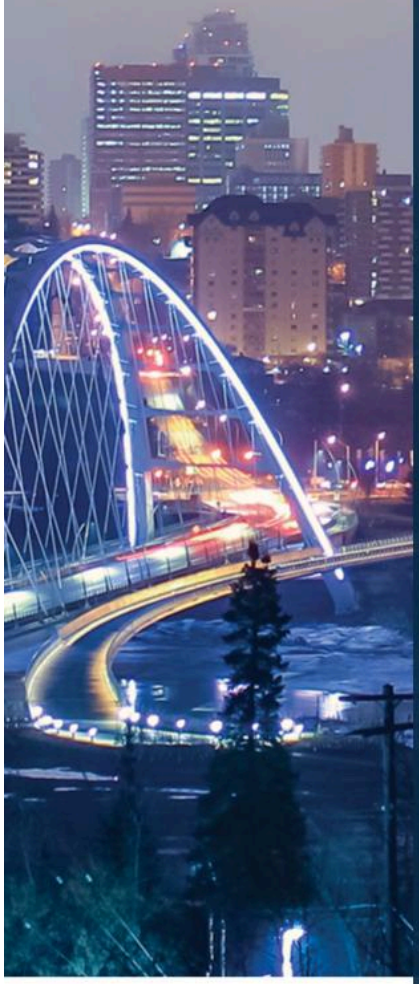

Integrated Infrastructure Services

Edmonton

Roadways Design Drawing Standard 2025

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Revision History

1st Edition: April 1, 2007

2nd Edition: April 24, 2013

3rd Edition: November 25, 2016

4th Edition: October 31, 2025 - Overhaul of 3rd edition to incorporate transition to AutoCAD, update to organizational structure, and update to latest drawing and drafting requirements.

Appendixes

Appendix A – Plan Naming Convention

Appendix B – Abbreviations

Appendix C – As- Built

Appendix D – Layer, Texts, Dimensions, Multileaders and CTB Plot Styles

1. Layers
2. Texts
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Appendix E – Symbols (Zip file)

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1. Neighbourhoods Planning and Design
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Appendix I – Drafting and Design Checklist

1. Neighbourhoods Planning and Design
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(Internal) Appendixes

(Internal) Appendix 1 – Getting Started

1.1. Onetime Setup for Civil 3D
1.2. Add CTB Files and Plot
1.3. Landscape Plot
1.4. Survey Database Settings
1.5. File Structure
1.6. Roll Plan Production (Transportation Planning and Design)

(Internal) Appendix 2 – Utility Search (GeoPro)

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(Internal) Appendix 5 – As-built (Internal Procedures)

(Internal) Appendix 6 – Cardex

Purpose

The purpose of this document is to outline the CAD Standards as defined by the City of Edmonton. This manual is intended to be used by internal City staff and external consultants who are preparing roadways design drawings. This document also provides links to templates that are required to comply with this standard.

General Overview

The Integrated Infrastructure Services Department is responsible for preparing the concept, preliminary, tender/proposal and contract plans required for the implementation of roadways projects. This department is divided into several areas, however, the main two areas these apply to would be: Transportation Planning and Design, and Neighbourhoods Planning and Design.

Transportation Planning and Design
Transportation Planning and Design provides detailed design and project management services for the construction, rehabilitation or reconstruction of arterial, principal, expressway, and freeway roads to ensure the continued effective and efficient movement of people as well as goods and services. This section is also responsible for the design of active modes projects such as bus stops, sidewalks and shared pathways.

Neighbourhoods Planning and Design
Neighbourhood Planning and Design provides detailed design and project management services for the construction, rehabilitation or reconstruction of local and collector roadways within existing neighbourhoods. This section is also responsible for the design of active modes projects such as bus stops, sidewalks and shared pathways.

Design Guidelines

The Integrated Infrastructure Services Department uses the latest TAC Geometric Design Guide for Canadian Roads as its primary source of design standards. In addition, the City of Edmonton has developed its own Design and Construction Standards and Specifications that all design staff should adhere to. Further resource material is available for reference including:

- City of Edmonton Complete Streets Design and Construction Standards
- TAC Urban Supplement to the Geometric Design Guide for Canadian Roads
- TAC Roundabout Guidelines
- Alberta Transportation Highway Geometric Design Guide
- Alberta Transportation Roadside Design Guide
- Alberta Bike Facility Design Guide
- AASHTO Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials)
- Manual of Uniform Traffic Control Devices for Canada
- Pavement Marking Guidelines: Traffic Operations
- Access Guidelines: Transportation Planning Branch
- Urban Design Guide: A Best Practice Guide

Drafting Guidelines

Templates

When starting a new drawing, use the **"CoE Transportation Planning Civil"** drawing template. When starting a new UIS drawing, use the **"Map_3D_Template"** drawing template (for internal use only). All templates are georeferenced to the North American Datum 1983 (NAD83).

Accessing Templates

1. **Internal Access**: Copy and paste the following path to access the templates: \\cepcad01\FIRST_AUTOCAD_Customization\TEMPLATE
2. **External Access**: Templates and other AutoCAD related files can be accessed through this Google Drive link.

Contents of the Template

The template files include the following components:

- Blocks
- Layers
- Text Styles
- Dimension Styles
- Multileader Styles
- Table Styles
- Labels

For additional details regarding styles, labels, tables, and sample drawings, refer to the appendixes.

Drafting Etiquette

- Avoid placing intersections on match lines.
- Where the detail is dense, use inserts at a larger scale (separate plans at 1:200 scale for intersections may provide more clarity).
- Text should be readable from the bottom or the right.
- Group notes where possible for readability.
- For detail notes, only use abbreviations when space does not permit the spelling of the whole word. They should also be consistent throughout the plan series (excluding road names).
- Notes are to be placed outside of roadwork hatching wherever possible.
- Leader lines should be placed at the same angle for a less cluttered appearance and enhanced readability.

- Utility searches, including the UIS base file, are not considered plan-ready. Designers are required to review and field-check all utilities upon creation of the drawing. After receiving the preliminary survey, all utilities must be re-checked for accuracy. For long-term projects, consider redoing the utility search, as information may be updated during construction. Additionally, if a project is deferred for more than one year, the utility search must be redone.
- Always plot and verify your own work. Prior to submission to your supervisor, ensure a colleague reviews it for errors.
- For internal projects, the section Engineering Technologist III will review the preliminary and detailed plan prior to forwarding it to the Lead Engineer.

Plan Format

Transportation/Neighbourhoods Planning and Design produces preliminary, tender and construction contract plans on the ANSI D paper size format.

Plan Reproduction

Concept Plan:
Full scale (100%) on ANSI D(22'x34") or 22' wide roll plan
PDFs (minimum 300DPI)

Preliminary Plan:
Full scale (100%) on ANSI D(22'x34") or 22' wide roll plan
PDFs (minimum 300DPI)

Tender Set:
Full scale (100%) on ANSI D(22'x34")
PDFs (minimum 300DPI)

Construction Set:
Full scale (100%) on ANSI D(22'x34")
Half scale (50%) on ANSI B(11"x17")
PDFs (minimum 300DPI)

Plan Scale

Plan scale is generally as follows:

Concept Plan	1:1000, 1:500, 1:250 or 1:200 (Based on the project's size)
Preliminary Plan	1:1000 (Neighbourhood Renewal) 1:500 (Typical Roadways Projects)
Alignment Control Plan, Neighbourhood Renewal, Neighbourhood Overlay	1:1000
Alignment, Detail, Grade, Pavement Marking and Utility Plans	1:500
Small or Detailed Project	1:200 or 1:250
Cross Sections	H=1:100 V=1:20
Vertical Profiles	10:1 or 20:1
Staging Plans	As Required
Land Acquisition Plans (ANSI A/8.5"x11")	As Required

Plan Orientation

- Plans should be prepared with North to the top of the page or to the right-hand side.
- A series of plans in one project should be numbered consecutively from West to East or South to North, in the direction of increasing northings and eastings. For projects that span a large area, North to South may be used.
- Match lines should be defined by the titleblock or drawing border and include text that references the continuation on the adjoining plan. Alternatively, match lines can be established by a line set back from the edge of the titleblock, especially when there is a change in sheet orientation or a cut-off at a road intersection. All notes beyond the match line should be removed.
- The notation "Limit of Construction" will be placed at the edge of the project to confirm there is no adjoining plan at all limits of construction.

Standard Element Placement

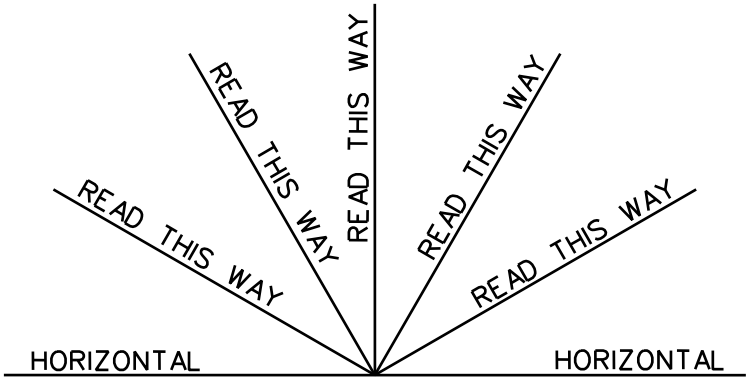
- The North arrow should be placed in the drawing's upper right corner, next to the key plan.
- The Key Plan must be located in the upper right corner and oriented with the North arrow pointing upwards. To ensure consistency across the entire plan series, the Key Plan should maintain a uniform size, location, and orientation. Whenever feasible, its orientation should align with the plan view. If the Key Plans are not sequential, each sheet box needs a label indicating the drawing it represents. For improved readability, only include the names of arterial and collector roads.
- The Detail Note, Detail Legend, Utility Note, Utility Legend, Alignment Note, and Grade Note blocks, should be placed consistently within the drawing where space permits.

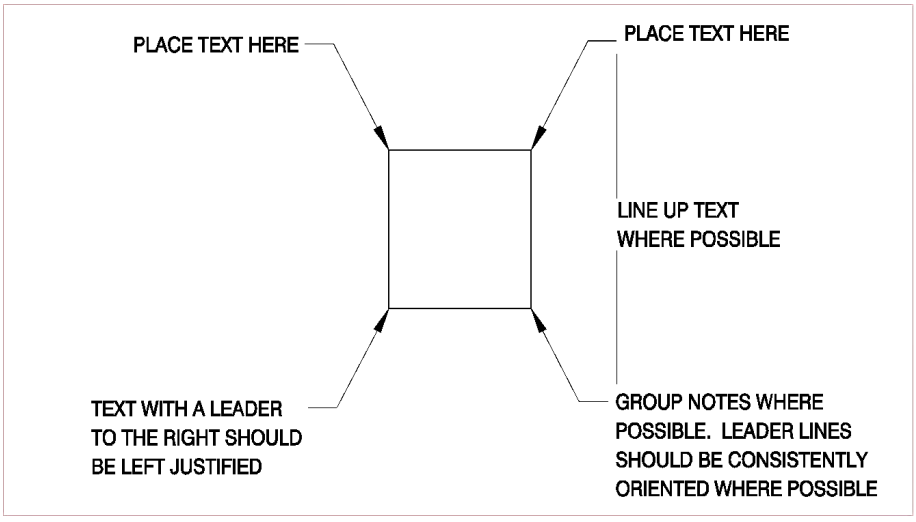
Text Styles and Orientation

There are several different defined styles for existing and proposed text, dimension, and multileaders. The text, dimension, and multileader styles for existing features are Existing 2.5 Anno, and for proposed features are Proposed 2.5 Anno. Note that all text for proposed features uses an arial font, while text for existing features uses romans.

See Appendix D for text styles.

For text orientation and placement, see the figures shown below:





Line Styles and Symbols

A utility search will pull the record information from the participating utility agencies. These records use a specific layer for each type of utility. The Utility Legend and Surface Utility Legend blocks are referenced below:

UTILITY LEGEND

DESCRIPTION	LOCATION	SYMBOL
ABANDONED UTILITIES	ABD	
DRAINAGE	D 3.05	STORM — ST — SAN — SAN — COMB — COMB —
GAS LINES	G 20.13	HP — HP — IP — IP — MP — MP — LP — LP —
POWER DUCTLINE POWER LINE OVERHEAD POWER LINE POWER TRANSMISSION LINE	PD 8.83 P 1.22	PD OE PWR PWRTRANS
STREETLIGHT CABLE STREETLIGHT POLES	PS 2.54 BC P 2.54	STLT
TELEPHONE DUCTLINE TELE. BURIED CABLE	T 1.52 TC 1.52	TD TC
TROLLEY POLES	PT 1.22 BC	
URD TRENCH	PTR 4.88	
UNDERGROUND CABLE/ FIBER OPTIC CABLE	PC 1.55 BC 1.21	SHAW — SHAW — ALL STREAM BELL — BELL — COE FIBRE — COEFIB — PRIVATE FIBRE — PRIFIB —
WATERMAIN	W 6.10	WAT

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

Profile Preparation

- The control line should be set along the centerline of the road (or lane line, where applicable), the lip of gutter, the edge of asphalt, the back of sidewalk or shared pathway, or any other longitudinal element relevant to the scope of the project.
- The control line stationing should commence at 1+000.000 at the west or south limit of the project to avoid negative stationing values.
- The alignment chainage and stationing should be based on the corresponding alignment number. For example:
    - Alignment #10 (AL10): Starting chainage at 10+000, increasing south to north or west to east.
    - Alignment #15 (AL15): Starting chainage at 15+000, increasing west to east or south to north.
- Chainages of horizontal elements should be placed along the profile, such as:
    - Beginning of curve
    - Tangent to spiral
    - Spiral length and curve radii
    - Spiral to curve
- In the Grade plan, the profile stationing in the profile view should align with the plan stationing in the plan view where possible.

- Identify separate profiles by line style and weight appropriate for black and white production.
- Label all profiles
    - i.e. “South Lip of Gutter”, “South Back of Walk” etc.
- Profiles are typically drawn at 10H:1V or 20H:1V. Profiles at 5H:1V are also acceptable.
- The following information should be shown for each profile:
    - Vertical points of intersection
    - Incoming/Outgoing grades
    - Length and “K” value for vertical curve
    - Strip grades at 10m increments for design profiles

CAD Layer Naming

Use of Status Codes The NCS standard status field codes include the option of using the “E” modifier to indicate “Existing to remain”. However, the preferred way of showing existing civil features on a plan, is to use the “V” (survey and mapping) layers. For example, a proposed curb would be on the C-ROAD-CURB layer, and an existing road curb would be shown on the V-ROAD-CURB layer instead of C-ROAD-CURB-E. Existing items to be moved or demolished, can be shown with the M or D status, but these should be shown on the “C” (civil) layers (e.g. C-ROAD-CURB-D), as there is civil work to be performed, and these layers will typically plot darker and stand out more than the “V” layers. (Also, to differentiate between surveyed features, and existing features that weren’t surveyed, the “-S” suffix may be used in the “V” layers).

See Appendix D for Layer Status Codes

Plan Set Types

This section will describe the drawing sets required for the various stages of a project's life cycle.

Concept

Concept plans define the key content necessary to establish facility requirements, determine lane requirements, identify intersections, and other key considerations (e.g., operations, wildlife passage, etc). These plans are essential for obtaining necessary approvals and clearly conveying the intent of the ultimate facility in support of greater area plans.

A concept plan typically includes the following:

- Geometric alignment:
  - Control line stationing (for improvements of two or more lanes)
  - Proposed radii (control line and curb returns)
  - Proposed taper and bay lengths
  - Spirals
- Shared pathway, sidewalk, access, and curb ramp locations and widths
- Property acquisition requirements
- Proposed limit
- Detail/Utility notes
- Proposed roadway cross section
- Preliminary profile (for improvements of two or more lanes)
  - Existing (based on contours) and proposed centerline
  - Proposed grades
  - Proposed vertical curves and K value
- Major utility conflicts. For example:
  - High pressure gas crossing
  - Altalink or other power transmission lines
- New utility infrastructure. For example:
  - New or relocated catch basins
  - Existing and Proposed signals
  - Pipeline / railway ownership

Preliminary

The information contained within this set outlines the geometric layout and all relevant details that may have cost implications. For Transportation Planning and Design projects involving long road corridors, the use of a long roll plan is recommended.

A preliminary plan typically includes:

- Geometric alignment
    - Including design speed, lane widths, bay and taper lengths, and offsets to property
- Shared pathway, sidewalk and curb ramp locations and widths
- Property acquisition requirements
- Project limits of construction
- Detail/Utility notes
- Proposed roadway cross section
- Preliminary profile (for road widening designs and new green field designs)
- Major utility conflicts. For example:
    - High pressure gas crossing
    - Altalink or other power transmission lines
- New utility infrastructure. For example:
    - New or relocated catch basins
    - Existing and Proposed signals
    - Pipeline / railway ownership
- Landscaping areas
- Field review attendees block

Tender/Proposal

The tender set is accompanied by the construction specifications and is used to help the contractors to estimate and submit bids.

- The intent is to identify all cost related items, therefore at a minimum the tender set must include Detail, Utility and Cross Section plans. There may be additional plans such as: Pavement Marking (P), Other Utilities (By others), Structural (By Others), Streetlighting (By Others), and/or Landscaping plans (By Others) that need to be included based on the scope of work.
- A cover and index sheet are required. A location map may be useful for a contract that contains multiple locations.
- Tender plans are circulated electronically for signatures, and a PDF is used for distribution to the interested bidders.
- Once signed, the electronic PDF set is stored in the Google Drive folder provided by the construction project manager.
- For Building Great Neighbourhoods long term contracts, the second and any succeeding neighbourhood in the contract, shall be referred to as a Proposal Set

Estimating (for Neighbourhood Planning & Design)

Includes quantities based on the preliminary or tender/proposal drawing set as directed by the construction project manager.

Contract

The Contract set includes all plans required for the construction of the project.

- Contract plans are electronically circulated for signatures and sent for delivery. The amount of full size (ANSI D) and half size (ANSI B) sets will be determined by the construction project manager.
- Once signed, the electronic PDF set is stored in the Google Drive folder provided by the construction project manager.

As-Built

This is an updated set of drawings based on the red-lines that are received at the end of the projects' construction. For information on As-Built drawings, see appendix C.

Detailed Plan Types

All plans must include, but are not limited to, the following information:

- Existing property, lot and block lines
- Addresses (For Neighbourhood Planning and Design only)
- Survey information (including existing monuments)
- Existing (non surveyed) - face of curb, sidewalks, shared pathways, curb ramps, building outlines, accesses, surface utilities, etc
- Existing (surveyed) - face/back of curb, lip of gutter, sidewalks, shared pathways, curb ramps, building outlines, trees, accesses, surface utilities, etc
- Proposed property lines (if applicable)
- Proposed curb and gutter, sidewalks, shared pathways, curb ramps, accesses, structures etc.
- Key plan
- North arrow
- Street names
- Drawing match lines
- Limits of construction
- Professional Engineering Stamp (to be stamped by the project engineer)
- Permit to Practice

Alignment (A)

Alignment plans are crucial for defining the geometric layout of a proposed roadway. These plans detail specific geometric elements, including but not limited to the following:

- Control line
- Proposed face of curb or lip of gutter and front or back of walk/shared pathway alignments and alignment data (curves, alignment tables)
- Labels for lines and curves on each alignment (must correspond to the alignment table)
- Lane, boulevard and walk/shared pathway dimensions
- Curb ramp locations
- Control line data (curves, control line table)
- Miscellaneous points and point tables should include the center of curb ramps, the limits of walk/shared pathways, accesses, bus stop pads, and the center of catch basins and manholes (if necessary).
- Stationing for all BC/EC/POT points
- All BC/EC/POT points should include stationing and offsets to the control line, but only where the lines are parallel
- General Alignment Note block

Detail (D)

The Detail plan must clearly outline all necessary information for new infrastructure construction. This includes, but is not limited to, the following:

- Proposed alignment (linework only)
- Proposed radius labels (if no alignment plan is provided)
- Lane widths, turn bay, taper and tangent lengths
- Median widths
- Sidewalk/shared use paths and widths
- Curb ramps
- Barrier designs
- Pavement structure/surface treatment hatching and related notes
- Notes identifying construction related elements
- Bus stop block with the bus stop number (only required if within construction limits)
- Bus stop note
- Cross sections or reference to the cross section plan
- Landscaping requirements or a reference to landscaping plans
- Structures such as retaining walls or guardrails or a reference to structural plans
- Detail Legend, Surface Utility Legend and Detail Note blocks
- Existing and proposed crossings (commercial, private etc.)
- Property addresses (only for Neighbourhood Planning and Design)
- Structural overlay note (all plans that include paving)
- Utility crossing note (where applicable)
- Pipeline warning note (where applicable)
- Overhead power/transmission note (where applicable)
- Railway crossing note (where applicable)
- Survey monument note
- Place the pavement design memo note (including company name and date) in the utility search block area of the titleblock (if applicable)

Electrical (E)

The Electrical plans are prepared by consultants. These plans identify:

- The location and type of secondary electrical element (ie: tree light receptacle, powered streetscape element such as wayfinding sign, bench, etc.)
- Underground cable alignment
- Offsets to other utility infrastructure/cables
- Existing secondary electrical to be removed (if applicable)
- Existing Utilities
- New cabinet locations

Overhead Signage (F)

The Design Section provides cross–sections to Traffic Operations for the design of overhead signs. Operations typically draw sections facing the sign structure, therefore signs for westbound and southbound are oriented opposite to typical road sections. If you are forwarding sections for overhead signs, please advise Traffic Operations of the cross–section orientation. However, historically overhead signage plans were a part of the Structure Plans.

- General notes for overhead sign drawings
- Sign Cross Section – dimensions of pole, cross members, clearances, elevations
- Sign Boards – dimensions, text, weight and spacing
- Pile specifications or plan reference (including coordinates)
- City of Edmonton approval signatures
- Notes: Contractor responsibility (if base, foundation and pole design is by EPCOR)

Grade (G)

The vertical alignment of a proposed roadway facility is defined by the grade plan. Grades are calculated at the edge of the pavement or lip of the gutter, and at the back of the walk for sidewalks or shared pathways. Grade information can be expressed using distance, grade, and spot elevations. Spot elevations are typically used in intersections or areas requiring more detail.

In general, a grade plan is divided into a plan view and a profile view, with all elevations provided to three decimal places. For larger intersections, a dedicated page for intersection grades, at a scale of 1:250 or 1:200, may be necessary. For smaller designs, grade information can be incorporated into Alignment (A) plans.

In Neighbourhoods Planning and Design, grade sheets are used to convey the lip of gutter and back of walk grades.

Plan view:

- Edge of pavement/lip of gutter elevations
- Back and/or front of walk elevations
- Crown line elevations
- Limits of grading and match/tie-in grades
- Ditch/swale grades
- Cut/fill limits (only necessary when substantial earthwork is involved)
- Distance, slope and down slope arrow labels for the lip of gutter and sidewalk
- Surface runoff arrows
- Catch basin surface elevations
- Vertical curve information including K values, lengths etc. (For profiles superimposed on the profile view, if applicable)

- Spot elevations and stations corresponding to the alignments, such as geometry points
- Indicate high points (HP) and low points (LP) along the lip of the gutter alignments
- Grade note block

Profile view:

- Existing profile
- Design profile
- Superimposed other design profiles (where applicable)
- Vertical points of intersection(VPIs)
- Grade percentages
- Vertical curve information(K value, length etc.)
- Catch basin locations (Neighbourhood Planning and Design only)
- Top of pipe elevations (where applicable)
- Location and elevation of adjacent structures (doors, driveways etc.) (Neighbourhood Planning and Design only)
- Railway elevation and other utility information (where applicable)

Landscaping (H)

A Landscape Architect is usually retained to prepare this type of drawing.

Street Lighting (L)

Street lighting plans, which are prepared by consultants, are required to adhere to the City of Edmonton Volume 6: Street Lighting Design Standard. These plans typically include:

- The location and type of lighting davit
- Pole Base location
- Underground cable alignment
- Offsets to new pole locations
- Existing light poles to be removed
- Existing Utilities
- New cabinet locations

Pavement Marking and Signage (P)

The Pavement Marking and Signage plans define the marking scheme and signage required for the project. Pavement Marking and Signage should be designed as per The City of Edmonton's Volume 8: Pavement Marking manual, the Manual of Uniform Traffic Control Devices (MUTCD) and Transportation Association of Canada (TAC) guidelines. These plans typically include:

- Longitudinal markings (lane and edge lines)
- Lateral markings (crosswalks, stop lines, stop boxes)
- Final curb alignment

- Merging and diverging areas (gore areas, entry/exit lines)
- Symbols and letters (arrows, bicycle symbols etc.)
- Proposed signage with sign number
- Standard Pavement Marking Note
- Signature from Traffic Ops Supervisor (TPD only)

Land Acquisition (Q)

The Land Acquisition Plan pertains to land acquisition required for Corporate Properties to enter into negotiations to purchase Road R/W and to request for legal survey. These type of plans include the following information:

- Existing Property Lines
- Proposed Property Lines
- Dimensions of area required
- Areas of land required
- Legal description
- Tax Roll Numbers
- Optional: Aerial photo
- Existing infrastructure
- Proposed infrastructure (if applicable)

Utility (U)

The Utility Plans provide existing record information for all underground and surface utility infrastructure. It is also used to describe the proposed storm drainage design for the proposed roadway facility, as well as changes to the minor system. Major storm drainage system installations are prepared separately, either by consultant or EPCOR Drainage Services. These plans include:

- All existing and proposed utility installations and surface features based on record plans, survey information and field review
- Utility Crossing Note
- Pipeline warning blocks (where applicable)
- U/G Power/Transmission Caution Blocks (where applicable)
- Utility Line Legend
- Surface Utility Legend
- Utility Search Stamp – completed by designer (should be within 12 months of IFC issue)
- Utility General Notes
- O/H Power Warning block (where applicable)
- Reference notes to other Utility drawings (For example, Street Lighting Drawings, etc.)
- Changes to the Minor Storm System with notes
- Drainage Table Design (exclude neighbourhood designs)
- Proximity agreement block (30m to road right-of-way)
- Railway crossing blocks (where applicable)

- Utility contact information (third party work) (where applicable)

Cross Section (X)

The Cross Section plans reflect an edge–on view of detailed construction and identify the subsurface construction elements, such as depths and treatment. Cross Sections are drawn in the direction of increasing chainage (for example, looking east or north). Sections can be placed within the detail plan itself, if space permits, or drawn in a separate plan. Sections are drawn vertically exaggerated – typically 5:1 vertical to horizontal. These plans include existing and proposed features, such as:

- Pavement Structure – depths and materials
- Existing curb and gutter, sidewalks, elevation of roadway
- Proposed curb and gutter type
- Sidewalk width and depth
- Underdrains (if required)
- Road and sidewalk cross–fall rate
- Lane dimensions and offsets
- Side Slope rate and limit (for embankments)
- Removals
- Existing ground match points
- Property Lines
- Trees and street light poles
- Street furniture, hydrants, fences, guardrails, retaining walls
- Vertical clearances
- Place the pavement design memo note (including company name and date) in the utility search block area of the titleblock (if applicable)

Structure (S)

The Structure plan provides all information regarding all permanent structures being erected within a project. All Structure plans are prepared by consultants.

Staging/Detour (Z)

The Staging plan provides information as to how a roadway facility is to be divided and constructed by year. Typically, the roadway facility will be divided into several smaller projects that are identified by year. The Staging Plan should contain the following information:

- Final Alignment
- Staged Alignment
- Traffic Flow per Stage
- Construction per stage and limits
- Dates / Years
- Legend

Pipeline Crossing (PX)

In cases where the scope of the project crosses over a utility pipeline, an agreement and plan are required for certain companies. In some instances, a signed letter of agreement is sufficient in addition to referencing the crossings on the Detail and Utility plans. Where a Pipeline Crossing plan is required, it should contain the following information:

- Plan View
  - Proposed Alignment and layout
  - Construction notes and shading, similar to the Detail Plan
- Cross section and road profile
  - Top of pipe elevations / cover
  - Pipeline contents and specifications
- Utility Owner and contact person
- Reference to permit number or agreement number

Railroad Crossing (RX)

In cases where the scope of the project crosses over a railroad, an agreement and plan are required for certain companies. In some instances, a signed letter of agreement is sufficient. Where a Railroad Crossing plan is required, it should contain the following information:

- Plan View
  - Proposed Alignment and layout
- Rail Profile (on either side of track crossing)
- Road Profile (on either side of baseline) / Cross section
- Cross section of road or sidewalk crossing the railway
- Angles between baseline and track (nearest degree/minute/second)
- Signal Location / Relocation (if required)
- Clearances / Sight Lines (where applicable)

Appendixes

Appendix A

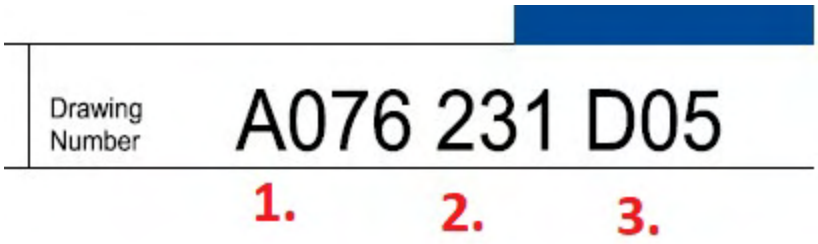
Plan Naming Convention

Plan Naming Convention

Note: Reserve number in Cardex prior

Plan Number

The plan number consists of three required fields, as listed below:



1. Roadway Identification “Description”
2. Plan Set Types, Construction Year and Project Number
3. Plan Type and Plan Number

1. Roadway Identification “Description”

Consists of a maximum of five alphanumeric characters identifying the street, avenue or named road.

i) Avenues

Use the letter **A** followed by the Avenue number.

Examples: **A023** for 23 Avenue
A125 for 125 Avenue
A103A for 103A Avenue

ii) Streets

Use the letter **S** followed by the Street number.

Examples: **S051** for 51 Avenue
S127 for 127 Street
S118A for 118A Street

iii) Named Roads

- Use the first four letters for one-word names, for named roads with two or more word take the first two letters of the first two words.
- Name descriptors such as Avenue, Trail, Drive, Road, etc. are not to be used in the name abbreviation.

Examples: **WHIT** for Whitemud Drive
JASP for Jasper Avenue
RAHI for Rabbit Hill Road
EMMU for Emily Murphy Park Road
MIWO for Mill Woods Road
ADA for ADA Boulevard
FOX for FOX Drive
GAMA for G.A. MacDonald Drive

iv) Subdivisions

- Identified by Four characters denoting the subdivision name. Used to identify work covering large portions of a subdivision, such as subdivision rehabilitation projects.
- Use the first four letters for one–word names, or the first two letters of the first two words two or more word names.
- Use subdivision names as shown on the subdivision map.

Examples: **WEST** for Westwood subdivision
MEAD for Meadowlark subdivision
RITE for Rio Terrace subdivision
WEJA for West Jasper Place subdivision

v) Bike Paths (For Green Space Only)

- Used to identify a bikeway or shared pathway that is not associated with a specific road.
- Use only the word **BIKE**, do not make up your own identifier (MISC is not permitted).

2. Plan Set Types and Construction Year or Project Year

- Required field consisting of three numbers or 4 alphanumeric characters
- The first two numbers denote the year of construction, followed by the sequential project number for that location in that year.

Examples: **231** for 2023 construction, first project that year on that road
235 for 2023 construction, fifth project that year on that road

- The first two numbers denote the year of construction, followed by the sequential project number for that location in that year.
- For concept plan, put letter **C** in front of the project year.

Example: **C231** for 2023 concept plan

- For preliminary plan, put letter **P** in front of the project year.

Example: **P231** for 2023 preliminary plan

3. Drawing Content and Plan Number

- Required field consisting of three alphanumeric characters.
- Consists of one letter using ONLY the identifiers listed below, followed by two digits numbering the plan within a series for that project, or three characters for specific type drawings, as shown below:

COVER SHEET	**001**
INDEX	**002**
ALIGNMENT	**A__**
CONTOUR	**C__**
DETAIL	**D__**
ELECTRICAL	**E__**
OVERHEAD SIGNAGE	**F__**
GRADE	**G__**
LANDSCAPE	**H__**
LIGHTING	**L__**
PAVEMENT MARKING	**P__**
LAND	**Q__**
STRUCTURE	**S__**
UTILITY	**U__**
X–SECTION	**X__**
STAGING	**Z__**
ENVIRONMENT XING	**EX_**
PIPELINE XING	**PX_**
RAILWAY XING	**RX_**
RESERVED	**RES**

- Use only those identifiers listed above, DO NOT create your own identifiers. Unassigned letters are NOT TO BE USED for any reason.
- If the drawing has multiple types of information (i.e. alignment and grade) use the identifier of the most predominant type of information.

Appendix B

Abbreviations

Neighbourhood Planning and Design

ABBREVIATIONS

BLVD	BOULEVARD
BLK	BLOCK
BOW	BACK OF WALK
CB	CATCH BASIN
CBMH	CATCH BASIN MANHOLE
CONC	CONCRETE
EX	EXISTING
X-ING	CROSSING
SFCG	REPLACE EXISTING CURB WITH STRAIGHT FACE CURB AND GUTTER
100mm SFCG	REPLACE EXISTING CURB WITH 100mm STRAIGHT FACE CURB AND GUTTER
RFCG	REPLACE EXISTING CURB WITH ROLLED FACE CURB AND GUTTER
SF BLVD	REPLACE EXISTING CURB WITH STRAIGHT FACE CURB AND GUTTER AND REPLACE BOULEVARD WALK
RF BLVD	REPLACE EXISTING CURB WITH ROLLED FACE CURB AND GUTTER AND REPLACE BOULEVARD WALK
SF MONO	REPLACE EXISTING MONO WITH STRAIGHT FACE CURB, GUTTER AND MONOWALK
RF MONO	REPLACE EXISTING MONO WITH ROLLED FACE CURB, GUTTER AND MONOWALK

Appendix C

As-built

As-built Procedures

Refer to the City of Edmonton Transportation Assets As-Built Procedure.

Appendix D

Layers, Texts, Dimensions, Multileaders and CTB Plot Styles

Layers

Layers

Layer Lists

1. Existing (V) layer list, refer to: CoE_Layers (Existings).pdf
2. Proposed (Civil) layer list, refer to: CoE_Layers (Civil).pdf

Layer Status Codes

The NCS standard status field codes provide the option of incorporating the "E" modifier to signify "Existing to remain." However, the preferred method for representing existing civil features on a plan is by employing the "V" (survey and mapping) layers. For instance, a proposed curb should be placed on the C-ROAD-CURB layer, whereas an existing road curb should be depicted on the V-ROAD-CURB layer, as opposed to using C-ROAD-CURB-E. Existing items slated for relocation or demolition can be indicated using the "M" or "D" status, but these should be displayed on the "C" (civil) layers (e.g., C-ROAD-CURB-D) since civil work is scheduled, and these layers generally yield a darker and more noticeable print compared to the "V" layers. Furthermore, to distinguish between surveyed features and existing features that were not surveyed, the "-S" suffix may be appended to the "V" layers.

1. Level 1 Discipline Designators

The Discipline Designator denotes the category of subject contained on the specified layer. The Discipline Designator is a single character field. The character is the disciplinary character.

Designator	Description
A	Architectural
B	Geotechnical
C	Civil
E	Electrical
F	Fire Protection
G	General
I	Interior
L	Landscape
S	Structural
V	Survey / Mapping
X	Other Disciplines

2. Major Group Descriptions

The major group is a four-character field that serves to identify a major system. The designated major group field codes, as presented in the layer name list, are aligned with specific discipline designators. Nonetheless, it is permissible to pair any major group with any prescribed discipline designator, provided that the definition of the major group remains unchanged. Therefore, various reasonable combinations of discipline designators and major groups are allowed.

It's important to note that this set of major group field codes does not encompass all possibilities. There will be instances where project-specific major groups must be established. In such cases, new major group field codes are acceptable, but they must consist of four alphanumeric characters (and if necessary, be padded with one or more tilde {~} characters to meet the four-character requirement), and thorough documentation is required.

The following is the list of existing major group names. If a new major group needs to be created, please ensure that it is not already defined on this list or the list of minor groups.

Description	Group
Area	AREA
Barrier	BARR
Bridge	BRDG
Columns	COLS
Communications	COMM
Control points	CTRL
Corridor	CORR
Detail	DETL
Development	DEVP
Doors	DOOR
Drains	DRAN
Elevation	ELEV
Erosion and sediment control	EROS
Excavation	EXCV
Feature Line	FEAT
Fences	FENC
Floor	FLOR
Gas	GAS~
Gate	GATE
Geothermal systems	GTHP
Grade line	GRLN
Grids	GRID
Intersection	INTS
Joints	JNTS
Joists	JOIS
Lighting	LITE
Limits of construction / contract	LOCN
Material	MATL
Miscellaneous features	MISC
Miscellaneous piping systems	MPIP

Monitoring point	MONP
Natural gas systems	NGAS
Node	NODE
Obstructions	OBST
Oil	OIL~
Pads	PADS
Parking lots	PRKG
Pavement	PVMT
Piping	PIPE
Plant and landscape material	PLNT
Pole	POLE
Pond	POND
Power	POWR
Profile	PROF
Property	PROP
Railroad	RAIL
Roadways	ROAD
Sample	SAMP
Sanitary sewer	SSWR
Section	SECT
Sign	SIGN
Site features	SITE
Slab	SLAB
Stairs	STRS
Storm sewer	STRM
Survey	SURV
Topographic feature	TOPO
Traffic	TRAF
Utilities	UTIL
Walkway	WALK
Waterway	WWAY
Walls	WALL
Water supply	WATR
Well	WELL

2. Minor Group Descriptions

The minor group is an optional, four-character field that offers additional refinement of the major groups. Multiple minor groups may be applied for even more precise delineation of the data stored on a layer. Any minor group is permissible for modifying any major group, provided that the minor group's definition remains unchanged. As a result, various reasonable combinations of the prescribed major and minor groups are allowed.

It's important to note that this collection of minor group field codes is not meant to encompass all possibilities. There will be situations where project-specific minor groups must be established. In such cases, new minor

group field codes are acceptable, but they must consist of four alphanumeric characters (and if necessary, be extended with one or more tilde {~} characters to meet the four-character requirement) and require comprehensive documentation.
The following is the list of existing minor group names. When creating a new one, please ensure that it is not already defined in this list or in the list of major group names.

Description	Group
25 mm	25
50 mm or less	50MM
50 mm	50
100 mm	100
150 mm	150
0.5 m	0.5M
2.5 m	2.5M
5 m	5M~~
10 m	10M~
20 m	20M~
25 m	25M~
1 continuous and 1 broken	1C1B
3 to 3 (road markings)	CNTY
3 to 6 (road markings)	SKIP
15	15~~
Above	ABOV
Access	ACCS
Accessible ramp	RAMP
Activity centre	ACTV
Address	ADDR
Aggregate surface course and gravel	AGSC
ALS	ALS~
Anchor bolts	ABLT
Approvals	APRV
Area	AREA
Arterial	ARTL
As-built	ASBL
ASCM symbols	ASCM
Asphalt	ASPH
Assembly	ASSY
Audio signal	SAUD
Auger	AUGR
Axis and centerlines	AXIS
Back	BACK
Back of lot	BOLC
Baffle blocks, splash pads	BAFL

Ballast	BLST
Barrier	BARR
Base	BASE
Beams	BEAM
Bearings and couplings	BEAR
Belts	BELT
Bent	BENT
Berms	BERM
Bicycle marker	BIKE
Bike loop	LOOP
Black	BLCK
Blocks	BLKS
Bollards	BOLL
Bollards	BLRD
Bottom	BOTM
Boulevard	BLVD
Break / fault lines	BRKL
Breakpoint	BRKP
Brick	BRCK
Bridge	BRDG
Building	BLDG
Bus duct	BUSS
Bus lay by	BUSB
Bus pad	BPAD
Bus shelter	BSHL
Bus trap	BUST
Bushes and shrubs	BUSH
Busways	BUSW
Bylaw	BLAW
Cabinet	CAB~
Cable systems	CABL
Cabletray and wireways	TRAY
Cap	CAP~
Casting	CAST
Catch basin	CBAS
Cell	CELL
Centre / Centreline	CNTR
Chamber	CHAM
Channels	CHAN
Chevron	CHEV
Circuits	CIRC
City of Edmonton	COFE
Clay	CLAY
Closure	CLOS
Collector	COLL
Commercial	COM~

Communications signal	SCOM
Components	COMP
Concrete	CONC
Concrete splash pad	CSPL
Conductor	COND
Conductor & Pilot	C&P~
Conduit	CNDT
Coniferous	CONF
Coniferous trees	CONI
Connects, links	CONN
Construction entrance	CNTE
Construction joint	CNTJ
Container or planter	CTNR
Continuous & broken	1C1B
Contours	CONT
Control joint	CTLJ
Control points	CTRL
Control signal	SCTL
Coordinates (3tm)	COOR
Core	CORE
Corner	CRNR
Covers, cover plats and guardings	COVR
Crosswalk lines	XWLK
Crown	CRWN
Culvert inlet protection	CIPR
Culverts (precast/manufactured)	CULV
Curb	CURB
Curbs-in	CRBI
Cushions (speed)	CUSH
Cut	CUT~
Dam	DAM~
Dashed line	DASH
Data	DATA
Data signal	SDAT
Decidious	DECD
Deck	DECK
Deep	DEEP
Description	DESC
Design	DSGN
Detail	DETL
Detector marker	DET~
Developer system	DEV~
Devices	DEVC
Diagonal	DIA~
Diagrams	DIAG
Diamond marker	DIAM

Diaphragm	DIAP
Diesel	DIES
Digital audio signal	SDGA
Digital video signal	SDGV
Dimensions	DIMS
Direct push test location	PUSH
Dirt	DIRT
Distribution	DIST
Ditch	DITC
Ditches or washes	DTCH
Diversion dike	DVDK
Door and window jambs	JAMB
Doors	DOOR
Double line	DBL~
Downstream	DNST
Drainage divides	DDIV
Drains	DRNS
Drip irrigation tubing	DRIP
Driveways	DRIV
Dry	DRY~
Duct	DUCT
Ductwork size	SIZE
Duplex	DPLX
Easement	ESMT
Edge	EDGE
Edge of water	EWAT
Elevation	ELEV
Elevator	EVTR
Embankment of slope	EMBK
Emergency	EMER
Emergency access route	EMRG
Enclosures	ENCL
End of block	EOBL
Enlargement	ENLG
Equipment	EQPM
Equipotential	EQUI
Evergreen trees - broadleaf	EVGR
Evidence	EVDC
Existing ground	EGND
Exit	EXIT
Expansion joint	EXPJ
Exposed aggregate	AGGR
Expressway	XPRS
Exterior	EXTR
External	EXT~
Extra fine lines 0.13 mm	XFIN

Extra wide lines 0.70 mm	1XWD
Face	FACE
False location	FLSE
Fasteners, nuts and bolts	FSTN
Feature line	FEAT
Feeder	FEED
Fences	FENC
Fiber optics cable	FIBR
Field data	FDTA
Figure	FIGR
Fill and cover material	FILL
Fine lines 0.18 mm	FINE
Fire protection	FIRE
Fitting	FITT
Fixed	FIXD
Fixtures	FIXT
Flagpole	FLAG
Flange	FLNG
Flexible	FLEX
Floor / Floor mounted	FLOR
Flow	FLLW
Flow direction	FLOW
Footings	FTNG
Forcemain	FORC
Frame	FRAM
Framing	FRMG
Freestanding	FREE
Freeze	FRZE
Front	FRNT
Full-height	FULL
Furnishings	FURN
Garage	GRGE
Gas general piping	GGEP
Gas process piping	GPRP
Gauge	GAGE
Gears	GEAR
Geometry point	GEOM
Goreline	GORE
Grab	GRAB
Grade beams	GRBM
Grading	GRAD
Grass	GRAS
Grated	GRAT
Grating	GRTG
Gravel	GRVL
Green	GREN

Grey	GREY
Grid	GRID
Ground	GRND
Ground cover	GCVR
Guard (and/or guide)	GARD
Guard rail	GRAL
Gutter	GUTR
Handrails / guard rails	HRAL
Hatch	HTCH
Headers	HEAD
Hidden line	HDLN
Holes (perc)	HOLE
Horizontal	HORZ
Hot mix, asphaltic concrete	HMAC
Hot water / high-pressure piping	HPIP
House	HOUS
Hub	HUB~
Inclinometers	INCL
Indicating appliances	INDC
industiral street	INDS
industrial arterial	INDA
Industrial city water system	ICW~
Industrial waste system	IW~~
Information	INFO
Inlet protection	INPR
Instrument air system	IA~~
Intake, outlet	INTK
Intercostals	ICST
Interior	INTR
Intersection / bicycle guiding line	IGLN
Inverts	INV~
Isopropyl alcohol system	IPA~
Jacks	JACK
Junction box	JBOX
Key	KEY~
Keynotes	KEYN
Keys and keeper plates	KEYS
Laboratory data	LDTA
Ladders and ladder assemblies	LADD
Lane delineation through offset intersections	SDSH
lane delineation, bicycle path	BDEL
Lanes	LANE
Large	LRG~
Large rocks and rock outcroppings	ROCK
Latching device	LTCH
Lateral pipe	LTRL

Lawn areas	TURF
Layout	LAYT
Lead	LEAD
Level	LEVL
Lifting	LIFT
Lights	LITE
Limits of construction / contract	LOCN
Line	LINE
Line hooks, lifting hooks, check posts, etc.	HOOK
Link	LINK
Liquid petroleum gas	LQPG
Liquid petroleum gas system	LPG~
Load bearing	LOAD
Loam	LOAM
Local	LOCL
Location	LOCA
Logo	LOGO
Longitudinal	LONG
Lots	LOTS
Louvers	LVRS
Low pressure duct	LDUC
lower noraml water level (contour)	LNWL
Low-pressure piping	LPIP
LRT	LRT~
LRT shelters and stations	LSHL
Lube oil system	LO~~
Lubrication system	LUBE
Mailbox	MAIL
Main tees	TEES
Mainline	MAIN
Major	MAJR
Make-up water	MKUP
Manhole	MHOL
Manual fire alarm pull stations	MANL
Markers, break marks, leaders	MARK
Marsh or swamp	MRSH
Mascot Number	MASC
Mask	MASK
Masonry	MSNW
Match lines	MATC
Mechanically stabilized earth (MSE)	MSE~
Medium	MED~
Medium lines 0.35 mm	MEDM
Medium-pressure piping	MPIP
Mesh or wire	MESH
Metal	METL

Metals waste system	MW~~
Microphone signal	SMIC
Mill / overlay / inlay	MLAY
Minor	MINR
Miscellaneous	MISC
Mismatched	MISM
Miter	MITR
Mixing box, dual duct	BOXD
Mixing box, single duct	BOXS
Monitoring wells	MONT
Monolithic	MONO
Mooring	MOOR
Motors	MOTR
Movable	MOVE
Mulches – organic and inorganic	MLCH
Multi-conductor cable	MULT
Natural gas system	NG~~
Needles	NDLS
Needles beam	NDLB
Nitrogen	NITG
Nitrogen system	N2~~
Nitrous oxide	NOXG
Nitrous oxide system	N2O~
Noise barrier	NSBR
Non load barring	NONL
Non-overflow structure	NOVR
Non-plotting graphic information	NPLT
Non-potable water reuse system	NPWR
Non-potable water system	NPW~
Non-registered plan	NR~~
North arrow	NORT
Number and symbol	NUMB
Obscured by structures	OBSC
Occupants	OCCP
Oil free air system	OFA~
Oil general piping	OGEP
Oil process piping	OPRP
Opening indication ("x")	OPNX
Openings	OPNG
Organic industrial waste system	OIW~
Organic liquid waste system	OLW~
Organic solvent waste system	OSW~
Original ground	OGND
Other diffusers	ODFF
Other heads	OTHD
Outline	OTLN

Outside air system	OA~~
Overhead	OVHD
Overland drainage	OVDR
Oxygen system	O2~~
Pad-mounted	PADM
Panels	PANL
Parapet	PRPT
Park	PARK
Parking lot	PRKG
Parking pad	PPAD
Parkway	PRKW
Partial-height	PRHT
Patterns	PATT
Paved area	PVMT
Pavement markings	MRKG
Pedestal	PED~
Pedestals/pads	PEDS
Penetrations	PENE
Penstock outline and features	PENS
Percolation test hole	PERC
Perennial and annual beds	BEDS
Perimeter	PERI
Phone (pay)	PHON
Phosphoric acid reclaim system	PHRC
Phosphoric acid system	PHOS
Photo electric	PVMD
Photo solvent waste system	PSW~
Piers	PIER
Piezometers	PIZO
Pile	PILE
Pile caps	PCAP
Pilot	PILT
Pins	PINS
Pintle	PNTL
Pipe	PIPE
Pipe sleeve	SLVE
Plan	PLAN
Plant air system	PA~~
Planting bed edger	EDGR
Plants	PLNT
Plastic	PLAS
Plates	PL~~
Play structures	PLAY
Pocket	PCKT
Point of common coupling	POCC
Point of interconnection	POI~

Points	PNTS
Pole	POLE
Pole-mounted	POLM
Polygon	PGON
Polygon	POLY
Pond	POND
Pools and spas	POOL
Post	POST
Potable water system	PW~~
Power signal	SPWR
Powerhouse	PWRH
Pre-cast concrete	PCST
Preliminary	PREL
Primary	PRIM
Private	PRIV
Process equipment	PEQP
Process piping	PPIP
Profile	PROF
Propane system	PRO~
Protective liner (used for walls, culverts, etc.)	LINR
Public	PUBL
Pull box	PBOX
Pulleys, drums, and sheaves	PULL
Pure O2	OXYG
Quoin	QOIN
Rack	RACK
Radius	RADI
Rails	HRAL
Rails and guides	GUID
Rain garden	RGRD
Raised	RAIS
Ratings	RATE
Rebar	RBAR
Recirculation piping	RPIP
Red	RED~
Regenerative caustic system	ARC~
Registered plan	RP~~
Reinforced	REIN
Relay	RELY
Religious	RELG
Residential / commercial	RESD
Retaining wall	RTWL
Return	RETN
Return air diffusers	RDFF
Reverse osmosis reject water system	ROR~
Reverse osmosis water system	RO~~

Revision indicators and text	REVS
RF signal	SRFI
RGB and component video signal	SRGB
Ribbed mat foundation	RIBS
Right of way	ROW~
Riprap	RRAP
Risers	RISR
Roadways	ROAD
Rollers and wheels	ROLL
Roof	ROOF
Roof drains	RFDR
Rooftop equipment	RFEQ
Rounding line	RNDG
Sacrificial anode	ANOD
Scale bar	SCAL
Scavenge air	SAIR
School	SCHL
Scrubber duct drains system	SDD~
Scrubber exhaust system	SCEX
Seal	SEAL
Seating	SEAT
Secondary	SECD
Section	SECT
Seeding areas	SEED
Seepage	SEEP
Separate	SEP~
Service	SRVC
Settlement	SETL
Shading	SHDE
Shadow area	SHAD
Shale	SHAL
Shape	SHAP
Sharrow	SHAR
Shopping centre	SHPC
Short	SHRT
Shoulder	SHLD
Shoulder gore lines	SGL~
Side	SIDE
Sidewalks	SWLK
Sidewalks and steps	SWLK
Sign	SIGN
Signal	SIG~
Sill	SILL
Silt fence	SILT
Sketch	SKCH
Sketch line rectangular duct	SSCH

Sketch line round or oval duct	RSCH
Skin plate	SKIN
Skylight	SKLT
Sliding shoes, skids, etc.	SHOE
Slope paving	SPAV
Slurry return system	SLR~
Slurry supply system	SLS~
Slurry waste system	SLW~
Smoke detector / heat sensors	SMOK
Soffits	SFFT
Soil area	SOIL
Solvent exhaust system	SVEX
Solvent system	RER~
Solvent waste flammable system	SWF~
Solvent waste non-flammable system	SWNF
Solvent waste system	SW~~
Special / specialties	SPCL
Specialty gas system	SG~~
Speed cushion	CUSH
Spillway	SWAY
Splice	SPLC
Sports fields	SPRT
Spot elevation	SPOT
Springs	SPRG
Sprinklers	SPKL
Stadium	STDM
Stairs	STRS
Stakeline	STAK
stamped concrete	STMP
Standpipe system	SP~~
Stationing	STAN
Steel	STEL
Stencil	STEN
Steps	STEP
Stiffener	STIF
Stilling and settling basins	BASN
Stop lines	STOP
Stoplogs	SLOG
Storage	STOR
Storage tanks	TANK
Storm	STRM
Stratigraphy	STRA
street segments	SSEG
Streetlight feed	STLF
Strike line	STRK
Stringers	STRG

Structural bearing or shear walls	SHEA
Structures	STRC
Stub	STUB
Stucco	STUC
Stud	STUD
Sub area	SUBA
Sulfuric acid reclaim system	SULR
Sulfuric acid system	SULF
Super silt fence	SSLT
Superceded	SUPR
Supply	SPLY
Supply diffusers	SDFF
Support	SUPT
Surface	SURF
Suspended elements	SUSP
Swale	SWLE
Sweep	SWEP
Switchboards	SWBD
Switches	SWCH
Symbol	SYMB
Sync signal	SSYN
System panels	PNLS
Table	TABL
Tactile pad	TACT
Tags	TAGS
Tempered DI return system	TDIR
Tempered DI supply system	TDIS
Tempered water system	TW~~
Tendons	TEND
Tentative	TENT
Test pit	PITS
Test stations	TEST
Text	TEXT
Thermostats	THER
Thimble	THBL
Thin lines 0.25 mm	THIN
Thrust Plate	TRST
Tick marks	TICK
Tin surface	TIN~
Title block	TBLK
TMAH system	TMAH
Toilet partitions	TPTN
Top	TOP~
Top of bank	TOPB
Tower (cell, etc.)	TOWR
Trace	TRCE

Track	TRAK
Trail or path	TRAL
Transformer	XFMR
Transit	TRAN
Transition point	TPNT
Transmission	TRNM
Transportation Utility Corridor (TUC)	TUC~
Transverse	TRAV
Trap low	TLOW
Trash racks, intake screens	TRSH
Treatment (grouting)	TRMT
Trees	TREE
Trimmer floor	TRIM
True location	TRUE
Trunnion	TRUN
Tunnel	TUNL
Turn	TURN
ultra fine lines	UFIN
Ultra-pure recycle water system	UPRW
Ultra-pure water system	UPW~
Unbuilt	UBUI
Unclassified	UCLS
Under construction	CONS
Under-carpet wiring	UCPT
Under-floor raceways	URAC
Underground	UGND
Unfused ac	ACNF
Unfused dc	DCNF
Unit pavers	PAVR
upper normal water level (contour)	UNWL
Upstream	UPST
urban boulevard	UBLV
User (contours)	USER
Utility	UTIL
Utility nitrogen system	UN2~
Vacuum	VACU
Vacuum system	PV~~
Valves	VALV
Vault	VAUL
Veneer	VENR
Vent	VENT
Vent system	V~~~
Venturi nitrogen system	VN2~
Vertical	VERT
Video signal	SVID
View	VIEW

View frame	VFRM
Viewport	VPRT
Vines	VINE
Walkway	WALK
Wall	WALL
Wall diffusers	WDFF
Waste	WAST
Waterbody	WBDY
Waterstops	WTRS
Waterway / hydrology	WWAY
Waterway safety barriers	WATR
Web	WEB~
Weir	WEIR
Weld argon system	WAR~
Wet	WET~
Wide lines 0.50 mm	WIDE
Width	WDTH
Wiring	WIRE
Wood	WOOD
Worksurface	WKSF
wrought iron	WIRN
X	X~~~
XX wide lines 1.00 mm	2XWD
Yellow	YELL
Zoning	ZEON

