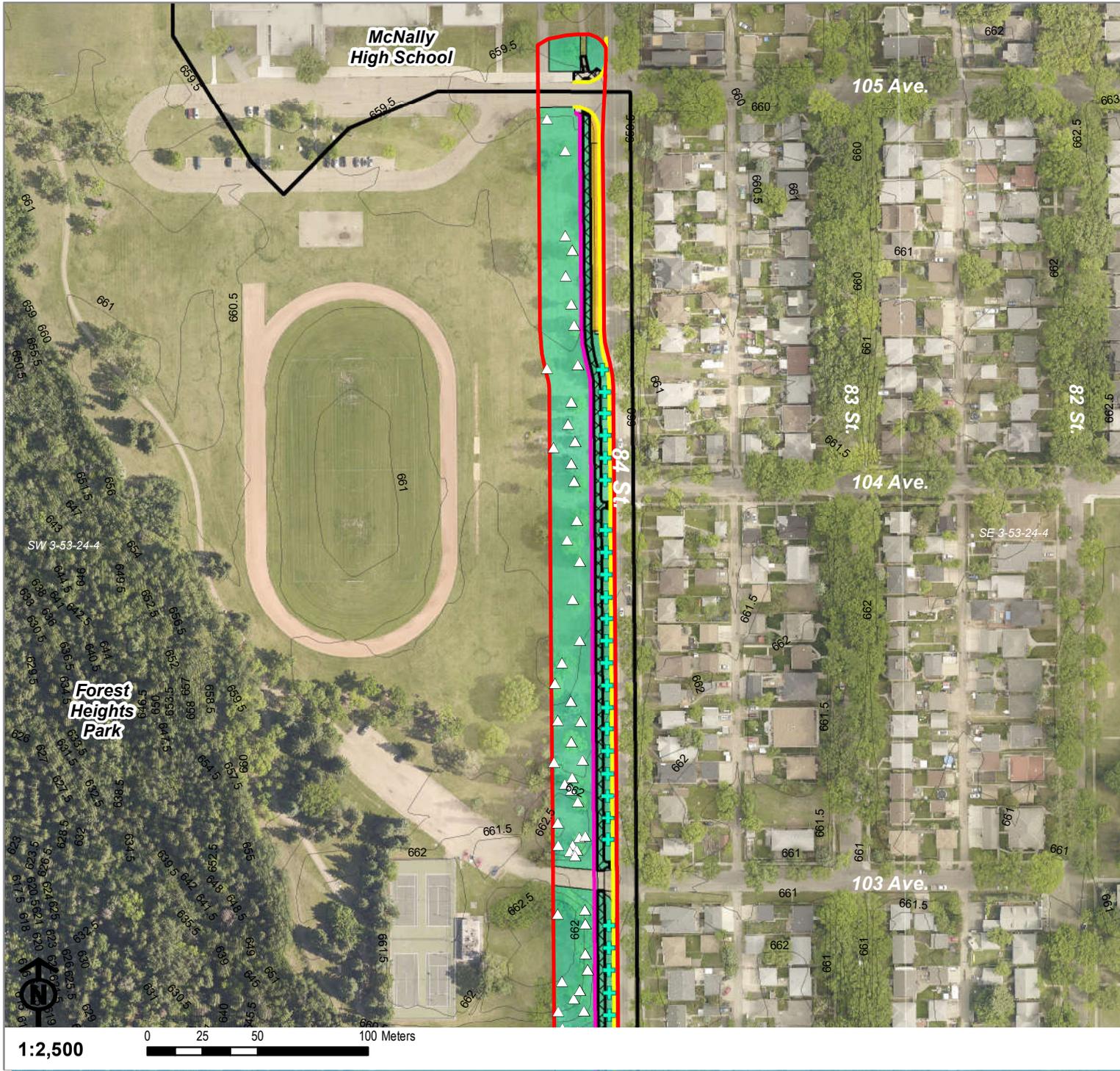


Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



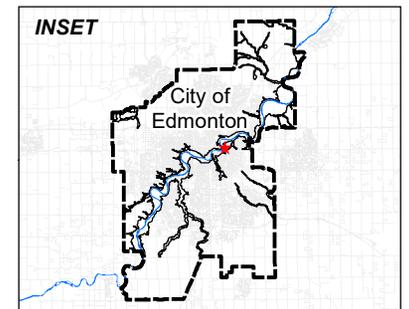
*Preliminary plan provided by the City of Edmonton (2021).

