MUNICIPALITY OF THAMES CENTRE

UPPER QUEEN STREET STORM SEWER UPGRADE AND ROAD URBANIZATION

INDEX OF DRAWINGS

DRAWING No.	DESCRIPTION
	COVER SHEET
1.	UPPER QUEEN STREET – STA. 0+000 TO STA. 0+155
2.	UPPER QUEEN STREET – STA. 0+155 TO STA. 0+355
3.	UPPER QUEEN STREET – STA. 0+355 TO STA. 0+540
4.	TYPICAL CROSS SECTIONS
5.	MISCELLANEOUS DETAILS AND NOTES
6.	RAISED ASPHALT INTERSECTION GRADING
7.	UPPER QUEEN STREET – PAVEMENT MARKINGS
8.	UPPER QUEEN STREET – PAVEMENT MARKINGS
A1.	STORM SEWER DRAINAGE AREA PLAN & DESIGN SHEET

PROJECT LOCATION

CLIENT:

Municipality of Thames Centre

JOB NO – 224054

CONSULTANT

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET –– LONDON
(519) 672–4100 –– N6A 1A8

NOTE: –ALL ROAD ALLOWANCE CB/CICB'S TO HAVE OIL/DEBRIS HOOD (GOSS TRAP) Ⓒ INSTALLED WITHIN CB FRAME AS PER DETAIL ON DWG.#5
–ALL ROAD ALLOWANCE CB'S TO HAVE MIN. 900mm SUMP

RAILWAY STREET

MATCH SWK. INTO EX. EDGE OF ASPHALT INSTALL TACTILE PLATES (TYP.)

SAW CUT & MILL 500 WIDE x 40 DEEP & MATCH EXIST. ASPHALT

INSTALL 375ø PLUG AT STM426

MATCH INTO EX. EDGE OF ASPHALT

INSTALL CONC. CURB OUTLET OPSD 605.010

INSTALL CONC. CURB OPSD 600.090 (DROPPED/ENTRANCE TYP.)

INSTALL TREE PROTECTION FENCE (TYP.)

PROP. 1.5m CONC. SIDEWALK AS PER OPSD 310.010 (TYP.)

INSTALL TACTILE PLATES (TYP.)

SAW CUT & MILL 500 WIDE x 40 DEEP & MATCH EXIST. ASPHALT

AGNES STREET

CONNECT EX. STORM DRAINS INTO PROP. CB (TYP.)

INSTALL RAISED ASPHALT INTERSECTION (SEE GRADING PLAN SHT#6)

INSTALL CONC. CURB OPSD 600.090 (DROPPED/ENTRANCE FULL LENGTH TYP.)

PROP. 1.5m C/SWK.

INSTALL CONC. CURB OPSD 600.060

PROP. 57.0m–825ø STM @ 0.45%

PROP. 54.0m–750ø STM @ 0.46%

PROP. 54.0m–750ø STM @ 0.45%

PROP. 62.0m–750ø STM @ 0.45%

PROP. 250ø CB LEADS (TYP.)

STMH 100

STMH 101

STMH 102

STMH 103

INSTALL 1800ø MH AND CONNECT INTO EX. 900ø STORM WYE ELEV. 282.40

EX. 900ø STORM WYE ELEV. 282.40

BM – TOP OF SPINDLE ELEV.=286.384m

BM – TOP OF SPINDLE ELEV.=286.703m

SAW CUT & MILL 500 WIDE x 40 DEEP & MATCH EXIST. ASPHALT

REMOVE AND DISPOSE OF EXIST. 250ø C.S.P. OFF–SITE

PROP. SWALE TO CB (TYP.)

INSTALL TACTILE PLATES (TYP.)

MATCH INTO EX. EDGE OF ASPHALT

INSTALL TREE PROTECTION FENCE (TYP.)

PROP. SWALE TO CB (TYP.)

T/G ELEV. 285.46

T/G ELEV. 285.68

RESTORE BOULEVARDS WITH SOD ON 100mm MIN. OF TOPSOIL (TYP.)

CONTRACTOR TO EXERCISE EXTREME CAUTION, LOCATE ALL UNDERGROUND UTILITIES, HYDRO, FIBRE OPTIC CABLES & DUCT STRUCTURES PRIOR TO ALL NEW CONSTRUCTION OPERATIONS AND SUPPORT ALL UTILITIES IN ACCORDANCE WITH THE UTILITIES REQUIREMENTS.

SEE SHEET No.2

UPPER QUEEN STREET

MUN 146 MUN 211 MUN 212 MUN 214 MUN 215 MUN 217 MUN 218 MUN 220 MUN 221 MUN 222 MUN 228 MUN 229 MUN 231

TRICKETT GLASS HOME GOODS STORE

LEGEND

- Ⓡ PROPOSED SIDEWALK RAMP
- LIMIT OF ROAD NEW ASPHALT
- LIMIT OF CONC. DRIVEWAY RESTORATION
- LIMIT OF NEW SIDEWALK
- LIMIT OF ASPHALT DRIVEWAY RESTORATION
- REMOVE & DISPOSE OF EXIST. TREE OR SHRUB
- PROP. TREE PROTECTION FENCE

(1) SUPPORT HYDRO POLES (AS REQUIRED)
(2) REMOVE EXIST. TREES
(3) REMOVE EXIST. WATERVALVES AND RETURN TO MUNICIPALITY YARD
(4) REMOVE EX. CURB & GUTTER
(5) REMOVE EX.SIDEWALK
(6) REMOVE EX.CATCHBASINS & MANHOLES
(7) REMOVE EX.STORM SEWERS
(8) ADJUST EX. MANHOLE & WATER VALVE
(H) DESIGNATES LOCATION WHERE PIT FOR PROP. PDC CONNECTION OR CURB STOP IS TO BE DUG BY HVAC METHODS.
(S) DESIGNATES PROP. SAN OR STM PDC OR WSC TO BE INSTALLED UNDER TREE DRIPLINE BY TRENCHLESS METHODS.