Texts

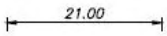
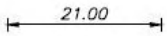
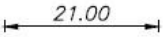
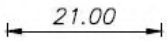
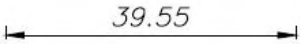
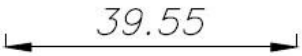
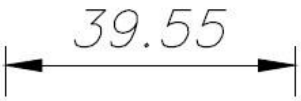
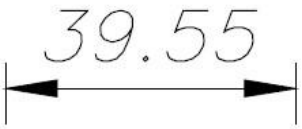
EXISTING TEXT STYLES	
SAMPLE STYLE	**STYLE NAME**
SAMPLE TEXT	Existing 0.5 Anno
SAMPLE TEXT	Existing 1.0 Anno
SAMPLE TEXT	Existing 1.25 Anno
SAMPLE TEXT	Existing 1.5 Anno
SAMPLE TEXT	Existing 1.8 Anno
SAMPLE TEXT	Existing 2.0 Anno
SAMPLE TEXT	Existing 2.5 Anno
SAMPLE TEXT	Existing 3.5 Anno
SAMPLE TEXT	Existing 5.0 Anno
SAMPLE	Existing 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

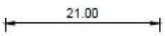
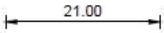
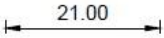
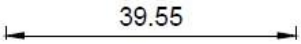
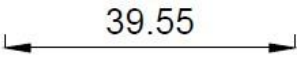
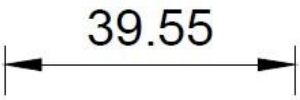
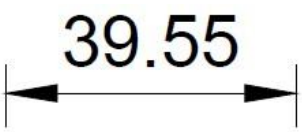
PROPOSED TEXT STYLES	
SAMPLE STYLE	**STYLE NAME**
SAMPLE TEXT	Proposed 0.5 Anno
SAMPLE TEXT	Proposed 1.0 Anno
SAMPLE TEXT	Proposed 1.25 Anno
SAMPLE TEXT	Proposed 1.5 Anno
SAMPLE TEXT	Proposed 1.8 Anno
SAMPLE TEXT	Proposed 2.0 Anno
SAMPLE TEXT	Proposed 2.5 Anno
SAMPLE TEXT	Proposed 3.5 Anno
SAMPLE TEXT	Proposed 5.0 Anno
SAMPLE	Proposed 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

Dimensions

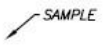
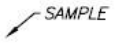
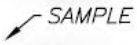
EXISTING DIMENSION TEXT STYLES	
SAMPLE STYLE	**STYLE NAME**
	Existing 1.25 Anno
	Existing 1.5 Anno
	Existing 1.8 Anno
	Existing 2.0 Anno
	Existing 2.5 Anno
	Existing 3.5 Anno
	Existing 5.0 Anno
	Existing 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

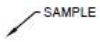
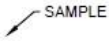
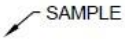
PROPOSED DIMENSION TEXT STYLES	
SAMPLE STYLE	**STYLE NAME**
	Proposed 1.25 Anno
	Proposed 1.5 Anno
	Proposed 1.8 Anno
	Proposed 2.0 Anno
	Proposed 2.5 Anno
	Proposed 3.5 Anno
	Proposed 5.0 Anno
	Proposed 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

Multileaders

EXISTING MULTILEADER STYLES	
SAMPLE STYLE	**STYLE NAME**
	Existing 1.25 Anno
	Existing 1.5 Anno
	Existing 1.8 Anno
	Existing 2.0 Anno
	Existing 2.5 Anno
	Existing 3.5 Anno
	Existing 5.0 Anno
	Existing 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

EXISTING MULTILEADER STYLES	
SAMPLE STYLE	**STYLE NAME**
	Proposed 1.25 Anno
	Proposed 1.5 Anno
	Proposed 1.8 Anno
	Proposed 2.0 Anno
	Proposed 2.5 Anno
	Proposed 3.5 Anno
	Proposed 5.0 Anno
	Proposed 7.0 Anno

Note: All annotative style heights reference final plotted height in millimetres (ie. Exisiting 1.5 Anno = 1.5mm)

CTB Plot Styles

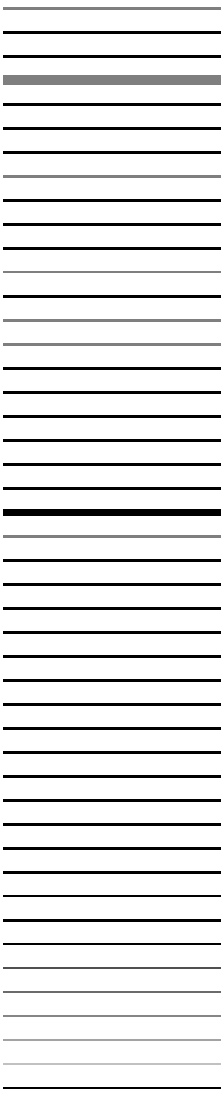
Black and Grey plot style table

screen color (Autocad)	plot values (color & weight)	plot sample (symbolic)
1	black 0.35 mm	
2	black 0.35 mm	
3	black 0.70 mm	
4	black 0.70 mm	
5	black 0.70 mm	
6	black 1.00 mm	
7	black 0.50 mm	
8	grey 42% 0.13 mm	
9	grey 25% 0.13 mm	
10	black 0.70 mm	
11	black 0.25 mm	
12	black 0.25 mm	
13	black 0.25 mm	
14	grey 42% 0.35 mm	
15	black 0.25 mm	
16	black 0.25 mm	
17	black 0.25 mm	
18	black 0.25 mm	
19	black 0.25 mm	
20	black 0.25 mm	
21	black 0.25 mm	
22	grey 42% 0.35 mm	
23	black 0.25 mm	
24	grey 42% 0.35 mm	
25	black 0.25 mm	
26	black 0.25 mm	
27	black 0.25 mm	
28	black 0.25 mm	
29	black 0.13 mm	
30	black 0.25 mm	
31	grey 42% 0.35 mm	
32	black 0.35 mm	
33	black 0.25 mm	
34	black 0.35 mm	
35	grey 42% 0.25 mm	
36	grey 42% 0.25 mm	
37	black 0.25 mm	
38	black 0.25 mm	
39	black 0.25 mm	
40	black 0.25 mm	
41	black 0.25 mm	
42	grey 42% 0.25 mm	
43	black 0.25 mm	
44	grey 42% 0.35 mm	
45	grey 42% 0.25 mm	
46	grey 42% 0.25 mm	
47	black 0.25 mm	
48	grey 42% 0.25 mm	
49	black 0.25 mm	
50	black 0.25 mm	
51	black 0.25 mm	
52	black 0.70 mm	
53	grey 42% 0.25 mm	
54	black 0.25 mm	
55	black 0.25 mm	
56	black 0.25 mm	
57	black 0.25 mm	
58	black 0.25 mm	
59	black 0.25 mm	
60	black 0.25 mm	
61	black 0.25 mm	
62	black 0.25 mm	
63	black 0.25 mm	
64	black 0.25 mm	
65	black 0.25 mm	
66	black 0.25 mm	
67	black 0.25 mm	
68	black 0.25 mm	
69	black 0.25 mm	

70	grey 42%	0.25 mm
71	black	0.25 mm
72	black	0.25 mm
73	black	0.25 mm
74	grey 42%	0.50 mm
75	black	0.25 mm
76	black	0.25 mm
77	black	0.25 mm
78	black	0.25 mm
79	black	0.25 mm
80	black	0.25 mm
81	black	0.25 mm
82	black	0.25 mm
83	black	0.25 mm
84	black	0.25 mm
85	black	0.25 mm
86	black	0.25 mm
87	black	0.25 mm
88	black	0.25 mm
89	black	0.25 mm
90	black	0.70 mm
91	black	0.25 mm
92	black	0.25 mm
93	black	0.25 mm
94	grey 42%	0.35 mm
95	grey 42%	0.25 mm
96	black	0.25 mm
97	black	0.25 mm
98	black	0.25 mm
99	black	0.25 mm
100	black	0.25 mm
101	black	0.25 mm
102	black	0.25 mm
103	black	0.25 mm
104	black	0.25 mm
105	black	0.25 mm
106	black	0.25 mm
107	black	0.25 mm
108	black	0.25 mm
109	black	0.25 mm
110	black	0.35 mm
111	black	0.25 mm
112	black	0.25 mm
113	black	0.25 mm
114	black	0.25 mm
115	black	0.25 mm
116	grey 42%	0.25 mm
117	black	0.25 mm
118	black	0.25 mm
119	black	0.25 mm
120	black	0.35 mm
121	black	0.25 mm
122	black	0.25 mm
123	black	0.25 mm
124	black	0.25 mm
125	black	0.25 mm
126	black	0.25 mm
127	black	0.25 mm
128	black	0.25 mm
129	black	0.25 mm
130	black	0.35 mm
131	black	0.25 mm
132	black	0.25 mm
133	grey 42%	0.25 mm
134	black	0.25 mm
135	black	0.25 mm
136	black	0.25 mm
137	black	0.25 mm
138	black	0.25 mm
139	black	0.25 mm

140	grey 42%	0.70 mm
141	black	0.25 mm
142	black	0.70 mm
143	grey 42%	0.25 mm
144	black	0.25 mm
145	black	0.25 mm
146	black	0.25 mm
147	black	0.25 mm
148	black	0.25 mm
149	black	0.25 mm
150	black	0.70 mm
151	black	0.25 mm
152	black	0.50 mm
153	grey 42%	0.25 mm
154	grey 53%	0.05 mm
155	black	0.25 mm
156	black	0.25 mm
157	black	0.25 mm
158	black	0.25 mm
159	black	0.25 mm
160	black	0.25 mm
161	black	0.25 mm
162	black	0.25 mm
163	black	0.25 mm
164	black	0.25 mm
165	grey 42%	0.25 mm
166	black	0.25 mm
167	black	0.35 mm
168	black	0.25 mm
169	black	0.25 mm
170	grey 42%	0.35 mm
171	black	0.05 mm
172	black	0.25 mm
173	black	0.25 mm
174	black	0.25 mm
175	black	0.25 mm
176	black	0.25 mm
177	black	0.25 mm
178	255,255,254	0.25 mm
179	black	0.25 mm
180	black	0.25 mm
181	black	0.25 mm
182	black	0.25 mm
183	black	0.25 mm
184	black	0.25 mm
185	black	0.25 mm
186	black	0.25 mm
187	black	0.25 mm
188	black	0.25 mm
189	black	0.25 mm
190	black	0.25 mm
191	grey 42%	0.25 mm
192	black	0.25 mm
193	black	0.25 mm
194	black	0.25 mm
195	black	0.25 mm
196	black	0.25 mm
197	black	0.25 mm
198	black	0.25 mm
199	black	0.25 mm
200	black	0.70 mm
201	black	0.25 mm
202	black	0.25 mm
203	black	0.25 mm
204	black	0.25 mm
205	black	0.25 mm
206	black	0.25 mm
207	black	0.25 mm
208	black	0.25 mm
209	black	0.25 mm

210	grey 42%	0.25 mm
211	black	0.25 mm
212	black	0.25 mm
213	grey 42%	1.00 mm
214	black	0.25 mm
215	black	0.25 mm
216	black	0.25 mm
217	grey 42%	0.35 mm
218	black	0.25 mm
219	black	0.25 mm
220	black	0.25 mm
221	grey 42%	0.13 mm
222	black	0.25 mm
223	grey 42%	0.25 mm
224	grey 42%	0.25 mm
225	black	0.25 mm
226	black	0.25 mm
227	black	0.25 mm
228	black	0.25 mm
229	black	0.25 mm
230	black	0.25 mm
231	black	0.70 mm
232	grey 42%	0.25 mm
233	black	0.25 mm
234	black	0.25 mm
235	black	0.25 mm
236	black	0.25 mm
237	black	0.25 mm
238	black	0.25 mm
239	black	0.25 mm
240	black	0.25 mm
241	black	0.25 mm
242	black	0.35 mm
243	black	0.25 mm
244	black	0.25 mm
245	black	0.25 mm
246	black	0.25 mm
247	black	0.18 mm
248	black	0.25 mm
249	black	0.18 mm
250	grey 60%	0.18 mm
251	grey 50%	0.18 mm
252	grey 40%	0.18 mm
253	grey 30%	0.18 mm
254	grey 20%	0.18 mm
255	black	0.18 mm



CofE AOC.ctb

0.350 mm 1	0.350 mm 2	0.700 mm 3	0.700 mm 4	0.350 mm 5	1.000 mm 6	0.500 mm 7	0.130 mm 8	0.130 mm 9	0.700 mm 10	0.250 mm 11	0.250 mm 12	0.250 mm 13	0.350 mm 14	0.250 mm 15	0.250 mm 16	0.250 mm 17	0.250 mm 18	0.250 mm 19	0.250 mm 20	0.250 mm 21	0.350 mm 22	0.250 mm 23	0.350 mm 24
0.250 mm 25	0.250 mm 26	0.250 mm 27	0.250 mm 28	0.130 mm 29	0.350 mm 30	0.350 mm 31	0.350 mm 32	0.250 mm 33	0.350 mm 34	0.250 mm 35	0.250 mm 36	0.250 mm 37	0.250 mm 38	0.250 mm 39	0.350 mm 40	0.250 mm 41	0.250 mm 42	0.250 mm 43	0.350 mm 44	0.250 mm 45	0.250 mm 46	0.250 mm 47	0.250 mm 48
0.250 mm 49	0.250 mm 50	0.250 mm 51	0.700 mm 52	0.250 mm 53	0.250 mm 54	0.250 mm 55	0.250 mm 56	0.250 mm 57	0.250 mm 58	0.250 mm 59	0.250 mm 60	0.250 mm 61	0.250 mm 62	0.250 mm 63	0.250 mm 64	0.250 mm 65	0.250 mm 66	0.250 mm 67	0.250 mm 68	0.250 mm 69	0.250 mm 70	0.250 mm 71	0.250 mm 72
0.250 mm 73	0.500 mm 74	0.250 mm 75	0.250 mm 76	0.250 mm 77	0.250 mm 78	0.250 mm 79	0.250 mm 80	0.250 mm 81	0.250 mm 82	0.250 mm 83	0.250 mm 84	0.250 mm 85	0.250 mm 86	0.250 mm 87	0.250 mm 88	0.250 mm 89	0.700 mm 90	0.250 mm 91	0.250 mm 92	0.250 mm 93	0.350 mm 94	0.250 mm 95	0.250 mm 96
0.250 mm 97	0.250 mm 98	0.250 mm 99	0.350 mm 100	0.250 mm 101	0.250 mm 102	0.250 mm 103	0.250 mm 104	0.250 mm 105	0.250 mm 106	0.250 mm 107	0.250 mm 108	0.250 mm 109	0.350 mm 110	0.250 mm 111	0.250 mm 112	0.250 mm 113	0.250 mm 114	0.250 mm 115	0.250 mm 116	0.250 mm 117	0.250 mm 118	0.250 mm 119	0.350 mm 120
0.250 mm 121	0.250 mm 122	0.250 mm 123	0.250 mm 124	0.250 mm 125	0.250 mm 126	0.250 mm 127	0.250 mm 128	0.250 mm 129	0.350 mm 130	0.250 mm 131	0.250 mm 132	0.350 mm 133	0.250 mm 134	0.250 mm 135	0.250 mm 136	0.250 mm 137	0.250 mm 138	0.250 mm 139	0.700 mm 140	0.250 mm 141	0.700 mm 142	0.250 mm 143	0.250 mm 144
0.250 mm 145	0.250 mm 146	0.250 mm 147	0.250 mm 148	0.250 mm 149	0.700 mm 150	0.250 mm 151	0.350 mm 152	0.250 mm 153	0.050 mm 154	0.250 mm 155	0.250 mm 156	0.250 mm 157	0.250 mm 158	0.250 mm 159	0.350 mm 160	0.250 mm 161	0.250 mm 162	0.250 mm 163	0.250 mm 164	0.350 mm 165	0.250 mm 166	0.350 mm 167	0.250 mm 168
0.250 mm 169	0.350 mm 170	0.050 mm 171	0.250 mm 172	0.250 mm 173	0.250 mm 174	0.250 mm 175	0.250 mm 176	0.250 mm 177	 178	0.250 mm 179	0.250 mm 180	0.250 mm 181	0.250 mm 182	0.250 mm 183	0.250 mm 184	0.250 mm 185	0.250 mm 186	0.250 mm 187	0.250 mm 188	0.250 mm 189	0.250 mm 190	0.350 mm 191	0.250 mm 192
0.250 mm 193	0.250 mm 194	0.250 mm 195	0.250 mm 196	0.250 mm 197	0.250 mm 198	0.250 mm 199	0.700 mm 200	0.250 mm 201	0.250 mm 202	0.250 mm 203	0.250 mm 204	0.250 mm 205	0.250 mm 206	0.350 mm 207	0.250 mm 208	0.250 mm 209	0.350 mm 210	0.250 mm 211	0.250 mm 212	1.000 mm 213	0.250 mm 214	0.350 mm 215	0.250 mm 216
0.350 mm 217	0.250 mm 218	0.250 mm 219	0.250 mm 220	0.130 mm 221	0.250 mm 222	0.350 mm 223	0.350 mm 224	0.250 mm 225	0.250 mm 226	0.350 mm 227	0.250 mm 228	0.250 mm 229	0.250 mm 230	0.700 mm 231	0.250 mm 232	0.250 mm 233	0.250 mm 234	0.250 mm 235	0.250 mm 236	0.250 mm 237	0.250 mm 238	0.250 mm 239	0.250 mm 240
0.350 mm 241	0.350 mm 242	0.250 mm 243	0.250 mm 244	0.250 mm 245	0.250 mm 246	0.180 mm 247	0.250 mm 248	0.180 mm 249										0.180 mm 250	0.180 mm 251	0.180 mm 252	0.180 mm 253	0.180 mm 254	 255

Edmonton

CofE AOC (Half).ctb

0.175 mm 1	0.175 mm 2	0.350 mm 3	0.350 mm 4	0.175 mm 5	0.500 mm 6	0.250 mm 7	0.065 mm 8	0.065 mm 9	0.350 mm 10	0.125 mm 11	0.125 mm 12	0.125 mm 13	0.175 mm 14	0.125 mm 15	0.125 mm 16	0.125 mm 17	0.125 mm 18	0.125 mm 19	0.125 mm 20	0.125 mm 21	0.175 mm 22	0.125 mm 23	0.175 mm 24
0.125 mm 25	0.125 mm 26	0.125 mm 27	0.125 mm 28	0.065 mm 29	0.175 mm 30	0.175 mm 31	0.175 mm 32	0.125 mm 33	0.175 mm 34	0.125 mm 35	0.125 mm 36	0.125 mm 37	0.125 mm 38	0.125 mm 39	0.175 mm 40	0.125 mm 41	0.125 mm 42	0.125 mm 43	0.175 mm 44	0.125 mm 45	0.125 mm 46	0.125 mm 47	0.125 mm 48
0.125 mm 49	0.125 mm 50	0.125 mm 51	0.350 mm 52	0.125 mm 53	0.125 mm 54	0.125 mm 55	0.125 mm 56	0.125 mm 57	0.125 mm 58	0.125 mm 59	0.125 mm 60	0.125 mm 61	0.125 mm 62	0.125 mm 63	0.125 mm 64	0.125 mm 65	0.125 mm 66	0.125 mm 67	0.125 mm 68	0.125 mm 69	0.125 mm 70	0.125 mm 71	0.125 mm 72
0.125 mm 73	0.250 mm 74	0.125 mm 75	0.125 mm 76	0.125 mm 77	0.125 mm 78	0.125 mm 79	0.125 mm 80	0.125 mm 81	0.125 mm 82	0.125 mm 83	0.125 mm 84	0.125 mm 85	0.125 mm 86	0.125 mm 87	0.125 mm 88	0.125 mm 89	0.350 mm 90	0.125 mm 91	0.125 mm 92	0.125 mm 93	0.175 mm 94	0.125 mm 95	0.125 mm 96
0.125 mm 97	0.125 mm 98	0.125 mm 99	0.175 mm 100	0.125 mm 101	0.125 mm 102	0.125 mm 103	0.125 mm 104	0.125 mm 105	0.125 mm 106	0.125 mm 107	0.125 mm 108	0.125 mm 109	0.175 mm 110	0.125 mm 111	0.125 mm 112	0.125 mm 113	0.125 mm 114	0.125 mm 115	0.125 mm 116	0.125 mm 117	0.125 mm 118	0.125 mm 119	0.175 mm 120
0.125 mm 121	0.125 mm 122	0.125 mm 123	0.125 mm 124	0.125 mm 125	0.125 mm 126	0.125 mm 127	0.125 mm 128	0.125 mm 129	0.175 mm 130	0.125 mm 131	0.125 mm 132	0.175 mm 133	0.125 mm 134	0.125 mm 135	0.125 mm 136	0.125 mm 137	0.125 mm 138	0.125 mm 139	0.350 mm 140	0.125 mm 141	0.350 mm 142	0.125 mm 143	0.125 mm 144
0.125 mm 145	0.125 mm 146	0.125 mm 147	0.125 mm 148	0.125 mm 149	0.350 mm 150	0.125 mm 151	0.175 mm 152	0.125 mm 153	0.025 mm 154	0.125 mm 155	0.125 mm 156	0.125 mm 157	0.125 mm 158	0.125 mm 159	0.175 mm 160	0.125 mm 161	0.125 mm 162	0.125 mm 163	0.125 mm 164	0.175 mm 165	0.125 mm 166	0.175 mm 167	0.125 mm 168
0.125 mm 169	0.175 mm 170	0.025 mm 171	0.125 mm 172	0.125 mm 173	0.125 mm 174	0.125 mm 175	0.125 mm 176	0.125 mm 177	178	0.125 mm 179	0.125 mm 180	0.125 mm 181	0.125 mm 182	0.125 mm 183	0.125 mm 184	0.125 mm 185	0.125 mm 186	0.125 mm 187	0.125 mm 188	0.125 mm 189	0.125 mm 190	0.175 mm 191	0.125 mm 192
0.125 mm 193	0.125 mm 194	0.125 mm 195	0.125 mm 196	0.125 mm 197	0.125 mm 198	0.125 mm 199	0.350 mm 200	0.125 mm 201	0.125 mm 202	0.125 mm 203	0.125 mm 204	0.125 mm 205	0.125 mm 206	0.175 mm 207	0.125 mm 208	0.125 mm 209	0.175 mm 210	0.125 mm 211	0.125 mm 212	0.500 mm 213	0.125 mm 214	0.175 mm 215	0.125 mm 216
0.175 mm 217	0.125 mm 218	0.125 mm 219	0.125 mm 220	0.065 mm 221	0.125 mm 222	0.175 mm 223	0.175 mm 224	0.125 mm 225	0.125 mm 226	0.175 mm 227	0.125 mm 228	0.125 mm 229	0.125 mm 230	0.350 mm 231	0.125 mm 232	0.125 mm 233	0.125 mm 234	0.125 mm 235	0.125 mm 236	0.125 mm 237	0.125 mm 238	0.125 mm 239	0.125 mm 240
0.175 mm 241	0.175 mm 242	0.125 mm 243	0.125 mm 244	0.125 mm 245	0.125 mm 246	0.090 mm 247	0.125 mm 248	0.090 mm 249										0.090 mm 250	0.090 mm 251	0.090 mm 252	0.090 mm 253	0.090 mm 254	255

Edmonton

CofE Black and Grey.ctb

0.350 mm 1	0.350 mm 2	0.700 mm 3	0.700 mm 4	0.700 mm 5	1.000 mm 6	0.500 mm 7	0.130 mm 8	0.130 mm 9	0.700 mm 10	0.250 mm 11	0.250 mm 12	0.250 mm 13	0.350 mm 14	0.250 mm 15	0.250 mm 16	0.250 mm 17	0.250 mm 18	0.250 mm 19	0.250 mm 20	0.250 mm 21	0.350 mm 22	0.250 mm 23	0.350 mm 24
0.250 mm 25	0.250 mm 26	0.250 mm 27	0.250 mm 28	0.130 mm 29	0.250 mm 30	0.350 mm 31	0.350 mm 32	0.250 mm 33	0.350 mm 34	0.250 mm 35	0.250 mm 36	0.250 mm 37	0.250 mm 38	0.250 mm 39	0.250 mm 40	0.250 mm 41	0.250 mm 42	0.250 mm 43	0.350 mm 44	0.250 mm 45	0.250 mm 46	0.250 mm 47	0.250 mm 48
0.250 mm 49	0.250 mm 50	0.250 mm 51	0.700 mm 52	0.250 mm 53	0.250 mm 54	0.250 mm 55	0.250 mm 56	0.250 mm 57	0.250 mm 58	0.250 mm 59	0.250 mm 60	0.250 mm 61	0.250 mm 62	0.250 mm 63	0.250 mm 64	0.250 mm 65	0.250 mm 66	0.250 mm 67	0.250 mm 68	0.250 mm 69	0.250 mm 70	0.250 mm 71	0.250 mm 72
0.250 mm 73	0.500 mm 74	0.250 mm 75	0.250 mm 76	0.250 mm 77	0.250 mm 78	0.250 mm 79	0.250 mm 80	0.250 mm 81	0.250 mm 82	0.250 mm 83	0.250 mm 84	0.250 mm 85	0.250 mm 86	0.250 mm 87	0.250 mm 88	0.250 mm 89	0.700 mm 90	0.250 mm 91	0.250 mm 92	0.250 mm 93	0.350 mm 94	0.250 mm 95	0.250 mm 96
0.250 mm 97	0.250 mm 98	0.250 mm 99	0.250 mm 100	0.250 mm 101	0.250 mm 102	0.250 mm 103	0.250 mm 104	0.250 mm 105	0.250 mm 106	0.250 mm 107	0.250 mm 108	0.250 mm 109	0.350 mm 110	0.250 mm 111	0.250 mm 112	0.250 mm 113	0.250 mm 114	0.250 mm 115	0.250 mm 116	0.250 mm 117	0.250 mm 118	0.250 mm 119	0.350 mm 120
0.250 mm 121	0.250 mm 122	0.250 mm 123	0.250 mm 124	0.250 mm 125	0.250 mm 126	0.250 mm 127	0.250 mm 128	0.250 mm 129	0.350 mm 130	0.250 mm 131	0.250 mm 132	0.250 mm 133	0.250 mm 134	0.250 mm 135	0.250 mm 136	0.250 mm 137	0.250 mm 138	0.250 mm 139	0.700 mm 140	0.250 mm 141	0.700 mm 142	0.250 mm 143	0.250 mm 144
0.250 mm 145	0.250 mm 146	0.250 mm 147	0.250 mm 148	0.250 mm 149	0.700 mm 150	0.250 mm 151	0.500 mm 152	0.250 mm 153	0.050 mm 154	0.250 mm 155	0.250 mm 156	0.250 mm 157	0.250 mm 158	0.250 mm 159	0.250 mm 160	0.250 mm 161	0.250 mm 162	0.250 mm 163	0.250 mm 164	0.250 mm 165	0.250 mm 166	0.350 mm 167	0.250 mm 168
0.250 mm 169	0.350 mm 170	0.050 mm 171	0.250 mm 172	0.250 mm 173	0.250 mm 174	0.250 mm 175	0.250 mm 176	0.250 mm 177	178	0.250 mm 179	0.250 mm 180	0.250 mm 181	0.250 mm 182	0.250 mm 183	0.250 mm 184	0.250 mm 185	0.250 mm 186	0.250 mm 187	0.250 mm 188	0.250 mm 189	0.250 mm 190	0.250 mm 191	0.250 mm 192
0.250 mm 193	0.250 mm 194	0.250 mm 195	0.250 mm 196	0.250 mm 197	0.250 mm 198	0.250 mm 199	0.700 mm 200	0.250 mm 201	0.250 mm 202	0.250 mm 203	0.250 mm 204	0.250 mm 205	0.250 mm 206	0.250 mm 207	0.250 mm 208	0.250 mm 209	0.250 mm 210	0.250 mm 211	0.250 mm 212	1.000 mm 213	0.250 mm 214	0.250 mm 215	0.250 mm 216
0.350 mm 217	0.250 mm 218	0.250 mm 219	0.250 mm 220	0.130 mm 221	0.250 mm 222	0.250 mm 223	0.250 mm 224	0.250 mm 225	0.250 mm 226	0.250 mm 227	0.250 mm 228	0.250 mm 229	0.250 mm 230	0.700 mm 231	0.250 mm 232	0.250 mm 233	0.250 mm 234	0.250 mm 235	0.250 mm 236	0.250 mm 237	0.250 mm 238	0.250 mm 239	0.250 mm 240
0.250 mm 241	0.350 mm 242	0.250 mm 243	0.250 mm 244	0.250 mm 245	0.250 mm 246	0.180 mm 247	0.250 mm 248	0.180 mm 249										0.180 mm 250	0.180 mm 251	0.180 mm 252	0.180 mm 253	0.180 mm 254	255

CofE Black and Grey (Half).ctb

0.175 mm 1	0.175 mm 2	0.350 mm 3	0.350 mm 4	0.350 mm 5	0.500 mm 6	0.250 mm 7	0.065 mm 8	0.065 mm 9	0.350 mm 10	0.125 mm 11	0.125 mm 12	0.125 mm 13	0.175 mm 14	0.125 mm 15	0.125 mm 16	0.125 mm 17	0.125 mm 18	0.125 mm 19	0.125 mm 20	0.125 mm 21	0.175 mm 22	0.125 mm 23	0.175 mm 24
0.125 mm 25	0.125 mm 26	0.125 mm 27	0.125 mm 28	0.065 mm 29	0.125 mm 30	0.175 mm 31	0.175 mm 32	0.125 mm 33	0.175 mm 34	0.125 mm 35	0.125 mm 36	0.125 mm 37	0.125 mm 38	0.125 mm 39	0.125 mm 40	0.125 mm 41	0.125 mm 42	0.125 mm 43	0.175 mm 44	0.125 mm 45	0.125 mm 46	0.125 mm 47	0.125 mm 48
0.125 mm 49	0.125 mm 50	0.125 mm 51	0.350 mm 52	0.125 mm 53	0.125 mm 54	0.125 mm 55	0.125 mm 56	0.125 mm 57	0.125 mm 58	0.125 mm 59	0.125 mm 60	0.125 mm 61	0.125 mm 62	0.125 mm 63	0.125 mm 64	0.125 mm 65	0.125 mm 66	0.125 mm 67	0.125 mm 68	0.125 mm 69	0.125 mm 70	0.125 mm 71	0.125 mm 72
0.125 mm 73	0.250 mm 74	0.125 mm 75	0.125 mm 76	0.125 mm 77	0.125 mm 78	0.125 mm 79	0.125 mm 80	0.125 mm 81	0.125 mm 82	0.125 mm 83	0.125 mm 84	0.125 mm 85	0.125 mm 86	0.125 mm 87	0.125 mm 88	0.125 mm 89	0.350 mm 90	0.125 mm 91	0.125 mm 92	0.125 mm 93	0.175 mm 94	0.125 mm 95	0.125 mm 96
0.125 mm 97	0.125 mm 98	0.125 mm 99	0.125 mm 100	0.125 mm 101	0.125 mm 102	0.125 mm 103	0.125 mm 104	0.125 mm 105	0.125 mm 106	0.125 mm 107	0.125 mm 108	0.125 mm 109	0.175 mm 110	0.125 mm 111	0.125 mm 112	0.125 mm 113	0.125 mm 114	0.125 mm 115	0.125 mm 116	0.125 mm 117	0.125 mm 118	0.125 mm 119	0.175 mm 120
0.125 mm 121	0.125 mm 122	0.125 mm 123	0.125 mm 124	0.125 mm 125	0.125 mm 126	0.125 mm 127	0.125 mm 128	0.125 mm 129	0.175 mm 130	0.125 mm 131	0.125 mm 132	0.125 mm 133	0.125 mm 134	0.125 mm 135	0.125 mm 136	0.125 mm 137	0.125 mm 138	0.125 mm 139	0.350 mm 140	0.125 mm 141	0.350 mm 142	0.125 mm 143	0.125 mm 144
0.125 mm 145	0.125 mm 146	0.125 mm 147	0.125 mm 148	0.125 mm 149	0.350 mm 150	0.125 mm 151	0.250 mm 152	0.125 mm 153	0.025 mm 154	0.125 mm 155	0.125 mm 156	0.125 mm 157	0.125 mm 158	0.125 mm 159	0.125 mm 160	0.125 mm 161	0.125 mm 162	0.125 mm 163	0.125 mm 164	0.125 mm 165	0.125 mm 166	0.175 mm 167	0.125 mm 168
0.125 mm 169	0.175 mm 170	0.025 mm 171	0.125 mm 172	0.125 mm 173	0.125 mm 174	0.125 mm 175	0.125 mm 176	0.125 mm 177	178	0.125 mm 179	0.125 mm 180	0.125 mm 181	0.125 mm 182	0.125 mm 183	0.125 mm 184	0.125 mm 185	0.125 mm 186	0.125 mm 187	0.125 mm 188	0.125 mm 189	0.125 mm 190	0.125 mm 191	0.125 mm 192
0.125 mm 193	0.125 mm 194	0.125 mm 195	0.125 mm 196	0.125 mm 197	0.125 mm 198	0.125 mm 199	0.350 mm 200	0.125 mm 201	0.125 mm 202	0.125 mm 203	0.125 mm 204	0.125 mm 205	0.125 mm 206	0.125 mm 207	0.125 mm 208	0.125 mm 209	0.125 mm 210	0.125 mm 211	0.125 mm 212	0.500 mm 213	0.125 mm 214	0.125 mm 215	0.125 mm 216
0.175 mm 217	0.125 mm 218	0.125 mm 219	0.125 mm 220	0.065 mm 221	0.125 mm 222	0.125 mm 223	0.125 mm 224	0.125 mm 225	0.125 mm 226	0.125 mm 227	0.125 mm 228	0.125 mm 229	0.125 mm 230	0.350 mm 231	0.125 mm 232	0.125 mm 233	0.125 mm 234	0.125 mm 235	0.125 mm 236	0.125 mm 237	0.125 mm 238	0.125 mm 239	0.125 mm 240
0.125 mm 241	0.175 mm 242	0.125 mm 243	0.125 mm 244	0.125 mm 245	0.125 mm 246	0.090 mm 247	0.125 mm 248	0.090 mm 249										0.090 mm 250	0.090 mm 251	0.090 mm 252	0.090 mm 253	0.090 mm 254	255

CofE Colour.ctb

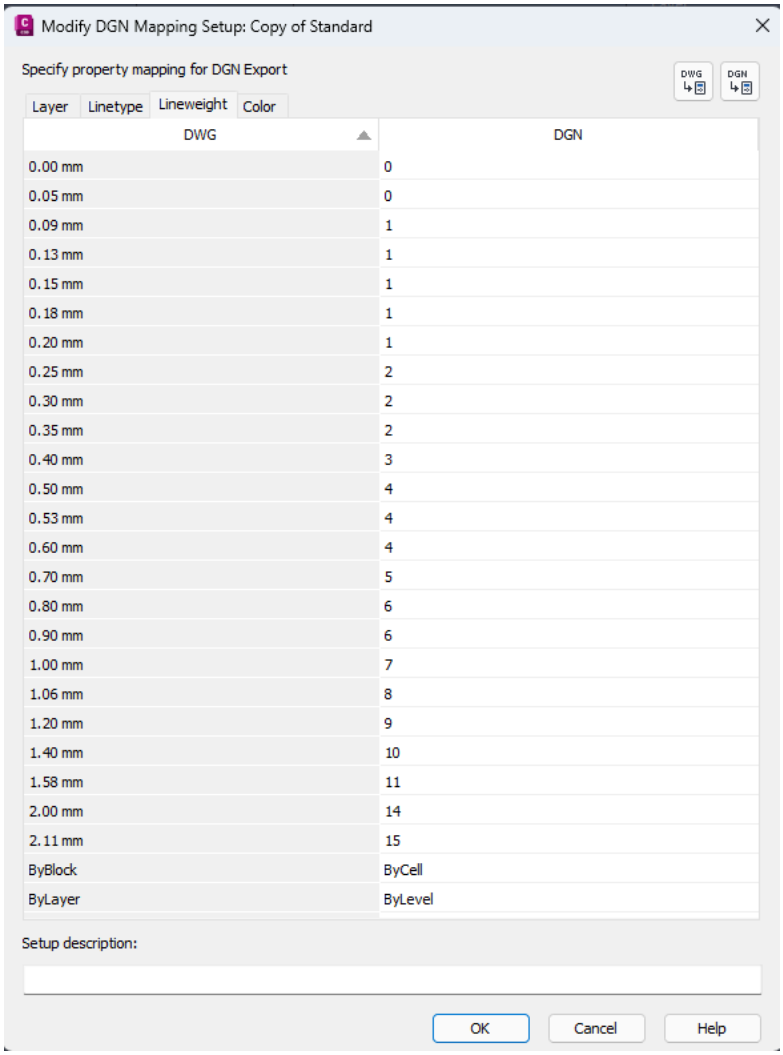
0.350 mm 1	0.350 mm 2	0.700 mm 3	0.700 mm 4	0.700 mm 5	1.000 mm 6	0.500 mm 7	0.130 mm 8	0.130 mm 9	0.700 mm 10	0.250 mm 11	0.250 mm 12	0.250 mm 13	0.350 mm 14	0.250 mm 15	0.250 mm 16	0.250 mm 17	0.250 mm 18	0.250 mm 19	0.250 mm 20	0.250 mm 21	0.350 mm 22	0.250 mm 23	0.350 mm 24
0.250 mm 25	0.250 mm 26	0.250 mm 27	0.250 mm 28	0.130 mm 29	0.250 mm 30	0.350 mm 31	0.350 mm 32	0.250 mm 33	0.350 mm 34	0.250 mm 35	0.250 mm 36	0.250 mm 37	0.250 mm 38	0.250 mm 39	0.250 mm 40	0.250 mm 41	0.250 mm 42	0.250 mm 43	0.350 mm 44	0.250 mm 45	0.250 mm 46	0.250 mm 47	0.250 mm 48
0.250 mm 49	0.250 mm 50	0.250 mm 51	0.700 mm 52	0.250 mm 53	0.250 mm 54	0.250 mm 55	0.250 mm 56	0.250 mm 57	0.250 mm 58	0.250 mm 59	0.250 mm 60	0.250 mm 61	0.250 mm 62	0.250 mm 63	0.250 mm 64	0.250 mm 65	0.250 mm 66	0.250 mm 67	0.250 mm 68	0.250 mm 69	0.250 mm 70	0.250 mm 71	0.250 mm 72
0.250 mm 73	0.500 mm 74	0.250 mm 75	0.250 mm 76	0.250 mm 77	0.250 mm 78	0.250 mm 79	0.250 mm 80	0.250 mm 81	0.250 mm 82	0.250 mm 83	0.250 mm 84	0.250 mm 85	0.250 mm 86	0.250 mm 87	0.250 mm 88	0.250 mm 89	0.700 mm 90	0.250 mm 91	0.250 mm 92	0.250 mm 93	0.350 mm 94	0.250 mm 95	0.250 mm 96
0.250 mm 97	0.250 mm 98	0.250 mm 99	0.250 mm 100	0.250 mm 101	0.250 mm 102	0.250 mm 103	0.250 mm 104	0.250 mm 105	0.250 mm 106	0.250 mm 107	0.250 mm 108	0.250 mm 109	0.350 mm 110	0.250 mm 111	0.250 mm 112	0.250 mm 113	0.250 mm 114	0.250 mm 115	0.250 mm 116	0.250 mm 117	0.250 mm 118	0.250 mm 119	0.350 mm 120
0.250 mm 121	0.250 mm 122	0.250 mm 123	0.250 mm 124	0.250 mm 125	0.250 mm 126	0.250 mm 127	0.250 mm 128	0.250 mm 129	0.350 mm 130	0.250 mm 131	0.250 mm 132	0.250 mm 133	0.250 mm 134	0.250 mm 135	0.250 mm 136	0.250 mm 137	0.250 mm 138	0.250 mm 139	0.700 mm 140	0.250 mm 141	0.700 mm 142	0.250 mm 143	0.250 mm 144
0.250 mm 145	0.250 mm 146	0.250 mm 147	0.250 mm 148	0.250 mm 149	0.700 mm 150	0.250 mm 151	0.500 mm 152	0.250 mm 153	0.05 mm 154	0.250 mm 155	0.250 mm 156	0.250 mm 157	0.250 mm 158	0.250 mm 159	0.250 mm 160	0.250 mm 161	0.250 mm 162	0.250 mm 163	0.250 mm 164	0.250 mm 165	0.250 mm 166	0.350 mm 167	0.250 mm 168
0.250 mm 169	0.350 mm 170	0.050 mm 171	0.250 mm 172	0.250 mm 173	0.250 mm 174	0.250 mm 175	0.250 mm 176	0.250 mm 177	178	0.250 mm 179	0.250 mm 180	0.250 mm 181	0.250 mm 182	0.250 mm 183	0.250 mm 184	0.250 mm 185	0.250 mm 186	0.250 mm 187	0.250 mm 188	0.250 mm 189	0.250 mm 190	0.250 mm 191	0.250 mm 192
0.250 mm 193	0.250 mm 194	0.250 mm 195	0.250 mm 196	0.250 mm 197	0.250 mm 198	0.250 mm 199	0.700 mm 200	0.250 mm 201	0.250 mm 202	0.250 mm 203	0.250 mm 204	0.250 mm 205	0.250 mm 206	0.250 mm 207	0.250 mm 208	0.250 mm 209	0.250 mm 210	0.250 mm 211	0.250 mm 212	1.000 mm 213	0.250 mm 214	0.250 mm 215	0.250 mm 216
0.350 mm 217	0.250 mm 218	0.250 mm 219	0.250 mm 220	0.130 mm 221	0.250 mm 222	0.250 mm 223	0.250 mm 224	0.250 mm 225	0.250 mm 226	0.250 mm 227	0.250 mm 228	0.250 mm 229	0.250 mm 230	0.700 mm 231	0.250 mm 232	0.250 mm 233	0.250 mm 234	0.250 mm 235	0.250 mm 236	0.250 mm 237	0.250 mm 238	0.250 mm 239	0.250 mm 240
0.250 mm 241	0.350 mm 242	0.250 mm 243	0.250 mm 244	0.250 mm 245	0.250 mm 246	0.180 mm 247	0.250 mm 248	0.180 mm 249										0.180 mm 250	0.180 mm 251	0.180 mm 252	0.180 mm 253	0.180 mm 254	255

Edmonton

CofE Colour (Half).ctb

0.175 mm 1	0.175 mm 2	0.350 mm 3	0.350 mm 4	0.350 mm 5	0.500 mm 6	0.250 mm 7	0.065 mm 8	0.065 mm 9	0.350 mm 10	0.125 mm 11	0.125 mm 12	0.125 mm 13	0.175 mm 14	0.125 mm 15	0.125 mm 16	0.125 mm 17	0.125 mm 18	0.125 mm 19	0.125 mm 20	0.125 mm 21	0.175 mm 22	0.125 mm 23	0.175 mm 24
0.125 mm 25	0.125 mm 26	0.125 mm 27	0.125 mm 28	0.065 mm 29	0.125 mm 30	0.175 mm 31	0.175 mm 32	0.125 mm 33	0.175 mm 34	0.125 mm 35	0.125 mm 36	0.125 mm 37	0.125 mm 38	0.125 mm 39	0.125 mm 40	0.125 mm 41	0.125 mm 42	0.125 mm 43	0.175 mm 44	0.125 mm 45	0.125 mm 46	0.125 mm 47	0.125 mm 48
0.125 mm 49	0.125 mm 50	0.125 mm 51	0.350 mm 52	0.125 mm 53	0.125 mm 54	0.125 mm 55	0.125 mm 56	0.125 mm 57	0.125 mm 58	0.125 mm 59	0.125 mm 60	0.125 mm 61	0.125 mm 62	0.125 mm 63	0.125 mm 64	0.125 mm 65	0.125 mm 66	0.125 mm 67	0.125 mm 68	0.125 mm 69	0.125 mm 70	0.125 mm 71	0.125 mm 72
0.125 mm 73	0.250 mm 74	0.125 mm 75	0.125 mm 76	0.125 mm 77	0.125 mm 78	0.125 mm 79	0.125 mm 80	0.125 mm 81	0.125 mm 82	0.125 mm 83	0.125 mm 84	0.125 mm 85	0.125 mm 86	0.125 mm 87	0.125 mm 88	0.125 mm 89	0.350 mm 90	0.125 mm 91	0.125 mm 92	0.125 mm 93	0.175 mm 94	0.125 mm 95	0.125 mm 96
0.125 mm 97	0.125 mm 98	0.125 mm 99	0.125 mm 100	0.125 mm 101	0.125 mm 102	0.125 mm 103	0.125 mm 104	0.125 mm 105	0.125 mm 106	0.125 mm 107	0.125 mm 108	0.125 mm 109	0.175 mm 110	0.125 mm 111	0.125 mm 112	0.125 mm 113	0.125 mm 114	0.125 mm 115	0.125 mm 116	0.125 mm 117	0.125 mm 118	0.125 mm 119	0.175 mm 120
0.125 mm 121	0.125 mm 122	0.125 mm 123	0.125 mm 124	0.125 mm 125	0.125 mm 126	0.125 mm 127	0.125 mm 128	0.125 mm 129	0.175 mm 130	0.125 mm 131	0.125 mm 132	0.125 mm 133	0.125 mm 134	0.125 mm 135	0.125 mm 136	0.125 mm 137	0.125 mm 138	0.125 mm 139	0.350 mm 140	0.125 mm 141	0.350 mm 142	0.125 mm 143	0.125 mm 144
0.125 mm 145	0.125 mm 146	0.125 mm 147	0.125 mm 148	0.125 mm 149	0.350 mm 150	0.125 mm 151	0.250 mm 152	0.125 mm 153	0.025 mm 154	0.125 mm 155	0.125 mm 156	0.125 mm 157	0.125 mm 158	0.125 mm 159	0.125 mm 160	0.125 mm 161	0.125 mm 162	0.125 mm 163	0.125 mm 164	0.125 mm 165	0.125 mm 166	0.175 mm 167	0.125 mm 168
0.125 mm 169	0.175 mm 170	0.025 mm 171	0.125 mm 172	0.125 mm 173	0.125 mm 174	0.125 mm 175	0.125 mm 176	0.125 mm 177	178	0.125 mm 179	0.125 mm 180	0.125 mm 181	0.125 mm 182	0.125 mm 183	0.125 mm 184	0.125 mm 185	0.125 mm 186	0.125 mm 187	0.125 mm 188	0.125 mm 189	0.125 mm 190	0.125 mm 191	0.125 mm 192
0.125 mm 193	0.125 mm 194	0.125 mm 195	0.125 mm 196	0.125 mm 197	0.125 mm 198	0.125 mm 199	0.350 mm 200	0.125 mm 201	0.125 mm 202	0.125 mm 203	0.125 mm 204	0.125 mm 205	0.125 mm 206	0.125 mm 207	0.125 mm 208	0.125 mm 209	0.125 mm 210	0.125 mm 211	0.125 mm 212	0.500 mm 213	0.125 mm 214	0.125 mm 215	0.125 mm 216
0.175 mm 217	0.125 mm 218	0.125 mm 219	0.125 mm 220	0.065 mm 221	0.125 mm 222	0.125 mm 223	0.125 mm 224	0.125 mm 225	0.125 mm 226	0.125 mm 227	0.125 mm 228	0.125 mm 229	0.125 mm 230	0.350 mm 231	0.125 mm 232	0.125 mm 233	0.125 mm 234	0.125 mm 235	0.125 mm 236	0.125 mm 237	0.125 mm 238	0.125 mm 239	0.125 mm 240
0.125 mm 241	0.175 mm 242	0.125 mm 243	0.125 mm 244	0.125 mm 245	0.125 mm 246	0.090 mm 247	0.125 mm 248	0.090 mm 249										0.090 mm 250	0.090 mm 251	0.090 mm 252	0.090 mm 253	0.090 mm 254	255

DWG to DGN Lineweight Chart



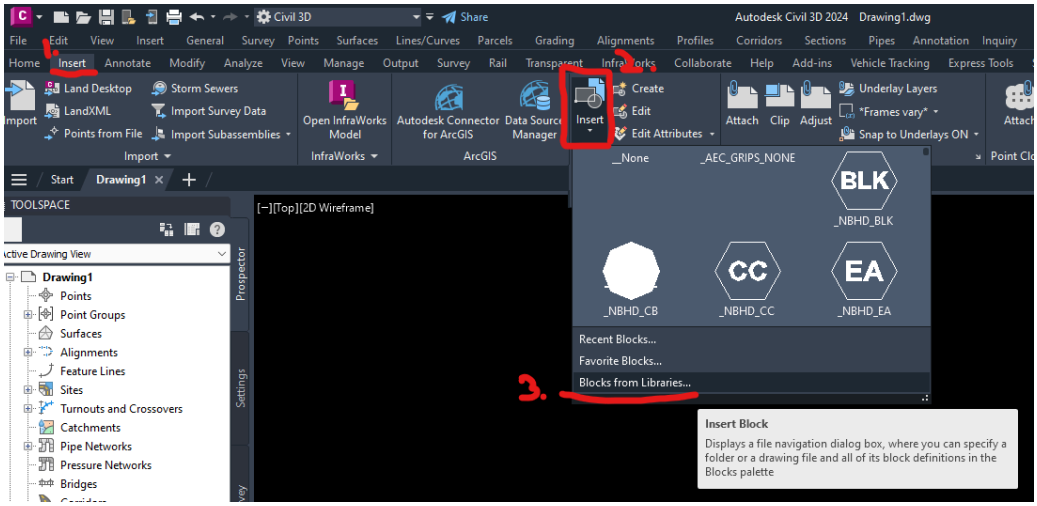
Note:
All DWG lineweights refer to “CTB Plot Styles” Section.

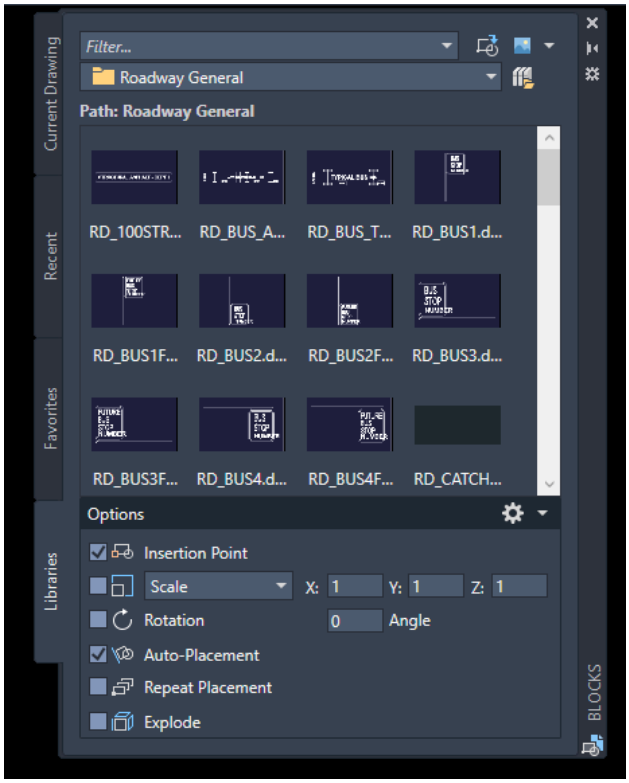
Appendix E

Symbols

Accessing Blocks/Symbols

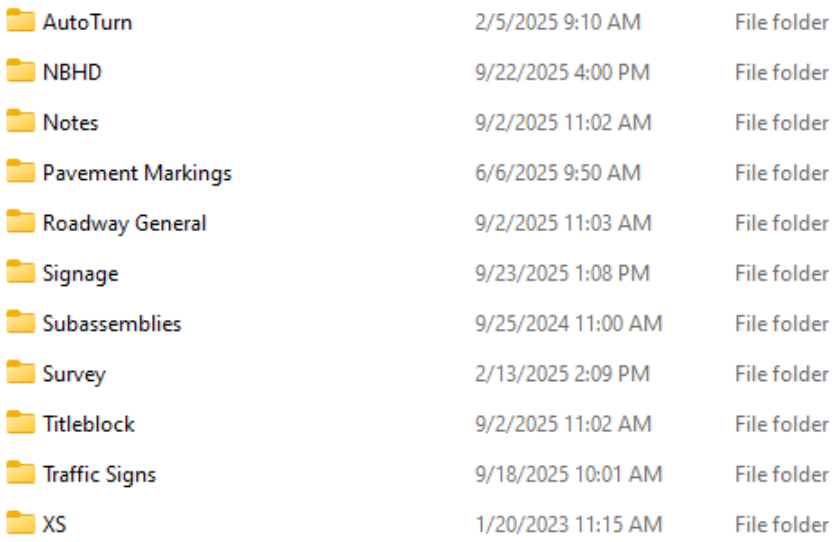
1. **Internal Access**: Copy and paste the following path to access the blocks/symbols folders: \\cepcad01\FIRST_AUTOCAD_Customization\BLOCKS\Roadways Design
2. **External Access**: Blocks/Symbols can be accessed through this Google Drive link.
3. To access the blocks, go to the "Insert" tab and select "Block from Libraries."





Type of Blocks and Categories

Blocks and symbols are categorized by their types and stored in corresponding folders.