Figure 4a.
Plant Communities
84 Street Renewal - SUP



Legend

-  Local Study Area
 -  Bylaw 7188 Boundary (COE, 2008)
 -  Proposed Shared Use Path*
 -  Proposed Bus Pad*
 -  Proposed Trees*
 -  Existing Trees (COE, 2021)
 -  Proposed Property Line*
 -  84 Street Curb*
 -  Contour (COE, 2018)
- Plant Community (2021)**
-  Manicured (M)

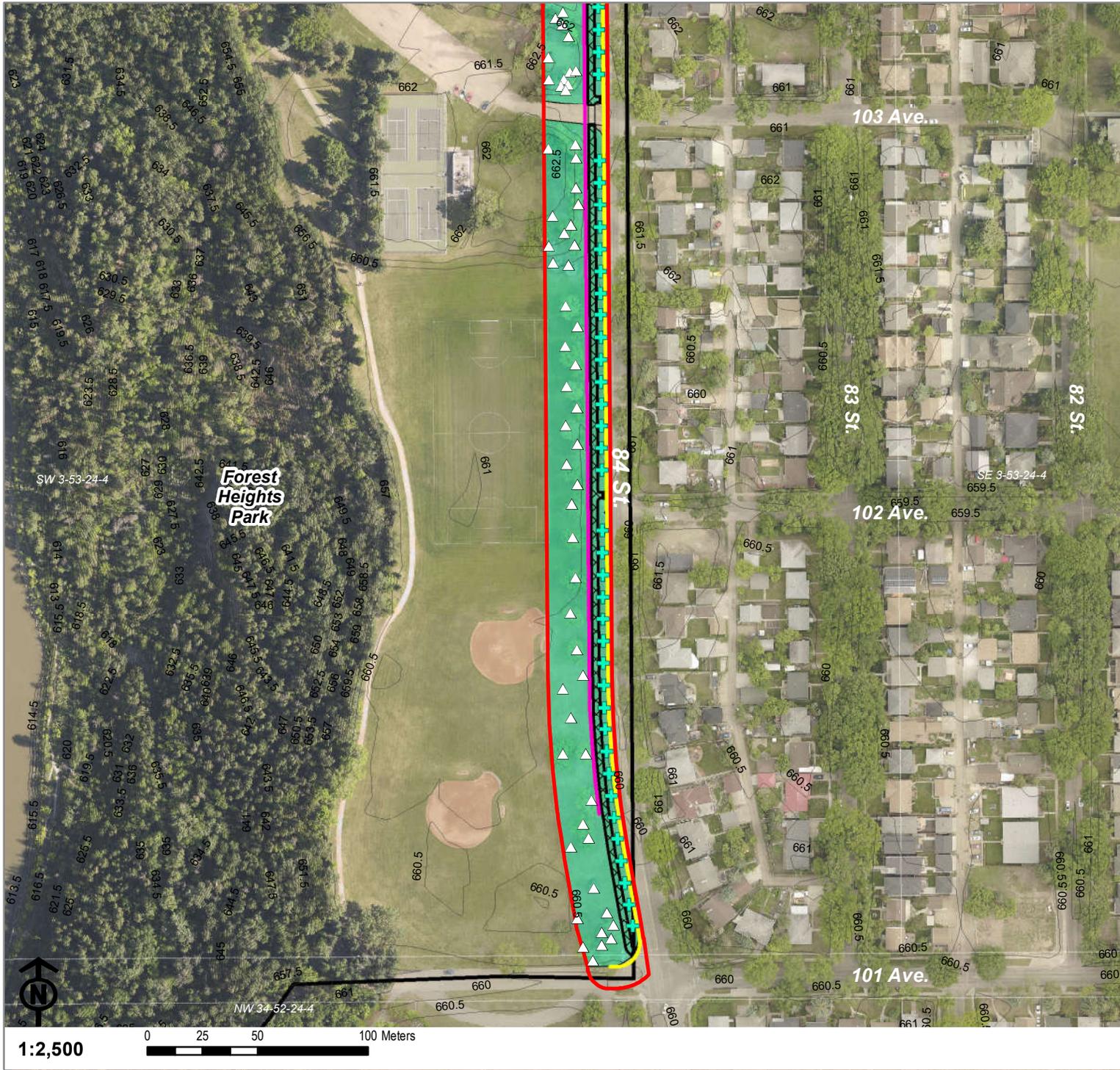


Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



*Preliminary plan provided by the City of Edmonton (2021).

