



Linear CAD Standards Manual

Public Works

CAD Submission Requirements

Version 2.0

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Prepared by:

Engineering Technical Services

Public Works Department

Peel Region

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1. Introduction

1.1. Overview

This manual has been developed to outline the requirements for the preparation of design and construction drawings on capital projects impacting Peel Region Linear Infrastructure. The manual is intended to provide minimum design criteria and standards for proposed works.

Peel Region requires that this standard be used by internal staff as well as consultants that have been awarded projects for Peel Region.

Peel Region uses **Bentley MicroStation Connect Edition®**. This document and supporting design files are written with this software being the intended platform. Our Public Works (PW) Department's policy states that all CAD submissions shall be submitted in Bentley MicroStation (*.DGN) file format V8i or newer, and conform to the structure and standards of the Public Works Department. All CAD data supplied to Consultants by Peel Region shall be in MicroStation (.DGN) format.

Refer to Appendix A - **CAD Data Release Form** to be completed by the Project Manager or consulting firm and returned to the Peel's Project Manager for all Capital Works data set requests.

Any discrepancies with the information outlined in this document should be addressed to the current Peel Region CAD Supervisor.

1.2. Scope

This document is intended to outline Peel Region's CAD standards and focus on three main areas in preparation of CAD drawings for Peel Region:

- Explain project requirements and conformance to maintain consistency for all submissions.
- Detail the templates and support files that are used to facilitate compliance with the standard.
- Outline the specific requirements for electronic submission.

1.3. Additional Supporting Documents

Peel Region Design Guidelines that may be relevant to the project include but are not limited to the following:

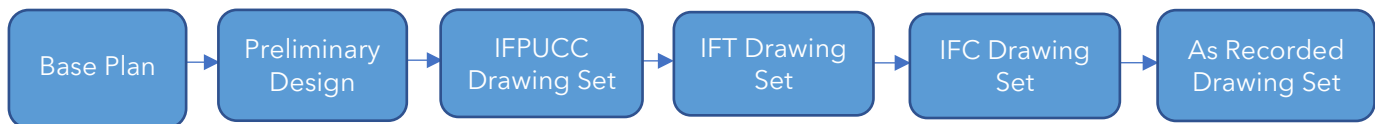
- Public Works, Design, Specifications & Procedures Manual, Linear Infrastructure, Sanitary Sewer Design Criteria.
- Public Works, Design, Specifications & Procedures Manual, Linear Infrastructure, Watermain Design Criteria.
- Public Works Stormwater Design Criteria and Procedural Manual.
- Public Works, Watermain, Storm Sewer and Sanitary Sewer Design Criteria. Addendum, Linear Infrastructure within Proximity of an Electrified Light Rail Transit (LRT) System.
- Public Works, Design, Specifications & Procedures Manual, Linear Infrastructure, Peel Roads and Traffic.
- Public Works, Design, Specifications & Procedures Manual, Linear Infrastructure CAD Submission Requirements Capital Works.
- Public Works, Design, Specifications & Procedures Manual, Vertical CAD Standards.
- Public Works Wastewater Pumping Station Design Standards.
- South Peel Reservoirs and Pumping Station Upgrades, Reservoir Design Guidelines.
- Process Automation and Instrumentation Design Standards (PAIDS).
- Peel Region Standard Drawings.
- Peel Region Project Design and Technical Specifications manual.

This is not a comprehensive list of documents. For these and additional documents go to:

<https://www.peelregion.ca/public-works/design-standards/#criteria>.

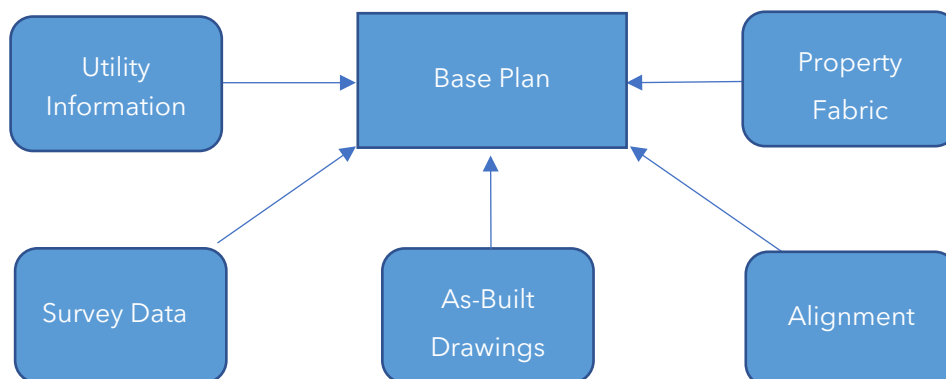
2. Design Project Workflow

This is a typical Peel Region design project workflow and shall serve as a basis for all projects designed internally or by external consultants and sub-consultants:



2.1. Base Plan Creation

The base plan is generated first by referencing the survey data. All other existing information specific to Peel Region infrastructure; existing sanitary and watermain are to be added using the project specific data set files provided. All other project specific files (property fabric, contours, storm sewers, civic numbers, other utilities) available will be added to the base plan. Any files provided by Peel Region are supplied as a matter of courtesy and in no way constitute or replace Legal Surveys or stamped engineer's drawings. Vendors (Engineers, Contractors, etc.) are responsible for independent verification of all supplied project information.



2.2. Proposed Design Creation

The proposed design drawings are generated from the finalized base plan. At this stage the proposed design is cut into sheets which will later serve as the basis for IFPUCC, IFT, IFC and As-Recorded drawings.

2.3. Issued for PUCC Drawing Set

CAD drawings at this stage must be reviewed by the Public Utility Coordination Committee (PUCC). This review is to ensure that proposed construction projects will not damage existing infrastructure or conflict with current and future Infrastructure projects.

2.4. Issued for Tender Drawing Set

CAD drawings at this stage must be reviewed for CAD compliance, design constructability and approved by the Project Engineer/Project Manager with the engineer's seal. Refer to section 20.1 for additional information.

2.5. Issued for Construction Drawing Set

The approved IFC drawing set serves as the construction set of drawings that will be provided to the contractor. CAD compliance comments must be corrected before IFC drawings can be issued. Refer to section 20.2 for additional information.

2.6. As-Recorded Drawing Set

Upon project completion, the IFC drawings will serve as the As-Recorded drawing whereby the IFC drawings will be updated to reflect design changes in the field noted on the redline inspector's IFC copies. As-built survey information will also be used to facilitate modifications to the IFC drawings. Refer to section 20.3 for additional information.

3. CAD Software

The current platform for managing CAD drawings in use within the PW Department is **MicroStation Connect Edition**© by Bentley Systems Incorporated.

It is not the intent of Peel Region to restrict Consultant's choice of CAD platforms, however, should a Consultant choose to use Autodesk AutoCAD© or similar product, it will be the Consultant's responsibility to ensure that all deliverable CAD data shall be provided in Bentley MicroStation format version V8i or newer, as per the standards set out in this document.

4. Peel Region CAD Data Set Package

At the initial project kick-off meeting Peel Region Project Manager, or CAD Supervisor, will provide the Consulting Engineer with the current available standardized drawing templates and project files to assist with the creation of design drawings and contract deliverables.

Peel Region Data Sets are available upon request and contain project specific files including a copy of Peel's CAD standards.

These files are supplied as a matter of courtesy and in no way constitute or replace Legal Surveys or Professional Engineers Stamped Drawings. This information is compiled from existing records, and it is the responsibility of the client to review and verify the supplied documentation which may include, but not limited to, Cadastral or Topographic Survey works.

Refer to Appendix A - **CAD Data Release Form**. This form must be completed by the consulting firm or Project Manager and returned to the Peel Region's Supervisor of CAD & GIS for all Capital Works data set requests.

5. Design File Setup

The following sections cover the basis for the design file set up and graphic settings. Any external files or files brought forward from legacy data shall be brought into this environment.

5.1. Geodetic Datum

All CAD files must be spatially correct and geo-referenced to meet Datum requirements. Peel Region Datum Requirements are as follows:

Horizontal:	Universal Transverse Mercator (UTM), Zone 17N, North America Datum 1983 adjustment (NAD 83 ORG).
Vertical:	GSC Datum, 1978 Southern Ontario Adjustment.

5.2. Seed Files

All CAD submissions will use Peel Region's PW Department MicroStation Seed files as the base for all submissions. These files will be provided as part of the Peel Region CAD Data Set package or on Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>.

The files are as follows:

PEEL_PW_Seed_2D.DGN

PEEL_PW_Seed_3D.DGN

5.3. Working Units

The main parameters of the seed files are presented in Table 5-3.

Table 5-3: Seed File Working Units

Settings	Value
Master Unit	Meters
Sub Unit	Meters
Format	MU (Master Units)
Resolution	10000 per Distance Meter

5.4. Drawing Scale

All CAD files must be drawn in Model space at a **1:1** scale (full size).

5.5. Paper Size

All final full-size PDF drawings shall be Paper Size **ANSI D (22" x 34")**, **greyscale** and at a resolution of **600 DPI**.

All Linear CAD drawings shall be plotted to the following scales:

Horizontal Scale: **1:500**

Vertical Scale: **1:50**

For all Capital projects that were tendered prior to the release of this CAD standard, Paper Size **ARCH D, monochrome** will be accepted.

For **Structural drawings** (bridges & culverts), the following scales are approved:

Table 5-5. Structural Drawing Scales

Type of Drawing	Preferred Scale
Plans & Elevations	1:100
	1:150
	1:200
	1:250
	1:500
Sections	1:10
	1:20
	1:25
	1:50
Details	1:5
	1:10
	1:20
	1:25
	1:50

6. References

Reference files will not be accepted as part of any CAD file submitted. Reference files, if used during design, are to be merged or fence filed into the final CAD drawing file prior to final submission. All CAD files must be independent and self-loading with no links to external references, rasters, or other CAD files.

7. Raster Data

Raster data is typically image files attached to a design file as a reference. These raster files can be used to enhance the appearance or describe the specific information being displayed. The use of raster images is acceptable, but **only** if they are embedded into the final drawings. No Exceptions. All CAD files must be independent and self-loading with no links to external references, rasters, or other CAD files.

8. Level Structure

Peel Region's level structure follows the National CAD Standards (NCS). All CAD files shall conform to the PW CAD Level Structure (See Appendix B).

All attributes used within CAD files will adhere to 'By Level' associations, specifically colour, line weight and line styles attributes. Applying "Level Override Symbolology" settings is not permitted.

8.1. New Levels

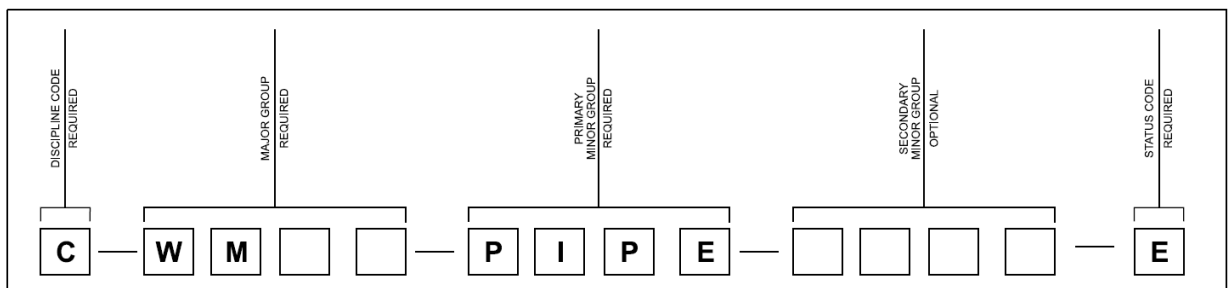
New levels may be created with approval from the Peel Region CAD Supervisor.

All new levels must follow the NCS Level Naming Convention, as depicted in Figure 8-1.

All new level attributes must be set to "ByLevel" in the Level Manager.

All new levels must be created in the **PEEL_PW_User_Defined_Level_Structure.dgnlib**, this file must be submitted with project deliverables for CAD compliance review purposes.

Figure 8-1: Typical NCS Level Name Format



For additional information on NCS level naming, refer to <https://www.nationalcadstandard.org/ncs6/>.

9. Plotting

9.1 Print Driver

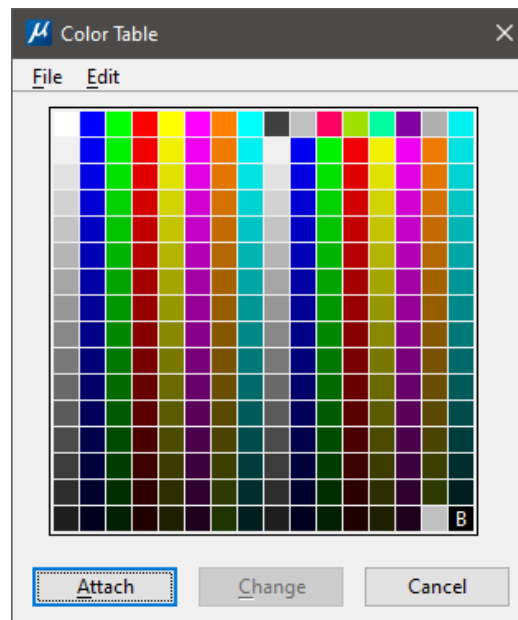
When plotting full size PDF drawings, the Print Driver Configuration file to be used shall be the default MicroStation **printer.pltcfg** config file.

9.2 Pen Table

Peel Region's pen table is called **PEEL.tbl** and shall be used at all times. This pen table will apply **greyscale** settings, and be provided as part of the Peel Region CAD Data Set package or on the Peel Region website at: <https://www.peelregion.ca/public-works/design-standards/#criteria>

9.3 Colour Table

Peel Region colour table is based on the Bentley MicroStation default colour table '**colour.tbl**' and shall be used at all times. No exceptions.



10. Cell Library

All standard cells are stored in the Peel Region cell libraries, and provided as part of the Peel Region CAD Data Set package or on the Peel Region website at:

<https://www.peelregion.ca/public-works/design-standards/#criteria>

Cells must not be dropped or broken into individual graphic components. The intent is to provide consistency throughout the entire design package.

Peel Region Custom Cell Libraries:

- PEEL_PW_CAPITAL_WORKS.CEL
- PEEL_PW_DETAILS.CEL
- PEEL_PW_ROADS.CEL
- PEEL_PW_ROAD_SIGNS.CEL
- PEEL_PW_SURVEY.CEL
- PEEL_PW_TRAFFIC.CEL

11. Text Styles and Annotation

11.1. Text Styles

All project specific text must be placed on the appropriate Text/Annotation level. Text shall be placed referencing the specific Text Style within the **PEEL_PW_Text Styles_Dim Styles.dgnlib**, provided as part of the Peel Region CAD Data Set package or on the Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>

These Text Styles shall always be employed as they govern justification, line spacing and other attributes that control placement.

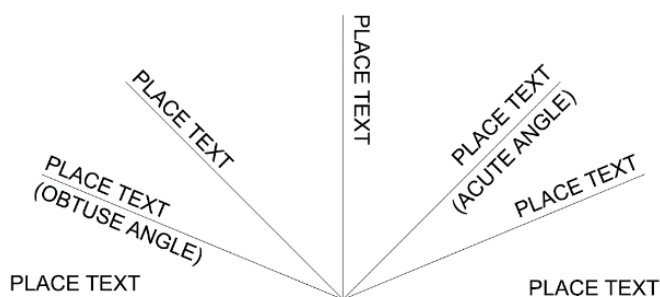
Table 11-1. Standard Text Style Definitions

Text Style	Used for	Font	Color	Justification	Font Height	Font Width
PEEL-0.5	Survey Code Text	Working	ByLevel	Left Top	0.5m	0.5m
PEEL-0.7	Key Map Text	Arial	ByLevel	Left Top	0.7m	0.7m
PEEL-0.8	Existing Road & Utility objects	Working	ByLevel	Left Top	0.8m	0.8m
PEEL-1.0-A	General Notes & Common Text needs	Arial	ByLevel	Left Top	1.0m	1.0m
	Road & Bridge/Culverts Discipline Text					
PEEL-1.0-W	ALL Existing Works	Working	ByLevel	Left Top	1.0m	1.0m
PEEL-1.25	ALL Proposed Works & PI Table Text Values	Arial	ByLevel	Left Top	1.25m	1.25m
PEEL-1.5	PI Table Title	Arial	ByLevel	Center Center	1.5m	1.5m
PEEL-1.75	Detail Titles & Common Text needs	Arial	ByLevel	Left Top	1.75m	1.75m
PEEL-2.5	Appendix F-6-Table Text Values	Arial	ByLevel	Center Center	2.5m	2.5m
PEEL-3.0	Street Name Text	Arial	ByLevel	Center Center	3.0m	3.0m

For a sample depiction of Peel Standard Text Styles, refer to Appendix D.

Text elements should always be oriented with the bottom edge of text as close to the horizon as possible to ensure ease of legibility for all readers. At acute angles, text shall be placed to read from bottom up. At obtuse and right angles, text shall be placed to read from top down, per the example shown in Figure 11-1a. Keep this in mind when orienting text.

Figure 11-1a. Example of Text Orientation:



11.2. Annotation

For **proposed** infrastructure text and notes, Windows true type font **Arial** shall be used.

For **existing** infrastructure text, the MicroStation font **Working** shall be used.

See **PW CAD Level Structure** in Appendix B, the general text settings as defined in Table 11-1, and illustrated on the applicable **CAD Sample Templates** in Appendix G.

For General Notes:

- Capital letters shall be used for all notes and titles.
- For the title of general notes, use Arial Font, 1.75 Bold and underline.
- General notes shall be indicated with numbers, not letters.
- Use text style **PEEL-1.0** for all notes

12. Leader Lines

All leader lines will be set to '**By Level**' with **Filled** arrowheads, as shown below. Leader lines must be placed on the level for which the drawing element and text is representing.

Table 12-1. Standard Leader Line


Name	Image	Description
Arrow		Most commonly used leader. To be used for all projects.

Table 12-2. Standard Leader Style Definitions

Leader Style	Used for	Font	Color	Font Height	Font Width
PEEL-Leader-Existing	All Existing Leaders	Working	ByLevel	1.0m	1.0m
PEEL-Leader-Proposed	All Proposed Leaders	Arial	ByLevel	1.0m	1.0m

13. Dimension Styles

All dimensions are shown in meters and placed on the appropriate Dimension levels as per Appendix B - PW CAD Level Structure and Appendix D - Peel Standard Text Styles.

Dimension style settings are stored in the Peel Region design library, **PEEL_PW_Text Styles_Dim Styles.dgnlib**, provided as part of the Peel Region CAD Data Set package or on the Peel Region website at:

<https://www.peelregion.ca/public-works/design-standards/#criteria>

There are different defined styles for existing and proposed dimensions. Table 13-1 illustrates the specific settings.

The following provide guidelines for applying dimensions:

- Use automatic dimensioning (real size and length)
- Use filled arrowheads for dimension terminators
- Placement shall be aligned to the view and use automatic text location
- Be staggered and offset from each other
- Never drop dimensions

Table 13-1. Standard Dimension Style Definitions

Dimension Style	Used for	Font	Color	Font Height	Font Width
PEEL-Dim-Existing	All Existing Dimensions	Working	ByLevel	1.0m	1.0m
PEEL-Dim-Proposed	All Proposed Dimensions	Arial	ByLevel	1.25m	1.25m
PEEL-Dim-STRC	ONLY for Bridge & Culvert Dimensions	Arial	ByLevel	1.0m	1.0m

14. Line Styles

Custom line styles developed by Peel Region are located in the

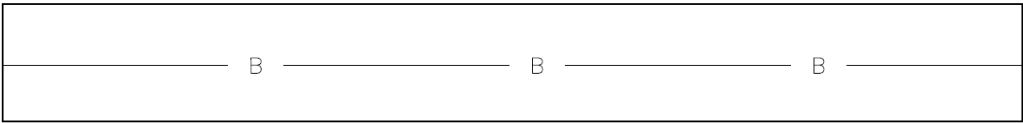
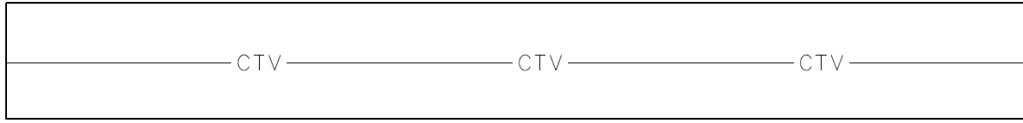
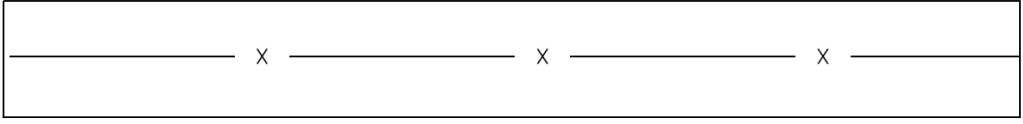
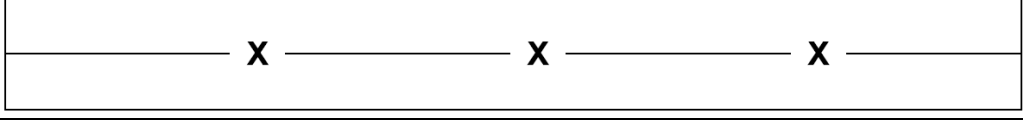

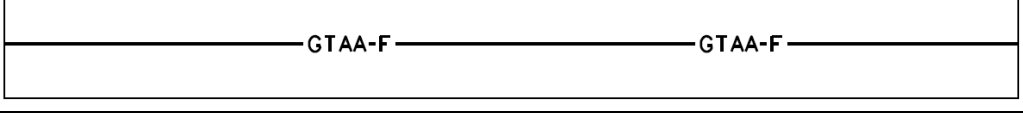
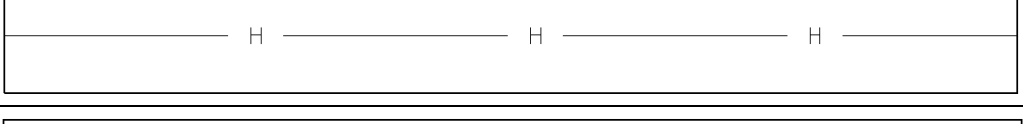
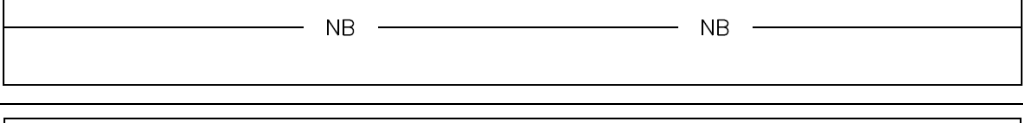
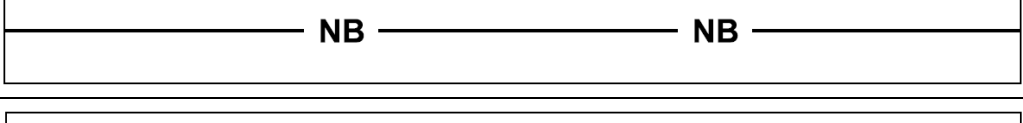
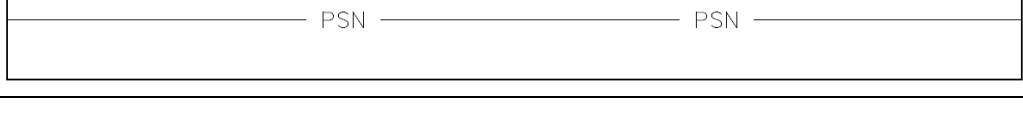
PEEL_PW_Line Styles.dgnlib provided as part of the Peel Region CAD Data Set package or on the Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>. Peel Region does not approve any custom line styles not outlined in Appendix C. See Table 14-1 for a sample of custom line styles.



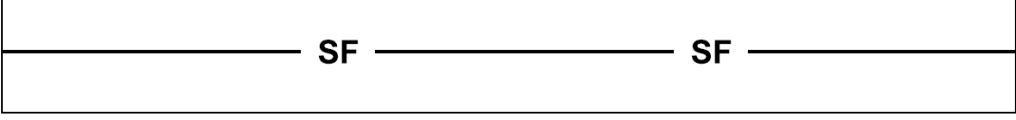
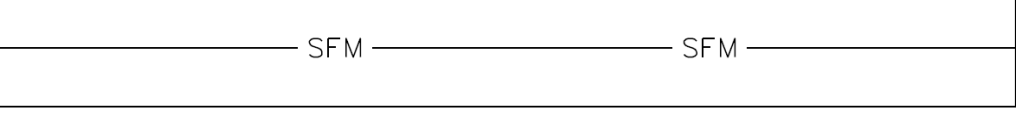
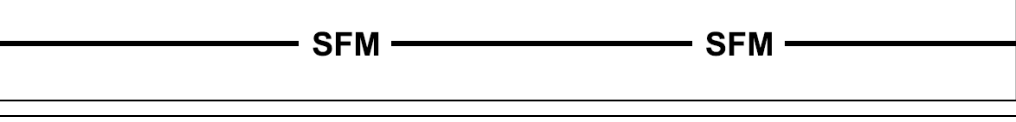
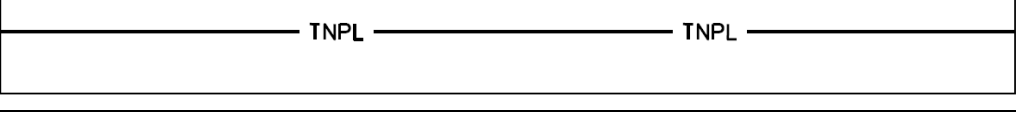
Line styles specifically for the representation of Sanitary Sewer, Storm Sewer and Watermain infrastructure must use the default MicroStation line style (By Level). The method of labelling these lines will be to place the label on the line using the text tool, as shown in Figure 14-1a. For all pipes sizes 750mm and above, labelling must be depicted as shown in Figure 14-1a with a double line and pipe centreline graphically representing the pipe's true size.

Figure 14-1a. Labelling Sanitary, Storm & Watermain Infrastructure



Table 14-1. Peel Region Approved Line Styles

Line Style	Description
Bell	
Cable	
Fence-E	
Fence-P	
Gas	
GTAA-F	
Hydro	
NB-E	
NB-P	
PSN	

Line Style	Description
RW-E	
RW-P	
SF-P	
SFM-E	
SFM-P	
TNPL	

15. PI Tables

PI tables must include spatially correct coordinates, as per Peel Region Datum requirements, for ALL proposed appurtenances. These include but are not limited to: Caps, Chambers, Bends (Horiz. & Vert.), Hydrants, Plugs, Reducers, Sampling Stations, Tapping Sleeve, Tees, and Valves.

PI Tables must be inserted into the drawing using the 'Place Table' tool in MicroStation Connect. The table will be linked to Microsoft Excel and use 'Table Seed' located in the **PEEL_PW_Table Seed.dgnlib** provided as part of the Peel Region CAD Data Set package or on the Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>. Coordinate data shall also be provided in Excel tabular format as part of the CAD Submission deliverables.

PI Tables must be updated at As-Recorded issuance.

Additional coordinate data in common GIS shape file format (ArcGIS preferred) will also be accepted; provided it contains spatially accurate coordinates as per Peel Region Datum requirements. An accurate point description must also be included. This does not remove or replace requirements for coordinate data in other formats.

Coordinate data for **pipe joints** shall not be represented in the standard PI table, this coordinate data must be included in a separate file: MicroStation DGN, Microsoft Excel file, and/or GIS Shape file deliverables. A sample of the PI table, as shown in Table 15-1 will be provided as part of the Peel Region CAD Data Set package.

Table 15-1. Sample PI Table

PI No.	Station	Northing	Easting	Inv. Elev.	Point of Description
1	0+-004.2	4836277.72	598626.16	218.07	45 Vert. Bend
2	0+062.3	4836241.73	598671.89	218.00	Hyd V&B
3	0+102.8	4836211.50	598667.58	218.10	150x150 Tee
4	0+120	4836151.52	598620.38	218.52	150 V&B
5	0+145	4836342.85	598663.07	218.28	300 Line Chamber

Refer to the Peel Region PIPM (Project Implementation Procedures Manual) for additional information for Water and Wastewater requirements.

15.1. Watermain Requirements

PI Tables must be included on all Watermain drawings regardless of pipe size or material.

Peel Region has additional specific requirements based on pipe material:

Concrete Pressure Pipe (CPP) requires coordinates on **ALL pipe joints** in addition to the requirements in Section 15.

Concrete Pressure Pipe (CPP) installations require a separate horizontal/vertical alignment plan, as per Appendix F-6.

15.2. Wastewater Requirements

Peel Region requires PI Tables for Wastewater projects that include buried appurtenances not located inside a maintenance hole.

Peel Region requires PI Tables for **ALL** Wastewater Forcemain projects regardless of pipe size or material.

Wastewater Forcemain projects must include coordinates on **ALL pipe joints** in addition to the requirements in Section 15.

16. Professional Seal

All Final drawing submissions intended to be used for “Tendering Documents” and subsequent “Contract Document” purposes must contain a Professional Engineering Stamp and/or Signature, as per Peel Region Project Implementation Procedures Manual (PIPM).

The use of electronically created seals is not a mandatory requirement. However, if used, then finalized MicroStation drawings bearing the unsigned engineer’s seal should be clearly marked “**For Information Only**”. This marking is to be located directly above the Title Block.

Adobe PDF versions must be signed.

Both signature and seal must be legible.

The procedure suggested in this section are not intended to contradict or take precedence over:

- Guideline Professional Practice, 1988 (Revised 1996) published by Professional Engineers Ontario
- Project specific “Agreement” between Peel Region and the Engineer

17. Watermain Design

Refer to Public Works Design Criteria and Submission Requirements for Watermain Design Projects.

