

SUBJECT

Utility Relocation Report
Municipal Class Environmental Assessment for the
Intermodal Drive and Region of Peel Watermain
Extension to Gorewood Drive

TO

Diana Glean, CET – Project Manager, Engineering,
City of Brampton

DATE

September 11, 2025

PROJECT NUMBER

145609

COPIES TO

Scott Johnston – Project Director (Arcadis)
Richard Morales – Project Manager (Arcadis)
Ben Pascolo-Neveu – Deputy EA PM (Arcadis)

FROM

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(Arcadis)
Reviewed by: Vanesa Manchon Marcos – Practice
Lead, Utilities (Arcadis)

INTRODUCTION

The City of Brampton (City) has undertaken a Schedule 'B' Municipal Class Environmental Assessment (EA) study to investigate the need and opportunity for the proposed Intermodal Drive and Region of Peel watermain extension to Gorewood Drive within the City of Brampton. This study has been conducted in accordance with the Municipal Class Environmental Assessment (MCEA), published in 2023.

As part of this EA process, coordination work with all utility agencies regarding the Intermodal Drive & watermain extension to Gorewood Drive informed the project team about any potential above- and below-ground conflicts between the existing utility infrastructure and the proposed implementation of Alternative 4G.

These conflicts are summarized through the Utility Conflict Identifier Plan (UCIP) and the Utility Conflict Matrix (UCM), which are included in **Appendix A** and **Appendix B**, respectively.

CONTACTS

There were four (4) points of contact during this EA study thus far with the utility agencies, the Region of Peel, and the City of Brampton.

- January 30, 2024 – Notice of Study Commencement and invitation to participate in the Technical Advisory Committee (TAC) for the study.
- March 15, 2024 – Initial Circulation letter to the Utility agencies for their record's drawings.
- June 27, 2024 – TAC Meeting # 1 - Part 2 - Utilities
- July 8, 2024 – Circulation of the UCM & UCIP to the Utility agencies and Peel Region for their initial review.

UTILITY TRACKING LOG

Attached to this report in **Appendix C** is a log of all correspondence received between the project team and utility agencies with regards to this project, including Alectra, Bell, Enbridge.

IDENTIFICATION OF EXISTING UTILITIES

To identify the existing utilities, two sets of data were obtained to create an Existing Utility Composite plan:

- As-built and record drawings from the City of Brampton and Region of Peel.

- Existing utility data collected during Quality Level 'B' Subsurface Utility Engineering (SUE) investigations carried out on March 28, 2024 to confirm the location, size, and condition of utility infrastructure within the EA Study Limits. *SUE utilized the practices defined in ASCE 38-22 (Standard Guideline for the Collection and depiction of Existing Subsurface Utility Data).*

Through the Existing Utility Composite plan, the Utility Conflict Identifier Plan (UCIP) and the Utility Conflict Matrix (UCM) were generated to briefly identify and summarize all the conflicts, as well as provide potential solutions to resolve issues between the existing infrastructure and the proposed design.

As the preferred functional-level design plan is refined further, the need to relocate or mitigate identified utility conflicts will be discussed in the upcoming submissions by evaluating these conflicts and recommending more detailed treatment options after further discussions with the utility agencies and stakeholders.

IDENTIFIED UTILITY CONFLICTS & RELOCATION REQUIREMENTS

Table 1 below summarizes all the conflicts and the identified utility relocation requirements for the road and watermain extension between Intermodal Drive and Gorewood Drive. The 'Requirements' column includes updates and comments from all the stakeholders following the circulation of the Utility Conflict Identifier Plan (UCIP) and the Utility Conflict Matrix (UCM). Note that the current version of the document presents a preliminary analysis of the utility conflicts. Utility conflicts in the profile will be evaluated during the detailed design stage.