Categories:

AutoTurn: Custom AutoTurn vehicles (.veh)
NBHD: Exclusive blocks for Neighborhood Planning and Design
Notes: General note blocks, legends, and utility crossing blocks
Pavement Markings: Blocks related to pavement markings
Roadway General: Blocks for general drafting and design
Signage: Blocks related to signage
Subassemblies: Custom subassemblies
Survey: Blocks related to survey
Titleblock: Blocks related to the title block
Traffic Signs: All signage saved in a single sign DWG file
XS: Blocks related to cross-section drafting

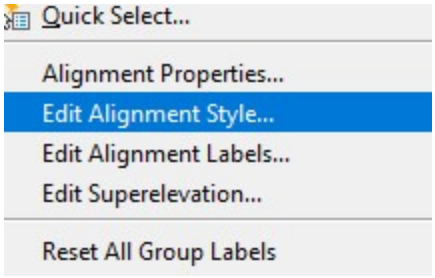
Appendix F

Labels and Tables

Labels

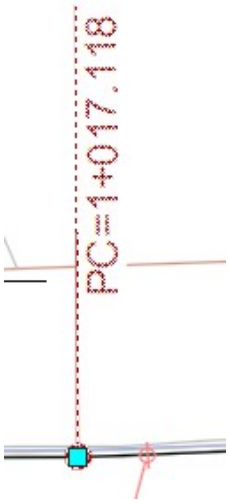
Alignment Labels (A Plan) - Geometry Points

1. Right-click your alignment and select “Edit Alignment Label Style”



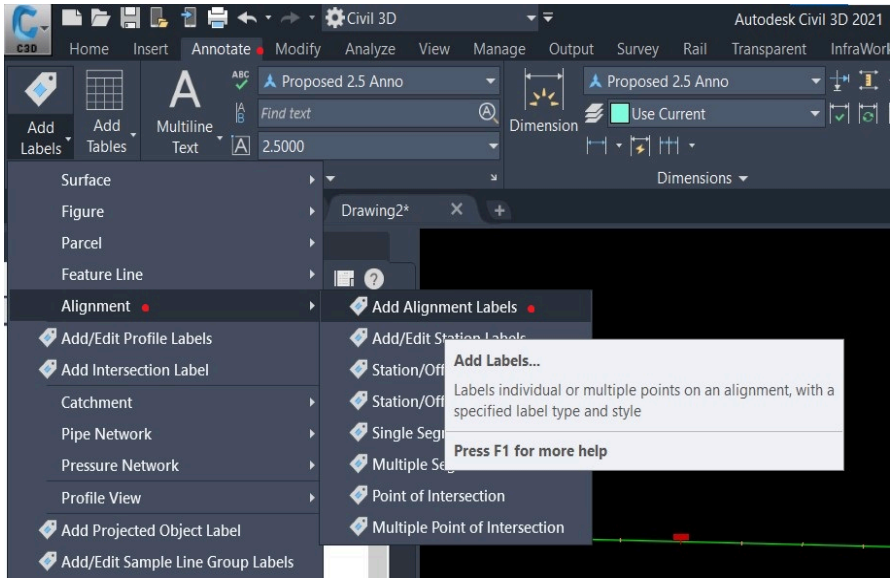
2. Go to Geometry Points and change the style to “IIS ALIGN TICK AND LINE”

3. You can drag the square shape grip to move the label after you changed the label style.

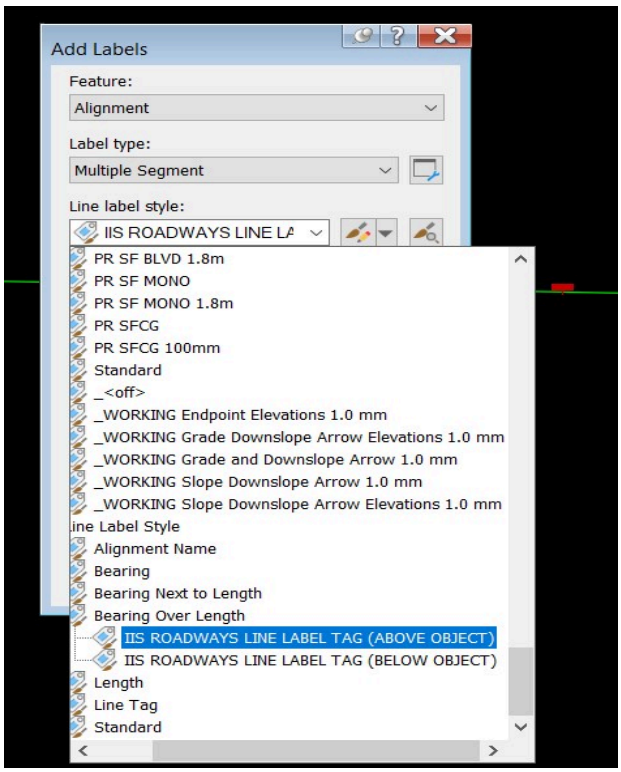


Alignment Labels (A Plan) - Lines and Curves

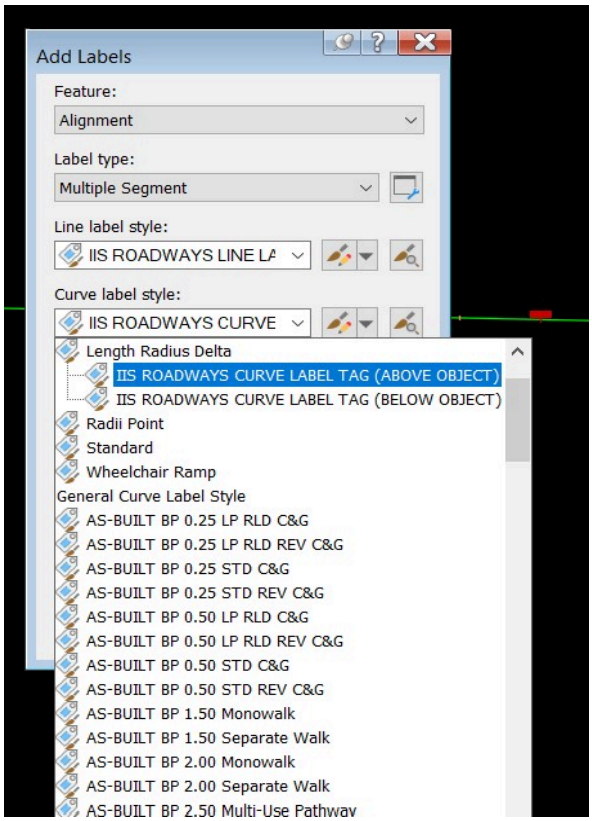
1. Go to “Annotate” > “Add Labels” > “Alignment” > “Add Alignment Labels”



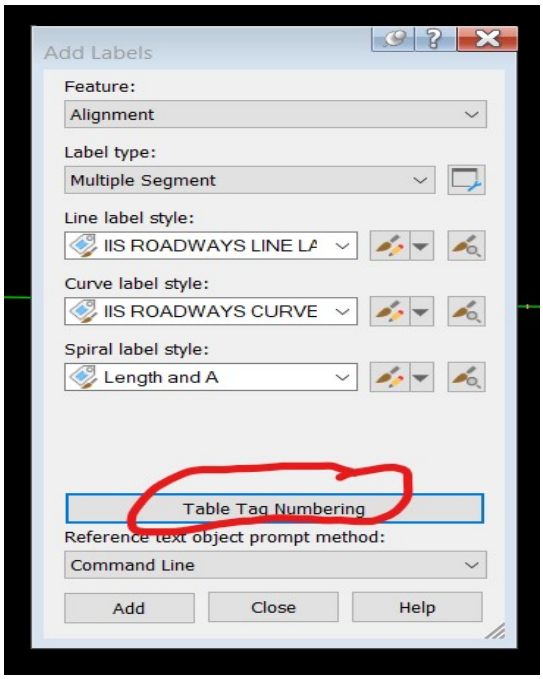
2. Under “Line label style”, select “IIS ROADWAY LINE LABEL TAG” (above or below object)



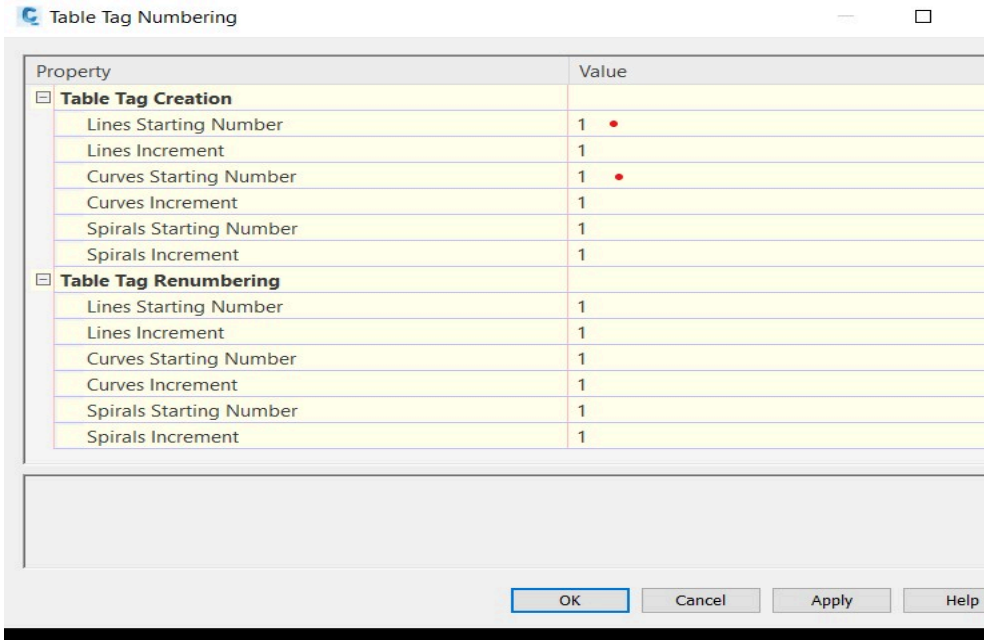
3. Under “Curve label style”, select “IIS ROADWAYS CURVE LABEL TAG” (above or below object)



4. Go to “Table Tag Numbering”

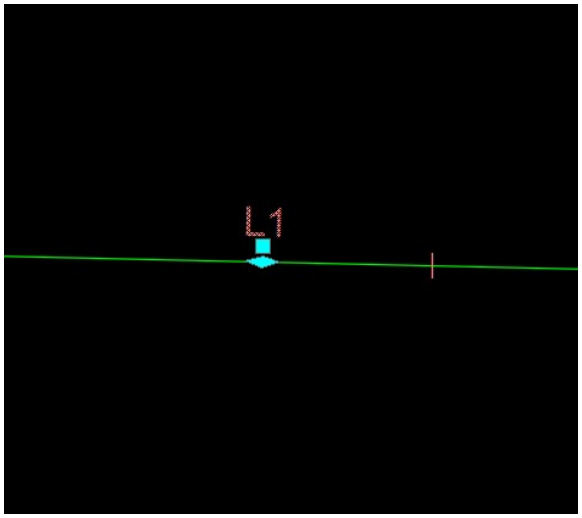


5. You can change your starting number of line or curve in here:

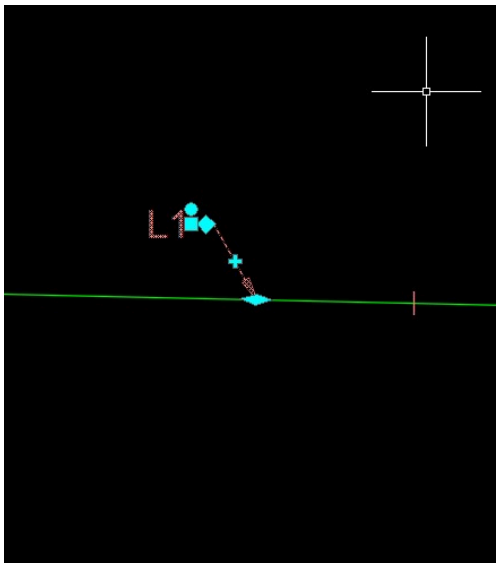


Note: For line and curve numbering, use a 3 or 4-digit code. For example, if your alignment number is AL3, start your line and curve numbering at 301. If your alignment number is AL15, start at 1501.

6. You can click the label and drag the diamond shape grip to move the label along the alignment



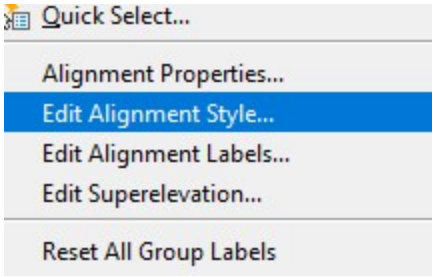
7. Or drag the square shape grip to move the label



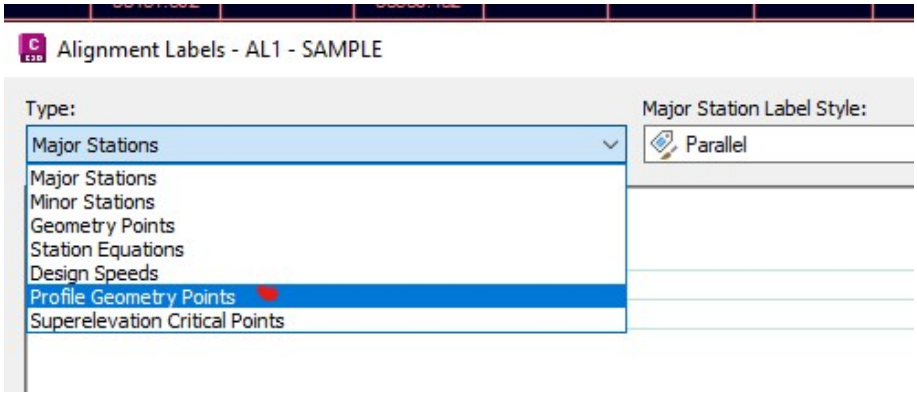
Alignment Labels (G Plan):

A. Profile Geometry Points - Beginning of Profile (BVP) label on Plan View [Matching to Existing Elevation]

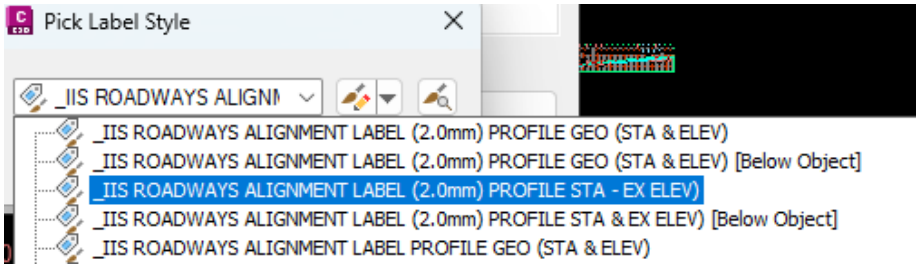
1. Right-click the alignment and select “Edit Alignment Label Style”



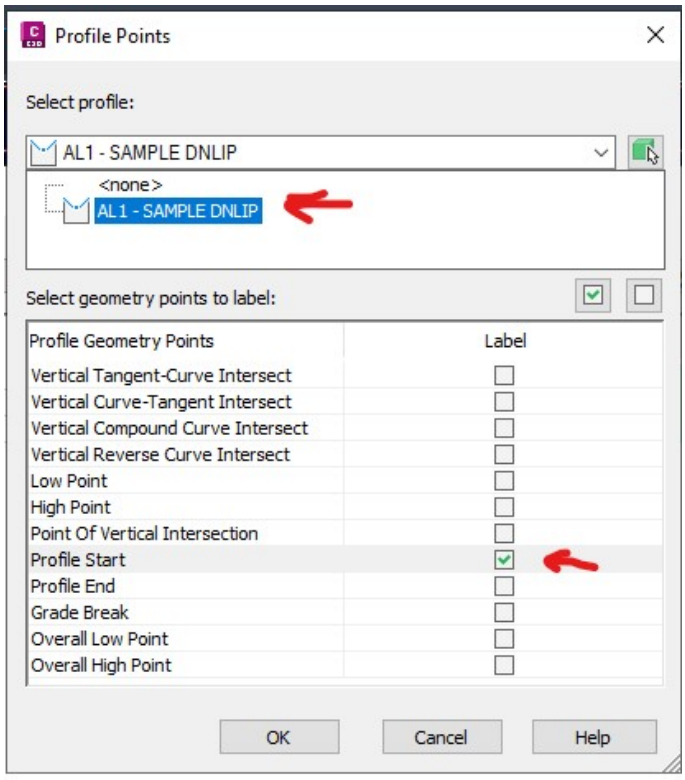
2. Select “Profile Geometry Points”



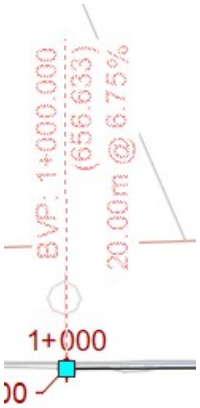
3. Select “IIS ROADWAY ALIGNMENT LABEL (PROFILE STA - EX ELEV)”, then Click “Add”



4. Select the design profile and “Profile Start”



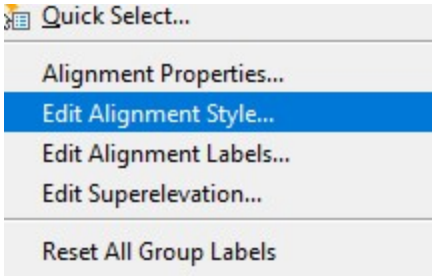
5. You can drag the square shape grip to move the label around



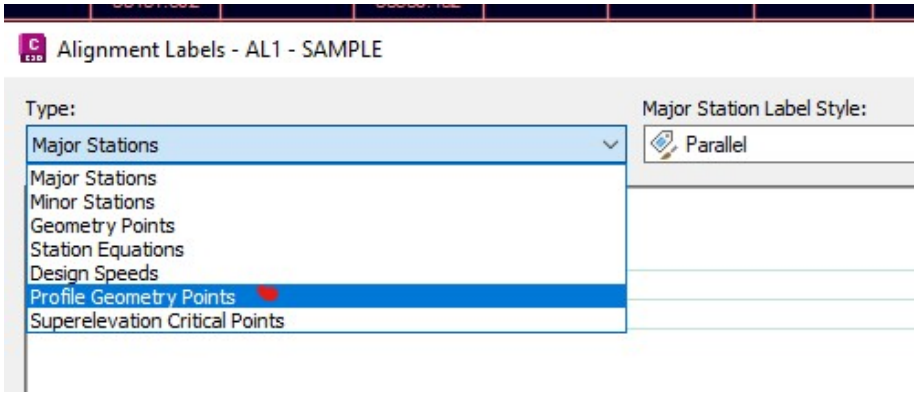
Alignment Labels (G Plan):

B. Profile Geometry Points - Point of Vertical Intersection (PVI) label

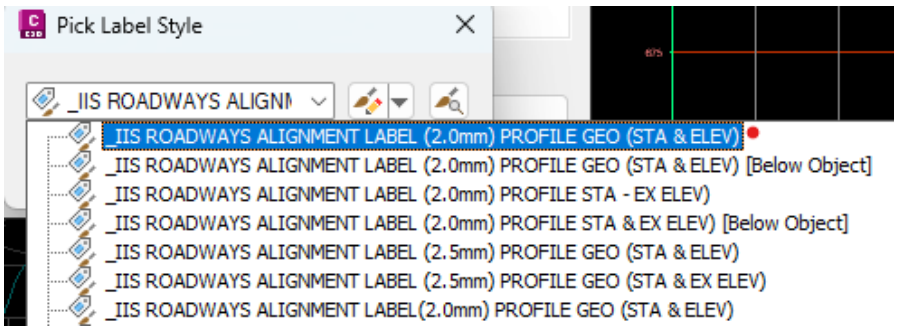
1. Right-click the alignment and select “Edit Alignment Label Style”



2. Select “Profile Geometry Points”

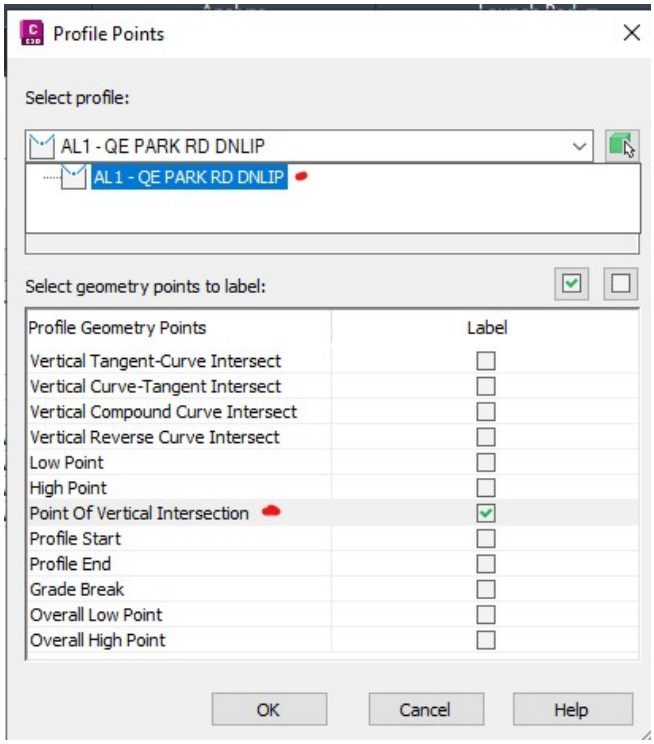


3. Select “IIS ROADWAY ALIGNMENT LABEL PROFILE GEO (STA & ELEV)”, then Click “Add”

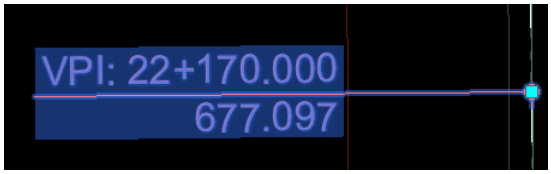


Heads up: There are options for text size and placement (above/below).

4. Select the design profile and “Point of Vertical Intersection (PVI)”



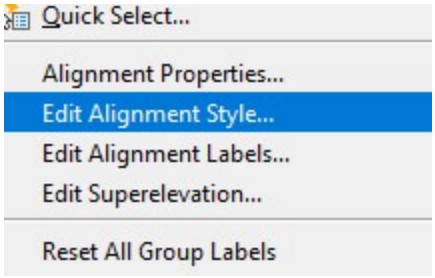
5. You can drag the square shape grip to move the label around



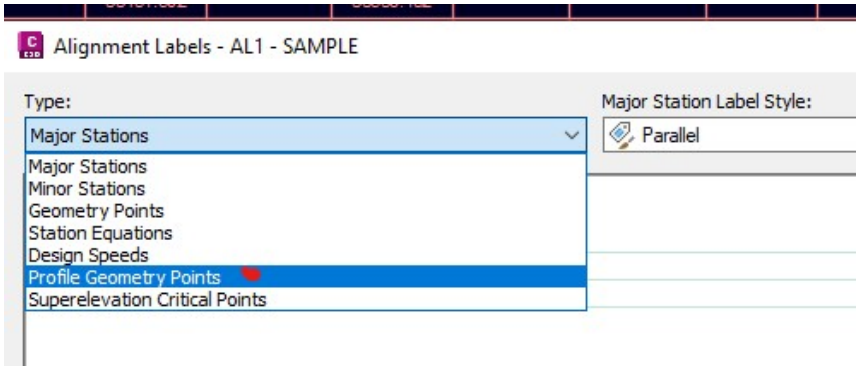
Alignment Labels (G Plan):

C. Profile Geometry Points - For Vertical Curves

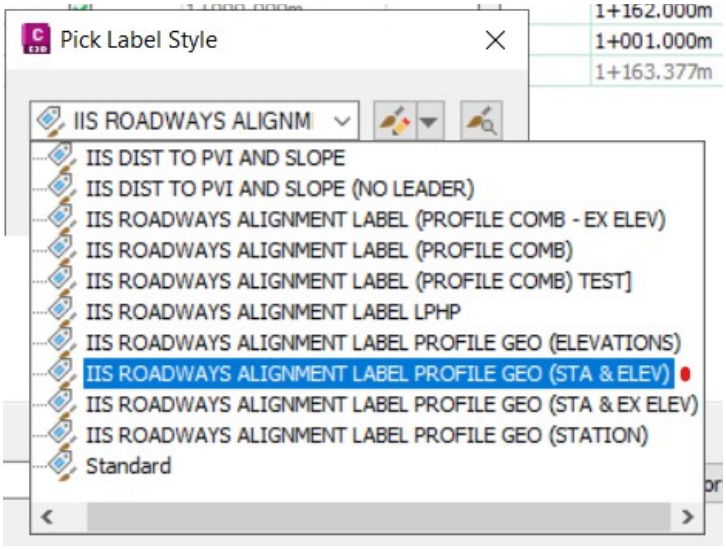
1. Right-click the alignment and select “Edit Alignment Label Style”



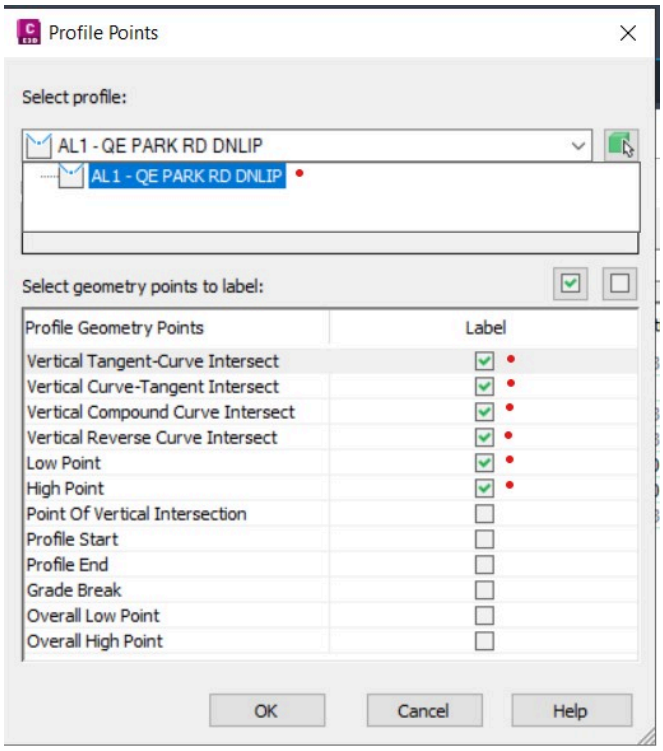
2. Select “Profile Geometry Points”



3. Select “IIS ROADWAY ALIGNMENT LABEL PROFILE GEO (STA & ELEV)”, then Click “Add”

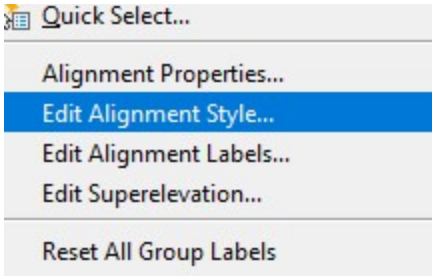


4. Select the design profile and the vertical curves related items

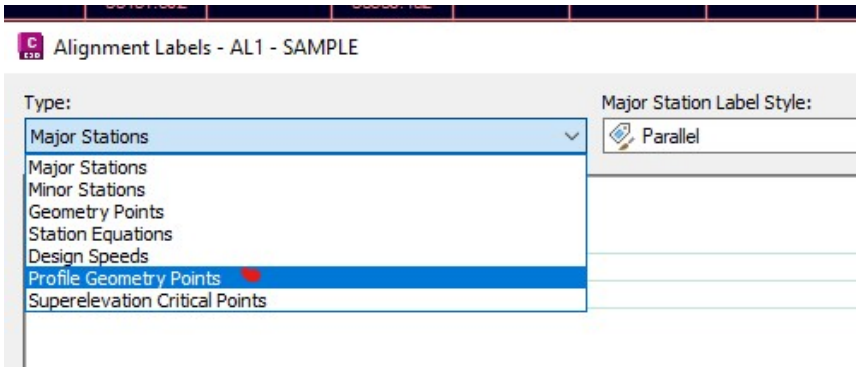


D. Profile Geometry Points - Profile End Label

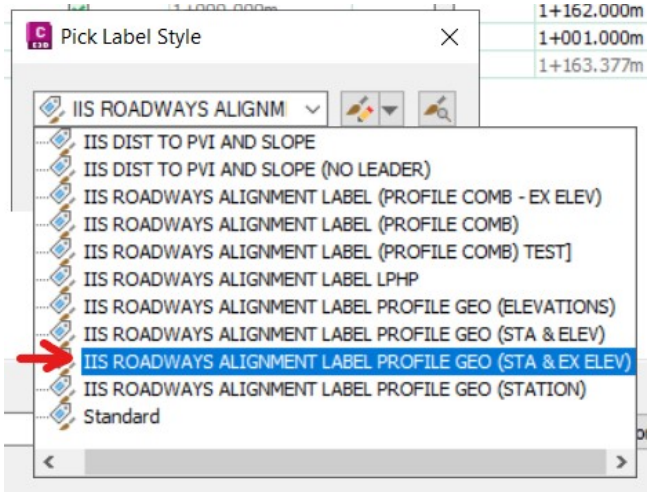
1. Right-click the alignment and select “Edit Alignment Label Style”



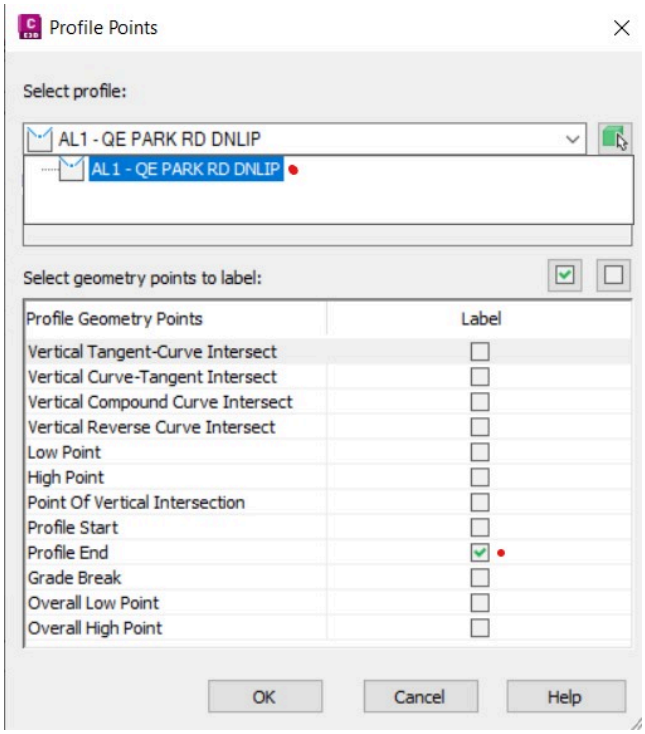
2. Select “Profile Geometry Points”



3. Select “IIS ROADWAY ALIGNMENT LABEL PROFILE GEO (STA & EX ELEV)”, then Click “Add”



4. Select the design profile and “Profile End”

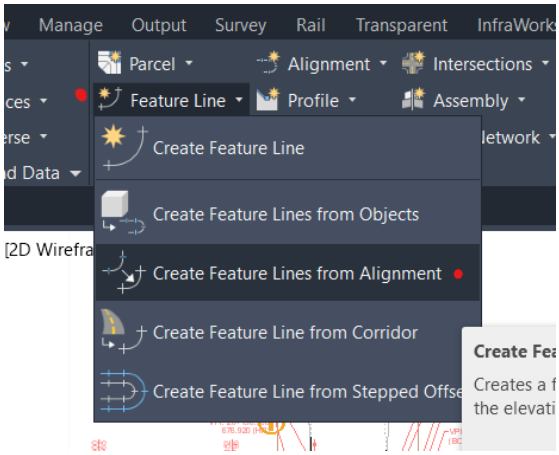


Distance, Slope and Down Slope Arrow Labels

Important: Before using this function, make sure the following steps have been completed:

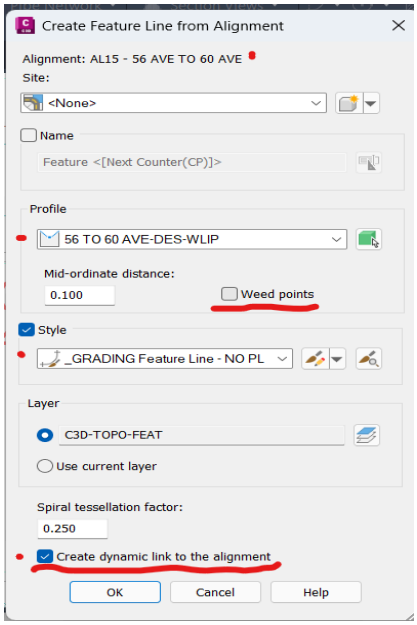
a) Create the design alignment.
b) Complete a design profile for the alignment.
c) It is recommended to use Data Shortcuts to reference the alignment and profile in the drawing production file.

1. Select “Create Feature Lines from Alignment under Feature Line in Home Tab.

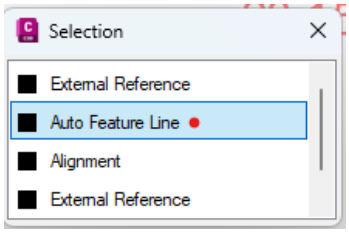


2. Select the design alignment.

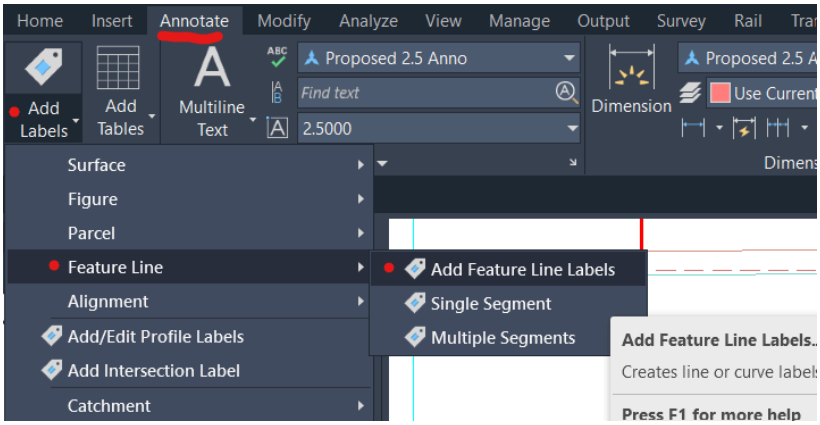
3. a) Confirm your alignment name
   b) Select your design profile and “uncheck” Weed Points
   c) Select “**_GRADING Feature Line - NO PLOT**” style
   d) Checkmark “Create dynamic link to the alignment” and click OK



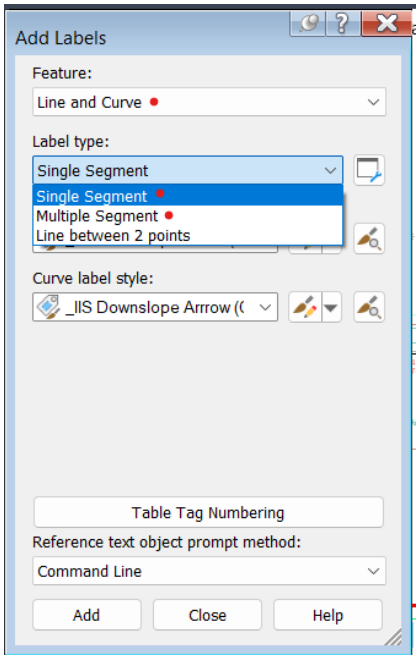
4. An “Auto Feature Line” created and associated with the design alignment and profile.



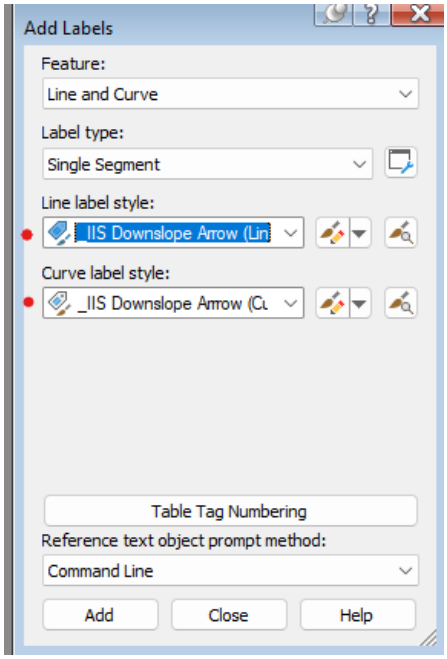
5. Go to “Annotate” tab —→ Add Labels —→ Feature Line —→ Add Feature Line Labels



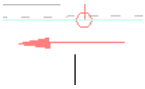
6. Feature: Line and Curve
   Label type: Choose “Single Segment” or “Multiple Segment”



7. Select the “Line Label Style” and “Curve Label Style”

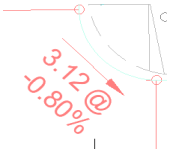


a) IIS Downslope Arrow - Arrow symbol only



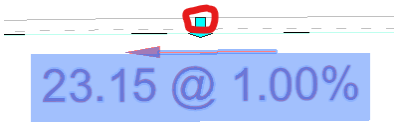
b) IIS Length Slope and Downslope Arrow

c) IIS Length Slope and Downslope Arrow (2 lines) - For small objects or tight areas



8. Click the label and drag the diamond label (left or right) to move the label

9. You can also drag label with the square grip if there’s a very limited space

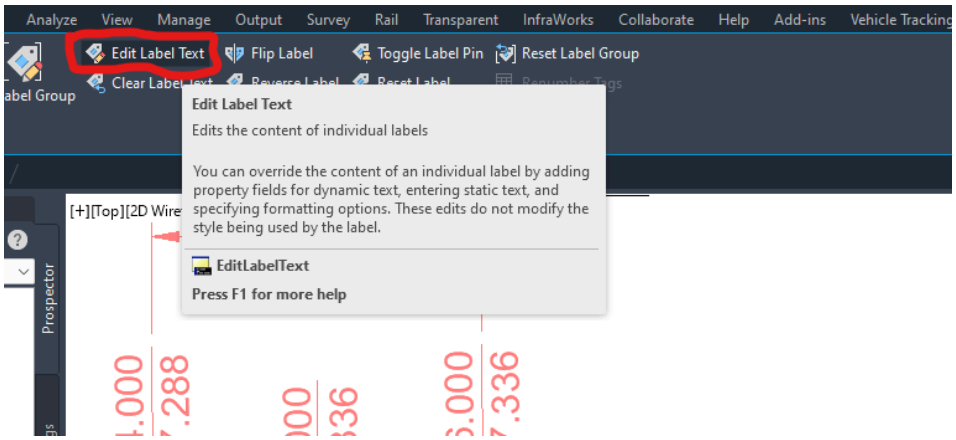


Note:

If a VPI to VPI segment includes both a curve and a line, you have two options:

1. Add VPIs at the beginning (BC) and end (EC) of the curve at the design profile.

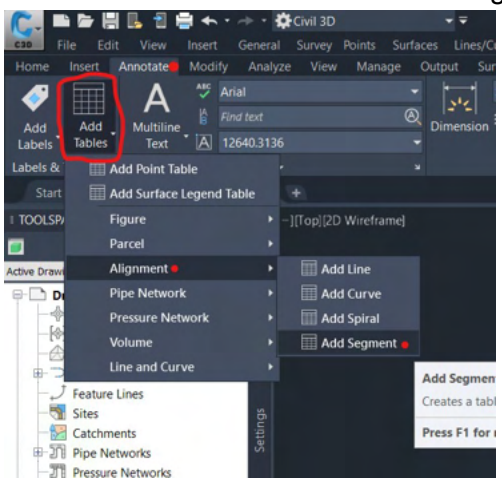
2. Manually edit the label: select the label, click "Edit Label Text" from the ribbon, and remove any unnecessary labels. **Be aware that manual edits will prevent the label from dynamically syncing with your alignment and profile designs.**



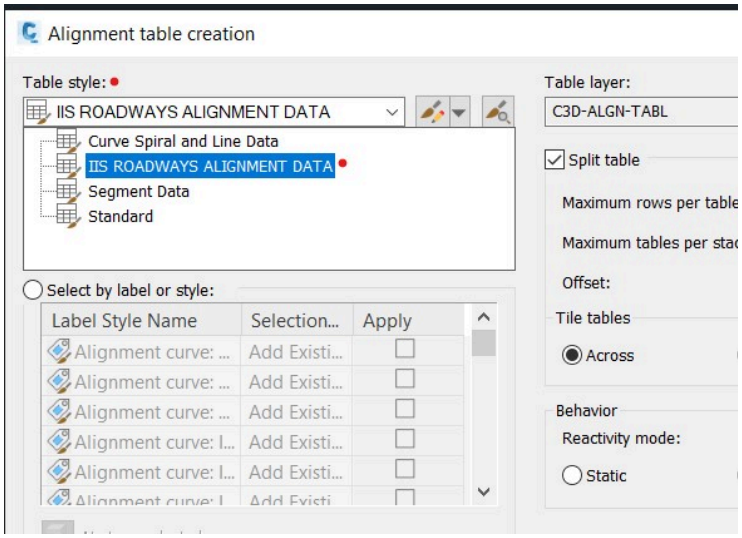
Tables

Alignment table

1. Go to “Annotate” > “Add Tables” > “Alignment” > “Add Segment”



2. Table style > Select “IIS ROADWAYS ALIGNMENT DATA” > Select your design alignment



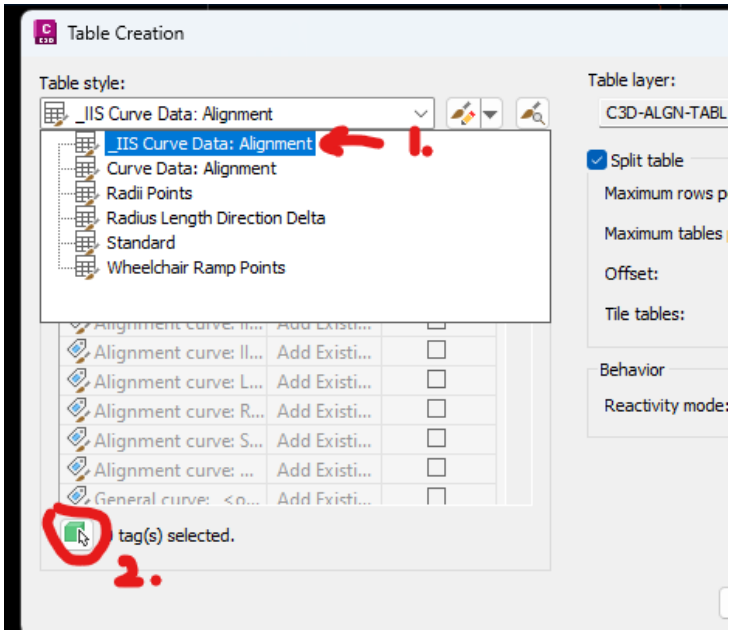
3. The standard alignment table should be formatted as follows:

AL1 - SAMPLE ALIGNMENT TABLE										
CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L1	1+000.000	5932474.394 33411.383	1+017.118	5932474.492 33428.501	17.118					
C1	1+017.118	5932474.492 33428.501	1+040.279	5932475.965 33451.602	23.161	11.594	200.00	6° 38' 05"	5932674.489 33427.352	5932474.559 33440.094
L2	1+040.279	5932475.965 33451.602	1+128.480	5932486.659 33539.152	88.200					
C2	1+128.480	5932486.659 33539.152	1+162.095	5932496.612 33571.069	33.615	16.993	93.00	20° 42' 35"	5932578.973 33527.875	5932488.719 33556.020
L3	1+162.095	5932496.612 33571.069	1+163.377	5932497.207 33572.204	1.282					

Curve table

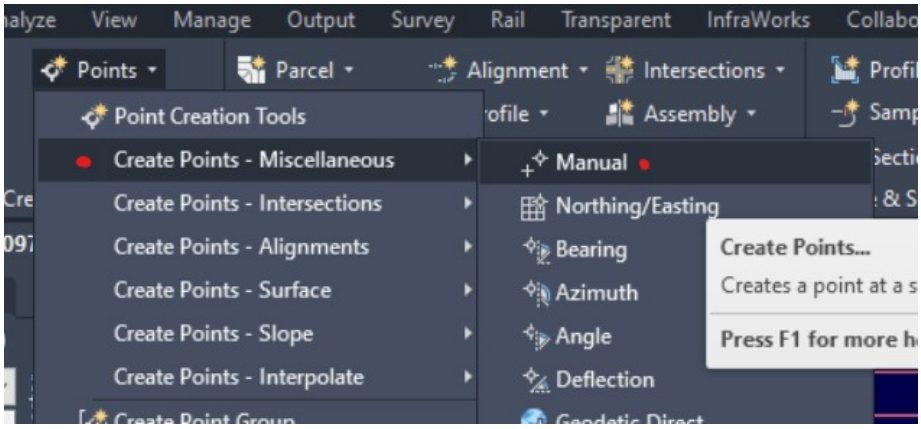
1. Go to “Annotate” > “Add Tables” > “Alignment” > “Add Curve”

2. Table style > Select “IIS Curve Data: Alignment” > Click the green box and select the curve labels (in model space) for the curve table

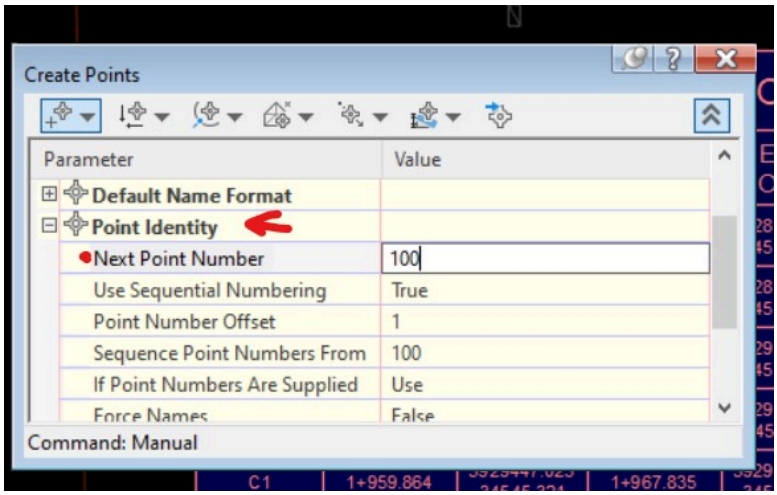


Miscellaneous Point Table - Miscellaneous points for Curb Ramps, Property lines etc

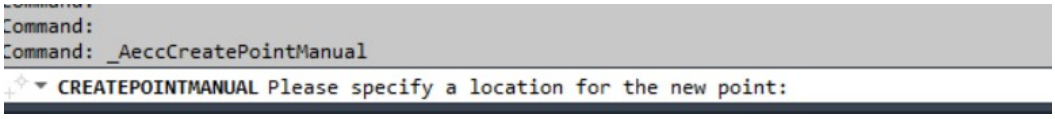
1. Go to “Points” —> Create Points - Miscellaneous —> Manual



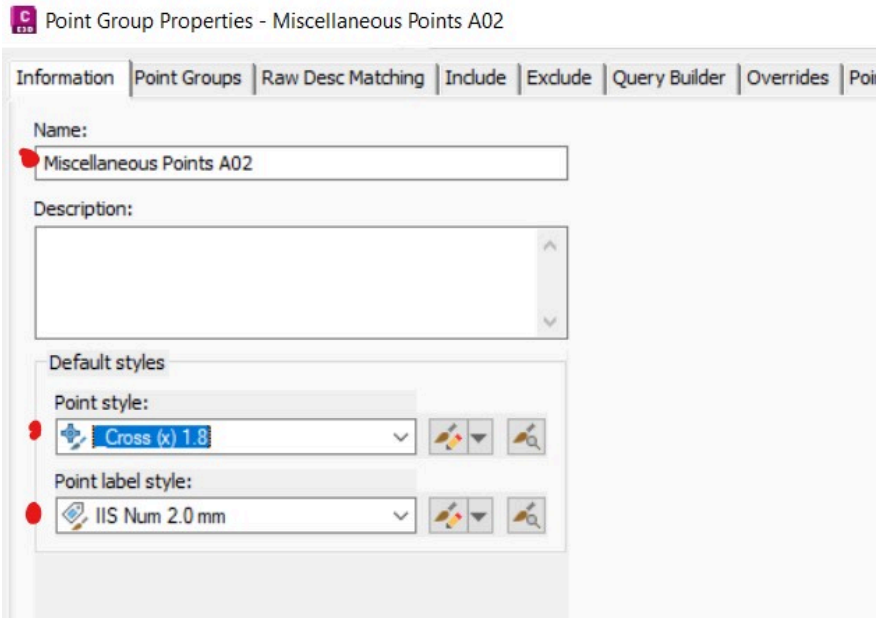
2. Expand “Point Identity” and set the “Next Point Number”



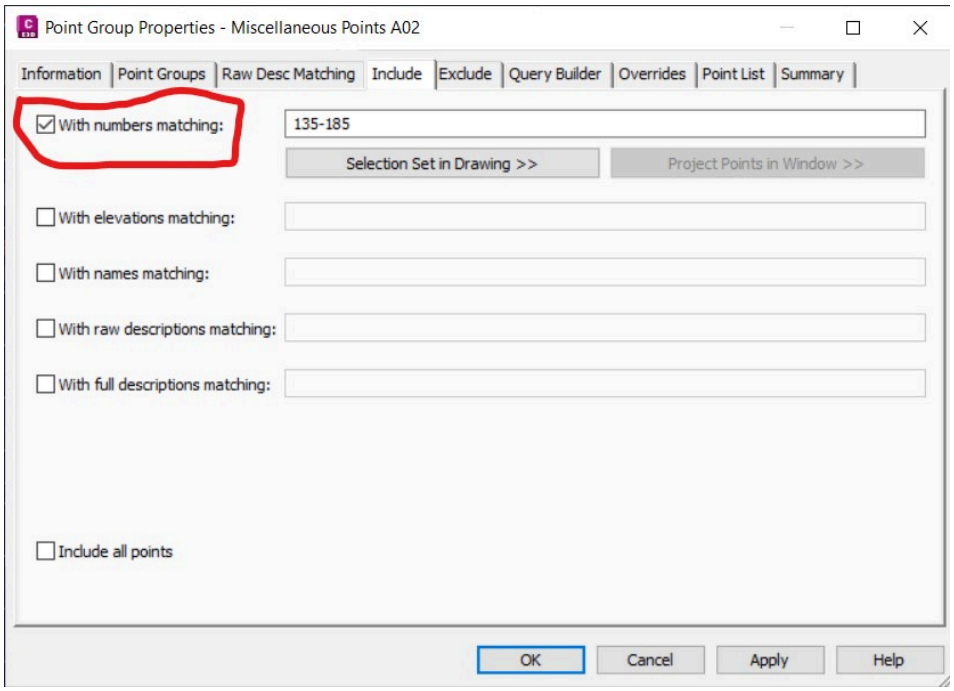
3. Insert point in model space and follow the instructions from the command line



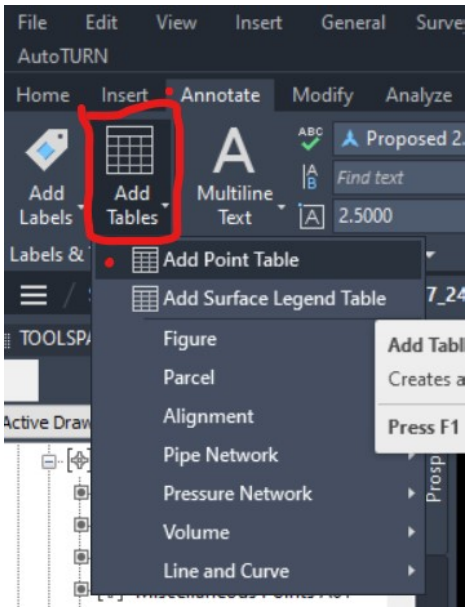
4. Create Point Groups for each page of the Alignment plan and set up the point and the point label style



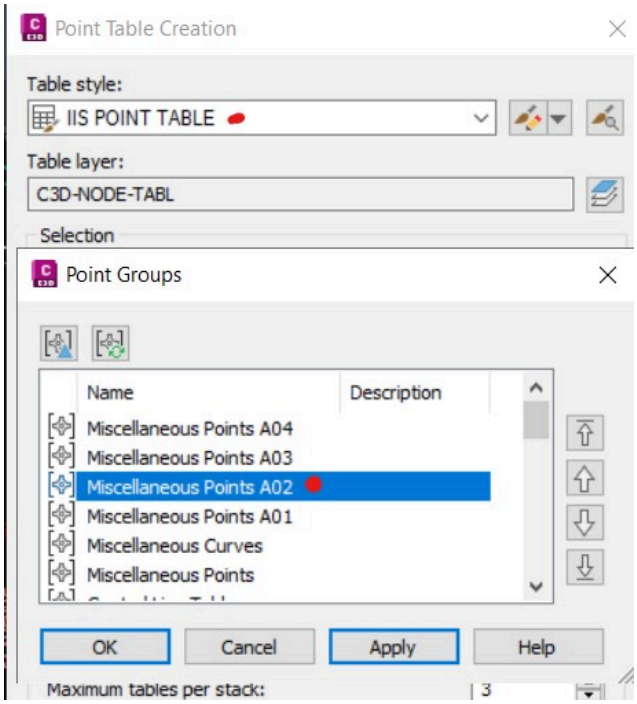
5. Go to “Include” tab and type in the point numbers



6. Go Annotate tab → Add Tables → Add Point Table



7. Select “IIS POINT TABLE” and Point Group



8. The Miscellaneous points table should be formatted as follows:

MISCELLANEOUS POINTS TABLE			
POINT	NUMBER	NORTHING	EASTING
PL	171	5928991.062	34565.715
PL	172	5928994.023	34560.697
PL	173	5929015.400	34560.570
EDGE OF DW	174	5929032.119	34557.947
EDGE OF DW	175	5929039.619	34557.894
RAMP CL	176	5929105.601	34551.718
RAMP CL	177	5929112.732	34555.332
RAMP CL	178	5929130.975	34556.835
EX CB	179	5929131.067	34556.766
WALK END	180	5929130.940	34562.361
EDGE OF DW	181	5929140.023	34556.426
EDGE OF DW	182	5929148.023	34556.359
EX CB	183	5928825.230	34542.970
EX CB	184	5929042.818	34541.445
EX CB	185	5929045.745	34554.826

Appendix G

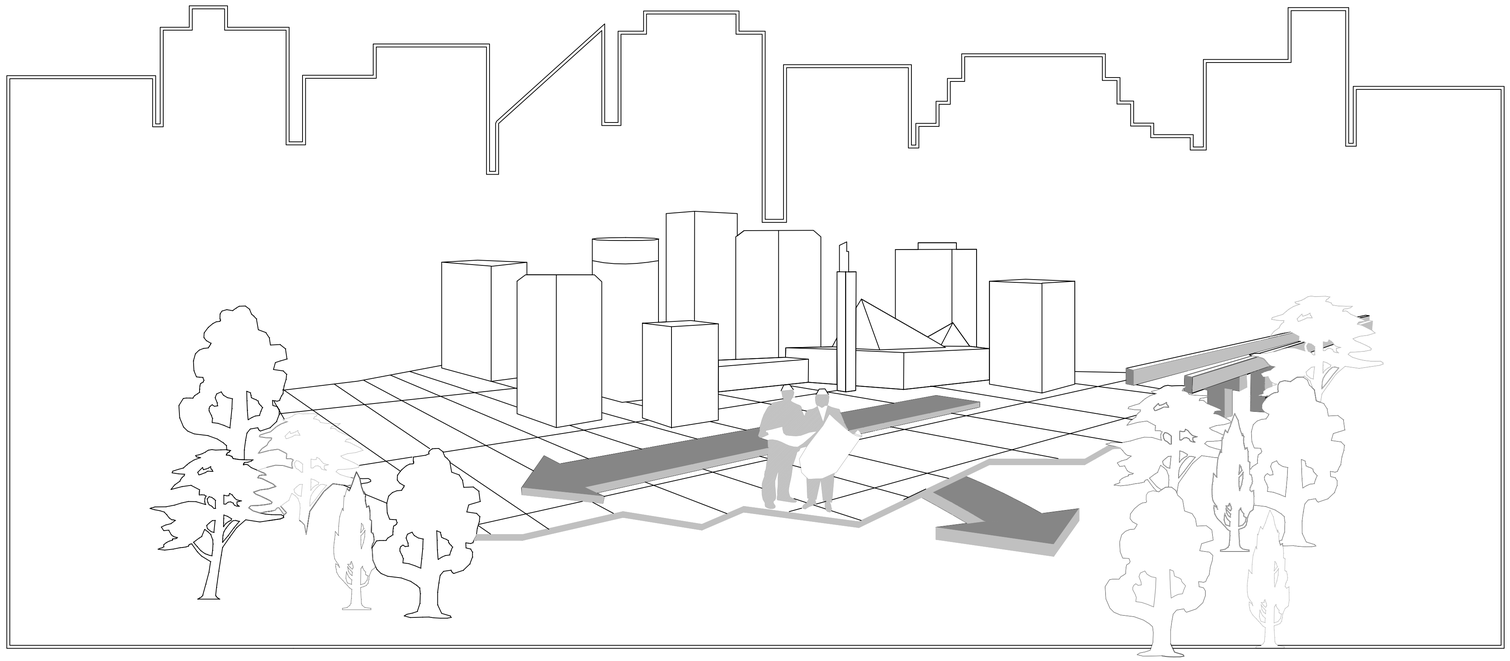
Titleblocks

Neighbourhoods

Planning

and Design

INTEGRATED INFRASTRUCTURE SERVICES
BUILDING GREAT NEIGHBOURHOODS



PROJECT DESCRIPTION

TENDER OR CONTRACT SET

CONSULTANT LOGO

PROJECT LIMITS

CONTRACT No. XXXX

PLOT DATE: 2024-07-23 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024

DRAWING INDEX

PROJECT DESCRIPTION

No.	Drawing Title
GENERAL	
XXXX XXX 002	DRAWING INDEX
XXXX XXX 003	DRAWING NOTES
XXXX XXX 004	DRAWING LEGEND
XXXX XXX 005	LOCAL IMPROVEMENT / CONSTRUCTION PROJECT AREA MAP
XXXX XXX 006	PAVEMENT DESIGN MAP
DETAIL	
XXXX XXX D01	STREET TO STREET AVENUE TO AVENUE
XXXX XXX D02	STREET TO STREET AVENUE TO AVENUE
XXXX XXX D03	STREET TO STREET AVENUE TO AVENUE
XXXX XXX D04	STREET TO STREET AVENUE TO AVENUE
XXXX XXX D05	STREET TO STREET AVENUE TO AVENUE
UTILITY	
XXXX XXX U01	STREET TO STREET AVENUE TO AVENUE
XXXX XXX U02	STREET TO STREET AVENUE TO AVENUE
XXXX XXX U03	STREET TO STREET AVENUE TO AVENUE
XXXX XXX U04	STREET TO STREET AVENUE TO AVENUE
XXXX XXX U05	STREET TO STREET AVENUE TO AVENUE