<https://www.peelregion.ca/public-works/design-standards/pdf/water-design.pdf>

In addition, refer to the Project Implementation Procedures Manual (PIPM) for detailed design requirements and specifications.

18. Wastewater Design

Refer to Public Works Design Criteria and Submission Requirements for Wastewater Design Projects.

<https://www.peelregion.ca/public-works/design-standards/pdf/sewer-design-update.pdf>

<https://www.peelregion.ca/public-works/design-standards/pdf/sanitary-sewer-design-criteria.pdf>

In addition, refer to the Project Implementation Procedures Manual (PIPM) for detailed design requirements and specifications.

19. Road & Traffic Design

Refer to Public Works Design Criteria and Submission Requirements for Road and Traffic Design Projects.

<https://www.peelregion.ca/public-works/design-standards/pdf/designroads-july2009.pdf>

For additional information, refer to the **Transportation Template Samples** and the **Traffic Borders**, provided as part of the Peel Region CAD Data Set package or on the Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>

Peel Region Road and Traffic drawings follow all CAD standards outlined in this document.

Exception: The standard horizontal drawing scale for Traffic Drawings is **1:250**.

For all traffic design, follow the definitions set in table 19-1 and 19-2 for standard text styles and dimension styles.

Table 19-2. Standard Traffic Text Style Definitions

Text Style	Used for	Font	Color	Justification	Font Height	Font Width
TRAFFIC-0.5	Traffic Arm Length Notation, Table Text Values, Dimensions & Notes	Arial	ByLevel	Center Center	0.5m	0.5m
TRAFFIC-0.625	Table Headers Table Text Values	Arial	ByLevel	Center Center	0.625m	0.625m
TRAFFIC-0.75	Table Titles, Notes, Conduit Label	Arial	ByLevel	Center Center	0.75m	0.75m
TRAFFIC-1.0	Labels: Sidewalks, Multiuse Trail & Traffic Pole #	Arial	ByLevel	Center Center	1.0m	1.0m
TRAFFIC-3.0	Street Name Text	Arial	ByLevel	Center Center	3.0m	3.0m

Table 19-2. Standard Traffic Dimension Style Definitions

Dimension Style	Used for	Font	Color	Font Height	Font Width
TRAFFIC-Dim-Existing	All Existing Dimensions	Working	ByLevel	0.5m	0.5m
TRAFFIC-Dim-Proposed	All Proposed Dimensions	Arial	ByLevel	0.75m	0.75m

20. Drawing Sets

All design projects submitted to Peel Region must follow the drawing issuance requirements outlined below.

Refer to Paper Size (Section 5.5) and File Submissions (Section 21) for specific requirements.

For a list of additional drawing submission requirements and timelines, refer to the Peel Region Project Implementation Procedures Manual (PIPM).

20.1 Issued for Tender Drawing Set

- a) Prior to final tender submission, A full set of signed and stamped individual PDFs and Microstation DGNs must be submitted to the Peel Region Supervisor of CAD&GIS for review and assigning of Peel Region drawing numbers.
- b) Final Issued for Tender (IFT) drawings must be named as per the assigned Peel Region drawing numbers and follow the naming convention:
 - MicroStation Files: **XXXXXX-D_IFT.DGN**
 - PDF Format: **XXXXXX-D_IFT.PDF**

(Example: 50000-D_IFT.DGN; 50000-D_IFT.PDF)
- c) Once IFT drawings have been reviewed, updated with assigned drawing numbers, and accepted as compliant with current Peel Region CAD Standards; drawing set package and specifications shall be supplied to Peel Region's Project Manager.

20.2 Issued for Construction Drawing Set

For completion of the Issued for Construction (IFC) drawings and specifications, the consultant will supply all requirements below within two weeks of Tender Period closing:

- a) A full set of project files including MicroStation (.DGN) and full-sized (.PDF), signed and stamped IFC drawings to Peel Region's Project Manager and CAD Supervisor.
- b) Final (IFC) drawings must be named as per the assigned Peel drawing numbers and follow the naming convention:
 - MicroStation Files: **XXXXXX-D_IFC.DGN**
 - PDF Format: **XXXXXX-D_IFC.PDF**

(Example: 50000-D_IFC.DGN; 50000-D_IFC.PDF)
- c) Drawings at this stage must be compliant with Peel Region's CAD Standards.
- d) Peel Region Project Managers must submit the final copy of IFC drawings to the current Supervisor of CAD & GIS.
- e) All other deliverables related to the Tender documents as per the PIPM (Project Implementation Procedures Manual).

20.3 As-Recorded Drawing Set

- a) All Record drawings shall be completed and submitted within **90 days of substantial performance** to the Project Manager and Supervisor of CAD & GIS.
- b) All final Record drawings will be named as per the assigned Peel Region drawing number and follow the naming convention:
 - MicroStation Files: **XXXXXX-D.DGN**
 - PDF Format: **XXXXXX-D.PDF****(Example: 50000-D.DGN; 50000-D.PDF)**
- c) If a drawing was not assigned a Peel Region drawing number, it must be included in the final submission and the consultant's file name can be retained for initial submission.
- d) All Record drawings must be CAD compliant prior to final submission.

20.3.1 Additional As-Recorded Wastewater Requirements:

- All "As Built" invert elevations are to be shown. If the difference is greater than 150mm, the affected portions of sewer (in the profile) are to be redrawn
- Any maintenance hole location which spatially differs by more than 750mm from the proposed location is to be redrawn in both the plan and profile
- Type of maintenance hole constructed must be indicated
- Pipe size used on both plan and profile along with each length is to be specified
- All "As Built" sewer grades are to be shown on the plan and profile
- Type of pipe material used is to be indicated once per plan and at point of change
- Class of pipe used is to be shown once per plan and at each point of change
- Coordinates, swing ties and elevations to all stubs (ends) must be illustrated
- Type of pipe bedding used to be indicated on all profiles
- Native soil type stated (if available)
- The name of the manufacturer of all appurtenances (i.e. maintenance holes, catch basins, gates, valves etc.) must be noted in the design file
- Peel Region may provide a post construction survey for state of good repair for local trunk collectors ($\geq 375\text{mm}$ $< 750\text{mm}$). This survey shall be used in the preparation of final Record drawings to update the true location of the related appurtenances

20.3.2 Additional As-Recorded Watermain Requirements:

- If the alignment or profile of the watermain differs by more than 150mm it must be redrawn, and the new offsets are to be indicated on both the plan and profile
- Type and class of pipe must be shown on all profiles
- Concrete Pressure Pipe (CPP) shop drawings are to be submitted in Adobe PDF format.
- Coordinates, swing ties and elevations to all stubs (ends) that will require future extension must be illustrated
- All appurtenances are to be geospatially located upon installation, and spatially correct in the As-Recorded CAD file. Refer to Section 15 for PI Table Requirements
- Original ground profile over watermain (if applicable) is to remain
- Native soil type must be provided (if available)
- Swing ties must be provided for horizontal and vertical bends if not GPS Coordinated
- Peel Region may provide the As Built survey for local distribution feeder mains ($\geq 350\text{mm}$ $\leq 600\text{mm}$). This survey may be used in the preparation of final Record drawings to update the true location of the related appurtenance
- All appurtenances (i.e. valves, hydrants, horizontal and vertical bends etc.) will be represented using the appropriate MicroStation cell symbol found in the Peel Region Cell Library provided as part of the Peel Region CAD Data Set package or on the Peel Region website at <https://www.peelregion.ca/public-works/design-standards/#criteria>
- The name of the manufacturer of all appurtenances (i.e. valves, hydrants, etc.) must be noted in the design file, as per the example below a list of additional as-built drawing requirements, refer to the Project Implementation Procedures Manual (PIPM).

Watermain

Valves – Make & Model

Hydrants – Make & Model

21. File Submissions

Submission and transfer of drawing files will be accepted through E-mail where possible. Where file size exceeds the limit of E-mail, submissions may be accepted via File Transfer Sites.

All Final submissions (IFT, IFC and As-Recorded Drawing Sets) must include a full set of individual Adobe PDFs, MicroStation DGN files, Excel PI tables, and CAD QA Checklist.

Consultants must ensure All Final submissions are CAD Compliant and perform an internal Quality Control review of their deliverables prior to submission. A signed copy of the CAD Quality Assurance Checklist provided in Appendix G must be accompanied with the CAD drawings during Project Phases (IFT, IFC & As-Recorded). When the CAD Quality Assurance Checklist has been signed and submitted, the Engineering firm is assuming that all drawings submitted conform to the required standards and guidelines set forth in this document.

For all project submissions the following information must be included in the body of the e-mail.

Project Name:

Peel Region Project Number:

Peel Region Project Manager:

File Name(s)

Number of Drawings:

Issuance:

All submissions must be sent to the Peel Region Project Manager and Supervisor of CAD & GIS.

22. CAD Submission Review

Consultant Drawing submissions will be reviewed by Peel Region CAD staff at all stages of issuance (IFT, IFC, and As Recorded) to ensure compliance with the standards identified in this manual.

CAD files submitted will be checked with a MicroStation Standards Checker at a minimum identifying colour, level name, text style, line style and dimension style issues.

Failure to meet CAD standards and submission requirements will result in the submission being returned to Peel Region's Project Manager and Consulting Engineer with a report listing non-compliant issues that must be resolved by the Consulting Engineer prior to CAD compliance approval.

23. Legal Survey Requirements

If for any reason a Legal Survey is required, either for the purpose of defining an unknown right-of-way or for property acquisition, the requirements presented below will be forwarded to the Project Manager.

The requirements must include the following:

- A digital file clearly identifying the proposed requirements as per Peel Region's Property Acquisition Standards
- A set of white prints as per the digital file identifying the proposed requirements

Peel Region is solely responsible for preparing and issuing quotations to Ontario Land Survey Companies. This ensures consistency in established Peel Region standards on all returned legal plans as well as cost control.

All legal surveys are considered "preliminary only" until approved by the Project Manager, Legal, and Realty Services, and reviewed by the CAD & GIS Department.

Upon approval, the plans will be deposited (if required), and copies of mylars, prints, and final digital files (if requested) will be circulated to all concerned parties.

All Final Digital file submissions must comply with CAD software and submission requirements outlined in this document and include a full set of Adobe PDF and MicroStation DGN files.

Refer to **Peel Region Property Impact Plan** template located in Appendix I-1.

23.1 Title Records/Property Plan

This plan identifies the existing limits (per the current data available from Teranet) of a road allowance where there is limited information on file for determining the extent of the existing road allowance and any widening previously taken.

These plans are coordinated as per Peel Region standards and a digital file is supplied as well as a PDF. In addition to defining the existing road allowance, this plan also identifies the owners of all subject and abutting properties at the time of issue.

23.2 Reference Plan

This plan is used to precisely identify new and specific property requirements for acquisition of permanent or temporary easements.

These plans are deposited in the local Land Registry Office and are graphical representations of descriptions of land, as well as representations of divisions of land under the Planning Act RSO, 1990 Ch.P.13.

Refer to **Peel Region Property Acquisition Standard** template in Appendix I-2.


23.3 Expropriation Plan

This plan is used for the purpose of expropriating property required by Peel Region for Municipal purposes.

Section 9 of the Expropriation Act requires an expropriation plan to be registered in the land registry office. The plan must be signed by the expropriating authority and by an Ontario Land Surveyor.

Appendix A - CAD Data Release Form

This appendix contains the standard digital file submission form to be signed and submitted with any corresponding digital files.



Region of Peel
working with you

Public Works

10 Peel Centre Dr.
Suite B
Brampton, ON
L6T 4B9
tel: 905-791-7800
peelregion.ca

Region of Peel - CAD&GIS Data Release Form

Requesters Name: Click or tap here to enter text.
Organization: Click or tap here to enter text.

Region of Peel Project Manager: Click or tap here to enter text.
Region of Peel Project Number: Click or tap here to enter text.

Data Requested
Region of Peel Data Set & Property Fabric: (Project Scope)
Click or tap here to enter text.

Region of Peel DGN Release: (List drawing numbers)
Click or tap here to enter text.

Disclaimer:

The User shall use the Data Set/Property Fabric/DGN files at its own risk and the Data is to be used solely for the Project specified. In no event shall the Region of Peel be liable for any costs, claims or damages resulting from the User's use of the Data.

Title to the Data and any copies thereof and all copyright and other intellectual property rights in such Data shall remain vested in the Region. Unless expressly authorized by the Region of Peel, the rights granted by the Region herein may not be assigned.

Be advised that the supplied data is based upon available information, some of which has not been verified. The records are to be relied upon at the user's own risk. The Region of Peel makes no representation as to the accuracy of any data supplied and further will not be held responsible for any losses incurred as a result of the inaccuracy of the information contained in the data.

I/we hereby confirm and acknowledge that I/we fully understand all terms of this Disclaimer and that I/we voluntarily accept its terms, obligations and benefits.
I/We have authority to bind the Corporation.

Name: Click or tap here to enter text.

Signature: _____

Date: Click or tap to enter a date.

/1

Appendix B - PW CAD Level Structure

This appendix is an integral part of the Linear CAD standards and must be used as a guide for all 2D/3D CAD design work. Additional levels may be added which are not listed in the PW CAD Level Structure as long as the NCS level naming convention is used.

Level Name	DESCRIPTION	PLAN					PROFILE				
		Colour	Line Style	Weight	Font Size	Font Type	Colour	Line Style	Weight	Font Size	Font Type
	CIVIL - GENERAL										
G-ANNO-BAR	GENERAL - ANNOTATION - BARS/SCALE	0	0	1	1.0	A					
G-ANNO-DIMS	GENERAL - ANNOTATION - DIMENSIONS - PROPOSED	V	0	3	1.25	A					
G-ANNO-DIMS-E	GENERAL - ANNOTATION - DIMENSIONS - EXISTING	V	0	1	1.0	W					
G-ANNO-KEYP	GENERAL - ANNOTATION - KEY MAP	0	0	1	0.7	A					
G-ANNO-LEGN	GENERAL - ANNOTATION - LEGEND	0	0	0	1.75	A					
G-ANNO-LOCN	GENERAL - LIMIT OF CONSTRUCTION/PROJECT LIMIT	3	3	8	1.0	A					
G-ANNO-MATC	GENERAL - ANNOTATION - MATCH LINES & DRAWING REFERENCE NUMBER	0	0	5	1.25	A					
G-ANNO-NPLT	GENERAL - ANNOTATION - NON PLOTTING INFO	3	0	0							
G-ANNO-REVS	GENERAL - ANNOTATION - REVISIONS	35	0	0	1.25	A					
G-ANNO-STMP	GENERAL - ANNOTATION - ENGINEERING STAMP	0	0	0							
G-ANNO-SYMB	GENERAL - ANNOTATION - NORTH ARROW, CALLOUTS	0	0	1							
G-ANNO-TABL	GENERAL - ANNOTATION - TABLE	0	0	0	Varies	A					
G-ANNO-TEXT	GENERAL - ANNOTATION - STATIONS, ELEVATIONS, GENERAL NOTES TEXT	0	0	1	Varies	A					
G-ANNO-TTLB-TEXT	GENERAL - ANNOTATION - TITLE BLOCK/SERVICE DATA/REVISIONS TEXT	0	0	1	Varies	A					
G-DETL	GENERAL - TYPICAL DETAIL SHEET - PROPOSED	0	V	V							
G-DETL-PATT	GENERAL - DETAIL - HATCH PATTERN & SHADING	0	0	0							
G-GRID-MAJ	GENERAL - PLAN AND PROFILE MAJOR GRID	0	0	1							
G-GRID-MIN	GENERAL - PLAN AND PROFILE MINOR GRID	9	1	0							
G-REFR	GENERAL - REFERENCE FILES - EXTERNAL FILES (RASTER IMAGES, PDFS, XREFS, ETC.)	0	0	0							
G-TTLB-LOGO	GENERAL - PEEL LOGO AND CONSULTANT LOGO	0	0	0							
G-TTLB-OTLN	GENERAL - ANNOTATION - TITLEBLOCK/PEEL BORDER	0	0	2							
G-TTLB-OTLN-PB	GENERAL - ANNOTATION - PRINT BORDER	254	0	0							
	CIVIL - EROSION & SEDIMENT CONTROL - PLAN										
C-EROS-CIPR	CIVIL - EROSION & SEDIMENT CONTROL - CULVERT INLET PROTECTION - PROPOSED	20	0	2							
C-EROS-CNTE	CIVIL - EROSION & SEDIMENT CONTROL - CONSTRUCTION ENTRANCE - PROPOSED	0	0	7							
C-EROS-DDIV	CIVIL - EROSION & SEDIMENT CONTROL - DRAINAGE DIVIDES - PROPOSED	23	4	0							
C-EROS-DVDK	CIVIL - EROSION & SEDIMENT CONTROL - DIVERSION DIKE - PROPOSED	34	0	2							
C-EROS-FLOW	CIVIL - EROSION & SEDIMENT CONTROL - FLOW DIRECTION - PROPOSED	20	0	1							
C-EROS-HATCH	CIVIL - EROSION & SEDIMENT CONTROL - HATCHING - PROPOSED	212	0	0							
C-EROS-PLAS	CIVIL - EROSION & SEDIMENT CONTROL - STRAW BALE/PLASTIC WRAP - PROPOSED	22	0	1							
C-EROS-POND	CIVIL - EROSION & SEDIMENT CONTROL - PONDING AREA - PROPOSED	33	0	0							
C-EROS-SSLT	CIVIL - EROSION & SEDIMENT CONTROL - SILT FENCE - PROPOSED	22	SF-P	5							
	CIVIL - EROSION & SEDIMENT CONTROL - TEXT & LEADER- PLAN										
C-EROS-TEXT	CIVIL - EROSION & SEDIMENT CONTROL - TEXT & LEADER - PROPOSED	0	0	3	Varies	A					
	CIVIL - LEGAL/PROPERTY/EASEMENT - PLAN										
C-PROP-ESMT-E	CIVIL - PROPERTY - EASEMENT - EXISTING	3	4	1							
C-PROP-ESMT-PE	CIVIL - PROPERTY - EASEMENT - PERMANENT EASEMENTS - PROPOSED	97	6	5							
C-PROP-ESMT-TEMP	CIVIL - PROPERTY - EASEMENT - TEMPORARY EASEMENTS - PROPOSED	98	4	5							
C-PROP-LINE-E	CIVIL - PROPERTY LINE - EXISTING	0	0	1							
C-PROP-LINE-FEE	CIVIL - PROPERTY LINE - PROPOSED FEE PROPERTY ACQUISITIONS	99	2	7							
C-PROP-PTI	CIVIL - PROPERTY - PROPOSED PERMISSION TO ENTER - PROPOSED	52	7	5							
C-PROP-ROW	CIVIL - PROPERTY - RIGHT OF WAY (ROW) - PROPOSED	99	2	7							
C-PROP-ROW-E	CIVIL - PROPERTY - RIGHT OF WAY (ROW) - EXISTING	0	0	7							
	CIVIL - LEGAL/PROPERTY/EASEMENT - TEXT & LEADER- PLAN										
C-PROP-LEGAL-TEXT	CIVIL - ALL PROPERTY, ROW & EASEMENT - TEXT & LEADER - PROPOSED	0	0	3	1.25	A					
C-PROP-LEGAL-TEXT-E	CIVIL - ALL PROPERTY, ROW & EASEMENT - TEXT & LEADER - EXISTING	0	0	0	1.0	W					
	CIVIL - ROAD - PLAN										
C-ROAD-ASPH-PATT1-R	CIVIL - ROAD - PARTIAL DEPTH ASPHALT - HATCH PATTERN - REMOVALS	35	0	1							
C-ROAD-ASPH-PATT2-R	CIVIL - ROAD - FULL DEPTH ASPHALT - HATCH PATTERN - REMOVALS	22	0	1							
C-ROAD-BUSP	CIVIL - ROAD - BUS PADS/BUS SHELTER, BUS STOP - PROPOSED	0	0	3							
C-ROAD-BUSP-E	CIVIL - ROAD - BUS PADS/BUS SHELTER, BUS STOP - EXISTING	0	0	2							
C-ROAD-BUSP-PATT	CIVIL - ROAD - BUS PAD - HATCH PATTERN - PROPOSED	20	0	0							
C-ROAD-CG-PATT-R	CIVIL - ROAD - CLEARING AND GRUBBING - HATCH PATTERN - REMOVALS	66	0	1							
C-ROAD-CLR-CONC-PATT	CIVIL - ROAD - COLOUR CONCRETE - HATCH PATTERN - PROPOSED	85	0	0							
C-ROAD-CONC-PATT-R	CIVIL - ROAD - CONCRETE (ALL TYPE) - HATCH PATTERN - REMOVALS	20	0	1							
C-ROAD-CONC-SW-PATT	CIVIL - ROAD - CONCRETE SIDEWALK - HATCH PATTERN - PROPOSED	20	0	0							
C-ROAD-CRWN	CIVIL - ROAD - CROWN OF TRAVELLED ROAD - PROPOSED	0	0	2							
C-ROAD-CRWN-E	CIVIL - ROAD - CROWN OF TRAVELLED ROAD - EXISTING	5	0	0							
C-ROAD-CURB-BACK	CIVIL - ROAD - BACK OF CURB - PROPOSED	0	0	2							
C-ROAD-CURB-BACK-E	CIVIL - ROAD - BACK OF CURB - EXISTING	0	0	0							
C-ROAD-CURB-DROP	CIVIL - ROAD - DROPPED CURB - PROPOSED	0	0	2							
C-ROAD-CURB-FACE	CIVIL - ROAD - FRONT OF CURB - PROPOSED	0	0	5							
C-ROAD-CURB-FACE-E	CIVIL - ROAD - FRONT OF CURB - EXISTING	0	0	0							
C-ROAD-CURB-RPL	CIVIL - ROAD - REMOVE & REPLACE CURB - PROPOSED	35	0	1							
C-ROAD-DIMS	CIVIL - ROAD - DIMENSIONS - PROPOSED	0	0	3							
C-ROAD-DRIV-PVD	CIVIL - ROAD - EDGE OF DRIVEWAY - PAVED - PROPOSED	34	0	3							
C-ROAD-DRIV-PVD-E	CIVIL - ROAD - EDGE OF DRIVEWAY - PAVED - EXISTING	2	0	0							
C-ROAD-DRIV-PVT-CURB-E	CIVIL - ROAD - PRIVATE DRIVEWAY CURB - EXISTING	9	0	0							
C-ROAD-DRIV-UPVD	CIVIL - ROAD - EDGE OF DRIVEWAY - UNPAVED - PROPOSED	34	5	1							
C-ROAD-DRIV-UPVD-E	CIVIL - ROAD - EDGE OF DRIVEWAY - UNPAVED - EXISTING	2	5	0							
C-ROAD-EP	CIVIL - ROAD - EDGE OF PAVEMENT - PROPOSED	0	0	5							
C-ROAD-EP-E	CIVIL - ROAD - EDGE OF PAVEMENT - EXISTING	0	0	0							
C-ROAD-GRAD	CIVIL - ROAD - LIMIT OF GRADING / EXCAVATION - PROPOSED	21	0	5							
C-ROAD-GUTR	CIVIL - ROAD - GUTTER - PROPOSED	0	0	2							
C-ROAD-GUTR-E	CIVIL - ROAD - GUTTER - EXISTING	0	0	0							
C-ROAD-HORIZ-ALGN	CIVIL - ROAD - HORIZONTAL ALIGNMENT - PROPOSED	0	4	2							
C-ROAD-HORIZ-ALGN-E	CIVIL - ROAD - HORIZONTAL ALIGNMENT - EXISTING	0	4	1							
C-ROAD-IMPRS-CONC-PATT	CIVIL - ROAD - IMPRESSED COLOURED CONCRETE - HATCH PATTERN - PROPOSED	115	0	1							
C-ROAD-INTLK-PATT-R	CIVIL - ROAD - INTERLOCK PAVING STONE - HATCH PATTERN - REMOVALS	33	0	1							
C-ROAD-MRKG-TEMP	CIVIL - ROAD - PAVEMENT MARKINGS & TRAFFIC ARROWS - TEMPORARY - ORANGE PAINT - PROPOSED	22	V	5							
C-ROAD-MRKG-WHTE	CIVIL - ROAD - PAVEMENT MARKINGS - WHITE PAINT - PROPOSED	0	V	5							
C-ROAD-MRKG-WHTE-E	CIVIL - ROAD - PAVEMENT MARKINGS - WHITE PAINT - EXISTING	0	V	1							
C-ROAD-MRKG-YEL	CIVIL - ROAD - PAVEMENT MARKINGS - YELLOW PAINT - PROPOSED	20	V	5							
C-ROAD-MRKG-YEL-E	CIVIL - ROAD - PAVEMENT MARKINGS - YELLOW PAINT - EXISTING	4	V	1							
C-ROAD-MTRL-E	CIVIL - ROAD - ROAD MATERIALS - EXISTING	0	0	0	0.8	W					
C-ROAD-MUP-E	CIVIL - ROAD - MULTI USE PATH - EXISTING	2	0	0							
C-ROAD-PVMT-PATT	CIVIL - ROAD - PAVEMENT RESURFACING - HATCH PATTERN - PROPOSED	112	0	0							
C-ROAD-RMV	CIVIL - ROAD - REMOVALS AND ADJUSTMENTS - REMOVALS	0	0	3							
C-ROAD-RW-PATT	CIVIL - ROAD - ROAD WIDENING/MULTI USE PATH - HATCH PATTERN - PROPOSED	51	0	0							

[illegible]