Table 1 – Utility Conflict Summary

Utilities/ Stakeholders	Conflict ID*	Requirements	Future Actions
REGION OF PEEL -Capital Works -Water & Wastewater	<ul style="list-style-type: none"> • <u>SAN-01* to SAN-03*:</u> Manholes (MH) collars may be impacted by the proposed road design. • <u>STM-01 to STM 11*:</u> Ditches, Corrugated Steel pipe and catch basins will be impacted by proposed road design and manholes collars adjustments may be required. • <u>WM-01 to WM-03*:</u> Watermain valve and chamber will be impacted by the proposed road/sidewalk. 	<p>Region of Peel identified:</p> <ul style="list-style-type: none"> • The Sanitary MH contains hazardous wastewater and states if relocation is confirmed or required, a bypass/abandoning plan to be provided. Otherwise, special protective/mitigation measures are required to protect these assets. • Relocation of valves, chambers, fire hydrants to follow Peel's standards and specification requirements. • The importance of the existing dead end watermain connections to the proposed 300mm PVC watermain between Intermodal Drive and Gorewood Drive. • In general, watermains shall be located in accordance with the local municipality's standards, including: <ul style="list-style-type: none"> ➤ min. horizontal separation of 2.5m (edge to edge) 	<p>Coordination with the Region of Peel regarding:</p> <ul style="list-style-type: none"> • The conflicts with the proposed design as per UCM. • The proposed 300mm PVC watermain installation during the detailed design.

Utilities/ Stakeholders	Conflict ID*	Requirements	Future Actions
		<ul style="list-style-type: none"> ➤ min. vertical separation of 0.5m (bottom of the pipe to top of pipe) from any sewer as per the MECP design criteria. Since this road is not under the jurisdiction of the Region of Peel, the minimum horizontal clearance shall be maintained at 1.2 metres. ➤ All fire hydrants shall have 1.2 m minimum clearance from all other utilities. ➤ When watermain crosses <i>over</i> utilities, a minimum 0.3 m must be provided. ➤ When watermain crosses <i>under</i> utilities, a minimum 0.5m must be provided. 	
CITY OF BRAMPTON	<ul style="list-style-type: none"> • <u>SL-01 to SL-03*</u>: Streetlighting poles in front of 900 Intermodal Drive will conflict with the proposed MUP. 	Arcadis to review and coordinate the relocation of these streetlight poles.	Coordination with the City of Brampton and Alectra during detailed design regarding relocation of the existing streetlight pole.
ALECTRA	<ul style="list-style-type: none"> • <u>AL-01*</u>: At the west side of Gorewood Drive, the Alectra hydro pole line with its attachment will be impacted by the proposed road design at 1+345. 	Coordination Ongoing	Coordination with Alectra during detailed design, regarding pole relocation.

Utilities/ Stakeholders	Conflict ID*	Requirements	Future Actions
BELL	<ul style="list-style-type: none"> <u>B-01*</u>: Bell cables attached to the Alectra poles will be impacted by the proposed road design. <u>B-02*</u>: Underground (UG) Bell cables on boulevard will be impacted by the proposed road design. 	<p>Bell Markups # 71542:</p> <p>UG Bell located at 900 Intermodal Drive, identified as potential conflict in field require:</p> <ul style="list-style-type: none"> To maintain clearance of 0.6m horizontally, 0.3m vertically from Bell. Within 1m of Bell, hand dig. Bell depth of cover as per road requirements due to Grade level changes from driveway to road. <p>Relocation of Overhead cables on the hydro Poles to be in accordance with Alectra's pole location and standards.</p>	<p><u>Intermodal Drive</u>:</p> <p>Determine the existing UG depth of cover to confirm utility treatment.</p> <p><u>Gorewood Drive</u>:</p> <p>Coordination during detailed design regarding relocation of the existing Overhead Bell cables.</p>
ENBRIDGE	<u>G-01*</u> : Gas valve connected from 150mm SC Gas main will be impacted by the proposed design road.	EGD # 44763638 Markups comments to be provided in the submission of the detailed design plans.	Coordination with Enbridge during detailed design regarding to the potential relocation, removal or adjustment of grade level.

*Refer to Appendix A and Appendix B: UCIP and UCM for more details about the conflicts.

It should be noted that the information presented in this report was based on feedback received from utility agencies following the June 27, 2024 TAC Meeting #1 – Part 2 (Utilities) which is one of the key stakeholder consultation touch-points leading up to the 30% design package of the preferred alternative. Coordination between the project team and utilities agencies, as well as other key stakeholders is ongoing to obtain additional input as it relates to relocations required for the execution and implementation of the Intermodal Drive & watermain extension to Gorewood Drive. This information will be incorporated into the Proposed Utility Treatment Composite Plan & Profile in post-EA submissions.

PROPERTY, ROW AND EASEMENT REQUIREMENTS

Following the successful completion of the EA process, it is expected that the City of Brampton Real Estate Department will engage in the process of acquiring property, including utility infrastructure above and below grade to support the implementation of the preferred design. Underground infrastructure will include the proposed watermain extension between Intermodal Drive and Gorewood Drive which is the Region of Peel's primary objective with respect to this project.