C/L RAILWAY STREET

C/L AGNES STREET

EX. GROUND PROFILE ALONG C/L EX. ROADWAY

APPROX. EX. GROUND PROFILE ALONG RAILWAY STREET NORTH C/L EX. ROADWAY

EX. GROUND PROFILE ALONG PROP. STORM ALIGNMENT

PROP. C/L OF ROAD

PROP. RAISED ASPHALT INTERSECTION

MATCH INTO EX. EDGE OF ASPHALT

INSTALL MECHANICAL O/S OVER PROP. 375ø STORM AS PER W–2, W–3. PROVIDE 100mm 50SM INSULATION ABOVE & 50mm BELOW THE 150 WM O/S

PROP. 50SM INSULATION ABOVE EXISTING WM (1.2m WIDE)

CONTRACTOR TO VERIFY THE ELEV. OF THE EXIST. 150 WM AND REPORT TO THE ENGINEER

INSTALL 1800ø MH AND CONNECT INTO EX. 900ø STORM WYE ELEV. 282.475

57.0–825 ST–0.45% 50–D CONC. GRAN 'A' BEDDING

54.0–750 ST–0.46% 50–D CONC. GRAN 'A' BEDDING

54.0–750 ST–0.45% 50–D CONC. GRAN 'A' BEDDING

62.0–750 ST–0.45% 50–D CONC. GRAN 'A' BEDDING

GENERAL NOTES

1. Ⓐ DESIGNATES LOCATION WHERE CONTRACTOR IS TO DETERMINE EXIST. SAN. OR STORM ELEVATION OR UTILITY & NOTIFY ENGINEER. STORM SEWER ELEVATIONS MAY BE ADJUSTED ACCORDINGLY. TASK TO BE PERFORMED PRIOR TO COMMENCING WATERMAIN/SEWER INSTALLATION.
2. UTILITY LOCATIONS AS SHOWN ON THESE CONTRACT DRAWINGS HAVE BEEN OBTAINED FROM DRAWINGS AND FIELD DATA BELIEVED TO BE CORRECT, BUT CANNOT BE GUARANTEED TO BE CORRECT.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE EXCAVATION AROUND AND/OR RELOCATION OF ANY UNDERGROUND UTILITIES UNDER THIS CONTRACT INCLUDING TELEPHONE, UNION GAS, CABLE T.V., AND HYDRO CABLE.
4. SEE DRAWING NO. 5 FOR PIPE BEDDING DETAILS.
5. ACTUAL WATER SERVICE LOCATIONS BOTH EXIST. AND PROP. ARE TO BE DETERMINED IN CONSULTATION WITH CONTRACTOR AND MUNICIPALITY OF THAMES CENTRE.
6. WATER SERVICES TO ALL PROPERTIES MUST BE INSTALLED MINIMUM 300mm BELOW PROP. STORM SEWER INVERT.
7. ALL PROPOSED 25mm WATER SERVICES TO CONNECT INTO EX. 19mm MAIN STOPS INCLUDING ADAPTOR.
8. ALL GRAVEL DWYS. TO BE REPLACED WITH ASPHALT TO 1.0m BEHIND PROP. SIDEWALK.

	0+040	0+020	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140
C/L WATERMAIN ELEVATION	284.52	284.65	285.04	285.49	285.72	285.94	286.08	286.17	286.15	286.12	286.06
STORM SEWER INVERT	282.475			282.732 282.912			283.060 283.090			283.333 283.373 283.363	
SANITARY SEWER INVERT											

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MARCH 2024
	224054–00

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET — LONDON (519) 672–4100 — N6A 1A8

ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER C. S. LIERMAN 9/30/24 PROVINCE OF ONTARIO

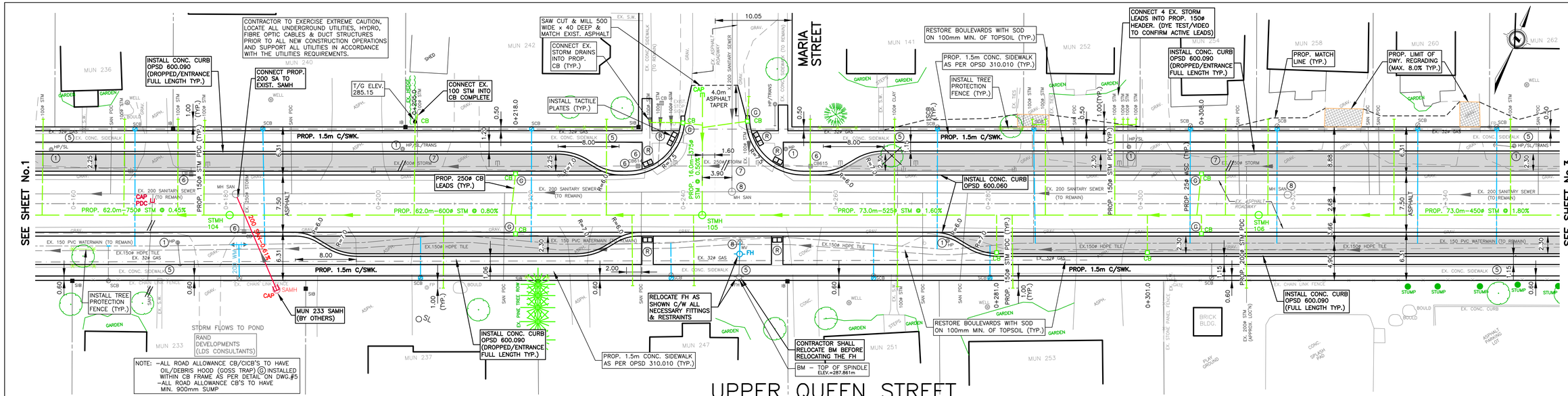
MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION

UPPER QUEEN STREET
STA. 0+000 TO STA. 0+155

PROJECT No. 224054
SHEET No. 1
PLAN FILE No.



LEGEND

- (R) PROPOSED SIDEWALK RAMP
- LIMIT OF ROAD NEW ASPHALT
- LIMIT OF CONC. DRIVEWAY RESTORATION
- LIMIT OF NEW SIDEWALK
- LIMIT OF ASPHALT DRIVEWAY RESTORATION
- REMOVE & DISPOSE OF EXIST. TREE OR SHRUB
- PROP. TREE PROTECTION FENCE
- (1) SUPPORT HYDRO POLES (AS REQUIRED)
- (2) REMOVE EXIST. TREES
- (3) REMOVE EXIST. WATERVALVES AND RETURN TO MUNICIPALITY YARD
- (4) REMOVE EX. CURB & GUTTER
- (5) REMOVE EX.SIDEWALK
- (6) REMOVE EX.CATCHBASINS & MANHOLES
- (7) REMOVE EX.STORM SEWERS
- (8) ADJUST EX. MANHOLE & WATER VALVE
- (H) DESIGNATES LOCATION WHERE PIT FOR PROP. PDC CONNECTION OR CURB STOP IS TO BE DUG BY HVAC METHODS.
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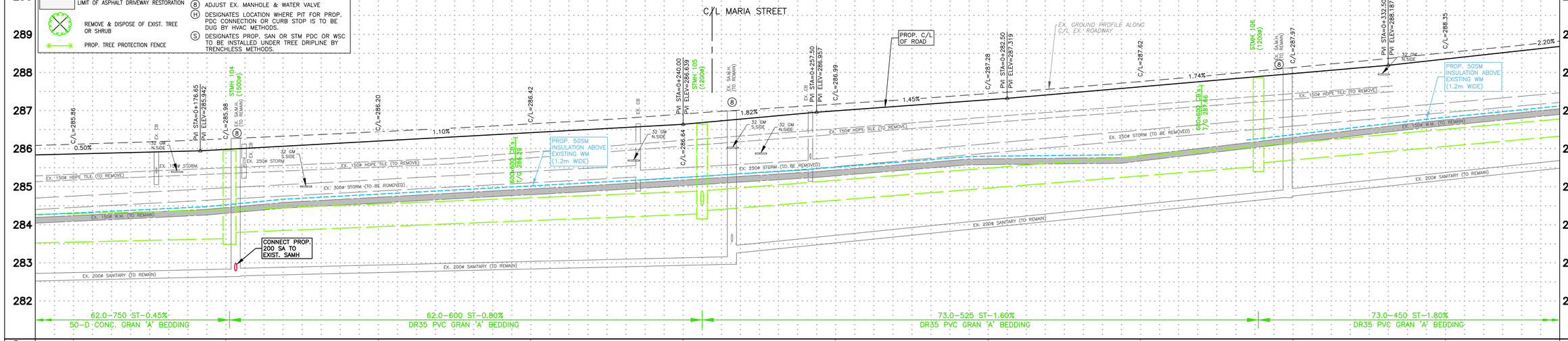