Figure 4b.
Plant Communities
84 Street Renewal - SUP

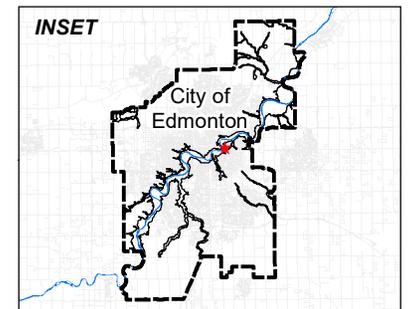


Legend

- Local Study Area
- Bylaw 7188 Boundary (COE, 2008)
- Proposed Shared Use Path*
- Proposed Bus Pad*
- Proposed Trees*
- Existing Trees (COE, 2021)
- Proposed Property Line*
- 84 Street Curb*
- Contour (COE, 2018)

Plant Community (2021)

- Manicured (M)

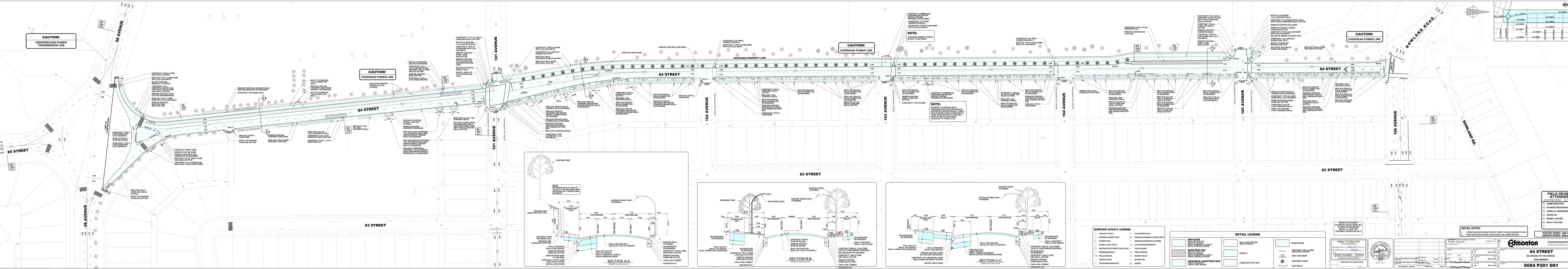


Map Date: 15 March 2021
 Imagery Mosaic: May-July 2019 (COE)



*Preliminary plan provided by the City of Edmonton (2021).

Appendix B: Preliminary Design



CAUTION!
UNDERGROUND POWER TRANSMISSION LINE

CAUTION!
OVERHEAD POWER LINE

CAUTION!
OVERHEAD POWER LINE

CAUTION!
OVERHEAD POWER LINE

NOTE:
OVERHEAD AMBER FLASHER SIGNAL TO BE ADDED

NOTE:
IN ORDER TO PREVENT BACK PROPERTIES WITHIN PROJECT LIMITS, IMPROVEMENTS TO EXISTING PRIVATE PROPERTIES TO BE CONSTRUCTED AT EXISTING BACK OF WALK ELEVATIONS ADJACENT TO THESE LOTS.



SURFACE UTILITY LEGEND

○ TROLLEY POLES	○ TELEPHONE POLE
○ WOODEN POWER POLE	○ DRAINAGE MANHOLE (SANITARY)
○ POWER POLE	○ DRAINAGE MANHOLE (STORM)
○ STREET LIGHT POLE	○ CATCH BASIN MANHOLE
○ DECORATIVE STREET LIGHT POLE	○ CATCH BASIN
○ POWER MANHOLE	○ FIRE HYDRANT
○ POLE ANCHOR	○ WATER VALVE
○ TRAFFIC POLE	○ WATER TEE
○ TELEPHONE MANHOLE	○ ANODE

DETAIL LEGEND

50mm COLD MILLING	REMOVE BASE
50mm OVERLAY	PROPOSED 150mm CURB AND 200mm GUTTER
ASPHALT	NEW CURB RAMP
LANDSCAPE WITH SOG	NEW CURB RAMP
	NEW SWALE

NEW BASE
50mm of 10mm HT
25mm of 20mm HT
25mm GRANULAR CLASS B

ROAD BUS PAD
100mm of 20mm HT
25mm of 20mm HT
25mm GRANULAR CLASS A

CONCRETE CONSTRUCTION
150mm 3.0A GRAVEL

DETAIL NOTES

- STREETLIGHTING WITHIN PROJECT LIMITS TO BE UPGRADED TO LED. TREE ADDITIONS IN WEST BOULEVARD ARE UNDER REVIEW.

FIELD REVIEW ATTENDEES
DATE: 26.11.2020

- JAMIE BARTSCH
- PATRICK MCDOUGH
- JENELLE ANDERSON
- DAVID HA
- RANDY FESTER
- KELLY CALVEZ

POSTED SPEED: 50km/hr
DESIGN SPEED: 50km/hr

PERMIT TO PRACTICE
CITY OF EDMONTON
PERMIT NUMBER: P05038
APPROVED FOR CONSTRUCTION

84 STREET
98 AVENUE TO 106 AVENUE
PRELIMINARY
S084 P201 D01