No.	Drawing Title
PAVEMENT MARKING & SIGNAGE (FOR INFORMATION ONLY)	
XXXX XXX P01	STREET TO STREET AVENUE TO AVENUE
XXXX XXX P02	STREET TO STREET AVENUE TO AVENUE
XXXX XXX P03	STREET TO STREET AVENUE TO AVENUE
XXXX XXX P04	STREET TO STREET AVENUE TO AVENUE
XXXX XXX P05	STREET TO STREET AVENUE TO AVENUE
STREET LIGHTING (FOR INFORMATION ONLY)	
XXXX XXX L01	STREET TO STREET AVENUE TO AVENUE
XXXX XXX L02	STREET TO STREET AVENUE TO AVENUE
XXXX XXX L03	STREET TO STREET AVENUE TO AVENUE
XXXX XXX L04	STREET TO STREET AVENUE TO AVENUE
XXXX XXX L05	STREET TO STREET AVENUE TO AVENUE

No.	Drawing Title
CROSS-SECTIONS	
XXXX XXX X01	STREET TO STREET AVENUE TO AVENUE
XXXX XXX X02	STREET TO STREET AVENUE TO AVENUE

Drawing Number XXXX XXX 002

Overflow for Issues/Revsions

Consultant Logo

Box for:
D/X Plans: Pavement Structure
Memo
U Plans: Utility Search
As-builts: Construction Return

Engineer Stamp

Permit to Practice Stamp

Supervisor Signature

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	YYYY-MM-DD	KEW	LMJW	DT	ISSUED FOR PRELIMINARY DESIGN
B					
C					
1					

UTILITY SEARCH

UTILITY	CHECKED	UTILITY	CHECKED
ALL STREAM		SURVEY MON	
BELL		TELEPHONES	
DRAINAGE		TRAFFIC SIGNALS	
GAS		WATER	
HP PIPELINES			
LRT OH/UG			
POWER			
SHAW		FIELD CHECK	

CHECKED BY: CHECKED BY

DATE: DATE

Branch: BUILDING GREAT NEIGHBOURHOODS
Dept: INTEGRATED INFRASTRUCTURE SERVICES

Scale: 1:500 (0 5 10 15 20 25)

APPROVED FOR PRELIMINARY DESIGN

DATE

Project: PROJECT NAME
Location: LOCATION 1
LOCATION 2
Drawing Title: DRAWING TITLE

Drawing Number: A132 231 D01

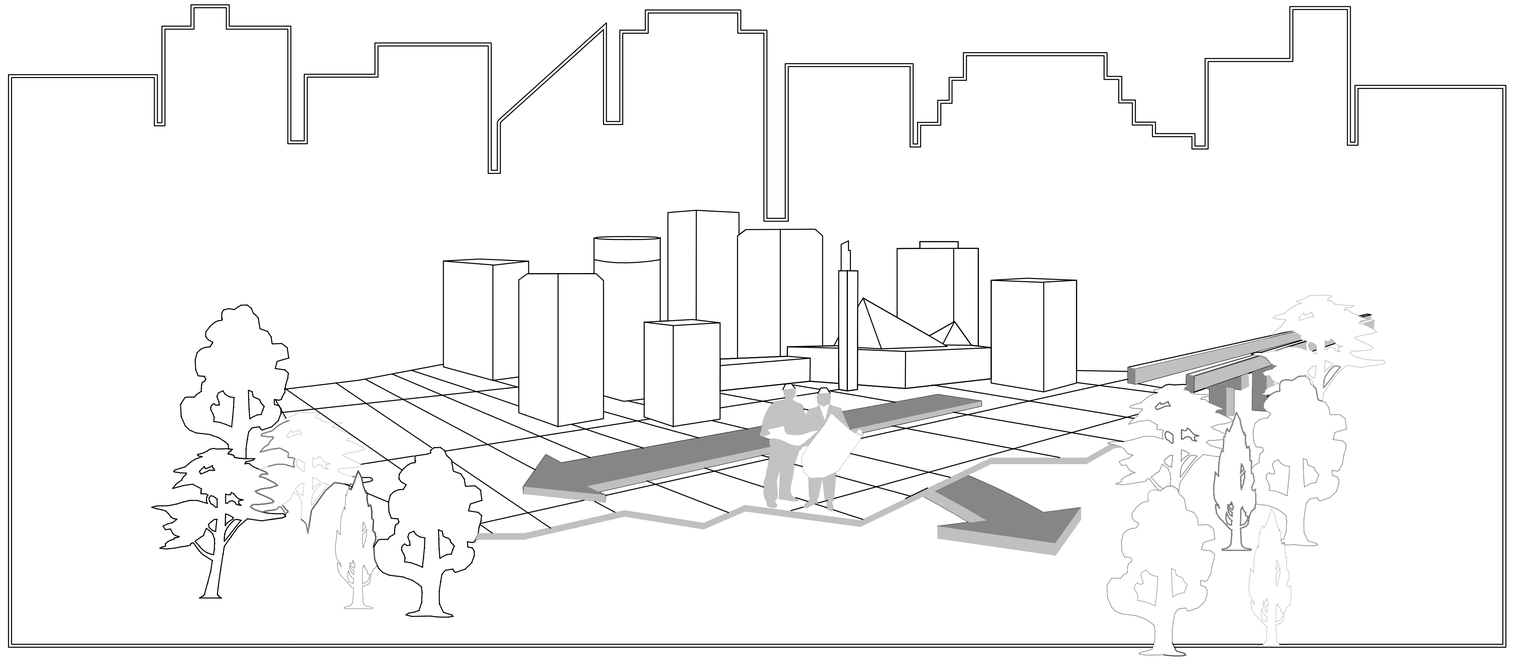
File: COE-IM-TMPL-0001-v03-20220510 CAD Titleblock Template - Technical (Test2).dwt

PLOT DATE: 2022-08-23 PLOT USER: DESMOND CHONG FILE LOCATION: c:\Roads D&C\RD\Neighbourhoods_AutoCad_working_folder\Template

Transportation Planning and Design

INTEGRATED INFRASTRUCTURE SERVICES

TRANSPORTATION PLANNING AND DESIGN



PROJECT NAME

PROJECT LIMIT

CONTRACT SET

DIRECTOR OF TRANSPORTATION INFRASTRUCTURE DELIVERY

CONTRACT No. 2xxx

Drawing Number Axxx 2xx 001

DRAWING INDEX

PROJECT NAME

(PROJECT LIMIT)

No.	Drawing Title
ALIGNMENT PLANS	
Sxxx 2xx A01	PAGE LIMIT
Sxxx 2xx A02	PAGE LIMIT
Sxxx 2xx A03	PAGE LIMIT
Sxxx 2xx A04	PAGE LIMIT
Sxxx 2xx A05	ALIGNMENT TABLES
Sxxx 2xx A06	ALIGNMENT TABLES
Sxxx 2xx A07	ALIGNMENT TABLES
Sxxx 2xx A08	ALIGNMENT TABLES
Sxxx 2xx A09	ALIGNMENT TABLES
DETAIL PLANS	
Sxxx 2xx D01	PAGE LIMIT
Sxxx 2xx D02	PAGE LIMIT
Sxxx 2xx D03	PAGE LIMIT
Sxxx 2xx D04	PAGE LIMIT
GRADE PLANS	
Sxxx 2xx G01	PAGE LIMIT
Sxxx 2xx G02	PAGE LIMIT
Sxxx 2xx G03	PAGE LIMIT
Sxxx 2xx G04	PAGE LIMIT
LANDSCAPING PLANS	
Sxxx 2xx H01	PAGE LIMIT
Sxxx 2xx H02	PAGE LIMIT
Sxxx 2xx H03	PAGE LIMIT
Sxxx 2xx H04	PAGE LIMIT
STREETLIGHTING PLANS (BY OTHERS)	
Sxxx 2xx L01	STREETLIGHTING NOTES AND LEGEND
Sxxx 2xx L02	PAGE LIMIT
Sxxx 2xx L03	PAGE LIMIT
Sxxx 2xx L04	PAGE LIMIT
Sxxx 2xx L05	PAGE LIMIT

No.	Drawing Title
UTILITY PLANS	
Sxxx 2xx U01	PAGE LIMIT
Sxxx 2xx U02	PAGE LIMIT
Sxxx 2xx U03	PAGE LIMIT
Sxxx 2xx U04	PAGE LIMIT
CROSS-SECTION PLANS	
Sxxx 2xx X01	PROJECT LIMIT

No.	Drawing Title

Drawing Number Sxxx 2xx 002

DRAWING AND TITLE BLOCK INSTRUCTIONS

1. GENERAL: All drawings should be done in model space using metric measurement units. The title blocks should reside in a paper space layout. Plotting to be done from paper space layout using metric scale(s). Drawings are to be prepared for ANSI D (22" x 34") sheet size, as appropriate, for most projects.
2. KEY PLAN: The space above the title block (top right corner) shall be used for a key plan.
3. DRAWING ISSUES & REVISIONS BLOCK:

3.1. In the drawing revision block follow the following convention for the major Issues of a consolidated drawing set and partial Revisions to single sheet(s). For coordinated/consolidated Issues of drawing sets of either an entire project or a clear subset thereof, eg. an entire discipline or tender package, use sequential upper case letters. Examples:

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	2020-02-27	KW	LMJW	DT	ISSUED FOR REVIEW
B	2020-07-21	KW	DT	DT	ISSUED FOR PERMIT
C	2020-12-31	KW	LMJW	DT	TP1 ISSUED FOR TENDER/CONSTRUCTION
D	2021-11-19	KW	LMJW	DT	RECORD DRAWINGS

For intermediate Revisions of a single drawing use sequential integer numbers in a triangle. These Revisions would often have matching Revision triangle(s) callout(s) adjacent to the appropriate revision cloud(s) in the drawing. Examples:

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
1	2020-03-04	KW	LMJW	DT	NEW MDP PANEL
2	2020-07-16	KW	DT	DT	CHANGE AHU-1

NOTE: All intermediate numbered Revisions should be integrated into the next major Issue of a drawing/set and the listing thereof on the revision block collapsed to just the next lettered Issue. Depending on the purpose of any particular Issue or Revision the Drawing should either be clearly authenticated or clearly *not* authenticated.

3.2. PRE TENDER/CONSTRUCTION ISSUE: A pre tender/construction set is defined as an issue that is for review or information prior to drawing authentication. The issue description shall be clearly displayed in this area, e.g. "ISSUED FOR REVIEW", "ISSUED FOR INFORMATION", "PRELIMINARY", "FOR INFORMATION ONLY", etc.

3.3. TENDER/CONSTRUCTION REVISION ISSUE: Final drawings issued for tender/construction shall have a clear issue description, e.g. "ISSUED FOR TENDER/CONSTRUCTION" or "ISSUED FOR BID" and be authenticated.

3.4. AS-BUILT REVISION: After construction is complete and all contractor red-lines are reflected in the drawing, issue a final revision, e.g. "RECORD".

4. SEAL BLOCK: This area is the location where seals of the professional engineers responsible for the design of the drawing place their stamps/seals and sign over the affixed stamps/seals. **Retain draft mark in this location to clearly identify pre construction/authentication status.**
5. PERMIT BLOCK: This block is the location where the Permit to Practice issued by AAA and/or APEGA is affixed on the drawing. **Retain draft mark in this location to clearly identify pre construction/authentication status.**
6. CONSULTANT BLOCK: This area is the location for the corporate logo and visual identity of the firm responsible for the design drawing.
7. CONTRACT NUMBER: This item will be provided by the Construction Project Manager.
8. PROJECT: This item will be provided by the Project Engineer.
9. LOCATION: Overall project limit will be provided by the Project Engineer. For detail, utility, alignment and grade plans, please specify the drawing limit (from match line to match line).
10. DRAWING TITLE: A description of the drawing contents for each sheet.
11. DRAWING NUMBER:

11.1. For internal projects, this item will be provided by Project Designer.
11.2. For external projects, this item will be provided by Project Engineer.
11.3. Important Note: Drawing number must reserved in Cardex prior.

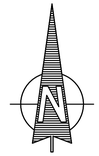
12. FILE: This will auto-populate from the drawing file name.
13. SCALE: This scale bar is a dynamic block. Click and select the proper scale.
14. SURVEY: All survey file numbers provided by the survey group.
15. PAVEMENT STRUCTURE / UTILITY SEARCH:

15.1. For detail plans, this area is the location where seals of the professional engineers responsible for the pavement design place their stamps/seals and sign over the affixed stamps/seals or to input pavement structure memo information (company name and the date of the memo issued).
15.2. For utility plans, this block is the location to insert "Utility Search" block.

16. SIGNATURES BLOCK: This block is required in all design stages.

16.1. For Concept and Preliminary plans - Supervisor of Transportation Planning and Design
16.2. For Tender set :
16.2.1. Supervisor of Transportation Planning and Design in all plans
16.2.2. Supervisor of Transportation Infrastructure Delivery in A, G, D, U & X plans
16.3. For Contract set :
16.3.1. Supervisor of Transportation Planning and Design in all plans
16.3.2. Supervisor of Transportation Infrastructure Delivery in A, G, D, U & X plans
16.3.3. Supervisor of Traffic Operations in P plan

17. APPROVED FOR CONSTRUCTION BLOCK: This block must be included in the Tender set, and it must be signed in the Construction set. Not required for preliminary and concept plans.
18. CONSTRUCTION RETURN BLOCK: This block must be included in the Tender and Construction sets. Construction Project Manager to sign and complete this block before sending the plans back to the design team for as-built.



SEE NOTE #2

SEE NOTE #3

SEE NOTE #6

SEE NOTE #18

SEE NOTE #16

SEE NOTE #17

SEE NOTE #15

SEE NOTE #4

SEE NOTE #5

SEE NOTE #8

SEE NOTE #9

SEE NOTE #10

SEE NOTE #11

SEE NOTE #12

SEE NOTE #13

SEE NOTE #7

SEE NOTE #14

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description

Consultant

Construction Return

File Number

Surveyor

Date

File Number

Construction Project Manager — Date

Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION

DATE

Utility Search

Utility	Checked	Utility	Checked
ALL STREAM		SURVEY MON	
BELL		TELEPHONES	
DRAINAGE		TRAFFIC SIGNALS	
GAS		WATER	
HP PIPELINES			
LRT OH/UG			
POWER			
SHAW		FIELD CHECK	

CHECKED BY: _____

DATE: _____

Seal

Permit

Branch TRANSPORTATION PLANNING & DESIGN

Dept INTEGRATED INFRASTRUCTURE SERVICES

Scale 1:500 (0 5 10 15 20 25)

Survey SURVEY NUMBERS

Project PROJECT NAME

Location PROJECT LIMIT

Drawing Title PLAN TITLE

Edmonton

Contract No. 2300

Drawing Number Axxx 2xx Dxx

File Transportation Planning and Design Titleblock Template(20251008).dwt

Appendix H

Sample Drawings

Neighbourhoods Planning and Design

DETAIL NOTES
PROJECT DESCRIPTION

DETAIL / CROSS-SECTION NOTES:

1. a) FOR ALL STRAIGHT FACE CURB AND GUTTER CONSTRUCTION: CURB HEIGHT TO BE DETERMINED DURING FIELD DESIGN; GUTTER WIDTH TO BE 250mm UNLESS OTHERWISE NOTED. REFER TO STANDARD DETAIL #5000 FOR 150mm CURB AND 250mm GUTTER.
   b) FOR ALL STRAIGHT FACE MONOLITHIC SIDEWALK CONSTRUCTION: SIDEWALK WIDTH TO BE 1.50m FROM BACK OF CURB TO BACK OF WALK UNLESS OTHERWISE NOTED; CURB HEIGHT TO BE DETERMINED DURING FIELD DESIGN; GUTTER WIDTH TO BE 250mm UNLESS OTHERWISE NOTED.
   c) FOR ALL ROLL FACE CURB AND GUTTER CONSTRUCTION: CURB HEIGHT TO BE 80mm UNLESS OTHERWISE NOTED; GUTTER WIDTH TO BE 250mm UNLESS OTHERWISE NOTED. REFER TO STANDARD DETAIL #5024 FOR 80mm ROLLED MOUNTABLE FACE CURB AND 250mm GUTTER.
   d) FOR ALL ROLL FACE MONOLITHIC SIDEWALK CONSTRUCTION: SIDEWALK WIDTH TO BE 1.50m FROM BACK OF CURB TO BACK OF WALK UNLESS OTHERWISE NOTED; CURB HEIGHT TO BE 80mm UNLESS OTHERWISE NOTED; GUTTER WIDTH TO BE 250mm UNLESS OTHERWISE NOTED.
   e) FOR ALL BOULEVARD AND / OR SEPARATE WALK CONSTRUCTION: WALK WIDTH TO BE 1.50m WIDE UNLESS OTHERWISE NOTED. REFER TO STANDARD DETAIL #5140 FOR CONCRETE WALKWAY - 1.80m.
   f) FOR ALL STRAIGHT FACE CURB AND GUTTER WITH 300mm CONCRETE HEADER CONSTRUCTION: CURB HEIGHT TO BE DETERMINED DURING FIELD DESIGN; GUTTER WIDTH TO BE 250mm UNLESS OTHERWISE NOTED.
2. ALL CURB RAMPS TO BE DIRECTIONAL. PROVIDE 1.0m FLAT SURFACE FROM BACK OF CURB RAMP WHERE RIGHT OF WAY ALLOWS. REFER TO STANDARD DETAIL #5510.
3. ALL CROSSINGS (COMMERCIAL, PRIVATE, ALLEY) AND WALK CONNECTORS TO BE REPLACED, SUBJECT TO THE APPROVAL OF THE CITY OF EDMONTON INTEGRATED INFRASTRUCTURE SERVICES DEPARTMENT. RE-GRADE AS REQUIRED TO ENSURE POSITIVE DRAINAGE. EXACT LIMITS TO BE DETERMINED IN FIELD. EXISTING MATERIAL TO BE REPLACED WITH SIMILAR MATERIAL (ASPHALT, GRAVEL, CONCRETE, PAVING STONES, EXPOSED AGGREGATE, ETC.), SUBJECT TO THE APPROVAL OF THE CITY OF EDMONTON BUILDING GREAT NEIGHBOURHOODS DELIVERY PROJECT MANAGER. ALL CROSSING DIMENSIONS ARE APPROXIMATE.
4. ALL CURB RADII DIMENSIONS ARE TO CURB FACE, UNLESS OTHERWISE NOTED; ALL ROAD WIDTH DIMENSIONS ARE TO CURB FACE, UNLESS OTHERWISE NOTED.
5. COORDINATES, CURVE DATA AND TIES ARE TO LIP OF GUTTER FOR CURB AND GUTTER CONSTRUCTION, EDGE OF PAVEMENT/CURB FACE FOR SLAB-ON CONSTRUCTION, BACK OF WALK FOR SEPARATE SIDEWALK CONSTRUCTION UNLESS OTHERWISE NOTED.
6. REMOVE EXISTING CURB, GUTTER, ROAD STRUCTURE, WALK AND LANDSCAPING AS REQUIRED.
7. ALL AREAS SHOWN AS "CONSTRUCT" IMPLIES THE SPECIFIED IMPROVEMENT IS NEW AND DID NOT EXIST PRIOR TO CONSTRUCTION. REFER TO CROSS-SECTIONS FOR MORE DETAIL.
8. TRANSITION BETWEEN CURB TYPES TO BE DONE AT CURB RAMPS, CATCH BASINS, AND CROSSINGS UNLESS OTHERWISE NOTED.
9. FINAL LIMITS OF BASE REMOVAL, CURB & SIDEWALK REPLACEMENT AND MILLING AT MATCH LOCATIONS TO BE DETERMINED IN FIELD; SAW-CUT AREAS OF REMOVAL.
10. ON ALL WALKWAY & SUP INTERSECTIONS, CONSTRUCT 1.5m FILLETS AT THE INTERSECTION CORNERS.
11. LANDSCAPING OF ALL BOULEVARD AREAS TO MEET CITY OPERATIONS SPECIFICATIONS:
    a) ALL SOD OVER 100mm TOPSOIL
    b) ALL SEED OVER 150mm TOPSOIL
12. PLEASE PROVIDE SIX WEEKS ADVANCE NOTIFICATION TO copsetsplanningtechs@edmonton.ca TO ARRANGE REMOVAL OF EXISTING BUS SHELTERS AND TO ADVISE OF ANY PROJECT RELATED BUS STOP CLOSURE, ISRUPTION OR ROAD CLOSURES AFFECTING BUS ROUTES.
13. THE SYMBOL +/- REFERS TO +/-0.25m (A TOTAL VARIANCE IN WIDTH OF 0.50m).
14. ADJUST MANHOLES AND VALVES AS REQUIRED TO MATCH NEW PAVEMENT.

UTILITY NOTES:

1. LOCATION OF UTILITIES IS APPROXIMATE; EXACT LOCATION TO BE DETERMINED BY CONSULTING THE OWNER OF THE UTILITY CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES AND BE RESPONSIBLE FOR THEIR PROTECTION FROM DAMAGE. OVERHEAD LINES MAY NOT BE SHOWN, USE CAUTION.
2. NO PERSON SHALL ENTER OR PLACE ANY OBJECT IN ANY POWER OR TELEPHONE VAULT WITHOUT AUTHORIZATION FROM THE PROPER UTILITY DEPARTMENT.
3. ALL NEW CATCH BASIN LEADS TO BE 250mm DIAMETER; STORM SEWER AND CATCH BASIN MANHOLE LEADS TO BE 300mm DIAMETER AT 1% MIN. (UNLESS OTHERWISE NOTED) AND IN ACCORDANCE WITH CSA A257.1 (USE CSA A257.2 FOR 300mm OR LARGER DIAMETER), CLASS 3 SULPHATE RESISTANT, RUBBER GASKET OR PVC (PSM TYPE) TO CSA B182.2 WITH LOCKED-IN ELASTOMERIC RING GASKET AND INTEGRAL BELL SYSTEM JOINT. MINIMUM WALL THICKNESS AS REQUIRED FOR SDR 35. COMPACTION: 0-1.5m DEPTH BELOW EXISTING GROUND SURFACE OR SUBGRADE ELEVATION, WHICHEVER IS LOWER, 98% OF A STANDARD PROCTOR (SEE COMPLETE STREETS SECTION 3.1.3.7 AND STANDARD DWG. 7980), REMAINDER TO 97% OF ONE MOULD COMPACTION OR 95% OF A STANDARD PROCTOR, PIPE EMBEDMENT TYPE 2 INSTALLATION WITH CLASS II MATERIALS.
4. WHEN CONNECTING NEW CB LEADS TO EXISTING CB LEADS:
   a) REMOVE COMPLETE PIPE LENGTHS OF EXISTING CB LEAD THAT ARE AFFECTED.
   b) CONNECT TO EXISTING PIPE USING A SEWER COMPRESSION JOINT SEALER AT THE DOWNSTREAM END.
   c) CONNECT PIPE TO CB, CBMH, & MANHOLES USING INTEGRAL, RESILIENT GASKET OR MANHOLE ADAPTER.
   d) ALL CB, CBMH, AND MH FRAMES AND COVERS SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF EDMONTON DESIGN AND CONSTRUCTION STANDARDS.
5. ABANDONMENT OF DRAINAGE FACILITIES REQUIRES EITHER:
   a) REMOVAL AND DISPOSAL OFF SITE OR
   b) PLUGGING OPENINGS WITH CONCRETE AND FILLING VOID SPACES WITH FILLCRETE CONFORMING TO THE LATEST CITY OF EDMONTON STANDARDS VOL. 3 SECTION 02535 (SEWERS), 02538 (SERVICES) AND 02631 (MH'S AND CB'S).
   c) COMPLETELY REMOVE ALL CATCH BASINS LESS THAN 900mm IN DIAMETER.
6. SALVAGE ALL ABANDONED AND REPLACED FRAMES AND COVERS AS REQUIRED AND TO THE SATISFACTION OF THE CITY OF EDMONTON INTEGRATED INFRASTRUCTURE SERVICES (TO BE DETERMINED IN FIELD).
7. SHAW LOCATES ARE REQUIRED CALL 780-490-3584 OR 1-866-Dig-Shaw (1-866-344-7429) BEFORE STARTING CONSTRUCTION, MAINTAIN MIN. 1.0m CLEARANCE TO SHAW CABLE.
8. CB NOTES:
   a) RELOCATE / ADJUST CATCH BASINS TO MATCH NEW ALIGNMENT/GRADES (AS REQUIRED).
   b) REPLACE CB FRAMES AND COVERS AS REQUIRED. (TO BE DETERMINED IN FIELD).
   c) CB BARREL DIAMETERS SHALL NOT BE REPLACED WITH A DECREASED DIAMETER UNLESS OTHERWISE APPROVED. ALL CB BARREL DIAMETERS TO BE VERIFIED IN FIELD.
9. WHERE CONTROL VALVES ARE CLOSE TO OR WITHIN WALKWAYS, ENSURE A PVC SLEEVE IS INSTALLED AROUND THE VALVE CASING AND THAT THE CONTROL VALVE REMAINS ACCESSIBLE.

PAVEMENT MARKING NOTES:

1. STREET MARKINGS TO BE MEASURED FROM CURB FACE OR AS OTHERWISE NOTED.
2. SECONDARY LEAD-IN TO BE 30m BACK FROM STOPLINE UNLESS OTHERWISE NOTED.
3. CENTRELINE LEAD-IN TO BE 50m BACK FROM CROSSWALK UNLESS OTHERWISE NOTED.
4. ALL PARALLEL (STANDARD) CROSS-WALK LINES TO BE 20cm IN WIDTH.
5. ALL EXISTING PAVEMENT MARKINGS TO BE REPLACED UNLESS OTHERWISE NOTED.
6. SEE "MANUAL FOR PAVEMENT MARKING DESIGN" FOR DETAILS.
7. SHARROW PAVEMENT MARKINGS TO BE INSTALLED IN SKID RESISTANT THERMO PLASTIC.
8. INSTALL SHARROWS AT 3.4m FROM CURB FACE TO CENTRELINE OF MARKING UNLESS OTHERWISE NOTED.
9. SHARROWS TO BE INSTALLED 10m - 15m AFTER INTERSECTION CURBLINE AFTER INTERSECTIONS.
10. ALL SCHOOL ZONE SIGN POLES TO BE INSTALLED WITH FLUORESCENT YELLOW GREEN REFLECTIVE TUBING.
11. ALL STOP SIGNS LOCATED WITHIN SCHOOL ZONES TO BE INSTALLED WITH RED REFLECTIVE TUBING.
12. ALL PEDESTRIAN SIGN POLES LOCATED WITHIN SCHOOL ZONES TO BE INSTALLED WITH WHITE REFLECTIVE TUBING.

Drawing Number XXXX XXX 003

DETAIL LEGEND

PROJECT DESCRIPTION

WATER SYMBOLS / LINE TYPES

WAT — WAT — WATERMAIN

WAT — WAT — VALVE

WAT — WAT — HYDRANT (WITH VALVE)

DRAINAGE SYMBOLS / LINE TYPES

ST — ST — STORM SEWER (EXISTING)

ST — ST — DRAINAGE MANHOLE (STORM)

CATCH BASIN AND LEAD

CATCH BASIN MANHOLE AND LEAD

SAN — SAN — SANITARY SEWER

SAN — SAN — DRAINAGE MANHOLE (SANITARY)

COMB — COMBINED SEWER (STORM AND SANITARY)

POWER SYMBOLS / LINE TYPES

PD — PD — POWER DUCTLINE

OH — POWER LINE (OVERHEAD)

PWR — POWER LINE (UNDERGROUND)

PC — POWER CABLE

STLT — STLT — POWER STREETLIGHT CABLE

TROLLEY POLES

WOODEN POWER POLE

POWER POLE

STREETLIGHT POLE (STANDARD)

STREET LIGHT POLE (DECORATIVE)

POWER MANHOLE

POLE ANCHOR

TRAFFIC SYMBOLS

TRAFFIC POLE

MISCELLANEOUS

CURB RAMP

LIMIT OF CONSTRUCTION

HATCHING

COLLECTOR RECONSTRUCTION
(57 STREET - 19A AVE TO 23 AVE)
170mm ACP:
70mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

TELEPHONE SYMBOLS / LINE TYPES

TD — TELEPHONE DUCTLINE

TC — TELEPHONE CABLE

T — TELEPHONE MANHOLE

TELEPHONE CABLE (ABANDONED)

GAS LINE TYPES

LP — GAS LINE (LOW PRESSURE)

IP — GAS LINE (INTERMEDIATE PRESSURE)

MP — GAS LINE (MEDIUM PRESSURE)

HP — GAS LINE (HIGH PRESSURE) OR PIPELINE

FIBREOPTIC LINE TYPES

SHAW — SHAW

ALLSTR — ALLSTREAM

BELL — BELL

PAVEMENT MARKING LINE TYPES

SOLID YELLOW LINE

SOLID WHITE LINE

SECONDARY LINE (3:6 10 cm line)

TURN BAY (3:6 20 cm line)

GUIDELINE (0.5:0.5 10 cm line)

HATCHING

COLLECTOR RECONSTRUCTION
160mm ACP:
60mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

COLLECTOR RECONSTRUCTION
130mm ACP:
50mm - 10mm HT TOP LIFT
80mm - 20mm B BOTTOM LIFT
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

LOCAL RECONSTRUCTION
110mm ACP:
50mm - 10mm LT TOP LIFT
60mm - 20mm B BOTTOM LIFT
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

ABBREVIATIONS

BLVD	BOULEVARD
BLK	BLOCK
BOW	BACK OF WALK
CB	CATCH BASIN
CBMH	CATCH BASIN MANHOLE
CONC	CONCRETE
EX	EXISTING
X-ING	CROSSING
SFCG	REPLACE EXISTING CURB WITH STRAIGHT FACE CURB AND GUTTER
100mm SFCG	REPLACE EXISTING CURB WITH 100mm STRAIGHT FACE CURB AND GUTTER
RFCG	REPLACE EXISTING CURB WITH ROLLED FACE CURB AND GUTTER
SF BLVD	REPLACE EXISTING CURB WITH STRAIGHT FACE CURB AND GUTTER AND REPLACE BOULEVARD WALK
RF BLVD	REPLACE EXISTING CURB WITH ROLLED FACE CURB AND GUTTER AND REPLACE BOULEVARD WALK
SF MONO	REPLACE EXISTING MONO WITH STRAIGHT FACE CURB, GUTTER AND MONOWALK
RF MONO	REPLACE EXISTING MONO WITH ROLLED FACE CURB, GUTTER AND MONOWALK

DRAFTING:
color codes for Utility plans:
Green 0, 214,0
dark Blue 0, 0, 255
Yellow 186, 186, 0
Orange 255, 140, 0
Red 255, 0 0
Pink 255, 20, 147
light Blue 0, 235, 235

DRAFTING:
Utility colors on this Legend drawing should be in color and should match Utility colors on the Utility drawing

A1 A2 B C D — REPLACE / CONSTRUCT CURB RAMP TYPE

CC — REPLACE COLORED CONCRETE

PS — REPLACE PAVING STONES

SC — REPLACE STAMPED CONCRETE

EA — REPLACE EXPOSED AGGREGATE CONCRETE

BLK — REPLACE SIDEWALK BLOCKS

SCC — REPLACE STAMPED COLORED CONCRETE

CBMH — TYPE SIZE TYPE SIZE — REPLACE EX CB / CBMH WITH <SIZE> CB / CBMH C/W <TYPE> FRAME & COVER. CONNECT TO EX CB LEAD.

NEW CBMH — TYPE SIZE — INSTALL NEW <SIZE> CB / CBMH C/W <TYPE> FRAME & COVER.

ALLEY
100mm 10mm-LT
350mm 3-20 GRANULAR BASE
NON-WOVEN GEOTEXTILE TYPE B
AND BIAXIAL GEOGRID

110mm ACP:
50mm - 10mm LT TOP LIFT
60mm - 20mm B BOTTOM LIFT
150mm FDR

VARIABLE GRIND TO MATCH

RAISED CROSSWALK

SUP (SHARED USE PATH)

CONCRETE CONSTRUCTION

ASPHALT CONSTRUCTION

SODDING/SEEDING/ LANDSCAPING

STAMPED CONCRETE

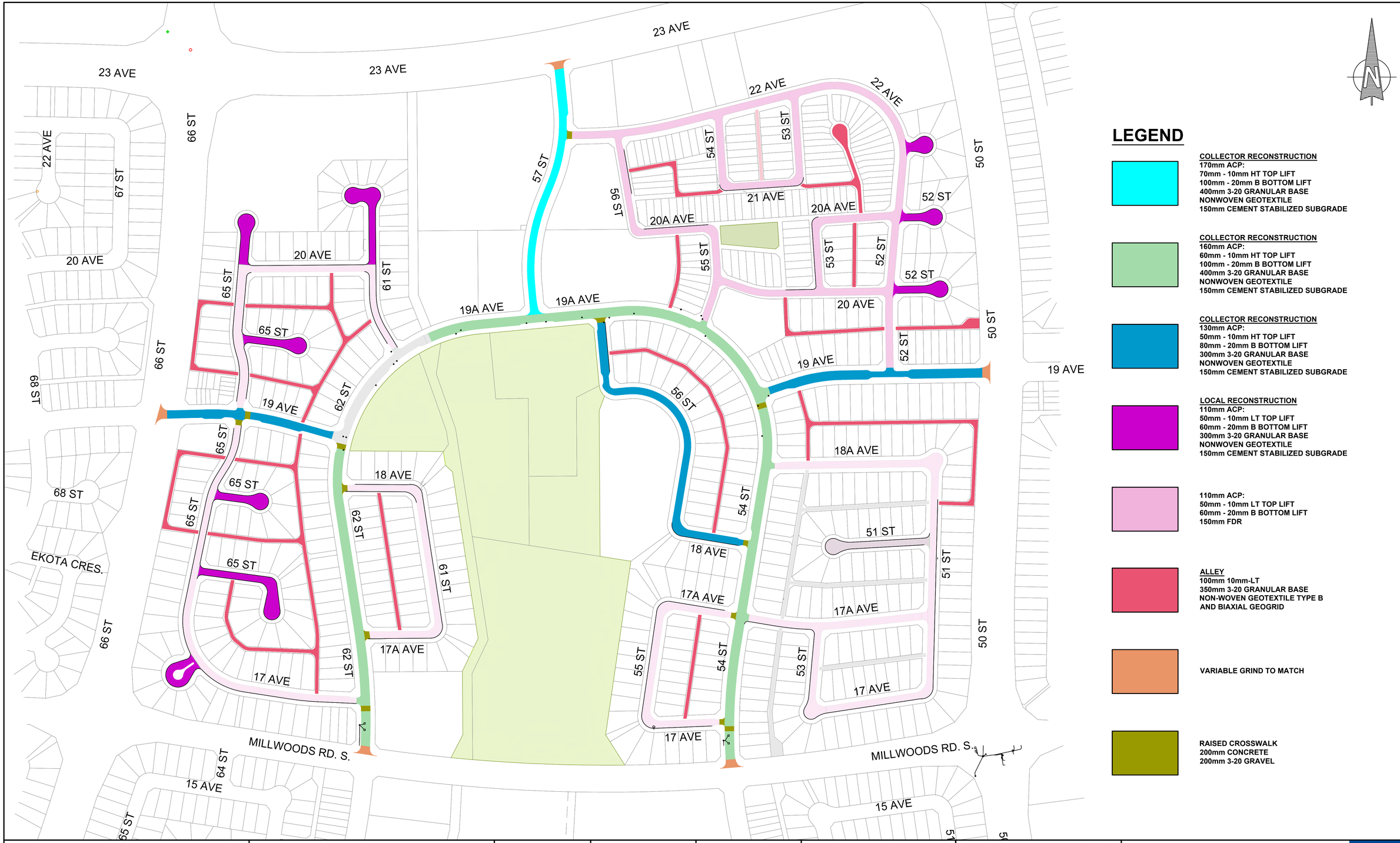
Drawing Number XXXX XXX 004

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description

Branch	BUILDING GREAT NEIGHBOURHOODS
Dept	INTEGRATED INFRASTRUCTURE SERVICES
Scale	
	FOR INFORMATION ONLY
Project	DESCRIPTION LIMITS
Location	DESCRIPTION LIMITS
Drawing Title	LOCAL IMPROVEMENT PROJECT
Drawing Number	XXXX XXX 005
File	

Edmonton

PLOT DATE: 2024-10-25 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024\Desmond Oct 2024



LEGEND

COLLECTOR RECONSTRUCTION
170mm ACP:
70mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

COLLECTOR RECONSTRUCTION
160mm ACP:
60mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

COLLECTOR RECONSTRUCTION
130mm ACP:
50mm - 10mm HT TOP LIFT
80mm - 20mm B BOTTOM LIFT
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

LOCAL RECONSTRUCTION
110mm ACP:
50mm - 10mm LT TOP LIFT
60mm - 20mm B BOTTOM LIFT
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

110mm ACP:
50mm - 10mm LT TOP LIFT
60mm - 20mm B BOTTOM LIFT
150mm FDR

ALLEY
100mm 10mm-LT
350mm 3-20 GRANULAR BASE
NON-WOVEN GEOTEXTILE TYPE B
AND BIAXIAL GEOGRID

VARIABLE GRIND TO MATCH

RAISED CROSSWALK
200mm CONCRETE
200mm 3-20 GRAVEL

Issues / Revisions

Ltr./#	Date	Author	Review	Check	Description

Branch BUILDING GREAT NEIGHBOURHOODS
Dept INTEGRATED INFRASTRUCTURE SERVICES
Scale
FOR INFORMATION ONLY

Project DESCRIPTION LIMITS
Location DESCRIPTION LIMITS
Drawing Title PAVEMENT DESIGN MAP
Drawing Number XXXX XXX 006
File

Edmonton

PLOT DATE: 2024-10-31 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024\Desmond Oct 2024

DRAFTING: property lines grey

DRAFTING: show corner radii to CF

DRAFTING: show road widths to CF

DRAFTING: text height should be 2.5mm high when printed on paper

DRAFTING: ex curb and sidewalks should be grey and dashed line

DRAFTING: call out replacement of Commercial Crossings

DRAFTING: dimension from head of stop to nearest curb

DRAFTING: text orientation
INCORRECT TEXT ORIENTATION
CORRECT TEXT ORIENTATION

DRAFTING: show width of ramps >1.5m

DRAFTING: show a 1m wide area of concrete behind ramp

23 AVE

LIMIT OF CONSTRUCTION

CAUTION: SURVEY MONUMENT, ADJUST AS REQUIRED

CONSTRUCT 12.0m x 3.0m MONO BUS STOP PAD

HYD RELOCATE (BY OTHERS)

REPLACE COMMERCIAL CROSSINGS

CONSTRUCT 2.2m CURB EXTENSION

BUS STOP 3128

3.5m SF MONO SUP

CONSTRUCT 1.8m SF BLVD

FOR CONTINUATION
SEE PLAN XXXX XXX XXX

57 ST

CONSTRUCT 3.0m SF BLVD

1.8m SF MONO

RECONSTRUCT:
70mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

50mm - 10mm LT
60mm - 20mm B
150mm FDR

22 AVE

CONSTRUCT 1.8m SF BLVD

CONSTRUCT 1.2m CURB EXTENSION

CONSTRUCT RAISED CROSSWALK

TRANSITION TO RF

54 ST

55 ST

53 ST

SF MONO

RF MONO

CONSTRUCT RF MONO

21 AVE

INSTALL BOLLARDS (2)

TRANSITION FROM SF TO RF

CONSTRUCT 3.0m ASPHALT SUP

REPLACE 1.5m WALK

TRANSITION TO RF

CONSTRUCT SF MONO

20A AVE

CONSTRUCT 3.0m ASPHALT SUP

55 STREET PARK

HYD RELOCATE (BY OTHERS)

CONSTRUCT 12.0m x 2.5m MONO BUS STOP PAD

RECONSTRUCT:
60mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

19A AVE

SFCG

3.5m SF MONO SUP

CONSTRUCT 1.5m CURB EXTENSION

FUTURE BUS STOP

CONSTRUCT RAISED CROSSWALK

CONSTRUCT 1.2m CURB EXTENSION

CONSTRUCT 2.2m CURB EXTENSION

HYD RELOCATE (BY OTHERS)

RUBBER DRIVEWAY

TREE TO BE REMOVED BY OTHERS (2)

CONSTRUCT 2.0m CURB EXTENSION

RECONSTRUCT:
60mm - 10mm HT TOP LIFT
100mm - 20mm B BOTTOM LIFT
400mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

CONSTRUCT 2.4m CURB EXTENSION

REFER TO OPEN SPACE DRAWINGS

56 ST

RECONSTRUCT:
50mm - 10mm HT
80mm - 20mm B
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

FOR CONTINUATION
SEE PLAN XXXX XXX XXX

REPLACE 2.6m CONC WALKWAY

TREE TO BE POTENTIALLY REMOVED (BY OTHERS)

RECONSTRUCT:
50mm - 10mm HT
80mm - 20mm B
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

CONSTRUCT 2.0m CURB EXTENSION

CONSTRUCT 3.0m SF BLVD SUP

CONSTRUCT 2.5m CURB EXTENSION

3.5m SF MONO SUP

HYD RELOCATE (BY OTHERS)

CONSTRUCT 1.8m SF BLVD

RECONSTRUCT:
50mm - 10mm LT
60mm - 20mm B
300mm 3-20 GRANULAR BASE
NONWOVEN GEOTEXTILE
150mm CEMENT STABILIZED SUBGRADE

CONSTRUCT RF MONO

50 ST

52 ST

CONSTRUCT 12.0m x 3.0m MONO BUS STOP PAD

LIMIT OF CONSTRUCTION

CAUTION: SURVEY MONUMENT, ADJUST AS REQUIRED

FOR CONTINUATION
SEE PLAN XXXX XXX XXX

NOTES:
1. FOR DETAIL NOTES, SEE PLAN NO. XXXX XXX XXX
2. FOR DETAIL LEGEND, SEE PLAN NO. XXXX XXX XXX
3. ALL CURB EXTENSIONS TO HAVE 300mm CONCRETE HEADER

ALLEY
100mm 10mm-LT
350mm 3-20 GRANULAR BASE
NON-WOVEN GEOTEXTILE TYPE B
AND BIAXIAL GEOGRID

DETAIL FOR RF MONO ON SUP ACROSS EX DRIVEWAY

SIDEWALK FILLET DETAIL

R5.00

CONSTRUCT 1.5m FILLETS AT ALL SIDEWALK AND SUP CORNERS

Issues / Revisions

Ltr./#	Date	Author	Review	Check	Description

PAVEMENT STRUCTURE MEMO:
INDICATE TITLE; BY ENG. SERVICES; DATE

PAVEMENT STRUCTURE

Branch BUILDING GREAT NEIGHBOURHOODS
Dept INTEGRATED INFRASTRUCTURE SERVICES

Scale 1:1000

APPROVED FOR TENDER OR CONSTRUCTION

DATE

Project PROJECT DESCRIPTION

Location STREET TO STREET
AVENUE TO AVENUE

Drawing Title DETAIL PLAN

Drawing Number XXXX XXX D01

File

PLOT DATE: 2024-10-25 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024\Desmond Oct 2024

DRAFTING:
color codes for Utility plans:
Green 0, 214,0
dark Blue 0, 0, 255
Yellow 186, 186, 0
Orange 255, 140, 0
Red 255, 0 0
Pink 255, 20, 147
light Blue 0, 235, 235

DRAFTING: show l markers on Utility p

DRAFTING: property lines grey

DRAFTING: ex curb lines and sidewalks should be dashed; do not show pavement markings on Utility plans

LIMIT OF CONSTRUCTION

FOR CONTINUATION SEE PLAN XXXX XXX XXX

FOR CONTINUATION SEE PLAN XXXX XXX XXX

HYD RELOCATE (BY OTHERS)

REMOVE EX CB & ABANDON LEAD

INSTALL 12.9m OF CB LEAD & CONNECT TO MH 205604

INSTALL 14.0m OF CB LEAD & CONNECT TO MH 205604

INSTALL 10.0m OF CB LEAD & CONNECT TO MH 205608

INSTALL 0.4m OF CB LEAD & CONNECT TO EX CB LEAD

INSTALL 3.0m OF CB LEAD & CONNECT TO MH 205619

INSTALL 12.5m OF CB LEAD & CONNECT TO MH205671

INSTALL 11.1m OF CB LEAD & CONNECT TO MH205671

INSTALL 13.0m OF CB LEAD & CONNECT TO MH 205682

INSTALL 7.9m OF CB LEAD & CONNECT TO MH205682

INSTALL 12.4m OF CB LEAD & CONNECT TO MH 205622

INSTALL 2.0m OF CB LEAD & CONNECT TO EX CB LEAD

INSTALL 5.7m OF CB LEAD & CONNECT TO MH 205622

INSTALL 10.0m OF CB LEAD & CONNECT TO MH205679

INSTALL 8.8m 300mm STM PIPE & CONNECT TO MH 205618

INSTALL NEW 1200mm Ø STM MH

INSTALL 22m OF CB LEAD & CONNECT TO NEW STM MH

INSTALL 16.1m OF CB LEAD & CONNECT TO MH 205626

INSTALL 18.0m OF CB LEAD & CONNECT TO MH 205626

INSTALL 14.6m OF CB LEAD & CONNECT TO MH 205622

INSTALL 14.1m OF CB LEAD & CONNECT TO CBMH

INSTALL 11.5m OF CB LEAD & CONNECT TO CBMH

INSTALL 23.0m OF 300mm STM & CONNECT TO MH 205627

INSTALL 10.8m OF CB LEAD & CONNECT TO MH 205627

INSTALL 4.1m OF CB LEAD & CONNECT TO MH 205689

INSTALL 25.6m OF CB LEAD & CONNECT TO MH 205689

INSTALL 27.5m OF CB LEAD & CONNECT TO MH 205689

DRAFTING:
a CB that is installed at the same corner or general vicinity which is a replacement of a CB that is to be removed is not considered "NEW"

DRAFTING: ex CB's in green; new & replaced CB's in black

DRAFTING:
a CB is considered "NEW" when it is a new CB to the drainage system

DRAFTING:
WITH F&C REPLACEMENT
Y SHOULD BE SHOWN IN GREEN

22 AVE
21 AVE
20A AVE
20 AVE
19A AVE
19 AVE
53 ST
54 ST
55 ST
56 ST
57 ST
50 ST.
52 ST
HWY 16

U01 U02 U03 U04

NOTES:
1. FOR UTILITY NOTES, SEE PLAN NO. XXXX XXX 003
2. FOR UTILITY LEGEND, SEE PLAN NO. XXXX XXX 004
3. FOR STREET LIGHT DRAWINGS, SEE PLAN NO. XXXX XXX L01, etc.

CBMH
TYPE SIZE — TYPE SIZE
REMOVE EX CB / CBMH AND INSTALL NEW <SIZE> CB / CBMH C/W <TYPE> FRAME & COVER. CONNECT TO EX CB LEAD.

NEW CBMH
TYPE SIZE
INSTALL NEW <SIZE> CB / CBMH C/W <TYPE> FRAME & COVER.

DRAFTING: CB examples

REMOVE ex cb — 2A 600
this CB is not "new" as it is not new to the drainage inventory

2A 600 — REPLACE ex CB
2A 600 — NEW
this CB is "new" as it is new to the drainage inventory

DRAFTING:
POWER TRANSMISSION lines and HP GAS lines are to be shown like this on the Detail and Utility plans. also show corresponding Approval and Warning stickers

PWRTRANS
HP HP HP

CAUTION!
UNDERGROUND POWER TRANSMISSION LINE

CAUTION!
HIGH PRESSURE GAS LINE
DO NOT CONSTRUCT OR ENCROACH IN THE CONTROLLED AREA WITHOUT AN APPROVED CROSSING PERMIT

ATCO HIGH PRESSURE GAS LINE CROSSING
MASTER FACILITY CROSSING AGREEMENT No.
DATE OF MASTER AGREEMENT
NEW ATCO CROSSING No.
DATE
NOTIFY 72 HOURS PRIOR TO CONSTRUCTION
FIELD CONTACT
PHONE
FIELD CONTACT
PHONE
INTEGRATED INFRASTRUCTURE SERVICES DEPARTMENT
CONTACT
PHONE

DRAFTING:
EXAMPLES OF OTHER CROSSING STICKERS TYPICALLY SHOWN ON UTILITY PLANS

CAUTION!
OVERHEAD POWER LINE

CAUTION!
ALTALINK POWER LINES
PERMIT REQUIRED FOR CONSTRUCTION UNDER OVERHEAD LINES

Issues / Revisions

Ltr./#	Date	Author	Review	Check	Description

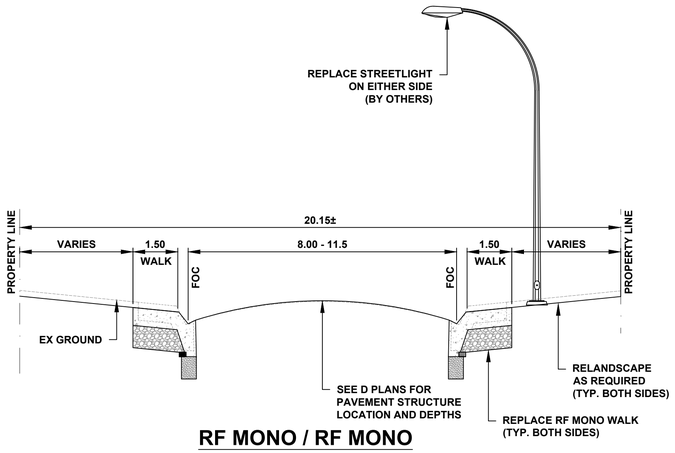
Branch BUILDING GREAT NEIGHBOURHOODS
Dept INTEGRATED INFRASTRUCTURE SERVICES
Scale 1:1000 (0 10 20 30 40 50)

APPROVED FOR TENDER OR CONSTRUCTION
DATE

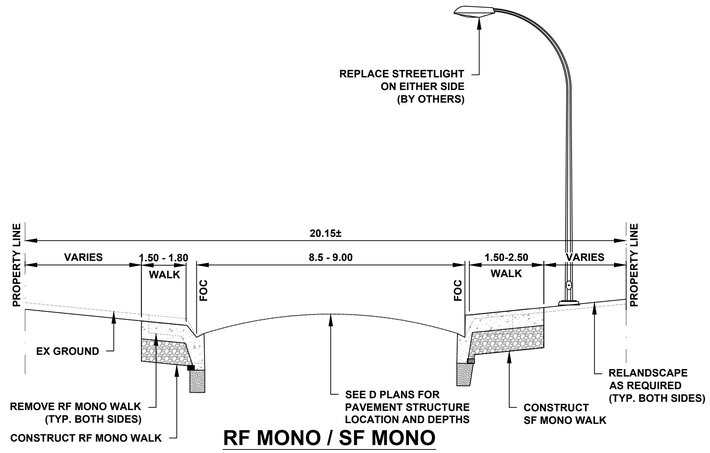
Project PROJECT DESCRIPTION
Location STREET TO STREET
AVENUE TO AVENUE
Drawing Title UTILITY PLAN
Drawing Number XXXX XXX U01
File

Edmonton

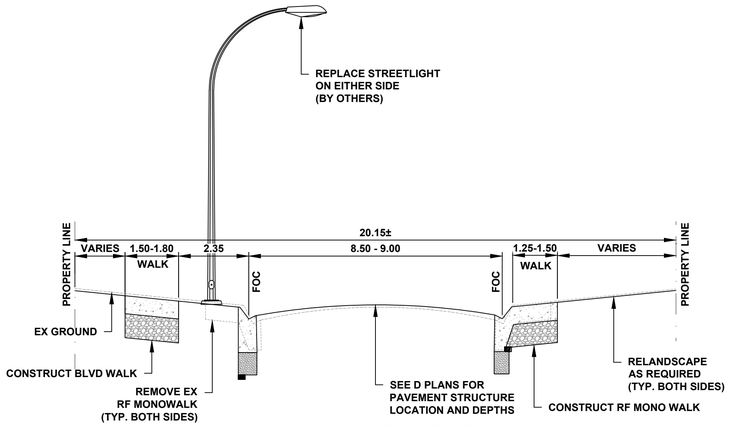
PLOT DATE: 2024-10-25 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024\Desmond Oct 2024



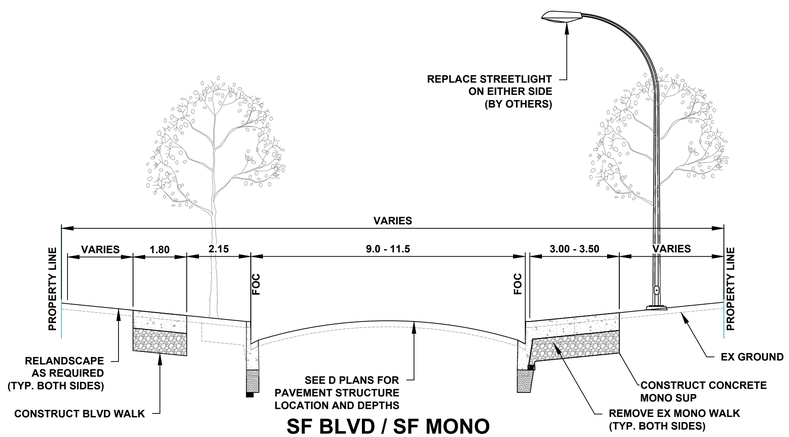
RF MONO / RF MONO



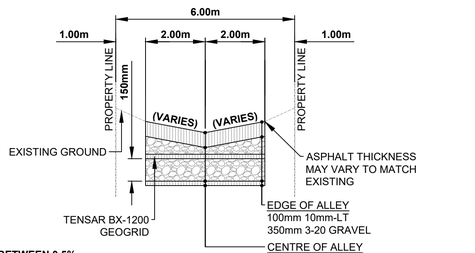
RF MONO / SF MONO



RF BLVD / RF MONO



SF BLVD / SF MONO
(62 ST, 57 ST, 54 ST, 19A AVE, 19 AVE)



NOTE:
1. **ALLEY CROSSFALL TO VARY BETWEEN 0.5% AND 4.0%. 3.75% IS PREFERRED**
2. **REDUCED CENTRELINE "V" TO 50mm AT TIE-IN TO BACK OF BOULEVARD WALK TO FACILITATE DRAINAGE AS REQUIRED.**
3. **ALLEY IS CENTERED IN ROW UNLESS THERE ARE POLES**

4.0m RESIDENTIAL ALLEY
TYPICAL CROSS-SECTION

CROSS-SECTION NOTES:

1. SIDEWALK CONSTRUCTION TO BE:
   - 120mm CONCRETE;
   - 150mm 3-20A GRAVEL
   (UNLESS OTHERWISE NOTED)
2. SIDEWALK CROSS-FALL TO BE 2% (DESIRED); ACCEPTABLE RANGE IS 1% - 4%
3. CONSTRUCT 150mm SOIL CEMENT BELOW NEW CURB & GUTTER (FOR MILL / FILL AND FDR LOCATIONS)
4. PLACE WICK DRAIN AND CONNECT TO CATCH BASIN (■)
5. CROWN HEIGHT VARIES, SEE TABLE BELOW
6. SIDEWALK CAN BE ON ONE SIDE OR BOTH SIDES
7. REFER TO DETAIL DRAWINGS FOR WALK WIDTH
8. ALL DIMENSIONS ARE SHOWN IN METRES, UNLESS OTHERWISE NOTED

PARABOLIC CROWN HEIGHTS:

8.0m LOCAL ROAD - 110mm CROWN
9.0m LOCAL ROAD - 130mm CROWN
11.5m COLLECTOR ROAD - 150mm CROWN
14.5m ROAD AND WIDER - CROWN AS REQUIRED