STATION	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340
C/L WATERMAIN ELEVATION	286.11	286.26	286.44	286.65	286.71	287.17	287.45	287.76	288.13	288.52
STORM SEWER INVERT		283.542 283.592			284.288 284.520 284.368				285.536 285.616	
SANITARY SEWER INVERT										

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MARCH 2024
	224054–00

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET –– LONDON (519) 672–4100 –– N6A 1A8

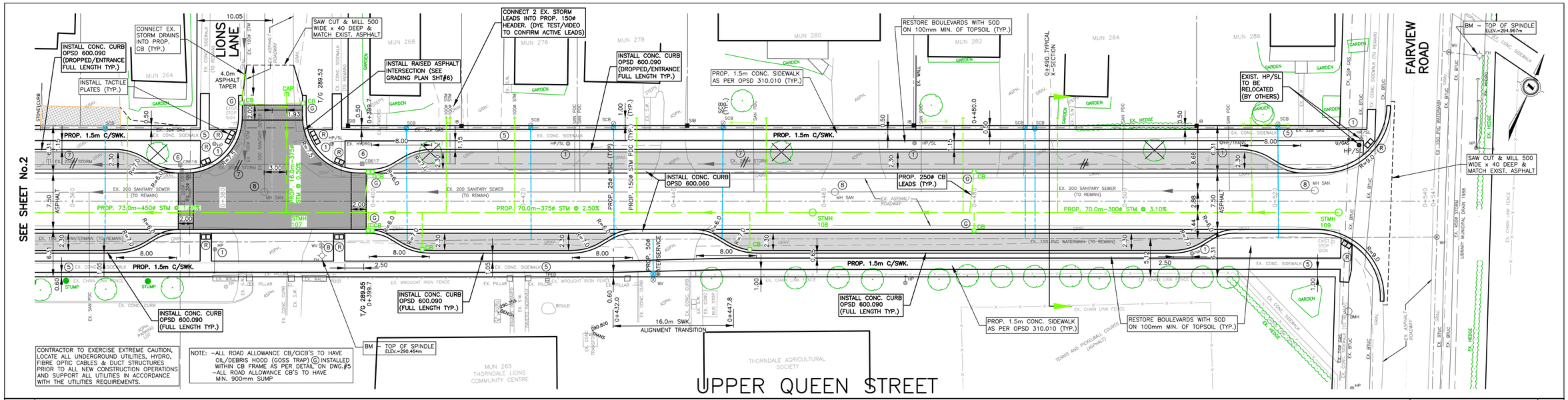
ENGINEER'S STAMP
PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
LICENCE
PROVINCE OF ONTARIO

MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION
UPPER QUEEN STREET
STA. 0+155 TO STA. 0+355

PROJECT No. 224054
SHEET No. 2
PLAN FILE No.



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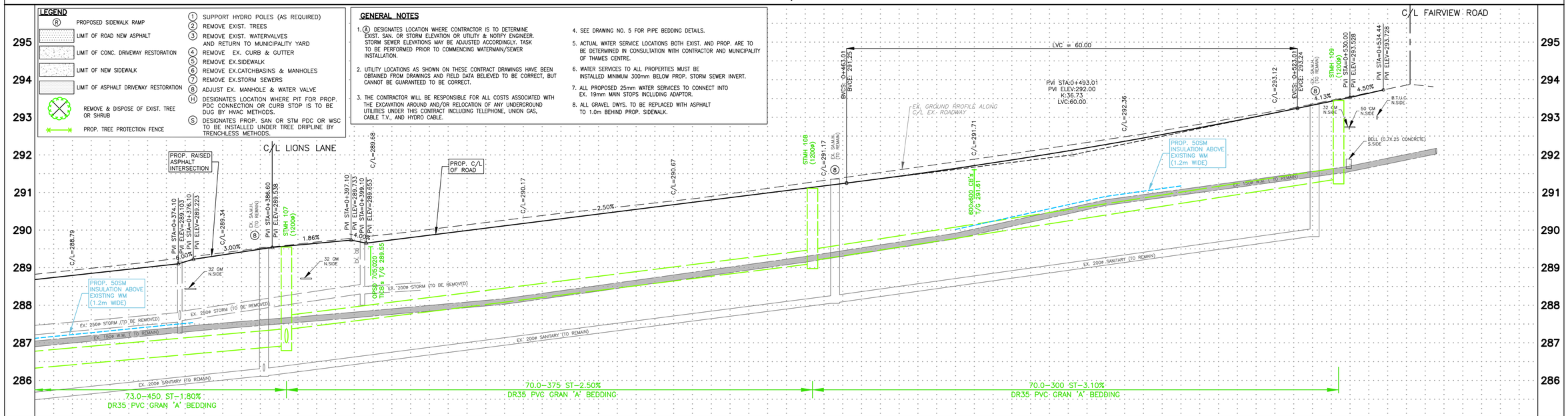


STATION	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540
C/L WATERMAIN ELEVATION	288.93	289.39	289.84	290.32	290.78	291.32	291.89	293.48	293.16	293.84 293.81
STORM SEWER INVERT			286.930 287.500 287.300			289.110 289.190			291.360	
SANITARY SEWER INVERT										

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MARCH 2024
	224054–00

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET –– LONDON (519) 672–4100 –– N6A 1AB