C-SURV-IDEN-TEXT-E	CIVIL - SURVEY - POINT NUMBER FROM SURVEY - TEXT & LEADER - EXISTING	5	0	0	0.5	W								
C-SURV-PNTS-DEF-TEXT-E	CIVIL - SURVEY POINT DEFINITION FEATURES - TEXT & LEADER - EXISTING	0	0	0	0.5	W								
C-SURV-PNTS-TEXT-E	CIVIL - SURVEY POINT CODE & DESCRIPTION - TEXT & LEADER - EXISTING	0	0	0	0.5	W								
	CIVIL - TRAFFIC SIGNALS - PLAN													
C-TS-AGND-CABL	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - AERIAL CABLES - PROPOSED	35	0	1										
C-TS-AGND-CABL-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - AERIAL CABLES - EXISTING	3	0	0										
C-TS-AGND-CTRL	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - PROPOSED	35	0	1										
C-TS-AGND-CTRL-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - EXISTING	3	0	0										
C-TS-AGND-FIT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - FITTINGS (PUSH BUTTONS, ANTENNAS,FIRE PRE-EMPTION, OVERHEAD DETECTOR,BEACONS,CAMERAS,ETC) - PROPOSED	35	0	1										
C-TS-AGND-FIT-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - FITTINGS (PUSH BUTTONS, ANTENNAS,FIRE PRE-EMPTION, OVERHEAD DETECTOR,BEACONS,CAMERAS,ETC) - EXISTING	3	0	0										
C-TS-AGND-SGHD	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - SIGNAL HEADS (MAST ARMS, TRAFFIC, PEDESTRIAN, BIKE, ETC) - PROPOSED	35	0	1										
C-TS-AGND-SGHD-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - SIGNAL HEADS (MAST ARMS, TRAFFIC, PEDESTRIAN, BIKE, ETC) - EXISTING	3	0	0										
C-TS-AGND-TEMP-PED	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TEMPORARY PEDESTRIAN STAND - PROPOSED	35	0	1										
C-TS-ANCH	CIVIL - TRAFFIC SIGNALS - ANCHORS - PROPOSED	35	0	1										
C-TS-ANCH-E	CIVIL - TRAFFIC SIGNALS - ANCHORS - EXISTING	3	0	0										
C-TS-ELEC-CH	CIVIL - TRAFFIC SIGNALS - ELECTRICAL CHAMBERS AND HANDWELLS - PROPOSED	35	0	1										
C-TS-ELEC-CH-E	CIVIL - TRAFFIC SIGNALS - ELECTRICAL CHAMBERS AND HANDWELLS - EXISTING	3	0	0										
C-TS-POLE	CIVIL - TRAFFIC SIGNALS - POLES - PROPOSED	35	0	1										
C-TS-POLE-E	CIVIL - TRAFFIC SIGNALS - POLES - EXISTING	3	0	0										
C-TS-UGND-CNDT	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - PROPOSED	21	0	1										
C-TS-UGND-CNDT-A	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - ABANDONED	5	3	0										
C-TS-UGND-CNDT-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - EXISTING	5	0	0										
C-TS-UGND-SNSR	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - TRAFFIC SENSORS (VARIOUS) - PROPOSED	21	0	1										
C-TS-UGND-SNSR-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - TRAFFIC SENSORS (VARIOUS) - EXISTING	5	0	0										
C-TS-UGND-COMM-CBL	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - COMMUNICATIONS CABLE - PROPOSED	21	0	1										
C-TS-UGND-COMM-CBL-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - COMMUNICATIONS CABLE - EXISTING	5	0	0										
C-TS-UGND-SNSRLOOP	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - SENSOR LOOP - PROPOSED	21	3	1										
C-TS-UGND-SNSRLOOP-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - SENSOR LOOP - EXISTING	5	0	0										
C-TS-UGND-VDTZN	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - VIDEO/MICROWAVE DETECTION ZONE - PROPOSED	21	0	1										
C-TS-UGND-VDTZN-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - VIDEO/MICROWAVE DETECTION ZONE - EXISTING	5	0	0										
	CIVIL - TRAFFIC SIGNALS - TEXT & LEADER - PLAN													
C-TS-AGND-CABL-TEXT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - CABLES - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-AGND-CABL-TEXT-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - CABLES - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-AGND-CTRL-TEXT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-AGND-CTRL-TEXT-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-AGND-FIT-TEXT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - FITTINGS (PUSH BUTTONS, ANTENNAS,FIRE DETECTOR,BEACONS,CAMERAS,ETC) - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-AGND-FIT-TEXT-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - FITTINGS (PUSH BUTTONS, ANTENNAS,FIRE DETECTOR,BEACONS,CAMERAS,ETC) - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-AGND-SGHD-TEXT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - SIGNAL HEADS (MAST ARMS, TRAFFIC, PEDESTRIAN, BIKE, ETC) - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-AGND-SGHD-TEXT-E	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - SIGNAL HEADS (MAST ARMS, TRAFFIC, PEDESTRIAN, BIKE, ETC) - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-AGND-TEMP-PED-TEXT	CIVIL - TRAFFIC SIGNALS - ABOVE GROUND - TEMPORARY PEDESTRIAN STAND - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-ANCH-TEXT	CIVIL - TRAFFIC SIGNALS - ANCHORS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-ANCH-TEXT-E	CIVIL - TRAFFIC SIGNALS - ANCHORS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-ELEC-CH-TEXT	CIVIL - TRAFFIC SIGNALS - ELECTRICAL CHAMBERS AND HANDWELLS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-ELEC-CH-TEXT-E	CIVIL - TRAFFIC SIGNALS - ELECTRICAL CHAMBERS AND HANDWELLS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-POLE-TEXT	CIVIL - TRAFFIC SIGNALS - POLES - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TS-POLE-TEXT-E	CIVIL - TRAFFIC SIGNALS - POLES - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TS-UGND-CNDT-TEXT	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TS-UGND-CNDT-TEXT-A	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - TEXT & LEADER - ABANDONED	5	0	0	0.8	W								
C-TS-UGND-CNDT-TEXT-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - CONDUIT - TEXT & LEADER - EXISTING	5	0	0	0.8	W								
C-TS-UGND-COMM-CBL-TEXT	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - COMMUNICATIONS CABLE - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TS-UGND-COMM-CBL-TEXT-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - COMMUNICATIONS CABLE - TEXT & LEADER - EXISTING	5	0	0	0.5	W								
C-TS-UGND-SNSR-TEXT	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - TRAFFIC SENSORS (VARIOUS) - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TS-UGND-SNSR-TEXT-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - TRAFFIC SENSORS (VARIOUS) - TEXT & LEADER - EXISTING	5	0	0	0.8	W								
C-TS-UGND-VDTZN-TEXT	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - VIDEO/MICROWAVE DETECTION ZONE - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TS-UGND-VDTZN-TEXT-E	CIVIL - TRAFFIC SIGNALS - UNDERGROUND - VIDEO/MICROWAVE DETECTION ZONE - TEXT & LEADER - EXISTING	5	0	0	0.8	W								
	CIVIL - TRAFFIC STREETLIGHTING - PLAN													
C-TSL-AGND-CABL	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - AERIAL CABLES - PROPOSED	35	0	1										
C-TSL-AGND-CABL-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - AERIAL CABLES - EXISTING	3	0	0										
C-TSL-AGND-CTRL	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - PROPOSED	35	0	1										
C-TSL-AGND-CTRL-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TRAFFIC CONTROLLERS/POWER SUPPLY - EXISTING	3	0	0										
C-TSL-AGND-FIT	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - LUMINAIRES (MAST ARMS, LUMINAIRES) - PROPOSED	35	0	1										
C-TSL-AGND-FIT-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - LUMINAIRES (MAST ARMS, LUMINAIRES) - EXISTING	3	0	0										
C-TSL-AGND-TEMP-PED	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TEMPORARY PEDESTRIAN STAND - PROPOSED	35	0	1										
C-TSL-ANCH	CIVIL - TRAFFIC STREETLIGHTING - ANCHORS - PROPOSED	35	0	1										
C-TSL-ANCH-E	CIVIL - TRAFFIC STREETLIGHTING - ANCHORS - EXISTING	3	0	0										
C-TSL-ELEC-CH	CIVIL - TRAFFIC STREETLIGHTING - ELECTRICAL CHAMBERS AND HANDWELLS - PROPOSED	35	0	1										
C-TSL-ELEC-CH-E	CIVIL - TRAFFIC STREETLIGHTING - ELECTRICAL CHAMBERS AND HANDWELLS - EXISTING	3	0	0										
C-TSL-PGRID-PNTS	CIVIL - TRAFFIC STREETLIGHTING - PHOTOMETRICS - GRID POINTS - PROPOSED	35	0	1										
C-TSL-PGRID-PNTS-E	CIVIL - TRAFFIC STREETLIGHTING - PHOTOMETRICS - GRID POINTS - EXISTING	3	0	0										
C-TSL-POLE	CIVIL - TRAFFIC STREETLIGHTING - POLES - PROPOSED	35	0	1										
C-TSL-POLE-E	CIVIL - TRAFFIC STREETLIGHTING - POLES - EXISTING	3	0	0										
C-TSL-UGND-CNDT	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - PROPOSED	21	0	1										
C-TSL-UGND-CNDT-A	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - ABANDONED	5	3	0										
C-TSL-UGND-CNDT-E	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - EXISTING	5	0	0										
C-TSL-UGND-COMM-CBL	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - COMMUNICATIONS CABLE - PROPOSED	21	0	1										
C-TSL-UGND-COMM-CBL-E	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - COMMUNICATIONS CABLE - EXISTING	5	0	0										
	CIVIL - TRAFFIC STREETLIGHTING - TEXT & LEADER - PLAN													
C-TSL-AGND-CABL-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - CABLES - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-AGND-CABL-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - CABLES - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-AGND-CTRL-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TRAFFIC CONTROLS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-AGND-CTRL-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TRAFFIC CONTROLS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-AGND-FIT-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - LUMINAIRES (MAST ARMS, LUMINAIRES) - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-AGND-FIT-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - LUMINAIRES (MAST ARMS, LUMINAIRES) - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-AGND-TEMP-PED-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ABOVE GROUND - TEMPORARY PEDESTRIAN STAND - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-ANCH-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ANCHORS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-ANCH-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - ANCHORS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-ELEC-CH-TEXT	CIVIL - TRAFFIC STREETLIGHTING - ELECTRICAL CHAMBERS AND HANDWELLS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-ELEC-CH-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - ELECTRICAL CHAMBERS AND HANDWELLS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-PGRID-PNTS-TEXT	CIVIL - TRAFFIC STREETLIGHTING - PHOTOMETRICS - GRID POINTS - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-PGRID-PNTS-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - PHOTOMETRICS - GRID POINTS - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-POLE-TEXT	CIVIL - TRAFFIC STREETLIGHTING - POLES - TEXT & LEADER - PROPOSED	35	0	1	1.0	A								
C-TSL-POLE-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - POLES - TEXT & LEADER - EXISTING	3	0	0	0.8	W								
C-TSL-UGND-CNDT-TEXT	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TSL-UGND-CNDT-TEXT-A	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - TEXT & LEADER - ABANDONED	5	3	0	0.8	W								
C-TSL-UGND-CNDT-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - CONDUIT - TEXT & LEADER - EXISTING	5	0	0	0.8	W								
C-TSL-UGND-COMM-CBL-TEXT	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - COMMUNICATIONS CABLE - TEXT & LEADER - PROPOSED	21	0	1	1.0	A								
C-TSL-UGND-COMM-CBL-TEXT-E	CIVIL - TRAFFIC STREETLIGHTING - UNDERGROUND - COMMUNICATIONS CABLE - TEXT & LEADER - EXISTING	5	0	0	0.8	W								
	CIVIL - UTILITIES - PLAN & PROFILE													
C-UT-BELL-E	CIVIL - UTILITY - BELL - EXISTING	6	BELL	0			6	0	0					
C-UT-CATV-E	CIVIL - UTILITY - CABLE TV - EXISTING	5	CABLE	0			5	0	0					
C-UT-FUEL-GTAA-E	CIVIL - UTILITY - GTAA PEARSON INTERNATIONAL FUEL - EXISTING	13	GTAA-F	3			13	0	3					
C-UT-GAS-E	CIVIL - UTILITY - GAS - EXISTING	10	GAS	0			10	0	0					
C-UT-HYDRO-E	CIVIL - UTILITY - HYDRO - EXISTING	3	HYDRO	0			3	0	0					
C-UT-PSN-E	CIVIL - UTILITY - PUBLIC SECTOR NETWORK (PSN) - EXISTING	3	PSN	0			3	0	0					
C-UT-TNPL-E	CIVIL - UTILITY - TRANS NORTHERN PIPELINE - EXISTING	11	TNPL	3			11	0	3					
	CIVIL - UTILITIES - TEXT & LEADER - PLAN & PROFILE													
C-UT-BELL-TEXT-E	CIVIL - UTILITY - BELL - TEXT & LEADER - EXISTING	6	0	0	0.8	W	6	0	0	0.8	W			
C-UT-CATV-TEXT-E	CIVIL - UTILITY - CABLE TV - TEXT & LEADER - EXISTING	5	0	0	0.8	W	5	0	0	0.8	W			
C-UT-FUEL-GTAA-TEXT-E	CIVIL - UTILITY - GTAA PEARSON INTERNATIONAL FUEL - TEXT & LEADER - EXISTING	13	0	3	0.8	W	13	0	3	0.8	W			
C-UT-GAS-TEXT-E	CIVIL - UTILITY - GAS - TEXT & LEADER - EXISTING	10	0	0	0.8	W	10	0	0	0.8	W			
C-UT-HYDRO-TEXT-E	CIVIL - UTILITY - HYDRO - TEXT & LEADER - EXISTING	3	0	0	0.8	W	3	0	0	0.8	W			
C-UT-PSN-TEXT-E	CIVIL - UTILITY - PUBLIC SECTOR NETWORK (PSN) - TEXT & LEADER - EXISTING	3	0	0	0.8	W	3	0	0	0.8	W			
C-UT-TNPL-TEXT-E	CIVIL - UTILITY - TRANS NORTHERN PIPELINE - TEXT & LEADER - EXISTING	11	0	3	0.8	W	11	0	3	0.8	W		</	

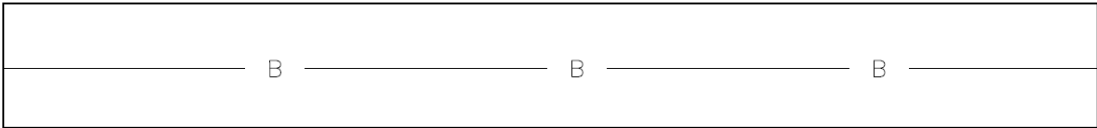

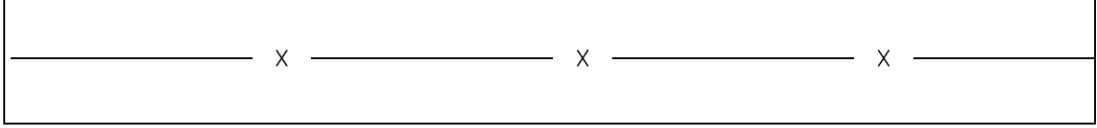
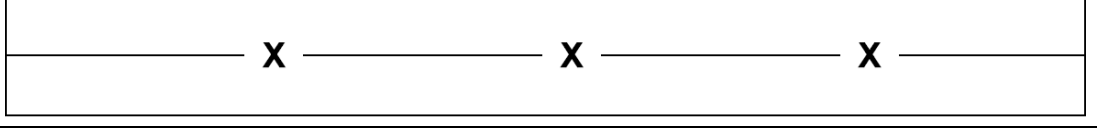

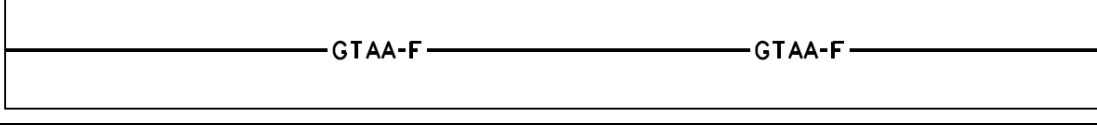
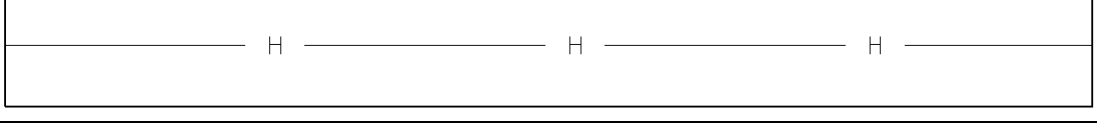
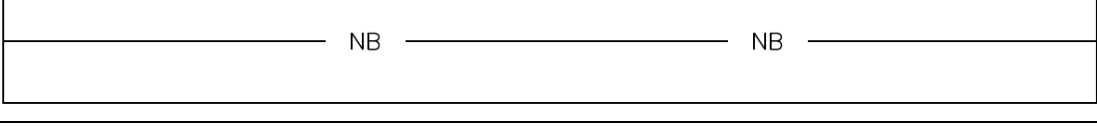
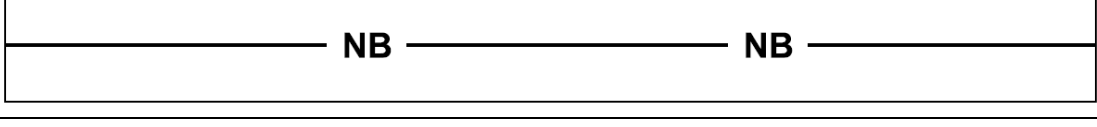
C-PROF-WM-INSUL	CIVIL - PROFILE - WATERMAIN - INSULATION - PROPOSED									35	0	3		
C-PROF-WM-PIPE	CIVIL - PROFILE - WATERMAIN - PROPOSED									0	0	7		
C-PROF-WM-PIPE-E	CIVIL - PROFILE - WATERMAIN - EXISTING									7	2	2		
C-PROF-WM-PIPE-F	CIVIL - PROFILE - WATERMAIN - PROPOSED (BY OTHERS)									0	3	7		
C-PROF-WM-SPS	CIVIL - PROFILE - WATERMAIN - WATER SAMPLING STATION - PROPOSED									0	0	5		
C-PROF-WM-VAL	CIVIL - PROFILE - WATERMAIN - VALVE - PROPOSED									0	0	5		
C-PROF-WM-VAL-E	CIVIL - PROFILE - WATERMAIN - VALVE - EXISTING									7	2	2		
C-PROF-WM-WS	CIVIL - PROFILE - WATER SERVICE LINE - PROPOSED									0	0	5		
C-PROF-WM-WS-E	CIVIL - PROFILE - WATER SERVICE LINE - EXISTING									7	2	2		
	CIVIL - WATERMAIN - TEXT & LEADER - PLAN & PROFILE													
C-WM-BDRY-WP-TEXT-E	CIVIL - WATERMAIN - PEEL WATER PRESSURE BOUNDARY - TEXT & LEADER - EXISTING	6	0	1	1.0	W								
C-WM-FEED-TEXT	CIVIL - WATER - FEEDERMAIN - TEXT & LEADER - PROPOSED	0	0	3	1.25	A	0	0	3	1.25		A		
C-WM-FEED-TEXT-E	CIVIL - WATER - FEEDERMAIN - TEXT & LEADER - EXISTING	7	0	1	1.0	W	7	0	1	1.0		W		
C-WM-TEXT	CIVIL - WATERMAIN - TEXT & LEADER - PROPOSED	0	0	3	1.25	A	0	0	3	1.25		A		
C-WM-TEXT-E	CIVIL - WATERMAIN - TEXT & LEADER - EXISTING	7	0	1	1.0	W	7	0	1	1.0		W		
C-WM-TEXT-F	CIVIL - WATERMAIN - TEXT & LEADER - PROPOSED (BY OTHERS)	0	0	3	1.25	A	0	0	3	1.25		A		


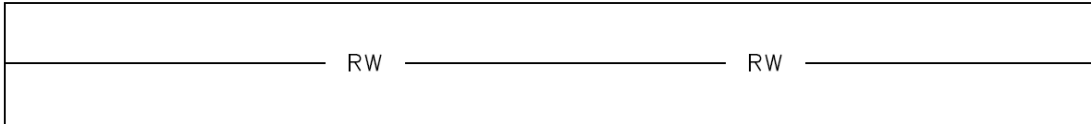
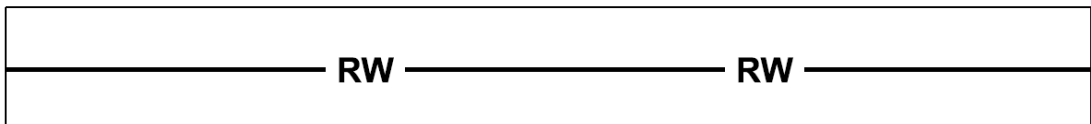
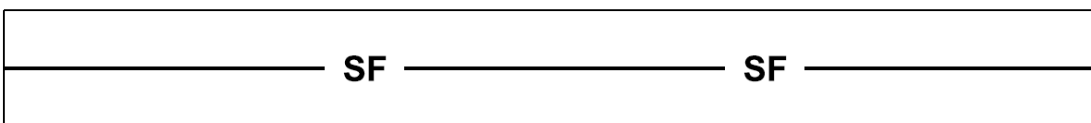
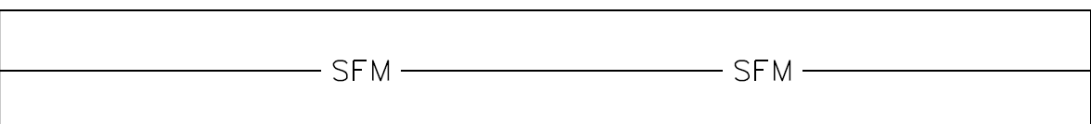
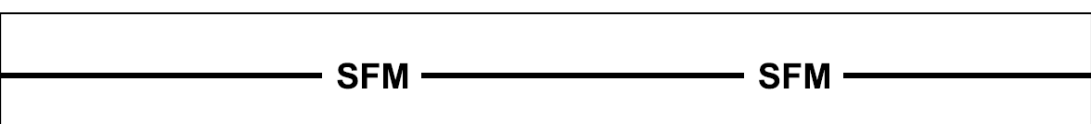

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LEGEND	
FONT TYPES	
A	ARIAL - TRUE TYPE FONT
W	WORKING - MICROSTATION FONT
LINE TYPES	
BELL	Peel_Bell
CABLE	Peel_Cable
GAS	Peel_Gas
GTAA-F	Peel_GTAA-F
HYDRO	Peel_Hydro
PSN	Peel_PSN
TNPL	Peel_TNPL
NB	Peel_NB-P
NB-E	Peel_NB-E
SF	Peel_SF-P
RW	Peel_RW-P
RW-E	Peel_RW-E
SFM	Peel_SFM-P
SFM-E	Peel_SFM-E
X	Peel_FENCE-P
X-E	Peel_FENCE-E

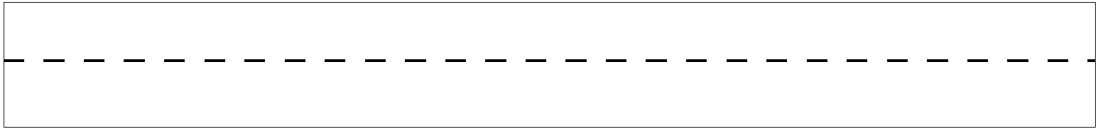
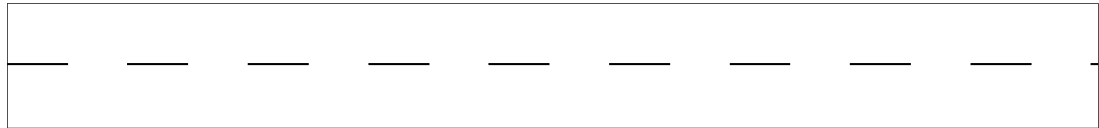
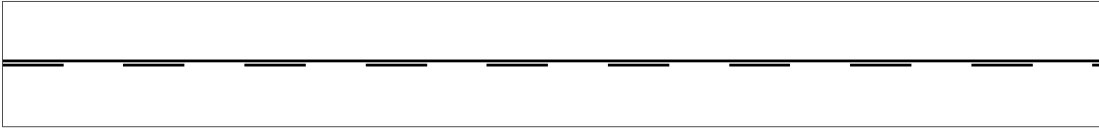
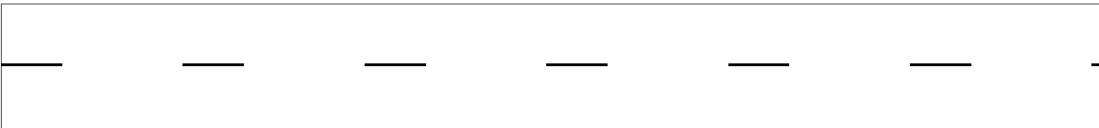

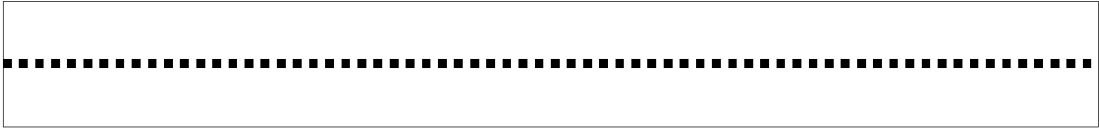
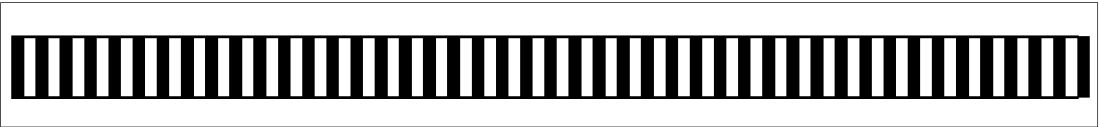
Appendix C - PW CAD Standard Line Styles

The following table is a complete list of Peel Region Approved Line Styles

Line Style	Description
Bell	
Cable	
Fence-E	
Fence-P	
Gas	
GTAA-F	
Hydro	
NB-E	
NB-P	

Line Style	Description
PSN	
RW-E	
RW-P	
SF-P	
SFM-E	
SFM-P	
TNRL	

Pavement Markings:

Line Style	Description
PM-111	
PM-333	
PM-333-S	
PM-363	
PM-393	
PM-Elephant Feet	
PM-Ladder Crosswalk	

Appendix D - PW CAD Standard Text Styles

SAMPLE STYLE	STYLE NAME
TEXT-0.5	Peel-0.5
TEXT-0.7	Peel-0.7
TEXT-0.8	Peel-0.8
TEXT-1.0-A	Peel-1.0-A
TEXT-1.25	Peel-1.25
TEXT-1.5	Peel-1.25
<u>TEXT-1.75</u>	Peel-1.75
TEXT-2.5	Peel-2.5
TEXT-3.0	Peel-3.0

Appendix E - PW CAD Standard Dimension Styles

SAMPLE STYLE	STYLE NAME
	Peel-Dim-Existing
	Peel-Dim-Proposed
	Peel-Dlm-STRC

Appendix F - PW CAD Standard Cell Libraries

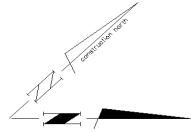

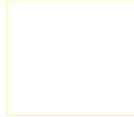
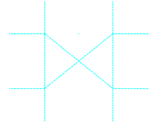
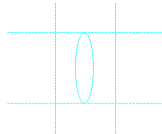
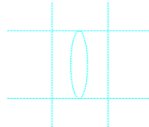
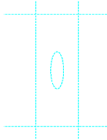
Peel PW Capital Works Cell Library


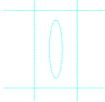
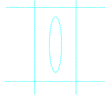
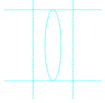


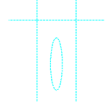
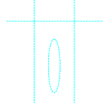
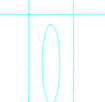
Peel PW Roads Cell Library

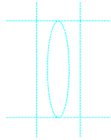


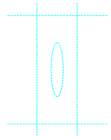
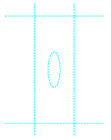
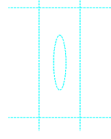
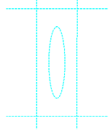
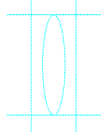
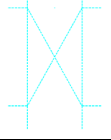
Peel PW Roads Signs Cell Library


Peel PW Traffic Cell Library

STANDARD CAPTIAL WORKS CELLS








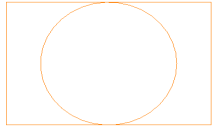

CELL NAME	DESCRIPTION	SYMBOL
CNORTH	CONSTRUCTION NORTH	
DCB	EXISTING DOUBLE CATCHBASIN	
DICB	EXISTING DITCH INLET CATCHBASIN	
DISCLAIMER	DISCLAIMER FOR CAD DRAWINGS	<div>DISCLAIMER THESE RECORDS ARE BASED UPON AVAILABLE AND UNVERIFIED INFORMATION AND MAY PROVE INACCURATE. THE REGION OF PEEL DISCLAIMS ANY RESPONSIBILITY SHOULD THESE RECORDS BE RELIED UPON TO THE DETRIMENT OF ANY PERSON.</div>
EX100V	EXISTING 100mm VALVE IN PROFILE VIEW	
EX150H	EXISTING 150mm HYRDANT IN PROFILE VIEW	
EX150T	EXISTING 150X150mm TEE IN PROFILE VIEW	
EX150V	EXISTING 150mm VALVE IN PROFILE VIEW	


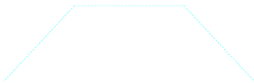
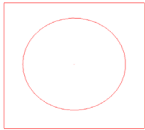
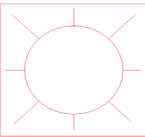
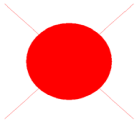


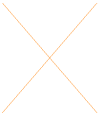
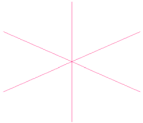
CELL NAME	DESCRIPTION	SYMBOL
EX150W	EXISTING 150mm WATERMAIN IN PROFILE	
EX200H	EXISTING 200x150mm HYDRANT IN PROFILE	
EX200T1	EXISTING 200x150mm TEE IN PROFILE	
EX200T2	EXISTING 200x200mm TEE IN PROFILE	
EX200V	EXISTING 200mm VALVE IN PROFILE	
EX200W	EXISTING 200mm WATERMAIN IN PROFILE	
EX250H	EXISTING 250x150mm HYDRANT IN PROFILE	
EX250T1	EXISTING 250x150mm TEE IN PROFILE	
EX250T2	EXISTING 250x200mm TEE IN PROFILE	





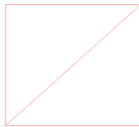
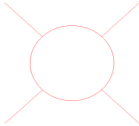

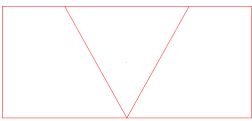
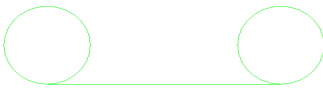
CELL NAME	DESCRIPTION	SYMBOL
EX250T3	EXISTING 250x250mm TEE IN PROFILE	
EX250V	EXISTING 250 VALVE IN PROFILE	
EX250W	EXISTING 250 WATERMAIN IN PROFILE	
EX300H	EXISTING 300x150mm HYDRANT IN PROFILE	
EX300T1	EXISTING 300x100mm TEE IN PROFILE	
EX300T2	EXISTING 300x150mm TEE IN PROFILE	
EX300T3	EXISTING 300x200mm TEE IN PROFILE	
EX300T4	EXISTING 300x300 TEE IN PROFILE	
EX300V	EXISTING 300mm VALVE IN PROFILE	



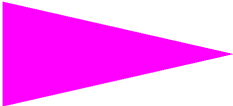


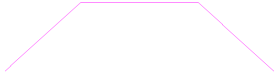
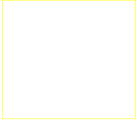
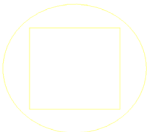
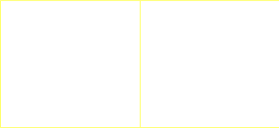
CELL NAME	DESCRIPTION	SYMBOL
EX300W	EXISTING 300mm WATERMAIN IN PROFILE	
EX350W	EXISTING 350mm WATERMAIN IN PROFILE	
EX375W	EXISTING 375mm WATERMAIN IN PROFILE	
EX400H	EXISTING 400x150mm HYDRANT IN PROFILE	
EX400T	EXISTING 400x150mm TEE IN PROFILE	
EX400W	EXISTING 400mm WATERMAIN IN PROFILE	
EX450W	EXISTING 450mm WATERMAIN IN PROFILE	
EX500W	EXISTING 500mm WATERMAIN IN PROFILE	
EX525W	EXISTING 525mm WATERMAIN IN PROFILE	

CELL NAME	DESCRIPTION	SYMBOL
EX600W	EXISTING 600mm WATERMAIN IN PROFILE	
EX675W	EXISTING 675mm WATERMAIN IN PROFILE	
EX750W	EXISTING 750mm WATERMAIN IN PROFILE	
EX800W	EXISTING 800mm WATERMAIN IN PROFILE	
EX825W	EXISTING 825mm WATERMAIN IN PROFILE	
EX900W	EXISTING 900mm WATERMAIN IN PROFILE	
EX975W	EXISTING 975mm WATERMAIN IN PROFILE	
EX1050W	EXISTING 1050mm WATERMAIN IN PROFILE	
EX1200W	EXISTING 1200mm WATERMAIN IN PROFILE	