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description

PAVEMENT STRUCTURE
MEMO:
INDICATE TITLE; BY ENG. SERVICES; DATE

PAVEMENT STRUCTURE

Branch BUILDING GREAT NEIGHBOURHOODS
Dept INTEGRATED INFRASTRUCTURE SERVICES

Scale

APPROVED FOR TENDER OR CONSTRUCTION

DATE

Project PROJECT DESCRIPTION

Location OVERALL NBHD
PROJECT LIMITS

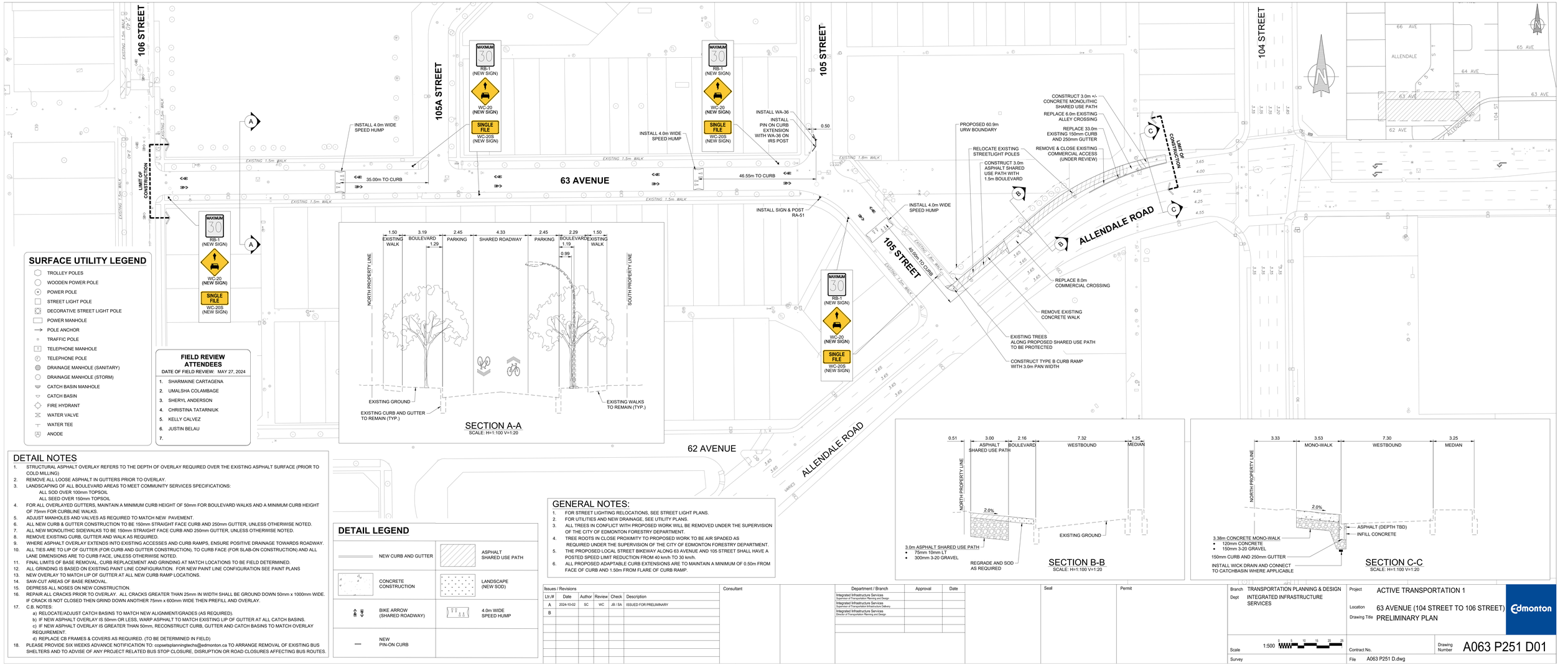
Drawing Title CROSS SECTION PLAN

Drawing Number XXXX XXX X01

File

PLOT DATE: 2024-10-25 PLOT USER: DON MEIER FILE LOCATION: G:\Roads D&C\RD\Neighbourhoods\Template Drawings\2024\Desmond Oct 2024

Transportation Planning and Design



SURFACE UTILITY LEGEND

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

FIELD REVIEW ATTENDEES

DATE OF FIELD REVIEW: MAY 27, 2024

1. SHARMAINE CARTAGENA
2. UMALSHA COLAMBAGE
3. SHERYL ANDERSON
4. CHRISTINA TATARNIUK
5. KELLY CALVEZ
6. JUSTIN BELAU
7.

SECTION A-A
SCALE: H=1:100 V=1:20

SECTION B-B
SCALE: H=1:100 V=1:20

SECTION C-C
SCALE: H=1:100 V=1:20

DETAIL NOTES

1. STRUCTURAL ASPHALT OVERLAY REFERS TO THE DEPTH OF OVERLAY REQUIRED OVER THE EXISTING ASPHALT SURFACE (PRIOR TO COLD MILLING)
2. REMOVE ALL LOOSE ASPHALT IN GUTTERS PRIOR TO OVERLAY.
3. LANDSCAPING OF ALL BOULEVARD AREAS TO MEET COMMUNITY SERVICES SPECIFICATIONS:
   ALL SOD OVER 100mm TOPSOIL
   ALL SEED OVER 150mm TOPSOIL
4. FOR ALL OVERLAYED GUTTERS, MAINTAIN A MINIMUM CURB HEIGHT OF 50mm FOR BOULEVARD WALKS AND A MINIMUM CURB HEIGHT OF 75mm FOR CURBLINE WALKS.
5. ADJUST MANHOLES AND VALVES AS REQUIRED TO MATCH NEW PAVEMENT.
6. ALL NEW CURB & GUTTER CONSTRUCTION TO BE 150mm STRAIGHT FACE CURB AND 250mm GUTTER, UNLESS OTHERWISE NOTED.
7. ALL NEW MONOLITHIC SIDEWALKS TO BE 150mm STRAIGHT FACE CURB AND 250mm GUTTER, UNLESS OTHERWISE NOTED.
8. REMOVE EXISTING CURB, GUTTER AND WALK AS REQUIRED.
9. WHERE ASPHALT OVERLAY EXTENDS INTO EXISTING ACCESSES AND CURB RAMPS, ENSURE POSITIVE DRAINAGE TOWARDS ROADWAY.
10. ALL TIES ARE TO LIP OF GUTTER (FOR CURB AND GUTTER CONSTRUCTION), TO CURB FACE (FOR SLAB-ON CONSTRUCTION) AND ALL LANE DIMENSIONS ARE TO CURB FACE, UNLESS OTHERWISE NOTED.
11. FINAL LIMITS OF BASE REMOVAL, CURB REPLACEMENT AND GRINDING AT MATCH LOCATIONS TO BE FIELD DETERMINED.
12. ALL GRINDING IS BASED ON EXISTING PAINT LINE CONFIGURATION. FOR NEW PAINT LINE CONFIGURATION SEE PAINT PLANS
13. NEW OVERLAY TO MATCH LIP OF GUTTER AT ALL NEW CURB RAMP LOCATIONS.
14. SAW-CUT AREAS OF BASE REMOVAL.
15. DEPRESS ALL NOSES ON NEW CONSTRUCTION.
16. REPAIR ALL CRACKS PRIOR TO OVERLAY. ALL CRACKS GREATER THAN 25mm IN WIDTH SHALL BE GROUND DOWN 50mm x 1000mm WIDE. IF CRACK IS NOT CLOSED THEN GRIND DOWN ANOTHER 75mm x 600mm WIDE THEN PREFILL AND OVERLAY.
17. C.B. NOTES:
    a) RELOCATE/ADJUST CATCH BASINS TO MATCH NEW ALIGNMENT/GRADES (AS REQUIRED).
    b) IF NEW ASPHALT OVERLAY IS 50mm OR LESS, WARP ASPHALT TO MATCH EXISTING LIP OF GUTTER AT ALL CATCH BASINS.
    c) IF NEW ASPHALT OVERLAY IS GREATER THAN 50mm, RECONSTRUCT CURB, GUTTER AND CATCH BASINS TO MATCH OVERLAY REQUIREMENT.
    d) REPLACE CB FRAMES & COVERS AS REQUIRED. (TO BE DETERMINED IN FIELD)
18. PLEASE PROVIDE SIX WEEKS ADVANCE NOTIFICATION TO: copsetsplanningtechs@edmonton.ca TO ARRANGE REMOVAL OF EXISTING BUS SHELTERS AND TO ADVISE OF ANY PROJECT RELATED BUS STOP CLOSURE, DISRUPTION OR ROAD CLOSURES AFFECTING BUS ROUTES.

GENERAL NOTES:

1. FOR STREET LIGHTING RELOCATIONS, SEE STREET LIGHT PLANS.
2. FOR UTILITIES AND NEW DRAINAGE, SEE UTILITY PLANS.
3. ALL TREES IN CONFLICT WITH PROPOSED WORK WILL BE REMOVED UNDER THE SUPERVISION OF THE CITY OF EDMONTON FORESTRY DEPARTMENT.
4. TREE ROOTS IN CLOSE PROXIMITY TO PROPOSED WORK TO BE AIR SPADED AS REQUIRED UNDER THE SUPERVISION OF THE CITY OF EDMONTON FORESTRY DEPARTMENT.
5. THE PROPOSED LOCAL STREET BIKEWAY ALONG 63 AVENUE AND 105 STREET SHALL HAVE A POSTED SPEED LIMIT REDUCTION FROM 40 km/h TO 30 km/h.
6. ALL PROPOSED ADAPTABLE CURB EXTENSIONS ARE TO MAINTAIN A MINIMUM OF 0.50m FROM FACE OF CURB AND 1.50m FROM FLARE OF CURB RAMP.

DETAIL LEGEND

- NEW CURB AND GUTTER
- ASPHALT SHARED USE PATH
- CONCRETE CONSTRUCTION
- LANDSCAPE (NEW SOD)
- BIKE ARROW (SHARED ROADWAY)
- 4.0m WIDE SPEED HUMP
- NEW PIN-ON CURB

Issues / Revisions						
Ltr./#	Date	Author	Review	Check	Description
A	2024-10-02	SC	WC	JB / SA	ISSUED FOR PRELIMINARY
B					

Consultant

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		
Integrated Infrastructure Services Director of Transportation Planning and Design		

Seal

Permit

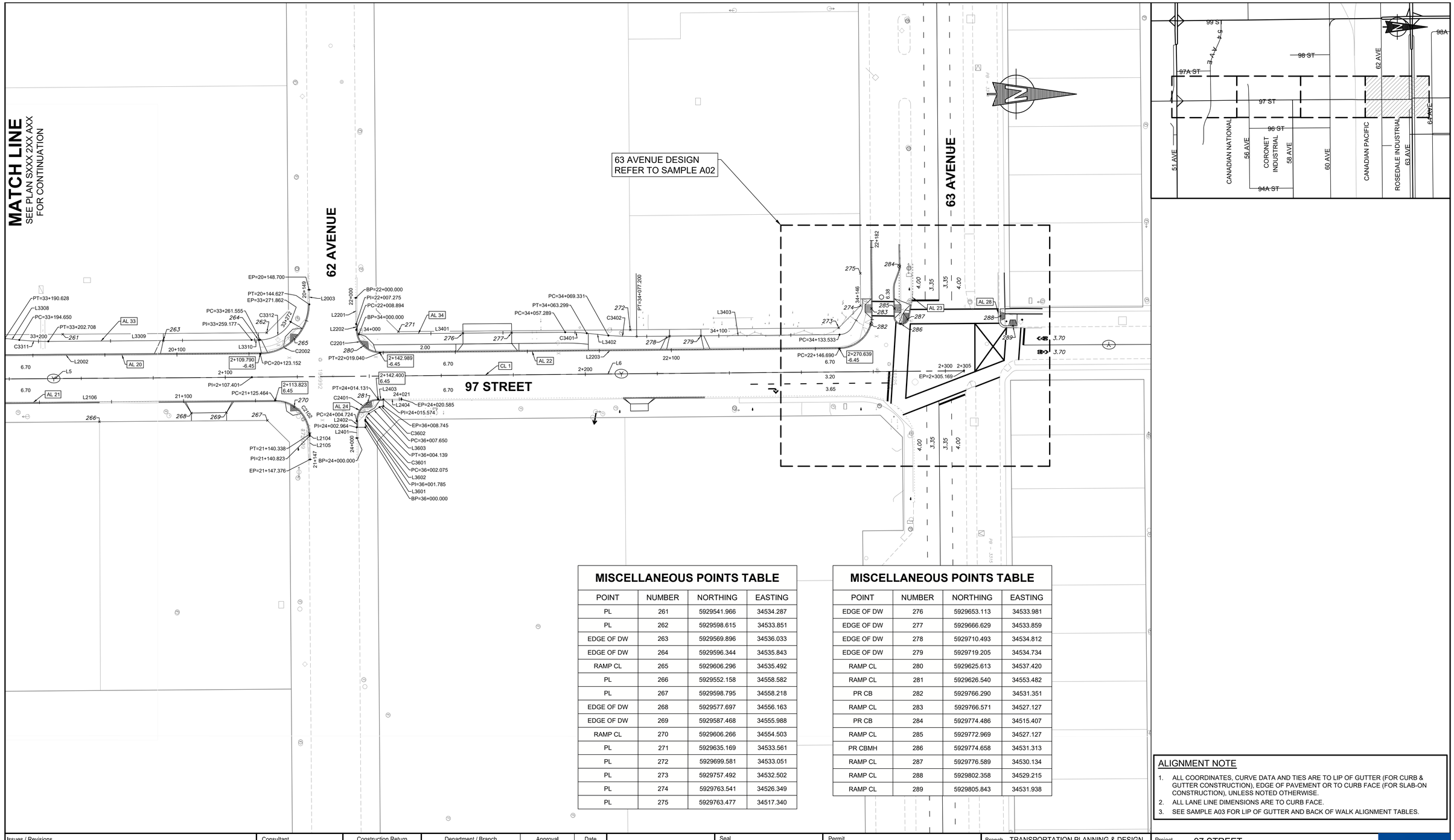
Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Project ACTIVE TRANSPORTATION 1
Location 63 AVENUE (104 STREET TO 106 STREET)
Drawing Title PRELIMINARY PLAN

Scale 1:500 (0 5 10 15 20 25)
Survey

Contract No.
Drawing Number A063 P251 D01
File A063 P251 D.dwg

MATCH LINE
SEE PLAN SXXX 2XX AXX
FOR CONTINUATION


62 AVENUE
63 AVENUE
97 STREET
63 AVENUE DESIGN
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PT=20+144.627
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PT=33+190.628
L3308
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PT=33+202.708
AL 33
L3309
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L3310
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PI=33+259.177
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C2002
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C2201
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-6.45
2+142.400
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PC=24+004.724
PI=24+002.964
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L2404
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L2203
AL 22
CL 1
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22+100
2+300
2+305
EP=2+305.169
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21+100
24+000
22+000
34+000
34+146
22+182
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4.00
3.35
AL 23
AL 28
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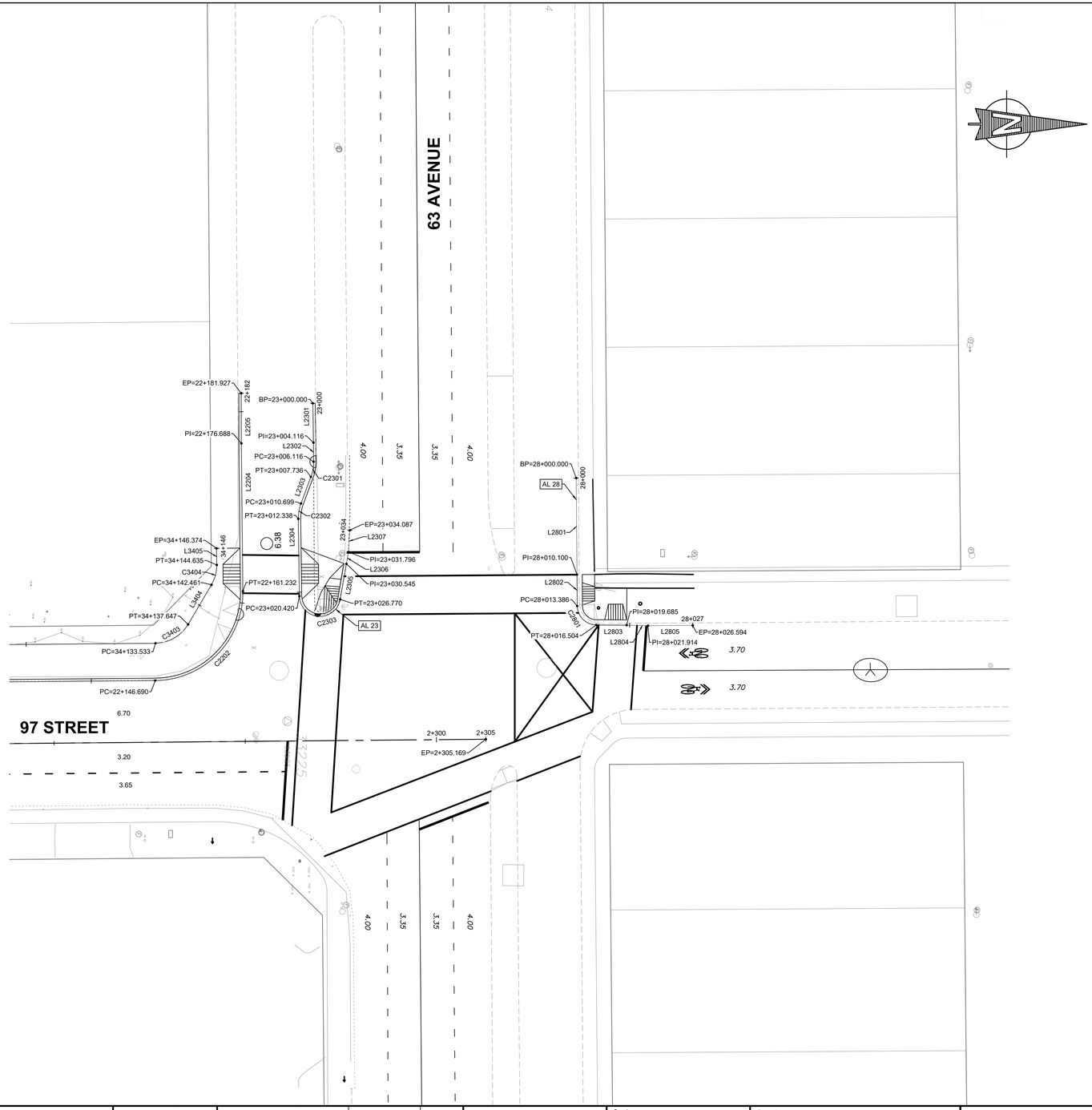
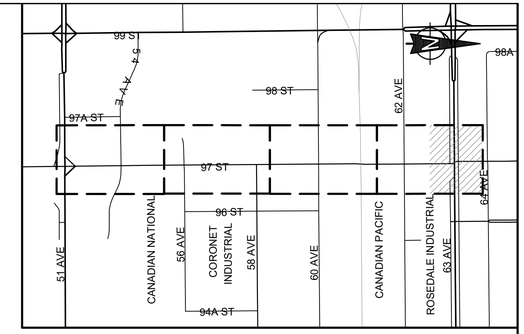




ALIGNMENT NOTE

1. ALL COORDINATES, CURVE DATA AND TIES ARE TO LIP OF GUTTER (FOR CURB & GUTTER CONSTRUCTION), EDGE OF PAVEMENT OR TO CURB FACE (FOR SLAB-ON CONSTRUCTION), UNLESS NOTED OTHERWISE.
2. ALL LANE LINE DIMENSIONS ARE TO CURB FACE.
3. SEE SAMPLE A03 FOR LIP OF GUTTER AND BACK OF WALK ALIGNMENT TABLES.

Issues / Revisions

Ltr./#	Date	Author	Review	Check	Description
A	YYYY-MM-DD	AA	BB	CC	ISSUED FOR TENDER
B	YYYY-MM-DD	AA	BB	CC	ISSUED FOR CONSTRUCTION
C					
1					

Consultant

Construction Return

File Number
Surveyor
Date
File Number
Construction Project Manager — Date
Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION
DATE

Seal

Permit

PERMIT TO PRACTICE
CITY OF EDMONTON
RM SIGNATURE:
RM APEGA ID #:
DATE:
PERMIT NUMBER: P005038
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET
Location SOUTH OF 62 AVENUE TO 63 AVENUE
Drawing Title ALIGNMENT PLAN

Scale 1:250 (0, 2.5, 5, 7.5, 10, 12.5)
Survey

Contract No. 2XXX
Drawing Number SAMPLE A02
File Sample_A02.dwg

CL1 - 97 ST DESIGN ROAD CENTER LINE ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L1	1+000.000	5928487.199 34553.757	1+250.990	5928738.168 34550.517	250.990					
L2	1+250.990	5928738.168 34550.517	1+418.840	5928906.013 34549.136	167.851					
L3	1+418.840	5928906.013 34549.136	1+959.831	5929446.990 34545.322	540.991					
L4	1+959.831	5929446.990 34545.322	1+959.864	5929447.023 34545.321	0.033					
C1	1+959.864	5929447.023 34545.321	1+967.835	5929454.993 34545.320	7.971	3.986	233.43	1° 57' 25"	5929451.047 34778.713	5929451.008 34545.252
C2	1+967.835	5929454.993 34545.320	1+988.444	5929475.561 34546.529	20.609	10.311	246.35	4° 47' 35"	5929450.828 34791.640	5929465.303 34545.494
C3	1+988.444	5929475.561 34546.529	1+998.033	5929485.136 34546.978	9.589	4.799	89.14	6° 09' 50"	5929484.510 34457.843	5929480.336 34547.011
L5	1+998.033	5929485.136 34546.978	2+107.401	5929594.501 34546.210	109.368					
L6	2+107.401	5929594.501 34546.210	2+305.169	5929792.261 34544.424	197.768					

AL22 - 62 AVE TO 63 AVE WEST LIP ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L2201	22+000.000	5929623.346 34524.169	22+007.275	5929623.441 34531.444	7.275					
L2202	22+007.275	5929623.441 34531.444	22+008.894	5929623.472 34533.062	1.618					
C2201	22+008.894	5929623.472 34533.062	22+019.040	5929630.029 34539.439	10.147	6.437	6.50	89° 26' 25"	5929629.971 34532.940	5929623.593 34539.497
L2203	22+019.040	5929630.029 34539.439	22+146.690	5929757.674 34538.287	127.650					
C2202	22+146.690	5929757.674 34538.287	22+161.232	5929766.840 34528.942	14.542	9.262	9.25	90° 04' 25"	5929757.590 34529.037	5929766.935 34538.203
L2204	22+161.232	5929766.840 34528.942	22+176.688	5929766.680 34513.486	15.457					
L2205	22+176.688	5929766.680 34513.486	22+181.927	5929766.669 34508.248	5.238					

AL23 - 63 AVE SOUTHWEST MEDIAN ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L2301	23+000.000	5929774.158 34509.293	23+004.116	5929774.228 34513.408	4.116					
L2302	23+004.116	5929774.228 34513.408	23+006.116	5929774.236 34515.408	2.000					
C2301	23+006.116	5929774.236 34515.408	23+007.736	5929773.954 34516.995	1.620	0.819	4.50	20° 37' 45"	5929769.736 34515.426	5929774.239 34516.227
L2303	23+007.736	5929773.954 34516.995	23+010.699	5929772.921 34519.772	2.962					
C2302	23+010.699	5929772.921 34519.772	23+012.338	5929772.639 34521.378	1.640	0.829	4.50	20° 52' 45"	5929777.139 34521.340	5929772.632 34520.549
L2304	23+012.338	5929772.639 34521.378	23+020.420	5929772.751 34529.459	8.082					
C2303	23+020.420	5929772.751 34529.459	23+026.770	5929777.018 34529.802	6.349	22.760	2.15	169° 12' 25"	5929774.901 34529.429	5929773.065 34552.217
L2305	23+026.770	5929777.018 34529.802	23+030.545	5929777.674 34526.084	3.776					
L2306	23+030.545	5929777.674 34526.084	23+031.796	5929777.891 34524.852	1.251					
L2307	23+031.796	5929777.891 34524.852	23+034.087	5929778.027 34522.565	2.291					

AL24 - 62 AVE NORTHEAST CORNER LIP ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L2401	24+000.000	5929623.666 34563.100	24+002.964	5929623.608 34560.136	2.964					
L2402	24+002.964	5929623.608 34560.136	24+004.724	5929623.600 34558.377	1.760					
C2401	24+004.724	5929623.600 34558.377	24+014.131	5929629.556 34552.350	9.407	5.982	6.00	89° 49' 55"	5929629.600 34558.350	5929623.574 34552.394
L2403	24+014.131	5929629.556 34552.350	24+015.574	5929630.999 34552.340	1.443					
L2404	24+015.574	5929630.999 34552.340	24+020.585	5929636.010 34552.303	5.011					

AL28 - 63 AVE NORTHWEST CORNER LIP ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L2801	28+000.000	5929801.710 34517.110	28+010.100	5929801.791 34527.210	10.100					
L2802	28+010.100	5929801.791 34527.210	28+013.386	5929801.818 34530.496	3.286					
C2801	28+013.386	5929801.818 34530.496	28+016.504	5929803.810 34532.480	3.117	1.976	2.00	89° 18' 30"	5929803.818 34530.480	5929801.834 34532.472
L2803	28+016.504	5929803.810 34532.480	28+019.685	5929806.991 34532.492	3.181					
L2804	28+019.685	5929806.991 34532.492	28+021.914	5929809.219 34532.550	2.229					
L2805	28+021.914	5929809.219 34532.550	28+026.594	5929813.899 34532.520	4.680					

AL34 - 62 AVE to 63 AVE WEST BACK OF WALK ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L3401	34+000.000	5929624.221 34534.242	34+057.289	5929681.508 34533.724	57.289					
C3401	34+057.289	5929681.508 34533.724	34+063.299	5929687.508 34534.007	6.010	3.008	53.74	6° 24' 30"	5929681.977 34587.458	5929684.516 34533.698
L3402	34+063.299	5929687.508 34534.007	34+069.331	5929693.508 34534.628	6.032					
C3402	34+069.331	5929693.508 34534.628	34+077.200	5929701.370 34534.895	7.869	3.937	91.67	4° 55' 05"	5929700.542 34443.225	5929697.433 34534.930
L3403	34+077.200	5929701.370 34534.895	34+133.533	5929757.701 34534.386	56.333					
C3403	34+133.533	5929757.701 34534.386	34+137.647	5929761.109 34532.420	4.114	2.260	4.00	58° 56' 00"	5929757.665 34530.386	5929759.961 34534.366
L3404	34+137.647	5929761.109 34532.420	34+142.461	5929763.556 34528.274	4.814					
C3404	34+142.461	5929763.556 34528.274	34+144.635	5929764.111 34526.200	2.174	1.115	4.00	31° 08' 35"	5929760.112 34526.241	5929764.123 34527.315
L3405	34+144.635	5929764.111 34526.200	34+146.374	5929764.093 34524.461	1.739					

AL36 - 62 AVE NORTHEAST CORNER BACK OF WALK ALIGNMENT TABLE

CURVE / LINE NO	START STATION	START COORD	END STATION	END COORD	LENGTH	TANGENT	RADIUS	DELTA	CC COORD	PI COORD
L3601	36+000.000	5929626.008 34560.126	36+001.785	5929626.000 34558.341	1.785					
L3602	36+001.785	5929626.000 34558.341	36+002.075	5929625.999 34558.051	0.290					
C3601	36+002.075	5929625.999 34558.051	36+004.139	5929626.965 34556.330	2.064	1.135	2.00	59° 07' 50"	5929627.999 34558.042	5929625.994 34556.916
L3603	36+004.139	5929626.965 34556.330	36+007.650	5929629.971 34554.515	3.511					
C3602	36+007.650	5929629.971 34554.515	36+008.745	5929631.013 34554.227	1.095	0.562	2.00	31° 22' 25"	5929631.004 34556.227	5929630.452 34554.225

Issues / Revisions

Ltr./#	Date	Author	Review	Check	Description
A	YYYY-MM-DD	AA	BB	CC	ISSUED FOR TENDER
B	YYYY-MM-DD	AA	BB	CC	ISSUED FOR CONSTRUCTION
C					
1					

Consultant

Construction Return

File Number

Surveyor

Date

File Number

Construction Project Manager — Date

Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION

DATE

Seal

Permit

PERMIT TO PRACTICE
CITY OF EDMONTON

RM SIGNATURE: _____

RM APEGA ID #: _____

DATE: _____

PERMIT NUMBER: P005038
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Branch TRANSPORTATION PLANNING & DESIGN

Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET

Location 51 AVENUE TO 63 AVENUE

Drawing Title ALIGNMENT TABLES

Edmonton

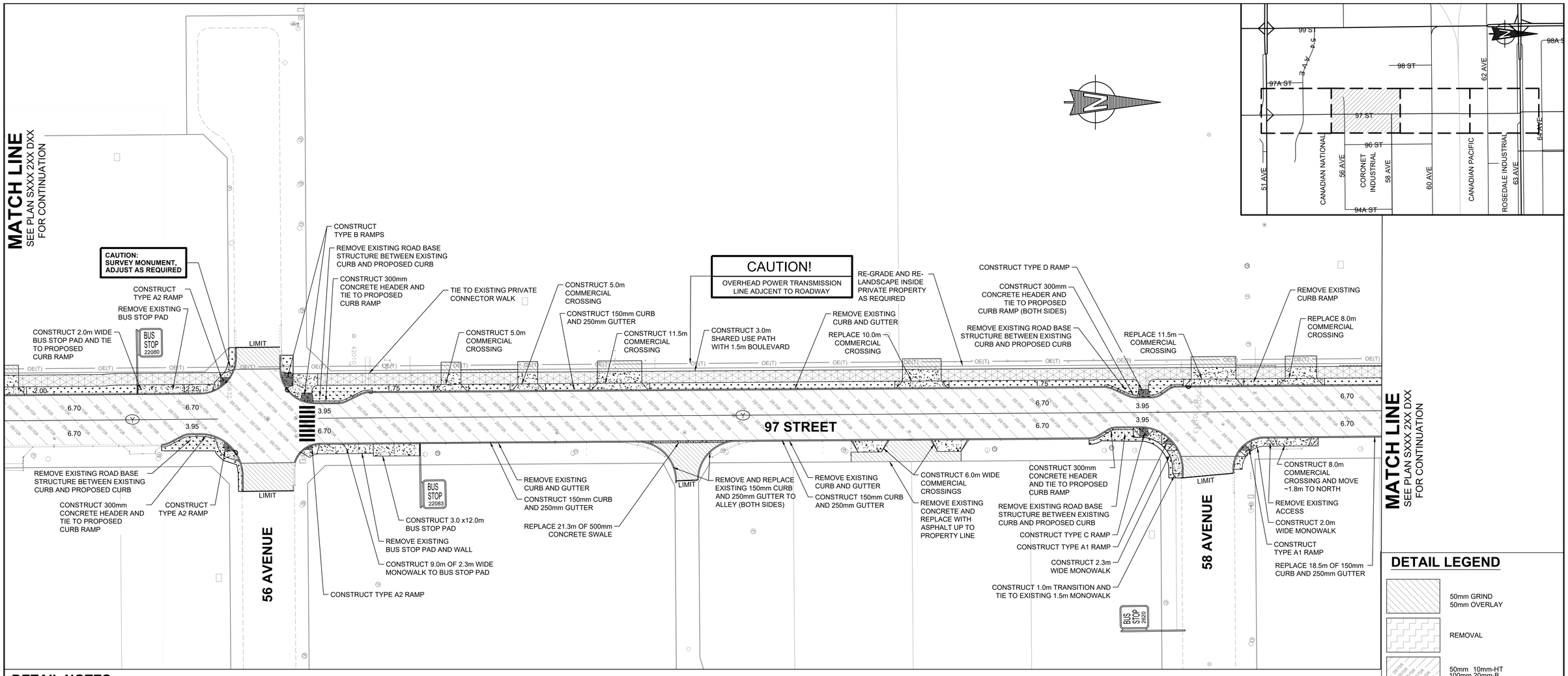
Scale

Survey

Contract No. 2XXX

Drawing Number SAMPLE A03

File Sample_A02.dwg



DETAIL NOTES

1. STRUCTURAL ASPHALT OVERLAY REFERS TO THE DEPTH OF OVERLAY REQUIRED OVER THE EXISTING ASPHALT SURFACE (PRIOR TO COLD MILLING)
2. REMOVE ALL LOOSE ASPHALT IN GUTTERS PRIOR TO OVERLAY.
3. LANDSCAPING OF ALL BOULEVARD AREAS TO MEET COMMUNITY SERVICES SPECIFICATIONS:
   - ALL SOD OVER 100mm TOPSOIL
   - ALL SEED OVER 150mm TOPSOIL
4. FOR ALL OVERLAYED GUTTERS, MAINTAIN A MINIMUM CURB HEIGHT OF 50mm FOR BOULEVARD WALKS AND A MINIMUM CURB HEIGHT OF 75mm FOR CURBLINE WALKS.
5. ADJUST MANHOLES AND VALVES AS REQUIRED TO MATCH NEW PAVEMENT.
6. ALL NEW CURB & GUTTER CONSTRUCTION TO BE 150mm STRAIGHT FACE CURB AND 250mm GUTTER, UNLESS OTHERWISE NOTED.
7. ALL NEW MONOLITHIC SIDEWALKS TO BE 150mm STRAIGHT FACE CURB AND 250mm GUTTER, UNLESS OTHERWISE NOTED.
8. REMOVE EXISTING CURB, GUTTER AND WALK AS REQUIRED.
9. WHERE ASPHALT OVERLAY EXTENDS INTO EXISTING ACCESSES AND CURB RAMPS, ENSURE POSITIVE DRAINAGE TOWARDS ROADWAY.
10. ALL TIES ARE TO LIP OF GUTTER (FOR CURB AND GUTTER CONSTRUCTION), TO CURB FACE (FOR SLAB-ON CONSTRUCTION) AND ALL LANE DIMENSIONS ARE TO CURB FACE, UNLESS OTHERWISE NOTED.
11. FINAL LIMITS OF BASE REMOVAL, CURB REPLACEMENT AND GRINDING AT MATCH LOCATIONS TO BE FIELD DETERMINED.
12. ALL GRINDING IS BASED ON EXISTING PAINT LINE CONFIGURATION. FOR NEW PAINT LINE CONFIGURATION SEE PAINT PLANS
13. NEW OVERLAY TO MATCH LIP OF GUTTER AT ALL NEW CURB RAMP LOCATIONS.
14. SAW-CUT AREAS OF BASE REMOVAL.
15. DEPRESS ALL NOSES ON NEW CONSTRUCTION.
16. REPAIR ALL CRACKS PRIOR TO OVERLAY. ALL CRACKS GREATER THAN 25mm IN WIDTH SHALL BE GROUND DOWN 50mm x 1000mm WIDE. IF CRACK IS NOT CLOSED THEN GRIND DOWN ANOTHER 75mm x 600mm WIDE THEN PREFILL AND OVERLAY.
17. C.B. NOTES:
    a) RELOCATE/ADJUST CATCH BASINS TO MATCH NEW ALIGNMENT/GRADES (AS REQUIRED).
    b) IF NEW ASPHALT OVERLAY IS 50mm OR LESS, WARP ASPHALT TO MATCH EXISTING LIP OF GUTTER AT ALL CATCH BASINS.
    c) IF NEW ASPHALT OVERLAY IS GREATER THAN 50mm, RECONSTRUCT CURB, GUTTER AND CATCH BASINS TO MATCH OVERLAY REQUIREMENT.
    d) REPLACE CB FRAMES & COVERS AS REQUIRED. (TO BE DETERMINED IN FIELD)
18. PLEASE PROVIDE SIX WEEKS ADVANCE NOTIFICATION TO: copsetsplanningtechs@edmonton.ca TO ARRANGE REMOVAL OF EXISTING BUS SHELTERS AND TO ADVISE OF ANY PROJECT RELATED BUS STOP CLOSURE, DISRUPTION OR ROAD CLOSURES AFFECTING BUS ROUTES.

SURFACE UTILITY LEGEND

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

DETAIL LEGEND

- 50mm GRIND 50mm OVERLAY
- REMOVAL
- 50mm 10mm-HT 100mm 20mm-B 200mm FDR-AC
- ASPHALT SHARED USE PATH
- LANDSCAPE
- CONCRETE CONSTRUCTION
- NEW BASE 50mm 10mm-HT 100mm 20mm-B 300mm 3-20 GRANULAR BASE
- PROPOSED 150mm CURB AND 250mm GUTTER
- NEW CURB RAMP

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	2024-03-18	AA	BB	CC	ISSUED FOR TENDER
B	2024-06-25	AA	BB	CC	ISSUED FOR CONSTRUCTION
1					
2					

Consultant

Construction Return
File Number
Surveyor
Date
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Construction Project Manager — Date
Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION
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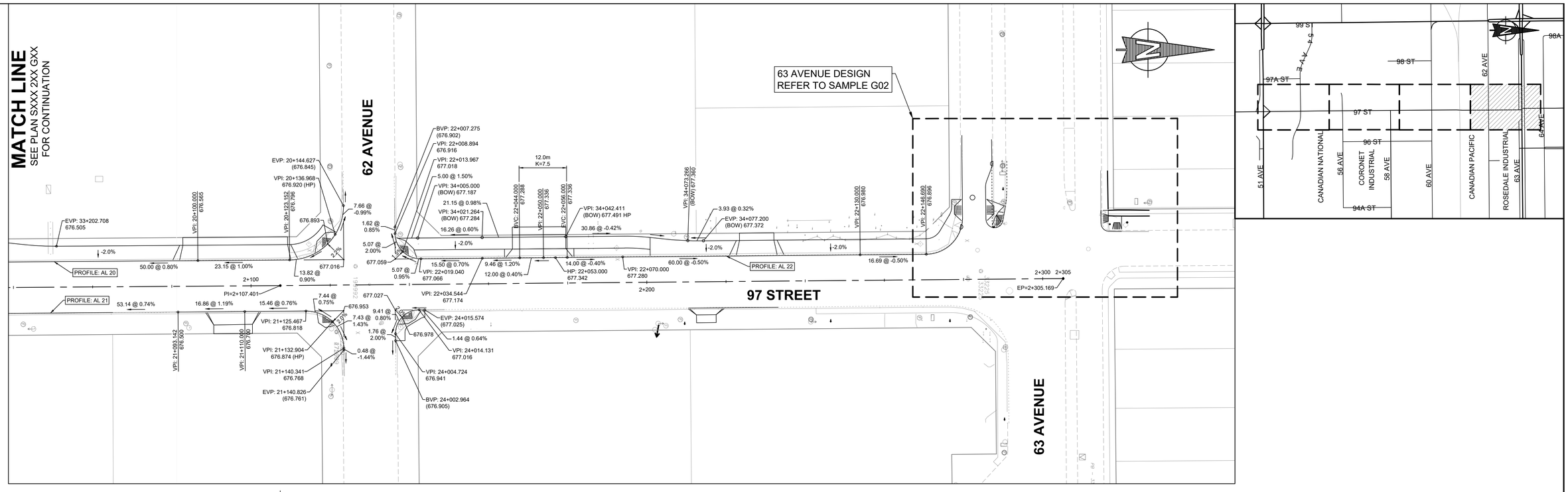
DATE:
PERMIT NUMBER: P005038
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

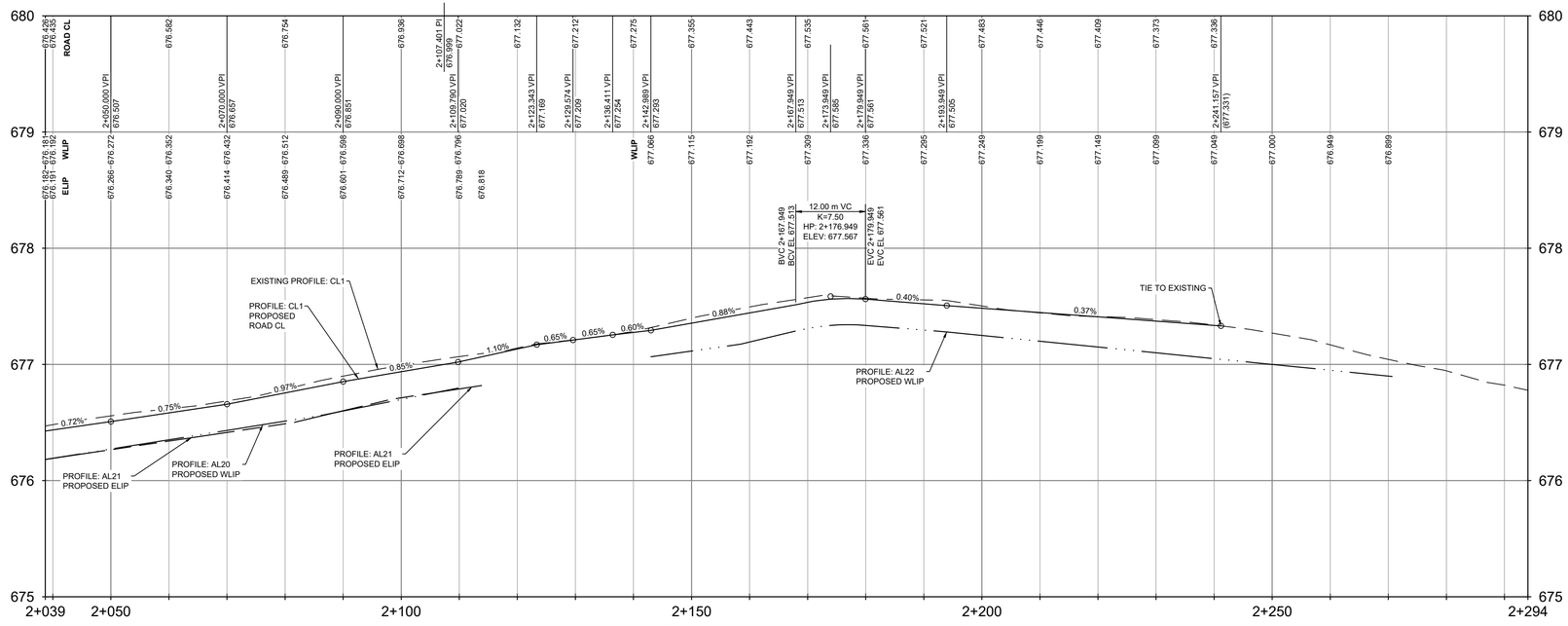
Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET
Location 56 AVENUE TO SOUTH OF 60 AVENUE
Drawing Title DETAIL PLAN

Scale 1:500 (0 5 10 15 20 25)
Survey

Contract No. 2XXX
Drawing Number SAMPLE D
File Sample_D.dwg





Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	2024-03-18	AA	BB	CC	ISSUED FOR TENDER
B	2024-06-28	AA	BB	CC	ISSUED FOR CONSTRUCTION
C					
⚠					

Consultant

Construction Return
File Number
Surveyor
Date
File Number
Construction Project Manager — Date
Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION
DATE

Seal

Permit

PERMIT TO PRACTICE
CITY OF EDMONTON
RM SIGNATURE:
RM APEGA ID #:
DATE:
PERMIT NUMBER: P005038
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET
Location SOUTH OF 62 AVENUE TO 63 AVENUE
Drawing Title GRADE PLAN

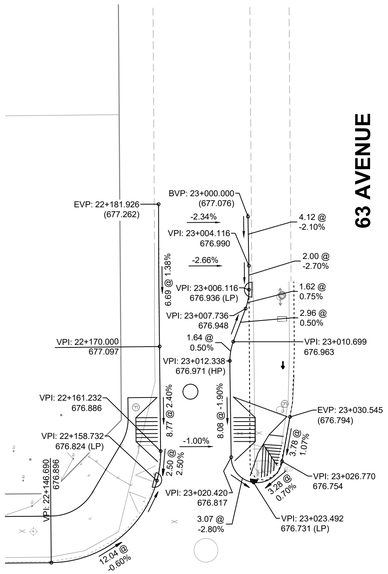
Scale H 1:500 V 1:25
0 5 10 15 20 25
0 0.25 0.5 0.75 1 1.25

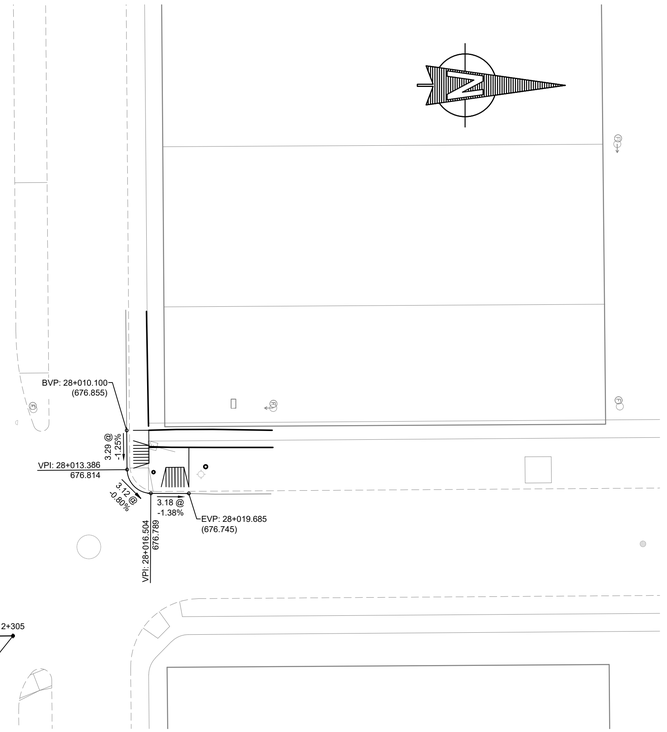
Survey

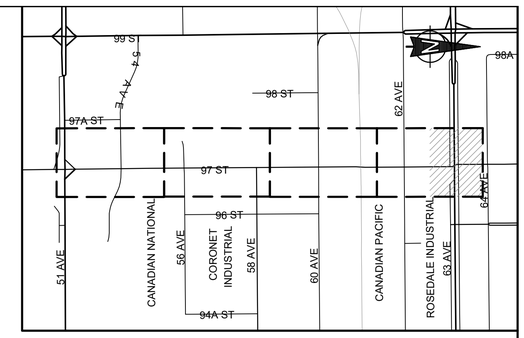
Contract No. 2XXX

Drawing Number SAMPLE G01

File Sample_G.dwg







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Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Scale 1:250 (0, 2.5, 5, 7.5, 10, 12.5)

Survey

Project 97 STREET
Location 63 AVENUE
Drawing Title GRADE PLAN

Edmonton

Contract No. 2XXX

Drawing Number SAMPLE G02

File Sample_G2.dwg

DRAINAGE PLACEMENT INFORMATION

NO.	COORDINATES AT CURB FACE	RIM ELEV	COVER TO INVERT (m)	LEAD / CULVERT	INVERTS	SIZE (mm)	SLOPE (%)	LENGTH (m)
CB #6	5929358.704 34539.244	675.691	2.00	FROM: CB #6 TO: CBMH #1	673.691 673.498	250	1.00	19.34
CBMH #1	5929339.370 34539.657	675.516	2.02	FROM: CBMH #1 TO: MH 230880	673.448 (673.274)	300	1.36	12.79

MATCH LINE
SEE PLAN SXXX 2XX UXX
FOR CONTINUATION

CAUTION!
OVERHEAD POWER TRANSMISSION LINE ADJCENT TO ROADWAY

RELOCATE EXISTING HYDRANT (BY OTHERS)

REMOVE EXISTING STEEL ANCHOR POLE

REMOVE AND REPLACE EXISTING CATCH BASIN WITH 600mmØ BARREL AND TYPE 2A FRAME AND COVER

RELOCATE EXISTING HYDRANT (BY OTHERS)

REMOVE EXISTING CATCH BASIN AND CB LEAD

CBMH #1
- INSTALL 1200mmØ CATCH BASIN MANHOLE WITH TYPE 4A FRAME AND COVER
- INSTALL 12.8m ± OF 300mmØ CB LEAD TO MH #230880

CB #6
- INSTALL 600mmØ CATCH BASIN WITH TYPE 2A FRAME AND COVER
- INSTALL 19.3m ± OF 250mmØ CB LEAD TO CBMH #1

EXTEND 5.0m OF EXISTING CULVERT AS REQUIRED (MATCH TO EXISTING SIZE)

REMOVE AND REPLACE EXISTING CATCH BASIN WITH 600mmØ BARREL AND TYPE 2A FRAME AND COVER

RELOCATE EXISTING HYDRANT (BY OTHERS)

REMOVE AND REPLACE EXISTING CATCH BASIN WITH 600mmØ BARREL AND TYPE 2A FRAME AND COVER

RELOCATE EXISTING HYDRANT (BY OTHERS)

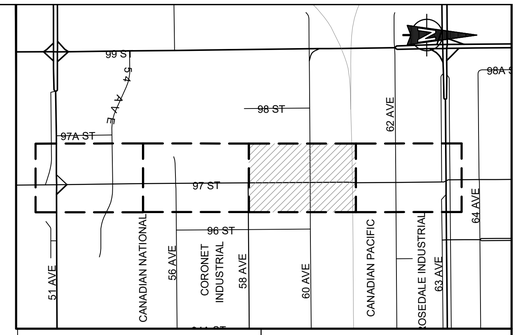
MH #230880

REPLACE TYPE 2A FRAME AND COVER

97 STREET

60 AVENUE

LIMIT



MATCH LINE
SEE PLAN SXXX 2XX UXX
FOR CONTINUATION

RAILWAY CROSSING PERMIT

PERMIT No. .....
DATE .....
COMPANY CP RAILWAY
CONTACT .....
PHONE .....

NOTE: CP RAILWAY CROSSING
FINAL APPROVAL FROM CP MUST BE OBTAINED PRIOR TO CONSTRUCTION WITHIN CP R/W. CONTACT CP RAIL 5 WORKING DAYS PRIOR TO CONSTRUCTION @ (780) 414-2322 OR 818-9204

UTILITY NOTES

1. LOCATION OF UTILITIES IS APPROXIMATE; EXACT LOCATION TO BE DETERMINED BY CONSULTING THE OWNER OF THE UTILITY CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES AND BE RESPONSIBLE FOR THEIR PROTECTION FROM DAMAGE. OVERHEAD LINES MAY NOT BE SHOWN, USE CAUTION.
2. NO PERSON SHALL ENTER OR PLACE ANY OBJECT IN ANY POWER OR TELEPHONE VAULT WITHOUT AUTHORIZATION FROM THE PROPER UTILITY DEPARTMENT.
3. ALL NEW CATCH BASIN LEADS TO BE 250mm DIAMETER; STORM SEWER AND CATCH BASIN MANHOLE LEADS TO BE 300mm DIAMETER (UNLESS OTHERWISE NOTED) AND IN ACCORDANCE WITH CSA A257.1 (USE CSA A257.2 FOR 300mm OR LARGER DIAMETER), CLASS 3 SULPHATE RESISTANT, RUBBER GASKET OR PVC (PSM TYPE) TO CSA B182.2 WITH LOCKED-IN ELASTOMERIC RING GASKET AND INTEGRAL BELL SYSTEM JOINT. MINIMUM WALL THICKNESS AS REQUIRED FOR SDR 35. COMPACTION: 0-1.5m DEPTH BELOW EXISTING GROUND SURFACE OR SUBGRADE ELEVATION, WHICHEVER IS LOWER, 98% OF A STANDARD PROCTOR (SEE COMPLETE STREETS SECTION 3.1.3.7 AND STANDARD DWG. 7980), REMAINDER TO 97% OF ONE MOULD COMPACTION OR 95% OF A STANDARD PROCTOR, PIPE EMBEDMENT TYPE 2 INSTALLATION WITH CLASS II MATERIALS.
4. WHEN RELOCATING EXISTING CATCH BASIN'S AND CATCH BASIN MANHOLES AND CONNECTING TO EXISTING CATCH BASIN LEADS, CONNECT TO EXISTING LEADS USING THE SAME SIZE OF PIPE AS THE EXISTING LEAD. USE SDR 35, PSM PVC PIPE IN ACCORDANCE WITH CSA B182.2 WITH LOCKED IN RUBBER GASKET AND INTEGRAL BELL SYSTEM JOINT. PIPE EMBEDMENT: TYPE 2 INSTALLATION WITH CLASS II MATERIALS. TRENCH AND BACKFILL: TYPE 4 (FILLCRETE).
   a. REMOVE COMPLETE PIPE LENGTHS OF EXISTING CB LEAD THAT ARE AFFECTED.
   b. CONNECT TO EXISTING PIPE USING A SEWER COMPRESSION JOINT SEALER AT THE DOWNSTREAM END.
   c. CONNECT PIPE TO CB, CBMH, & MANHOLES USING INTEGRAL, RESILIENT GASKET OR MANHOLE ADAPTER.
5. WHEN REPLACING FRAME AND COVERS OF EXISTING CATCH BASINS, CATCH BASIN MANHOLES AND MANHOLES, ASSESS THE CONDITION OF THE GRADE RINGS AND REPLACE THEM IF CRACKED, FRACTURED OR ANY OTHER DAMAGES ARE PRESENT WITHIN THE SCOPE OF THE PROJECT. USE THE SAME TYPE OF FRAME AND COVER AS THE EXISTING FRAME AND COVER THAT CONFORMS TO THE LATEST EDITION OF THE CITY OF EDMONTON DESIGN AND CONSTRUCTION STANDARDS.
6. ABANDONMENT OF DRAINAGE FACILITIES REQUIRES EITHER:
   a. REMOVAL AND DISPOSAL OFF SITE OR;
   b. PLUGGING OPENINGS WITH CONCRETE AND FILLING VOID SPACES WITH FILLCRETE CONFORMING TO THE LATEST CITY OF EDMONTON STANDARDS VOL. 3 SECTION 02535 (SEWERS), 02538 (SERVICES) AND 02631 (MH'S AND CB'S).
   c. COMPLETELY REMOVE ALL CATCH BASINS LESS THAN 900mm IN DIAMETER.
7. SALVAGE ALL ABANDONED AND REPLACED FRAMES AND COVERS AS REQUIRED AND TO THE SATISFACTION OF THE CITY OF EDMONTON INTEGRATED INFRASTRUCTURE SERVICES (TO BE DETERMINED IN FIELD).
8. REPLACEMENT OF GRADE RINGS IS REQUIRED WITH ALL FRAME AND COVER ADJUSTMENTS OR REPLACEMENTS, AT THE DISCRETION OF THE CITY OF EDMONTON.
9. WHERE CONTROL VALVES ARE CLOSE TO OR WITHIN WALKWAYS, ENSURE A PVC SLEEVE IS INSTALLED AROUND THE VALVE CASING AND THAT THE CONTROL VALVE REMAINS ACCESSIBLE.

