GENERAL NOTES

1. SEDIMENT CONTROL MEASURE

a. Protect all exposed surfaces and control all runoff during construction.

b. Protect all catch basins, maintenance holes and pipe ends from sediment intrusion with geotextile (Terrafix 270r)

c. Prevent wind–blown dust.

d. Keep all sumps clean during construction.

e. 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.

f. The Contractor shall construct temporary measures to control silt entering the storm drainage system to the specifications outlined in the guidelines on erosion and sediment control for urban construction sites prepared by the Ontario Ministry of Natural Resources. These measures are to be installed prior to commencing any construction for this project, and are to remain in place until construction has been completed to the satisfaction of the city engineer.

g. All work shall meet the minimum standards and specifications of the City of Ottawa.

h. The Contractor is responsible for cleanup of mudtracking on a daily basis or on a more frequent basis if directed by the City or the Consultant. Any tracking of deleterious materials along adjacent roads shall be mitigated immediately.

2. GENERAL

a. Topographic survey completed by Stantec on June 12, 2025. Contractor to verify in the field prior to construction of any work and notify the engineer of any discrepancies.

b. All services shall be installed and tested to the current Ontario Building Code, City of Ottawa Standards (City Std.), Ontario Provincial Standard Drawings (OPSD), and Ontario Provincial Standard Standard Specifications (OPSS), Costco Wholesale Development Requirements dated October 26, 2018 unless otherwise specified and to the satisfaction of the City of Ottawa, the Engineer, and the Geotechnical Consultant.

c. The position of existing pole lines, conduits, watermains, sewers and other underground and aboveground utilities, structures and appurtenances is not necessarily shown on the contract drawing, and where shown, the accuracy of the position of such utilities and structures is not guaranteed. Prior to construction, the Contractor shall satisfy himself of the exact location of all such utilities and structures, shall adequately support them, and shall assume all liability for damage to them during the course of construction. Any relocation of existing utilities required by the development of subject lands is to be undertaken at the Contractor's expense.

d. The Contractor must notify all existing utility company officials five (5) business days prior to start of construction and have all existing utilities and services located in the field or exposed prior to the start of construction, including but not limited to Hydro, Bell, Cable TV and Gas lines.

e. All trenching to be in accordance with the latest revisions of the Occupational Health and Safety Act and Regulations for Construction Projects. Refer to geotechnical report for excavation recommendations.

f. All trenches shall be backfilled in accordance with the Geotechnical Investigation Report revision date March 2026, reference number 121626297, by Stante.

g. All disturbed areas outside proposed grading limits to be restored to original elevations and conditions unless otherwise specified. All restoration shall be completed with the geotechnical requirements for backfill, compaction and approved engineering drawings. Sodded areas to be restored with No.1 Nursery sod and 150mm of topsoil.

h. The Contractor shall limit construction activity only to within the limits of construction shown.

i. All dimensions and elevations in metres, pipe sizes in millimetres.

j. Contractor shall satisfy himself of all geotechnical information and recommendations. From Stantec's Geotechnical Investigation Report. Groundwater level seems to be expected below excavation depth. Conventional construction dewatering techniques should be taken during construction to minimize disturbance to soils.

k. Alternative materials may be acceptable, provided approval has first been obtained from the City/City Engineer.

l. No blasting is permitted.

m. Contractor to expose and verify location, elevation, and size of existing pipes. Contractor to verify location, elevation, and size of all proposed building services to be constructed by others. If there are any discrepancies contractor is to notify the Engineer 48 hours prior to construction.

n. Maintain traffic on municipal roads at all times. All existing services are to remain in service at all times during construction (unless otherwise noted).

o. At least 48 hours prior to commencing construction for services within a municipal right–of–way and/or municipal easements the contractor is to obtain a permit of approved work from the City.

p. Contractor shall coordinate with the landscape contractor for planting bed locations and corresponding subgrade elevations.

q. All dimensions shall be checked and verified in the field by the contractor prior to the start of construction. Any discrepancies shall be reported immediately to the engineer. Lost time due to failure of the contractor to confirm utility locations and notify engineer of possible conflicts prior to construction will be at the contractors expense.

r. All construction signage must conform to the Ministry of Transportation of Ontario Manual of Uniform Traffic Control Devices per latest amendment.

s. The contractor is advised that works by others may be ongoing during the period of this contract. The contractor shall coordinate construction activities to prevent conflicts.

t. All construction shall be carried out in accordance with the recommendations of Stantec's Geotechnical Investigation Report.

u. All sewers constructed with grades less than 1.0% shall be installed using laser alignment and checked with level instrument prior to backfilling.

v. The contractor is responsible for obtaining all permits required and to bear the cost of the same.

w. Should deeply buried archaeological remains be found on the property during construction activities, the Heritage Operations Unit of the Ontario Ministry of Culture must be notified immediately.

x. Drawings shall be read in conjunction with the architectural site plan.

y. The contractor shall provide the Project Engineer one set of as constructed site servicing drawings and topographic survey.

z. Benchmarks: It is the responsibility of the contractor to verify that the site benchmark(s) has not been altered or disturbed and that its relative elevation and description agrees with the information depicted on this plan.

aa. Do not grade in the CRZ of protected trees.

3. PAVEMENT AND SURFACE WORKS

a. Native subgrade shall have a crossfall of 2% and the material shall be approved by the Geotechnical Consultant.

b. The pavement sub–grade must be proof rolled under the supervision of the Geotechnical Consultant prior to Granular 'B' placement to confirm the design subbase is sufficient. Unstable areas may require sub–excavation, re–compaction, and replacement with additional Granular 'B' sub–base.

c. The suitability and compaction of all existing and fill materials shall be confirmed by a geotechnical consultant prior to placement of road base.

d. Pavement structure Stantec's Geotechnical Investigatioin Report.

Standard duty use within Costco Property

40 mm Surface Course Asphalt PG 58–28
55 mm Base Course Asphalt PG 58–28
150 mm Granular 'A' base (OPSS 1010)
400 mm Granular 'B' sub–base (OPSS 1010)

Heavy duty use within Costco Property

40 mm Surface Course Asphalt PG 64–28
75 mm Base Course Asphalt PG 64–28
150 mm Granular 'A' Base (OPSS 1010)
550 mm Granular 'B' sub–base(OPSS 1010)

e. All engineered fill shall be OPSS 1010 Granular 'A' or Granular 'B' and shall pass the 75mm sieve as outlined in Stantec's Geotechnical Investigation Report.

f. All disturbed pavement on adjacent roads shall be restored to existing depths and types of materials or better upon completion of pavement works.

g. Concrete curb within Costco Property shall be Concrete Barrier Curb to match existing site condition as per Detail 18 on this drawing. Concrete to be 30 MPa.

h. If road construction does not immediately follow the trench backfilling, the subgrade should be properly crowned and smooth–rolled to allow interim precipitation to be properly drained.

i. Pavement markings to be applied after base asphalt if top asphalt are not scheduled to follow and base asphalt pavement surfaces are to be used by the public. After top asphalt, pavement markings with double coat.

j. Step joints are to be used where proposed asphalt meets existing asphalt. All joints must be sealed.

4. COMPACTION REQUIREMENTS

a. Engineered fill to be compacted to not less than 95% MPMDD under the full time supervision of the geotechnical engineer.

b. Prior to constructing the pavements, all service trenches must be compacted to at least 95% Modified Proctor Maximum Dry Density (MPMDD).

c. The subgrade should be properly shaped and crowned. Proof–rolling per Geotechnical engineer's recommendation. Soft or spongy subgrade areas should be sub–excavated and properly replaced with suitable approved backfill compacted to 95% MPMDD as directed by the consultant.

d. The granular base and sub–base material shall be compacted to 100%.

e. The asphalt concrete must be compacted per project specification.

5. STORM SEWERS AND MANHOLES

a. All storm sewers and appurtenances shall conform to the current City Standards, and specifications and Ministry of Environment, Conservation and Parks (MECP) Guidelines.

b. Concrete sewers shall conform to CSA–A257.2, class 50–D with rubber gaskets per CSA–A257.3. PVC pipes are an acceptable alternative up to and including 450 mm dia. Pipe to be SDR–35 and conform to CSA–B182.2 (stiffness 320kPa or greater).

c. All sewer bedding and cover material to be installed in accordance with City of Ottawa standard S6, and S7 Class 'B' and to be compacted Granular 'A' or other material approved by City and Geotechnical Consultant. At crossings, Contractor to adequately support pipe with granular bedding or concrete as required. Refer to Section 2. General Notes, Item j) for additional information.

d. Where storm sewer is in common trench with sanitary sewer, common trench spacing to be 0.80 m barrel–to–barrel.

e. All storm sewers to have 2.0m cover (minimum) as per City of Ottawa Sewer Design Guidelines. If minimum cover cannot be provided, sewer insulation shall be installed per City of Ottawa standard S35. Granular 'A' as per OPSS 1010 shall be used as bedding material.

f. Where trench widths are over–excavated, Contractor to increase structural capacity of sewer bedding as directed by the Consultant in accordance with the requirements of the Geotechnical Consultant.

g. Where trench backfill consists of suitable excavated native material (within optimum moisture content per Geotechnical report), the backfill is to be compacted to a minimum of 95% MPMDD. Backfill within City ROW per City of Ottawa Standards.

h. All structures within roadways shall have 10:1 frost tapers from frost line to subgrade.

i. Approved native material or granular backfill as specified by the Geotechnical consultant shall be installed on all pipes per City of Ottawa standard S6 and S7.

j. Precast manholes, catchbasins, and fittings shall conform to CSA–A257.4–M.

k. Storm manholes per OPSD 701.010 (1200 mm diameter), 701.011 (1500 mm diameter), 701.012 (1800 mm diameter), and 701.013 (2400 mm diameter), and 701.014 (3000mm diameter). Manhole components in accordance with OPSD 701.030, 701.040, 701.050, 701.060 and 701.070. Frame and cover per City of Ottawa Standard S25 and S24.1 for maintenance holes, and S28.1 for catch basin maintenance holes. Adjustment sections shall be per OPSD 704.010. First joint concrete encased if concrete, or flexible joint if PVC used.

l. Benching per OPSD 701.021. For storm sewers 900mm dia. and over, benching per City guideline section 6.2.6

m. If top course asphalt not placed immediately after base course asphalt top of manhole cover and top of catchbasin cover to be set to base course asphalt grade and then adjusted to final grade with Moduloc rings when top lift of asphalt is placed. Parge adjustment units on the outside only.

n. All connections to new storm sewers up to 375 mm in diameter shall be made with approved pre–manufactured wyes as per OPSD 1006.020. Connections to larger size sewers shall be made with approved factory made wyes or approved saddles, as per OPSD 1006.010.

o. Where storm sewers are to be pressure tested, they shall be in accordance with the Ontario Building Code (OBC) 7.3.7., with results to be provided to the consultant and/or City as directed.

p. Provide CCTV camera inspection of sewers after completion of work and flushing of lines.

6. CATCHBASINS

a. Single catchbasins per OPSD 705.010, frame and grate per City of Ottawa Standard S19. Double catchbasins per OPSD 705.020. All catchbasins to be fitted with four – 6.0m lengths of 100mm subdrain as shown on drawing. Subdrains with Filter Fabric sock on granular B Type II bedding. (see Costco subdrain Detail 'A' or drawing SD1). Catchbasin connections to be 200mm dia. PVC pipe CSA B182.2, SDR–35 unless otherwise noted.

b. Catchbasin connection to main line sewer in accordance with OPSD 708.030 and OPSD 708.010. First joint concrete encased if concrete, or flexible joint if PVC used.

c. Openings to subdrains and catchbasins should be shielded with a fabric filter to prevent silting.

d. Single catchbasin manholes to be 1200ø P.C. manhole with catchbasin frame and grate. Double catchbasin manholes to be 1500ø P.C. manhole. Catchbasins to have 0.6 m sumps.

7. WATERMAINS

a. All watermain installation shall conform to the latest revisions of the City of Ottawa and the Ontario Provincial Standard Drawings (OPSD), Specifications (OPSS) and Costco Wholesale Development Requirements dated October 26,2018.

b. All PVC watermains shall be AWWA C–900 Class 150, SDR 18 or approved equivalent.

c. Watermain trench and bedding shall be in accordance with the City of Ottawa standard W17. unless specified otherwise. bedding and cover material shall be specified by the project geotechnical engineer.

d. All PVC watermains shall be installed with a 10 gauge standard copper TWU or RWU tracer wire in accordance with City of Ottawa standard W36.

e. Cathodic protection is require on all metallic fittings per City of Ottawa standard W40 and W42.

f. Valve boxes shall be installed per City of Ottawa standard W24.

g. Watermain in fill areas to be installed with restrained joints per City of Ottawa standard W25.5 and W25.6.

h. Thrust blocking of watermains to be installed per City of Ottawa standard W25.3 and W25.4.

i. The contractor shall supply testing water if necessary, provide all temporary caps, plugs, blow–offs, and nozzles required for testing and disinfecting of the watermain.

j. Watermain crossing over and below sewers shall be in accordance with the City of Ottawa standard W25.2 and W25, respectively.

k. Water services to be insulated per City of Ottawa standard W23 where separation between services and maintenance holes are less than 2.4m.

l. The minimum vertical clearance between watermain and sewer / utility is 0.50m per MOE guidelines. For watermain crossing under sewers refer to City of Ottawa Standard W25, and W25.2 for crossing over sewer.

m. All watermain shall have a minimum cover of 2.4m, otherwise thermal insulation is required as per City of Ottawa standard W22.

n. General water plant utility clearance as per City of Ottawa standard R20.

o. Fire hydrant installation as per City of Ottawa standard W19, all bottom of hydrant flange elevations to installed 0.10m above proposed finished grade at hydrant; fire hydrant location as per City of Ottawa standard W18.

p. All watermain shall be hydrostatically tested in accordance with the City of Ottawa and Ontario guidelines unless otherwise directed. Provisions for flushing water line prior to testing, etc. must be provided.

q. All watermains shall be bacteriologically tested in accordance with the City of Ottawa and Ontario guidelines. all chlorinated water to be discharged and pretreated to acceptable levels prior to discharge. All discharged water must be controlled and treated so an not to adversely effect the environment. It is the responsibility of the contractor to ensure that all municipal and/or provincial requirements are met.

r. All watermains shall be terminated with a plug and 50mm blow off unless otherwise noted.

s. Contractor to submit watermain commissioning plan to consultant for review prior to any watermain works.

8. SILTATION AND EROSION CONTROL

a. Siltation control barriers shall be placed as detailed.

b. All siltation control measures shall be cleaned and maintained weekly (as minimum) and after each rainfall as directed and to the satisfaction of the City of Ottawa.

c. Additional silt control locations may be required as determined by the City of Ottawa.

d. If building activity does not commence within 45 days after construction is completed, arrangements shall be made to seed any stripped areas and topsoil stockpiles that are not covered by vegetation and maintain them until ground cover is established.

e. Sedimentation control measures shall be kept in place until satisfactory ground cover has been established and all building activity has been completed.