While there are minor property impacts expected for 8196 and 8168 Gorewood Drive, the primary municipal addresses where property acquisition is anticipated to accommodate the preferred road extension alignment (i.e. Alternative 4G) are listed below:

- 8188 Gorewood Drive
- 8180 Gorewood Drive

Further details of the property acquisition and easements are not yet finalized and are still subject to ongoing discussions amongst stakeholders, property owners and the City of Brampton.

PROPOSED WATERMAIN ALIGNMENT

The City of Brampton and the Region of Peel Water Capital Works identified the proposed 300mm diameter PVC watermain extension as an important opportunity to eliminate dead-end loops and allow for a more efficient watermain network.

As seen in **Appendix D**, the proposed watermain alignment will run approximately 366 metres along the new road extension at Intermodal Drive, crossing diagonally to the southeast side of Gorewood Dr until the existing watermain connection located opposite 8112 Gorewood Drive. The future watermain alignment will connect both existing 300mm PVC watermain dead ends by maintaining a minimum 0.75m from the edge of pavement (EOP) as per the City of Brampton's typical road cross section standards.

The proposed location of the watermain extension may be subject to change or determined as per further review, discussion, and analysis of the preferred Alternative 4G design for the installation of the future watermain connection.

RELOCATION TIMINGS

As indicated above, the relocation of the existing hydro pole and other utilities as part of this road extension project is contingent on the detailed design process, with its initiation expected to occur immediately following the completion of the EA process.

With respect to the construction timing, the project team does not advise that the Intermodal Drive extension be implemented in isolation of upgrades further south on Gorewood Drive to ensure property connectivity for all road users. The nature of improvements further south of the connection on Gorewood Drive will need to be determined through a future study and, therefore, are anticipated to have a bearing on the overall implementation and relocation timeline for above- and below-grade infrastructure associated any works within the EA Study Limits as well. At this time, it is understood that the City of Brampton envisions upgrades to Gorewood Drive south of the EA Study Limits would be limited to pavement structure rehabilitation to accommodate truck traffic, while maintain the existing rural cross-section of this north-south local road.

STREETLIGHTING

1. A preliminary streetlighting layout was developed with 10 pole locations staggered along the Intermodal Drive extension and its connection to Gorewood Drive, within the EA Study Limits.
2. A photometric analysis was undertaken in accordance with Recommended Practice: Lighting Roadway And Parking Facilities (RP-8-22), published in 2022. The pole type and heights west of the proposed Pedestrian Crossover (PXO) are consistent with existing light poles along the existing segment of Intermodal Drive immediately to the west, featuring a 50' (15.2m) direct-buried concrete pole with a 2.4-metre arm. Fixture selection included the GE Evolve series, as these provide better backlighting and glare performance than the CREE. The height of the streetlights was decreased from 15.2m to 9.9m at the Pedestrian Crossover (PXO) and further east/south along Gorewood Drive to accommodate a more pedestrian-oriented environment, in alignment with the overarching objectives of the Brampton Complete Streets Guide (Draft, 2023).
3. Illuminance requirements are being achieved throughout the EA Study Limits for all key transportation elements, including the proposed road surface, sidewalks, multi-use path and Pedestrian Crossover (PXO).

A summary of the photometric analysis and corresponding streetlight design criteria is presented in **Appendix E**.

4. This preliminary streetlighting design was endorsed by the City of Brampton, with adjustments performed following this acceptance to accommodate Alternative 4G. Following these adjustments, all the illuminance requirements referenced in **Appendix E** continue to be met.


CONCLUSION

Overall, all impacts identified through the Utility Conflict Matrix (UCM) and Utility Conflict Identifier Plan (UCIP) in relation to Alternative 4G will require further review through the detailed design process and are subject to further consultation and coordination with relevant stakeholders and utility agencies.