SURFACE UTILITY LEGEND

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

UTILITY LEGEND

DESCRIPTION	LOCATION	SYMBOL
ABANDONED UTILITIES	ABD	
DRAINAGE	D 3.05	STORM — ST — SAN — SAN — COMB — COMB —
GAS LINES	G 20.13	HP — HP — IP — IP — MP — MP — LP — LP —
POWER DUCTLINE POWER LINE OVERHEAD POWER LINE POWER TRANSMISSION LINE	PD 8.83 P 1.22	PD OE PWR PWRTRANS
STREETLIGHT CABLE STREETLIGHT POLES	PS 2.54 BC P 2.54	STLT
TELEPHONE DUCTLINE TELE. BURIED CABLE	T 1.52 TC 1.52	TD TC
TROLLEY POLES	PT 1.22 BC	
URD TRENCH	PTR 4.88	
UNDERGROUND CABLE/ FIBER OPTIC CABLE	PC 1.55 BC L21	SHAW — SHAW ALL STREAM BELL — BELL COE FIBRE — COEFIB PRIVATE FIBRE — PRIFIB
WATERMAIN	W 6.10	WAT

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	2024-03-18	AA	BB	CC	ISSUED FOR TENDER
B	2024-06-28	AA	BB	CC	ISSUED FOR CONSTRUCTION
1					
2					

Consultant

Construction Return
File Number
Surveyor
Date
File Number
Construction Project Manager Date
Construction Supervisor Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		
Integrated Infrastructure Services Supervisor of Transportation Infrastructure Delivery		

APPROVED FOR CONSTRUCTION
DATE

Utility Search

Utility	Checked	Utility	Checked
ALL STREAM	✓	SURVEY MON	✓
BELL	✓	TELEPHONES	✓
DRAINAGE	✓	TRAFFIC SIGNALS	✓
GAS	✓	WATER	✓
HP PIPELINES	✓		
LRT OH/UG	✓		
POWER	✓		
SHAW	✓	FIELD CHECK	✓

CHECKED BY: AA
DATE: 2023-10-22

Seal

Permit

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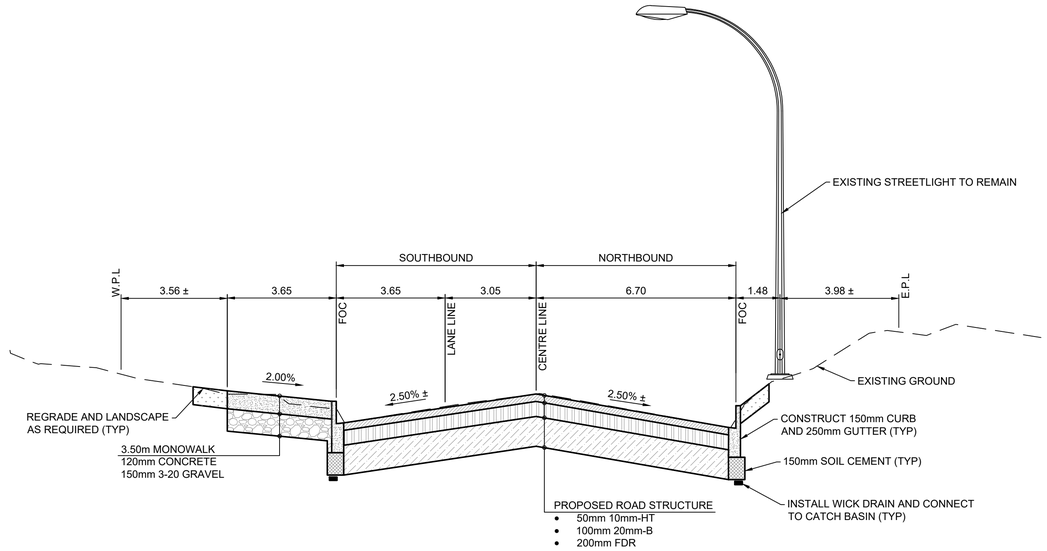
CITY OF EDMONTON
RM SIGNATURE: .....
RM APEGA ID #: .....
DATE: .....
PERMIT NUMBER: P005038
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Branch TRANSPORTATION PLANNING & DESIGN
Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET
Location SOUTH OF 60 AVENUE TO 62 AVENUE
Drawing Title UTILITY PLAN

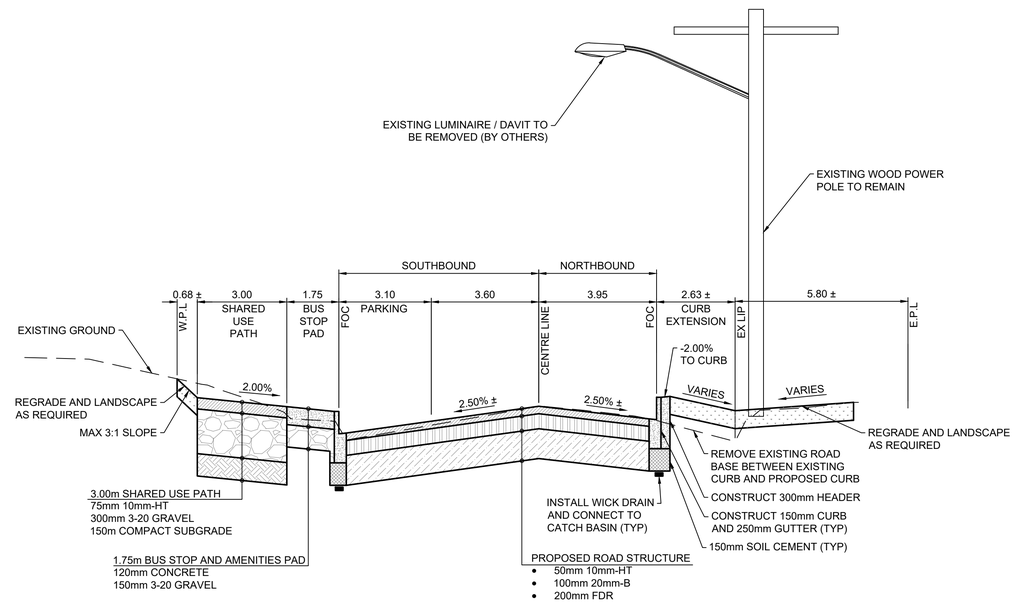
Scale 1:500 (0 5 10 15 20 25)
Survey

Contract No. 2XXX
Drawing Number SAMPLE U
File Sample_U.dwg



SECTION A-A

SCALE: H=1:100 V=1:20



SECTION B-B

SCALE: H=1:100 V=1:20

Issues / Revisions					
Ltr./#	Date	Author	Review	Check	Description
A	2024-03-18	AA	BB	CC	ISSUED FOR TENDER
B					
C					
⚠					

Consultant

Construction Return

File Number

Surveyor

Date

File Number

Construction Project Manager — Date

Construction Supervisor — Date

Department / Branch	Approval	Date
Integrated Infrastructure Services Supervisor of Transportation Planning and Design		

APPROVED FOR CONSTRUCTION

_____ DATE

Seal

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CITY OF EDMONTON

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The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Branch TRANSPORTATION PLANNING & DESIGN

Dept INTEGRATED INFRASTRUCTURE SERVICES

Project 97 STREET

Location 51 AVENUE TO 63 AVENUE

Drawing Title CROSS SECTIONS

Scale H 1:100 V 1:20

0 1 2 3 4 5
0 0.2 0.4 0.6 0.8 1

Survey

Contract No. 2XXX

Drawing Number SAMPLE X

File Sample_X.dwg

Appendix I

Drafting and Design Checklist

Neighbourhoods Planning and Design

Transportation Planning and Design

Preliminary Plan: Drafting Check List

Project : Project Name
Project Limits:
Project Type :
Date Reviewed :

REHABILITATION PROJECTS:

ITEMS	Check if Completed	COMMENTS / SUGGESTIONS
General: (Note only unique, non-typical items not found in the legend)	✓	
Turning Movements: - review using AutoTurn	☐	
Streets / Avenues / Roads: - label all	☐	
Corner Radii: - label and review whether improvement required	☐	
Spell Checks: - use AutoCAD spell check function	☐	
Survey Monuments: - identify with CAUTION note	☐	
Existing Sidewalks: - identify width of walk, radii (ie.) " EXISTING 1.5m CONCRETE/ASPHALT BOULEVARD WALK/SUP" or "NO EXISTING WALK" - review existing sidewalk widths and adjust as per standard requirements - Do not use "MATCH TO EXISTING" and/or "MATCH TO" notes for sidewalk/SUPs/curbs & gutters	☐ ☐ ☐ ☐	
New Sidewalks, SUP, Curb & Gutter: -Note new sidewalks/SUP and their width, material, and curb & gutter type -Note length of replacement or new construction if less than full block length	☐ ☐ ☐ ☐	
Ramps: - identify the type required - and pan width	☐ ☐ ☐	
Pavement Design: - show structure note / block - New base and base removals to not be noted	☐ ☐ ☐	
Field Review: - Attendees and Date	☐	
Legends: - detail legend - surface utility legend	☐ ☐	
Proposed property lines - show all new property line with appropriate layer	☐	
Project Limits: - dashed lines with arrow at beginning and end - place limit lines in design file - dashed lines without arrows on side roads	☐ ☐ ☐ ☐	

- “LIMIT OF CONSTRUCTION” label used at start and end of the project. “LIMIT” note on all connecting roads and accesses		
Stationing - required for growth projects	☐	
Control line - required for growth projects	☐	
Turn Bay Lengths	☐	
Turn Bay Tangents	☐	
Taper Lengths	☐	
Reference Adjoining Project Plan Numbers	☐	
Local Businesses / Schools: labeled	☐	
Design and Posted Speeds	☐	
Lawn Mower Accesses (show if required)	☐	
Environmental Monitoring Wells (existing)	☐	
Retaining Walls / Noise Walls (existing & proposed)	☐	
Drop Noses where required (label with note)	☐	
Note any non-typical landscaping items not found in the legend	☐	
	☐	
High Pressure Gas Line / Pipeline Checks: - place crossing block when HP gas line crosses project Limits or within 30m of construction - ATCO High Pressure Gas Crossing block - Show conceptual alignment along with the right of way	☐	
	☐	
	☐	
	☐	
EPCOR High Voltage underground, above ground and Altalink 72kV Lines - Provide caution note - Show conceptual alignment along with the right of way	☐	
	☐	
	☐	
	☐	
Rail Road Crossings - place railway crossing block	☐	
	☐	
Title Block (fill out all blocks) - plan number (confirm and reserve in Cardex) - engineering stamps - project limits (limits sheet not entire project)	☐	
	☐	
	☐	
	☐	
Utility File - Use appropriate V layers for all existing features - Show all existing surface utilities, trees, and bus stops - Show new CB/CBMHs bolded, with no note or lead - Incorporate all new utility and utility relocate information into the General Note where possible, i.e. “SEE PRELIMINARY STREETLIGHT PLAN”	☐	
	☐	
Survey File (attach if present) - clean up survey file - clean up UIS file (match all UIS line to surveyed CB’s and manholes) - place survey file name on title sheet - use appropriate V layers	☐	
	☐	
	☐	
	☐	
	☐	
	☐	
Shading Shapes (show on prelim plan)	☐	
	☐	
	☐	
	☐	
	☐	
Cross Sections: show the following - existing and proposed property lines	☐	
	☐	

- x-falls, include +/- if survey is not available - lane width dimensions - Proposed Pavement Structure - proposed street lights and power poles, do not include “BY OTHERS” - cross section location on plan view using solid line, avoid breaking line if possible. - existing trees, fire hydrants, street lights, power poles - wick drains - identify and label lanes direction (EB / WB / NB / SB) - draw existing ground from survey file if available	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
	☐	
Key Plan: - North Arrow (north arrow to point between North and East direction only) - does not need to be to scale (N.T.S) - label major roads only - orient key plan in same direction as sheet	☐ ☐	
	☐	
Pavement Markings: - review all paint line widths and determine if they need to be adjusted - lane width dimensions to be shown - paint line text to be placed in Paint Plan	☐ ☐ ☐ ☐	
	☐	
Transit: - Roadway Bus Pads (for two or more bus routes) - Dimension Roadway bus pads in Note (ie.) “24.0m X 3.6m from lip of gutter” - show bus stop # in bus stop cell - Bus Stop Locations (identify with bus stop cell) - Bust Stop Pads (identify dimension in note) - Bus Shelter Pads (identify dimension in note)	☐ ☐ ☐ ☐ ☐ ☐ ☐	
	☐	
Profile (if required include the following): - existing lip / existing ground profile - proposed lip profile - elevations - stationing - PI points - proposed slopes - VPI stations and elevations - vertical curve data - K value	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
	☐	
Preliminary Report	☐	
Preliminary Checklist	☐	
Hazard Assessment	☐	
Provide estimate quantity table	☐	

Detailed Design Checklist

Project:	Project Name	
Project Limits:	XXXX to XXXX	
Project Type:	XXXXX	
Date Reviewed:	Feb 1, 2024	
Project Engineer:	PRINT NAME	SIGNATURE
Project Manager:	PRINT NAME	SIGNATURE

Detailed Design Items to Consider

ITEMS		COMMENTS/SUGGESTIONS
Have the drawing numbers been reserved in Cardex?	☐	
Has a construction cost estimate been generated from the preliminary design plan?	☐	
Have the drawings been reviewed with the construction project manager for constructability?	☐	

Have cross sections been reviewed every 10m to resolve any errors during corridor modelling?	☐	☐ Check cross falls to make sure drainage within ROW is draining towards the roadway
		☐ Confirm that there are no errors with tie-ins to OG
		☐ Are there multiple pavement structures proposed within the length of the project?
		  ☐ How do they tie in to each segment?
		  ☐ Are there grade elevation changes that will affect tie-ins and will there be gutter overlay?
		  ☐ Can the pavement structures be consolidated for ease of construction?

SURVEY ITEMS TO CONSIDER		
CSV Files for survey layout	☐	☐ For csv files, the information must be in the following columns (in this order): Point number/Northing/Easting/Elevation (put 0 if not applicable)/Description (P,N,E,Z,E). No titles or headers should be included. See attached for an example of a good csv file. ☐ All BCs and ECs need an individual point number. ☐ All information should be to the mm.
Plans	☐	☐ **All numbers shown on the plan should be legible when printed on 11x17" paper** ☐ All plans should be provided and checked (needed information is included and legible) by the PM or designer, ideally 72 business hours but no later than 48 business hours before survey is required to stake them out. ☐ The plan should indicate distances and percent grades between all grade changes.

		☐ For arterial projects, where lines parallel the control line, the plan should display the station and offset from said control line. ☐ Vertical curves must include BVC station and elevation, EVC station and elevation,VPI station and elevation, length, K factor
Quality Control Checks	☐	☐ When points are revised, they should be given **new point numbers.** ☐ Any revisions should be clearly communicated to the surveyor (this is especially true if the files are kept in a drive) ☐ Curve tables should match horizontal alignment, even after a revision is made (ie. both should be updated) ☐ When plans are given to the survey crews to be staked out, they should have already been checked to ensure that all necessary information (horizontal, vertical, and curve tables) is included and that it is legible.
If the survey is completed by an external consultant	☐	☐ All designs that did not come from a COE preliminary file will need extra time so that control can be added. We will also need to know which ASCMs the client used to create control for their preliminary survey. ☐ Follow the Request for Construction Control Flowchart and be aware that if our group did not provide the preliminary survey, more time will be needed to establish control, and that we will also need to know which ASCMs the client used to create control for their preliminary survey.

Detailed Design Plan Drafting Checklist

(Including, but not limited to, D, U, X, A, G etc.) Reference: 2016 Roadway Design Standards

Alignment "A" Plans

- ☐ Lane Widths
- ☐ Bay Lengths
- ☐ Taper and Tangent Lengths
- ☐ Median widths and offsets
- ☐ Walk widths and offsets
- ☐ Offsets to property line and any other measurement that locates new construction
- ☐ Miscellaneous Points (coordinates for CBs, MHs, centre of curb ramps, beginning and end of curves, sidewalk and curb segments, bus stop pad corners, etc)
- ☐ Median Nose radius > 0.6m
- ☐ All points have corresponding elevation data on the G plans

All Alignment Plans include the following information:

- ☐ Proposed alignment and layout
- ☐ Lane and Boulevard Dimensions
- ☐ Sidewalk and Curb Ramp locations
- ☐ Control Line Data / Curve Data
- ☐ Coordinate Tables (Alignment Tables and Point Tables)
- ☐ Alignment (Control Line) ties to BC/EC/POT (station/offset)

- [ ] All Alignment data to lip of gutter unless otherwise noted
- [ ] Alignment Note
- [ ] Construction Return Stamp (applies to all types of plans)
- [ ] Permit to Practice
- [ ] Professional Engineer (P.Eng.) Stamp

Detail "D" Plans

- [ ] Proposed alignment and layout (line work only)
- [ ] Proposed radius labels of each curve (if no alignment plan is created)
    - [ ] Do the corner radii tie into tangents? (i.e. no diagonal connections)
    - [ ] If there are existing CBs within the radii that are not being replaced, ensure the proposed LOG alignment does not affect the existing CB
- [ ] Limits of new construction
- [ ] Lane widths, turn bay lengths, taper and tangent lengths
- [ ] Median widths and offsets / drop noses
- [ ] Sidewalk widths and offsets
- [ ] Offsets to property and utilities
- [ ] Surface Treatment and related notes
    - [ ] Have tie-ins at the transitions been thought through? (where pavement design changes or roadway elevation changes)
- [ ] Notes identifying construction requirements
- [ ] Bus Stop Note (required only when the bus stop is within the construction limit)
- [ ] Cross Section(s) locations or reference to cross section plans
- [ ] Landscaping requirements or reference to Landscaping Plans
- [ ] Structures such as retaining walls & guardrails (length of guardrail and type of end treatment if applicable) or reference to Structural Plans
    - [ ] Barrier Curb transitions at the end treatments
- [ ] Shared Use Paths, sidewalks & curb ramps (including types)
- [ ] Detail Legend, Surface Utility Legend & Detail Note
- [ ] Existing and Proposed Crossings (Commercial, Private, etc.)
- [ ] Addresses (for NBHD Reconstructions or projects in residential areas)
- [ ] Structural Overlay Note (all plans that include paving)
- [ ] Utility Crossing Agreement Cell (where applicable) (bold and show facility on D plan)
- [ ] Pipeline Warning Note (where applicable)
- [ ] O/H Power / Transmission Note (where applicable)
- [ ] Construction Return Stamp
- [ ] Railway Crossing Agreement Cell (where applicable)
- [ ] North Arrow in Key Plan should match direction of Detail Plan
- [ ] Pavement Design Memo referenced
- [ ] Permit to Practice
- [ ] Professional Engineer Stamp (P.Eng.)
- [ ] Survey Monument Notes
- [ ] No utility comments on the D plans
- [ ] Darken/bold new and displaced utilities on the D plan
- [ ] Trees to maintain 5m from trunk to edge of walk / shared pathway
- [ ] Minimum of 3 m of curb and gutter replacements or curb ramp replacement CB replacement locations
- [ ] Lanes align through intersection
- [ ] Check turning movements for all new radius changes

- [ ] Check turning movements for left turn interlocks
- [ ] Current detail notes

Grade "G" Plans

- [ ] Edge of Pavement / Lip of Gutter elevations
- [ ] Back of Walk elevations (where applicable)
- [ ] Crown line / Lane line pavement elevations (where applicable)
- [ ] Roadway Crossfall data (when it changes) (that can be referenced and checked in the drawings by station)
- [ ] Longitudinal Grades (that can be referenced and checked in the drawings by station)
- [ ] Limits of Grading & Match Grades
    - [ ] Subgrade Shoulder?
    - [ ] GBC Shoulder?
    - [ ] EOP
    - [ ] Tie-in locations
- [ ] Ditch / Swale Grades
- [ ] Toe of slope
- [ ] Cut/fill limits
- [ ] Direction of Flow Arrows
- [ ] *Road Profile (typically 10:1 vertical to horizontal, 20:1 for designing purposes)
    - [ ] Vertical Points of Intersection (VPIs)
    - [ ] Percent Grades
        - [ ] Check grade differences between accesses and roadway to prevent vehicles from bottoming out
    - [ ] Vertical curves for gradebreaks >1%
    - [ ] Vertical Curve Length
    - [ ] K Values (length of vertical curve to affect a 1.0% change of grade)
        - [ ] Vertical curves only needed for a grade change >1%
    - [ ] Sag Catch Basin Locations
    - [ ] Location and Elevation of Adjacent Existing Structures
- [ ] Top of Pipe elevations
- [ ] Rail Elevations & other utility information where applicable
- [ ] References to intersecting sheets
- [ ] Plan References
    - [ ] Beginning of Curve (BC), End of Curve (EC), TS, SC, PL, CL, Cross Street, Doors, Access Points
- [ ] Minimum longitudinal grade for new construction: 0.6%, for rehabilitation: 0.35%
- [ ] Grades tie-in to existing elevations
- [ ] Grade Note from the cell library (including the Datum elevation)
- [ ] Construction Return Stamp
- [ ] Permit to Practice
- [ ] Professional Engineer Stamp (P.Eng.)

Landscape "H" Plans

- [ ] The Landscaping Plan is required where a landscaping scheme is required. A Landscape Architect is usually retained to prepare this type of drawing. Check for conflicts with the proposed road facility (for example, sight lines) and utilities.

Streetlighting "L" Plans

- [ ] The location and type of lighting davit
- [ ] Pole Base
- [ ] Underground cable alignment
- [ ] Offsets to new pole locations
- [ ] Existing light poles to be removed

- [ ] Existing Utilities
- [ ] New cabinet locations
- [ ] Sight triangles
- [ ] Pedestrians illuminated at crosswalk (front lit / positively contrasted)

These plans can be included for information and referenced on the utility plan. Some general guidelines to follow are:

- [ ] Lighting design is consulted out and reviewed and approved by the Street Lighting group
- [ ] Review all locations for conflicts
- [ ] Check the layout for compliance with road classification standard offsets

Pavement Marking and Signage "P" Plans

- [ ] Line type and limit (ex. 10cm 3:6, 20cm 3:6, Yellow 20cm)
- [ ] Crosswalk Style and Location
- [ ] Left & Right Turn Arrows, Bus Diamond & Bike Shared Arrows (Sharrows)
- [ ] Ramp *Gore Area
- [ ] Lane Dimensions
- [ ] Limit of Paving
- [ ] Standard Pavement Marking Note
- [ ] Active Transportation Wayfinding, if shared pathways or bike lanes are included
- [ ] Permit to Practice and Professional Engineer Stamp (P.Eng.)

Utility "U" Plans

- [ ] All existing and proposed utility installations and surface features based on record plans, survey information and field review
    - [ ] Obtain confirmation from EPCOR Water on proposed work on existing drainage utilities
    - [ ] Darken/bold new and displaced utilities
- [ ] Utility Crossing Agreement Cell (bold facility)
- [ ] Proximity agreement Cell (30m to road right-of-way)
- [ ] Pipeline warning stickers
- [ ] O/H Power Warning Sticker
- [ ] U/G Power/Transmission Note
- [ ] Utility Line Legend
- [ ] Surface Utility Legend
- [ ] Utility Search Stamp – completed by draftsperson or designer
- [ ] Utility Notes
- [ ] Reference notes to other Utility drawings (For example, Street Lighting Drawings, etc.)
- [ ] Changes to the Minor Storm System
    - [ ] Ensuring minimum clearances are met and if not, that variances are requested from affected parties
- [ ] Catch Basin and Manhole Table filled out with proposed barrel size, rim elevations, lead inverts, lead grade, lead size, lead cover depth
    - [ ] Any lead cover depth shallower than 1.5m will need to be insulated
    - [ ] Check invert information and ensure leads are not conflicting with each other
- [ ] Construction Return Stamp
- [ ] Permit to Practice & Professional Engineer Stamp (P.Eng.)
- [ ] Utility contact information (third party work)

Cross Section "X" Plans

- [ ] Pavement Structure – depths and materials
    - [ ] Additional details on more complex structures (e.g. shoulder widening etc.)

- [ ] Existing curb and gutter, sidewalks, elevation of roadway, original ground - dashed
- [ ] Proposed curb and gutter type
- [ ] Proposed Sidewalk width and depth
- [ ] Wick Drains (if required)
- [ ] Road and sidewalk cross–fall rate
    - [ ] Crown height for collector, locals, and two lane undivided arterials
- [ ] Lane dimensions and offsets
- [ ] Sideslope rate and limit (for embankments) (3.5:1 is the minimum)
- [ ] Removals
- [ ] Existing ground match points
- [ ] Property Lines
- [ ] Trees and street light poles with offsets
- [ ] Street furniture, hydrants, fences, guardrails, retaining walls with offsets
- [ ] Permit to Practice and Professional Engineer Stamp (P.Eng.)
- [ ] Pavement Design Engineer Stamp
- [ ] Vertical clearances

External Branches & Agencies

Resolution of EIA requirements	☐	
Resolution of Major Utility Conflicts	☐	☐ Have utilities been relocated? ☐ Has the design been updated to avoid utility conflicts? ☐ Have the ULAs been approved in the circulation process?
Resolution of Railway Crossings	☐	☐ Is an agreement in place with the railway crossing? ☐ Is work taking place near the crossing? ☐ Are there upgrades that the railway company wants to tie in with your work?
Resolution of High Pressure Pipelines	☐	☐ Are crossing agreements in place? ☐ Are there construction modifications required within 30 m of the pipeline? (no vibration?)
Resolution of AltaLink Crossings		☐ Are proximity agreements in place?
Resolution of Land Issues	☐	
Resolution of City or Private Property Encroachments	☐	
Resolution of Survey Monument Network Impacts	☐	
Resolution of Drainage Requirements	☐	☐ Have the drainage drawings been reviewed and approved by EPCOR?
Resolution of Traffic/Trolley/Streetlight relocations	☐	☐ Approved and stamped Streetlight Drawings (approved by CoE Streetlight Group)
Resolution of water, gas, telephone, buried cable etc. conflicts	☐	☐ Approved and stamped utility drawings ☐ Approved ULAs for relocations
Review Access Transportation Planning	☐	☐ Access management resolved and included in detailed design package

Resolution of impacts to transit service (if applicable)	☐	☐ Comments from transit incorporated into the detailed design package

Cost Management from other City Groups

Obtain Estimate from Traffic Operations		
traffic signal pole relocations	☐	
trolley pole relocations	☐	
street lighting relocations / installations	☐	
pavement markings	☐	
permanent signing	☐	
detour and temporary signing	☐	
transit detours	☐	
Obtain Estimate for Utility Relocations	☐	
Obtain estimate for Land acquisition	☐	
Obtain estimate from Community Services		
Forestry & Environmental: Tree Removal and Relocations	☐	
Estimate Local Improvement Charges	☐	

Tender Package

Issued for Tender Drawings (typically D, U, X)	☐	Signed and Stamped
Special Provisions	☐	
Bid Items and Quantities	☐	
Total Construction Cost Estimate	☐	
Confirmation of Project Schedule and Deadlines	☐	

Construction Package

Issued for Construction Drawings	☐	Signed and Stamped

(Internal)

Appendixes

(Internal) Appendix 1

Getting Started

1.1 One time Setup for Civil 3D

1.1.1 Initial Setup for New Users and Computer Refresh
Refer to City AutoCAD & GeoPro User Guides and Video Index

1.1.2 Click the first link “AutoCAD / Civil 3D 2024 First Time Setup”

1.2 Add CTB Files and Plot

Refer to “Add CTB Files and Plot” section in City AutoCAD & GeoPro User Guides and Video Index

1.3 LandscapePlot

1.3.1 Request “LandscapePlot Plig-in 1.3” in Digital Workplace

1.3.2 Complete LandscapePlot Config File Setup after installation

1.4 Survey Database Settings

Refer to Setup Default Survey Database Settings

1.5 File Structure

1.5.1 Transportation Planning and Design

Refer to Transportation Planning and Design File Structure

1.5.2 Neighbourhoods Planning and Design

(To Be Provided)

1.6 Roll Plan Production (Transportation Planning and Design)

1.6.1 Create Roll Plan in Layout

Refer to Create a Roll Plan

1.6.2 Plotting a Roll Plan from PDF

Refer to Plot a Roll Plan

(Internal) Appendix 2

GeoPro

1.1 GeoPro (GepProcessing - GEA Replacement)

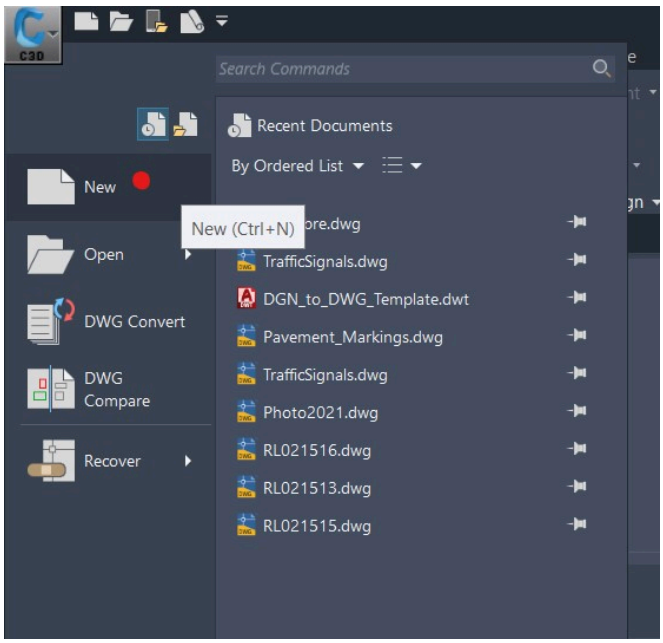
Refer to City AutoCAD & GeoPro User Guides and Video Index GeoPro Section

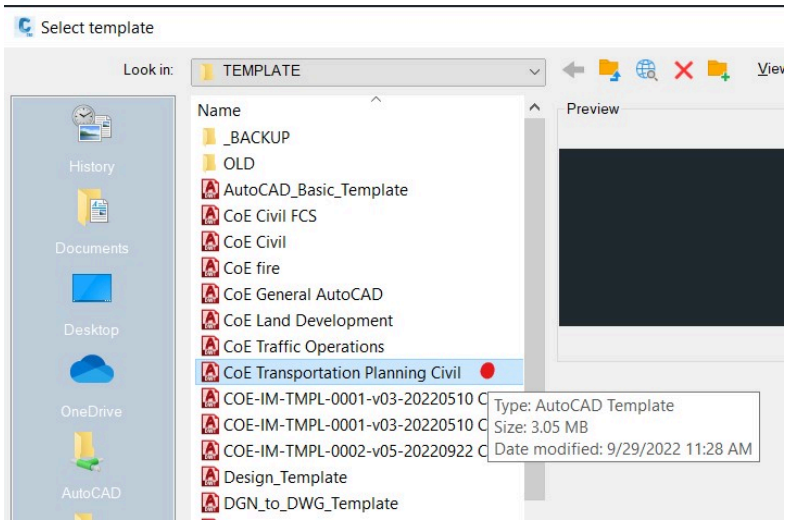
(Internal) Appendix 3

Processing Survey

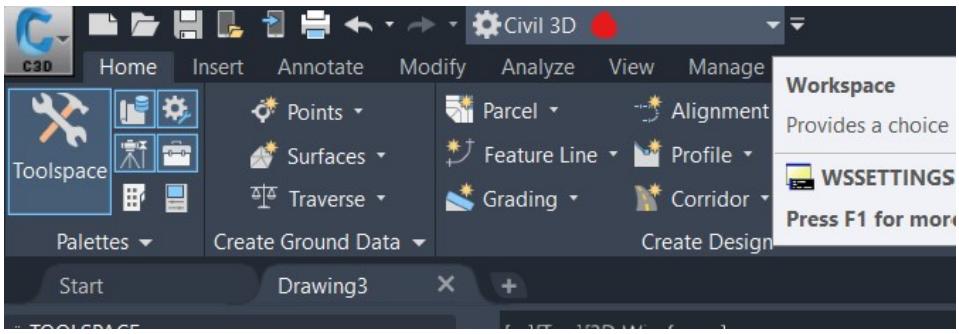
Processing Survey

1. Open a new Civil3D file and select “CoE Transportation Planning Civil” template



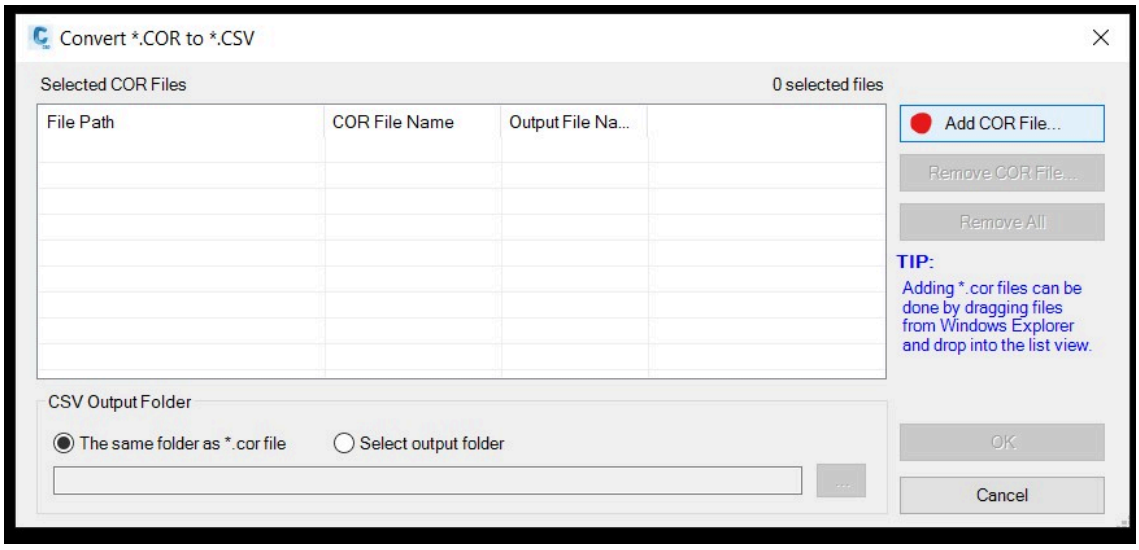


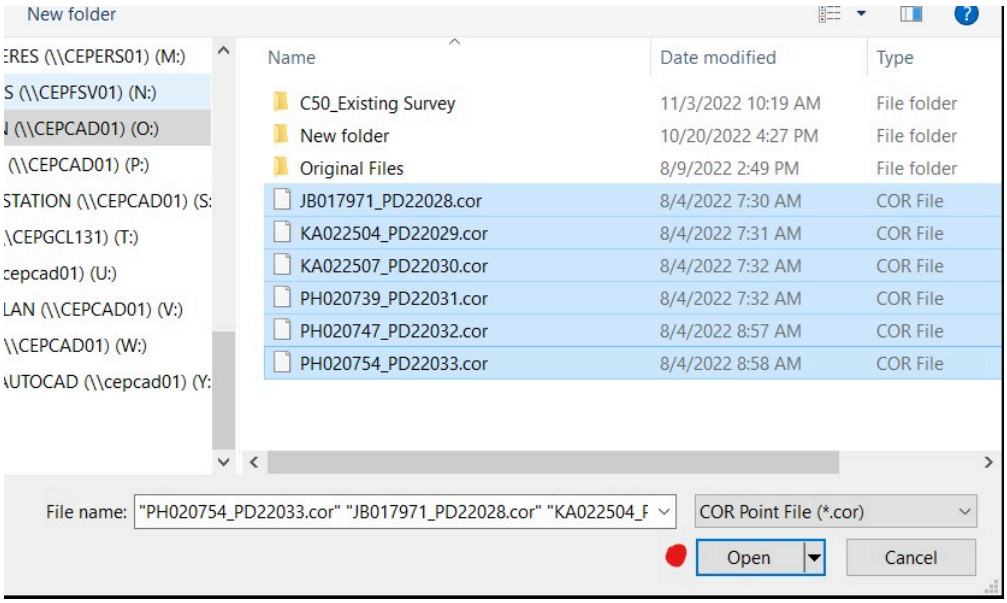
2. Select “Civil 3D” in Workspace



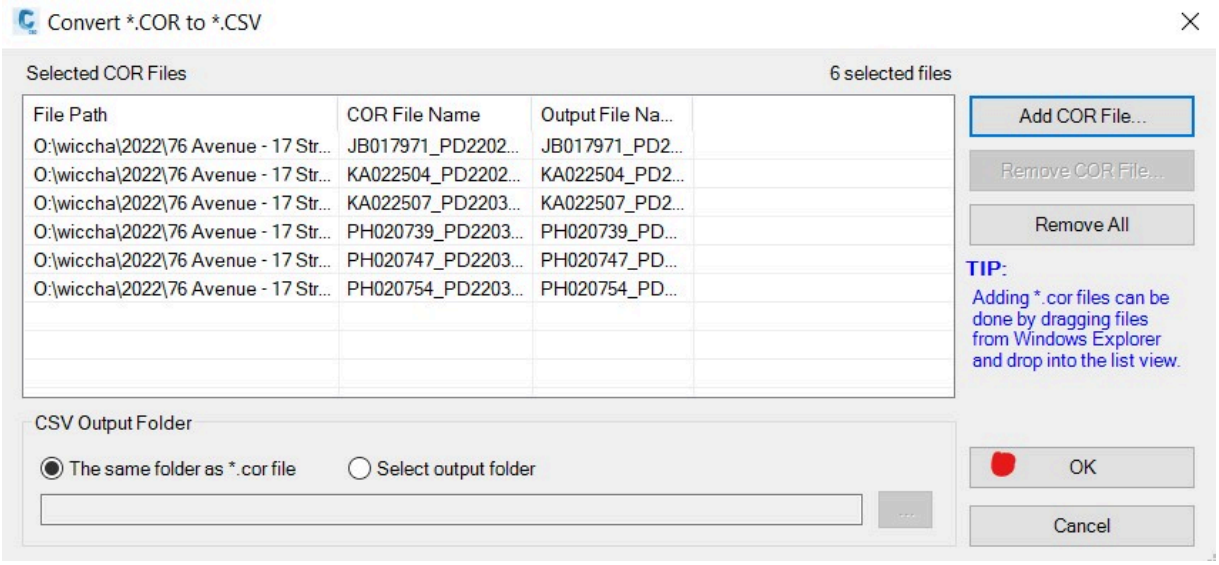
3. Type “ CORTOCSV “ in the command line to convert existing survey “.cor” files to “.csv” files

4. Click “Add COR File” and select the COR files which you would like to convert. Click open.

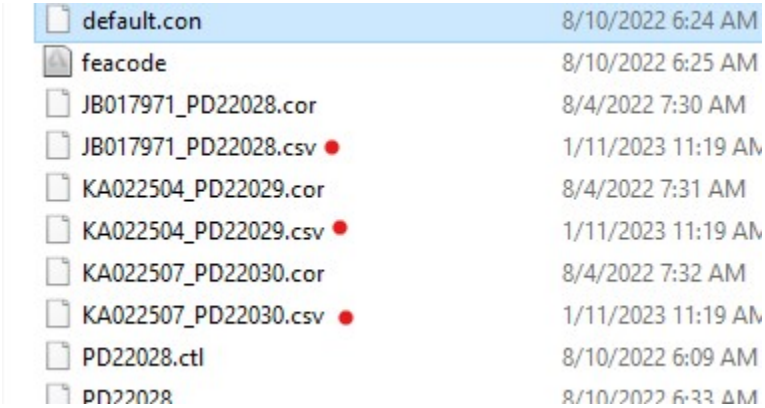




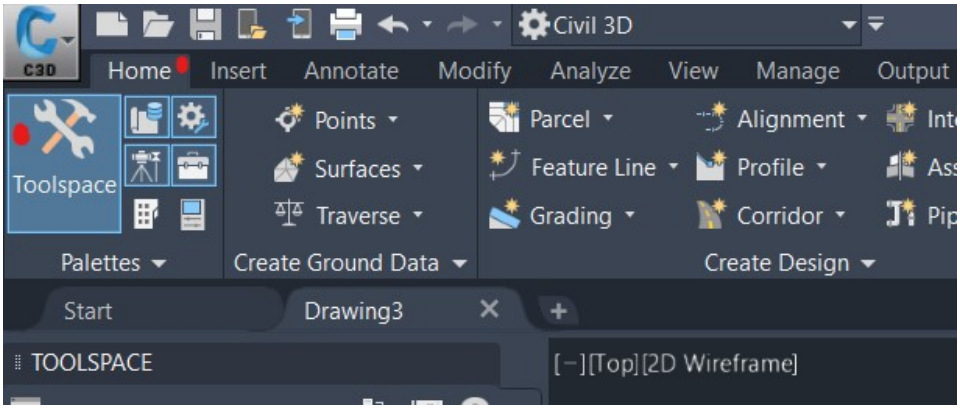
5. Click “Ok”



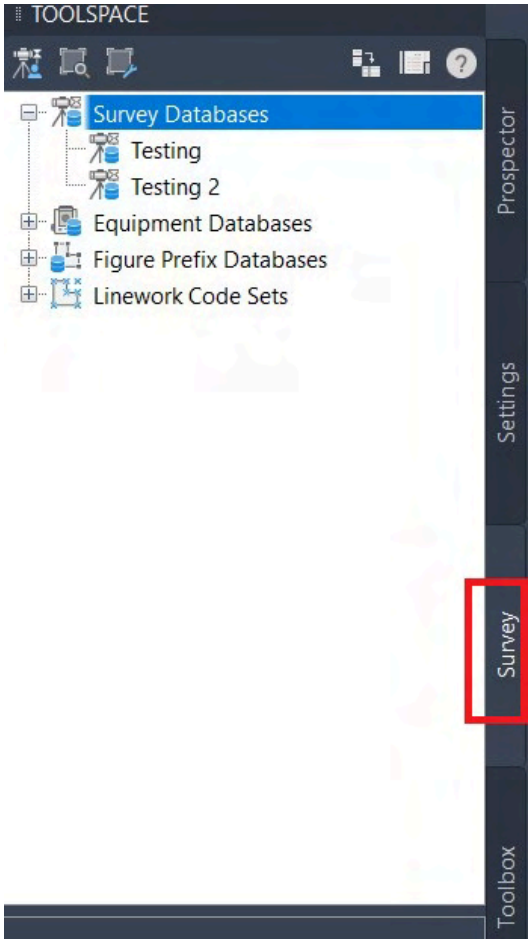
6. You can find the csv files in the survey folder



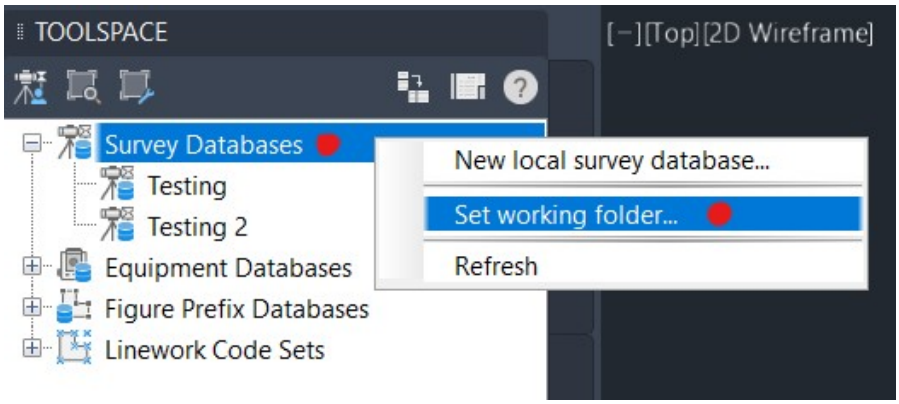
7. Click “Toolspace” icon (under “Home” tab) to open the Toolspace palette



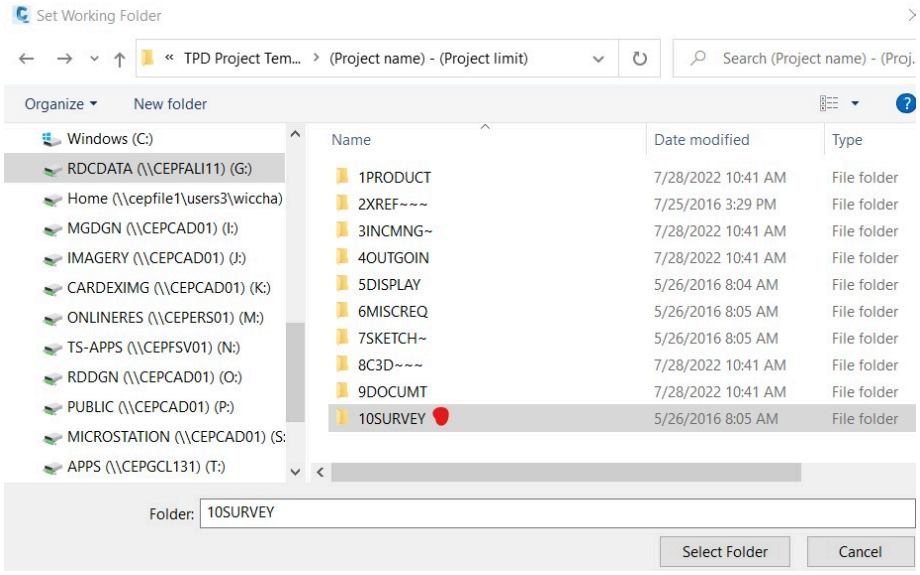
8. Click “Survey” tab in Toolspace



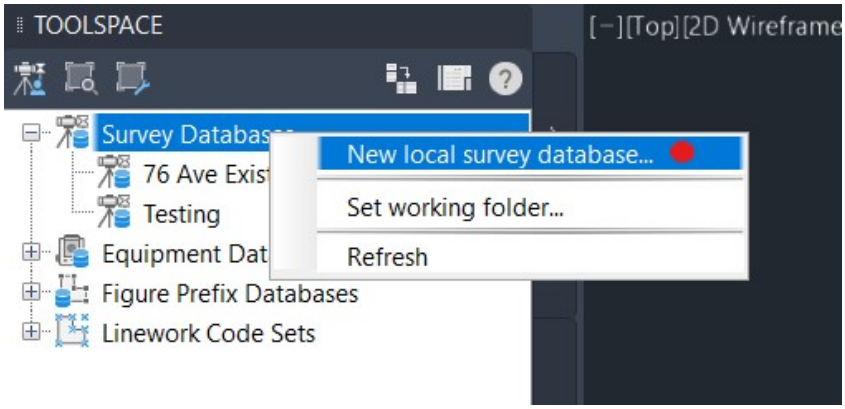
9. Right click “Survey Database” and select “Set Working Folder”



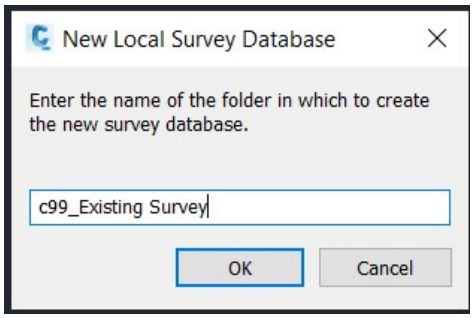
10. Go to your project folder and select “**10SURVEY**” as the working folder



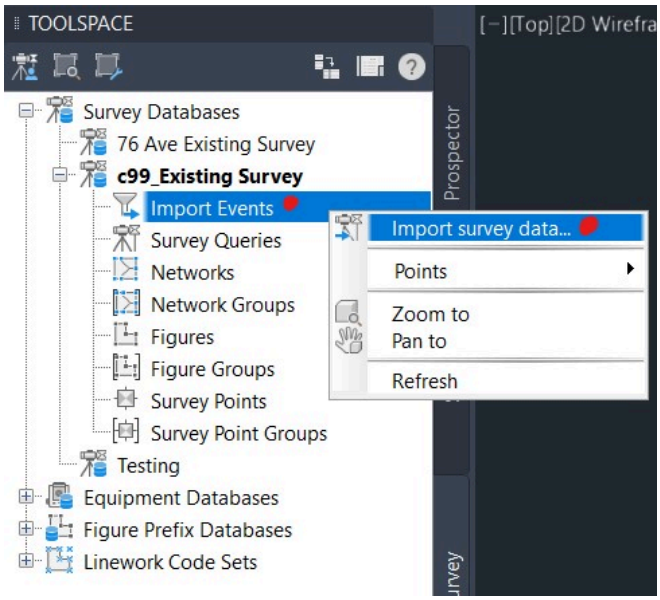
11. Right click “Survey Database” and select “New Local Survey Database”



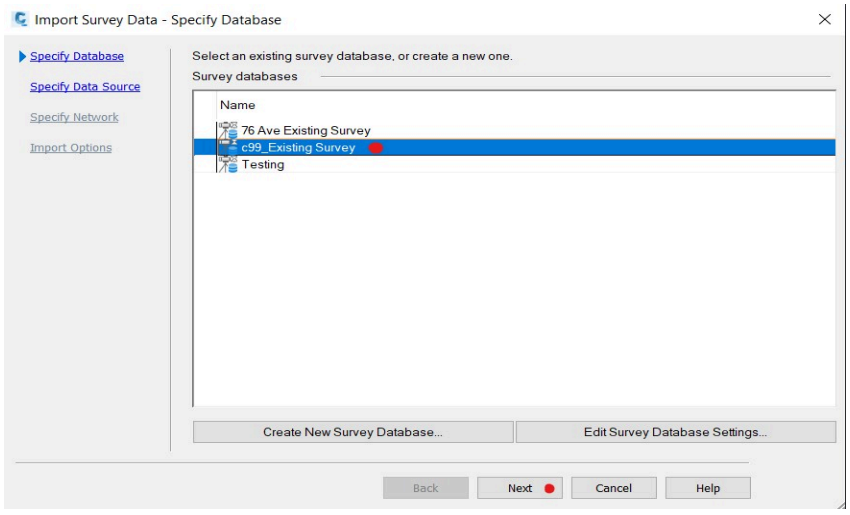
12. Enter the name for the survey database (**job code_purpose of survey**)



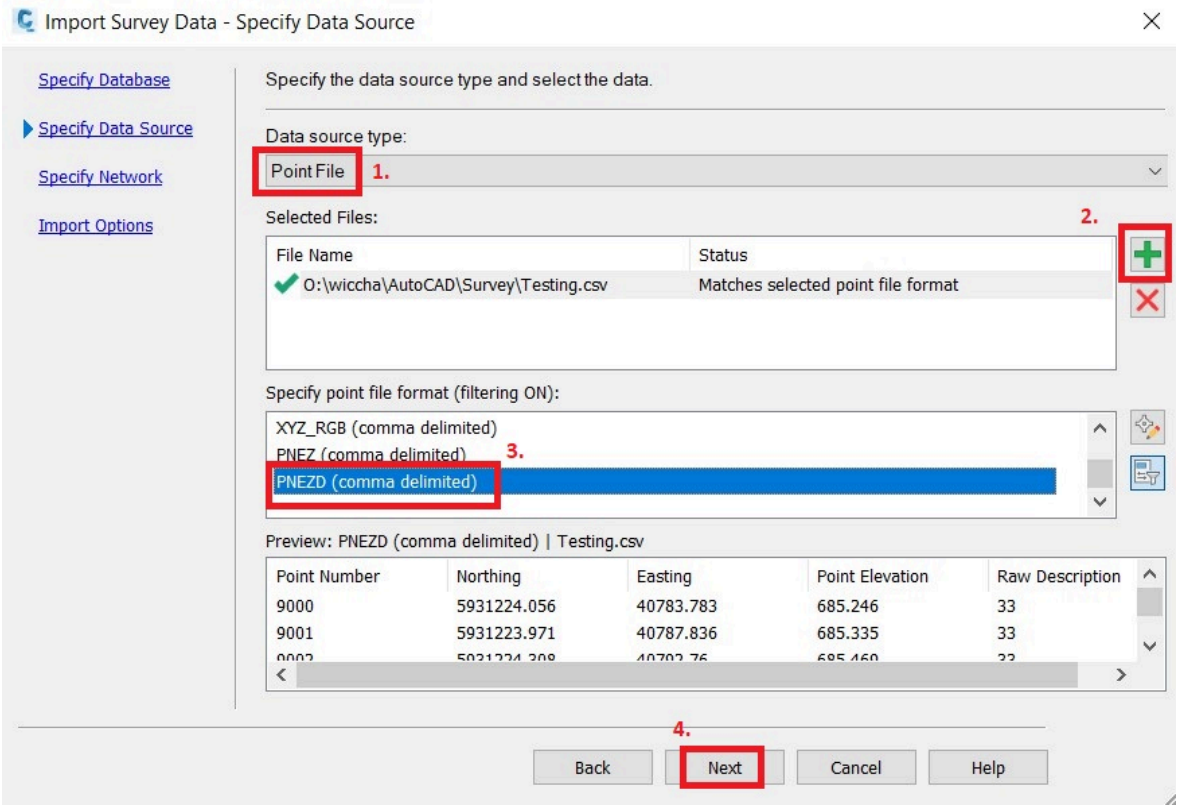
13. Right-click “**Import Events**” (under the newly set up Local Survey Database) and select “Import Survey Data”



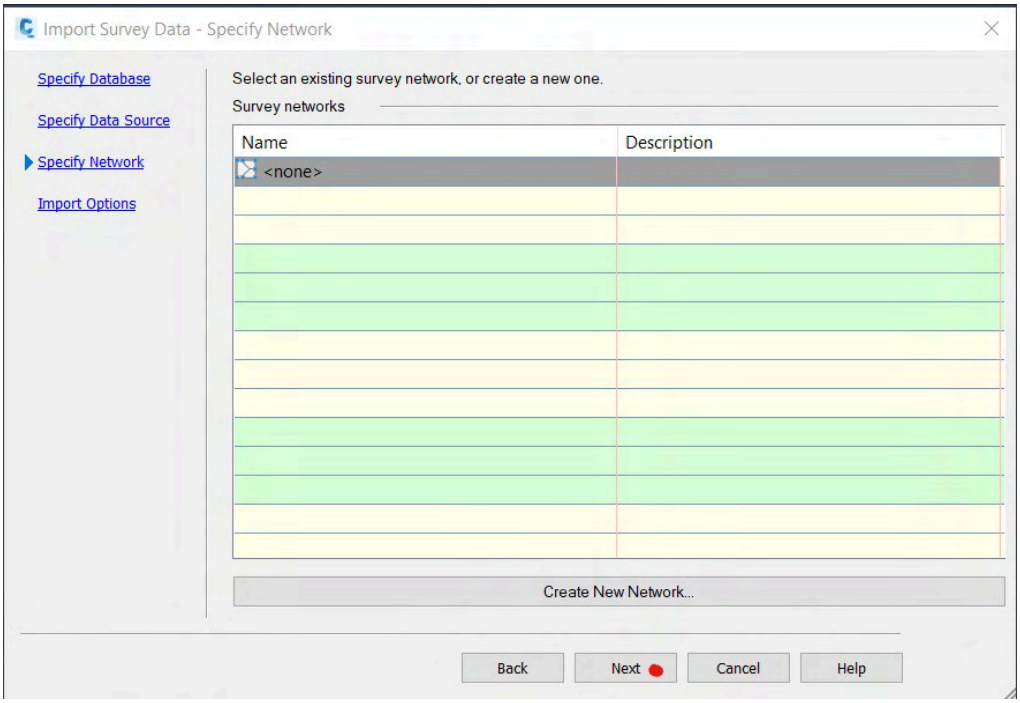
14. Import Survey Data window will pop up and select your survey database, then select “Next”



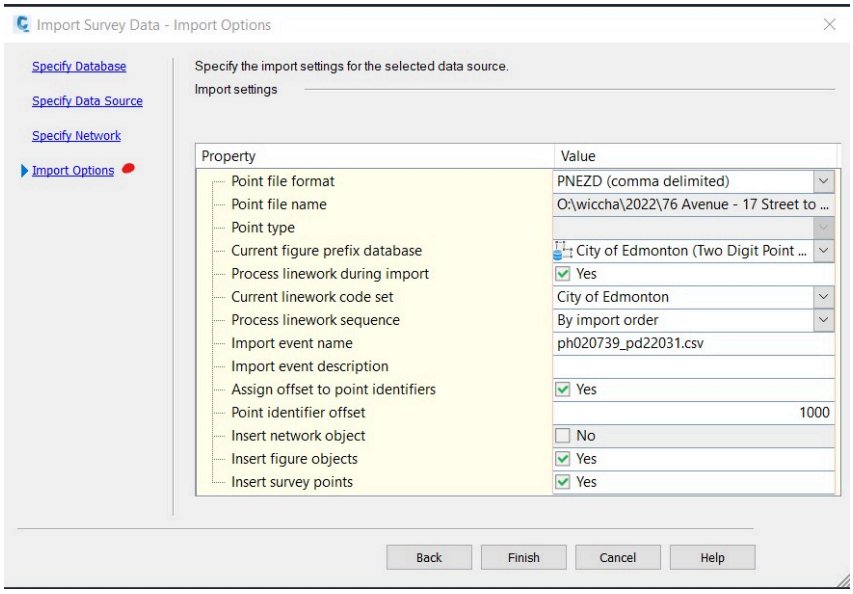
15. (1) Select “Point File” under Data source type, (2) click “ **+** ” icon and select the csv file(s). (3) Choose **PNEZD (comma delimited)** under Specify point file format and (4) Select “Next”