9. REINSTATEMENT

a. All surface features not designated as to be removed including but not limited to curbs, landscaping, pavement, pavement marking and sidewalks but are disturbed, damaged or removed during the contractor's activities shall be reinstated to its original conditions at no extra cost.

b. All existing features to remain, i.e. manhole lids, catchbasins, valve chamber lids, valve boxes, etc. shall be adjusted to suit the finished elevations as required.

c. Pavement reinstatement for service and utility cuts shall be in accordance with the City of Ottawa Std. R10, Costco Wholesale Development Requirements (October 26, 2018), OPSD 509.010 and OPSS 310.

10. PERMITS AND APPROVALS

The following approvals are required prior to commencing construction.
Owner has applied for the following permits/approvals:
Site Plan
Site Plan Approval (or Clearance Letter from City)

Underground Service
Above noted approvals
Building Permit

Contractor shall be responsible for securing all other necessary permits.

The Contractor shall not commence work in any area requiring a permit until the Contractor possesses a copy of a permit, together with any and all conditions, drawings and sketches attached to the permit.

The Contractor shall keep a copy of all permits and attachments on site at all times and shall produce them on demand by the Municipality, Consultant, Owner or approving authority.

8. BENCHMARK

HORIZONTAL DATUM NOTE
PROJECTION: MODIFIED TRANSVERSE MERCATOR (MTM, ZONE 9, CM76°30'W)
DATUM: NAD 83 (ORIGINAL)

VERTICAL DATUM NOTE
ELEVATION ARE REFERRED TO THE CANADIAN GEODETIC VERTICAL DATUM (CGVD–1928: 1978) AND ARE DERVIED FROM BENCHMARK MONUMENT No.001196530389, HAVING A PUBLISHED ELEVATION OF 67.097 METERS.

LIST OF DRAWINGS

For civil site preparation, grading, and servicing refer to the following. These drawings are to be used in conjunction with each other and the contract specifications

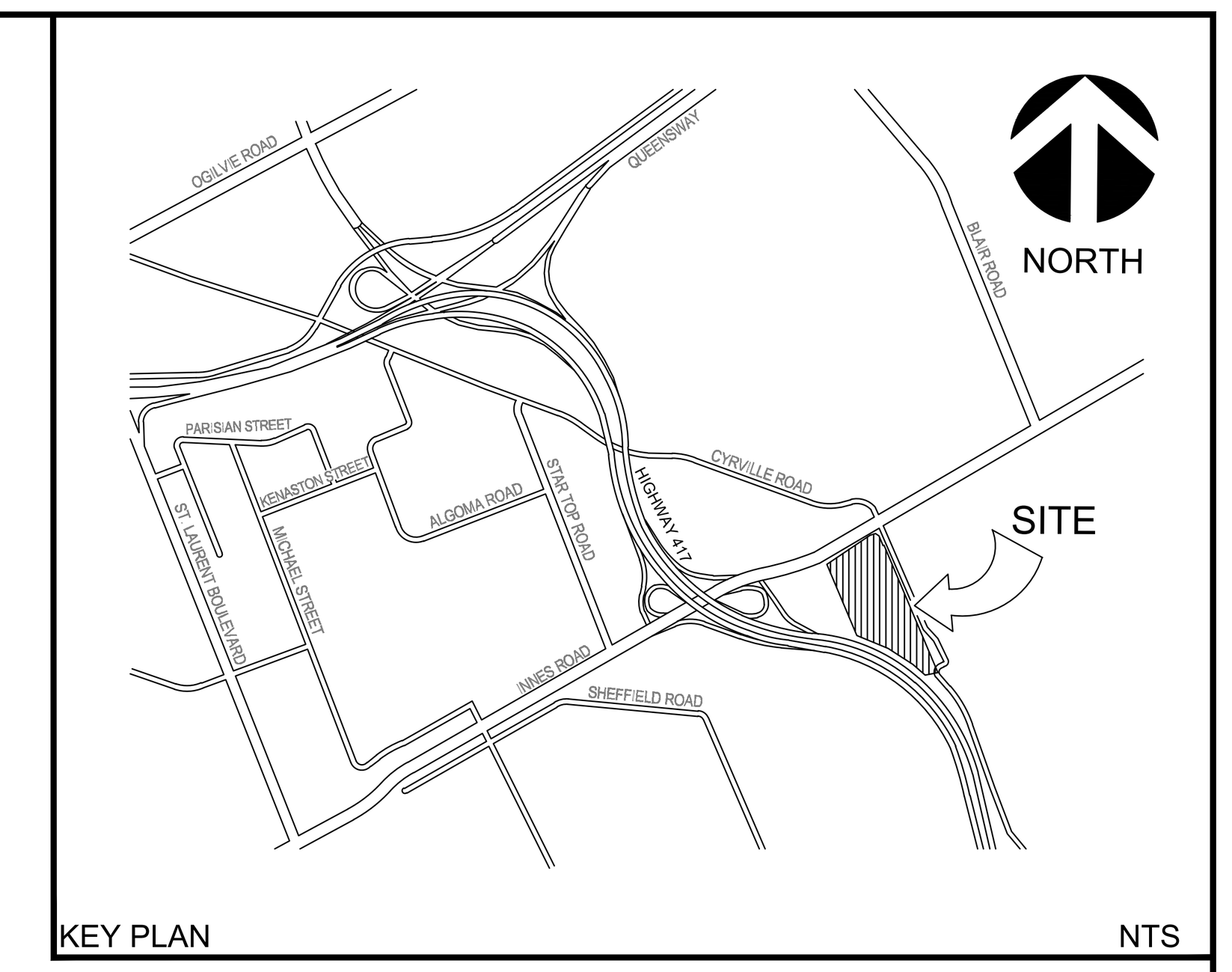
SP–19	Site Plan
NT1	Notes
SD1	Details
ES1	Erosion Control Plan
RM1	Site Removal Plan
SG1	Site Grading Plan
SS1	Site Servicing Plan
ST1	Drainage Area Plan

STORM STRUCTURE TABLE

STRUCTURE	TOP OF GRATE ELEVATION	STRUCTURE INFO							OUTLET	
		INLET	INLET	INLET	OUTLET	SIZE	DETAIL	COVER	DIAMETER	TYPE
CB2	66.30				64.850	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB3	66.24				64.790	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB5	66.23				64.780	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB6	66.34				64.890	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB8	66.15				64.700	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB10	66.41				64.360	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CB11	66.25				64.800	600X600mm	OPSD 705.010	S19.1	250	PVC SDR-35
CBMH4	66.21			63.860	63.830	1200mm DIA.	OPSD 701.010	S28.1	375	PVC SDR-35
STM MH1	66.33		64.630	±64.59	64.160	1200mm DIA.	OPSD 701.010	S24.1	375	PVC SDR-35
STM MH2	66.33			63.450	63.400	1200mm DIA.	OPSD 701.010	S24.1	375	PVC SDR-35
STM MH3	66.42	64.690	64.200	64.030	63.590	1200mm DIA.	OPSD 701.010	S24.1	300	PVC SDR-35
STM MH4	66.37		64.200	63.480	63.420	1200mm DIA.	OPSD 701.010	S24.1	300	PVC SDR-35
STM MH5	66.40		63.350	63.280	63.240	1200mm DIA.	OPSD 701.010	S24.1	375	PVC SDR-35
STM MH6	66.47		63.080	63.070	63.040	EF04	EF041	EF04	450	PVC SDR-35
STM OWS	66.43			63.710	63.410	HSD-22	HSD-22	HSD-22	250	PVC SDR-18

WATERMAIN SCHEDULE

STATION	DESCRIPTION	FINISHED GRADE	TOP OF WATERMAIN	COVER
150mm WATERMAIN SERVICE FROM EX.W/M TO FIRE HYDRANT				
0+000.00	Connect to EX.200mm W/M with Tee	66.29	63.890	2.40
0+021.52	Crossing with EX.375mm PVC STM	66.35	63.950	2.40
0+053.75	Crossing with 375mm PVC STM	66.29	64.080	**2.21**
0+060.87	Crossing with EX.200mm SAN	66.48	64.080	2.40
0+070.25	150mm VB	66.35	63.950	2.40
0+073.07	Connect to Fire Hydrant	66.42	64.020	2.40



KEY PLAN NTS

EXISTING LEGEND

SYMBOL		DESCRIPTION
■	DENOTES	FOUND MONUMENTS
□	"	SET MONUMENTS
IB	"	IRON BAR
IBø	"	ROUND IRON BAR
SIB	"	STANDARD IRON BAR
SSIB	"	SHORT STANDARD IRON BAR
CC	"	CUT CROSS
CP	"	CONCRETE PIN
WIT	"	WITNESS
PIN	"	PROPERTY IDENTIFICATION NUMBER
M/MEAS	"	MEASURED
PROP	"	PROPORTIONED
OU	"	ORIGIN UNKNOWN
SG	"	STANTEC GEOMATICS LTD.
PL	"	PLAN 5R-14540
PL1	"	PLAN 4R-28038
PL2	"	PLAN 5R-8624
PL3	"	PLAN 5R-9014
ACU	"	AIR CONDITIONING UNIT
AN	"	ANCHOR
AP	"	AIR PUMP
ANT	"	ANTENNA
BH	"	BOREHOLE
BOL	"	BOLLARD
CB	"	CATCH BASIN
CBMH	"	CB MANHOLE
FP	"	FLAG POLE
FL	"	FLOOD LIGHT
GC	"	GARBAGE CAN
GP	"	POLE GUYWIRE
GSR	"	GAS SERVICE REGULATOR
GV	"	GAS VALVE
HLS	"	HYDRO LIGHT STANDARD
HM	"	HYDRO METER
HTN	"	HYDRO TRANSFORMER
HW	"	HAND WELL
HYD	"	FIRE HYDRANT
JBX	"	JUNCTION BOX
LS	"	LIGHT STANDARD
MP	"	MONITORING PIN
MH	"	MAINTENANCE HOLE UNIDENTIFIED
MHB	"	MAINTENANCE HOLE BELL
MHF	"	MAINTENANCE HOLE FIBRE OPTIC
MHH	"	MAINTENANCE HOLE HYDRO
MHSAN	"	MAINTENANCE HOLE SANITARY
MHSTM	"	MAINTENANCE HOLE STORM
MHT	"	MAINTENANCE HOLE TRAFFIC
MW	"	MONITORING WELL
OLS	"	LIGHT STANDARD ORNAMENTAL
PLBX	"	PULL BOX
PLR	"	PILLAR
SN	"	SIGN
TB BELL	"	TERMINAL BOX - BELL
TB CATV	"	TERMINAL BOX - CABLE
TCB	"	TRAFFIC CONTROL BOX
TPIT	"	TEST PIT
TSL	"	TRAFFIC SIGNAL LIGHT
UMB	"	MARKER BELL UNDERGROUND
UMC	"	MARKER CABLE UNDERGROUND
UMG	"	MARKER GAS UNDERGROUND
UMO	"	MARKER OIL UNDERGROUND
UP	"	UTILITY POLE
VB	"	VALVE BOX
VC	"	VALVE CHAMBER
WV	"	WATER VALVE
	"	TREE STUMP
	"	TREE CONIFEROUS (D.B.H. SHOWN)
	"	TREE DECIDUOUS (D.B.H. SHOWN)
T	"	UNDERGROUND TELEPHONE
P	"	UNDERGROUND HYDRO
WTM	"	WATERMAIN
G	"	GASMAIN
STM	"	STORM SEWER
FOTS	"	UNDERGROUND FIBRE OPTIC
OHW	"	OVERHEAD WIRE
SAN	"	SANITARY SEWER
CATV	"	UNDERGROUND CABLE
P	"	UNDERGROUND HYDRO
T	"	UNDERGROUND TELEPHONE

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
11.	REVISED PER CITY COMMENTS	SM	2026-06-04	IJ
10.	POST-BID ADD 02	SM	2026-04-30	IJ
9.	POST-BID ADD 01	SM	03-31-2026	IJ
8.	REVISED PER CITY COMMENTS	SM	03-20-2026	IJ
7.	ISSUED FOR SITE PLAN APPROVAL	SM	11-27-2025	IJ
6.	ISSUED FOR BID	SM	05-16-2025	IJ
5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
NOTES

WSP

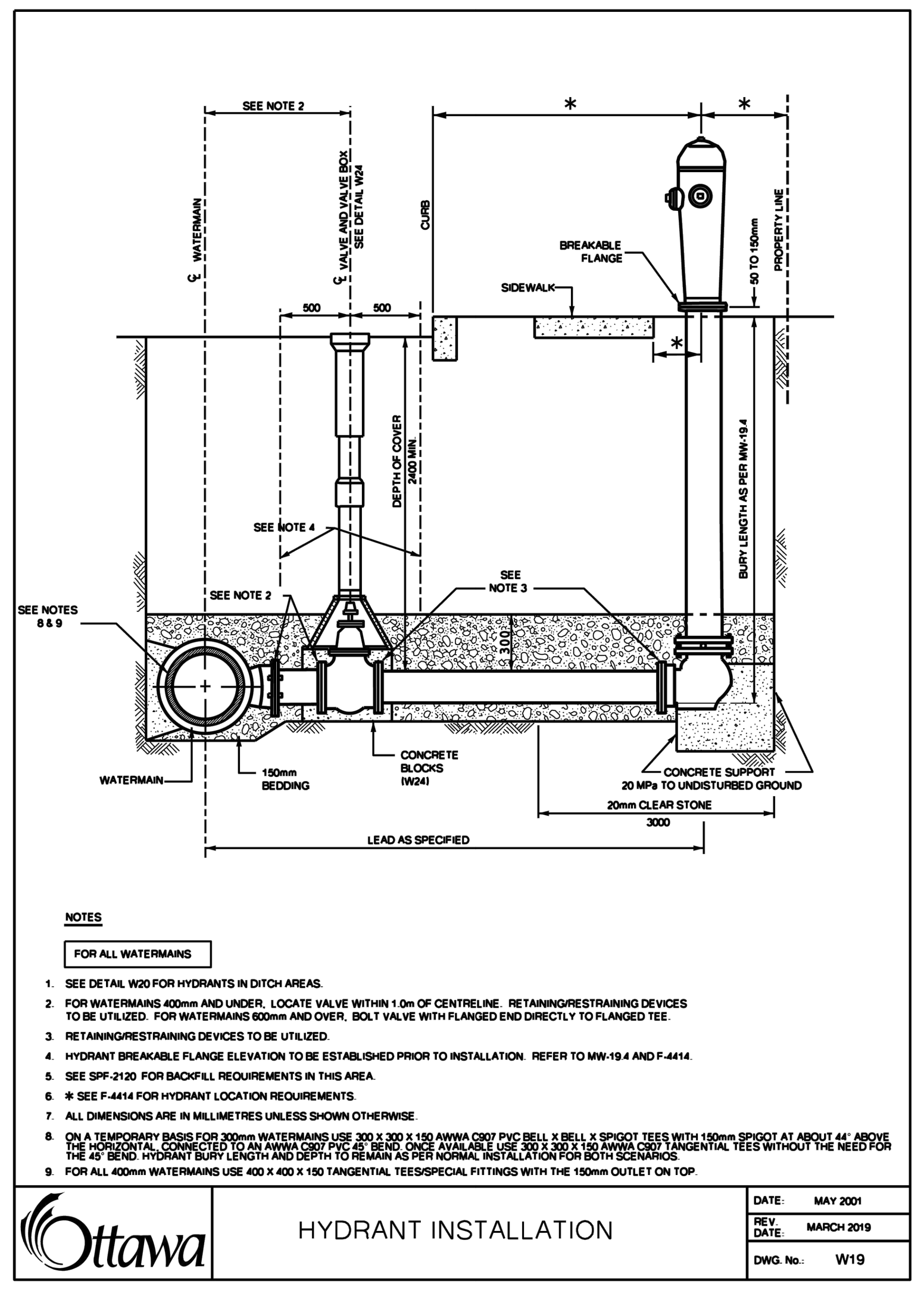
REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
2026-06-04
PROVINCE OF ONTARIO