Municipal Class Environmental Assessment
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Appendix A – Utility Conflict Identifier Plan (UCIP)

Appendix B – Utility Conflict Matrix (UCM)

<div><div><div><div>Public Works and Engineering</div><div>Capital Works</div></div></div><div>APPENDIX B</div></div>																	
Conflict Number #	Sheet #	Conflict Range		Test Pit #	Utility	Location	Offset Location	Offset	Conflict Description	Potential Actions	Strategy Action	Follow Up	Anticipated Clearance date	Location of Utility	Notes	Conflict Addressed in Relocation Plan?	PUCC Reference Number
		STA From	STA To				Lt / CL / Rt	m									
AL-01	1	1+298*	1+388	N/A	Hydro	86m south of Gorewood Dr	Lf	5.2	Alectra Hydro pole and OH Line will be impacted by the proposed road design.	Permanent relocate							
B-01	1	1+298*	1+388	N/A	Telecommunication	86m south of Gorewood Dr	Lf	5.2	Bell attachments on hydro pole will be impacted by the proposed road design.	Permanent relocate							
B-02	1	1+068	1+121	N/A	Telecommunication	North of Intermodal Dr.	CL	8.3 -6.1	Underground Bell cable will be impacted by proposed road design.	Potential Conflict							
G-01	1	1+318		N/A	Gas	West of Gorewood Dr.	Lf	8.3	Enbridge Gas Valve in conflict with proposed road design/sidewalk	TBD							
SAN-01	1	1+139		N/A	Sanitary	North of Intermodal Dr	CL	1.5	Sanitary MH Collar may be impacted by the proposed road design	Collar adjustment may be required.							
SAN-02	1	1+131		N/A	Sanitary	Noth of Intermodal Dr	CL	1.7	Sanitary MH Collar may be impacted by the proposed road design	Collar adjustment may be required.							
SAN-03	1	1+080		N/A	Sanitary	North of Intermodal Dr.	CL	5.0	Sanitary MH Collar may be impacted by the proposed road design	Collar adjustment may be required.							
SL-01	1	1+113		N/A	Streetlight	North of Intermodal Dr	CL	12.2	Streetlight pole in conflict with proposed MUP.	Permanent relocate							
SL-02	1	1+070		N/A	Streetlight	North of Intermodal Dr	CL	10.3	Streetlight pole in conflict with proposed MUP.	Permanent relocate							
SL-03	1	1+019		N/A	Streetlight	North of Intermodal Dr	CL	11.3	Streetlight pole in conflict with proposed MUP.	Permanent relocate							
STM-01	1	2+000	2+085	N/A	Storm	North of Gorewood Dr	CL	6.2 - 6.4	Ditch & CSP Pipe will be impacted by the proposed road design	Permanent relocate							
STM-02	1	1+302	1+392	N/A	Storm	South of Gorewood Dr	Lf	4.8	Ditch & CSP Pipe will be impacted by the proposed road design	Permanent relocate							
STM-03	1	2+000	2+085	N/A	Storm	North of Gorewood Dr	Rt	2.12- 30	Ditch pipe will be impacted by the proposed road design	Permanent relocate							
STM-04	1	1+320	1+385	N/A	Storm	South of Gorewood Dr	Rt	6.2- 8.2	Ditch & CSP pipe may be impacted by the proposed road design	Permanent relocate							
STM-05	1	1+146		N/A	Storm	South of Intermodal Dr.	CL	3.2	Storm Sewer MH collar may be impacted by the proposed road design	Collar adjustment may be required.							
STM-06	1	1+142		N/A	Storm	North of Intermodal Dr	CL	11.4	Catch basin in conflict with the proposed MUP	TBD							
STM-07	1	1+145		N/A	Storm	South of Intermodal Dr	CL	9.9	Catch basin will be impacted by the proposed road design	TBD							
STM-08	1	1+061		N/A	Storm	South of Intermodal Dr.	CL	6.2	Catch basin will be impacted by the proposed road design	TBD							

Conflict Number #	Sheet #	Conflict Range		Test Pit #	Utility	Location	Offset Location	Offset	Conflict Description	Potential Actions	Strategy Action	Follow Up	Anticipated Clearance date	Location of Utility	Notes	Conflict Addressed in Relocation Plan?	PUCC Reference Number
		STA From	STA To				Lt / CL / Rt	m									
STM-09	1	1+061		N/A	Storm	North of Intermodal Dr.	CL	6.5	Catch basin will be impacted by the proposed road design	TBD							
STM-10	1	1+172		N/A	Storm	South of Intermodal Dr.	CL	2.7	Storm Sewer MH collar may be impacted by the proposed road design	Collar adjustment may be required.							
STM-11	1	1+379		N/A	Storm	Gorewood Dr.	CL	0.0	CSP Pipe will be impacted by the proposed road design	Permanent relocate							
WM-01	1	1+141		N/A	Water	South of Intermodal Dr	CL	12.1	Water Valve will be impacted by the proposed road design	TBD							
WM-02	1	1+101		N/A	Water	South of Intermodal Dr	CL	11.0	Fire Hydrant and Water Valve will be impacted by the proposed sidewalk	Permanent relocate							
WM-03	1	1+145		N/A	Water	South of Intermodal Dr	CL	10.6	Water Valve will be impacted by the proposed sidewalk	Adjust to new grade level							