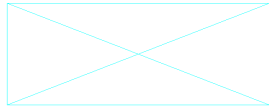
CELL NAME	DESCRIPTION	SYMBOL
EX1250W	EXISTING 1250mm WATERMAIN IN PROFILE	
EX1350W	EXISTING 1350mm WATERMAIN IN PROFILE	
EX1500W	EXISTING 1500mm WATERMAIN IN PROFILE	
EX1650W	EXISTING 1650mm WATERMAIN IN PROFILE	
EX1800W	EXISTING 1800mm WATERMAIN IN PROFILE	
EX_BH	EXISTING BOREHOLE IN PLAN VIEW	
EX_BH_PROF	EXISTING BOREHOLE IN PROFILE VIEW	
EX_BMH	EXISTING BELL MANHOLE	
EX_BP	EXISTING BEL POLE	




















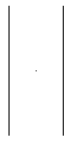
CELL NAME	DESCRIPTION	SYMBOL
EX_BPED	EXISTING BELL PEDESTAL	
EX_CSP	EXISTING CULVERT	
EX_SCB	EXISTING SIGNAL CONTROL BOX	
EX_TLH	EXISTING TRAFFIC SIGNAL HEAD	
EX_TLS	EXISTING TRAFFIC LIGHT STANDARD	
EX_BOL	EXISTING BOLLARD	
EXF_GATE	EXISTING FENCE GATE	
EXF_WF	EXISTING WIRE FENCE	
EXG_MARK	EXISTING GAS MAIN MARKER	

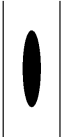








CELL NAME	DESCRIPTION	SYMBOL
EXG_VB	EXISTING GAS VALVE BOX	
EXG_VENT	EXISTING GAS VENT	
EXH_GUY	EXISTING HYDRO GUYWIRE	
EXH_HP	EXISTING HYDRO POLE	
EXH_JB	EXISTING HYDRO JUNCTION BOX	
EXH_LS	EXISTING HYDRO LIGHT POLE	
EXH_MH	EXISTING HYDRO MANHOLE	
EXH_VAULT	EXISTING HYDRO TRANSFORMER	
EXS_AD	EXISTING ADVERTISE SIGN	








CELL NAME	DESCRIPTION	SYMBOL
EXS_SS	EXISTING STREET SIGN	
EXS_TS	EXISTING TRAFFIC SIGN	
EXSAN_FA	EXISTING SANITARY FLOW ARROW	
EXSAN_MH	EXISTING SANITARY MANHOLE IN PLAN VIEW	
EXSAN_MHP	EXISTING SANITARY MANHOLE IN PROFILE VIEW	
EXSAN_OUTF	EXISTING SANITARY OUTFLOW	
EXSTM_CB	EXISTING CATCH BASIN	
EXSTM_CBMH	EXISTING CATCH BASIN MANHOLE	
EXSTM_DCB	EXISTING DOUBLE CATCH BASIN	




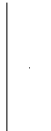





CELL NAME	DESCRIPTION	SYMBOL
EXSTM_DICB	EXISTING DITCH INLET CATCH BASIN	
EXSTM_FA	EXISTING STORM SEWER FLOW ARROW	
EXSTM_MH	EXISTING STORM SEWER MANHOLE IN PLAN VIEW	
EXSTM_MHP	EXISTING STORM SEWER MANHOLE IN PROFILE VIEW	
EXSTM_OUTF	EXISTING STORM SEWER OUTFLOW	
EXTV_PED	EXISTING TV PEDESTAL	
EXW_HYD	EXISTING HYDRANT	
EXW_PLUG	EXISTING WATERMAIN PLUG	
EXW_RED	EXISTING WATERMAIN REDUCER	








CELL NAME	DESCRIPTION	SYMBOL
EXW_SAM	EXISTING SAMPLING STATION	
EXW_SP_HEAD	EXISTING SPRINKLER HEAD	
EXW_SP_VALVE	EXISTING SPRINKLER VALVE	
EXW_SWAMP	EXISTING SWAMP	
EXW_VB	EXISTING VALVE AND BOX	
EXW_VCH	EXISTING VALVE CHAMBER	
EXW_VCHB	EXISTING VALVE CHAMBER (BOTTOM) IN PROFILE VIEW	
EXW_VCHT	EXISTING VALVE CHAMBER (TOP) IN PROFILE VIEW	
EXW_WS	EXISTING WATER CURB STOP	





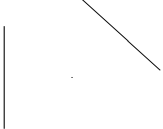


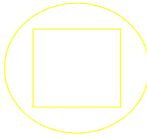
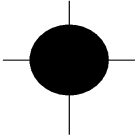
CELL NAME	DESCRIPTION	SYMBOL																									
FLOWER	FLOWER FOR FLOWER BEDS																										
HEDGE	EXISTING HEDGES																										
LOGO	PEEL LOGO																										
NORTH ARROW	NORTH ARROW																										
NORTH_PLANT	PLANT LIST	<div><div>PLANT LIST</div><table><tr><th>QUANTITY</th><th>SYMBOL</th><th>BOTANICAL NAME</th><th>COMMON NAME</th><th>SIZE</th></tr><tr><td>11</td><td></td><td>FRAXINUS NIGRA</td><td>BLACK ASH</td><td>45mm cal WIRE BASKET</td></tr><tr><td>27</td><td></td><td>RHUS TYPHINA</td><td>STAGHORN SUMAC</td><td>125mm C3 (3 gph)</td></tr><tr><td>21</td><td></td><td>CORNUS SERICEA</td><td>RED OSIER DOGWOOD</td><td>100mm C3 (3 gph)</td></tr><tr><td>3446sq.m</td><td></td><td colspan="3">SODDED AREA</td></tr></table></div>	QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	11		FRAXINUS NIGRA	BLACK ASH	45mm cal WIRE BASKET	27		RHUS TYPHINA	STAGHORN SUMAC	125mm C3 (3 gph)	21		CORNUS SERICEA	RED OSIER DOGWOOD	100mm C3 (3 gph)	3446sq.m		SODDED AREA		
QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE																							
11		FRAXINUS NIGRA	BLACK ASH	45mm cal WIRE BASKET																							
27		RHUS TYPHINA	STAGHORN SUMAC	125mm C3 (3 gph)																							
21		CORNUS SERICEA	RED OSIER DOGWOOD	100mm C3 (3 gph)																							
3446sq.m		SODDED AREA																									
P100T	PROPOSED 100x100 TEE IN PROFILE VIEW																										
P100V	PROPOSED 100mm VALVE IN PROFILE VIEW																										
P100W	PROPOSED 100mm WATERMAIN IN PROFILE VIEW																										
P150B	PROPOSED 150mm BEND IN PROFILE VIEW																										

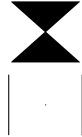



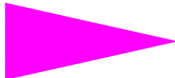
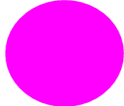

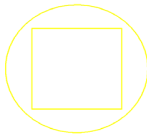

CELL NAME	DESCRIPTION	SYMBOL
P150H	PROPOSED 150mm HYDRANT IN PROFILE VIEW	
P150T1	PROPOSED 150x100mm TEE IN PROFILE VIEW	
P150T2	PROPOSED 150x150mm TEE IN PROFILE VIEW	
P150V	PROPOSED 150mm VALVE IN PROFILE VIEW	
P150W	PROPOSED 150mm IN PROFILE VIEW	
P200B	PROPOSED 200mm BEND IN PROFILE VIEW	
P200H	PROPOSED 200X150mm HYDRANT IN PROFILE VIEW	
P200T1	PROPOSED 200x100 TEE IN PROFILE VIEW	
P200T2	PROPOSED 200x150mm TEE IN PROFILE VIEW	


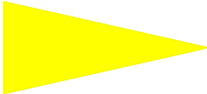
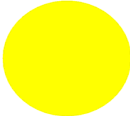
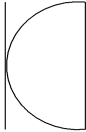
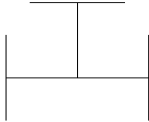
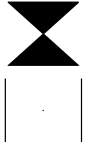

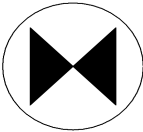
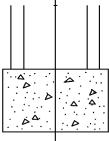
CELL NAME	DESCRIPTION	SYMBOL
P200T3	PROPOSED 200x200 TEE IN PROFILE VIEW	
P200V	PROPOSED 200mm VALVE IN PROFILE VIEW	
P200W	PROPOSED 200mm WATERMAIN IN PROFILE VIEW	
P300B	PROPOSED 300mm BEND IN PROFILE VIEW	
P300H	PROPOSED 150x150mm HYDRANT IN PROFILE VIEW	
P300T1	PROPOSED 300x100mm TEE IN PROFILE VIEW	
P300T2	PROPOSED 300x150mm TEE IN PROFILE VIEW	
P300T3	PROPOSED 300x200mm TEE IN PROFILE VIEW	
P300T4	PROPOSED 300x300mm TEE IN PROFILE VIEW	


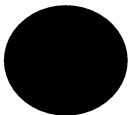



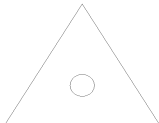



CELL NAME	DESCRIPTION	SYMBOL
P300V	PROPOSED 300mm VALVE IN PROFILE VIEW	
P300W	PROPOSED 300mm WATERMAIN IN PROFILE VIEW	
P350W	PROPOSED 350mm WATERMAIN IN PROFILE VIEW	
P400B	PROPOSED 400mm BEND IN PROFILE VIEW	
P400H	PROPOSED 400x150mm HYDRANT IN PROFILE VIEW	
P400T1	PROPOSED 400x100mm TEE IN PROFILE VIEW	
P400T2	PROPOSED 400x150mm TEE IN PROFILE VIEW	
P400T3	PROPOSED 400x200mm TEE IN PROFILE VIEW	
P400T4	PROPOSED 400x300mm TEE IN PROFILE VIEW	

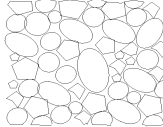

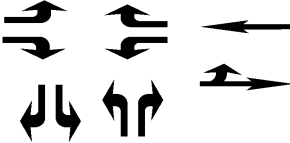


CELL NAME	DESCRIPTION	SYMBOL
P400T5	PROPOSED 400x400mm TEE IN PROFILE VIEW	
P400W	PROPOSED 400mm WATERMAIN IN PROFILE VIEW	
P600B	PROPOSED 600mm BEND IN PROFILE VIEW	
P600H	PROPOSED 600x150mm HYDRANT IN PROFILE VIEW	
P600T1	PROPOSED 600x150mm TEE IN PROFILE VIEW	
P600T2	PROPOSED 600x200mm TEE IN PROFILE VIEW	
P600T3	PROPOSED 600x300mm TEE IN PROFILE VIEW	
P600T4	PROPOSED 600x400mm TEE IN PROFILE VIEW	
P600W	PROPOSED 600mm WATERMAIN IN PROFILE VIEW	

CELL NAME	DESCRIPTION	SYMBOL
P750W	PROPOSED 750mm WATERMAIN IN PROFILE VIEW	
PBEND_VERT	PROPOSED VERTICAL BENDS IN PLAN VIEW	
PBEND_11.25	PROPOSED 11.25° BEND IN PLAN VIEW	
PBEND_22.5	PROPOSED 22.5° BEND IN PLAN VIEW	
PBEND_45	PROPOSED 45° BEND IN PLAN VIEW	
PBEND_90	PROPOSED 90° BEND IN PLAN VIEW	
PCB	PROPOSED CATCH BASIN	
PCBMH	PROPOSED CATCH BASIN MANHOLE	
PHYD	PROPOSED HYDRANT HEAD	






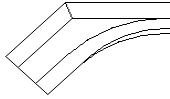
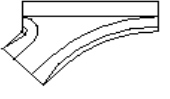
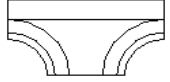
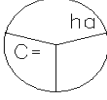


CELL NAME	DESCRIPTION	SYMBOL
PHYD_TEE	PROPOSED HYDRANT TEE AND VALVE	
PMH	PROPOSED SANITARY MANHOLE IN PROFILE	
PPL	PROPOSED WATERMAIN PLUG	
PRED	PROPOSED WATERMAIN REDUCER	
PSAN_FA	PROPOSED SANITARY FLOW ARROW	
PSAN_MH	PROPOSED SANITARY MANHOLE	
PSTM_CB	PROPOSED CATCH BASIN	
PSTM_CBMH	PROPOSED CATCH BASIN MANHOLE	
PSTM_DCB	PROPOSED DOUBLE CATCH BASIN	


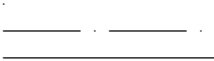
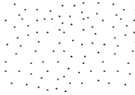
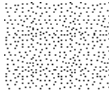






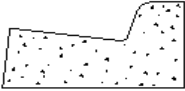
CELL NAME	DESCRIPTION	SYMBOL
PSTM_DICB	PROPOSED DITCH INLET CATCH BASIN	
PSTM_FA	PROPOSED STOM SEWER FLOW ARROW	
PSTM_MH	PROPOSED STORM SEWER MANHOLE	
PTAPSL	PROPOSED TAP AND SLEEVE VALVE AND BOX	
PTEE	PROPOSED TEE	
PTEEA	PROPOSED ANCHOR TEE AND VALVE	
PVALVE	PROPOSED VALVE BOX	
PVCH	PROPOSED VALVE CHAMBER	
PVCHB	PROPOSED VALVE CHAMBER (BOTTOM) IN PROFILE VIEW	










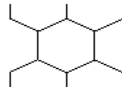

CELL NAME	DESCRIPTION	SYMBOL
PVCHT	PROPOSED VALVE CHAMBER (TOP) IN PROFILE VIEW	
PWS	PROPOSED WATER CURB STOP	
RD_CONC	CONCRETE PATTERN	
S_GROUND	EXISTING GROUND SHOT	
S_HOT	EXISTING SURVEY MONUMENT	
S_PI	EXISTING SURVEY POINT OF INTERSECTION	
S_S.I.B.	EXISTING SURVEY IRON BAR	
SAMPLING STA	PROPOSED SAMPLING STATION	
SHRUB	EXISTING SHRUB	


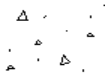
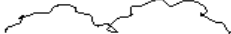

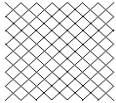






CELL NAME	DESCRIPTION	SYMBOL
STONE	EXISTING STONES	
SWAMP	EXISTING SWAMP PATTERN	
TRAF	TURNING ARROWS ON PAVEMENT MARKINGS	
TREEC	EXISTING CONIFEROUS TREE	
TREED	EXISTING DECIDUOUS TREE	

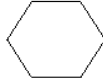

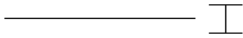



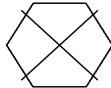



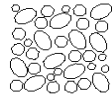
STANDARD ROADS CELLS

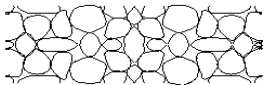

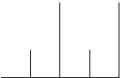
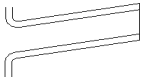
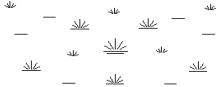






CELL NAME	DESCRIPTION	SYMBOL
111	PAVEMENT MARKINGS 1_1_1	
333	PAVEMENT MARKINGS 3_3_3	
333_S	PAVEMENT MARKINGS 3_3_3_S	
363	PAVEMENT MARKINGS 3_6_3	
393	PAVEMENT MARKINGS 3_9_3	
45OUT-1	45 DEGREE CONCRETE OUTLET - OPSD 605.030	
45OUT-2	45 DEGREE CONCRETE OUTLET - OPSD 605.010	
90OUT	90 DEGREE CONCRETE OUTLET - OPSD 604.010	
AREA	COEFFICIENT - AREA	
ARMOUR-PATT	PATTEN - ARMOUR STONE	
ARROW	NORTH ARROW	






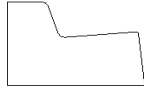
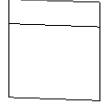




CELL NAME	DESCRIPTION	SYMBOL
ASPH-FR-PATT	PATTERN - FULL DEPTH ASPHALT REMOVAL	
ASPH-PR-PATT	PATTERN - PARTIAL DEPTH ASPHALT REMOVAL	
ASPH-RESURF-PATT	PATTERN - PAVEMENT RESURFACING	
ASPH-RW-PATT	PATTERN - ROAD WIDENING, MULTI-USE TRAIL	
ASPHALT	PATTERN - ASPHALT	
BH	BOREHOLE IN PLAN	
BIKE	BICYCLE PATH SYMBOL	
BUS PAD-PATT	PATTERN - BUS PAD	
CBUSH	PATTERN - CONIFEROUS WOODLOT OR HEDGE	
CC-600.110	CONCRETE CURB - OPSD 600.110	
CG-600.010	CONCRETE CURB & GUTTER - OPSD 600.010	






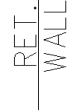

CELL NAME	DESCRIPTION	SYMBOL
CG-600.020	CONCRETE CURB & GUTTER - OPSD 600.020	
CG-600.030	CONCRETE CURB & GUTTER - OPSD 600.030	
CG-600.040	CONCRETE CURB & GUTTER - OPSD 600.040	
CG-600.060	CONCRETE CURB & GUTTER - OPSD 600.060	
CG-600.070	CONCRETE CURB & GUTTER - OPSD 600.070	
CG-600.080	CONCRETE CURB & GUTTER - OPSD 600.080	
CG-600.090	CONCRETE CURB & GUTTER - OPSD 600.090	
CG-600.100	CONCRETE CURB & GUTTER - OPSD 600.100	
CG-PATT	PATTERN - CLEARING & GRUBBING	
CONC-COLOUR-PATT	PATTERN - COLOUR CONCRETE	
CONC-IMPRESSED-PATT	PATTERN - IMPRESSED COLOURED CONCRETE	

CELL NAME	DESCRIPTION	SYMBOL
CONC-R-PATT	PATTERN - CONCRETE REMOVAL - ALL TYPES	
CONC-SW-PATT	PATTERN - CONCRETE SIDEWALK	
DBUSH-PATT	PATTERN - DECIDUOUS WOODLOT OR HEDGE	
GA	GUY ANCHOR	
GABION-PATT	PATTERN - GABION BASKET	
GRASS_PATT	PATTERN - SOD, TOP SOIL, BOULEVARD	
HPT	HIGH POINT	
INTLK-R-PATT	PATTERN - INTERLOCK REMOVAL	
LPT	LOW POINT	
PI	POINT OF INTERSECTION	
PM-L	PAVEMENT MARKING LIMIT	

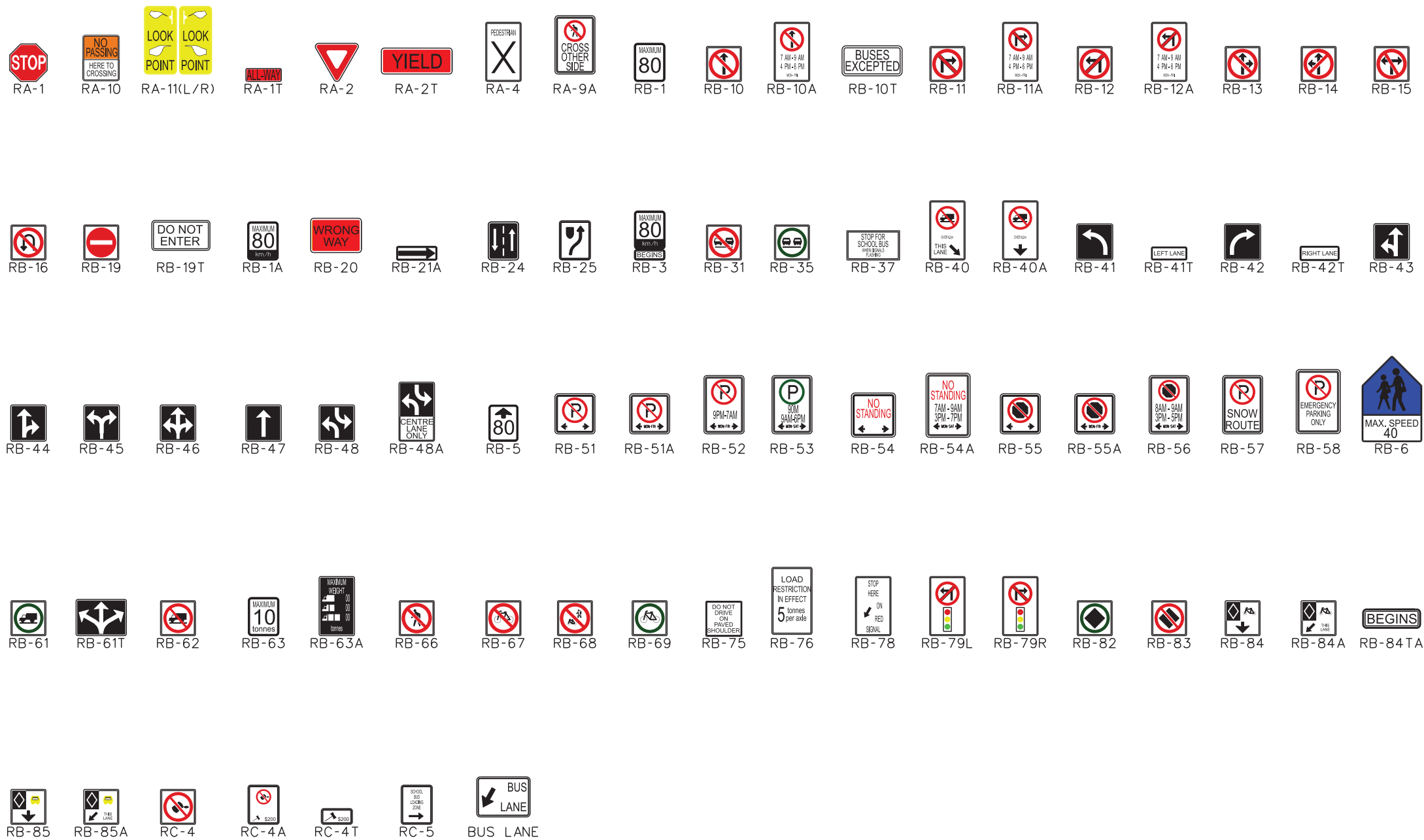
CELL NAME	DESCRIPTION	SYMBOL
PMSP	PAVEMENT MARKING DENOTE TEXT	
RAIL-1	GUARD RAIL	
RAIL-2	GUARD RAIL	
REMOVAL-1	REMOVE FENCE, CURB & GUTTER (ALL TYPE)	
REMOVAL-2	REMOVE TRAFFIC SIGNS (ALL TYPE)	
REMOVAL-3	REMOVE CATCHBASIN	
REMOVAL-4	REMOVE TRAFFIC LIGHT STAND	
REMOVAL-5	REMOVE VEGETATION	
REMOVAL-6	RELOCATE FEATURES BY OTHERS	
REMOVAL-7	ADJUST FEATURES TO FINISHED GRADE	
RIP RAP-PATT	PATTERN - RIP RAP	

CELL NAME	DESCRIPTION	SYMBOL
RIVER STONE-PATT	PATTERN - RIVER STONE	
SIGN	STREET SIGN - PROPOSED	
SLOPE	PLAN SLOPES	
SPILOWY	SPILLWAY	
SWAMP-PATT	PATTERN - SWAMP LAND	
WL	WATER LEVEL IN PROFILE	
X-POINT	ELEVATION POINT	
X_BARL	JERSEY BARRIER (LEFT CROSSFALL) FOR CROSS SECTION	
X_BARR	JERSEY BARRIER (RIGHT CROSSFALL) FOR CROSS SECTION	
X_CONIF	CONIFEROUS TREE FOR CROSS SECTION	
X_DECID	DECIDUOUS TREE FOR CROSS SECTION	

CELL NAME	DESCRIPTION	SYMBOL
X_DSHRUB	SHURUB FOR CROSS SECTION	
X_FENC	EXISTING FENCE LINE FOR CROSS SECTION	
X_HPC	HYDRO POLE FOR CROSS SECTION	
X_LBBKC	PROPOSED BIKEPATH (LEFT SIDE) FOR CROSS SECTION	
X_LBC	PROPOSED CURB (LEFT SIDE) FOR CROSS SECTION	
X_LBCC	PROPOSED CURB (LEFT SIDE) FOR CROSS SECTION	
X_LBKSC	PROPOSED KILLSTRIP (LEFT SIDE) FOR CROSS SECTION	
X_LBSWC	PROPOSED SIDEWALK (LEFT SIDE) FOR CROSS SECTION	
X_PFENC	PROPOSED FENCE LINE FOR CROSS SECTION	
X_PROW	PROPOSED ROW FOR CROSS SECTION	
X_RAILC	PROPOSED GUIDE RAIL FOR CROSS SECTION	

CELL NAME	DESCRIPTION	SYMBOL
X_RBBKC	PROPOSED BIKEPATH (RIGHT SIDE) FOR CROSS SECTION	
X_RBC	PROPOSED CURB (RIGHT SIDE) FOR CROSS SECTION	
X_RBCC	PROPOSED CURB (RIGHT SIDE) FOR CROSS SECTION	
X_RBKSC	PROPOSED KILLSTRIP (RIGHT SIDE) FOR CROSS SECTION	
X_RBSWC	PROPOSED SIDEWALK (RIGHT SIDE) FOR CROSS SECTION	
X_RET	RETAINING WALL FOR CROSS SECTION	
X_ROW	EXISTING ROW FOR CROSS SECTION	

M.U.T.C.D.C. REGULATORY SIGNS



REVISIONS		
DATE	DETAILS	INIT.
JAN. 00, 20XX	ISSUED FOR P.U.C.C.	X.X.
JAN. 00, 20XX	ISSUED FOR TENDER	X.X.
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00, 20XX	AS RECORDED	X.X.

NOTES:
1. ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.

Designed by _____ Chkd. _____ Approved by _____

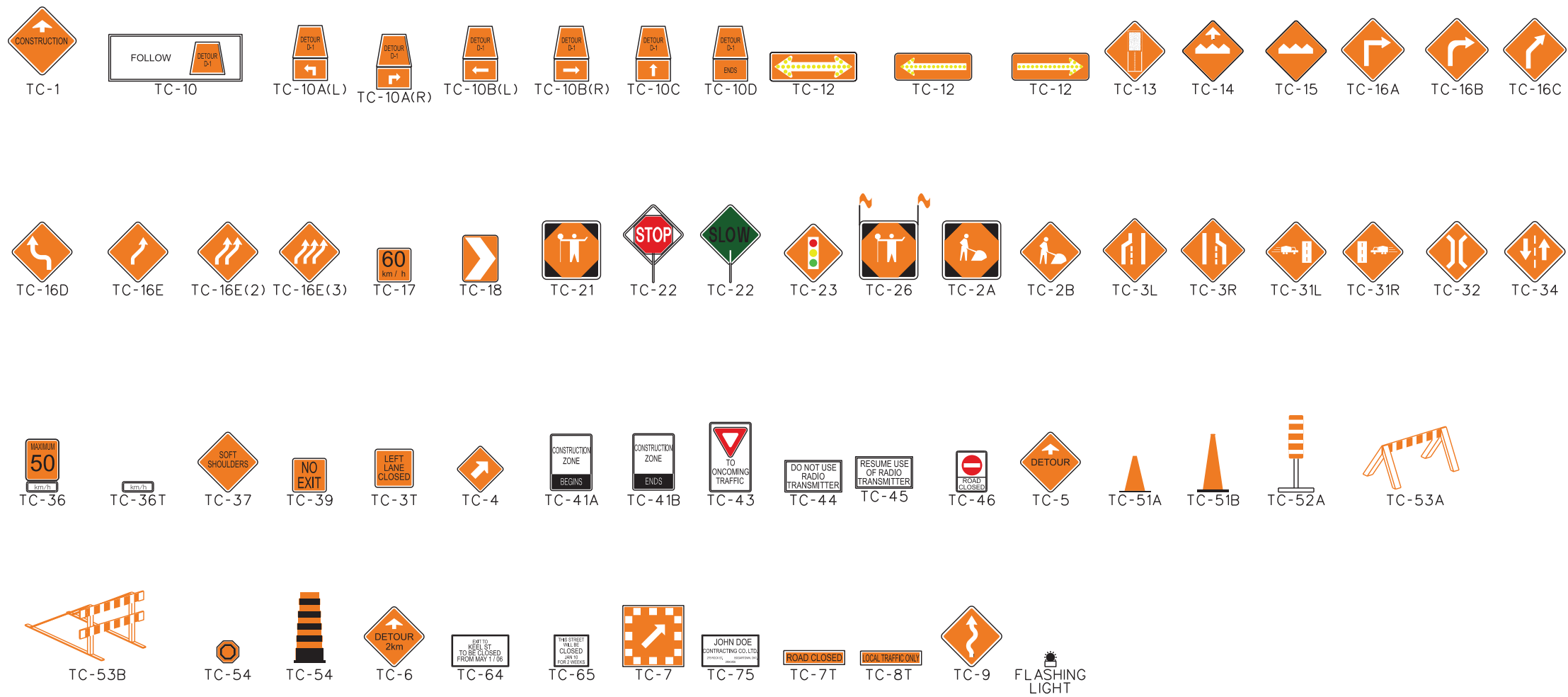
SCALE: INSERT SCALE BAR AND RATIO, OR AS SHOWN



REGULATORY SIGNS

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X	Plan No. XXXXX-D	
Date	MONTH YEAR	Sheet	X of X		

M.U.T.C.D.C. TEMPORARY TRAFFIC SIGNS



REVISIONS		
DATE	DETAILS	INIT.
JAN. 00, 20XX	ISSUED FOR P.U.C.C.	X.X.
JAN. 00, 20XX	ISSUED FOR TENDER	X.X.
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00, 20XX	AS RECORDED	X.X.

NOTES:
1. ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.