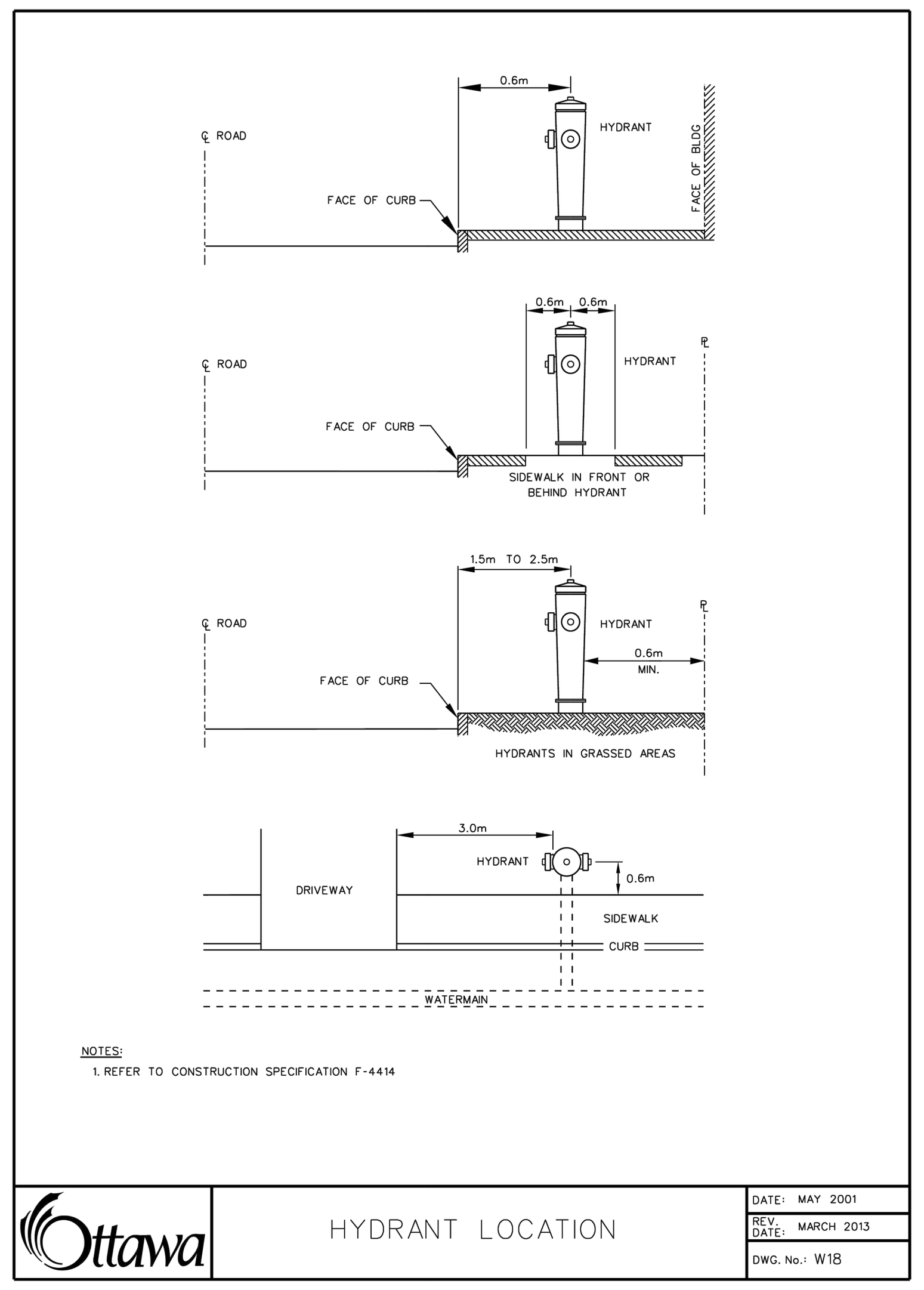
DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

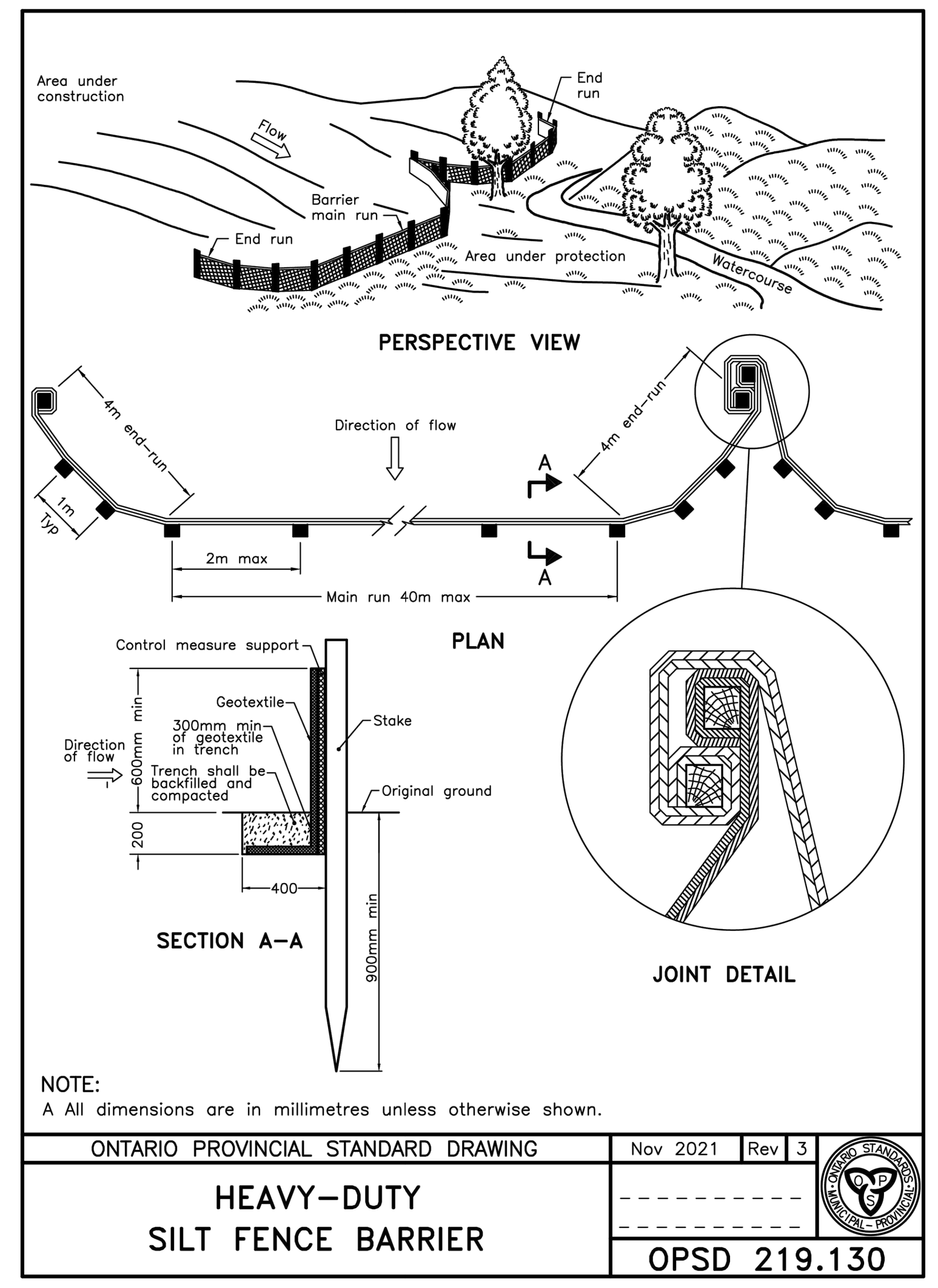
SCALE	DATE
1:250	JUNE 2026

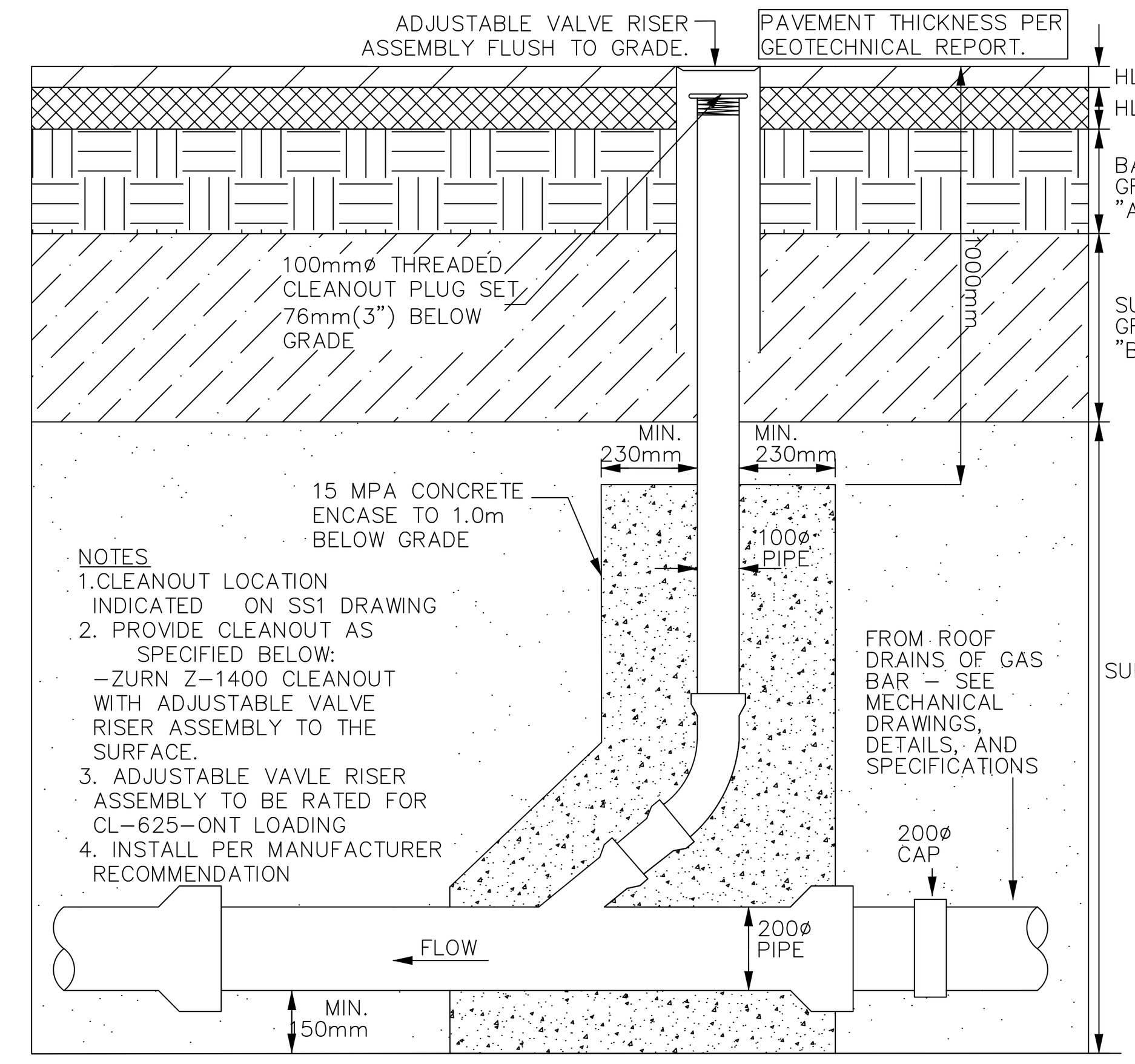
PROJECT NUMBER	DWG. NUMBER
211-12161	NT1