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Appendix C – Utility Tracking Form

APPENDIX C

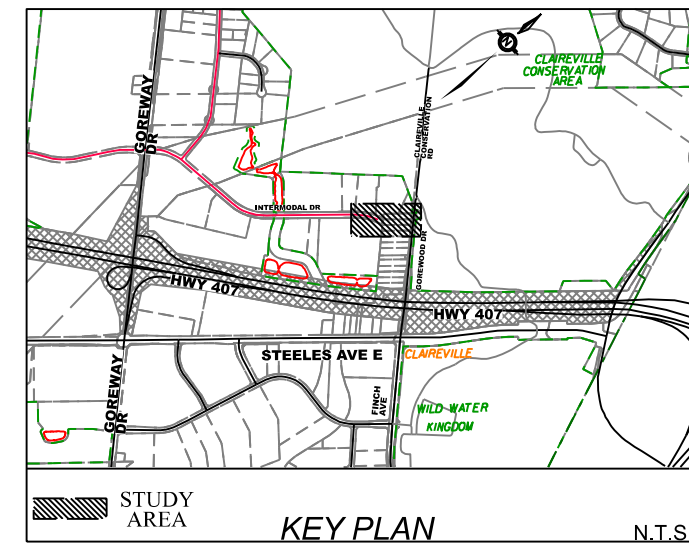
Utility Tracking Form

145609 Intermodal Dr & Gorewood Dr Environmental EA Study

UTILITY/ STAKEHOLDERS	CONTACT PERSON/DISTRIBUTION LIST	WORK & COMPLETION DATES	STATUS/ RESPONSES
City of Brampton	Diana Glean (Project Manager, Public Works) Diana.Glean@brampton.ca	Notice of Study commencement & Technical Advisory Committee Initiation letter: January 30, 2024 Initial Contact Letter for Utility's record: March 15, 2024 TAC Meeting # Part 1-2: June 27, 2024 Utility Conflict plan & UCM circulation July 8, 2024	Attended presentation City of Brampton is informed about the current conflicts and utility
Region of Peel	Asha Saddi, Project Coordinator (Utility Markups- Contact) asha.saddi@peelregion.ca zzqpwi@peelregion.ca Jay Christy (Project Manager) Jay.Christy@peelregion.ca Felipe Serna (Contract Administrator) felipe.serna@peelregion.ca	Notice of Study commencement & Technical Advisory Committee Initiation letter: January 30, 2024 Initial Contact Letter for Utility's record: March 15, 2024 TAC Meeting #1 Part 1-2: June 27, 2024 Utility Conflict plan & UCM circulation Sent: July 8, 2024 Utility Conflict plan & UCM circulation Received: July 29, 2024	Attended presentation Region of Peel provided comments on the UCM conflicts related to Sanitary and watermain
Alectra	Dave A. Robinson, davea.robinson@alecrautilities.ca General Circulations Max Watters max.watters@alecrautilities.com Chris Kafel chris.kafel@alecrautilities.com	Notice of Study commencement & Technical Advisory Committee Initiation letter: January 30, 2024 Initial Contact Letter for Utility's record Sent: March 15, 2024 Initial Contact Letter for Utility's record Received:: March 28, 2024 TAC Meeting # Part 2: June 27, 2024 Utility Conflict plan & UCM circulation Sent: July 8, 2024 Utility Conflict plan & UCM circulation Received: Ongoing	Utility records received Attended presentation No response received yet. Coordination Ongoing
Bell	Adrian Persaud, Project Manager adrian.persaud@bell.ca Kenneth Henshaw, Implementation Manager kenneth.henshaw@bell.ca General Circulations- (Utility Mark-ups Contact) Bell.moc@telecon.ca	Notice of Study commencement & Technical Advisory Committee Initiation letter: January 30, 2024 Initial Contact Letter for Utility's record: March 15, 2024 TAC Meeting #1 Part 2: June 27, 2024 Utility Conflict plan & UCM circulation Sent: July 8, 2024 Utility Conflict plan & UCM circulation Received: July 18, 2024	Utility records received Attended presentation Bell Markup # 75142. Comments about conflicts regarding UG bell cables and OH cables
Enbridge	Emilio Labra emilio.labra@enbridge.com General Circulations (Utility-markups Contact) Mark-Ups@enbridge.com	Notice of Study commencement & Technical Advisory Committee Initiation letter: January 30, 2024 Initial Contact Letter for Utility's record Sent: March 15, 2024 Initial Contact Letter for Utility's record received: TAC Meeting #1 Part 2: June 27, 2024 Utility Conflict plan & UCM circulation Sent: July 8, 2024 Utility Conflict plan & UCM circulation Received: July 23, 2024	Attended presentation EGD # 44763638. Enbridge provided no comments on the conflict because they required detailed design plans.
Hydro One	General Circulations tpucc@hydroone.com	Initial Contact Letter for Utility's record Sent: March 15, 2024 Initial Contact Letter for Utility's record received: March 28, 2024	The record provided did not show Hydro one assets in the project's boundary but nearby the area at the intersection of Intermodal Dr and Goreway Dr.