Designed by _____ Chkd. _____ Approved by _____

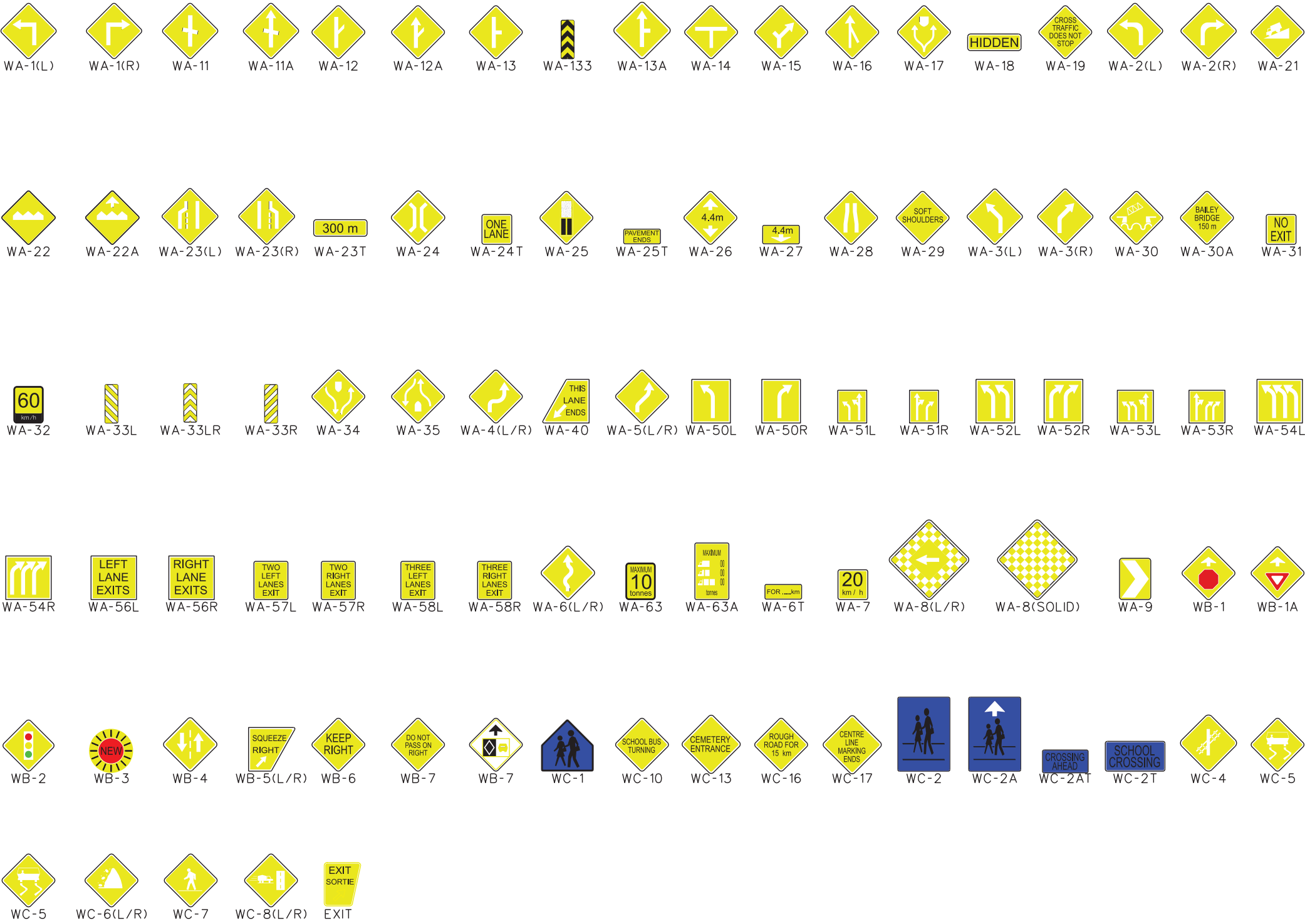
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TEMPORARY TRAFFIC SIGNS

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Checked by	X-XX	Drawn by	X-X	Plan No. XXXXX-D	
Date	MONTH YEAR	Sheet	X of X		

M.U.T.C.D.C. WARNING SIGNS



REVISIONS		
DATE	DETAILS	INIT.
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JAN. 00, 20XX	ISSUED FOR TENDER	X.X.
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00, 20XX	AS RECORDED	X.X.

NOTES:
1. ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.

Designed by _____ Chkd. _____










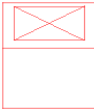
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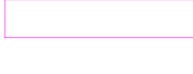
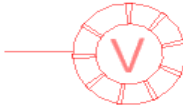


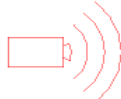


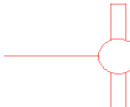


SCALE: INSERT SCALE BAR AND RATIO, OR AS SHOWN


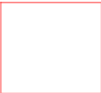







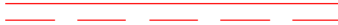

WARNING SIGNS

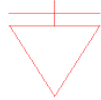







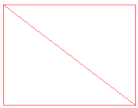
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Checked by	X-XX	Drawn by	X.X	Plan No. XXXXX-D	
Date	MONTH YEAR	Sheet	X of X		


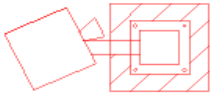


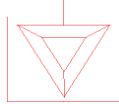
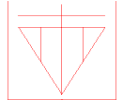


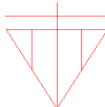


STANDARD TRAFFIC CELLS










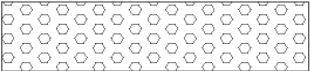

CELL NAME	DESCRIPTION	SYMBOL
ASPHALT	PATTERN - ASPHALT	
BIKE	BICYCLE PATH SYMBOL	
CNORTH	CONSTRUCTION NORTH	
DISCLAIMER	DISCLAIMER FOR CAD DRAWINGS	<div> DISCLAIMER THESE RECORDS ARE BASED UPON AVAILABLE AND UNVERIFIED INFORMATION AND MAY PROVE INACCURATE. THE REGION OF PEEL DISCLAIMS ANY RESPONSIBILITY SHOULD THESE RECORDS BE RELIED UPON TO THE DETRIMENT OF ANY PERSON. </div>
EXIST_AD	EXISTING ADVERTISE SIGN	
EXIST_ANTENNA	EXISTING RADIO ANTENNA	
EXIST_CB_SL_FUSE	EXISTING STREETLIGHTING INLINE FUSE	
EXIST_CB_SL_HCU	EXISTING UNDERGROUND STREETLIGHTING POWER CABLE	
EXIST_CB_TS_COMM	EXISTING COMMUNICATION CABLE	
EXIST_CB_TS_UG	EXISTING UNDERGROUND CONDUIT	
EXIST_CONTROLLER_BM	EXISTING SIGNAL CONTROLLER CABINET BASE MOUNTED	





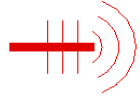
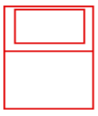





CELL NAME	DESCRIPTION	SYMBOL
EXIST_CONTROLLER_PM	EXISTING POLE MOUNTED SIGNAL CONTROLLER CABINET	
EXIST_DETECT_LOOP_ZN	EXISTING TRAFFIC LOOP	
EXIST_DETECT_MIOVISION	EXISTING OVERHEAD VEHICLE VIDEO FISHEYE LENSE DETECTOR	
EXIST_DETECT_OH_ZN	EXISTING VIDEO/RADAR DETECTION ZONE	
EXIST_DETECT_POD	EXISTING DETECTOR POD IN ASPHALT	
EXIST_DETECT_RADAR	EXISTING OVERHEAD VEHICLE DETECTOR	
EXIST_DETECT_VIDEO SENSOR	EXISTING OVERHEAD VEHICLE VIDEO DETECTOR	
EXIST_FIRE-P_EMTRAC	EXISTING FIRE PREEMPTION EMTRAC ANTENNA	
EXIST_FIRE-P_OPTICOM	EXISTING FIRE PREEMPTION OPTICOM SENSOR	
EXIST_FLASHING_BC	EXISTING FLASHING BEACON	
EXIST_HW_300	EXISTING 300mm ELECTRICAL HANDWELL	




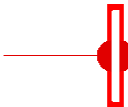
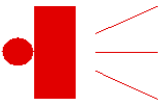
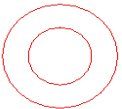
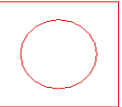




CELL NAME	DESCRIPTION	SYMBOL
EXIST_HW_460	EXISTING 460mm ELECTRICAL HANDWELL	
EXIST_HW_600	EXISTING 600X600 ELECTRICAL HANDWELL	
EXIST_LUMINARE	EXISTING STREETLIGHTING LUMINARE	
EXIST_OH_BACKGUY_ANCH	EXISTING BACKGUY ANCHOR	
EXIST_OH_CB_SL	EXISTING OVERHEAD CABLE	
EXIST_OH_CB_SL_HCA	EXISTING OVERHEAD STREETLIGHTING POWER CABLE	
EXIST_OH_CB_SL_OH	EXISTING STREETLIGHTING OVERHEAD CABLE	
EXIST_OH_CB_SL_OH +MESSENGER	EXISTING STREETLIGHTING OVERHEAD WITH MESSENGER	
EXIST_OH_CB_SL_PC	EXISTING OVERHEAD POWER CABLE	
EXIST_OH_CB_TS_MESS	EXISTING OVERHEAD WITH MESSENGER	
EXIST_OH_CB_TS_ON SPAN	EXISTING OVERHEAD TRAFFIC SIGNAL WIRE ON SPAN	












CELL NAME	DESCRIPTION	SYMBOL
EXIST_OH_SIGNAL_HWY	EXISTING OVERHEAD SIGNAL HEAD HIGHWAY ON SPAN WIRE	
EXIST_OH_SIGNAL_VEHICLE WITH NUMBER	EXISTING OVERHEAD SIGNAL HEAD AS PER TYPE ON CHART ON SPAN WIRE	
EXIST_OSNS	EXISTING OVERHEAD STREET SIGN	
EXIST_PB_APS	EXISTING APS PUSHBUTTON	
EXIST_PB_REGULAR	EXISTING PUSHBUTTON	
EXIST_POLE_#	EXISTING TRAFFIC SIGNAL POLE #	TS-#
EXIST_POLE_ALUMINUM	EXISTING ALUMINUM POLE	
EXIST_POLE_CONCRETE	EXISTING CONCRETE POLE	
EXIST_POLE_STEEL	EXISTING STEEL POLE	
EXIST_POLE_WOOD	EXISTING WOOD POLE	
EXIST_PS_BM	EXISTING POWER SUPPLY PEDESTAL	







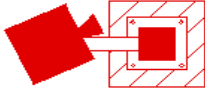




CELL NAME	DESCRIPTION	SYMBOL
EXIST_PS_PM	EXIST POWER SUPPLY POLE MOUNTED	
EXIST_RL_CAM	EXISTING RED LIGHT CAMERA	
EXIST_RL_CAM_FL	EXISTING RED LIGHT CAMERA FLASHER	
EXIST_SIGNAL_BIKE	EXISTING BIKE SIGNAL HEAD	
EXIST_SIGNAL_COVERED_BIKE	EXISTING COVERED BIKE SIGNAL	
EXIST_SIGNAL_COVERED_HEAD W TYPE	EXISTING COVERED SIGNAL HEAD AS PER CHART	
EXIST_SIGNAL_COVERED_HWY	EXISTING COVERED HIGHWAY HEAD FOR STAGING	
EXIST_SIGNAL_COVERED_PED +COUNTDOWN	EXISTING COVERED PEDESTRIAN SIGNAL HEAD	
EXIST_SIGNAL_HEAD_W_TYPE	EXISTING SIGNAL HEAD WITH TYPE	
EXIST_SIGNAL_HWY	EXISTING HIGHWAY SIGNAL HEAD	
EXIST_SIGNAL_LBL_TS-1	EXISTING SIGNAL HEAD LABEL TYPE 1	












CELL NAME	DESCRIPTION	SYMBOL
EXIST_SIGNAL_LBL_TS-2	EXISTING SIGNAL HEAD LABEL TYPE 2	
EXIST_SIGNAL_LBL_TS-9	EXISTING SIGNAL HEAD LABEL TYPE 9	
EXIST_SIGNAL_LBL_TS-10	EXISTING SIGNAL HEAD LABEL TYPE 10	
EXIST_SIGNAL_LBL_TS-11	EXISTING SIGNAL HEAD LABEL TYPE 11	
EXIST_SIGNAL_LBL_TS-B	EXISTING SIGNAL HEAD LABEL TYPE BIKE	
EXIST_SIGNAL_LBL_TS-H OZ	EXISTING SIGNAL HEAD LABEL OVERSIZED HIGHWAY	
EXIST_SIGNAL_LBL_TS-T	EXISTING SIGNAL HEAD LABEL TYPE TRANSIT	
EXIST_SIGNAL_PED ONLY	EXISTING PEDESTRIAN SIGNAL HEAD ONLY	
EXIST_SIGNAL_PED +COUNTDOWN	EXISTING PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN	
EXIST_TACTILE_PLATE	EXISTING TACTILE PLATE	
EXIST_TS_CCTV	EXISTING TRAFFIC SIGNAL CCTV	





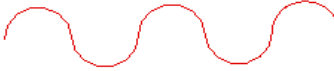

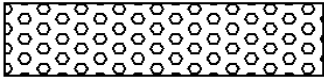




CELL NAME	DESCRIPTION	SYMBOL
EXIST_TS_SIGN	EXISTING TRAFFIC SIGN	
LOGO	PEEL LOGO	
NORTH_ARROW	NORTH ARROW	
PROP_SIGNAL_PED ONLY	PROPOSED PEDESTRIAN SIGNAL HEAD ONLY	
PROP_ANTENNA	PROPOSED RADIO ANTENNA	
PROP_CONTROLLER_BM	PROPOSED SIGNAL CONTROLLER	
PROP_CONTROLLER_PM	PROPOSED POLE MOUNTED SIGNAL CONTROLLER CABINET	
PROP_DETECT_LOOP	PROPOSED DETECTION LOOPS	
PROP_DETECT_MIOVISION	PROPOSED OVERHEAD VEHICLE VIDEO FISHEYE LENSE DETECTOR	
PROP_DETECT_OH ZN	PROPOSED VIDEO/MICROWAVE DETECTION	
PROP_DETECT_POD	PROPOSED VEHICLE DETECTOR POD IN ASPHALT	












CELL NAME	DESCRIPTION	SYMBOL
PROP_DETECT_RADAR	PROPOSED OVERHEAD VEHICLE RADAR DETECTOR	
PROP_DETECT_VIDEO SENSOR	PROPOSED OVERHEAD VEHICLE VIDEO DETECTOR	
PROP_FIRE-P_EMTRAC	PROPOSED FIRE PREEMPTION EMTRAC ANTENNA	
PROP_FIRE-P_OPTICOM	PROPOSED FIRE PREEMPTION OPTICOM	
PROP_FLASHING_BC	PROPOSED FLASHING BEACON	
PROP_HW_300	PROPOSED 300mm ELECTRICAL HANDWELL	
PROP_HW_460	PROPOSED 460mm ELECTRICAL HANDWELL	
PROP_HW_600	PROPOSED 600X600 ELECTRICAL HANDWELL	
PROP_LUMINARE	PROPOSED LUMINARE	
PROP_OH_BACKGUY_ANCH	PROPOSED BACKGUY ANCHOR	
PROP_OH_SIGNAL_HWY	PROPOSED OVERHEAD SIGNAL HEAD HIGHWAY ON SPAN WIRE	











CELL NAME	DESCRIPTION	SYMBOL
PROP_OH_SIGNAL_WITH TYPE	PROPOSED OVERHEAD SIGNAL HEAD AS PER TYPE ON CHART ON SPAN WIRE	
PROP_OH_SL_CB	PROPOSED OVERHEAD CABLE	
PROP_OH_SL_CB_HCA	PROPOSED POWER FEED CABLE OVERHEAD	
PROP_OH_SL_CB_PWCB	PROPOSED OVERHEAD POWER CABLES	
PROP_OH_TS_CB	PROPOSED OVERHEAD TRAFFIC SIGNAL WIRE	
PROP_OH_TS_CB_MESS	PROPOSED OVERHEAD WITH MESSENGER	
PROP_OSNS	PROPOSED OVERHEAD STREET SIGN	
PROP_PB_APS	PROPOSED AUDIBLE PEDESTRIAN PB	
PROP_PB_REGULAR	PROPOSED PUSHBUTTON	
PROP_POLE_#	PROPOSED TRAFFIC SIGNAL_POLE #	
PROP_POLE_ALUMINUM	PROPOSED ALUMINUM POLE	





CELL NAME	DESCRIPTION	SYMBOL
PROP_POLE_CONCRETE	PROPOSED CONCRETE POLE	
PROP_POLE_PORTBL PED	PROPOSED PORTABLE PEDESTRIAN POLE	
PROP_POLE_STEEL	PROPOSED STEEL POLE	
PROP_POLE_WOOD	PROPOSED WOOD POLE	
PROP_PS_BM	PROPOSED BASE MOUNTED POWER SUPPLY	
PROP_PS_PM	PROPOSED POLE MOUNTED POWER SUPPLY	
PROP_RL_CAM	PROPOSED RED LIGHT CAMERA	
PROP_RL_CAM_FL	PROPOSED RED LIGHT CAMERA FLASHER	
PROP_SIGNAL_BIKE	PROPOSED BIKE SIGNAL	
PROP_SIGNAL_COVERED_BIKE	PROPOSED COVERED BIKE SIGNAL	
PROP_SIGNAL_COVERED_HEAD W TYPE	PROPOSED COVERED SIGNAL HEAD AS PER CHART	

CELL NAME	DESCRIPTION	SYMBOL
PROP_SIGNAL_COVERED_HWY	PROPOSED COVERED HIGHWAY HEAD FOR STAGING	
PROP_SIGNAL_COVERED_PED +COUNTDOWN	PROPOSED COVERED PEDESTRIAN SIGNAL HEAD	
PROP_SIGNAL_HEAD W TYPE	PROPOSED SIGNAL HEAD AS PER CHART	
PROP_SIGNAL_HWY	PROPOSED SIGNAL HEAD HIGHWAY	
PROP_SIGNAL_LBL_TS-1	PROPOSED SIGNAL HEAD LABEL TYPE 1	
PROP_SIGNAL_LBL_TS-2	PROPOSED SIGNAL HEAD LABEL TYPE 2	
PROP_SIGNAL_LBL_TS-9	PROPOSED SIGNAL HEAD LABEL TYPE 9	
PROP_SIGNAL_LBL_TS-10	PROPOSED SIGNAL HEAD LABEL TYPE 10	
PROP_SIGNAL_LBL_TS-11	PROPOSED SIGNAL HEAD LABEL TYPE 11	
PROP_SIGNAL_LBL_TS-B	PROPOSED SIGNAL HEAD LABEL TYPE BIKE	
PROP_SIGNAL_LBL_TS-H OZ	PROPOSED SIGNAL HEAD LABEL OVERSIZED HIGHWAY	

CELL NAME	DESCRIPTION	SYMBOL
PROP_SIGNAL_LBL_TS-T	PROPOSED SIGNAL HEAD LABEL TYPE TRANSIT	
PROP_SIGNAL_PED +COUNTDOWN	PROPOSED SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN	
PROP_SL_CB_FUSE	PROPOSED STREETLIGHTING INLINE FUSE	
PROP_SL_CB_HCU	PROPOSED POWER STREETLIGHTING UNDERGROUND CABLE	
PROP_SL_CB_OH	PROPOSED STREETLIGHTING OVERHEAD CABLE	
PROP_SL_CB_OH+MESSENGER	PROPOSED STREETLIGHTING OVERHEAD WITH MESSENGER	
PROP_TACTILE_PLATE	PROPOSED TACTILE PLATE	
PROP_TS_CB_COMM	PROPOSED COMMUNICATION CABLE	
PROP_TS_CB_NEW_UG_RUN	NEW UNDERGROUND RUN	
PROP_TS_CB_UG_COND	PROPOSED UNDERGROUND CONDUCTOR	
PROP_TS_CCTV	PROPOSED TRAFFIC SIGNAL CCTV	

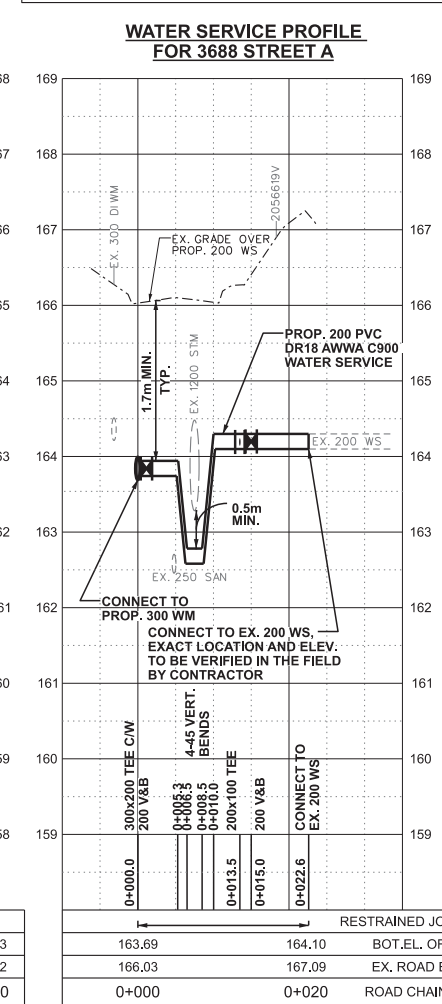
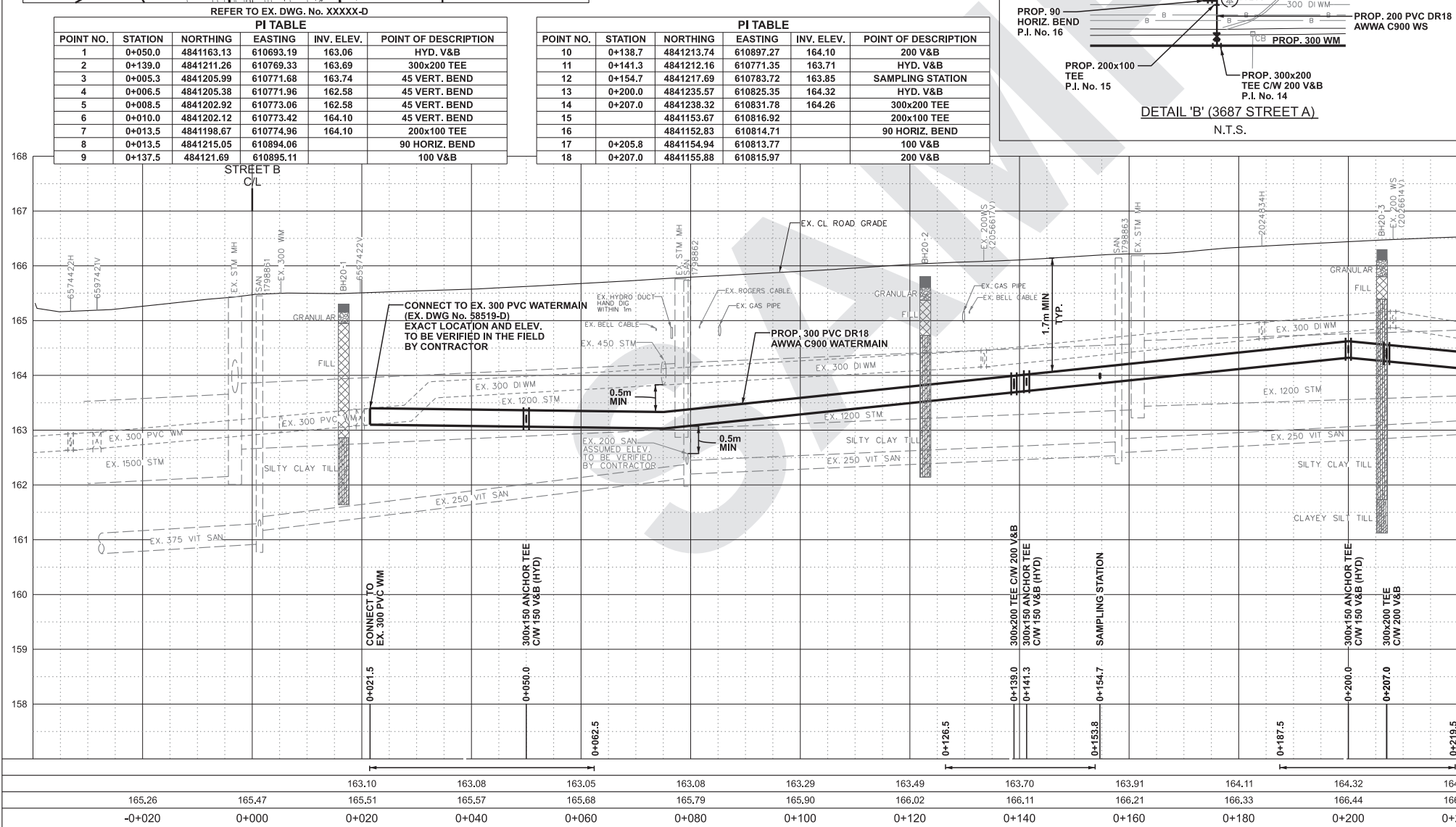
CELL NAME	DESCRIPTION	SYMBOL
PROP_TS_SIGN	PROPOSED TRAFFIC SIGN - PLAN	
RA-1	REGULATORY	 RA-1
RA-4	REGULATORY	 RA-4
RA-9A	REGULATORY	 RA-9A
RB-1	REGULATORY	 RB-1
RB-6	REGULATORY	 RB-6
RB-21A	REGULATORY	 RB-21A
RB-51A	REGULATORY	 RB-51A
RB-55	REGULATORY	 RB-55
RB-78	REGULATORY	 RB-78
RB-85	REGULATORY	 RB-85

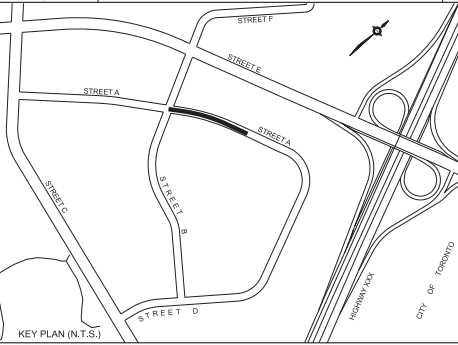



CELL NAME	DESCRIPTION	SYMBOL
RB-85A	REGULATORY	 RB-85A
RD_CONC	CONCRETE PATTERN	
TITLE_BLOCK	PEEL TITLE BLOCK	<p>STREET NAME (FROM STREET NAME TO STREET NAME) PROP. 000mm EDIT BY TYPE</p> <p>STA. 0+000 TO STA. 0+000</p> <p> <small> Civil Area: X-X-X-X Area: X-X-X-X Project No.: XXX-XXXX Checked By: X-X-X-X Drawn By: X-X-X-X Date: MONTH YEAR Date: X of X Year No: XXXXX-D </small> </p>
TRAFFIC ARROW THRU+RT	TRAFFIC ARROW THROUGH + RIGHT	
TRAFFIC ARROW RT	TRAFFIC ARROW RIGHT	
TRAFFIC ARROW RT+LT	TRAFFIC ARROW RIGHT+LEFT	
TRAFFIC_ARROW LT	TRAFFIC ARROW LEFT	
WB-2	WARNING	 WB-2
WB-3	WARNING	 WB-3
WC-1	WARNING	 WC-1
WC-2	WARNING	 WC-2

CELL NAME	DESCRIPTION	SYMBOL
WC-2A	WARNING	
WC-2AT	WARNING	
WC-2T	WARNING	
WC-7	WARNING	

Appendix G - CAD Sample Templates

Peel_PW_WM_Commercial-Industrial Template
Peel_PW_WM_Existing Schematic Template
Peel_PW_WM_Horizontal Alignment Design Template
Peel_PW_WM_Residential Design Template
Peel_PW_WM_Service Connection Detail Template
Peel_PW_WW_Residential Template
Peel_PW_RD_Alignment Details Template
Peel_PW_RD_Construction Staging Template
Peel_PW_RD_Index Template
Peel_PW_RD_Miscellaneous Details Template
Peel_PW_RD_New Construction Template
Peel_PW_RD_Pavement Elevations & Layout Template
Peel_PW_RD_Pavement Markings & Signage Template
Peel_PW_RD_Removals Template
Peel_PW_RD_Typical Sections Template



SERVICE DATA						
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.	
SAN SEWERS	JAN. 00, 20XX	X.X.	GAS MAINS	JAN. 00, 20XX	X.X.	
STORM SEWERS	JAN. 00, 20XX	X.X.	BELLING CABLE	JAN. 00, 20XX	X.X.	
WATERMANS	JAN. 00, 20XX	X.X.	HYDRO UIG CABLE	JAN. 00, 20XX	X.X.	
TRANSIT	JAN. 00, 20XX	X.X.	HYDRO ONE	JAN. 00, 20XX	X.X.	
PARKS & REC.	JAN. 00, 20XX	X.X.	CTV	JAN. 00, 20XX	X.X.	
CL. CLEAN WATER	JAN. 00, 20XX	X.X.	COMMUNIC. CABLES	JAN. 00, 20XX	X.X.	
REVISIONS						
DATE	DETAILS				INIT.	
JAN. 00, 20XX	ISSUED FOR PUC				X.X.	
JAN. 00, 20XX	ISSUED FOR TENDER				X.X.	
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION				X.X.	
JAN. 00, 20XX	AS RECORDED				X.X.	
						