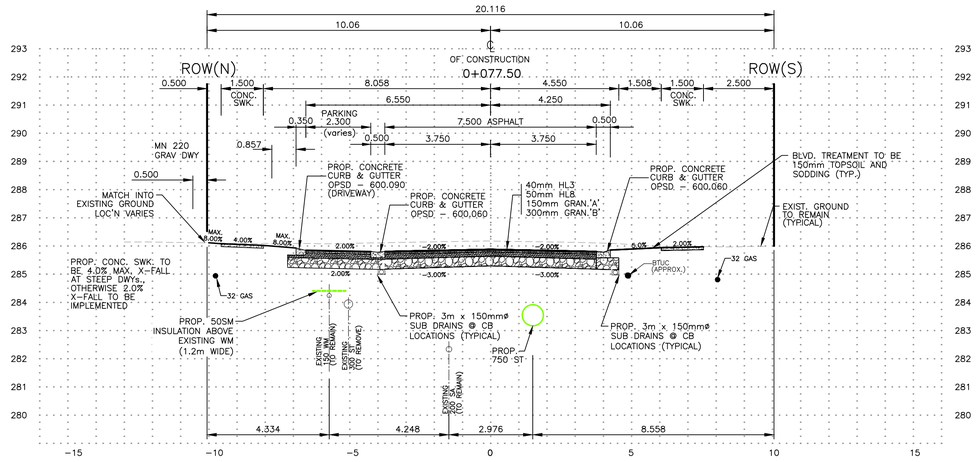
ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER C. S. LIERMAN 9/30/2024 PROVINCE OF ONTARIO

MUNICIPALITY OF Thames Centre

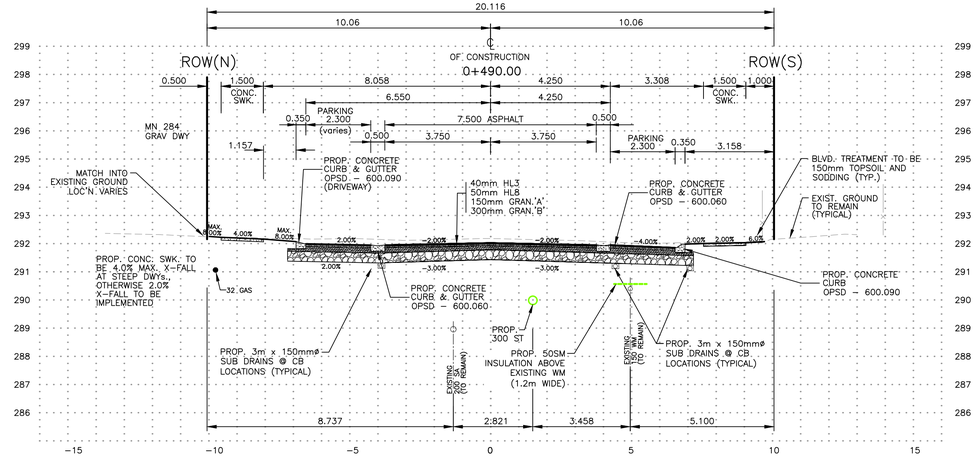
SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION
UPPER QUEEN STREET
STA. 0+355 TO STA 0+540

PROJECT No. 224054
SHEET No. 3
PLAN FILE No.



UPPER QUEEN STREET
X–SECTION STA. 0+077.5



UPPER QUEEN STREET
X–SECTION STA. 0+490

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MAY 2024

X–SECTIONS

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
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ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
PROVINCE OF ONTARIO

MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:100
VERT. 1:100
2.5m 0 5.0m
HORIZONTAL
0.5 0 1m
VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION

TYPICAL CROSS SECTIONS
UPPER QUEEN STREET

PROJECT No. 224054
SHEET No. 4
PLAN FILE No.

GENERAL NOTES:

1. UTILITIES AND SUPPORT
Prior to commencing construction on the road allowances, all existing underground and overhead utilities shall be located and marked. Any utilities damaged or disturbed during construction shall be repaired or replaced to the satisfaction of the governing body at the Contractor's expense. Any pole support shall be carried out by the appropriate authority and not the Contractor, but any costs are at the expense of the Contractor. If hydro poles need to be supported during construction, the Contractor shall make all necessary arrangements with the Hydro company. Utility locations shown on these drawings have been obtained from drawings and data believed to be correct, but cannot be guaranteed to be correct. The Contractor will be responsible for all costs associated with the excavation around and/or relocation of any underground utilities under this contract.

2. See this drawing for backfill and restoration details.

3. Grades, elevations, distances and alignment as shown on the drawings represent the theoretical centerline of the watermain and sewers for purposes of design and the preparation of as built drawings. All profiles of existing ground are approximate and are along the centerline of the travelled portion of the road allowance.

4. All existing trees, shrubs, and landscaping are to be protected in accordance with the project specifications unless otherwise stated by the Engineer or shown on the drawings.

5. MAINTENANCE OF FLOW
All existing surface and underground drainage systems are to be maintained and restored during construction to the satisfaction of the Engineer.

6. CONSTRUCTION AND DETOUR SIGNING
Minimum construction and detour signing shall be as per Book 7 of the "Ontario Traffic Manual". Drawings to be submitted to the Engineer for approval prior to commencement of the project.

7. WORK WITHIN PRIVATE PROPERTY
No work shall be carried out on private property without written permission from the owner.

8. SEWER LOCATIONS
The shown location and alignment of the existing sanitary and storm sewers is from information obtained from the Municipality of Thames Centre. The accuracy of these locations is not guaranteed.

9. WATER SERVICES
The location and alignment shown (and not shown) of existing water services, including curb stops, is not guaranteed.

10. CURB RADIUS
The internal radius at all intersections proposed for construction under this project shall be 7.5m unless other wise noted.

11. All storm sewer private drain connections (p.d.c.) are to be a minimum of 1.2 meters below original ground at property line.

12. Watermain elevations were obtained from existing drawings only. The contractor shall expose the existing watermain at all locations where it it is to be crossed by the proposed storm sewer or leads and notify the engineer of any expected conflicts.