#19467

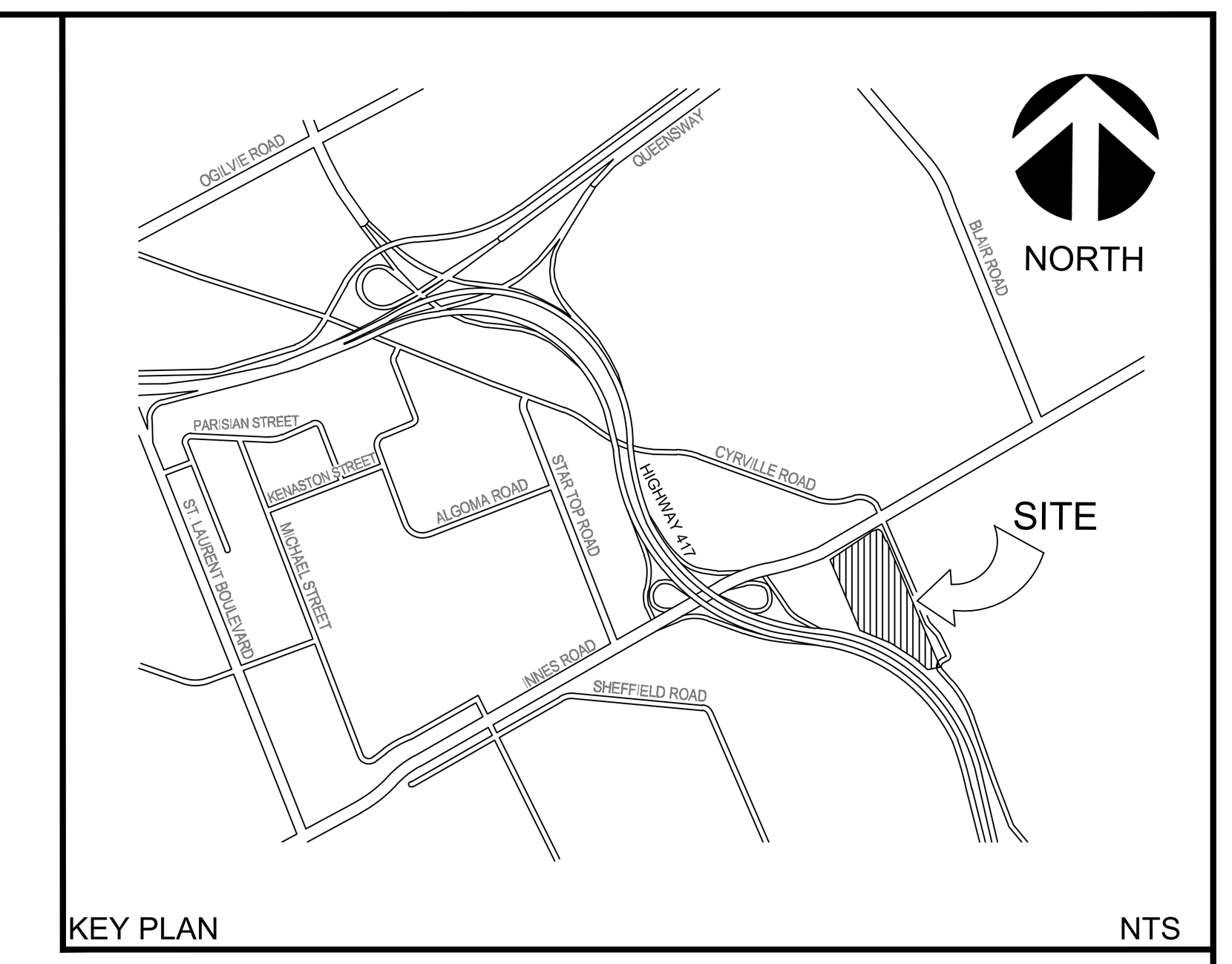


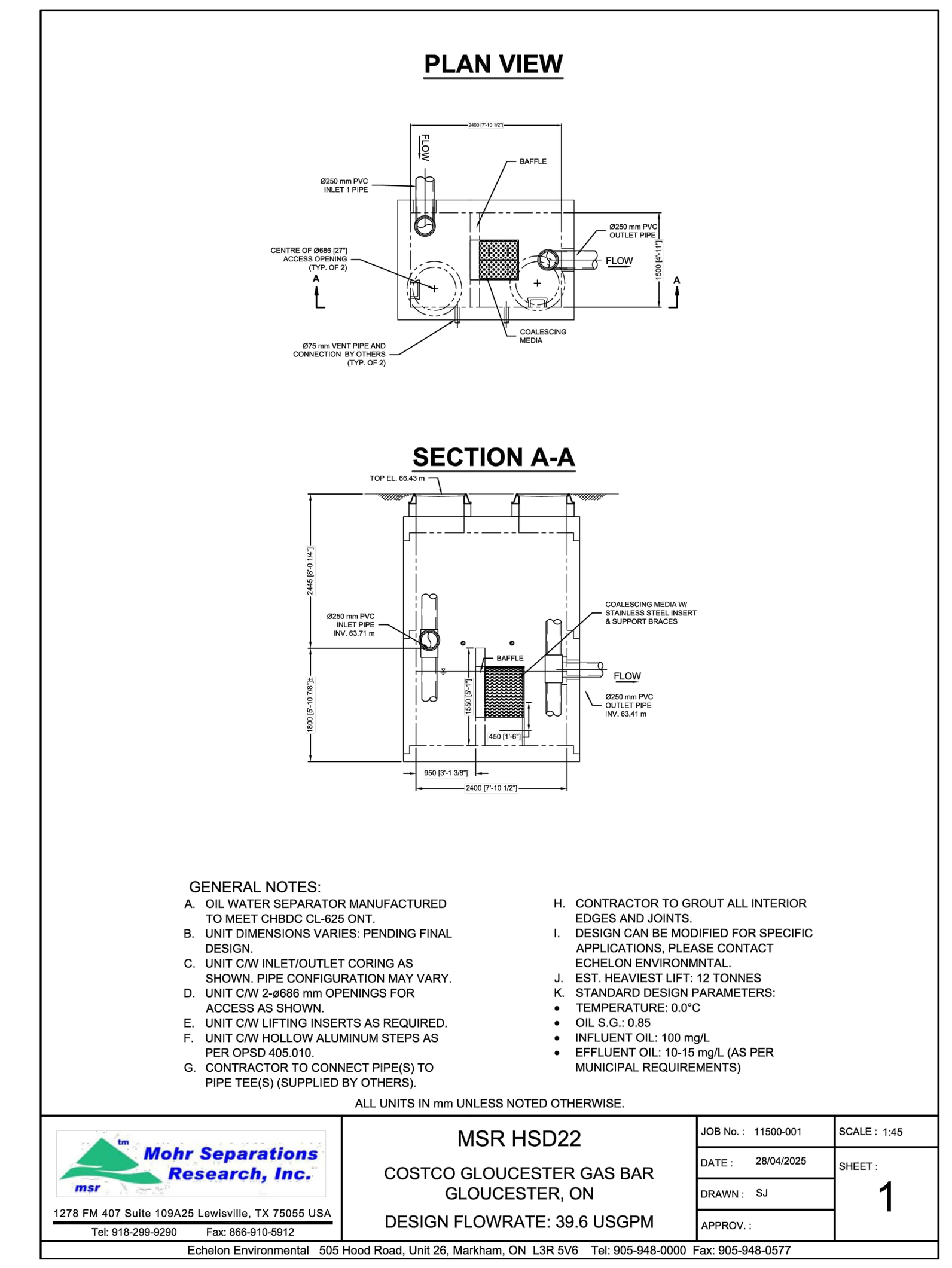


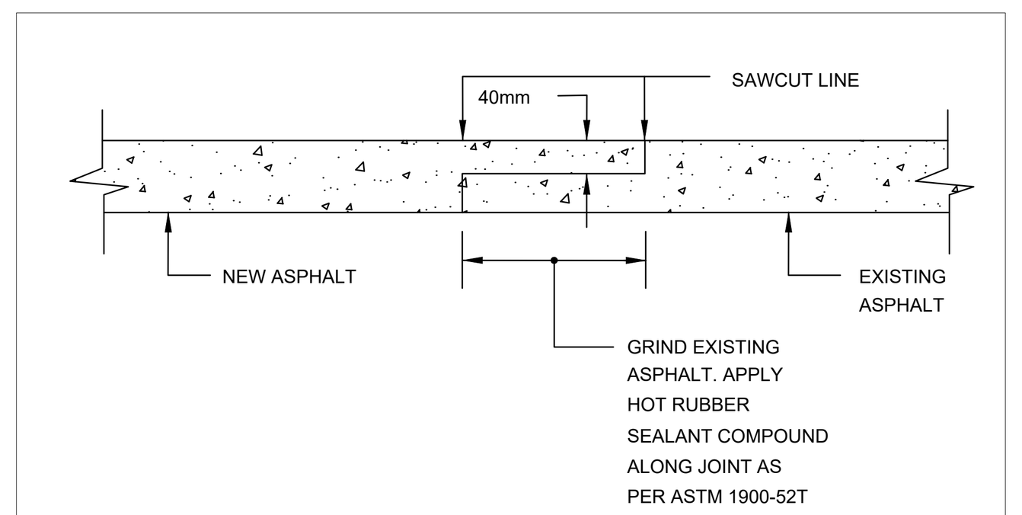




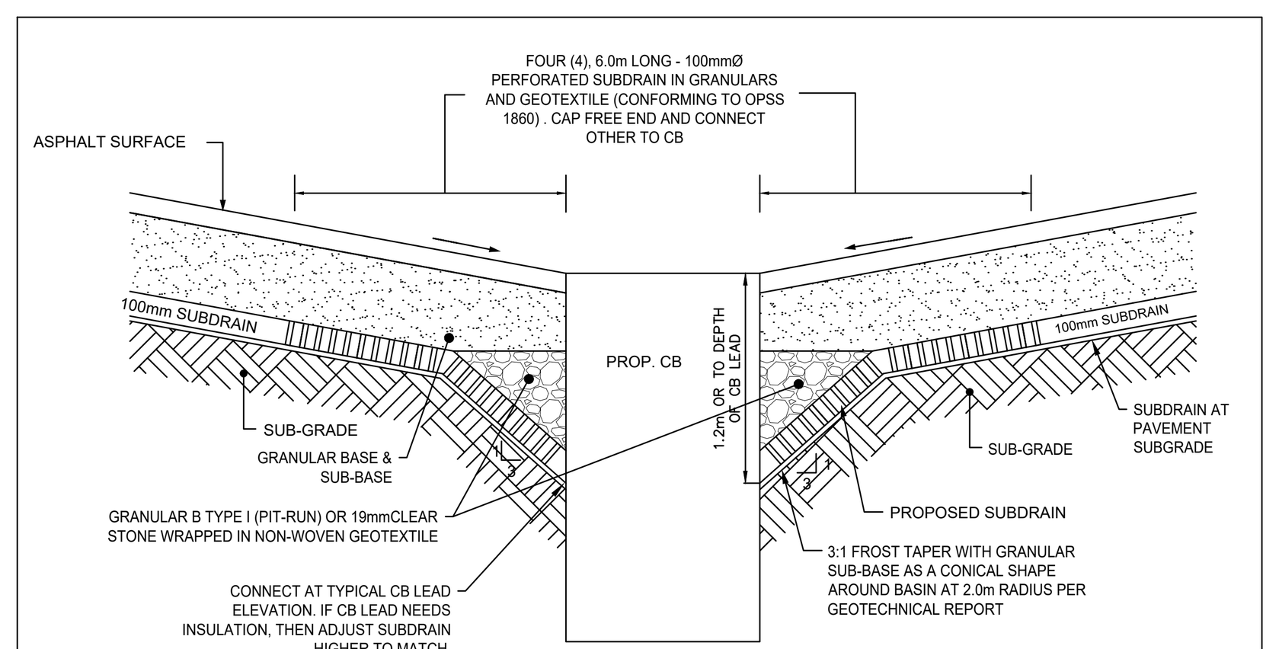
CLEAN OUT DETAIL FOR GAS BAR STM CONNECTIONS
N.T.S.



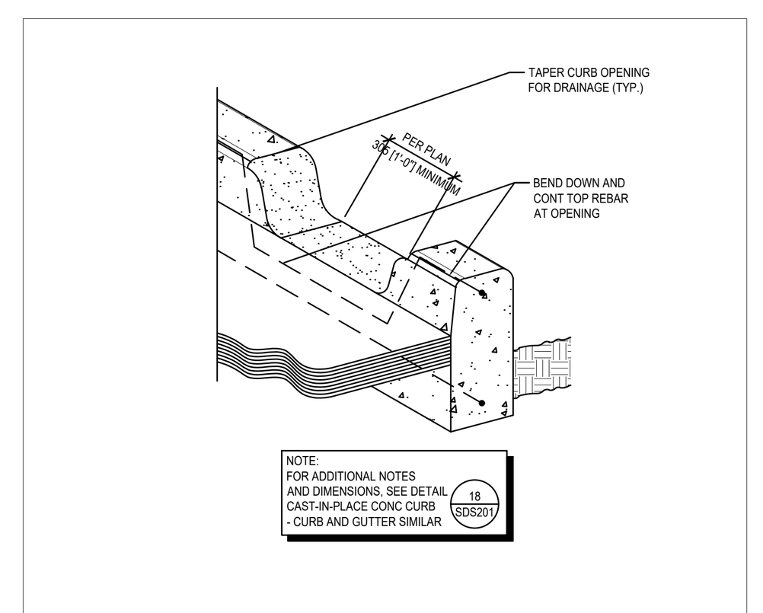




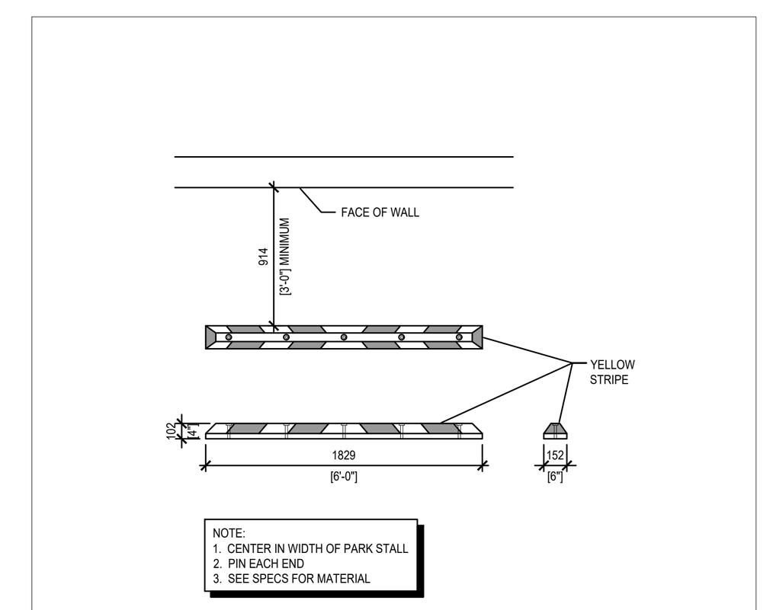
LAP JOINT DETAIL
N.T.S.



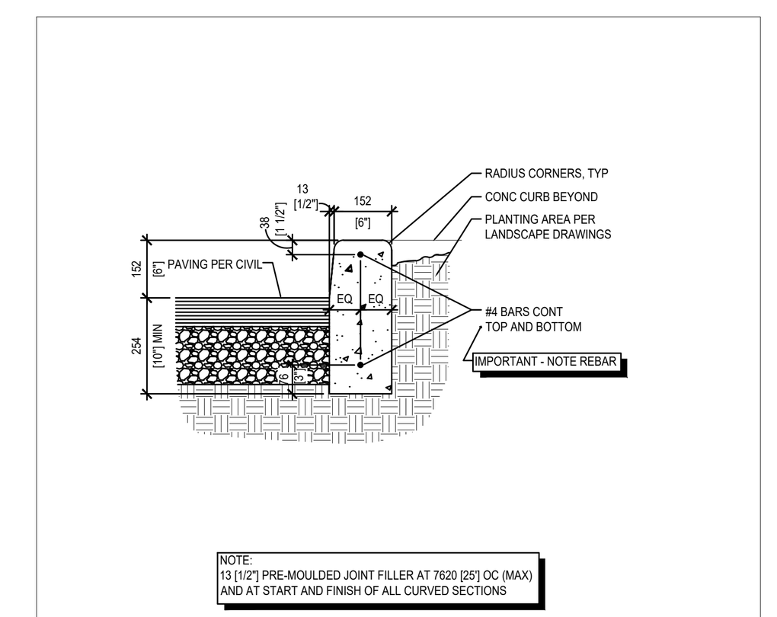
DETAIL FOR SUBDRAIN AT CB'S
N.T.S.