KEY PLAN (N.T.S.)						
NOTES:						
1. FOR GENERAL NOTES, DETAILS AND LEGEND SEE DWG. XXXXX-D						
2. WHERE WATER SERVICES CROSS EXISTING STORM AND SANITARY SEWERS, WATER SERVICES SHALL BE INSTALLED WITH MIN. 1.7m COVER; WHERE MIN. 1.7m COVER CAN NOT BE MAINTAINED, THE VENDOR SHALL INSTALL THE WATER SERVICE UNDER THE STORM OR SANITARY MAIN WITH A MIN. 0.5m VERTICAL CLEARANCE FROM SEWERS.						
3. WHERE EXISTING WATERMAIN AT SIMILAR ELEVATION TO PROPOSED WATERMAIN, WATER SERVICES TO GO UNDER EXISTING WATERMAIN WITH A MIN. 0.5m VERTICAL CLEARANCE FROM EXISTING WATERMAIN WHERE 1.7m WATER SERVICE DEPTH CAN NOT BE ACCOMMODATED.						
4. CONTRACTOR TO LOCATE AND VERIFY ALL EX. WATER SERVICES.						
5. FOR ALL NEW HYDRANTS, MAINTAIN A MIN. OFFSET OF 0.5m FROM BACK OF CURBS, EDGE OF SIDEWALK, PROPERTY LINE AND 1.0m FROM DRIVEWAYS.						
6. ALL HYDRANTS TO BE INSTALLED AT A MIN. 2m OFFSET FROM TREE TRUNKS, HYDROVACTORING IS REQUIRED WHEN INSTALLING HYDRANT IN TREE DRIP LINE.						
<div>THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY</div>						
General Notes						
All Measurements Are In Meters(m) Unless Otherwise Noted All Driveways Are ASPHALT Unless Otherwise Noted All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field All Horizontal And Vertical Bends Are In Degrees All Pipes Size In mm 20C Existing Water Service, Size In mm WS25(S) Proposed Short Water Service, Size In mm WS25(L) Proposed Long Water Service, Size In mm			Agency: B.M. No. Elev. XXX.XXX (Geodetic) Coordinate System: UTM NAD83 (Original) The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.			
Designed by _____			Approved by _____			
Chkd _____						
NOTICE TO CONTRACTOR						
48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING						
THE REGIONAL MUNICIPALITY OF PEEL CITY OF MISSISSAUGA WORKS DEPT. CITY OF BRAMPTON WORKS DEPT. TOWN OF CALEDON WORKS DEPT. ENBRIDGE INCORPORATED-GAS DISTRIBUTION ONTARIO MINISTRY OF TRANSPORTATION ONTARIO CLEAN WATER AGENCY HYDRO ONE NETWORKS ELECTRA UTILITIES TRANS NORTHERN PIPELINE PEARSON INTERNATIONAL FUEL FACILITIES CORP. UNION GAS			CABLE TELEVISION/FIBEROPTIC PROVIDERS: BELL CANADA ENERSOURCE TELECOM HYDRO ONE TELECOM ROGERS CABLE ALLSTREAM (ZAYO) PSN (PUBLIC SECTOR NETWORK) FUTUREWAY (FCI BROADBAND) GT FIBER/360 NETWORK INC. TELUS COMMUNICATION			
			HORIZONTAL SCALE 1:500			
			VERTICAL SCALE 1:50			
						
STREET NAME (FROM STREET NAME TO STREET NAME) PROP. 000mm WATERMAIN						
STA. 0+000 TO STA. 0+000						
CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX	
Checked by	X-XX	Drawn by	X.X			
Date	MONTH YEAR	Sheet	X of X	Plan No.	XXXXXX-D	

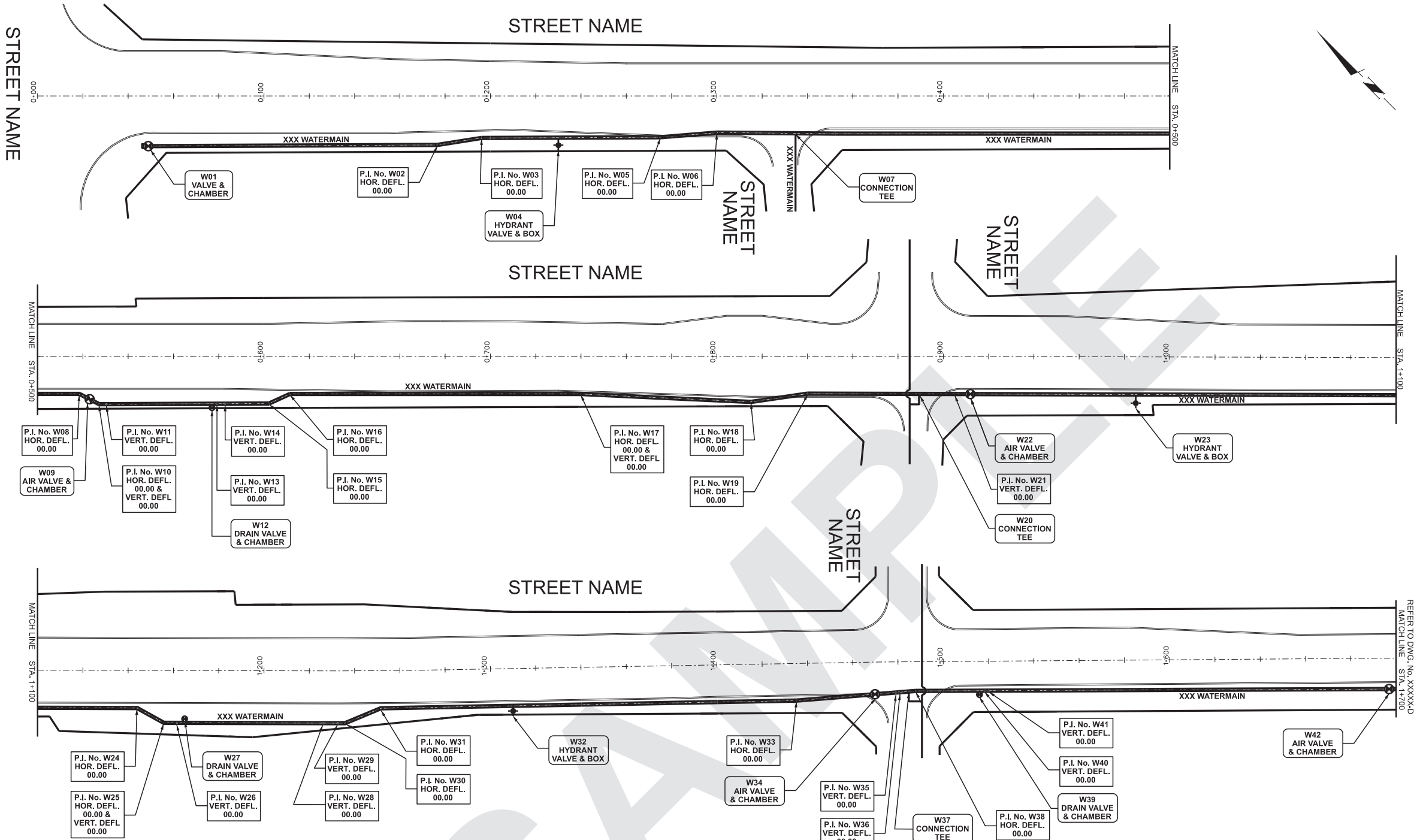
REVISIONS		
DATE	DETAILS	INIT.
JAN. 00, 20XX	ISSUED FOR P.U.C.C.	X.X.
JAN. 00, 20XX	ISSUED FOR TENDER	X.X.
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00, 20XX	AS RECORDED	X.X.

KEY PLAN SPECIFIC
TO PROJECT

- NOTES:**
- ALL HORIZONTAL AND VERTICAL BENDS ARE IN DEGREES.
 - ALL PIPE SIZES ARE IN mm.
 - HORIZONTAL COORDINATES ARE BASED ON:
6 DEGREE UNIVERSAL TRANSVERSE MERCATOR (UTM)
NAD83 ORIGINAL ZONE 17
ELEVATIONS: GSC DATUM, 1978 SOUTHERN ONTARIO ADJUSTMENT

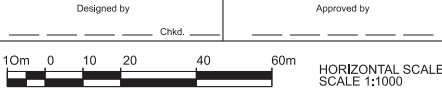
- LEGEND:**
- DENOTES PIPE
VERTICAL/HORIZONTAL
DEFLECTION
- DENOTES OPERATIONAL
APPURTENANCE

PLACE MAXIMUM THREE HORIZONTAL
ALIGNMENT SECTIONS
PER DRAWING FOR CLARITY.
NOTES AND LEGEND CAN BE MOVED
TO BEST FIT PAPER USE



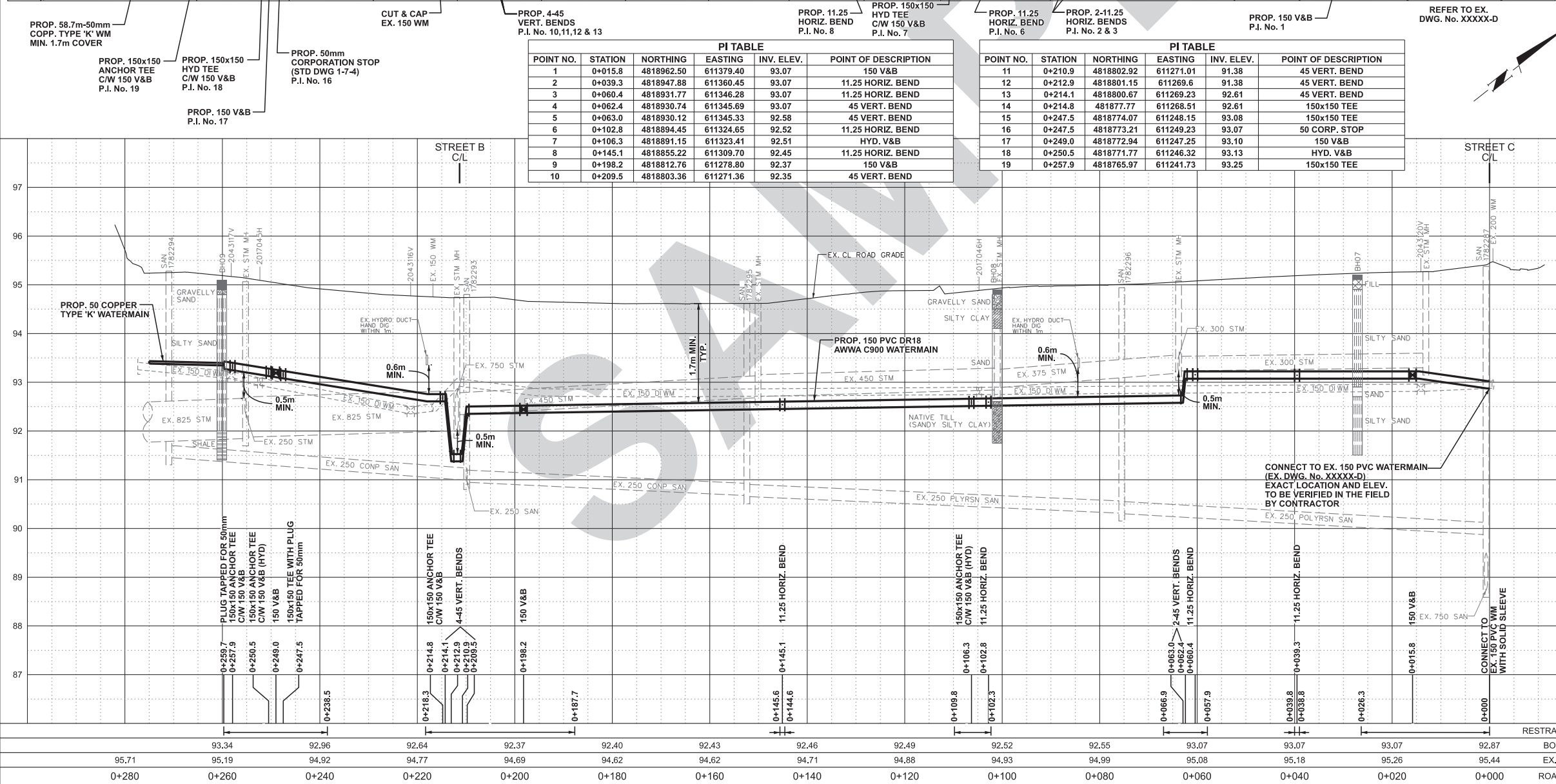
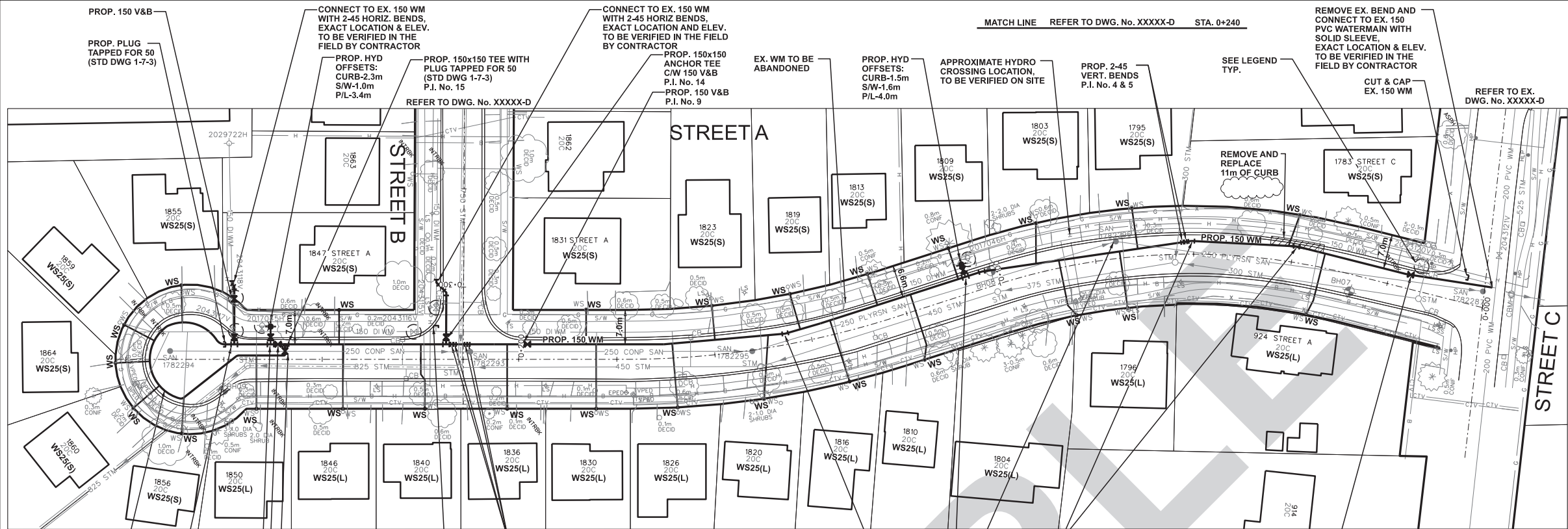
DWG. NO.	POINT NO.	STATION	NORTHING	EASTING	INV. ELEV.	OFFSET TO PL	POINT OF DESCRIPTION
XXXXX-D	W01	0+000.0	00000000.00	00000000.00			VALVE & CHAMBER
XXXXX-D	W02	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W03	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W04	0+000.0	00000000.00	00000000.00			HYDRANT VALVE & BOX
XXXXX-D	W05	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W06	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W07	0+000.0	00000000.00	00000000.00	000.00	0.00	CONNECTION TEE
XXXXX-D	W08	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W09	0+000.0	00000000.00	00000000.00			AIR VALVE & CHAMBER
XXXXX-D	W10	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZ./VERT. DEFLECTION
XXXXX-D	W11	0+000.0	00000000.00	00000000.00		0.00	VERTICAL DEFLECTION
XXXXX-D	W12	0+000.0	00000000.00	00000000.00			DRAIN VALVE & CHAMBER
XXXXX-D	W13	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W14	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W15	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W16	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W17	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZ./VERT. DEFLECTION
XXXXX-D	W18	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W19	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W20	0+000.0	00000000.00	00000000.00	000.00		CONNECTION TEE
XXXXX-D	W21	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION

DWG. NO.	POINT NO.	STATION	NORTHING	EASTING	INV. ELEV.	OFFSET TO PL	POINT OF DESCRIPTION
XXXXX-D	W22	0+000.0	00000000.00	00000000.00			AIR VALVE & CHAMBER
XXXXX-D	W23	0+000.0	00000000.00	00000000.00			HYDRANT VALVE & BOX
XXXXX-D	W24	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W25	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZ./VERT. DEFLECTION
XXXXX-D	W26	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W27	0+000.0	00000000.00	00000000.00			DRAIN VALVE & CHAMBER
XXXXX-D	W28	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W29	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W30	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W31	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W32	0+000.0	00000000.00	00000000.00			HYDRANT VALVE & BOX
XXXXX-D	W33	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W34	0+000.0	00000000.00	00000000.00			AIR VALVE & CHAMBER
XXXXX-D	W35	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W36	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W37	0+000.0	00000000.00	00000000.00	000.00		CONNECTION TEE
XXXXX-D	W38	0+000.0	00000000.00	00000000.00	000.00	0.00	HORIZONTAL DEFLECTION
XXXXX-D	W39	0+000.0	00000000.00	00000000.00			DRAIN VALVE & CHAMBER
XXXXX-D	W40	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W41	0+000.0	00000000.00	00000000.00	000.00	0.00	VERTICAL DEFLECTION
XXXXX-D	W42	0+000.0	00000000.00	00000000.00			AIR VALVE & CHAMBER



STREET NAME
PROP. XXXmm WATERMAIN
HORIZONTAL/VERTICAL ALIGNMENT

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X	Plan No.	XXXXX-D
Date	MONTH YEAR	Sheet	X of X		



SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	JAN. 00, 20XX	X.X.	GAS MAINS	JAN. 00, 20XX	X.X.
STORM SEWERS	JAN. 00, 20XX	X.X.	BELL U/G CABLE	JAN. 00, 20XX	X.X.
WATERMANS	JAN. 00, 20XX	X.X.	HYDRO U/G CABLE	JAN. 00, 20XX	X.X.
TRANSIT	JAN. 00, 20XX	X.X.	HYDRO ONE	JAN. 00, 20XX	X.X.
PARKS & REC.	JAN. 00, 20XX	X.X.	CTV	JAN. 00, 20XX	X.X.
ONT. CLEAN WATER	JAN. 00, 20XX	X.X.	COMMUNIC. CABLES	JAN. 00, 20XX	X.X.

REVISIONS

DATE	DETAILS	INIT.
JAN. 00, 20XX	ISSUED FOR P.U.C.C.	X.X.
JAN. 00, 20XX	ISSUED FOR TENDER	X.X.
JAN. 00, 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00, 20XX	AS RECORDED	X.X.

NOTES:

- FOR GENERAL NOTES, DETAILS AND LEGEND SEE DWG. XXXXX-D
- WHERE WATER SERVICES CROSS EXISTING STORM AND SANITARY SEWERS, WATER SERVICES SHALL BE INSTALLED WITH MIN. 1.7m COVER; WHERE MIN. 1.7m COVER CAN NOT BE MAINTAINED, THE VENDOR SHALL INSTALL THE WATER SERVICE UNDER THE STORM OR SANITARY MAIN WITH A MIN. 0.5m VERTICAL CLEARANCE FROM EXISTING WATERMAIN WHERE 1.7m WATER SERVICE DEPTH CAN NOT BE ACCOMMODATED.
- WHERE EXISTING WATERMAIN AT SIMILAR ELEVATION TO PROPOSED WATERMAIN, WATER SERVICES TO GO UNDER EXISTING WATERMAIN WITH A MIN. 0.5m VERTICAL CLEARANCE FROM EXISTING WATERMAIN WHERE 1.7m WATER SERVICE DEPTH CAN NOT BE ACCOMMODATED.
- CONTRACTOR TO LOCATE AND VERIFY ALL EX. WATER SERVICES.
- FOR ALL NEW HYDRANTS, MAINTAIN A MIN. OFFSET OF 0.5m FROM BACK OF CURBS, EDGE OF SIDEWALK, PROPERTY LINE AND 1.0m FROM DRIVEWAYS.
- ALL HYDRANTS TO BE INSTALLED AT A MIN. 2m OFFSET FROM TREE TRUNKS, HYDROVACUATING IS REQUIRED WHEN INSTALLING HYDRANT IN TREE DRIP LINE.

THIS DRAWING TO BE USED FOR WATERMAIN CONSTRUCTION ONLY

General Notes

All Measurements Are In Meters (m) Unless Otherwise Noted
All Driveways Are ASPHALT Unless Otherwise Noted
All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
All Horizontal And Vertical Bends Are In Degrees
All Pipes Size In mm
20C Existing Water Service, Size In mm
WS25(S) Proposed Short Water Service, Size In mm
WS25(L) Proposed Long Water Service, Size In mm

Agency: B.M. No. 1000000000
Elev. XXXXXX (Geodetic)
Coordinate System: UTM NAD83 (Original)

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEI
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

CABLE TELEVISION/FIBEROPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (CABLE)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER/360 NETWORK INC.
TELUS COMMUNICATION

10m 0 10 20 30m HORIZONTAL SCALE 1:500

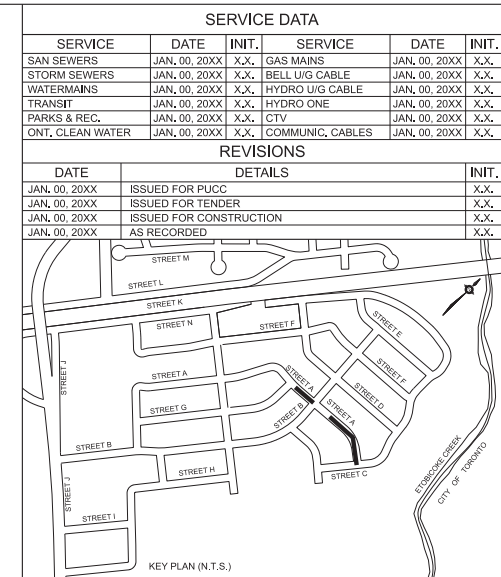
1m 0 1 2 3m VERTICAL SCALE 1:50

Region of Peel
working with you


STREET NAME
(FROM STREET NAME TO STREET NAME)
PROP. 000mm WATERMAIN

STA. 0+000 TO STA. 0+000

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X-X		
Date	MONTH YEAR	Sheet	X of X	Plan No.	XXXXX-D

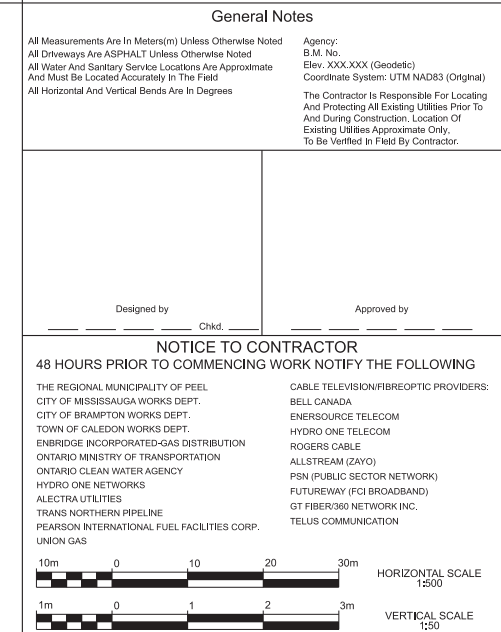


LEGEND:

 SINGLE SANITARY LATERAL

 DOUBLE SANITARY LATERAL

THIS DRAWING TO BE USED FOR
SANITARY SEWER CONSTRUCTION ONLY

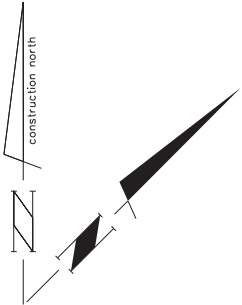


**Region
of Peel**
working with you

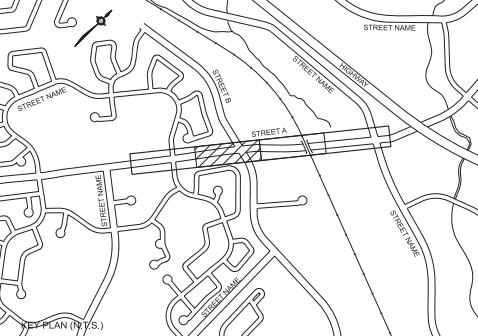
STREET NAME
(FROM STREET NAME TO STREET NAME)
PROP. 000mm SANITARY SEWER

STA. 0+000 TO STA. 0+000

104.88	104.68	104.55	104.46	104.35	104.25	104.16	104.05	103.94	103.92	103.83	103.87	104.10	104.37	EX. ROAD ELEV.
0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	ROAD CHAINAGE



REVISIONS		
DATE	DETAILS	INIT.
XXX 00. 2022	ISSUED FOR PUCC	X.X.
XXX 00. 2022	ISSUED FOR TENDER	X.X.
XXX 00. 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00. 2022	AS RECORDED	X.X.



All Measurements Are In Meters(m) Unless Otherwise Noted	Agency: B.M. No.
All Driveways are ASPHALT Unless Otherwise Noted	Elev. XXX.XXX (Geodetic)
All Water And Sanitary Service Locations are Approximate And Must Be Located Accurately In The Field	Coordinate System: UTM NAD83 (Original)
All Horizontal And Vertical Bends Are In Degrees	The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.
All Pipes Size In mm	

_____ Chkd. _____

THE REGIONAL MUNICIPALITY OF PEEL CABLE TELEVISION/FIBREOPTIC PROVIDERS:



DRAWING LIST			
SHEET No.	DRAWING No.	DRAWING DESCRIPTION 1	DRAWING DESCRIPTION 2
1	XXXXXX-D	DRAWING INDEX	
2	XXXXXX-D	GENERAL NOTES	
3	XXXXXX-D	ALIGNMENT DETAILS	STA. X+XXX TO STA. X+XXX
4	XXXXXX-D	ALIGNMENT DETAILS	STA. X+XXX TO STA. X+XXX
5	XXXXXX-D	REMOVALS	STA. X+XXX TO STA. X+XXX
6	XXXXXX-D	REMOVALS	STA. X+XXX TO STA. X+XXX
7	XXXXXX-D	NEW CONSTRUCTION	STA. X+XXX TO STA. X+XXX
8	XXXXXX-D	NEW CONSTRUCTION	STA. X+XXX TO STA. X+XXX
9	XXXXXX-D	TYPICAL SECTIONS	
10	XXXXXX-D	MISCELLANEOUS DETAILS	
11	XXXXXX-D	PAVEMENT ELEVATIONS AND LAYOUT	STA. X+XXX TO STA. X+XXX
12	XXXXXX-D	PAVEMENT ELEVATIONS AND LAYOUT	STA. X+XXX TO STA. X+XXX
13	XXXXXX-D	PAVEMENT MARKINGS AND SIGNAGE	STA. X+XXX TO STA. X+XXX
14	XXXXXX-D	PAVEMENT MARKINGS AND SIGNAGE	STA. X+XXX TO STA. X+XXX
15	XXXXXX-D	CONSTRUCTION STAGING	STAGE 1
16	XXXXXX-D	CONSTRUCTION STAGING	STAGE 2
17	XXXXXX-D	LANDSCAPING	
18	XXXXXX-D	LANDSCAPING	
19	XXXXXX-D	STRUCTURAL	
20	XXXXXX-D	STRUCTURAL	
21	XXXXXX-D	ENVIRONMENTAL	
22	XXXXXX-D	ENVIRONMENTAL	
23	XXXXXX-D	STREET LIGHTING	
24	XXXXXX-D	STREET LIGHTING	
25	XXXXXX-D	TRAFFIC SIGNALS	
26	XXXXXX-D	TRAFFIC SIGNALS	

SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X.X.	GAS MAINS	XXX 00, 2022	X.X.
STORM SEWERS	XXX 00, 2022	X.X.	BELL U/G CABLE	XXX 00, 2022	X.X.
WATERMAINS	XXX 00, 2022	X.X.	HYDRO U/G CABLE	XXX 00, 2022	X.X.
TRANSIT	XXX 00, 2022	X.X.	HYDRO ONE	XXX 00, 2022	X.X.
PARKS & REC.	XXX 00, 2022	X.X.	CTV	XXX 00, 2022	X.X.
ONT. CLEAN WATER	XXX 00, 2022	X.X.	COMMUNIC. CABLES	XXX 00, 2022	X.X.

REVISIONS

DATE	DETAILS	INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.	X.X.
XXX 00, 2022	ISSUED FOR TENDER	X.X.
XXX 00, 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00, 2022	AS RECORDED	X.X.