GENERAL LIST OF MOST COMMON STANDARDS USED

THE FOLLOWING ONTARIO PROVINCIAL STANDARD DRAWINGS MAY BE USED ON THIS PROJECT

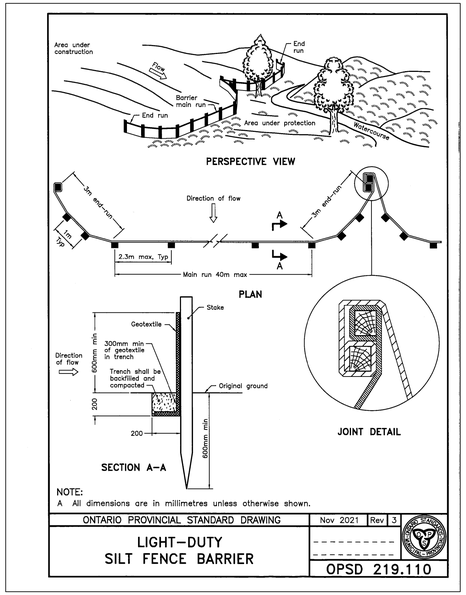
OPSD-216.021	SUBDRAIN PIPE AND OUTLET DETAILS
OPSD-219.110	LIGHT DUTY SILT FENCE BARRIER
OPSD-219.180	STRAW BALE FLOW CHECK
OPSD-301.020	RURAL ENTRANCES TO ROADS IN EARTH CUT WITH CULVERT INSTALLATION
OPSD-310.010	CONCRETE SIDEWALK
OPSD-310.020	CONCRETE SIDEWALK ADJACENT TO CURB AND GUTTER
OPSD-310.030	CONCRETE SIDEWALK RAMPS AT INTERSECTIONS
OPSD-310.050	SIDEWALK DRIVEWAY ENTRANCE DETAILS
OPSD-351.010	URBAN RESIDENTIAL ENTRANCE
OPSD-400.020	CATCH BASIN, CAST IRON, FRAME AND FLAT SQUARE GRATE
OPSD-400.080	CATCH BASIN, CAST IRON, SIDE INLET FRAME
OPSD-400.090	CAST IRON, CURB INLET OVERFLOW FOR CATCH BASINS
OPSD-401.010	MAINTENANCE HOLE, CAST IRON, COVER AND SQUARE FRAME
OPSD-405.010	MAINTENANCE HOLE STEPS
OPSD-600.040	CONCRETE BARRIER CURB WITH STANDARD GUTTER
OPSD-600.060	CONCRETE SEMI-MOUNTABLE CURB WITH STANDARD GUTTER
OPSD-600.110	CONCRETE BARRIER CURB
OPSD-605.010	45° CONCRETE OUTLET FOR CONCRETE CURB AND GUTTER
OPSD-605.030	45° CONCRETE OUTLET FOR CONCRETE CURB AND GUTTER AT END OF RUN
OPSD-608.010	METHOD OF TERMINATION FOR CONCRETE CURB AND GUTTER
OPSD-701.010	PRECAST MAINTENANCE HOLE-1200mm DIAMETER
OPSD-701.011	PRECAST MAINTENANCE HOLE-1500mm DIAMETER
OPSD-701.021	MAINTENANCE HOLE BENCHING AND PIPE OPENING DETAILS
OPSD-701.030	PRECAST MAINTENANCE HOLE 1200mm DIAMETER TAPERED TOP AND FLAT CAP
OPSD-701.050	PRECAST MAINTENANCE HOLE 1800mm DIAMETER TRANSITION SLABS
OPSD-704.010	PRECAST CONCRETE ADJUSTMENTS UNITS FOR MAINTENANCE HOLES
OPSD-705.010	PRECAST CONCRETE CATCH BASIN
OPSD-705.020	PRECAST CONCRETE TWIN INLET CATCH BASIN
OPSD-705.030	PRECAST CONCRETE DITCH INLET 600mm x 600mm
OPSD-802.010	FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION
OPSD-802.030	RIGID PIPE BEDDING, COVER AND BACKFILL TYPE 1 OR 2 SOIL-EARTH EXCAVATION
OPSD-1006.010	SEWER SERVICE CONNECTIONS
OPSD-1006.020	SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN PIPE SEWER
OPSD-1102.01	TRENCH BEDDING FOR PRESSURIZED CONDUITS UP TO 900mm DIAMETER
OPSD-1104.010	WATER SERVICE CONNECTION DETAIL-19 AND 25mm DIAMETER SIZES
OPSD-1104.020	WATER SERVICE CONNECTION DETAIL-32, 38 AND 50mm DIAMETER SIZES
OPSD-1105.010	HYDRANT INSTALLATION

SEDIMENT AND EROSION CONTROL NOTES

1. Protect all exposed surfaces and control all runoff during construction.
2. All erosion control measures to be in place before starting construction and remain in place until restoration complete.
3. Maintain erosion control measures during construction.
4. All collected sediment to be disposed of at an approved location.
5. Minimize area disturbed during construction.
6. All dewatering to be disposed of in an approved sedimentation basin.
7. Protect all catch basins, maintenance holes and pipe ends from sediment intrusion with geotextile (Terrafix 270R).
8. Keep all sumps clean during construction.
9. Prevent wind-blown dust.
10. Straw bales to be used in localized areas as shown and as directed by the engineer during construction for works which are in or adjacent to flood lines, fill lines and hazardous slopes.
11. Straw bales to be terminated by rounding bales to contain and filter runoff.
12. All silt fencing and details are at the minimum to be constructed and in accordance with the Ministry of Natural Resources guidelines on erosion and sediment control for urban construction sites.
13. All of the above notes and any sediment and erosion control measures are at the minimum to be in accordance with the Ministry of Natural Resources guidelines on erosion and sediment control for urban construction sites.

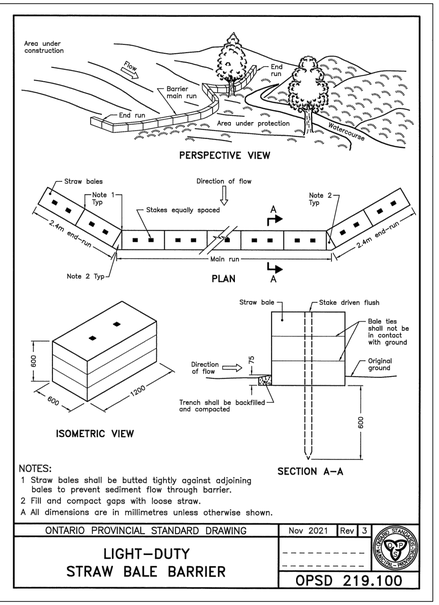
COLOUR CODING OF SERVICE CONNECTIONS

A. STORM SEWER PIPES FOR SERVICE CONNECTIONS (SERVICE LATERALS) SHALL BE COLOUR CODED WHITE TO AVOID CROSS CONNECTIONS. COLOUR CODING METHOD INCLUDES PIPE COLOUR, WRAPPING, DEMARCATION TAPE, OR STENCILING.



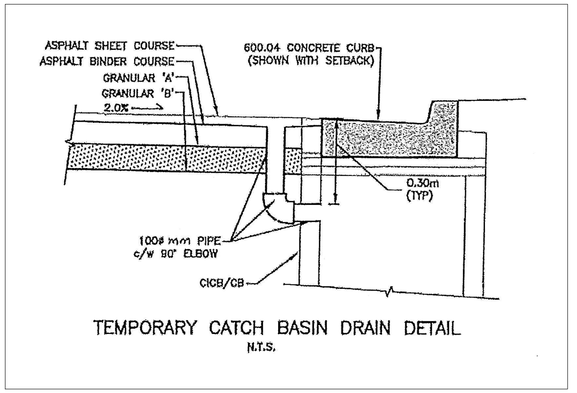
NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
LIGHT-DUTY SILT FENCE BARRIER		OPSD 219.110

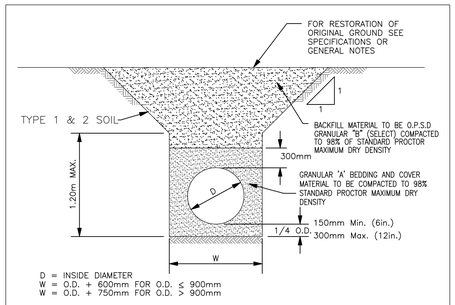


NOTES:
1 Straw bales shall be butted tightly against adjoining bales to prevent sediment flow through barrier.
2 Fill and compact gaps with loose straw.
A All dimensions are in millimetres unless otherwise shown.