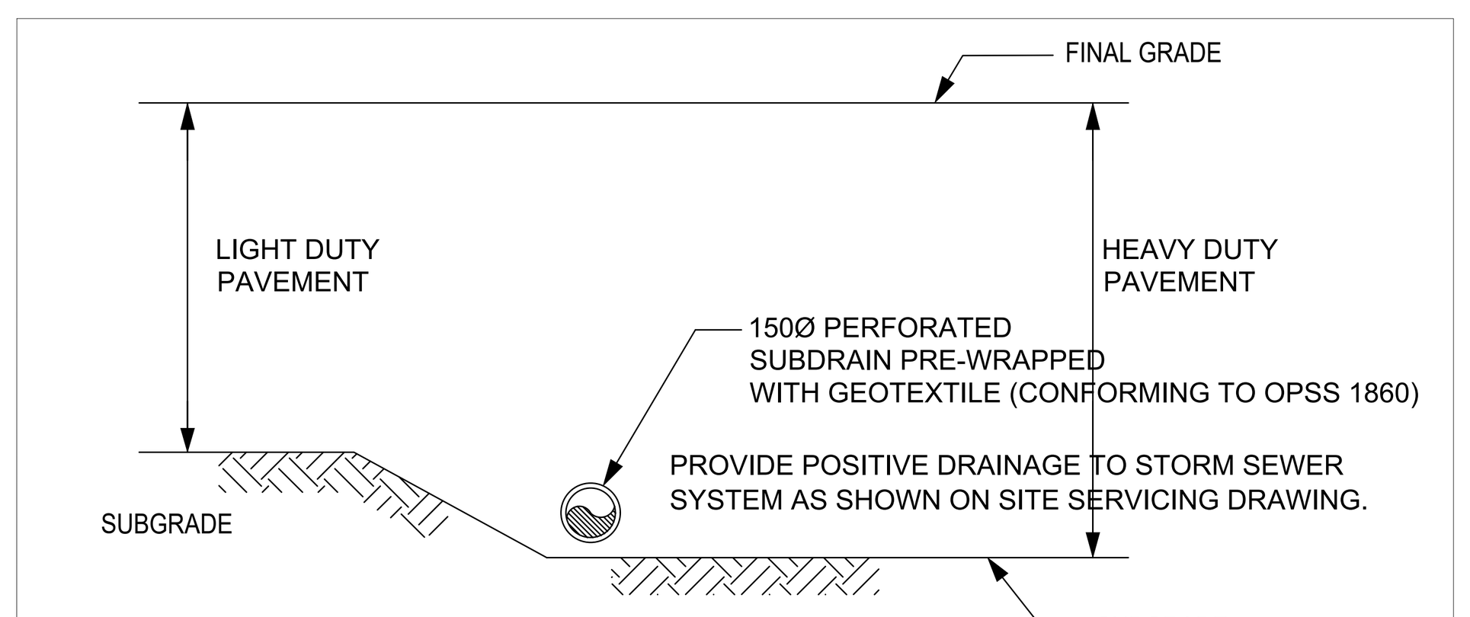
(9) CURB OPENING FOR DRAINAGE
SCALE: 1:10 0213



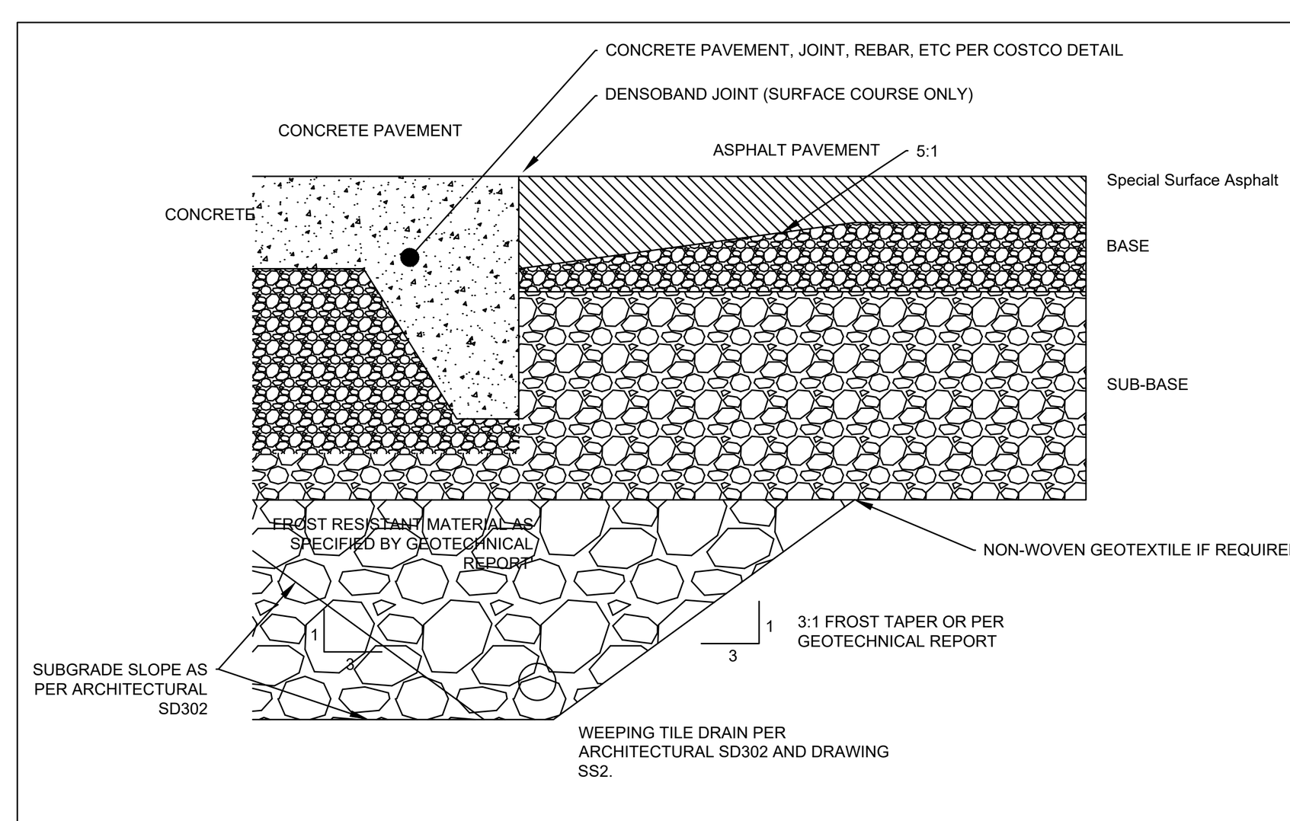
(4) WHEEL STOP
SCALE: N.T.S. 0615



(18) CAST-IN-PLACE CONCRETE CURB
SCALE: N.T.S. 0213



COSTCO
SUBDRAIN DETAIL "B"
N.T.S.



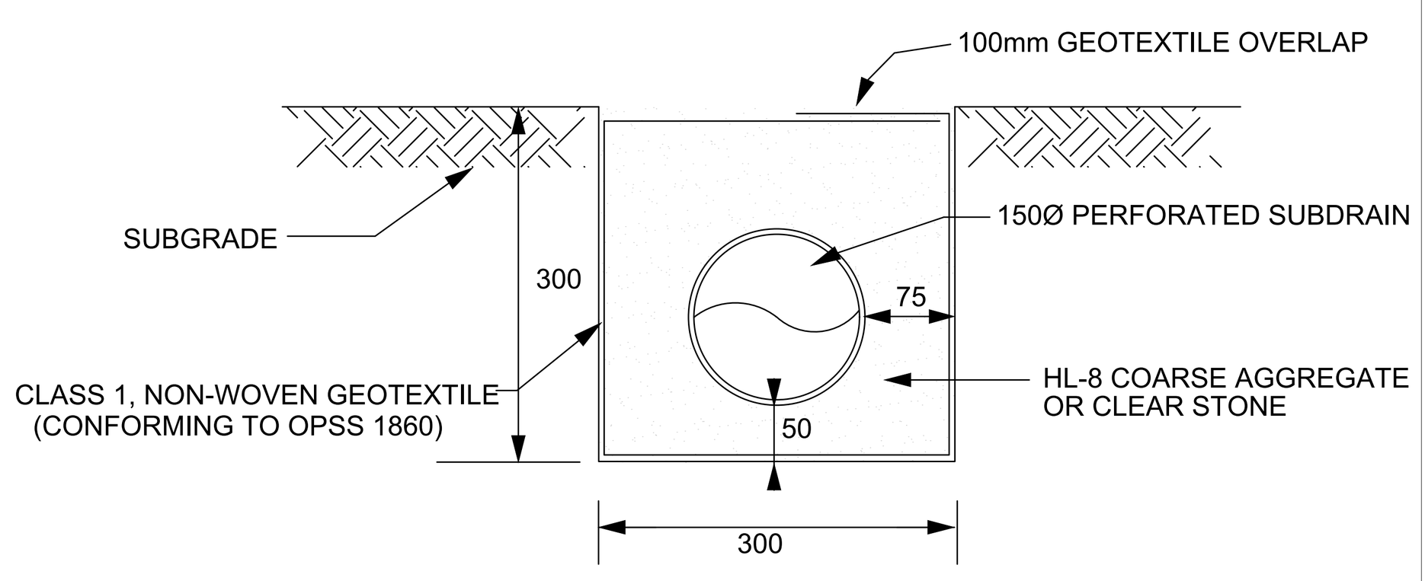
ADDITIONAL INSTRUCTION FOR DENSO BENDS AT CONCRETE SLAB AND ASPHALT PAVEMENT

Following the concrete slab pour, ensure that the concrete surface is clean once the formwork is stripped. The field technician will verify that the concrete surface (in contact with the asphalt) is properly cleaned and that no debris is present on the final grade before applying any asphalt layer.

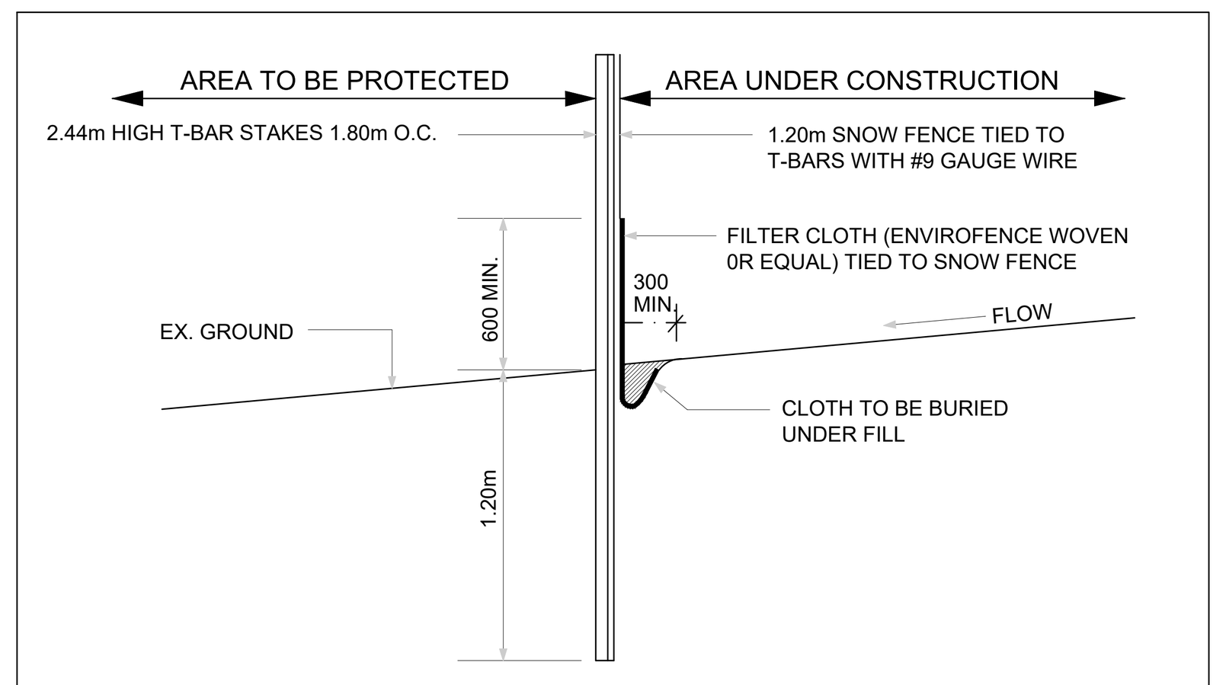
Before paving, the following steps need to be inspected by the Laboratory or Civil Engineer:

- Verify that the concrete surface that will be in contact with the asphalt is properly cleaned, dry, free from dust and loose material before applying the Densoband primer or equivalent;
- Verify the installation of the Densoband joint or equivalent between the contact slab/pavement (thoroughly follow the technical data sheet for installation; cut the Densoband joint at 0.65 cm from the surface);
- Verify the base layer density and optimal humidity before paving (the contractor should not pave if the crushed stone foundation humidity, on site, is higher by 2% than the optimal humidity obtained in the laboratory).
- The base layer profile have to be uniform and exactly leveled at the base of the concrete slab;
- A correction asphalt layer has to be placed before placement of the asphalt base layer (in order to respect the maximum thickness layer allowed for the base layer asphalt mix).