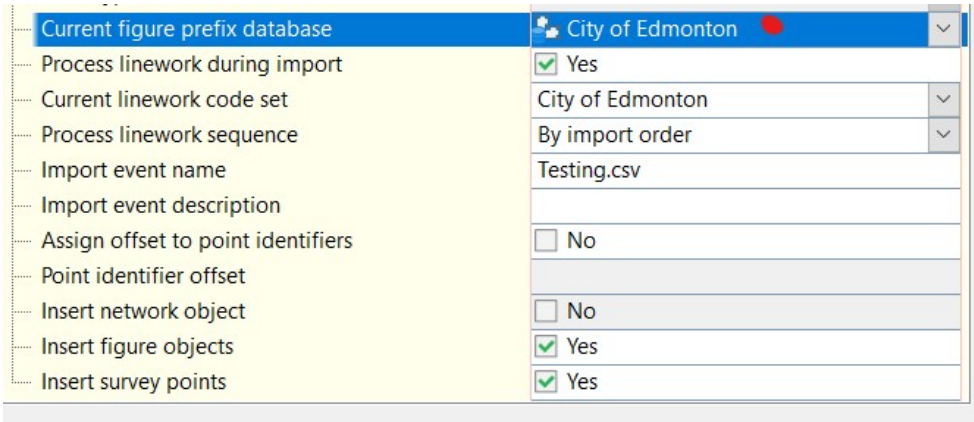
16. Select “Next”



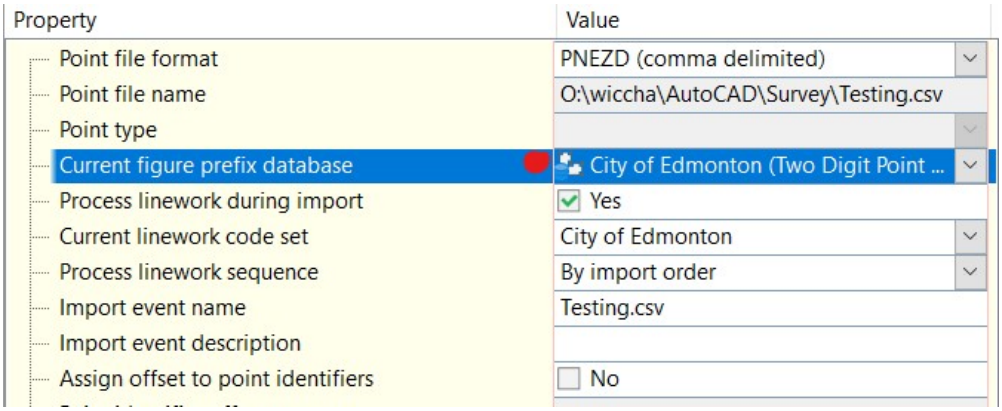
17. Go to “Import Options”



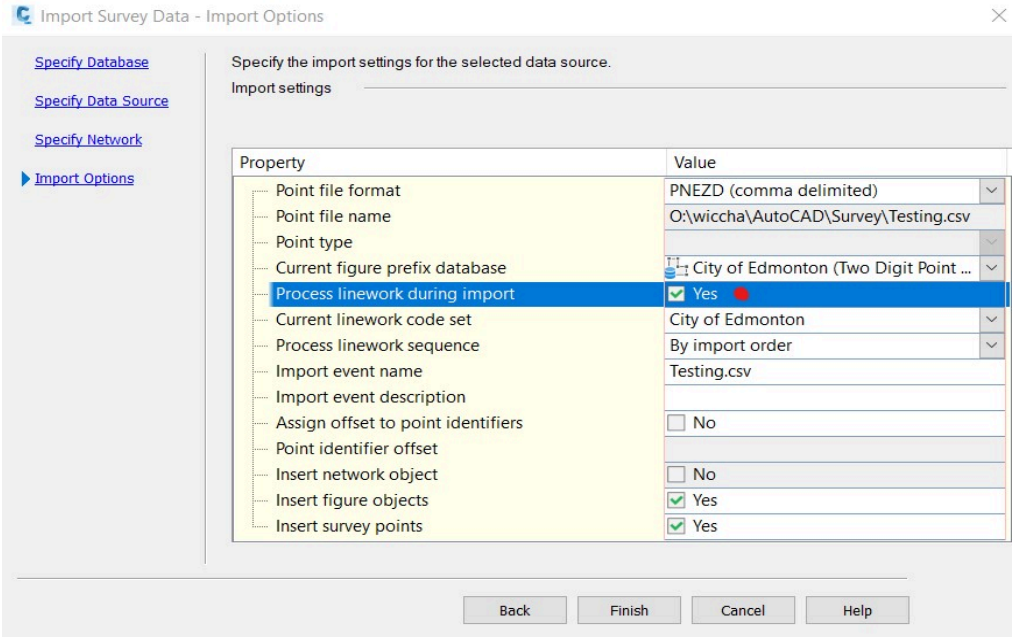
18. Confirm “Current figure prefix database”
    a. Select “City of Edmonton” - For three-digit point codes (Survey files received from the survey group **after** October 11, 2022



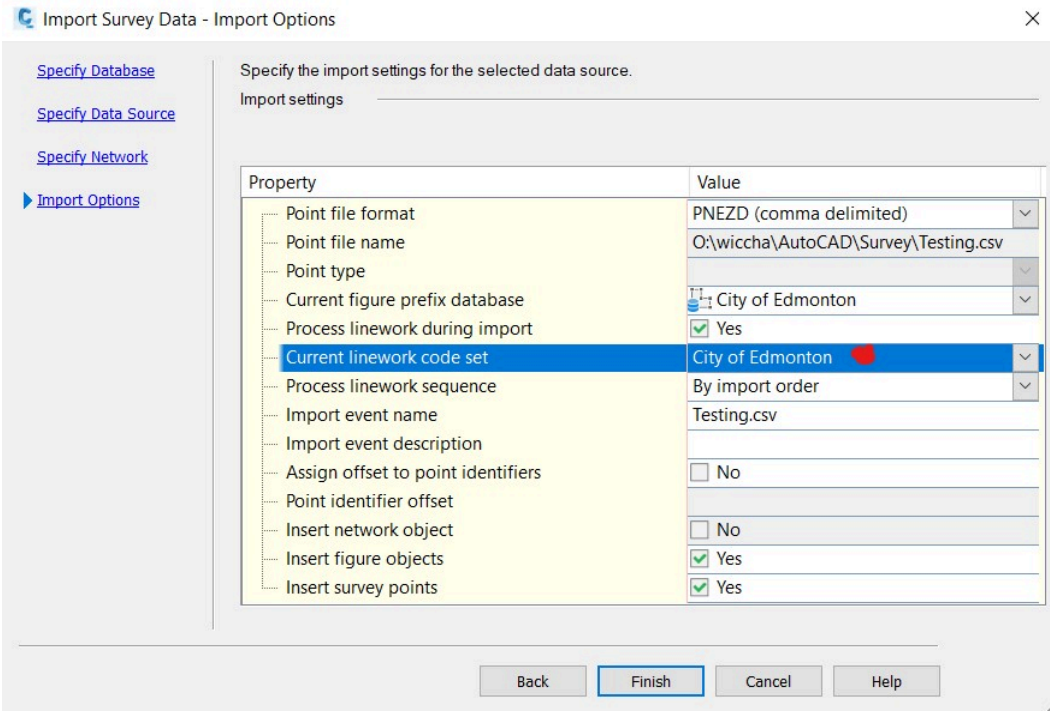
    b. Select “City of Edmonton (Two Digit Point Codes)” - For two-digit point codes (Survey files received from the survey group **before** October 11, 2022)



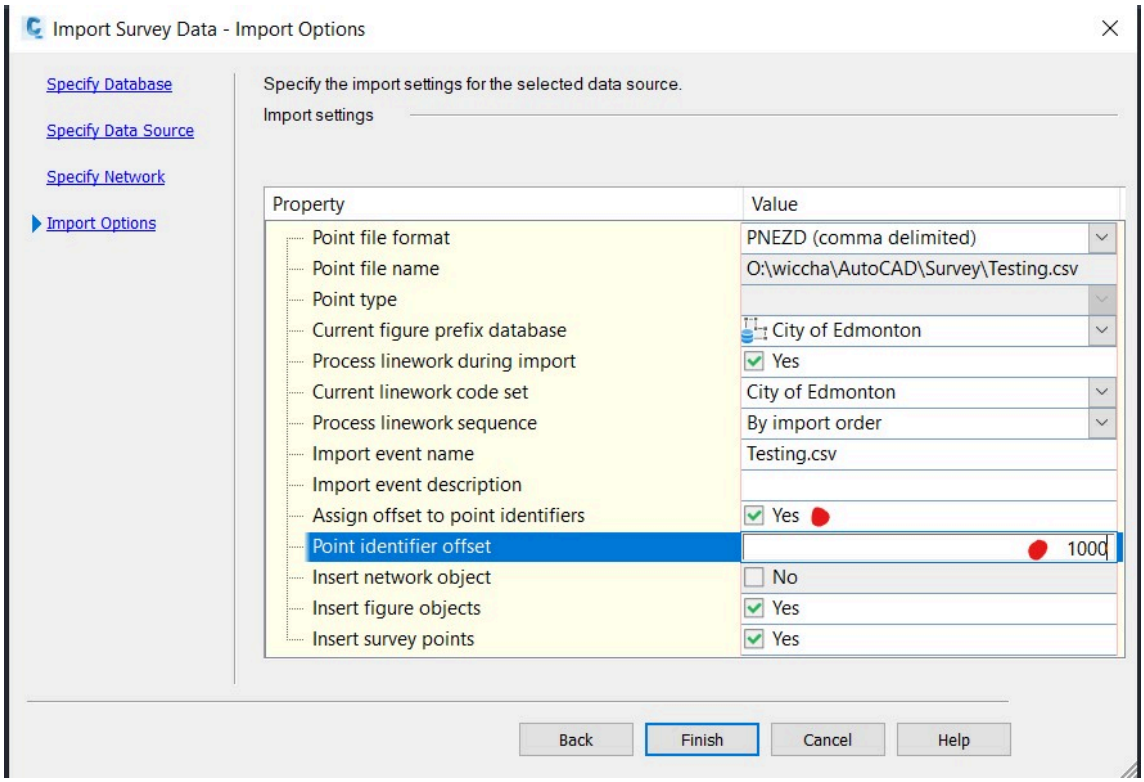
19. Check-mark “**Yes**” for “Process linework during import”



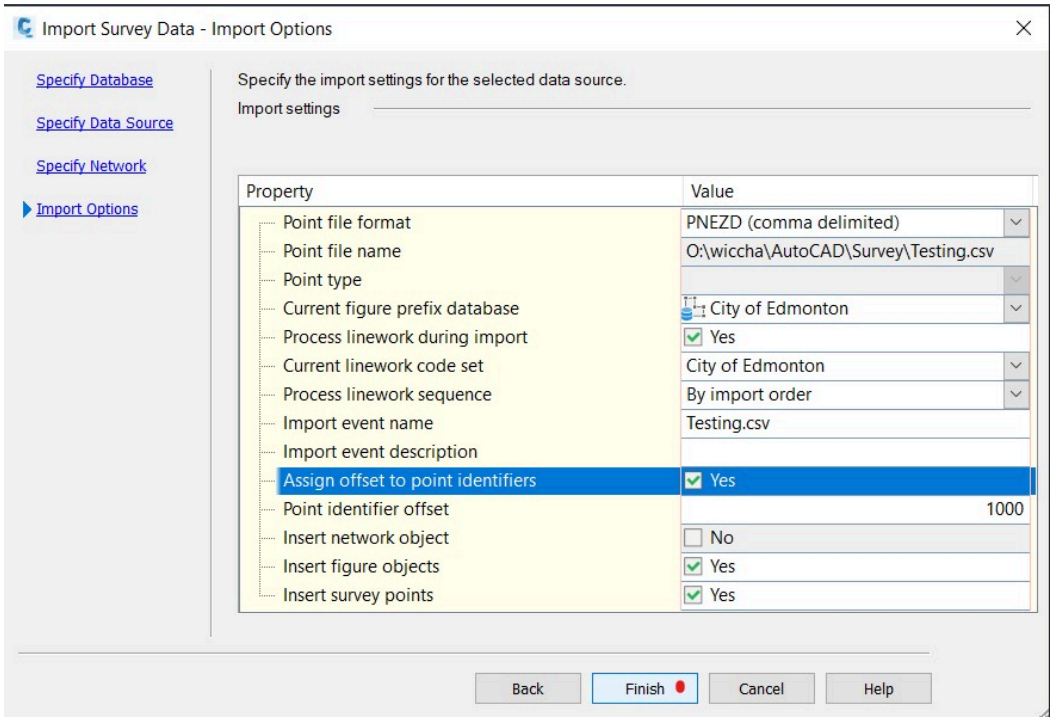
20. Select “City of Edmonton” on “Current linework code set”



21. Assign Number to points (optional) - check-mark “**Yes**” on “Assign offset to point identifiers” and assign point number that you would like to start

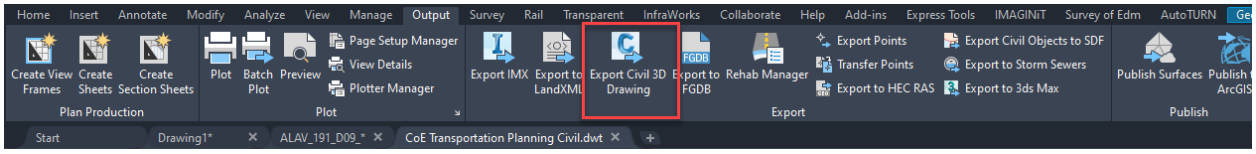


22. Select “Finish”

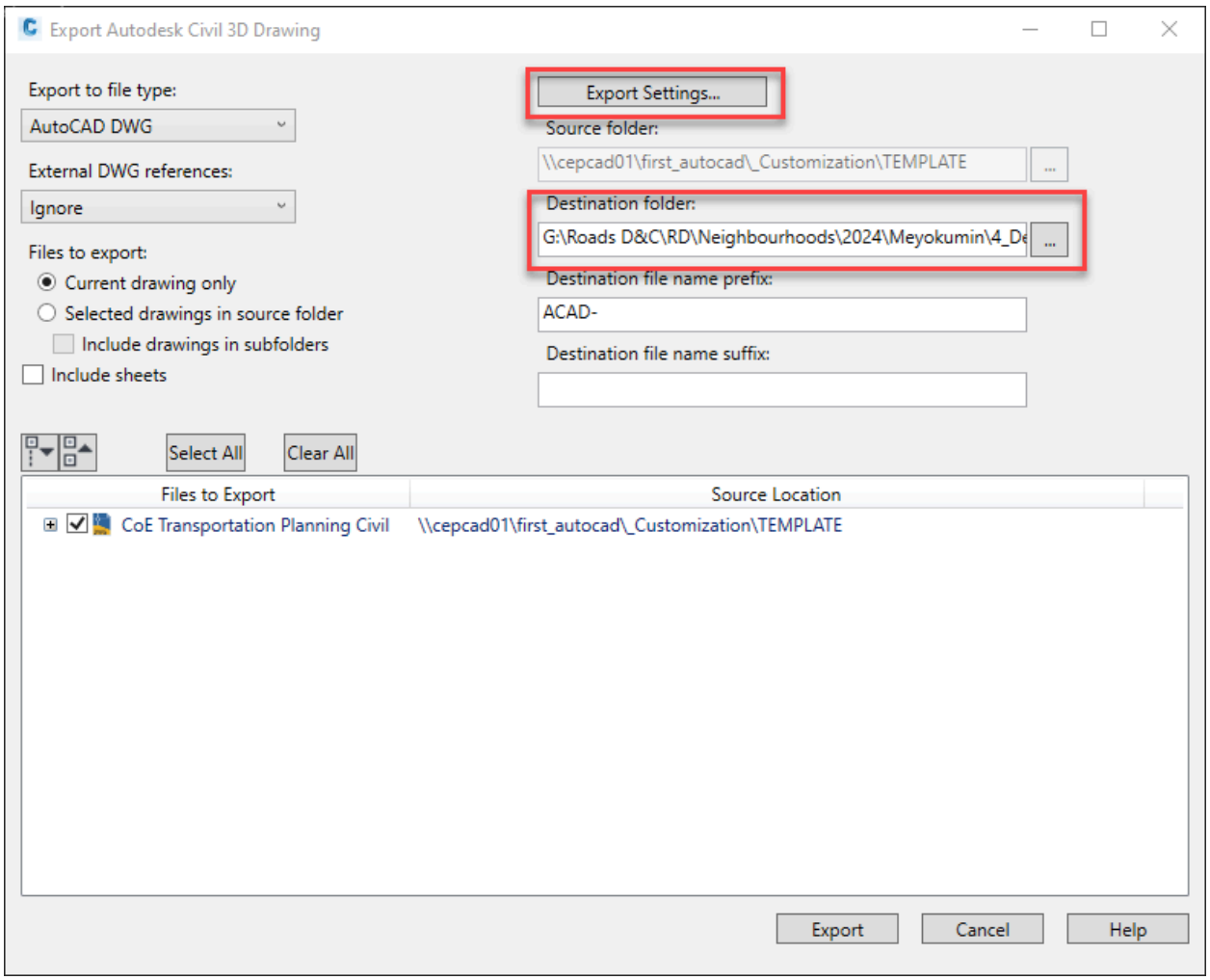


How to Save as 2D Survey drawing

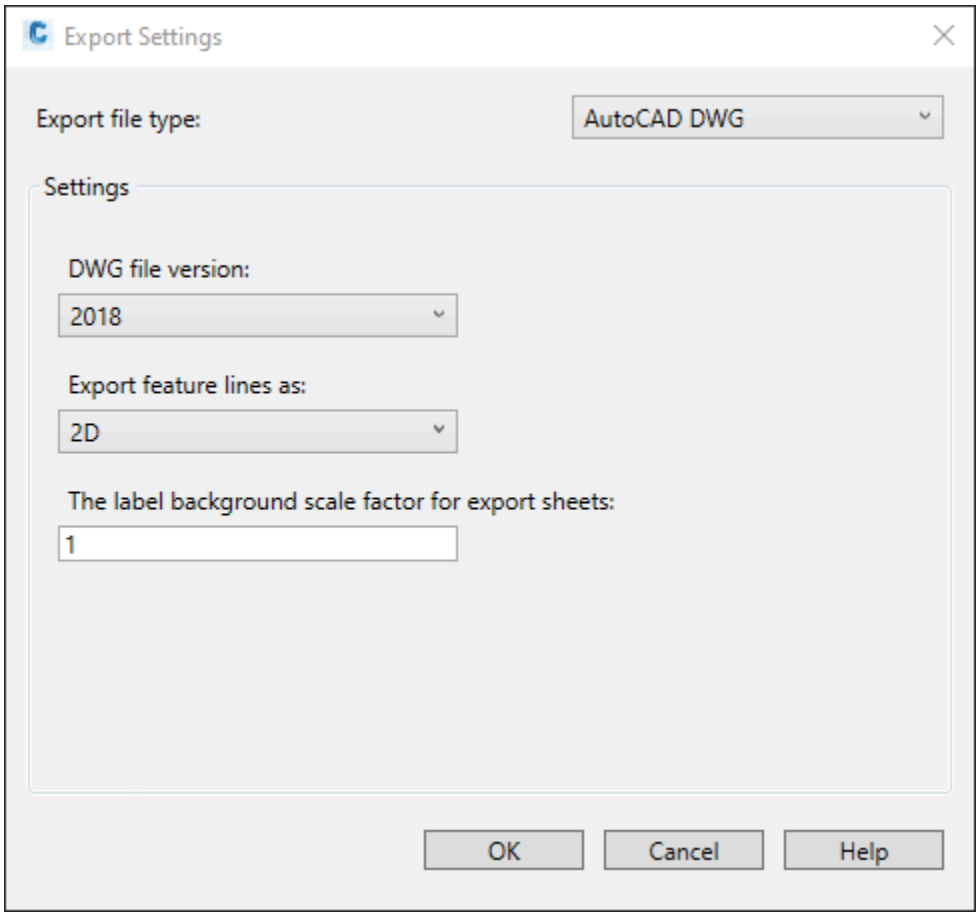
23. Select the “Output” ribbon and then select “Export Civil 3D Drawing”



24. Change Destination Folder to where Survey Folder
    Then Select “Export Settings..”



25. Make sure Export Settings are as followed:



26. Select Export to complete 2D drawing

(Internal) Appendix 4

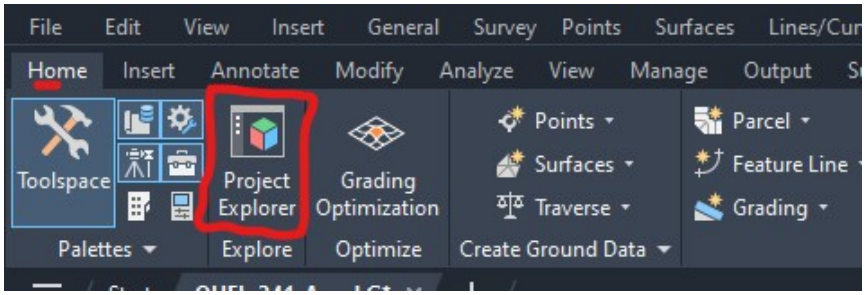
Export CSV Files

Neighbourhoods Planning and Design

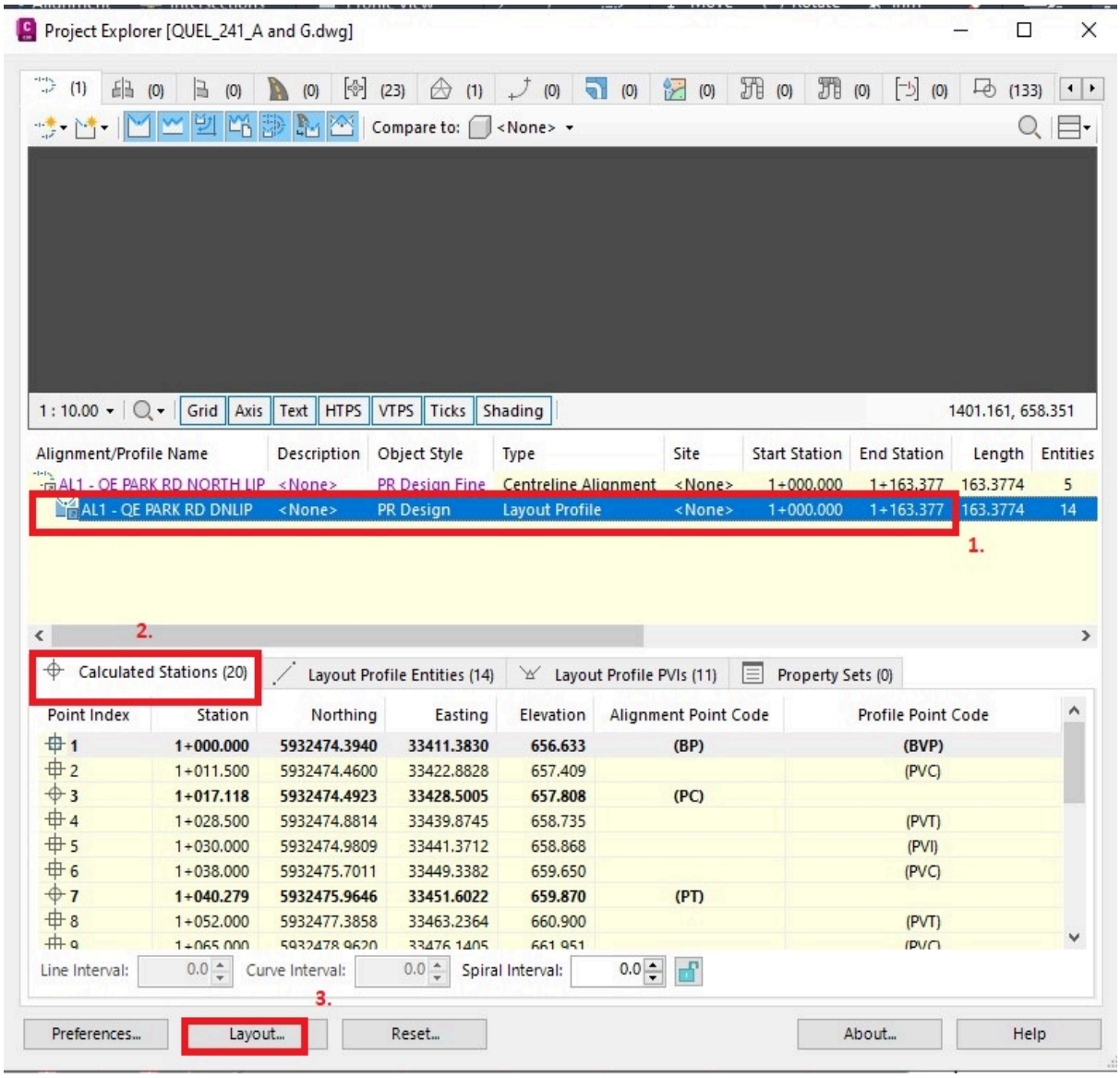
Transportation Planning and Design

A. Project Explorer (One Time Setup)

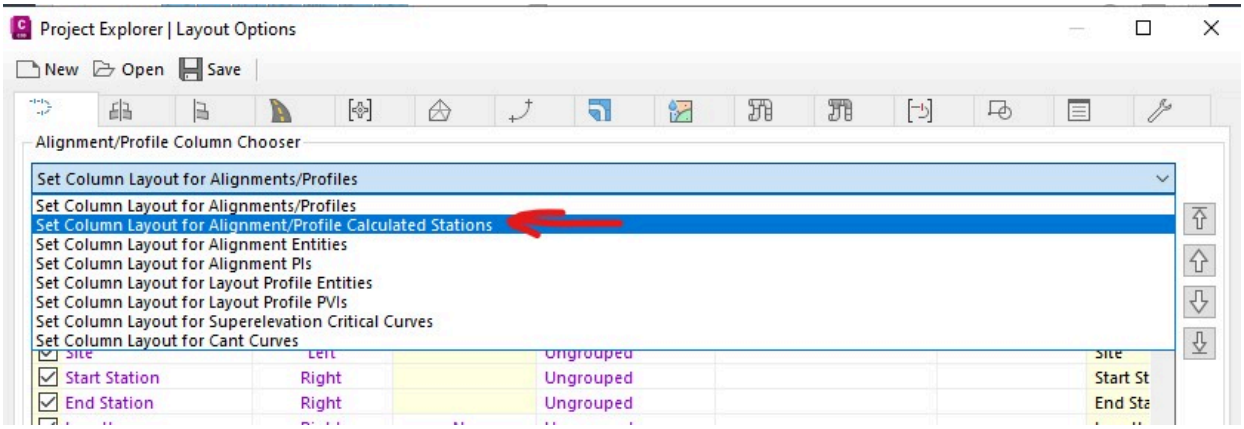
1. Go to “Home” tab and open “Project Explorer”



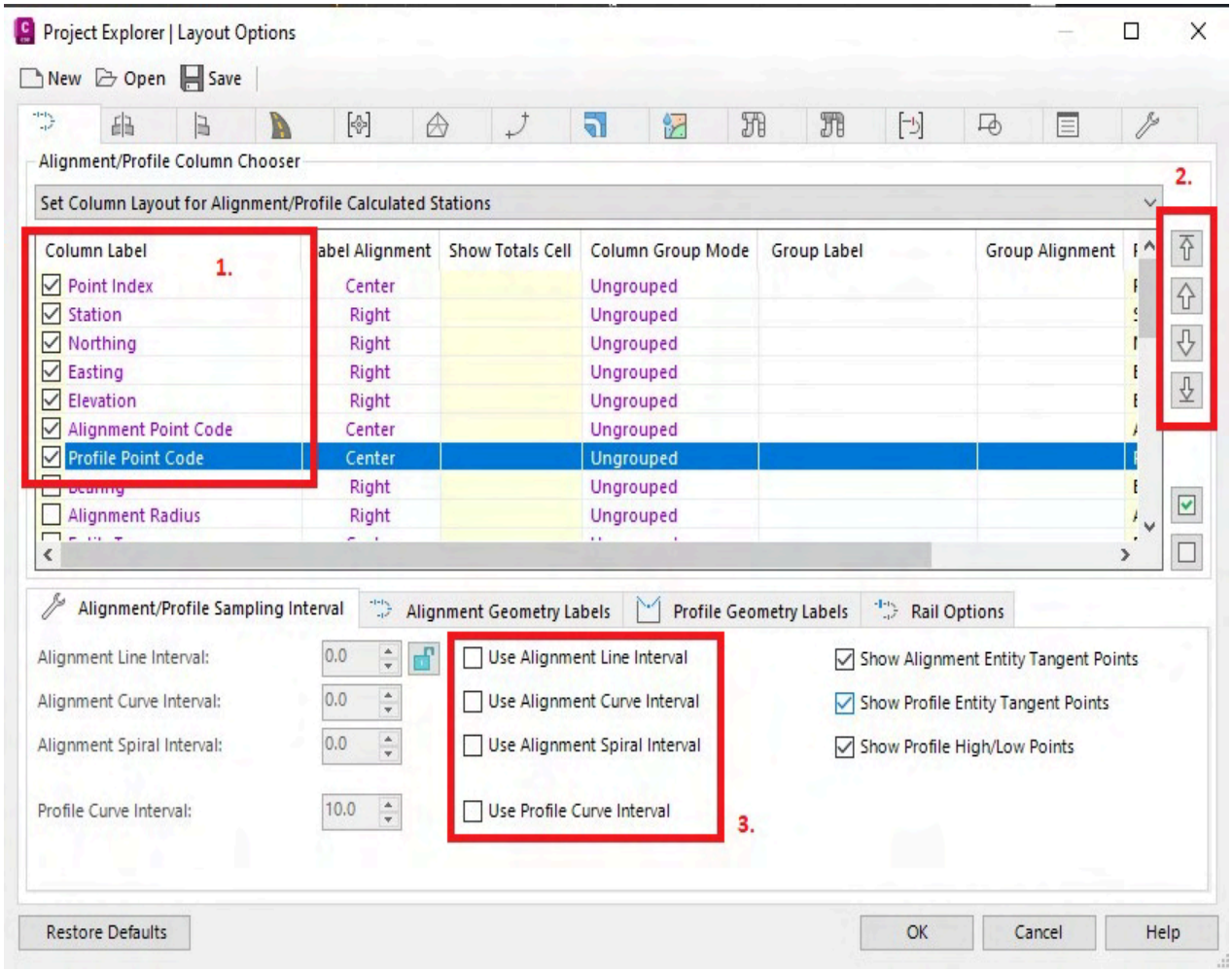
2. Select the “Design Profile” → “Calculated Stations” Tab → Layout



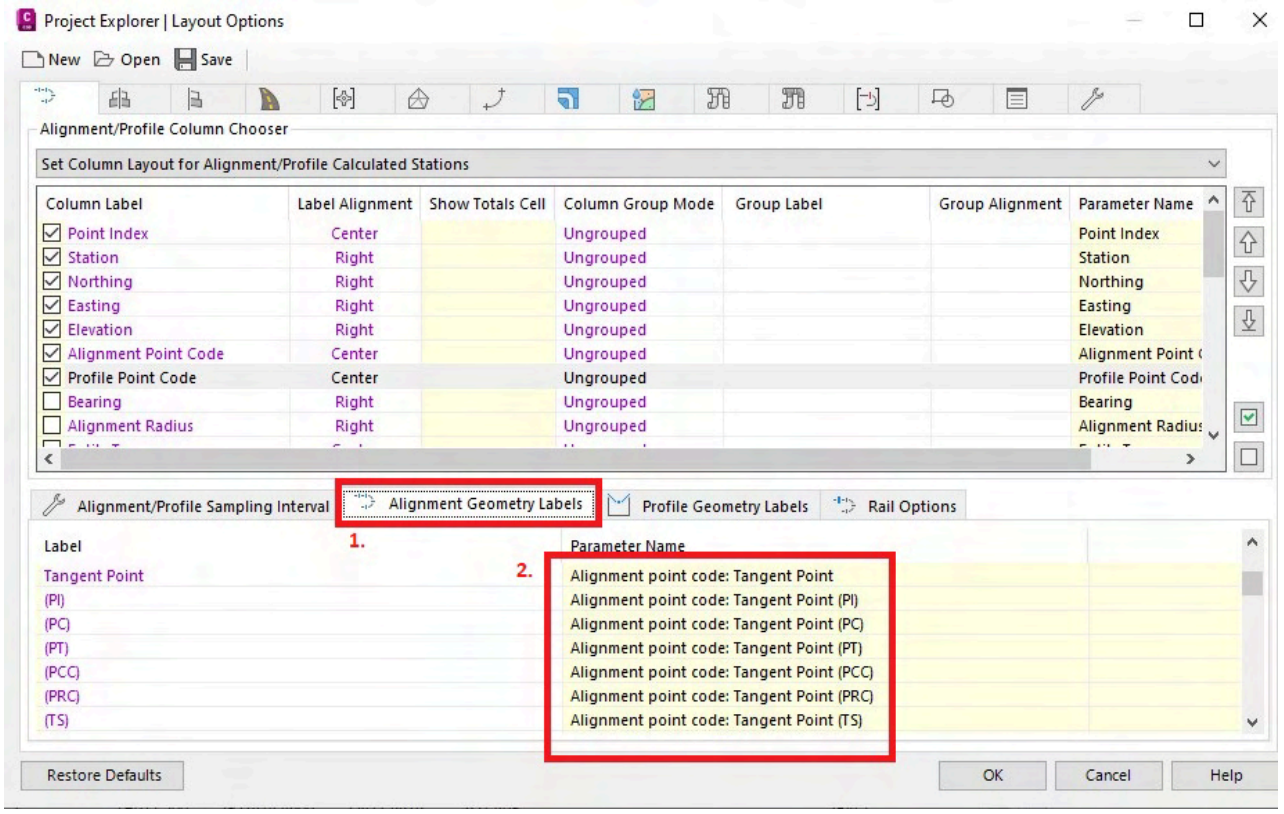
3. Select “Set Column Layout for Alignment/Profile Calculated Stations”



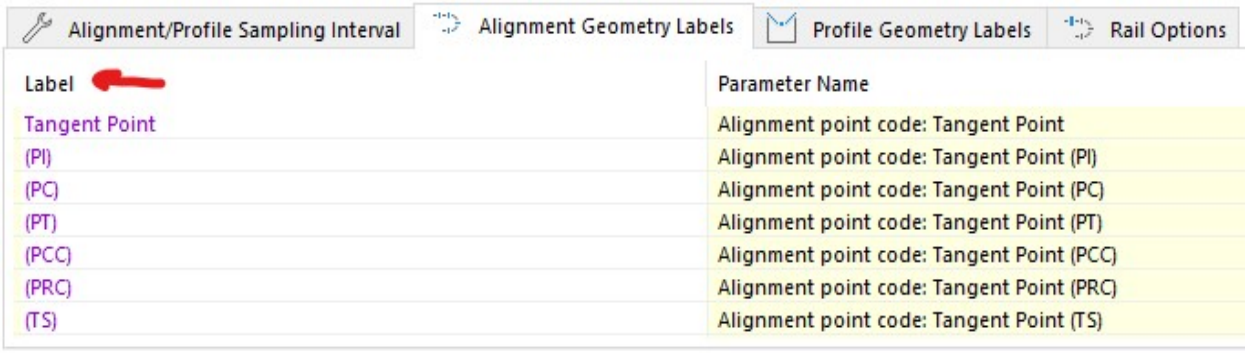
4. 1) Checkmark the items in the list below and uncheck the rest.
   2) Arrange the list in the exact same order.
   3) Uncheck all the interval boxes.

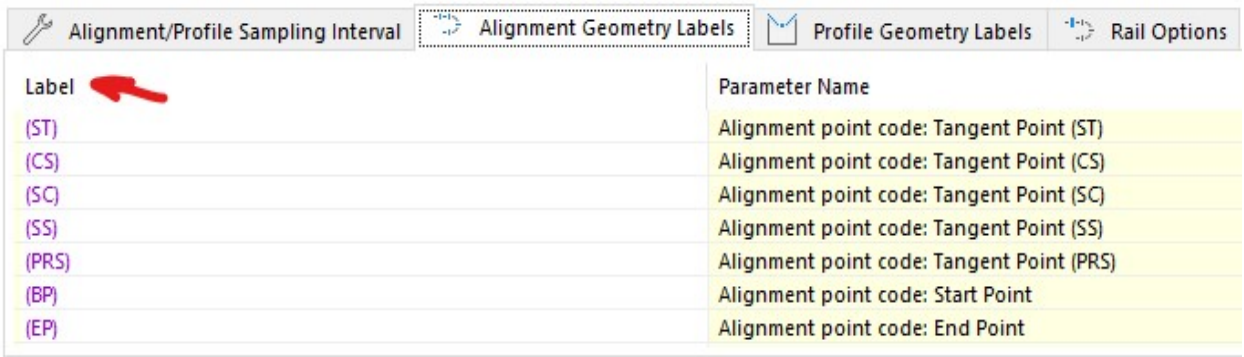


5. Go to “Alignment Geometry Labels” Tab and scroll down to “Alignment Point Code”

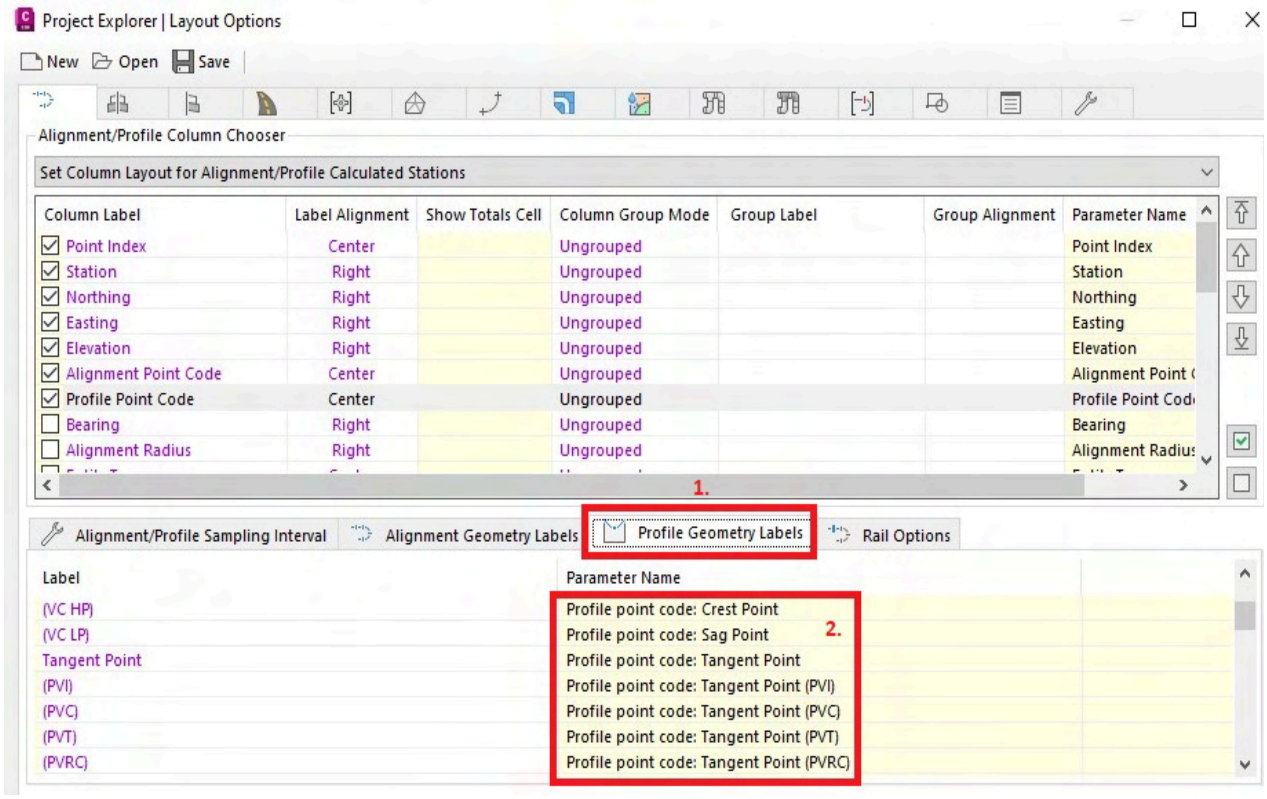


6. Rename the Alignment Point Code Label as follows:





7. Go to “Profile Geometry Labels” Tab and scroll down to “Profile Point Code”

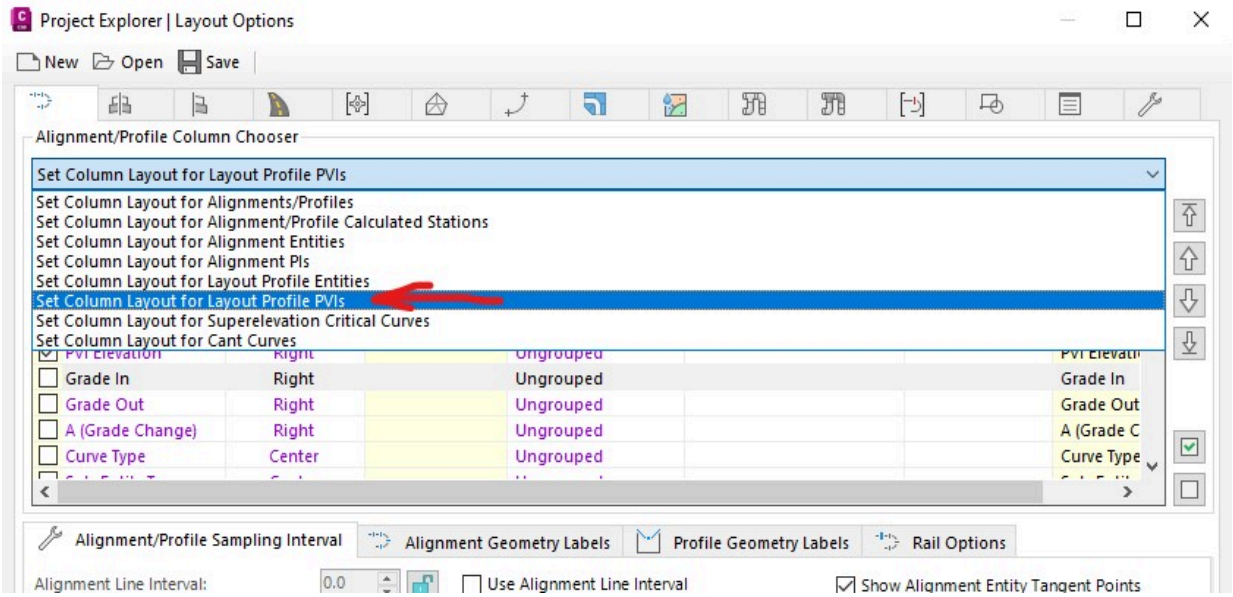


8. Rename the Profile Point Code Label as follows:

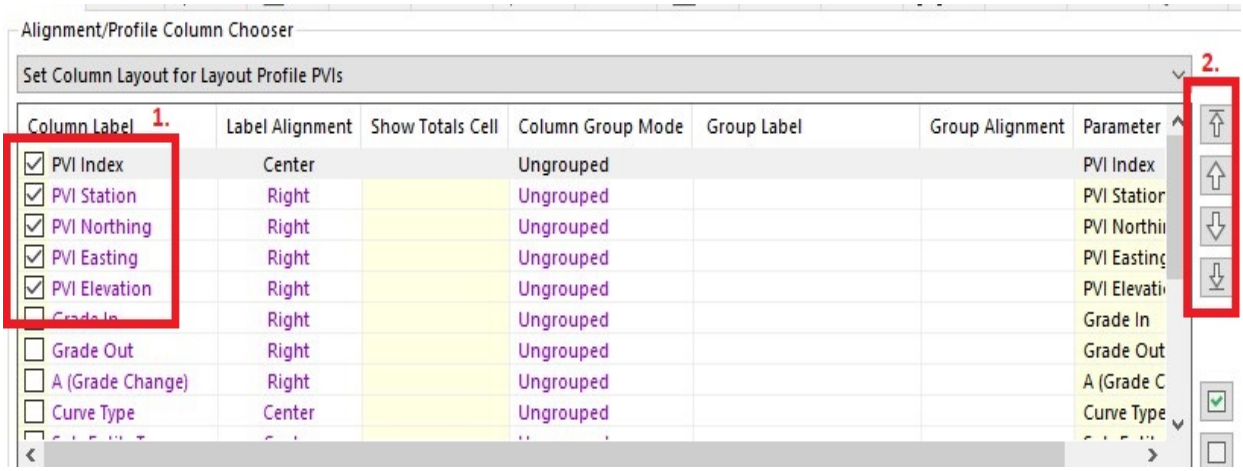
Label	Parameter Name
(VC HP)	Profile point code: Crest Point
(VC LP)	Profile point code: Sag Point
Tangent Point	Profile point code: Tangent Point
(PVI)	Profile point code: Tangent Point (PVI)
(PVC)	Profile point code: Tangent Point (PVC)
(PVT)	Profile point code: Tangent Point (PVT)
(PVRC)	Profile point code: Tangent Point (PVRC)

Label	Parameter Name
(PVCC)	Profile point code: Tangent Point (PVCC)
(BVP)	Profile point code: Start Point
(EVP)	Profile point code: End Point
Infinity	Profile point code: Infinity

9. Select “Set Column Layout for Layout Profile PVIs”



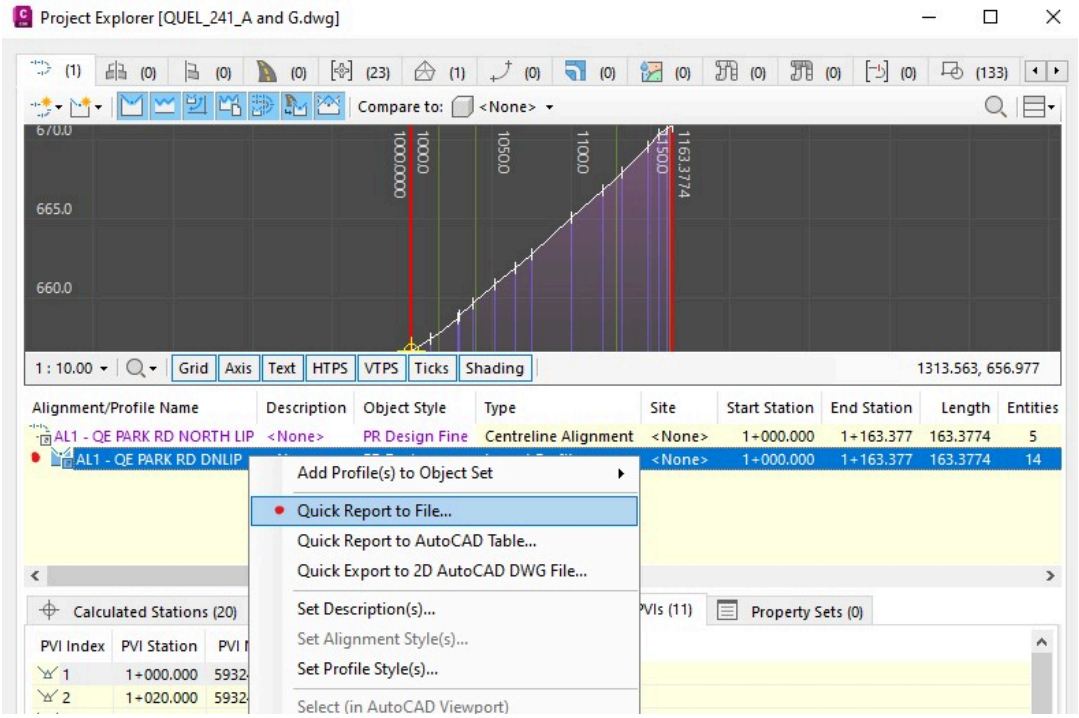
10. 1) Checkmark the items in the list below and uncheck the rest.
    2) Arrange the list in the exact same order.



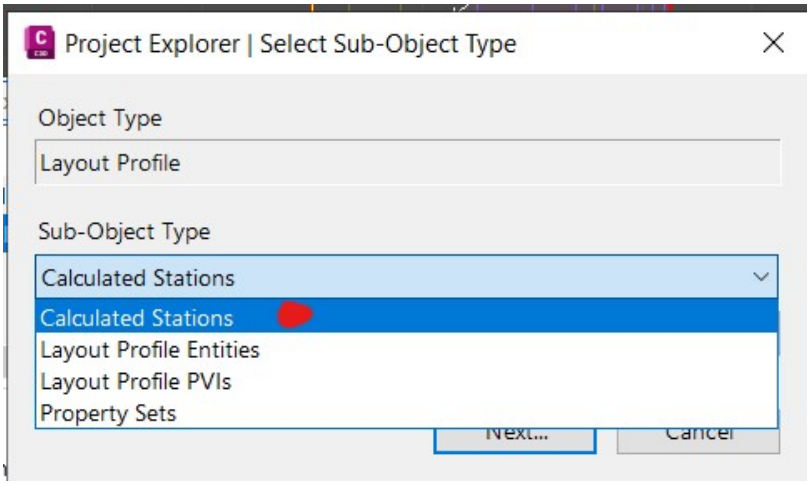
11. Click “OK” and close “Project Explorer”.

B. Export Design Profile To Initial CSV File

1. Open “Project Explorer” → Right-click the design profile → Select “Quick Report to File” → Click “Next”



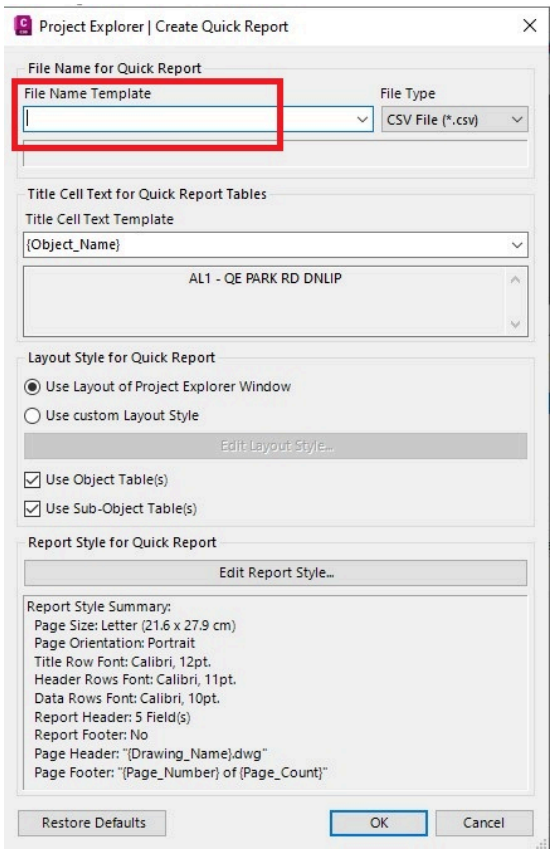
2. Select “Calculated Stations” under “Sub-Object Type”

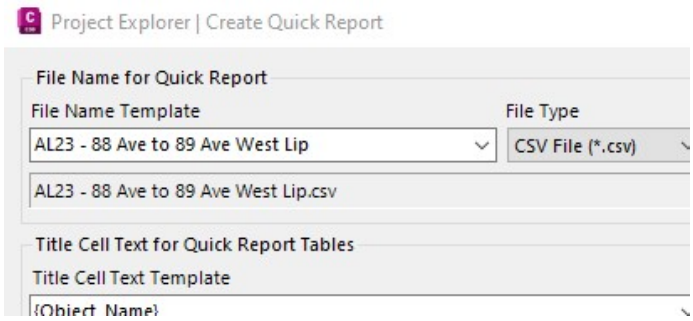


Notes:

- If your design profile includes vertical curves, export both the **Calculated Stations** and **Layout Profile PVIs** CSV files.
- If your design profile **does not** have vertical curves, only export the **Calculated Stations** CSV file.

3. Enter the file name in the format: (Alignment Name) - (Location) (Direction & Profile Type)
   Example: AL23 - 88 Ave to 89 Ave West Lip





4. Within the ‘10SURVEY’ directory located in your project folder on the G: Drive, create a new folder named ‘CSV’ and save the CSV file in this new folder.

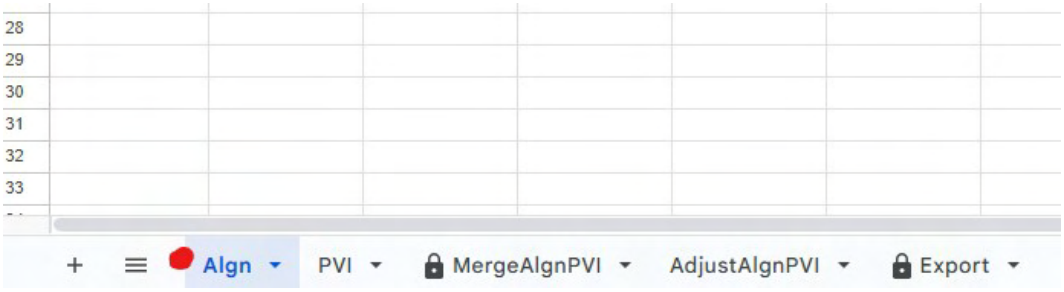
C. Edit CVS Files with Google Sheet

1. Set up a new folder with folder name **CSV** within your project directory on Google Drive.

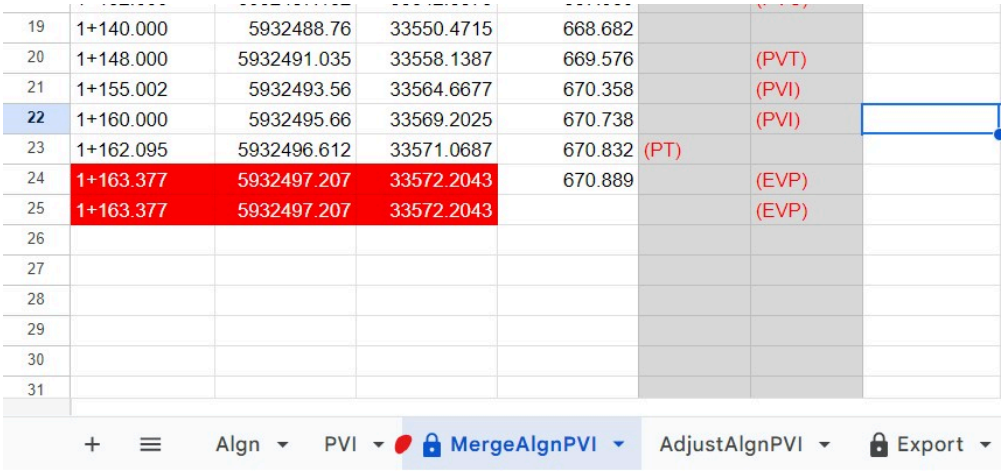
2. Upload the CSV files exported from Civil 3D into the new folder.