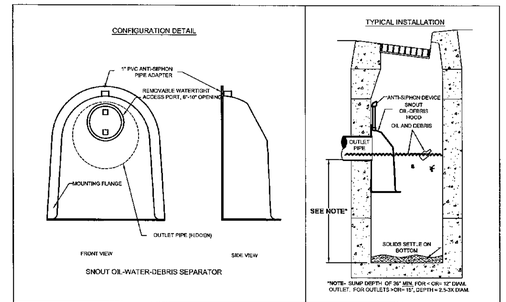
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3
LIGHT-DUTY STRAW BALE BARRIER		OPSD 219.100



TEMPORARY CATCH BASIN DRAIN DETAIL
N.T.S.



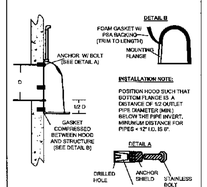
BEDDING DETAIL FOR ALL PROPOSED SEWERS AND WATERMAIN
N.T.S.



NOTES:
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHEN RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8808 OR (866) 434-0277
WEB SITE: www.bmpinc.com
OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6125817

INSTALLATION DETAIL



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL-DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/00	NONE
	DRAWING NUMBER	SP-SN

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MAR. 2024

No.	REVISIONS	DATE	CONSULTANT

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET -- LONDON (519) 672-4100 -- N6A 1A8

ENGINEER'S STAMP
PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
LICENCE PROVINCE OF ONTARIO

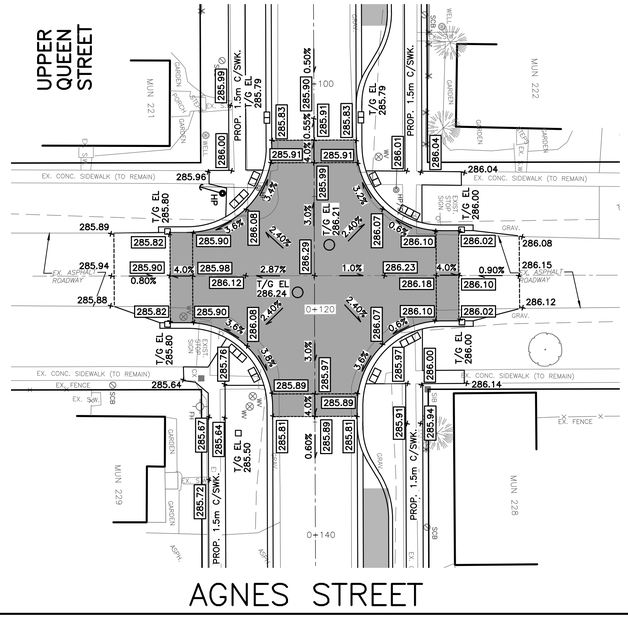
MUNICIPALITY OF Thames Centre

SCALE

TITLE
UPPER QUEEN STREET RECONSTRUCTION

MISCELLANEOUS DETAILS AND NOTES

PROJECT No. 224054
SHEET No. 5
PLAN FILE No.



EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	JA
DRAWN BY	JA
CHECKED	CSL
APPROVED	CSL
DATE	MAY 2024
	224054-00

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET -- LONDON (519) 672-4100 -- N6A 1A8

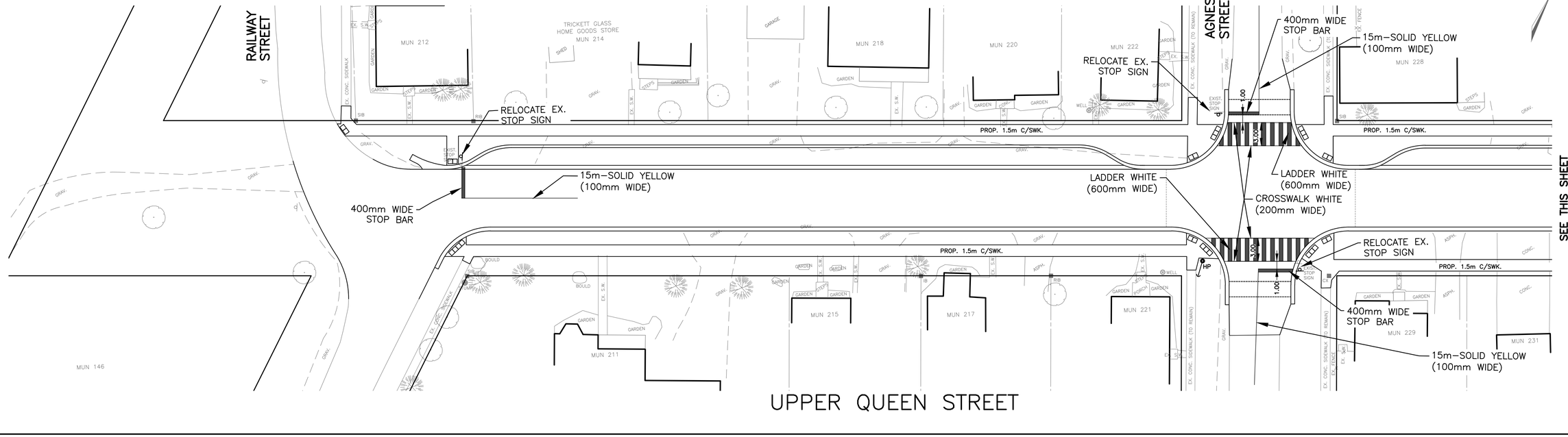
ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
PROVINCE OF ONTARIO

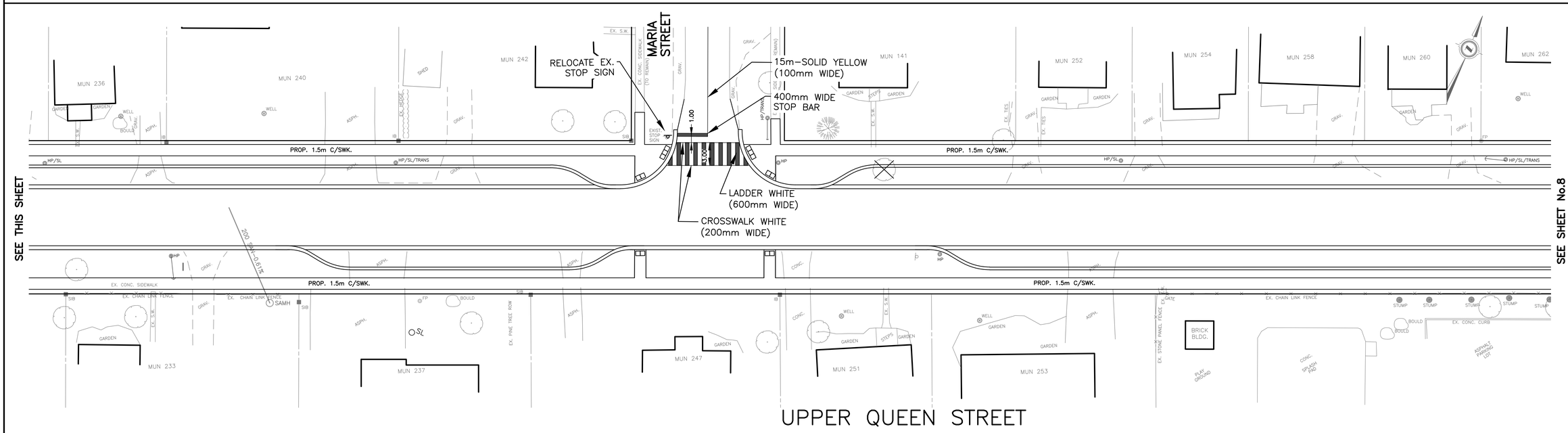
MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION
RAISED ASPHALT INTERSECTION GRADING