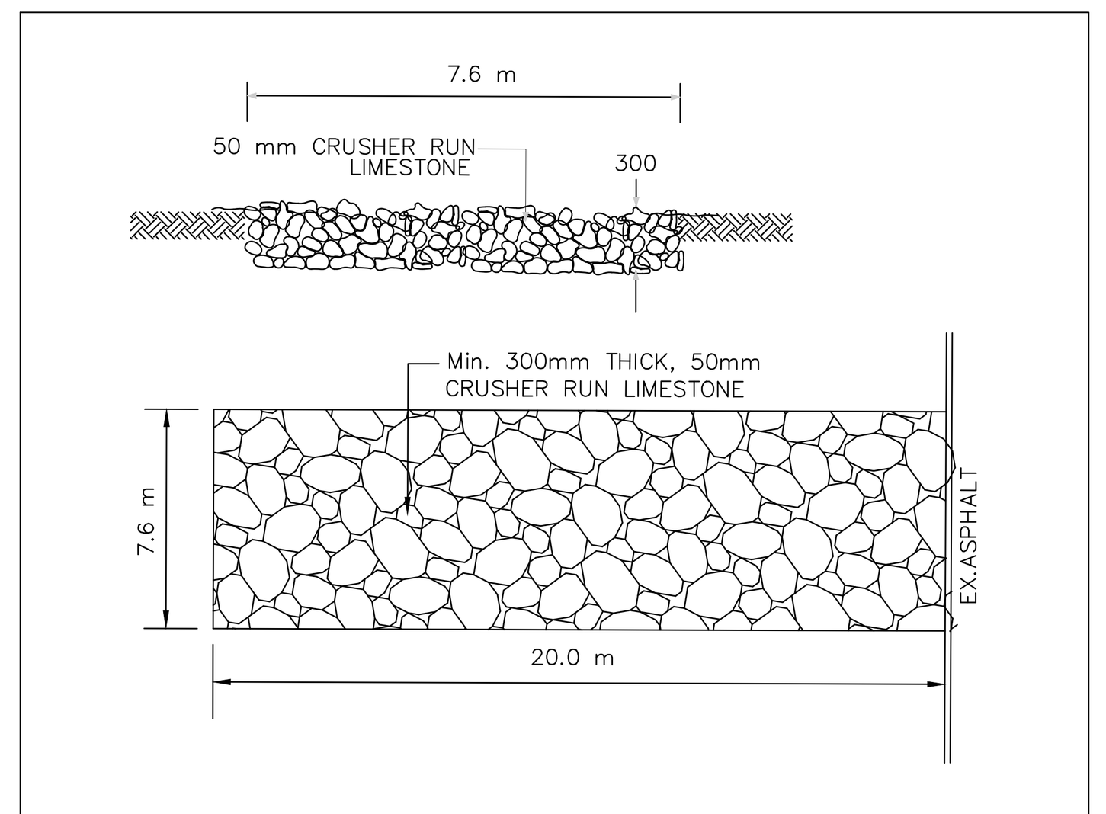
TYPICAL PAVEMENT-SLAB CONNECTION SECTION



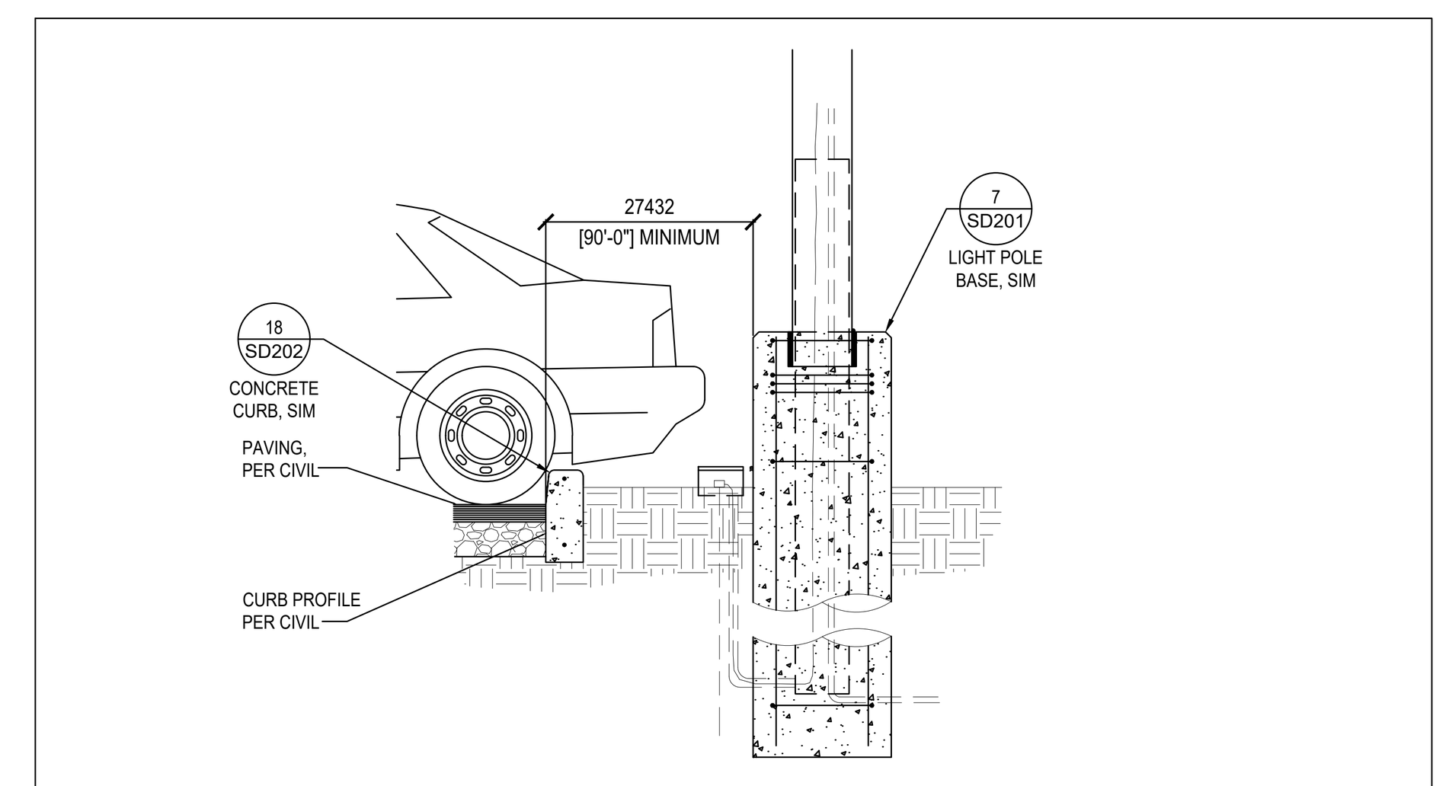
COSTCO
SUBDRAIN DETAIL 'A'
N.T.S.



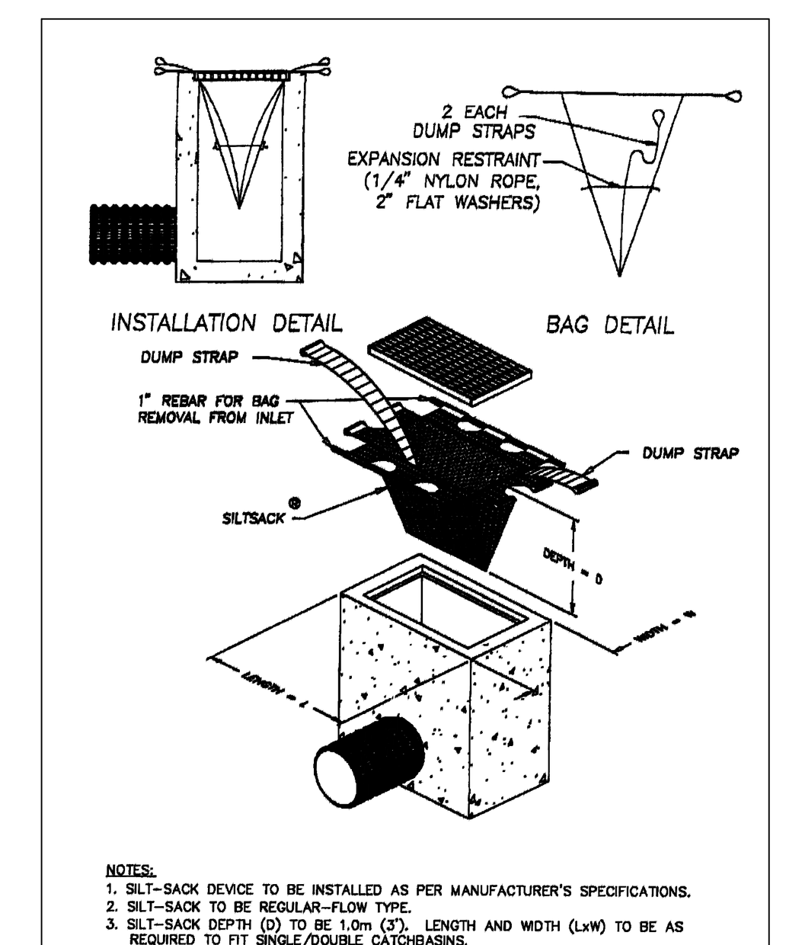
SILTATION CONTROL FENCE
N.T.S.



MUD-MAT DETAILS AT CONSTRUCTION SITE ENTRANCE
N.T.S.



LIGHT POLE LOCATION WHERE PARKING OCCURS
N.T.S.



CATCHBASIN SILT-SACK
SEDIMENT CONTROL DEVICE
N.T.S.

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
11.	REVISED PER CITY COMMENTS	SM	2026-06-04	IJ
10.	POST-BID ADD 02	SM	2026-04-30	IJ
9.	POST-BID ADD 01	SM	03-31-2026	IJ
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6.	ISSUED FOR BID	SM	05-16-2025	IJ
5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
DETAILS

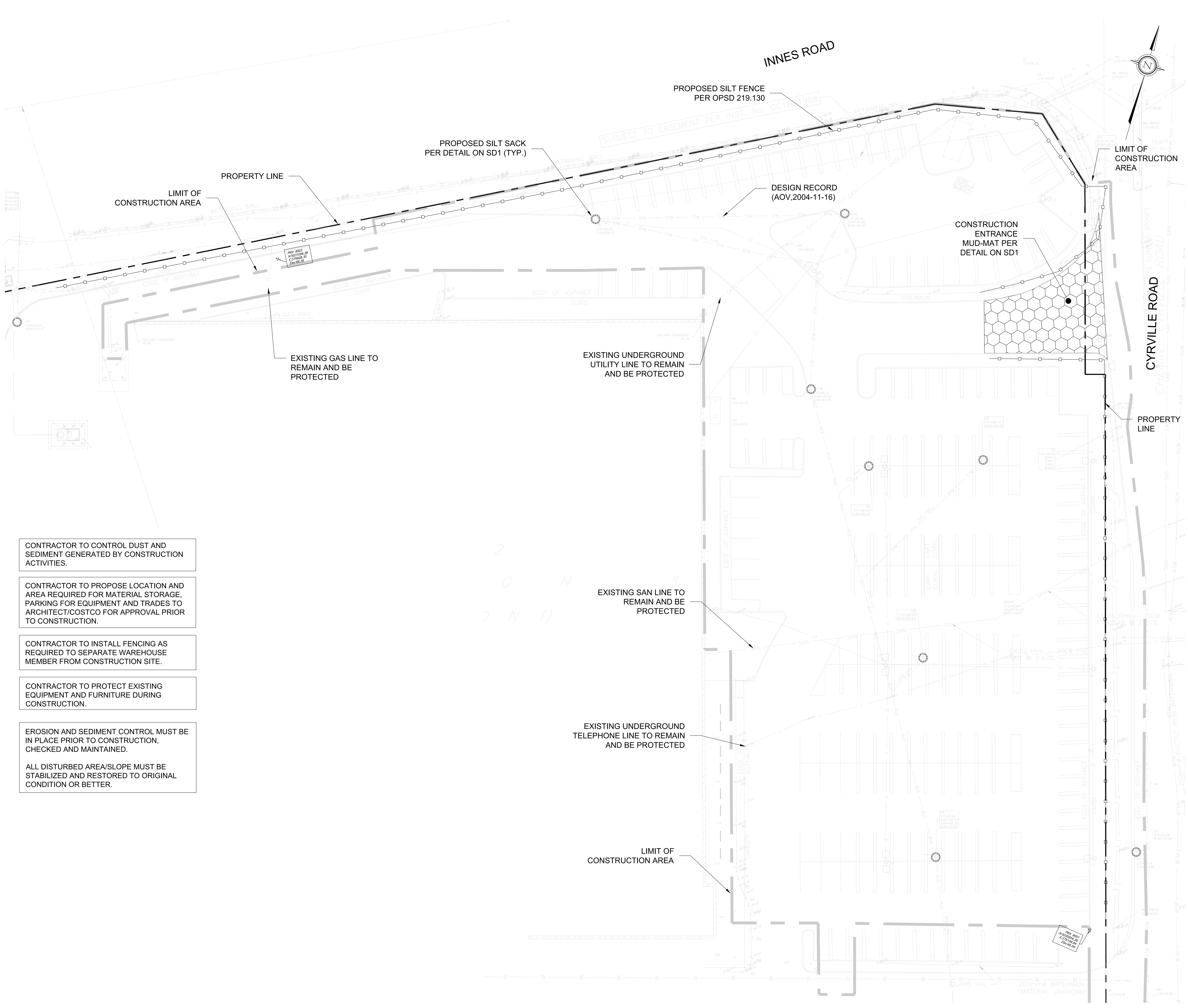
wsp

REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
2026-06-04
PROVINCE OF ONTARIO

DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

SCALE: AS NOTED
DATE: JUNE 2026
PROJECT NUMBER: 211-12161
DWG. NUMBER: SD1

D07-12-25-0160
#19467



CONTRACTOR TO CONTROL DUST AND SEDIMENT GENERATED BY CONSTRUCTION ACTIVITIES.

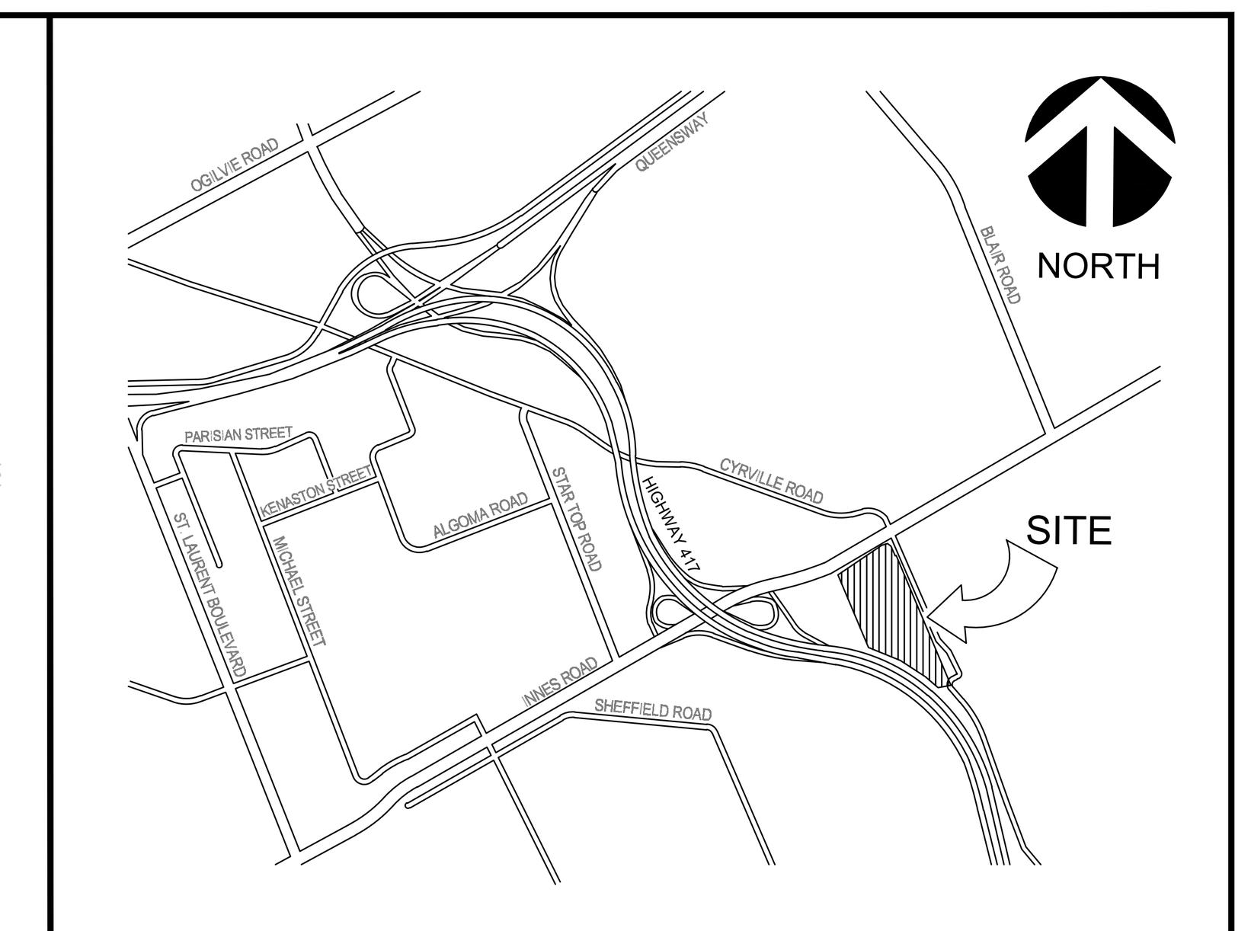
CONTRACTOR TO PROPOSE LOCATION AND AREA REQUIRED FOR MATERIAL STORAGE, PARKING FOR EQUIPMENT AND TRADES TO ARCHITECT/COSTCO FOR APPROVAL PRIOR TO CONSTRUCTION.