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Appendix D – Proposed Watermain Alignment







Legend

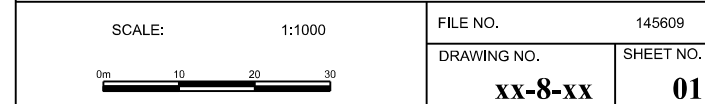
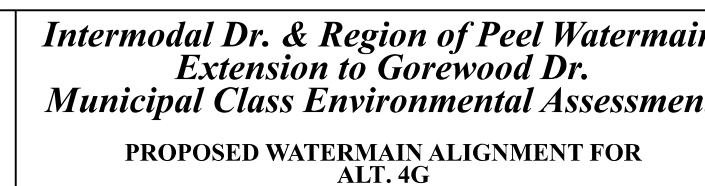
- | | | | |
|-------|------------------|-------|----------|
| ----- | Alternative 4G | ----- | Enbridge |
| ----- | Storm Water | ----- | Water |
| ----- | Ditch | ----- | Sanitary |
| ----- | Culvert/ Pipeing | ----- | Alectra |
| ===== | Proposed Curb | ----- | Bell |
| ----- | Property Line | | |

Existing Utilities Structures

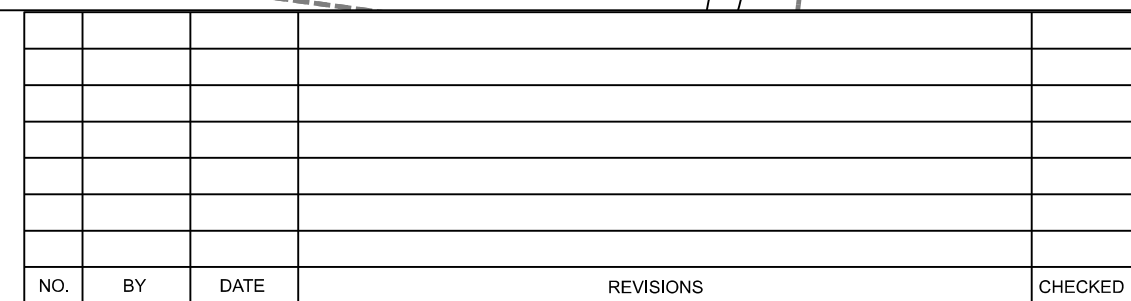
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|--|--------------------------|--|
| | Gas Utility | |
| | Gas Valve / MWell | |
| | Light Pole | |
| | Hydro Transformer | |
| | Guy Pole | |
| | Hydro Pole | |
| | Manholes | |
| | Catch Basins | |
| | Fire Hydrant | |
| | Water Valve | |

SUE Quality Level Description and Linetype Depiction

- Quality Level "D" Linetype :** 
Quality Level "C" Linetype : 
Quality Level "B" Linetype : 
Quality Level "A" Linetype :  TP 1



PROPOSED UTILITIES PLAN

STA. 1+000 - 1+390

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Appendix E – Photometric Analysis & Streetlight Criteria

[illegible]

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Description	ILP	Luminaire Lumens	Area
	4	SPAL SP540	Single	SPAL SP540	0.855	15100	2.4
	4	SPAL SP540	Single	SPAL SP540	0.855	9010	2.4