PROJECT No. 224054
SHEET No. 6
PLAN FILE No.





EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS	
DESIGN	CSL
DRAWN BY	PM
CHECKED	CSL
APPROVED	CSL
DATE	MARCH 2024
	224054-00

No.	REVISIONS	DATE	CONSULTANT
1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET -- LONDON (519) 672-4100 -- N6A 1A8

ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
PROVINCE OF ONTARIO

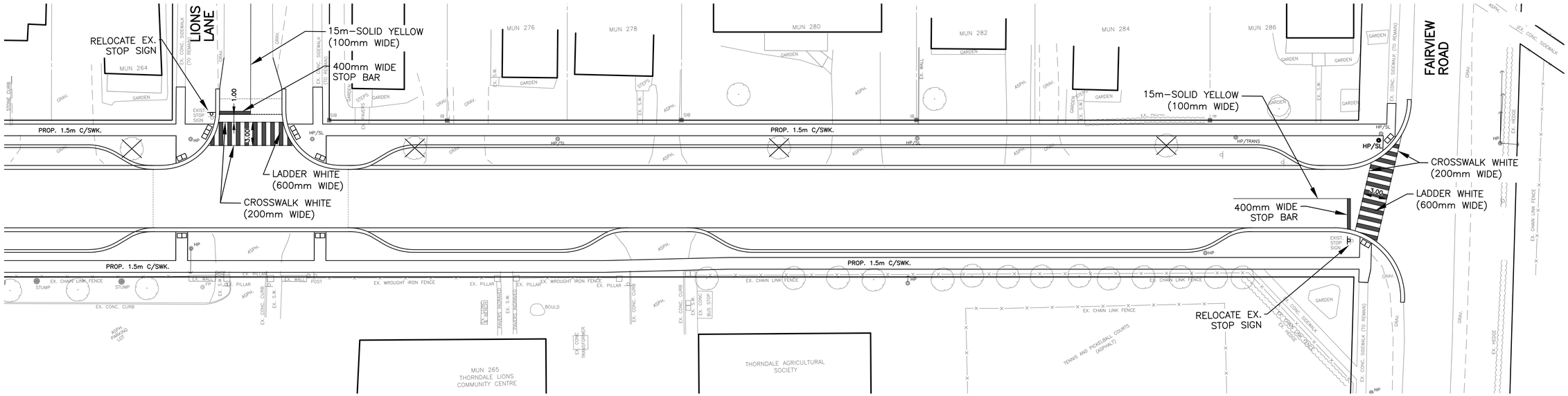
MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION

UPPER QUEEN STREET
PAVEMENT MARKINGS

PROJECT No. 224054
SHEET No. 7
PLAN FILE No.



EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT
						1.	REVISED AS PER 95% COMMENTS	AUG.2024	SPRIET
					224054–00				

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET –– LONDON (519) 672–4100 –– N6A 1A8

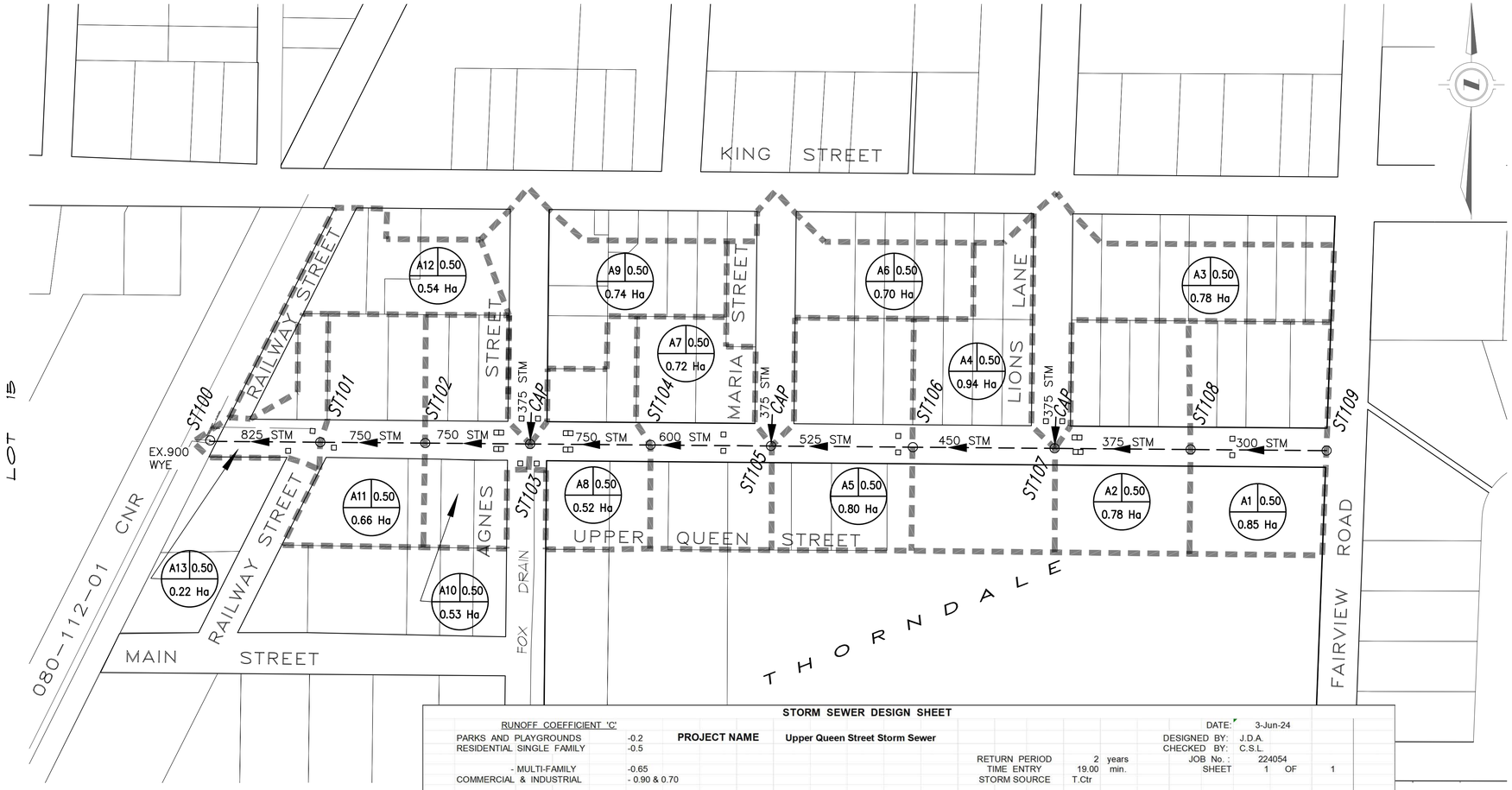
ENGINEER'S STAMP
LICENCE PROFESSIONAL ENGINEER
C. S. LIERMAN
9/30/24
PROVINCE OF ONTARIO

MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:250
VERT. 1:50
2.5m 0 5.0m HORIZONTAL
0.5 0 1m VERTICAL

TITLE
UPPER QUEEN STREET RECONSTRUCTION
UPPER QUEEN STREET
PAVEMENT MARKINGS

PROJECT No. 224054
SHEET No. 8
PLAN FILE No.



PLAN SCALE 1:2,500

LEGEND

ST101 TO ST109 — THIS CONTRACT

STORM SEWERSHED LIMIT

STORM AREA DESIGNATION — A1 0.50 — RUNOFF COEFFICIENT

0.30 Ha — AREA (ha.)

STORM SEWER DESIGN SHEET

RUNOFF COEFFICIENT 'C'

PARKS AND PLAYGROUNDS -0.2
RESIDENTIAL SINGLE FAMILY -0.5
- MULTI-FAMILY -0.65
COMMERCIAL & INDUSTRIAL - 0.90 & 0.70

PROJECT NAME Upper Queen Street Storm Sewer

RETURN PERIOD 2 years
TIME ENTRY 19.00 min.
STORM SOURCE T.Ctr

DATE: 3-Jun-24
DESIGNED BY: J.D.A.
CHECKED BY: C.S.L.
JOB No. : 224054
SHEET 1 OF 1

LOCATION				AREA (A)		TOTAL 2.78(AxC)			RAINFALL INTENSITY				SEWER DESIGN								PROFILE			
AREA No.	STREET	FROM M.H.	TO M.H.	AREA hectares	TOTAL hectares	'C'	SECT.	LAT.	SEWER	SECT. min.	ACCUM. min.	INTEN. mm/hr.	Q l/sec.	n	SIZE mm	SLOPE %	CAP. l/sec.	VEL. m/s	LEN meters	TIME min.	DROP IN M.H.	FALL IN SEWER	INVERT U.S.	ELEV. D.S.	
																									cal size
A1	UPPER QUEEN	ST109	ST108	0.85	0.85	0.50	1.18		1.18		19.000	74.60	88.1	0.013	300	3.10	170	2.41	70.0	0.484		2.170	291.360	289.190	234.926
A2	LIONS LANE	ST108	ST107	0.78	1.63	0.50	1.08		2.27	0.484	19.484	73.49	166.5	0.013	375	2.50	277	2.51	70.0	0.465	0.080	1.750	289.110	287.360	310.485
A3	UPPER QUEEN	CAP	ST107	0.78	0.78	0.50	1.08		1.08		19.000	74.60	80.9	0.013	375	0.50	124	1.12	16.0	0.238		0.080		287.000	320.264
A4	UPPER QUEEN	ST107	ST106	0.94	3.35	0.50	1.31		4.66	0.465	19.949	72.46	337.4	0.013	450	1.80	383	2.41	73.0	0.506	0.430	1.314	286.930	285.616	430.334
A5	UPPER QUEEN	ST106	ST105	0.80	4.15	0.50	1.11		5.77	0.506	20.455	71.37	411.7	0.013	525	1.60	544	2.51	73.0	0.484	0.080	1.168	285.536	284.368	474.029
A6	MARIA STREET	CAP	ST105	0.70	0.70	0.50	0.97		0.97		19.000	74.60	72.6	0.013	375	0.50	124	1.12	16.0	0.238		0.080		284.520	307.528
A7	UPPER QUEEN	ST105	ST104	0.72	5.57	0.50	1.00		7.74	0.484	20.939	70.36	544.7	0.013	600	0.80	549	1.94	62.0	0.532	0.080	0.496	284.288	283.792	599.588
A8	UPPER QUEEN	ST104	ST103	0.52	6.09	0.50	0.72		8.47	0.532	21.471	69.28	586.5	0.013	750	0.45	747	1.69	62.0	0.611	0.150	0.279	283.642	283.363	686.645
A9	AGNES STREET	CAP	ST103	0.74	0.74	0.50	1.03		1.03		19.000	74.60	76.7	0.013	375	0.50	124	1.12	16.0	0.238		0.080		283.710	314.004
A10	UPPER QUEEN	ST103	ST102	0.53	7.36	0.50	0.74		10.23	0.611	22.082	68.09	696.6	0.013	750	0.45	747	1.69	54.0	0.532	0.030	0.243	283.333	283.090	732.406
A11	UPPER QUEEN	ST102	ST101	0.66	8.02	0.50	0.92		11.15	0.532	22.615	67.09	747.9	0.013	750	0.46	755	1.71	54.0	0.527	0.030	0.248	283.060	282.812	749.085
A12-A13	UPPER QUEEN	ST101	WYE	0.76	8.78	0.50	1.06		12.20	0.527	23.141	66.13	807.0	0.013	825	0.45	963	1.80	57.0	0.527	0.080	0.257	282.732	282.475	773.955

EXISTING SERVICES	DRAWING #, SOURCE	DATE	AS CONSTRUCTED SERVICES	COMPLETION

DETAILS
DESIGN JA
DRAWN BY JA
CHECKED CSL
APPROVED CSL
DATE APR.2024

STM DSGN_AREAS

No.	REVISIONS	DATE	CONSULTANT

CONSULTANT OR DIVISION

SPRIET ASSOCIATES
LONDON LIMITED
CONSULTING ENGINEERS
155 YORK STREET — LONDON (519) 672-4100 — N6A 1A8

ENGINEER'S STAMP
PROFESSIONAL ENGINEER — LICENCE — C. S. LIERMAN — 9/30/24 — PROVINCE OF ONTARIO

MUNICIPALITY OF Thames Centre

SCALE
HORZ. 1:2500
VERT. N.T.S.
25.0m 0 50.0m
HORIZONTAL
0
VERTICAL

TITLE
UPPER QUEEN STREET
STORM SEWER
DRAINAGE AREA PLAN
& DESIGN SHEET

PROJECT No. 224054
SHEET No. A1
PLAN FILE No.