3. Copy the Google Sheet (ProfileCSVTool V8) and store it in the newly created folder on Google Drive, rename the spreadsheet in this format: (Alignment Name) - (Location) (Direction & Profile Type) - For Survey
   Example: AL23 - 88 Ave to 89 Ave West Lip - For Survey

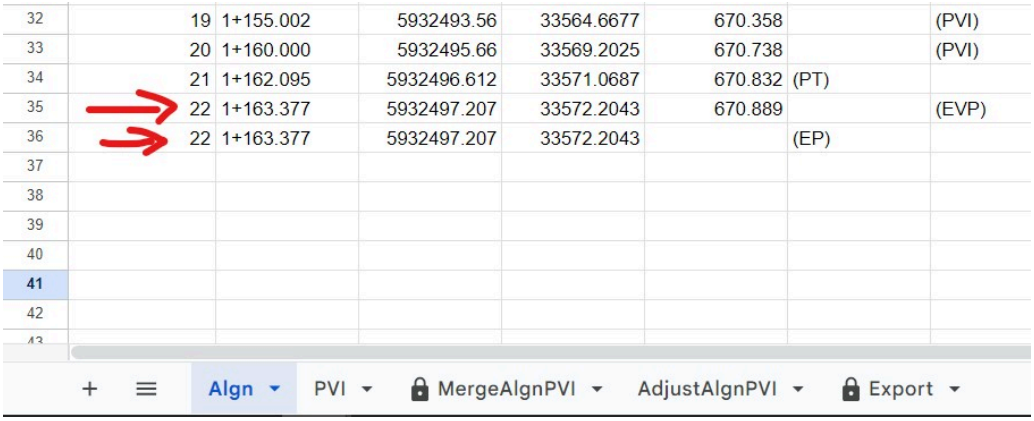
4. Open the original CSV file(s):
   a. **For the profile design without vertical curve**: Copy all content from the original file (Calculated Station) and paste it into the “Algn” tab at the same location.



   b. Go to the ‘MergeAlgnPVI’ tab in your spreadsheet to identify any duplicate points highlighted in red.
   Example: As shown below, there are duplicate points at station 1+163.377



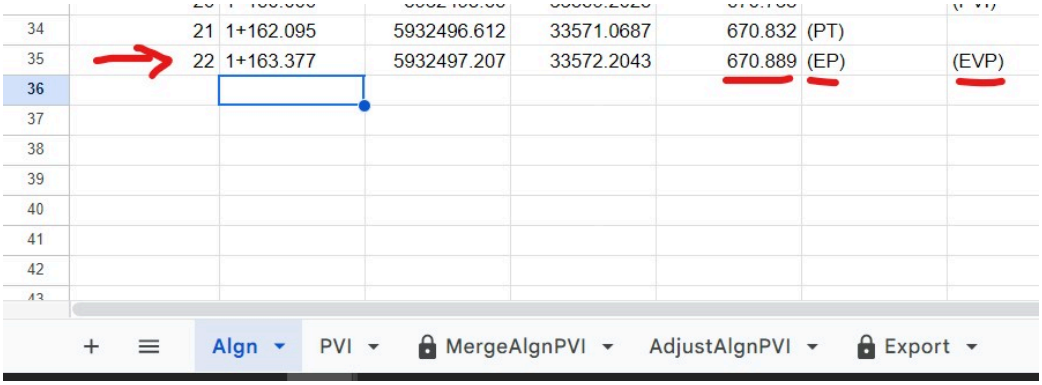
c. Go back to the Algn tab and fix the duplicate points at station 1+163.377.



32	19	1+155.002	5932493.56	33564.6677	670.358		(PVI)
33	20	1+160.000	5932495.66	33569.2025	670.738		(PVI)
34	21	1+162.095	5932496.612	33571.0687	670.832	(PT)	
35	22	1+163.377	5932497.207	33572.2043	670.889		(EVP)
36	22	1+163.377	5932497.207	33572.2043		(EP)	
37							
38							
39							
40							
41							
42							

+ ≡ Algn PVI MergeAlgnPVI AdjustAlgnPVI Export

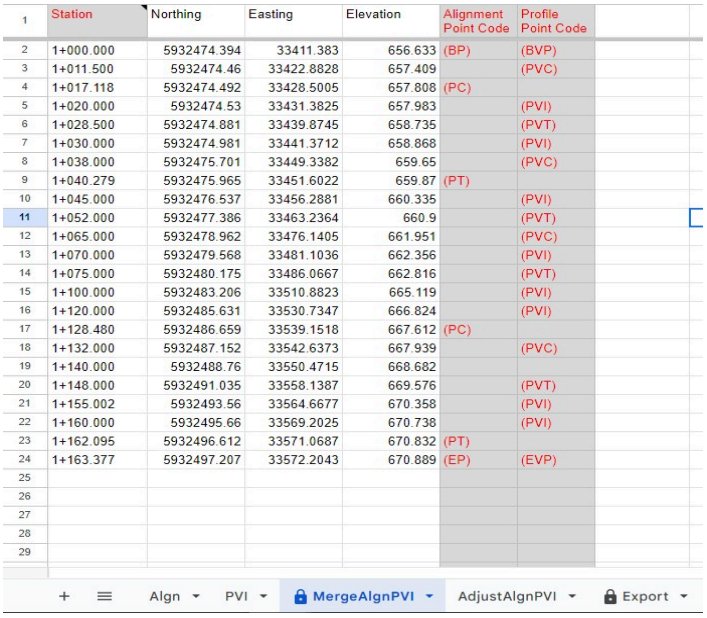
d. Combine those 2 points and insert **0** to where the Elevation column is blank.



34	21	1+162.095	5932496.612	33571.0687	670.832	(PT)	
35	22	1+163.377	5932497.207	33572.2043	670.889	(EP)	(EVP)
36							
37							
38							
39							
40							
41							
42							

+ ≡ Algn PVI MergeAlgnPVI AdjustAlgnPVI Export

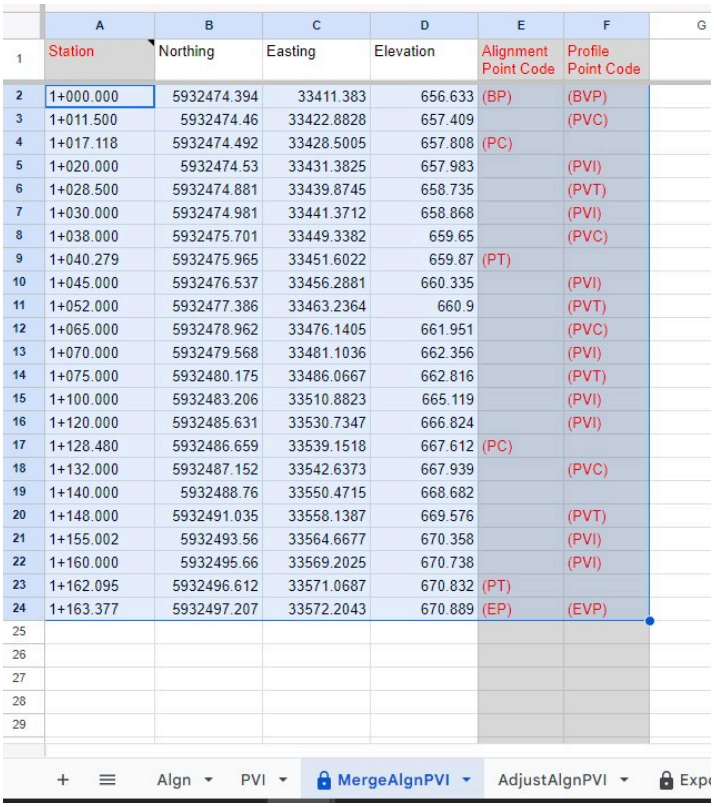
e. Return to the 'MergeAlgnPVI' tab. As you can see, the duplicate points and red labels are now removed.



	Station	Northing	Easting	Elevation	Alignment Point Code	Profile Point Code
2	1+000.000	5932474.394	33411.383	656.633	(BP)	(BVP)
3	1+011.500	5932474.46	33422.8828	657.409		(PVC)
4	1+017.118	5932474.492	33428.5005	657.808	(PC)	
5	1+020.000	5932474.53	33431.3825	657.983		(PVI)
6	1+028.500	5932474.881	33439.8745	658.735		(PVT)
7	1+030.000	5932474.981	33441.3712	658.868		(PVI)
8	1+038.000	5932475.701	33449.3382	659.65		(PVC)
9	1+040.279	5932475.965	33451.6022	659.87	(PT)	
10	1+045.000	5932476.537	33456.2881	660.335		(PVI)
11	1+052.000	5932477.386	33463.2364	660.9		(PVT)
12	1+065.000	5932478.962	33476.1405	661.951		(PVC)
13	1+070.000	5932479.568	33481.1036	662.356		(PVI)
14	1+075.000	5932480.175	33486.0667	662.816		(PVT)
15	1+100.000	5932483.206	33510.8823	665.119		(PVI)
16	1+120.000	5932485.631	33530.7347	666.824		(PVI)
17	1+128.480	5932486.659	33539.1518	667.612	(PC)	
18	1+132.000	5932487.152	33542.6373	667.939		(PVC)
19	1+140.000	5932488.76	33550.4715	668.682		
20	1+148.000	5932491.035	33558.1387	669.576		(PVT)
21	1+155.002	5932493.56	33564.6677	670.358		(PVI)
22	1+160.000	5932495.66	33569.2025	670.738		(PVI)
23	1+162.095	5932496.612	33571.0687	670.832	(PT)	
24	1+163.377	5932497.207	33572.2043	670.889	(EP)	(EVP)
25						
26						
27						
28						
29						

+ ≡ Algn PVI MergeAlgnPVI AdjustAlgnPVI Export

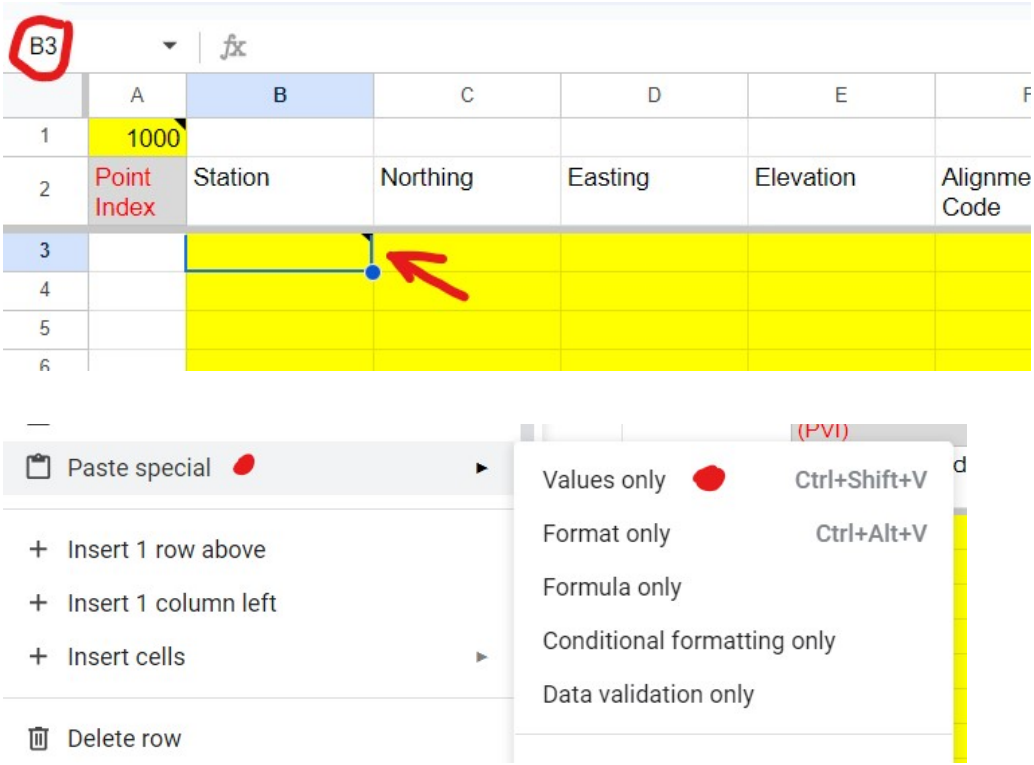
f. Select and copy all the information in this tab, excluding the first row.



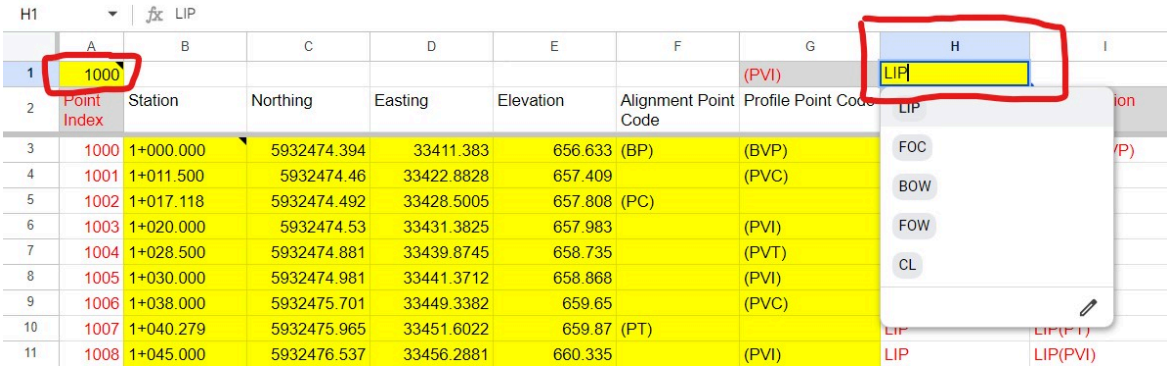
	A	B	C	D	E	F
1	Station	Northing	Easting	Elevation	Alignment Point Code	Profile Point Code
2	1+000.000	5932474.394	33411.383	656.633	(BP)	(BVP)
3	1+011.500	5932474.46	33422.8828	657.409		(PVC)
4	1+017.118	5932474.492	33428.5005	657.808	(PC)	
5	1+020.000	5932474.53	33431.3825	657.983		(PVI)
6	1+028.500	5932474.881	33439.8745	658.735		(PVT)
7	1+030.000	5932474.981	33441.3712	658.868		(PVI)
8	1+038.000	5932475.701	33449.3382	659.65		(PVC)
9	1+040.279	5932475.965	33451.6022	659.87	(PT)	
10	1+045.000	5932476.537	33456.2881	660.335		(PVI)
11	1+052.000	5932477.386	33463.2364	660.9		(PVT)
12	1+065.000	5932478.962	33476.1405	661.951		(PVC)
13	1+070.000	5932479.568	33481.1036	662.356		(PVI)
14	1+075.000	5932480.175	33486.0667	662.816		(PVT)
15	1+100.000	5932483.206	33510.8823	665.119		(PVI)
16	1+120.000	5932485.631	33530.7347	666.824		(PVI)
17	1+128.480	5932486.659	33539.1518	667.612	(PC)	
18	1+132.000	5932487.152	33542.6373	667.939		(PVC)
19	1+140.000	5932488.76	33550.4715	668.682		
20	1+148.000	5932491.035	33558.1387	669.576		(PVT)
21	1+155.002	5932493.56	33564.6677	670.358		(PVI)
22	1+160.000	5932495.66	33569.2025	670.738		(PVI)
23	1+162.095	5932496.612	33571.0687	670.832	(PT)	
24	1+163.377	5932497.207	33572.2043	670.889	(EP)	(EVP)
25						
26						
27						
28						
29						

Algn | PVI | MergeAlgnPVI | AdjustAlgnPVI | Expo

g. Paste **only the values** into cell B3 on the ‘AdjustAlgnPVI’ tab.

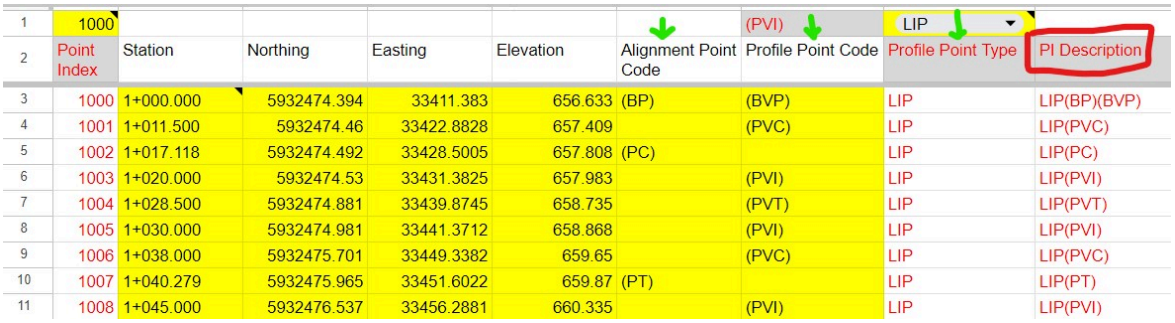


h. Specify the starting point number in cell A1 (top left corner) and choose the Profile Point Type in cell H1 (row H).

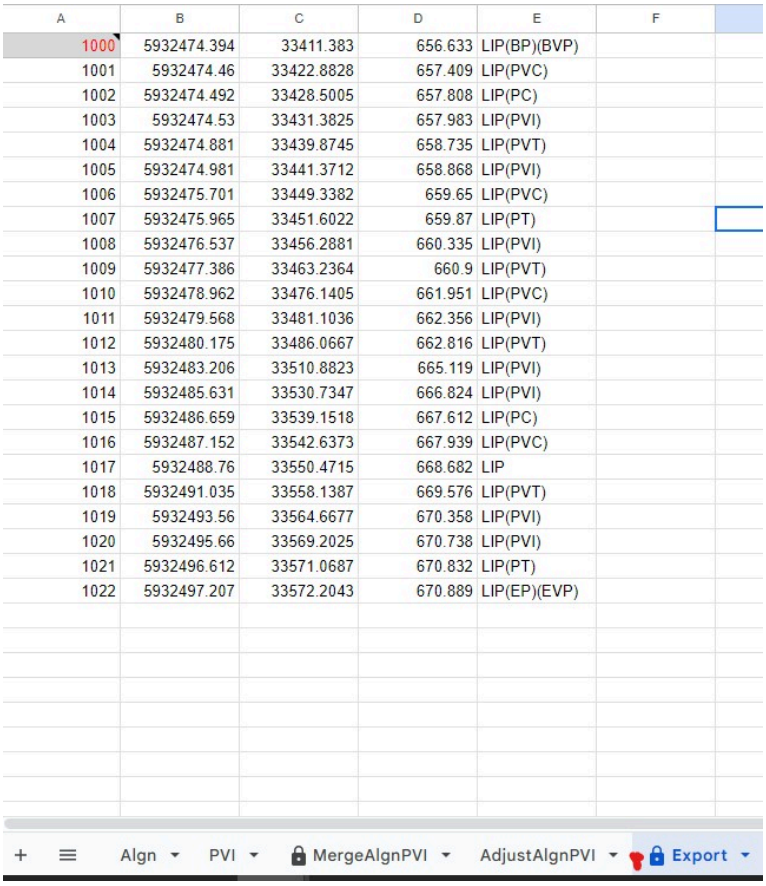


Note: The point numbers should correspond with your alignment number.
Examples: AL1 starts with point 1000
AL23 starts with point 23000

i. The PI Description column should automatically combine the data in these three columns.



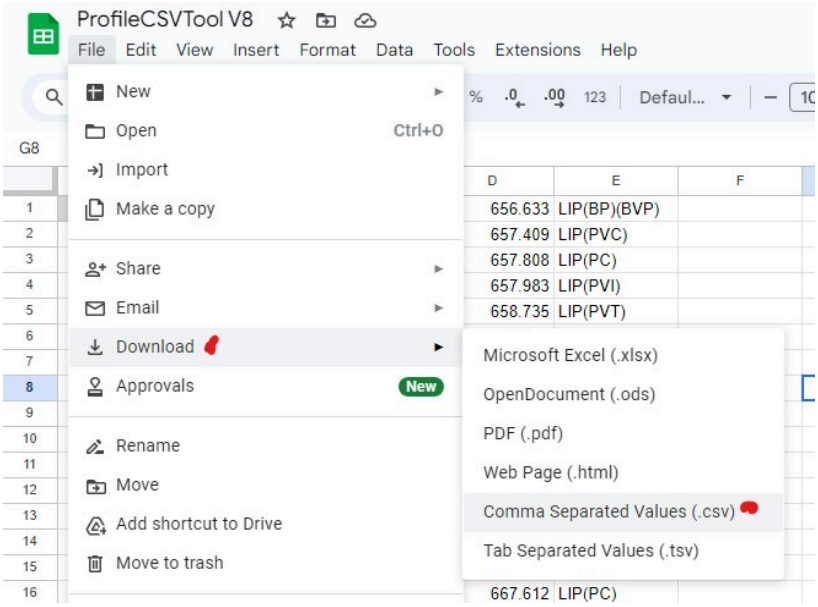
j. Go to the ‘Export’ tab. The spreadsheet should already be formatted according to the survey team’s requirements.



	A	B	C	D	E	F
1	1000	5932474.394	33411.383	656.633	LIP(BP)(BVP)	
2	1001	5932474.46	33422.8828	657.409	LIP(PVC)	
3	1002	5932474.492	33428.5005	657.808	LIP(PC)	
4	1003	5932474.53	33431.3825	657.983	LIP(PVI)	
5	1004	5932474.881	33439.8745	658.735	LIP(PVT)	
6	1005	5932474.981	33441.3712	658.868	LIP(PVI)	
7	1006	5932475.701	33449.3382	659.65	LIP(PVC)	
8	1007	5932475.965	33451.6022	659.87	LIP(PT)	
9	1008	5932476.537	33456.2881	660.335	LIP(PVI)	
10	1009	5932477.386	33463.2364	660.9	LIP(PVT)	
11	1010	5932478.962	33476.1405	661.951	LIP(PVC)	
12	1011	5932479.568	33481.1036	662.356	LIP(PVI)	
13	1012	5932480.175	33486.0667	662.816	LIP(PVT)	
14	1013	5932483.206	33510.8823	665.119	LIP(PVI)	
15	1014	5932485.631	33530.7347	666.824	LIP(PVI)	
16	1015	5932486.659	33539.1518	667.612	LIP(PC)	
17	1016	5932487.152	33542.6373	667.939	LIP(PVC)	
18	1017	5932488.76	33550.4715	668.682	LIP	
19	1018	5932491.035	33558.1387	669.576	LIP(PVT)	
20	1019	5932493.56	33564.6677	670.358	LIP(PVI)	
21	1020	5932495.66	33569.2025	670.738	LIP(PVI)	
22	1021	5932496.612	33571.0687	670.832	LIP(PT)	
23	1022	5932497.207	33572.2043	670.889	LIP(EP)(EVP)	

Algn | PVI | MergeAlgnPVI | AdjustAlgnPVI | Export

k. Go to File → Download → Comma Separated Values
To export the CSV file from the “Export” tab and rename the CSV file as required.



5. Combine "**Calculated Station**" and "**Layout Profile PVIs**" into one spreadsheet (For profile design **with vertical curves only**)
    a. Copy all content from the Calculated Station file and paste it into the "Algn" tab at the same location.
    b. Copy all content from the Layout Profile PVIs file and paste it into the "PVI" tab at the same location

12	Point Index	Station	Northing	Easting	Elevation	Alignment Point	Profil
13	1	1+000.000	5932474.394	33411.383	656.633	(BP)	(BVF
14	2	1+011.500	5932474.46	33422.8828	657.409		(PVC
15	3	1+017.118	5932474.492	33428.5005	657.808	(PC)	
16	4	1+020.000	5932474.53	33431.3825	657.983		(PVI)
17	5	1+028.500	5932474.881	33439.8745	658.735		(PVT

Calculated Station

Layout Profile PVIs

+ ≡ Algn ▾ PVI MergeAlgnPVI ▾ AdjustAlgnPVI ▾ Export ▾

6. Repeat Step 4 b to h

7. Identify the rows that do not have Alignment and Profile Point Code

1000						(PVI)	LIP	
Point Index	Station	Northing	Easting	Elevation	Alignment Point Code	Profile Point Code	Profile Point Type	PI Description
1012	1+075.000	5932480.175	33486.0667	662.816		(PVT)	LIP	LIP(PVT)
1013	1+100.000	5932483.206	33510.8823	665.119		(PVI)	LIP	LIP(PVI)
1014	1+120.000	5932485.631	33530.7347	666.824		(PVI)	LIP	LIP(PVI)
1015	1+128.480	5932486.659	33539.1518	667.612	(PC)		LIP	LIP(PC)
1016	1+132.000	5932487.152	33542.6373	667.939		(PVC)	LIP	LIP(PVC)
1017	1+140.000	5932488.76	33550.4715	668.682			LIP	LIP
1018	1+148.000	5932491.035	33558.1387	669.576		(PVT)	LIP	LIP(PVT)
1019	1+155.002	5932493.56	33564.6677	670.358		(PVI)	LIP	LIP(PVI)
1020	1+160.000	5932495.66	33569.2025	670.738		(PVI)	LIP	LIP(PVI)
1021	1+162.095	5932496.612	33571.0687	670.832	(PT)		LIP	LIP(PT)
1022	1+163.377	5932497.207	33572.2043	670.889	(EP)	(EVP)	LIP	LIP(EP)(EVP)

8. Manually enter (PVI) in the "Profile Point Code" column (column G)

	A	B	C	D	E	F	G	H	I
1	1000						(PVI)	LIP	
2	Point Index	Station	Northing	Easting	Elevation	Alignment Point Code	Profile Point Code	Profile Point Type	PI Description
15	1012	1+075.000	5932480.175	33486.0667	662.816		(PVT)	LIP	LIP(PVT)
16	1013	1+100.000	5932483.206	33510.8823	665.119		(PVI)	LIP	LIP(PVI)
17	1014	1+120.000	5932485.631	33530.7347	666.824		(PVI)	LIP	LIP(PVI)
18	1015	1+128.480	5932486.659	33539.1518	667.612	(PC)		LIP	LIP(PC)
19	1016	1+132.000	5932487.152	33542.6373	667.939		(PVC)	LIP	LIP(PVC)
20	1017	1+140.000	5932488.76	33550.4715	668.682		(PVI)	LIP	LIP
21	1018	1+148.000	5932491.035	33558.1387	669.576		(PVT)	LIP	LIP(PVT)
22	1019	1+155.002	5932493.56	33564.6677	670.358		(PVI)	LIP	LIP(PVI)
23	1020	1+160.000	5932495.66	33569.2025	670.738		(PVI)	LIP	LIP(PVI)
24	1021	1+162.095	5932496.612	33571.0687	670.832	(PT)		LIP	LIP(PT)

9. The data in the Profile Point column and the Profile Point Code column should automatically combine

2	Point Index	Station	Northing	Easting	Elevation	Alignment Point Code	Profile Point Code	Profile Point Type	PI Description
15	1012	1+075.000	5932480.175	33486.0667	662.816		(PVT)	LIP	LIP(PVT)
16	1013	1+100.000	5932483.206	33510.8823	665.119		(PVI)	LIP	LIP(PVI)
17	1014	1+120.000	5932485.631	33530.7347	666.824		(PVI)	LIP	LIP(PVI)
18	1015	1+128.480	5932486.659	33539.1518	667.612	(PC)		LIP	LIP(PC)
19	1016	1+132.000	5932487.152	33542.6373	667.939		(PVC)	LIP	LIP(PVC)
20	1017	1+140.000	5932488.76	33550.4715	668.682		(PVI)	LIP	LIP(PVI)
21	1018	1+148.000	5932491.035	33558.1387	669.576		(PVT)	LIP	LIP(PVT)
22	1019	1+155.002	5932493.56	33564.6677	670.358		(PVI)	LIP	LIP(PVI)

10. Go to the ‘Export’ tab. The spreadsheet should already be formatted according to the survey team’s requirements

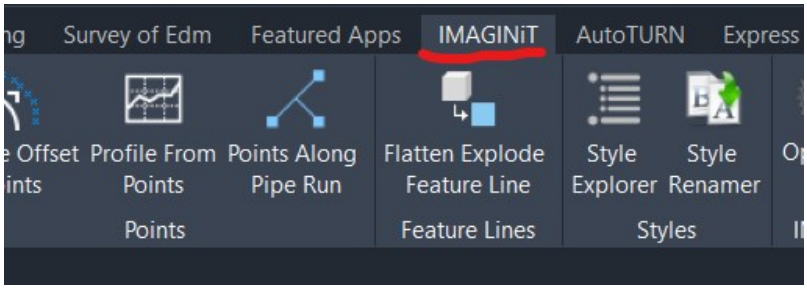
A	B	C	D	E	F
1000	5932474.394	33411.383	656.633	LIP(BP)(BVP)	
1001	5932474.46	33422.8828	657.409	LIP(PVC)	
1002	5932474.492	33428.5005	657.808	LIP(PC)	
1003	5932474.53	33431.3825	657.983	LIP(PVI)	
1004	5932474.881	33439.8745	658.735	LIP(PVT)	
1005	5932474.981	33441.3712	658.868	LIP(PVI)	
1006	5932475.701	33449.3382	659.65	LIP(PVC)	
1007	5932475.965	33451.6022	659.87	LIP(PT)	
1008	5932476.537	33456.2881	660.335	LIP(PVI)	
1009	5932477.386	33463.2364	660.9	LIP(PVT)	
1010	5932478.962	33476.1405	661.951	LIP(PVC)	
1011	5932479.568	33481.1036	662.356	LIP(PVI)	
1012	5932480.175	33486.0667	662.816	LIP(PVT)	
1013	5932483.206	33510.8823	665.119	LIP(PVI)	
1014	5932485.631	33530.7347	666.824	LIP(PVI)	
1015	5932486.659	33539.1518	667.612	LIP(PC)	
1016	5932487.152	33542.6373	667.939	LIP(PVC)	
1017	5932488.76	33550.4715	668.682	LIP	
1018	5932491.035	33558.1387	669.576	LIP(PVT)	
1019	5932493.56	33564.6677	670.358	LIP(PVI)	
1020	5932495.66	33569.2025	670.738	LIP(PVI)	
1021	5932496.612	33571.0687	670.832	LIP(PT)	
1022	5932497.207	33572.2043	670.889	LIP(EP)(EVP)	

Align | PVI | MergeAlgnPVI | AdjustAlgnPVI | Export

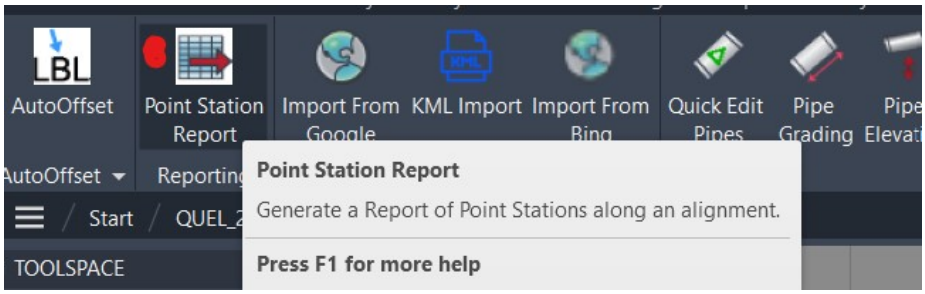
11. Go to File → Download → Comma Separated Values
    To export the CSV file from the “Export” tab and rename the CSV file as required.

D. Export Miscellaneous Points CSV File

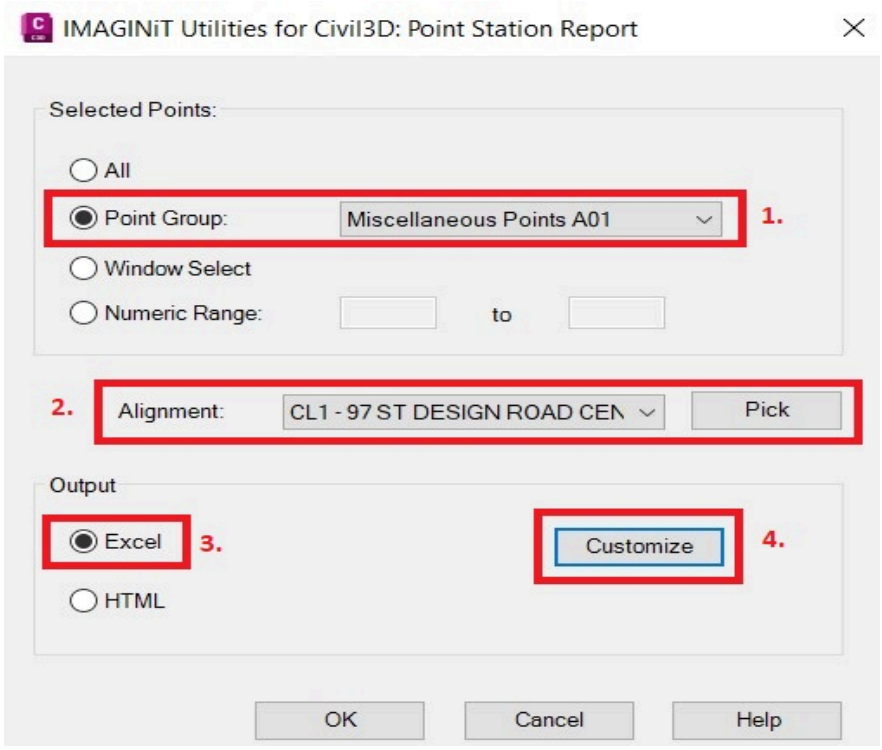
1. Go to “IMAGINiT” menu



2. Click “Point Station Report”

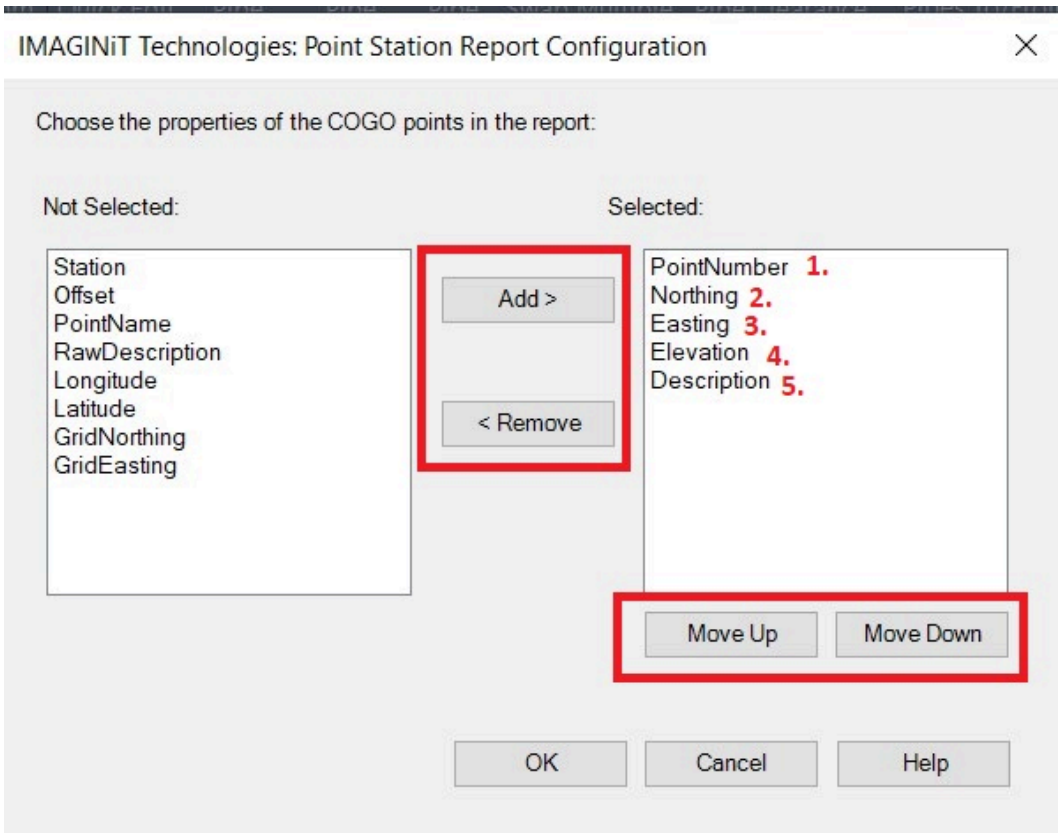


3. Select Point Group → Select Alignment → Select Excel → Go to “Customize”



Note: Please ensure that the alignment for the entire project is set to the centre line/control line.

4. Add the required items to the right-hand side. Use the “Move Up” and “Move Down” buttons to arrange them in the exact order as shown, then click OK



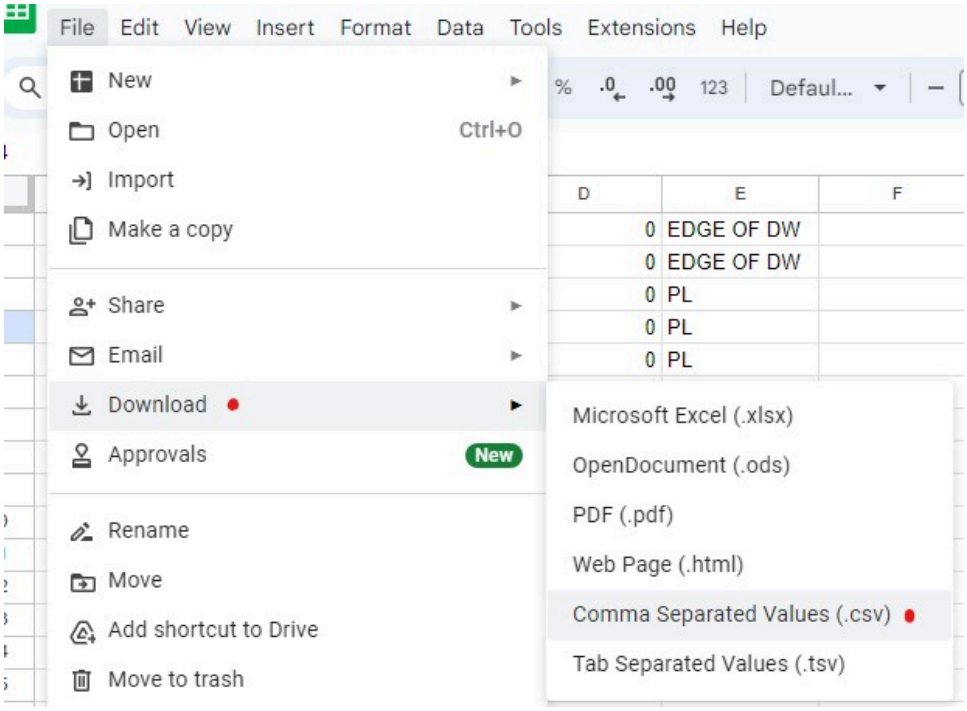
5. Name your file and save it in your project folder on the G drive.

6. Upload the Excel sheet to Google Drive and open it with Google Sheets.

7. Remove all headers and titles, and add ‘0’ to any blank ‘Elevation’ cells

	A	B	C	D	E	F
1	101	5928552.917	34542.5579	0	EDGE OF DW	
2	102	5928584.699	34542.1475	0	EDGE OF DW	
3	103	5928529.698	34541.0327	0	PL	
4	104	5928594.645	34540.1636	0	PL	
5	105	5928651.609	34539.401	0	PL	
6	106	5928657.62	34533.2252	0	PL	
7	107	5928595.913	34542.0027	0	EDGE OF DW	
8	108	5928605.454	34541.8795	0	EDGE OF DW	
9	109	5928636.867	34545.1242	0	HEAD OF BUS STOP	
10	110	5928659.293	34542.0404	0	RAMP CL	
11	111	5928661.272	34538.895	0	EX CBMH	
12	112	5928571.257	34562.428	0	EDGE OF DW	
13	113	5928580.27	34562.489	0	EDGE OF DW	
14	114	5928615.368	34562.052	0	EDGE OF DW	
15	115	5928621.049	34561.93	0	EDGE OF DW	
16	116	5928659.093	34558.9632	0	RAMP CL	

8. Export the Google Sheet as CSV file once completed



(Internal) Appendix 5

Internal As-built Flow Chart

Internal As-built Flow Chart

Refer to Roadways Design As-built Flow Chart.

Appendix 6 – CardEx

APPENDIX 6

1. Introduction

1. Click on the CardEx Icon on your PC and log on as yourself, user ID and password or log on as a **viewer** only, by clicking on the viewer icon button.

2. The CardEx Query window will come up. Pick the database you wish to search.
   a. CardEx Plans – current CardEx database
   b. Prelim Plans – preliminary plan database
   c. Pre–1988 Plans – prior to year 1988 database

3. Icons from the top to the bottom of the page or from left to right
   a. CardEx Query
   b. CardEx Admin
   c. Roadways Admin
   d. Exit (this will exit you out of CardEx)
   e. View Image
   f. Mail Image (e-mail)
   g. Set Viewer (Different viewers that you can use. To set a custom viewer, the user must know full path of custom viewer.)
   h. New Record (Add new record to CardEx Database)
   i. Duplicate Record (Copies previous record)
   j. Save File (saves new record entries)
   k. Print Records (prints CardEx form)
   l. Print Preview (views printed form)
   m. Cut
   n. Copy (copy highlighted field into memory)
   o. Paste (paste copied field from memory)
   p. Undo
   q. Find
   r. Replace
   s. First (Scrolls to the next page)
   t. Prior (Previous page)
   u. Next (Next page)
   v. Last (Scrolls to last page)
   w. Exit (Exits the CardEx database)

NOTE: YOU MUST THOROUGHLY UNDERSTAND THE CARDEX RECORD FIELD SPECIFICATIONS OUTLINED IN APPENDIX 6. IF YOU DO NOT, ASK FOR ASSISTANCE FROM YOUR CARDEX ADMINISTRATOR.
ONLY THROUGH YOUR DILIGENCE AND ATTENTION TO DETAIL WHEN ENTERING DATA WILL THE CARDEX DATABASE BE MAINTAINED ACCURATELY FOR OUR FUTURE USE.

2. CURRENT CARDEX DATABASE

DATABASE: CARDEX PLANS

This choice allows you to search for **EXISTING** plan records or enter a **NEW** plan record into the **CURRENT CardEx** database for the period from 1989 to the present.

a.) **PLAN SEARCH**

1. The search mechanism will find records by sorting through several user defined "fields" such as PLAN_TYPE, ROAD RANGE, and PLAN NAME PREFIX.

2. If you need to search a range of data in the fields for YEAR OF CONSTRUCTION or PLAN TYPE, the syntax **LIKE INFO%** is used as a "wildcard" in searching for a range of information. The **LIKE INFO%** does not work in the Project or Comment fields. Just enter the key word that you're searching for and it will find it.
   - Example #1: you would like to search for all records on Capilano Drive in 1997. In the Description (Desc) field type: **CAPI**; in the Year field type: **LIKE 97%** (with a space between LIKE and 97)**;** this should find all the records for Capilano Drive done in 1997.
   - Example #2: You need to find all the road plans on 23 Avenue between 105 St. and 109 St. in the Description (Desc) field type: **A023**, in the Lo and Hi Road fields use a range i.e. **>= (greater than or equal to) and <= (less than or equal to)** LO Road field: **>=100**, Hi Road field: **<=110**, this will find all the road plans between 100 St and 110 St., review the data and pick the drawing that you require.

3. If no records are found the Query screen will go blank.

4. Point and click on the RESET button and try again if you like.

5. Once the records for your search are displayed on screen, you can scroll up or down by using the scroll bar.

6. To view the records, double click on the record you wish to view or highlight the record and click on the "**View Image Icon**".

7. If you wish to e-mail any of the records found, just highlight the ones you wish to e-mail and click on the "**Mail Image Icon**". This is just like regular e-mail.

8. If you have more than one search, repeat steps 1 & 2.

9. To exit CardEx QUERY, point and click on File then close then exit.

b.) **PLAN ENTRIES**

1. Click on the **"New Record" Icon** and follow the specifications outlined in Appendix A – CardEx.
2. To enter more than one record, click on the "**Duplicate Record Icon,"** this places the highlighted record text in the line to speed up text entry for repetitive records. Simply edit the fields that make the record unique.
3. When you are finished entering new records point and click on the "**Save File Icon"** and your new entries will be saved.
4. To exit CardEx QUERY, point and click on "**Exit Icon."**

3. PRELIMINARY PLANS

DATABASE: PRELIM PLANS

This choice allows you to search for **EXISTING** preliminary plan records or enter a **NEW** preliminary plan record into the **PRELIMINARY CardEx** database **ONLY**.

a.) **PLAN SEARCH**

1. The search mechanism will find records by sorting through several user defined "fields" such as PLAN_TYPE, ROAD RANGE, and PLAN NAME PREFIX.

2. If you need to search a range of data in the fields for YEAR OF CONSTRUCTION or PLAN TYPE, the syntax **LIKE INFO%** is used as a "wildcard" in searching for a range of information. The **LIKE INFO%** does not work in the Project or Comment fields. Just enter the key word that you're searching for and it will find it.
   - Example #1: you would like to search for all records on Capilano Drive in 1997. In the Description (Desc) field type: **CAPI**; in the Year field type: **LIKE 97%** (with a space between LIKE and 97)**;** this should find all the records for Capilano Drive done in 1997.
   - Example #2: You need to find all the road plans on 23 Avenue between 105 St. and 109 St. in the Description (Desc) field type: **A023**, in the Lo and Hi Road fields use a range i.e. **>= (greater than or equal to) and <= (less than or equal to)** LO Road field: **>=100**, Hi Road field: **<=110**, this will find all the road plans between 100 St and 110 St., review the data and pick the drawing that you require.

3. If no records are found the Query screen will go blank.

4. Point and click on the RESET button and try again if you like.

5. Once the records for your search are displayed on screen, you can scroll up or down by using the scroll bar.

6. If you have more than one search, repeat steps 1 & 2.

7. To exit CardEx Query, point and click on File then Exit.

b.) **PRELIMINARY PLAN NUMBERING PROCEDURE**

Note: All Preliminary Plans must be numbered and entered into CardEx database.

All Preliminary Plans must be numbered and entered into CardEx database (Prelim Plans). You will see that the "**Prelim Plans"** database is similar to the "**CardEx Plans"** database with just a few changes.

1. There is no Contract Number field – not required.
2. The plan number will reflect that the drawing is a preliminary plan by having the letter "**P**" proceeding the "year of construction". Example A023 **P011** D01.
3. The plan number will reflect the year that the preliminary plan was **drawn** and not the year of proposed construction.
4. The **Plan Type** field defaults to "PRELIMINARY."
5. The "Comment" field must be used to fully describe the drawing contents, location, project, limits, etc. – a required field.

6. The Preliminary Report field will automatically start as “N” for “NO”.
   If there is a preliminary report available, scan and attach the PDF to the preliminary plan PDF and change field to “Y” for “YES”.

3.1. Prior To 1988, Read Only

DATABASE: Pre–1988 Plans

This menu choice allows you to search the CardEx database for **OLD** plan records for the period previous to and including 1988.

You are NOT allowed to enter new plan records or revise existing records. If you find some errors in this Database please inform the CardEx administrator and he/she will make the changes.
You can see that this database looks close to the CardEx Database, with two added fields: **Road** and **Road Type.** It is recommended that you search the **Road** and **Road Type** fields along with the range of the **Lo Road** and **Hi Road** fields.

1. Point and click on the field you wish to search on and type in your search request. Example: under the **Road** field type in **023,** and under the **Road Type** field pick the default **Avenue,** now under the **Lo Road** field type >=100 and under the **Hi Road** field type <=109, you will now see that you have found 58 records. Review the records and pick the ones you require.

2. When all necessary fields are entered, click on the RETRIEVE button at the top of the CardEx Query page, if no records are found the Query screen will go blank.

3. Point and click on the RESET button and try again if you like.

4. Once the records for your search are displayed on screen, you can scroll up or down by using the scroll bar.

5. To view the records, double click on the record you wish to view or highlight the record and click on the “**View Image Icon**”.

6. If you wish to e-mail any of the records found, just highlight the ones you wish to e-mail and click on the “**Mail Image Icon.**” This is just like regular e-mail.

7. If you have more than one search, repeat steps 1 & 2.

8. To exit CardEx Query, point and click on “**Exit Icon.”**

4. Entering Into CardEx Database

Plan records must be entered into CardEx as soon as the drawings are numbered. If any changes are necessary to the drawing numbers, these changes should be made in CardEx immediately. Once the drawings are issued for construction, there should be no further changes to the drawing numbers.

The numbering of all design plans prepared or issued by the Design Section are to be in accordance with the following specifications. **Ensure you have properly searched your new number before entering.** Do not leave any gaps in the “drawing content/number” field. Please issue a different “construction year/project” number if there is more than just road work in a project, i.e. (Bridge Structure, Drainage, Noise Wall etc.).

APPENDIX 6

If a project is canceled or postponed, the plan number MUST be deleted from CardEx. A NEW number can be entered in CardEx at the time the project is included in a new contract.

ANYONE who does not **THOROUGHLY UNDERSTAND** these CardEx numbering specifications must first check with your CardEx administrator before entering, reserving or giving out new plan numbers.

4.1. "PROJECT" FIELD

- **Not a required field**.
- Use for large ongoing projects that encompass a variety of streets and avenues, subdivision or special projects.
- Name should be consistent throughout the project so that future searches will find all drawings in that project.
- **Required for the following**.
    - Insert **SLIDE REPAIR** for ALL slide repair type projects.
    - Insert **B###** for ALL bridge structures. The "**B###"** denotes the bridge maintenance database. Please see your CardEx administrator for the "**B###"** number.
    - Insert **NOISE WALL** for ALL noise wall type projects.
    - Insert **RETAINING WALL** for ALL retaining wall type projects.
    - Insert **GATE** for ALL entrance gate type projects.

4.2. "CONTRACT" FIELD

- **Not a required field but should be filled out once you know your Contract number.**
- Denotes the contract number and year of construction. All records from the construction year 2001 and on will have this as a required field.

4.3. "PLAN–NUMBER" FIELD

- **Consists of three required fields, as listed below:**

1) **ROADWAY IDENTIFICATION "DESCRIPTION"**

- Consists of five alphanumeric characters identifying the street, avenue or named road.

a) AVENUES

- Use the letter **A** followed by the Avenue number.

Example:
A023 for 23 Avenue
A125 for 125 Avenue
A103A for 103A Avenue

b) STREETS

- Use the letter **S** followed by the Street number.

Example:
S051 for 51 Avenue
S127 for 127 Street
S118A for 118A Street

c) NAMED ROADS

- Use the first four letters for one-word names, for named roads with two or more word take the first two letters of the first two words.
- Name descriptors such as Avenue, Trail, Drive, Road, etc. are not to be used in the name abbreviation.
- Use the "NAMED STREETS" section of the telephone book for the standardized spelling of all named roads.

Example:

WHIT for Whitemud Drive
JASP for Jasper Avenue
RAHI for Rabbit Hill Road
EMMU for Emily Murphy Park Road
MIWO for Mill Woods Road
ADA for ADA Boulevard
FOX for FOX Drive
GAMA for G.A. MacDonald Drive

d) SUBDIVISIONS

- Identified by Four characters denoting the subdivision name. Used to identify work covering large portions of a subdivision, such as subdivision rehabilitation projects.
- Use the first four letters for one–word names, or the first two letters of the first two words two or more word names.
- Use subdivision names as shown on the subdivision map.

Example:

WEST for Westwood subdivision
MEAD for Meadowlark subdivision
RITE for Rio Terrace subdivision
WEJA for West Jasper Place subdivision

e) CITY WIDE PROJECTS

- Used to identify work in a citywide program such as "Curb Ramp" program.
- Use only the word **CITY**, do not make up your own identifier (MISC is not permitted).

f) BIKE PATHS

- Used to identify a bikeway or shared use path that is not associated with a specific road.
- Use only the word **BIKE**, do not make up your own identifier (MISC is not permitted).

2) CONSTRUCTION YEAR/PROJECT "YEAR OF CONSTRUCTION"

- **Required field consisting of three numbers**.
- First two numbers denote the year of construction followed by the sequential project number for that location in that year.

Example:

961 for 1996 construction, first project that year on that road
976 for 1997 construction, sixth project that year on that road

3) DRAWING CONTENT/NUMBER "PLAN NUBMER"

- **Required field consisting of three alphanumeric characters.**
- Consists of one letter using ONLY the identifiers listed below, followed by two digits numbering the plan within a series for that project, or three characters for specific type drawings, as shown below:

COVER SHEET	**001**
INDEX	**002**
ALIGNMENT	**A__**
CONTOUR	**C__**
DETAIL	**D__**
ELECTRICAL	**E__**
GRADE	**G__**
LANDSCAPE	**H__**
LIGHTING	**L__**
PAVEMENT MARKING	**P__**
LAND	**Q__**
STRUCTURE	**S__**
UTILITY	**U__**
X–SECTION	**X__**
STAGING	**Z__**
ENVIRONMENT XING	**EX_**
PIPELINE XING	**PX_**
RAILWAY XING	**RX_**
RESERVED	**RES**

- Use only those identifiers listed above, DO NOT make up your own (if in doubt, see your CardEx administrator for help). Unassigned letters are NOT TO BE USED for any reason.
- If the drawing has multiple types of information (i.e. alignment and grade) use the identifier of the most predominant type of information.

4) Reserved Plan Numbers

- If a drawing number series is being reserved, ensure the plan numbers are entered promptly as soon as they are known, or the "**RES**' numbers are to be deleted if the project is canceled or postponed.
- Only one RES entry is necessary to reserve a number series; you do not need one for A, D, G, etc.

Example:
A02 for alignment plan, second in the series
PX1 for pipe crossing plan, first in the series
RES for drawing number series reserved for a consultant or future use

4.4. "PLAN–TYPE" FIELD

- **Required field.**
- Denoting the type of information shown on the drawing. Note PLAN–TYPE is hard coded and you can only use plan types that are listed in the pull down menu, NO SUBSTITUTION ALLOWED.
- Should directly reflect the DRAWING CONTENT/NUMBER field, except as noted below.
- For drawings containing multiple types of information (i.e. miscellaneous minor projects) choose one of the multiple hard coded PLAN-TYPES.

Example:

ALIGNMENT	for control line and/or alignment details
GRAD	for plan/profile grade plans or grading details
UTILITY	for existing and/or proposed utilities
A, D	for alignment and pavement details
A, D, G, U	for alignment, detail, grade and utility information
RESERVED	for drawing number series reserved for consultant or future use

a) STRUCTURES

- For ALL structural–drawing sets, insert STRUCTURE in Plan Type field, regardless of the DRAWING CONTENT/NUMBER field, use DESCRIPTION field to describe each drawing's contents.
- Structural drawing sets may contain drawings numbered as A, D, E, H, etc. in the **DRAWING CONTENT/NUMBER** field, but EVERY drawing in the set must have STRUCTURE in the PLAN–TYPE field, by using a structural search will find all the related drawings.

b) ENVIRONMENT, PIPELINE & RAILWAY CROSSINGS

- Insert the appropriate annotation as require, EX_ for environment, PX_ for pipeline, RX_ for railway, use the DESCRIPTION field to show the pipeline company name, railway name, location, etc.

c) **SLIDE REPAIRS**

- Insert "**SLIDE REPAIR**" in the **PROJECT** field for ALL slide repair projects.
- Every drawing in a SLIDE REPAIR project must be numbered as A, D, G, etc. and denoted accordingly in the PLAN–TYPE field.

d) **NOISE WALL**

- Insert **NOISE WALL** for ALL noise wall type projects.
- For ALL **NOISE WALL** –drawing sets, insert STRUCTURE in this field, regardless of the DRAWING CONTENT/NUMBER field (use DESCRIPTION field to describe each drawing's contents).

e) **RETAINING WALL**

- Insert **RETAINING WALL** for ALL retaining wall type projects.
- For ALL **RETAINING WALL** –drawing sets, insert STRUCTURE in this field, regardless of the DRAWING CONTENT/NUMBER field (use DESCRIPTION field to describe each drawing's contents).

4.5. "LO" & "HI" FIELDS

- **Two required fields consisting of up to 3 numbers each.**
- LO road (low road location on the plan) must always be less than or equal to HI road (high road location on the plan). LO and HI range must apply to each drawing limit, not the overall project limits.

4.6. "Q" FIELDS

- **Two required fields consisting of two character each.**
- Specifies the quadrant (NW, NE, SW, SE) of the drawing limit in the LO and HI fields within the city street numbering system. This is hard coded in the database use only the specified quadrants in the pull down menu.

4.7. "Designer" Field

- **Required field consisting of three characters denoting the engineer's or designer's initials.**
- For plans done by a consultant use the initials of the Design Section engineer or designer overseeing the project. This is a hard coded field and must comply with the Design Section engineers and designers.

4.8. "Department" Field

- **Required field consisting of the proper section name in Transportation Infrastructure.**

4.9. Comment Field

- **Required field of up to 58 characters maximum**.
- **MUST** be used to describe the drawing contents, location, project, limits, etc. For a **RESERVED** series, describe the project, including the project limits, type of work, consultant's name, etc.