General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted

Agency: B.M. No. Elev. XXX.XXX (Geodetic) Coordinate System: UTM NAD83 (Original)

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

Designed by

Approved by

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

CABLE TELEVISION/FIBREOPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION

10m0102030m

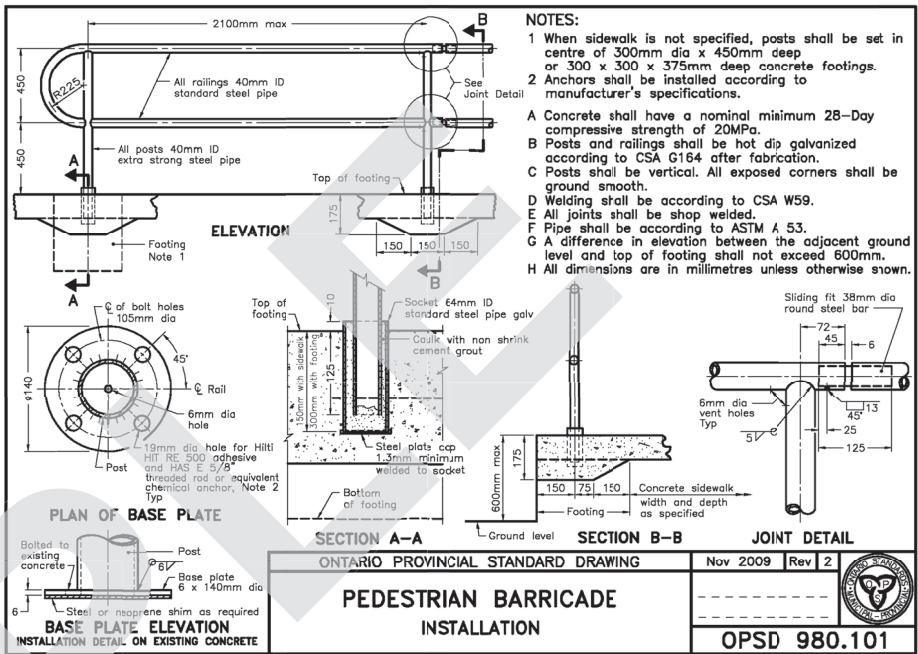
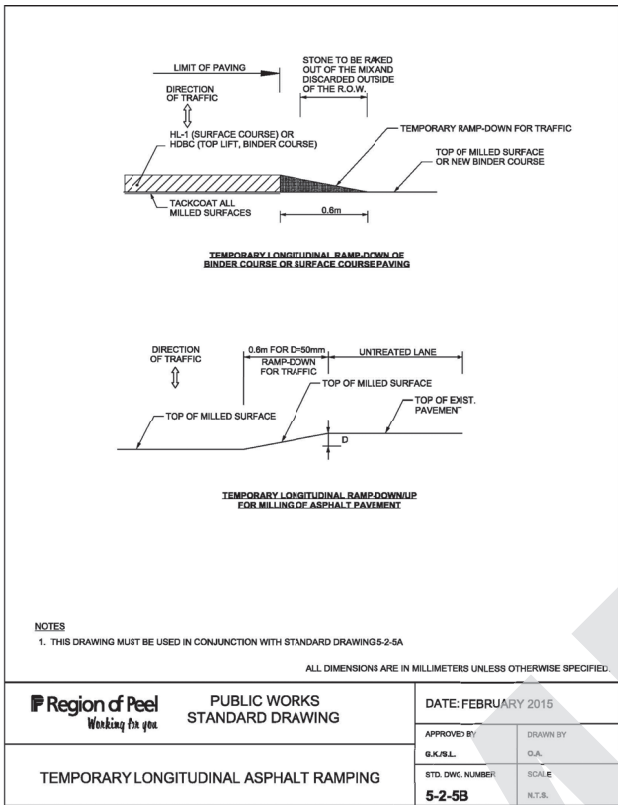
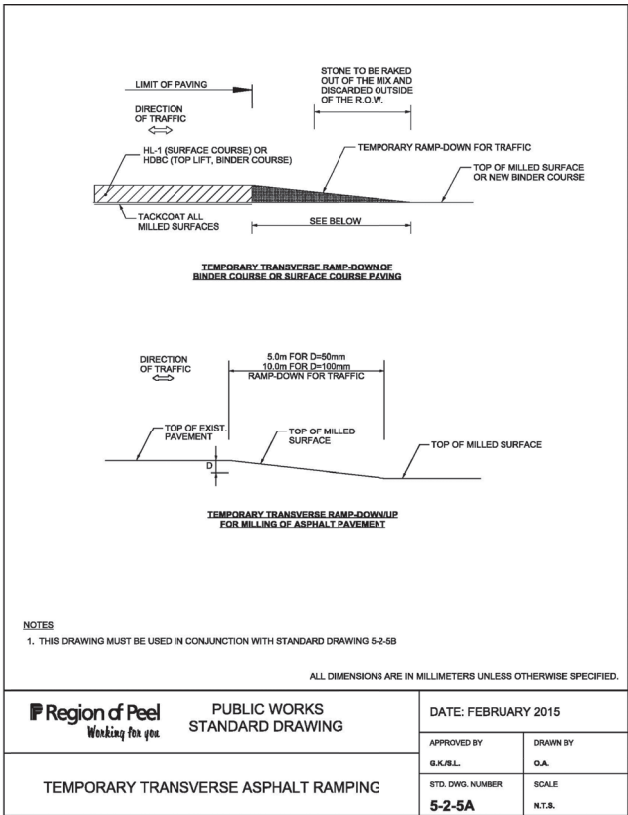
HORIZONTAL SCALE 1:500

Region of Peel

working with you

DRAWING INDEX

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X	Plan No.	XXXXXX-D
Date	MONTH YEAR	Sheet	X of X		



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X,X,	GAS MAINS	XXX 00, 2022	X,X,
STORM SEWERS	XXX 00, 2022	X,X,	BELL U/G CABLE	XXX 00, 2022	X,X,
WATERMAINS	XXX 00, 2022	X,X,	HYDRO U/G CABLE	XXX 00, 2022	X,X,
TRANSIT	XXX 00, 2022	X,X,	HYDRO ONE	XXX 00, 2022	X,X,
PARKS & REC.	XXX 00, 2022	X,X,	CTV	XXX 00, 2022	X,X,
ONT. CLEAN WATER	XXX 00, 2022	X,X,	COMMUNIC. CABLES	XXX 00, 2022	X,X,
REVISIONS					
DATE	DETAILS				INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.				X,X,
XXX 00, 2022	ISSUED FOR TENDER				X,X,
XXX 00, 2022	ISSUED FOR CONSTRUCTION				X,X,
XXX 00, 2022	AS RECORDED				X,X,

KEY PLAN (N.T.S.)

General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted

All Driveways Are ASPHALT Unless Otherwise Noted

All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field

All Horizontal And Vertical Bends Are In Degrees

All Pipes Size In mm

Agency: B.M. No. Elev. XXX.XXX (Geodetic) Coordinate System: UTM NAD83 (Original)

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

Designed by: _____

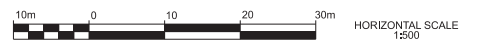
Approved by: _____

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

CABLE TELEVISION/FIBRE OPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION



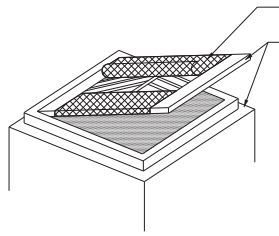
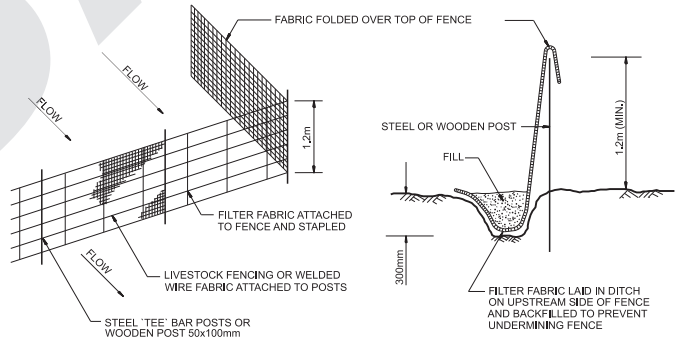
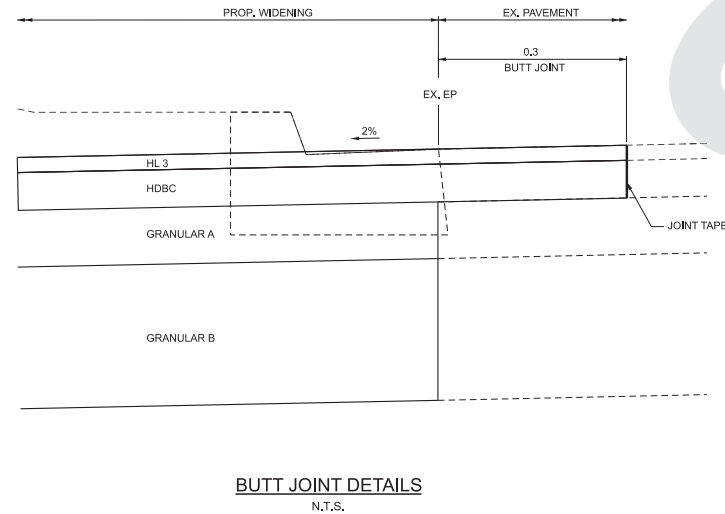
Region of Peel
working with you

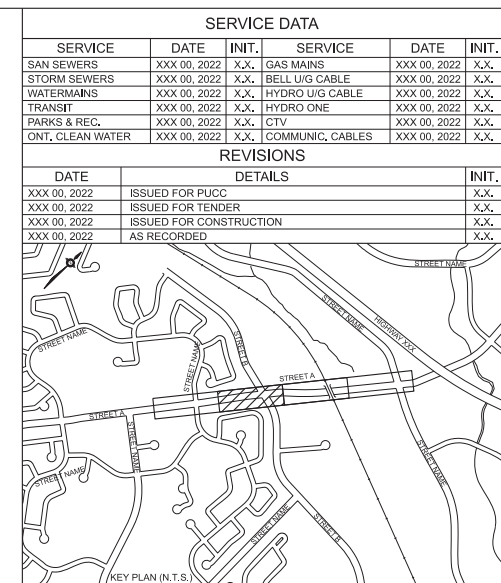
STREET NAME
(FROM STREET NAME TO STREET NAME)


MISCELLANEOUS DETAILS

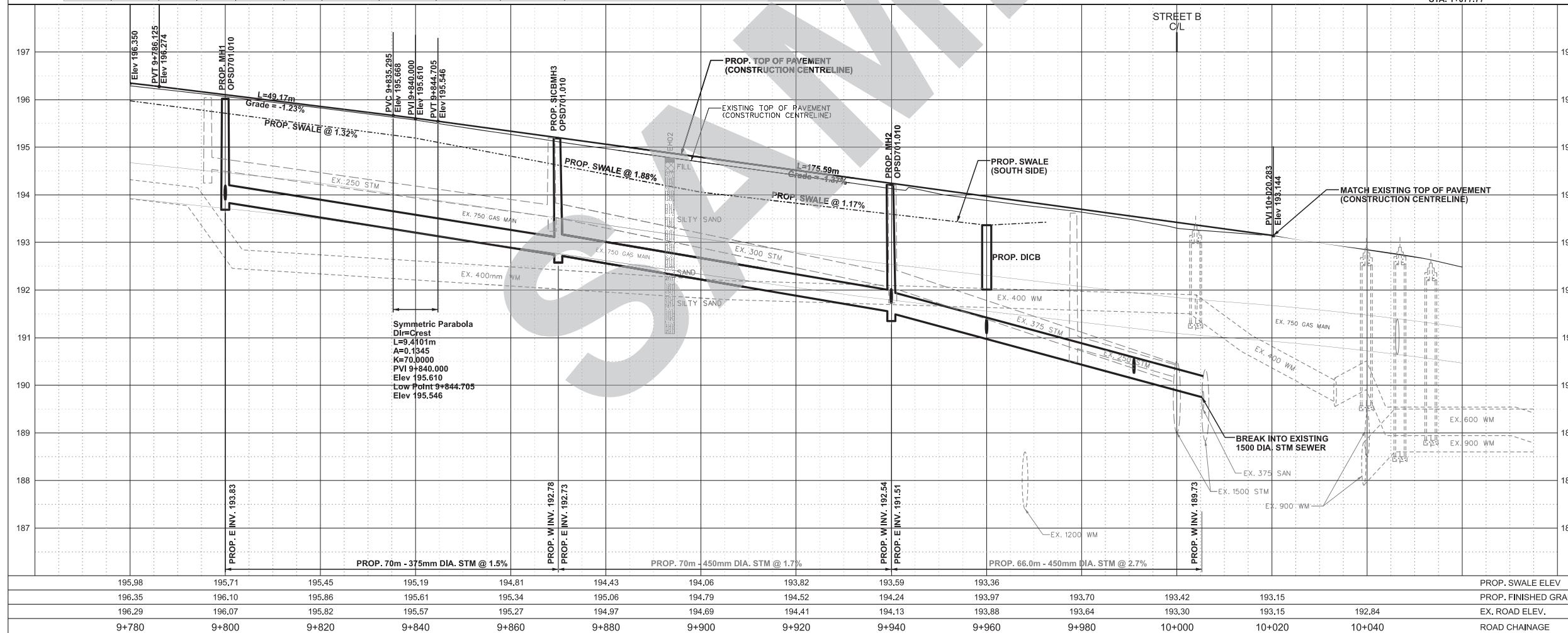
STA. 0+000 TO STA. 0+000

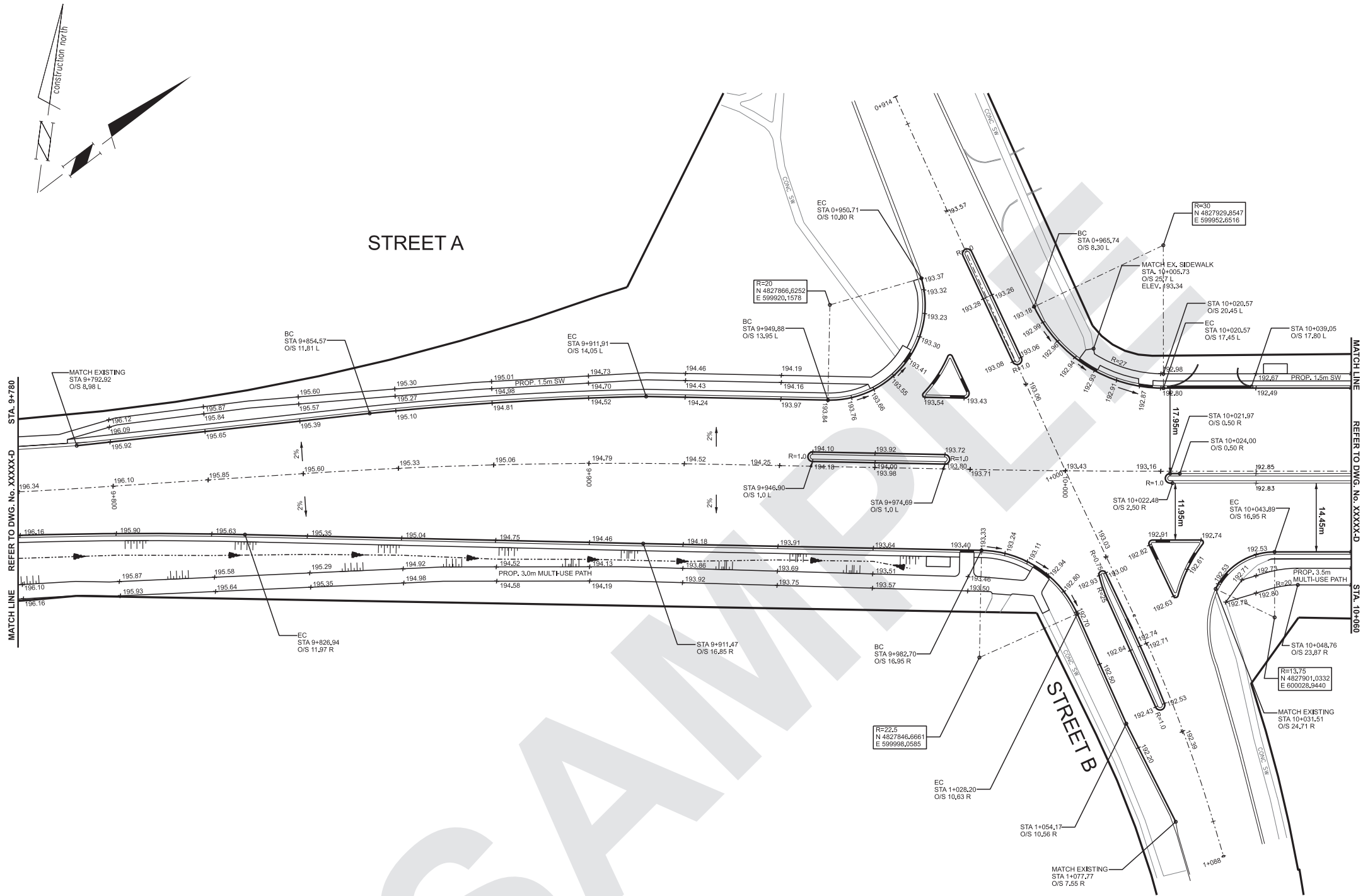
CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X	Plan No.	XXXXX-D
Date	MONTH YEAR	Sheet	X of X		





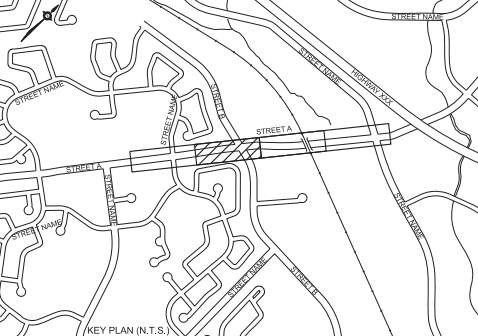
<p align="center">General Notes</p> <p>All Measurements Are In Meters(m) Unless Otherwise Noted All Driveways Are ASPHALT Unless Otherwise Noted All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field All Horizontal And Vertical Bends Are In Degrees All Pipes Size In mm</p>		<p>Agency: B.M. No. Elev. XXX-XXX (Geodetic) Coordinate System: UTM NAD83 (Original)</p> <p>The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction, Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.</p>
<p align="center">Designed by _____</p> <p align="center">Chkd. _____</p>		<p align="center">Approved by _____</p>
<p align="center">NOTICE TO CONTRACTOR</p> <p align="center">48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING</p>		
<p>THE REGIONAL MUNICIPALITY OF PEEL CITY OF MISSISSAUGA WORKS DEPT. CITY OF BRAMPTON WORKS DEPT. TOWN OF CALEDON WORKS DEPT. ENBRIDGE INCORPORATED-GAS DISTRIBUTION ONTARIO MINISTRY OF TRANSPORTATION ONTARIO CLEAN WATER AGENCY HYDRO ONE NETWORKS ALECTRA UTILITIES TRANS NORTHERN PIPELINE PEELER INTERNATIONAL FUEL FACILITIES CORP. UNION GAS</p>		<p>CABLE TELEVISION/FIBREOPTIC PROVIDERS: BELL CANADA ENERSOURCE TELECOM HYDRO ONE TELECOM ROGERS CABLE ALLSTREAM (ZAYO) PSN (PUBLIC SECTOR NETWORK) FUTUREWAVE (FCI BROADBAND) GT FIBER360 NETWORK INC. TELUS COMMUNICATION</p>
		<p align="right">HORIZONTAL SCALE 1:500</p> <p align="right">VERTICAL SCALE 1:50</p>
<div align="center">  <p>Region of Peel working with you</p> </div>		
<p align="center">STREET NAME (FROM STREET NAME TO STREET NAME) NEW CONSTRUCTION</p> <p align="center">STA. 0+000 TO STA. 0+000</p>		
<p>CAD Area X-XX</p> <p>Checked by X-XX</p> <p>Date MONTH YEAR</p>	<p>Area X-XX</p> <p>Drawn by X,X</p> <p>Sheet X of X</p>	<p>Project No. XX-XXXX</p> <p>Plan No. XXXXX-D</p>





SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X.X.	GAS MAINS	XXX 00, 2022	X.X.
STORM SEWERS	XXX 00, 2022	X.X.	BELL U/G CABLE	XXX 00, 2022	X.X.
WATERMAINS	XXX 00, 2022	X.X.	HYDRO U/G CABLE	XXX 00, 2022	X.X.
TRANSIT	XXX 00, 2022	X.X.	HYDRO ONE	XXX 00, 2022	X.X.
PARKS & REC.	XXX 00, 2022	X.X.	CTV	XXX 00, 2022	X.X.
ONT. CLEAN WATER	XXX 00, 2022	X.X.	COMMUNIC. CABLES	XXX 00, 2022	X.X.

REVISIONS		
DATE	DETAILS	INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.	X.X.
XXX 00, 2022	ISSUED FOR TENDER	X.X.
XXX 00, 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00, 2022	AS RECORDED	X.X.



LEGEND:

- + 192.83 EXISTING ELEVATION (TOP OF ASPHALT)
- + 194.19 PROPOSED ELEVATION (TOP OF ASPHALT)
- STA 10+043.89 O/S 16.95 R STATION & OFFSET FROM CONSTRUCTION CENTRE LINE

General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted
All Driveways Are ASPHALT Unless Otherwise Noted
All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
All Horizontal And Vertical Bends Are In Degrees
All Pipes Size In mm

Agency:
B.M. No.
Elev. XXX.XXX (Geodetic)
Coordinate System: UTM NAD83 (Original)

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

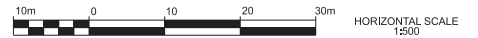
Designed by _____

Approved by _____

NOTICE TO CONTRACTOR
48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

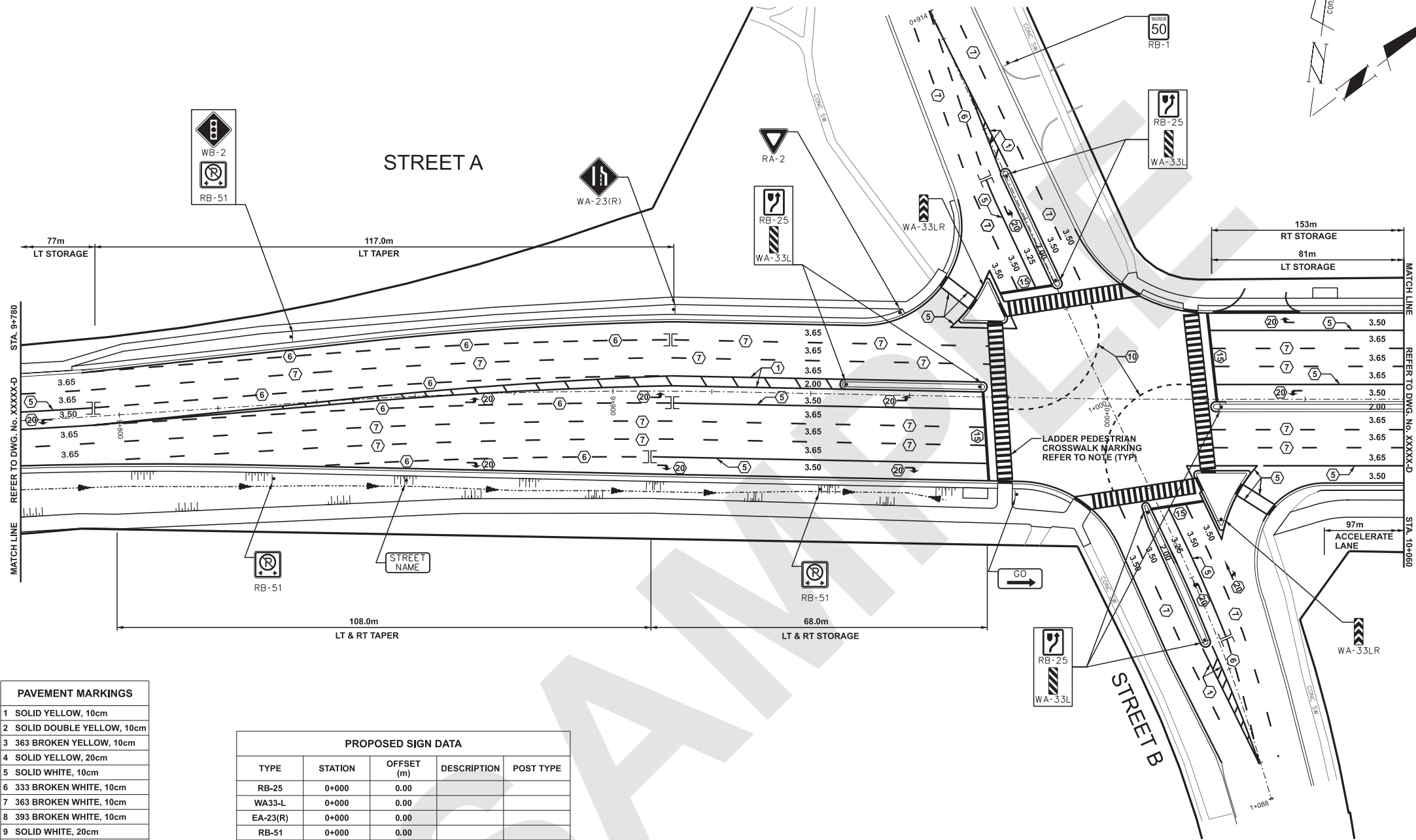
CABLE TELEVISION/FIBRE OPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION



STREET NAME
(FROM STREET NAME TO STREET NAME)
PAVEMENT ELEVATION AND LAYOUT

STA. 0+000 TO STA. 0+000

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X		
Date	MONTH YEAR	Sheet	X of X	Plan No.	XXXXX-D



PAVEMENT MARKINGS	
1	SOLID YELLOW, 10cm
2	SOLID DOUBLE YELLOW, 10cm
3	363 BROKEN YELLOW, 10cm
4	SOLID YELLOW, 20cm
5	SOLID WHITE, 10cm
6	333 BROKEN WHITE, 10cm
7	363 BROKEN WHITE, 10cm
8	393 BROKEN WHITE, 10cm
9	SOLID WHITE, 20cm
10	111 BROKEN WHITE, 10cm
11	333 BROKEN WHITE, 20cm
12	333 BROKEN WHITE, 30cm
13	SOLID WHITE, 30cm
14	SOLID WHITE, 45cm
15	SOLID WHITE, 60cm
16	SOLID YELLOW, 30cm
20	SYMBOLS
LIMITS OF MARKINGS	

PROPOSED SIGN DATA				
TYPE	STATION	OFFSET (m)	DESCRIPTION	POST TYPE
RB-25	0+000	0.00		
WA33-L	0+000	0.00		
EA-23(R)	0+000	0.00		
RB-51	0+000	0.00		
XXXXX	0+000	0.00		
XXXXX	0+000	0.00		
XXXXX	0+000	0.00		
XXXXX	0+000	0.00		
XXXXX	0+000	0.00		
XXXXX	0+000	0.00		

- EXISTING TRAFFIC SYMBOLS
PROPOSED TRAFFIC SYMBOLS
TRAFFIC DIRECTION

- NOTES:
- 333, 363, 393, DENOTES PAVEMENT MARKING SPACING (IE., 3m LINE, 3m GAP, 3m LINE)
 - USE ① TO DENOTE PAVEMENT MARKING
 - USE ① TO DENOTE PAVEMENT MARKING, TEMPORARY
 - USE ⚠ TO DENOTE PAVEMENT MARKING, TEMPORARY-REMOVABLE
 - USE ① TO DENOTE PAVEMENT MARKING, DURABLE (HOT) THERMOPLASTIC
 - LADDER PEDESTRIAN CROSSWALK MARKINGS ARE LONGITUDINAL WHITE LINES INSTALLED ACROSS THE PEDESTRIAN CROSSWALK, PARALLEL TO THE DRIVER'S DIRECTION OF TRAVEL, THE LINES ARE 60CM WIDE AND ARE SPACED 60CM APART, THE LINES ARE DURABLE (COLD) THERMOPLASTIC.

SERVICE DATA

SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X.X.	GAS MAINS	XXX 00, 2022	X.X.
STORM SEWERS	XXX 00, 2022	X.X.	BELL U/G CABLE	XXX 00, 2022	X.X.
WATERMAINS	XXX 00, 2022	X.X.	HYDRO U/G CABLE	XXX 00, 2022	X.X.
TRANSIT	XXX 00, 2022	X.X.	HYDRO ONE	XXX 00, 2022	X.X.
PARKS & REC.	XXX 00, 2022	X.X.	CTV	XXX 00, 2022	X.X.
ONT. CLEAN WATER	XXX 00, 2022	X.X.	COMMUNIC. CABLES	XXX 00, 2022	X.X.

REVISIONS

DATE	DETAILS	INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.	X.X.
XXX 00, 2022	ISSUED FOR TENDER	X.X.
XXX 00, 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00, 2022	AS RECORDED	X.X.

KEY PLAN (N.T.S.)