CONTRACTOR TO INSTALL FENCING AS REQUIRED TO SEPARATE WAREHOUSE MEMBER FROM CONSTRUCTION SITE.

CONTRACTOR TO PROTECT EXISTING EQUIPMENT AND FURNITURE DURING CONSTRUCTION.

EROSION AND SEDIMENT CONTROL MUST BE IN PLACE PRIOR TO CONSTRUCTION, CHECKED AND MAINTAINED.

ALL DISTURBED AREA/SLOPE MUST BE STABILIZED AND RESTORED TO ORIGINAL CONDITION OR BETTER.



KEY PLAN NTS

LEGEND

- FFE — FINISHED FLOOR ELEVATION
- BARRIER CURB OPSD 600.110
- DEPRESSED CURB
- CART STORAGE (SEE ARCH. DRAWINGS FOR DETAILS)
- CONC. PAVING
- DIRECTION OF DRAINAGE
- LIGHT POLE (B.O.)
- CB — CATCHBASIN
- CATCHBASIN MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- EMERGENCY SPILL SHUTOFF VALVE
- WATER VALVE
- HYDRANT
- LIMIT OF CONSTRUCTION
- PROPERTY LINE
- EXISTING WATER VALVE
- EXISTING GAS MANHOLE
- CATCHBASIN SILT-SACK SEDIMENTATION CONTROL DEVICE
- SILTATION FENCE

0 5m 10m 20m 25m
SCALE: 1:250

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
11.	REVISED PER CITY COMMENTS	SM	2026-06-04	IJ
10.	POST-BID ADD 02	SM	2026-04-30	IJ
9.	POST-BID ADD 01	SM	03-31-2026	IJ
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7.	ISSUED FOR SITE PLAN APPROVAL	SM	11-27-2025	IJ
6.	ISSUED FOR BID	SM	05-16-2025	IJ
5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
EROSION CONTROL PLAN

wsp

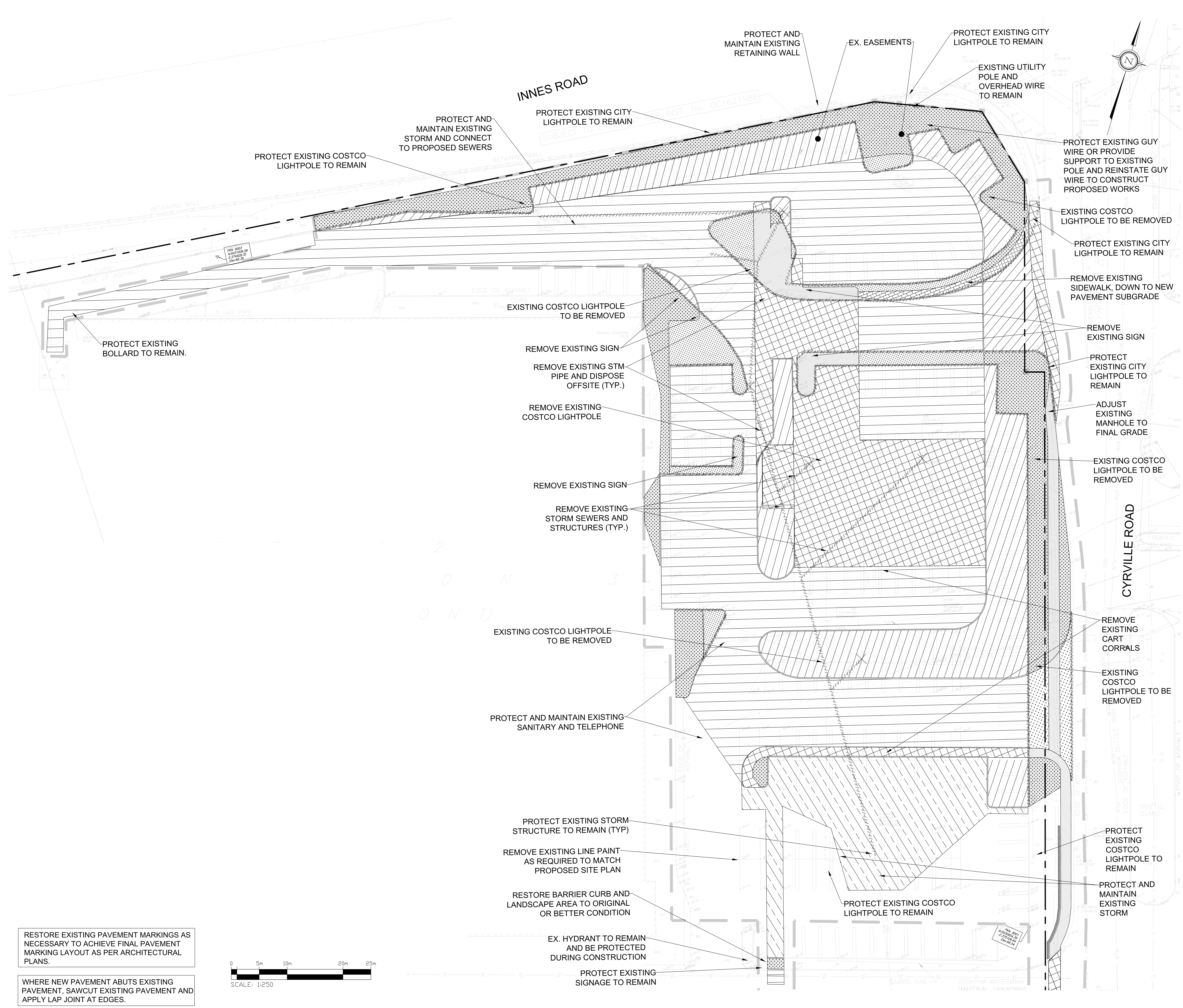
REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
2026-06-04
PROVINCE OF ONTARIO

DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

SCALE	DATE
1:250	JUNE 2026

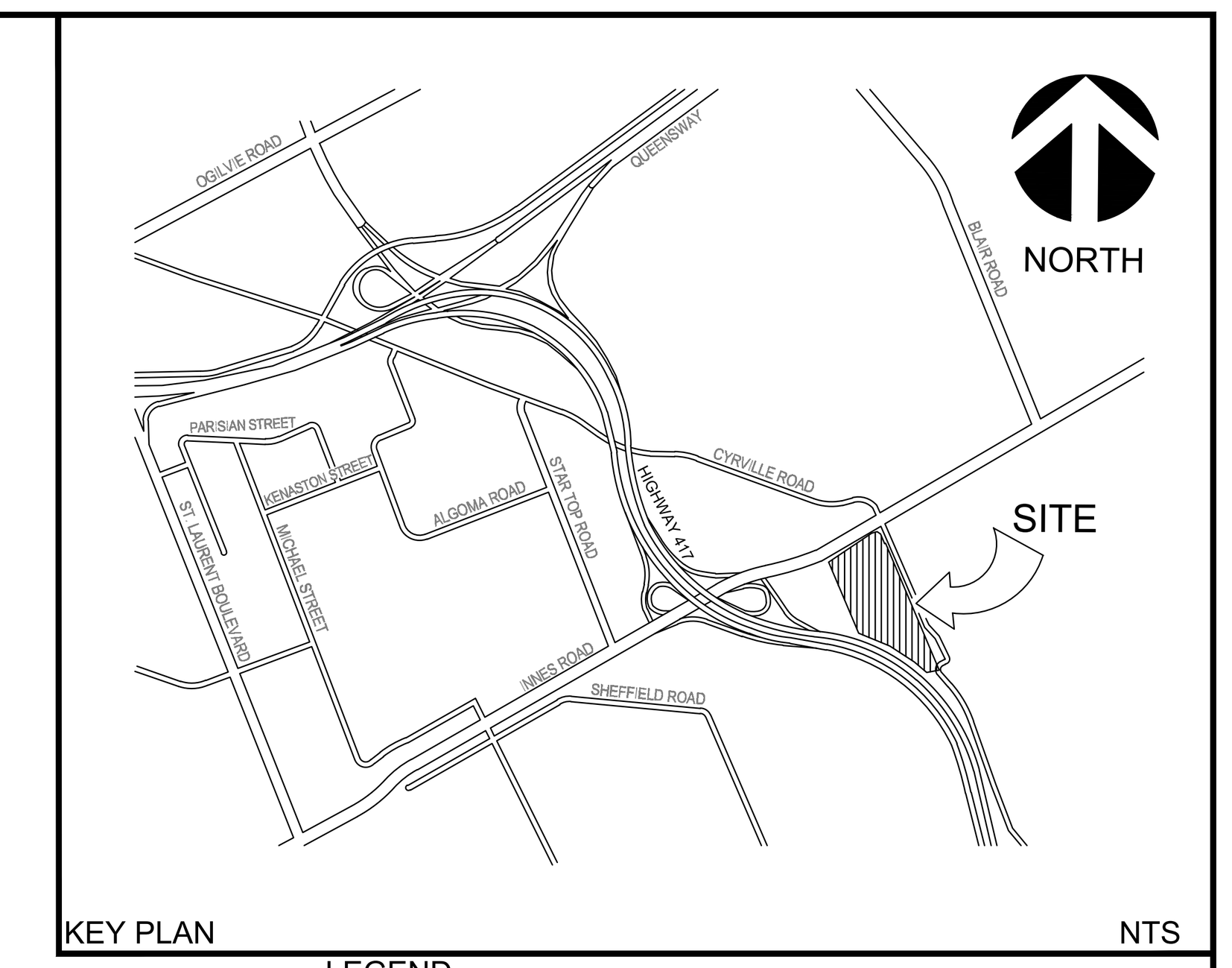
PROJECT NUMBER	DWG. NUMBER
211-12161	ES1

D07-12-25-0160
#19467



RESTORE EXISTING PAVEMENT MARKINGS AS NECESSARY TO ACHIEVE FINAL PAVEMENT MARKING LAYOUT AS PER ARCHITECTURAL PLANS.

WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT AND APPLY LAP JOINT AT EDGES.



LEGEND

- BARRIER CURB OPSD 600.110
- DEPRESSED CURB
- CART STORAGE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING CATCHBASIN
- PROPOSED STORM MANHOLE
- PROPOSED CATCHBASIN
- LIMIT OF CONSTRUCTION
- PROPERTY LINE
- EXISTING WATER VALVE
- EXISTING GAS MANHOLE
- REMOVAL OF CURB AND SERVICING
- FULL DEPTH LANDSCAPE, PLANTING AND ADDITIONAL SUB-GRADE REMOVAL AND REPLACEMENT WITH HEAVY DUTY PAVEMENT
- FULL DEPTH LANDSCAPE, PLANTING AND ADDITIONAL SUB-GRADE REMOVAL AND REPLACEMENT WITH CONCRETE PAVEMENT
- FULL DEPTH LANDSCAPE, PLANTING AND ADDITIONAL SUB-GRADE REMOVAL AND REPLACEMENT WITH PROPOSED LANDSCAPE
- FULL DEPTH CONCRETE SIDEWALK AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH HEAVY DUTY PAVEMENT
- FULL DEPTH CONCRETE SIDEWALK AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH LANDSCAPE
- FULL DEPTH ASPHALT PAVEMENT AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH HEAVY DUTY PAVEMENT
- FULL DEPTH ASPHALT PAVEMENT AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH LANDSCAPE
- FULL DEPTH ASPHALT AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT PAVEMENT AND ADDITIONAL SUBGRADE REMOVAL AND REPLACEMENT WITH LIGHT DUTY PAVEMENT
- FULL DEPTH ASPHALT PAVEMENT AND LANDSCAPE REMOVAL AND REPLACEMENT WITH RETAINING WALL

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
11.	REVISED PER CITY COMMENTS	SM	2026-06-04	IJ
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5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
SITE REMOVAL PLAN

wsp

REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
2026-06-04
PROVINCE OF ONTARIO

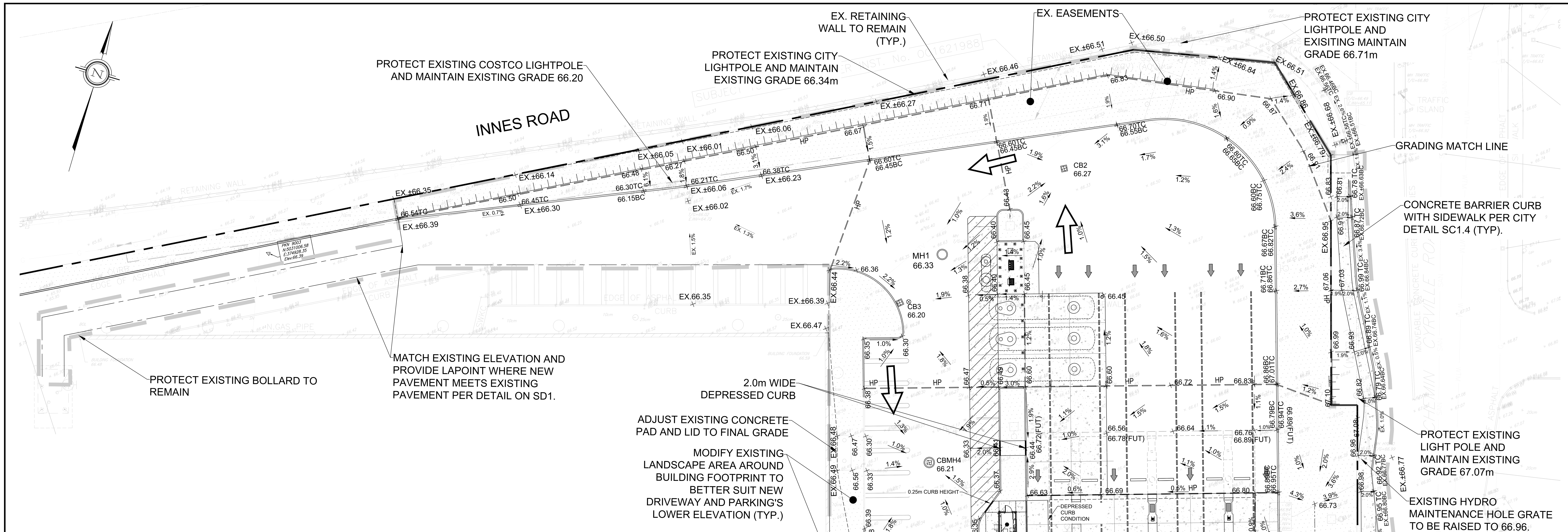
DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