General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted
All Driveways Are ASPHALT Unless Otherwise Noted
All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
All Horizontal And Vertical Bends Are In Degrees
All Pipes Size In mm

Agency: B.M. No. Elev. XXX.XXX (Geodetic)
Coordinate System: UTM NAD83 (Original)
The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

Designed by: _____ Chkd: _____
Approved by: _____

NOTICE TO CONTRACTOR

48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING

THE REGIONAL MUNICIPALITY OF PEEL
CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

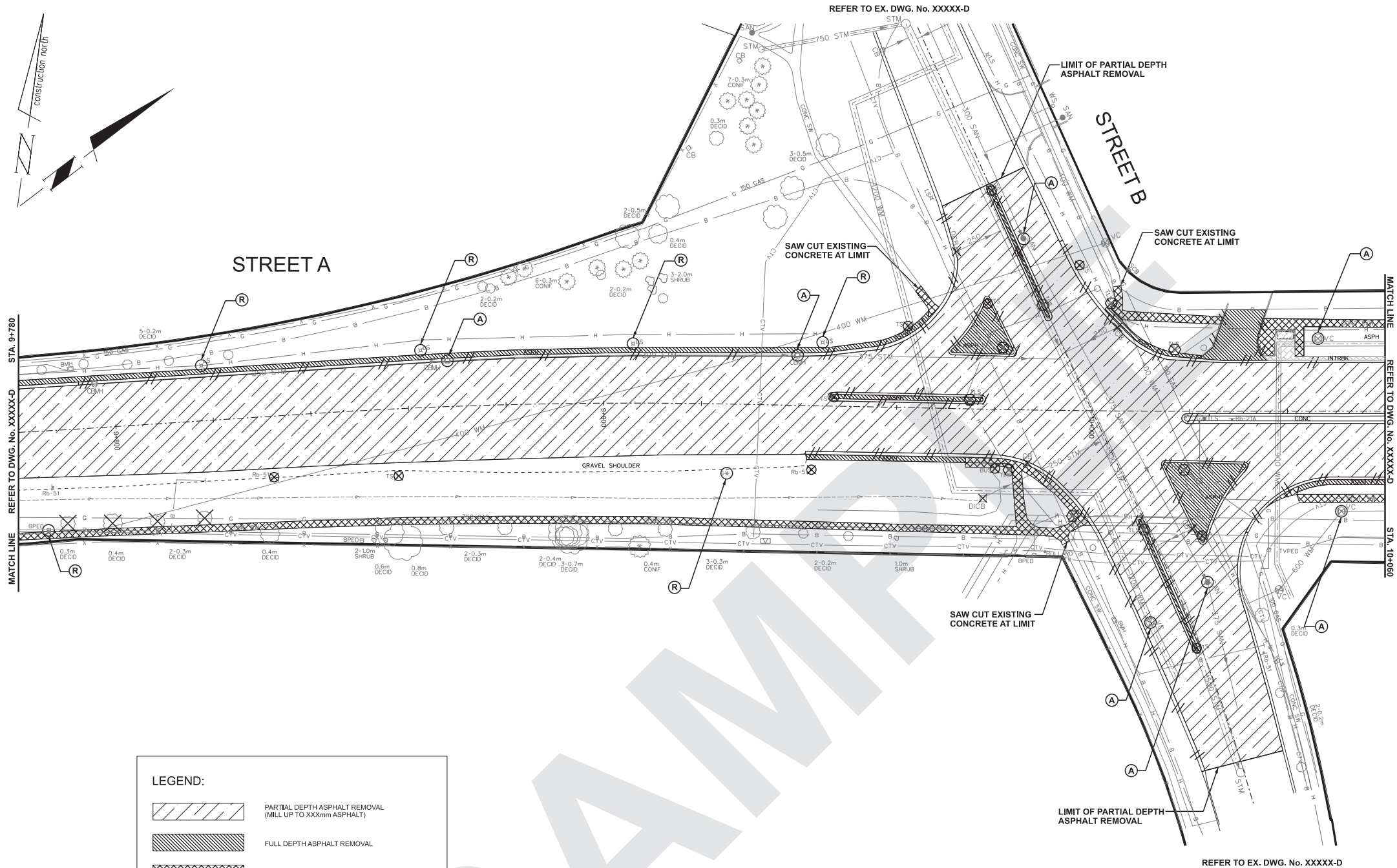
CABLE TELEVISION/FIBROPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION

10m 0 10 20 30m

HORIZONTAL SCALE 1:500

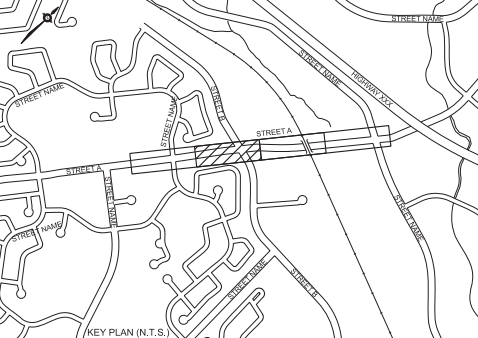
STREET NAME
(FROM STREET NAME TO STREET NAME)
PAVEMENT MARKINGS & SIGNAGE

STA. 0+000 TO STA. 0+000	
CAD Area	X-XX
Area	X-XX
Checked by	X-XX
Drawn by	X.X
Project No.	XX-XXXX
Date	MONTH YEAR
Sheet	X of X
Plan No.	XXXXX-D



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X.X.	GAS MAINS	XXX 00, 2022	X.X.
STORM SEWERS	XXX 00, 2022	X.X.	BELL U/G CABLE	XXX 00, 2022	X.X.
WATERMAINS	XXX 00, 2022	X.X.	HYDRO U/G CABLE	XXX 00, 2022	X.X.
TRANSIT	XXX 00, 2022	X.X.	HYDRO ONE	XXX 00, 2022	X.X.
PARKS & REC.	XXX 00, 2022	X.X.	CTV	XXX 00, 2022	X.X.
ONT. CLEAN WATER	XXX 00, 2022	X.X.	COMMUNIC. CABLES	XXX 00, 2022	X.X.

REVISIONS		
DATE	DETAILS	INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.	X.X.
XXX 00, 2022	ISSUED FOR TENDER	X.X.
XXX 00, 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00, 2022	AS RECORDED	X.X.



General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted
All Driveways Are ASPHALT Unless Otherwise Noted
All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
All Horizontal And Vertical Bends Are In Degrees
All Pipes Size In mm

Agency:
B.M. No.
Elev. XXX.XXX (Geodetic)
Coordinate System: UTM NAD83 (Original)

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Designed by _____
Checked _____

Approved by _____

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CITY OF BRAMPTON WORKS DEPT.
TOWN OF CALEDON WORKS DEPT.
ENBRIDGE INCORPORATED-GAS DISTRIBUTION
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ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

CABLE TELEVISION/FIBROPTIC PROVIDERS:
BELL CANADA
ENERSOURCE TELECOM
HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION

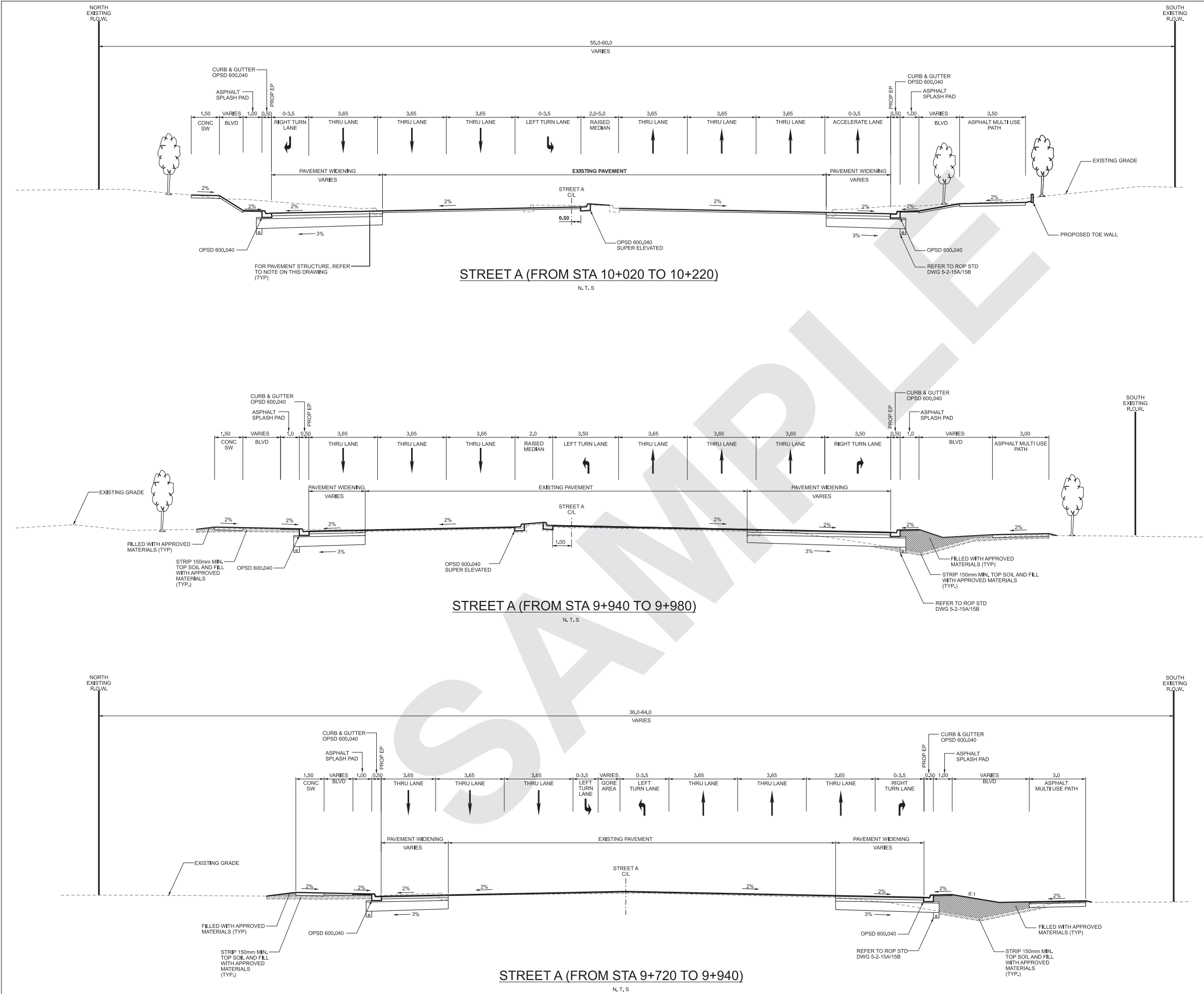


STREET NAME
(FROM STREET NAME TO STREET NAME)

REMOVALS

STA. 0+000 TO STA. 0+000

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X		
Date	MONTH YEAR	Sheet	X of X	Plan No.	XXXXX-D



SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
SAN SEWERS	XXX 00, 2022	X.X.	GAS MAINS	XXX 00, 2022	X.X.
STORM SEWERS	XXX 00, 2022	X.X.	BELL U/G CABLE	XXX 00, 2022	X.X.
WATERMAINS	XXX 00, 2022	X.X.	HYDRO U/G CABLE	XXX 00, 2022	X.X.
TRANSIT	XXX 00, 2022	X.X.	HYDRO ONE	XXX 00, 2022	X.X.
PARKS & REC.	XXX 00, 2022	X.X.	CTV	XXX 00, 2022	X.X.
ONT. CLEAN WATER	XXX 00, 2022	X.X.	COMMUNIC. CABLES	XXX 00, 2022	X.X.

REVISIONS		
DATE	DETAILS	INIT.
XXX 00, 2022	ISSUED FOR P.U.C.C.	X.X.
XXX 00, 2022	ISSUED FOR TENDER	X.X.
XXX 00, 2022	ISSUED FOR CONSTRUCTION	X.X.
XXX 00, 2022	AS RECORDED	X.X.

KEY PLAN (N.T.S.)

TYPICAL PAVEMENT STRUCTURE:

EXISTING PAVEMENT REHABILITATION:
XXmm HL1
XXmm HDBC

PROPOSED PAVEMENT WIDENING:
XXmm HL1
XXXmm HDBC
XXXmm GRANULAR A
XXXmm GRANULAR B

PROPOSED ASPHALT MULTI USE PATH:
XXmm HL3A
XXmm HL8
XXXmm GRANULAR A

SPLASH PAD/MEDIAN:
XXmm HL3
XXXm GRANULAR A

PROPOSED CONCRETE SIDEWALK:
XXmm CONCRETE
XXXmm GRANULAR A

General Notes

All Measurements Are In Meters(m) Unless Otherwise Noted
All Driveways Are ASPHALT Unless Otherwise Noted
All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
All Horizontal And Vertical Bends Are In Degrees
All Pipes Size In mm

Agency:
B.M. No.
Elev. XXX.XXX (Geodetic)
Coordinate System: UTM NAD83 (Original)

The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only. To Be Verified In Field By Contractor.

Designed by _____ Chkd _____

Approved by _____

NOTICE TO CONTRACTOR
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CITY OF MISSISSAUGA WORKS DEPT.
CITY OF BRAMPTON WORKS DEPT.
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ENBRIDGE INCORPORATED-GAS DISTRIBUTION
ONTARIO MINISTRY OF TRANSPORTATION
ONTARIO CLEAN WATER AGENCY
HYDRO ONE NETWORKS
ALECTRA UTILITIES
TRANS NORTHERN PIPELINE
PEARSON INTERNATIONAL FUEL FACILITIES CORP.
UNION GAS

CABLE TELEVISION/FIBRE OPTIC PROVIDERS:
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HYDRO ONE TELECOM
ROGERS CABLE
ALLSTREAM (ZAYO)
PSN (PUBLIC SECTOR NETWORK)
FUTUREWAY (FCI BROADBAND)
GT FIBER360 NETWORK INC.
TELUS COMMUNICATION

SCALE: INSERT SCALE BAR AND RATIO, OR AS SHOWN

Region of Peel
working with you

STREET NAME
(FROM STREET NAME TO STREET NAME)

TYPICAL SECTIONS
STA. 0+000 TO STA. 0+000

CAD Area	X-XX	Area	X-XX	Project No.	XX-XXXX
Checked by	X-XX	Drawn by	X.X		
Date	MONTH YEAR	Sheet	X of X	Plan No.	XXXXX-D

Appendix H - CAD Quality Assurance Checklist

CAD drawings submitted to Peel Region for all Capital Works projects must be accompanied by the following checklist.

CAD DRAWING Q/A CHECKLIST

Project Number:	_____
Consultant:	_____
Project Manager:	_____
Date:	_____

A signed copy of the CAD Quality Assurance Checklist must be submitted with all CAD drawings delivered at any phase (IFT, IFC & As-Recorded). Through this checklist the design professional (CAD designer, Engineer, Contractor, etc.) is verifying that the submitted CAD deliverables conform to Region of Peel CAD standards. Deliverables that fail to comply with the following standards will be returned to the consultant. A resubmission with the corrected files will be required. See **Peel Region Linear CAD Standards Manual** for specific requirements.

File Format & Setup

- ☐ 2D or 3D MicroStation V8i or higher
- ☐ DGN file name conforms to IFT/IFC/As Built status
- ☐ Use of ROP 2D or 3D Seed file
- ☐ CAD file contains only one drawing model
- ☐ MicroStation default colour table
- ☐ North Arrow oriented correctly
- ☐ Meets ROP Geodetic Datum requirements
UTM-NAD83 (ORG)
- ☐ Correct use of Peel border
- ☐ CAD drawings created in Model Space at 1:1 scale
- ☐ Working units set to Metric (m)

Title Block

- ☐ Updated with drawing information
- ☐ ROP Project Number & Assignment
- ☐ ROP Assigned Plan Number

Service Data & Revisions Block

- ☐ Initial & date Service Data
- ☐ Key Plan- use of ROP Line Styles &
Font Type
- ☐ Enter Issuance, Date & Initials

Level Structure

- ☐ Use of ROP CAD Level Structure (Schedule X)
- ☐ Existing works corresponds to level attributes
(CO,STY & WT) outlined in Schedule X
- ☐ Proposed works corresponds to level attributes
(CO,STY & WT) outlined in Schedule X
- ☐ Level Override Symbology settings not permitted
- ☐ New levels follow the NCS Level Naming Convention

Legend & Details

- ☐ Proper legend items included & match
elements drawn
- ☐ Relevant details present in drawings or
separate details sheet provided

Labelling & Formatting

- ☐ Proper labelling & formatting of existing & proposed works
- ☐ All WM, SAN, STM asset ID #s displayed & labelled as per ROP standard

Match Lines & Call-Outs

- ☐ Match lines placed at the correct drawing split
- ☐ Correct match line level attributes (CO,STY,WT)
- ☐ All call-outs/drawing references correspond to ROP drawing number

Leader Lines & Dimension Styles

- ☐ Correct use of ROP standard Leader Lines
- ☐ Correct use of ROP standard Dimension Styles for existing & proposed works
- ☐ Dimension Styles set to associative

Final Electronic Deliverables

- ☐ Coversheet
- ☐ Index Sheet
- ☐ Details Sheet
- ☐ Individual DGN files
- ☐ Individual Full size stamped PDF
- ☐ PI Tables (excel format)
- ☐ Shop drawings (WM \geq 400mm)

Font Type & Size

- ☐ Correct use of ROP standard Text Styles for existing & proposed works
- ☐ No custom fonts

Reference & Raster Files

- ☐ Remove or merge X-Ref files
- ☐ Embed Raster Images

Cell Library

- ☐ Correct use of ROP cell libraries for existing & proposed works

Plotting & Paper Size

- ☐ Use of ROP pen table
- ☐ Paper size ANSI D, Greyscale, 600 DPI
- ☐ 1:500 scale - Plan & Profile drawings
- ☐ 1:250 scale - Traffic drawings
- ☐ Approved ROP scales for Road drawings
- ☐ Refer to Table 5-5 in Standards Manual for structural drawings plotting scales

Name (Please Print): _____

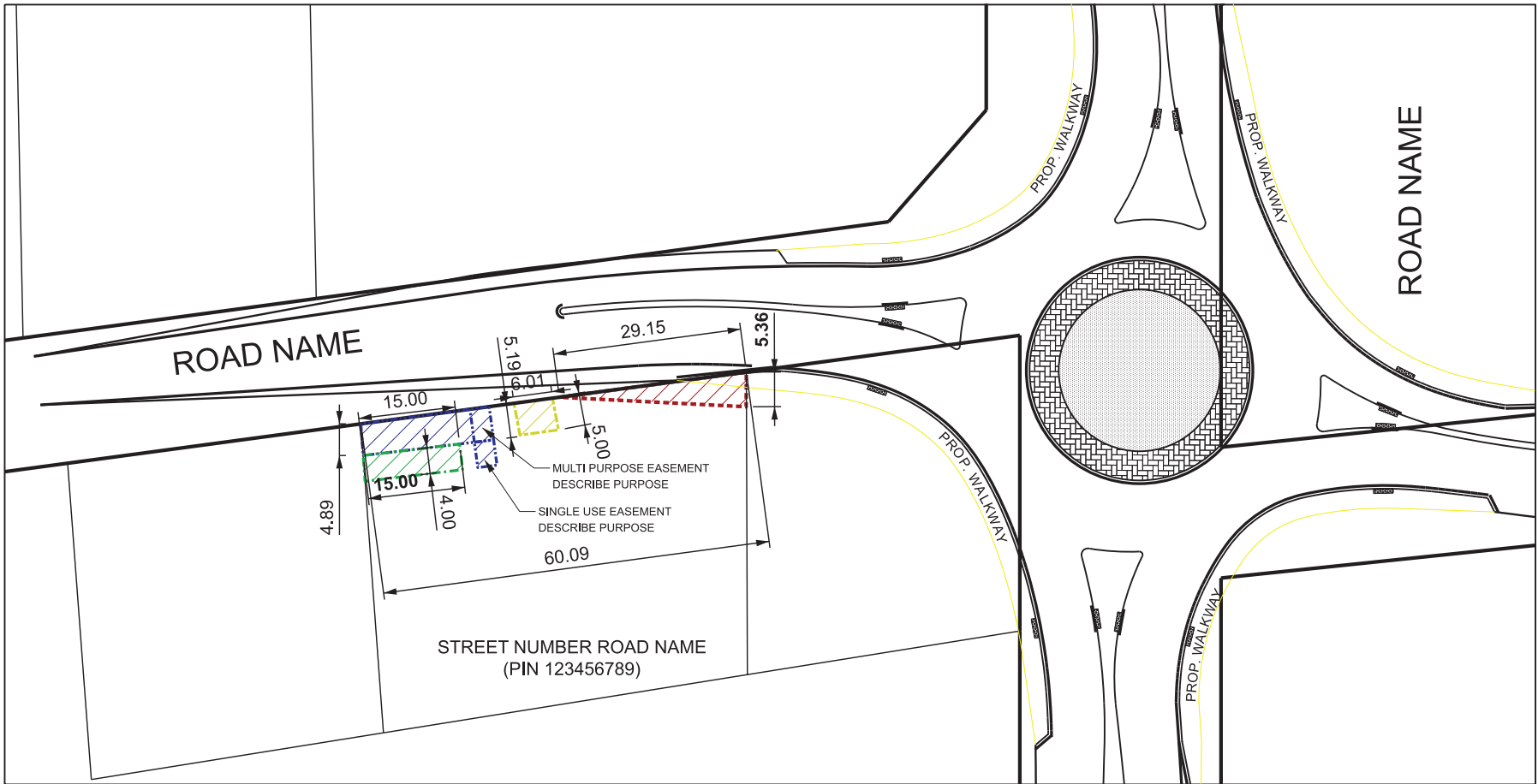
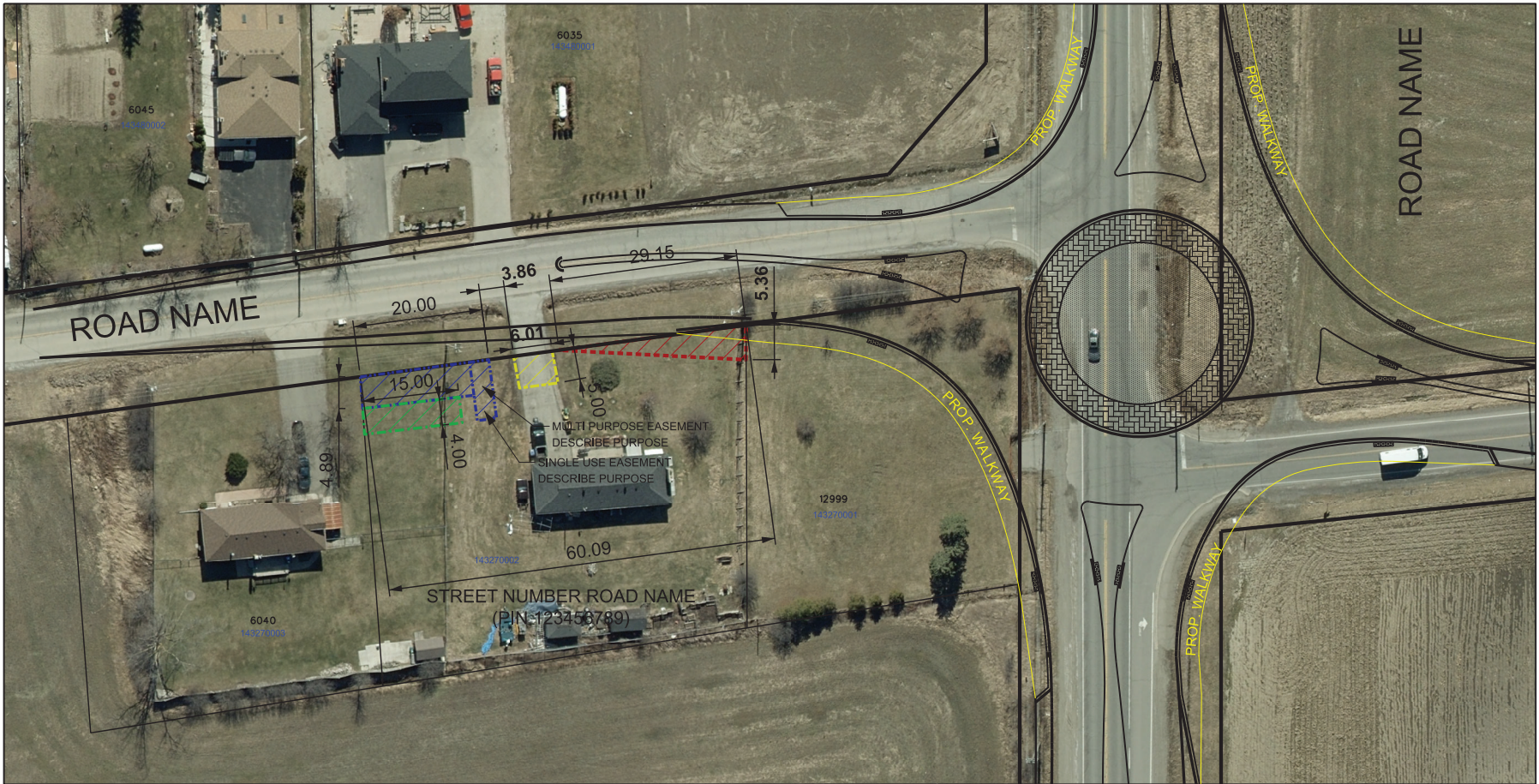
Signature: _____

Email Address: _____

Appendix I - Property Acquisition Templates

Sample Property Impact Plan

Proposed Property Acquisition Standard Plan



REVISIONS		
DATE	DETAILS	INIT.
JAN. 00. 20XX	ISSUED FOR P.U.C.C.	X.X.
JAN. 00. 20XX	ISSUED FOR TENDER	X.X.
JAN. 00. 20XX	ISSUED FOR CONSTRUCTION	X.X.
JAN. 00. 20XX	AS RECORDED	X.X.

- LEGEND**
- EXISTING R.O.W.

PROPOSED R.O.W.

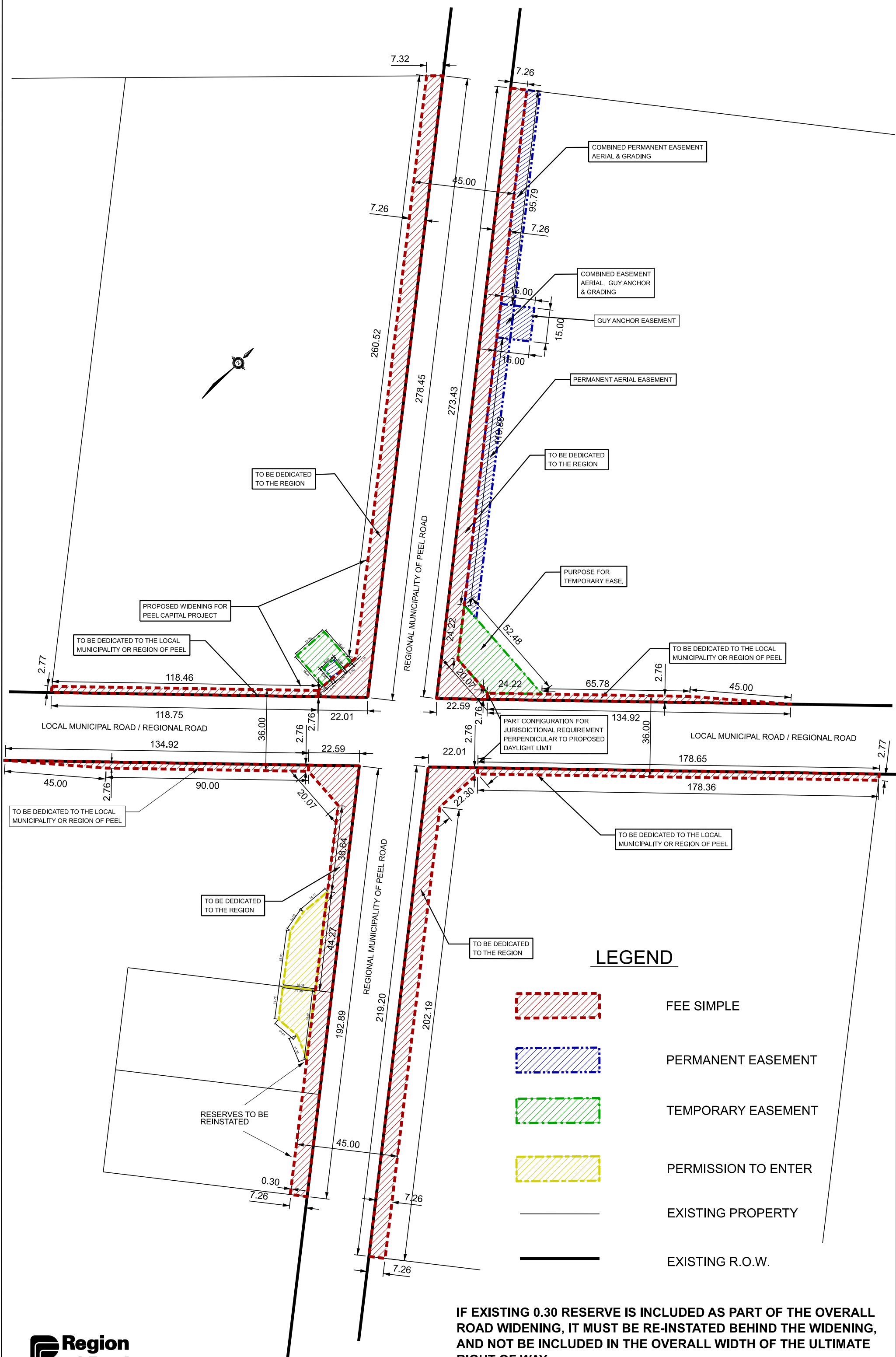
FEE SIMPLE PROPERTY
(± 78 sq.m.)

PERMANENT EASEMENT
(± 102 sq.m.)

FOR PERMANENT EASEMENTS,
STATE USE FOR EACH SPECIFIC PART

TEMPORARY EASEMENT
(± 60 sq.m.)

PERMISSION TO ENTER
(± 30 sq.m.)
- | AFFECTED AMOUNT | | |
|-----------------|-------|----------|
| DESCRIPTION | UNIT | QUANTITY |
| LIGHT STANDARD | ea. | |
| DRIVEWAYS | sq.m. | |
| SOD | sq.m. | |
| TREES | ea. | |
| SHRUBS | LS | |
| SIGNS | ea. | |
- NOTE:**
1. ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.
-
-
- PROJECT NAME**
PROPERTY IMPACT PLAN
ADDRESS AND STREET NAME
(PIN 123456789)
- | | | | | | |
|------------|------------|----------|--------|-------------------------|---------|
| CAD Area | X-XX | Area | X-XX | Project No. | XX-XXXX |
| Checked by | X-XX | Drawn by | X-X | Plan No. XXXXX-D | |
| Date | MONTH YEAR | Sheet | X of X | | |



IF EXISTING 0.30 RESERVE IS INCLUDED AS PART OF THE OVERALL ROAD WIDENING, IT MUST BE RE-INSTATED BEHIND THE WIDENING, AND NOT BE INCLUDED IN THE OVERALL WIDTH OF THE ULTIMATE RIGHT OF WAY

NOTE: MEASUREMENTS ARE APPROXIMATE