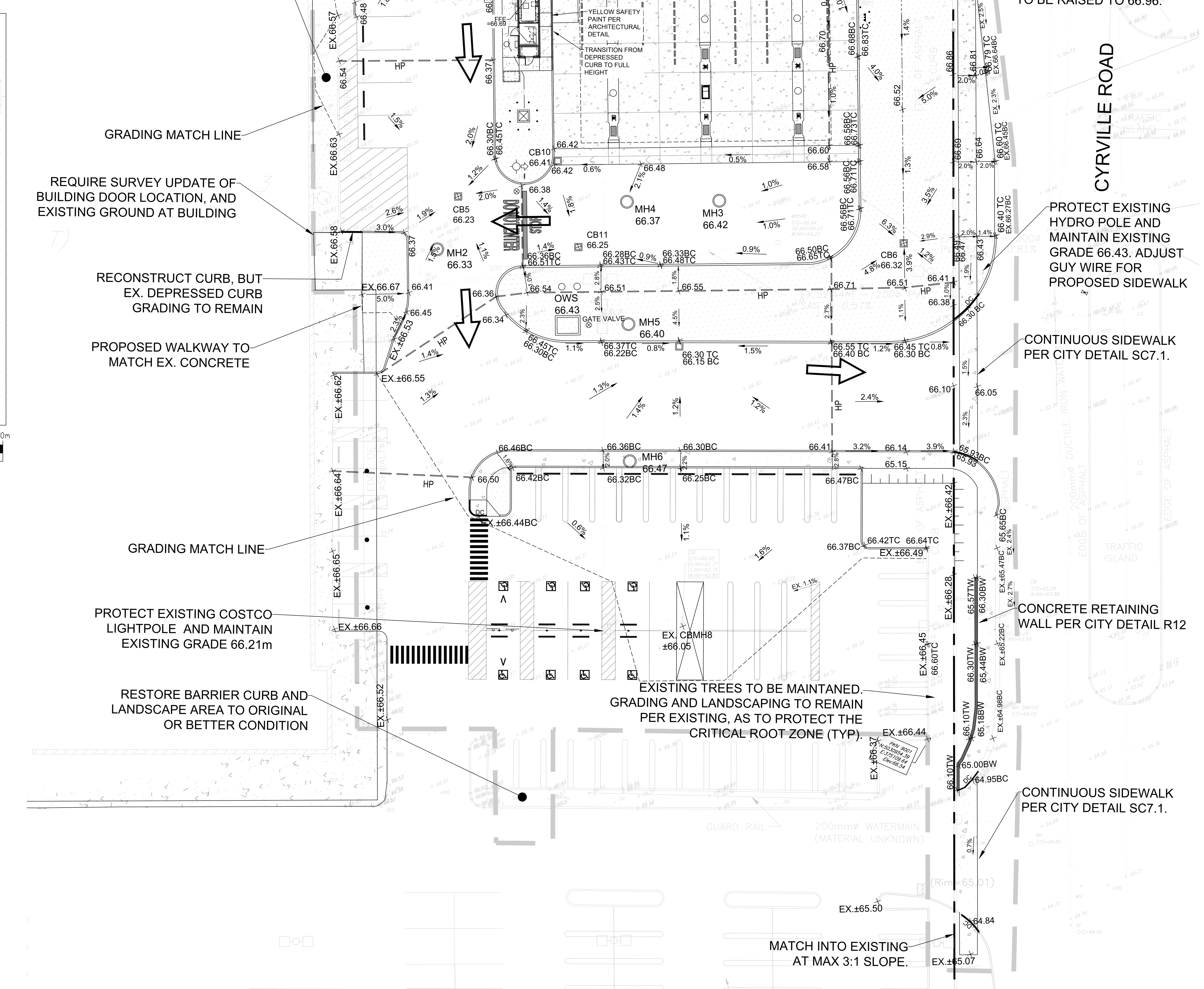
SCALE 1:250 | DATE JUNE 2026

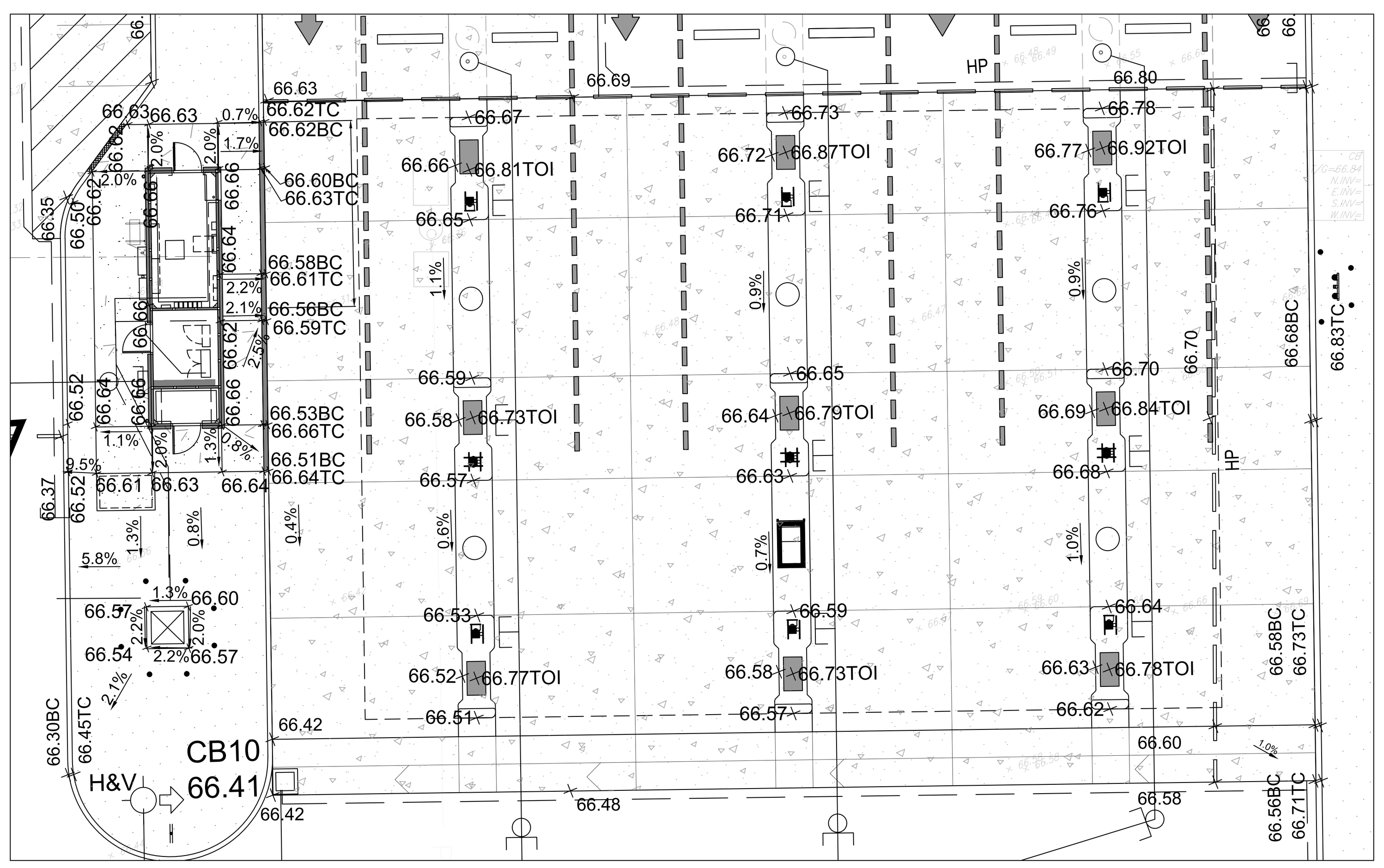
PROJECT NUMBER 211-12161 | DWG. NUMBER RM1

D07-12-25-0160

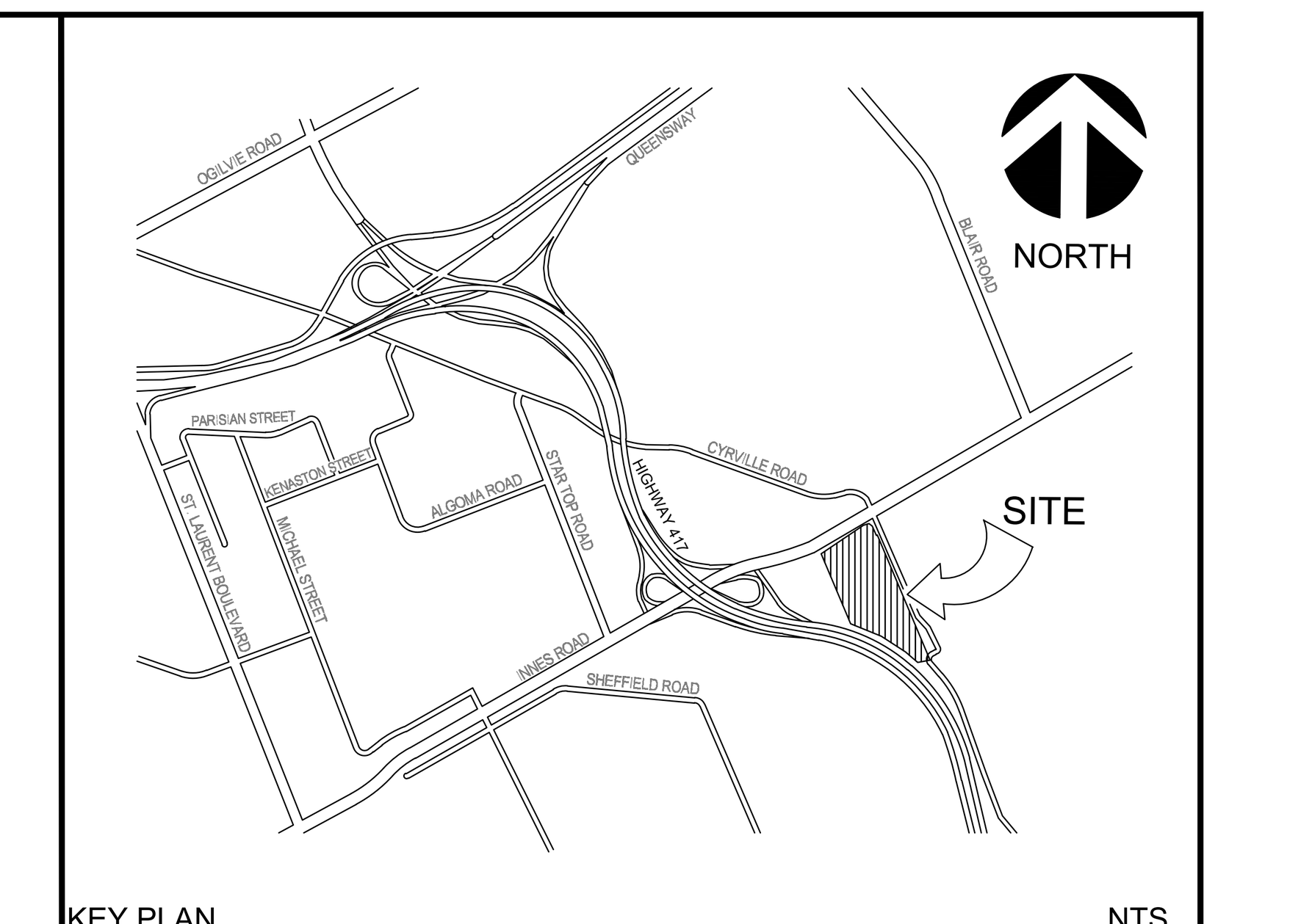
#19467







1 SG1 FUEL FACILITY GRADING
SCALE: 1:150



HYDRO CONDUITS/DUCT BANK, POWER CABLES TO PEDESTALS, COMMUNICATION CABLES, ETC, ARE SHOWN FOR COORDINATION, AND AN ESTIMATE OF RESTORATION REQUIRED ONLY. PLEASE REFER TO J&B ENGINEERING DRAWING FOR FINAL LOCATION AND DETAILS. CONTACT ARCHITECT AND ENGINEER, IF FIELD ADJUSTMENT NOTED BY J&B ENGINEERING CONFLICTS WITH EXISTING SITE STRUCTURES.

REFER TO ELECTRICAL DRAWINGS FOR POWER SUPPLY, COMMUNICATIONS AND SITE LIGHTING DETAILS. COORDINATE WITH ELECTRICAL CONTRACTOR FOR REMOVALS AND RESTORATION REQUIRED TO RELOCATE AND INSTALL NEW SERVICES.

REFER TO ARCHITECTURAL PLAN FOR LINE PAINTING SYMBOLS AND SIGNAGE.

NEW CURBS AND EXISTING SITE'S CURB REPAIR, IF ANY, TO BE PER COSTCO BARRIER CURB WITH REBAR DETAIL.

GRADE POINTS AT CURB ARE BOTTOM OF CURB ELEVATIONS UNLESS OTHERWISE NOTED.

RESTORE EXISTING PAVEMENT MARKINGS AS NECESSARY TO ACHIEVE FINAL PAVEMENT MARKING LAYOUT AS PER ARCHITECTURAL PLANS.

PROTECT ALL EXISTING TREES, PLANTINGS AND IRRIGATION EQUIPMENTS.

DIMENSIONS AND ELEVATIONS ARE IN METRES (m) AND PIPE SIZE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED.

WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT, SAWCUT EXISTING PAVEMENT AND APPLY LAP JOINT AT EDGES.

LEGEND

- FFE — FINISHED FLOOR ELEVATION
- BARRIER CURB OPSD 600.110
- DEPRESSED CURB
- CURB TRANSITION
- 0.3m CURB
- CART STORAGE
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING CATCHBASIN
- PROPOSED STORM MANHOLE
- PROPOSED CATCHBASIN
- LIMIT OF CONSTRUCTION
- PROPERTY LINE
- EXISTING WATER VALVE
- EXISTING GAS MANHOLE
- ×66.50 — PROPOSED GRADE
- ×66.50 (TOI) — PROPOSED TOP OF ISLAND
- ×66.50 (FUT) — FUTURE GRADE
- ×EX. ±66.50 — EXISTING GRADE
- HIGH POINT RIDGE
- PROPOSED SWALE
- GRADING MATCH LINE
- PROPOSED ELECTRICAL UTILITY
- PROPOSED ROAD PAINTING
- MAJOR OVERLAND FLOW
- RETAINING WALL
- CONCRETE SIDEWALK
- LANDSCAPE AREA
- TERRACING (MAX 3:1 SLOPE)

SCALE: 1:250

No.	REVISIONS TO DRAWING	BY	DATE	APPR
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10.	POST-BID ADD 02	SM	2026-04-30	IJ
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7.	ISSUED FOR SITE PLAN APPROVAL	SM	11-27-2025	IJ
6.	ISSUED FOR BID	SM	05-16-2025	IJ
5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	IJ
3.	ISSUED FOR QA2	SM	04-09-2025	IJ

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT: COSTCO WHOLESALE

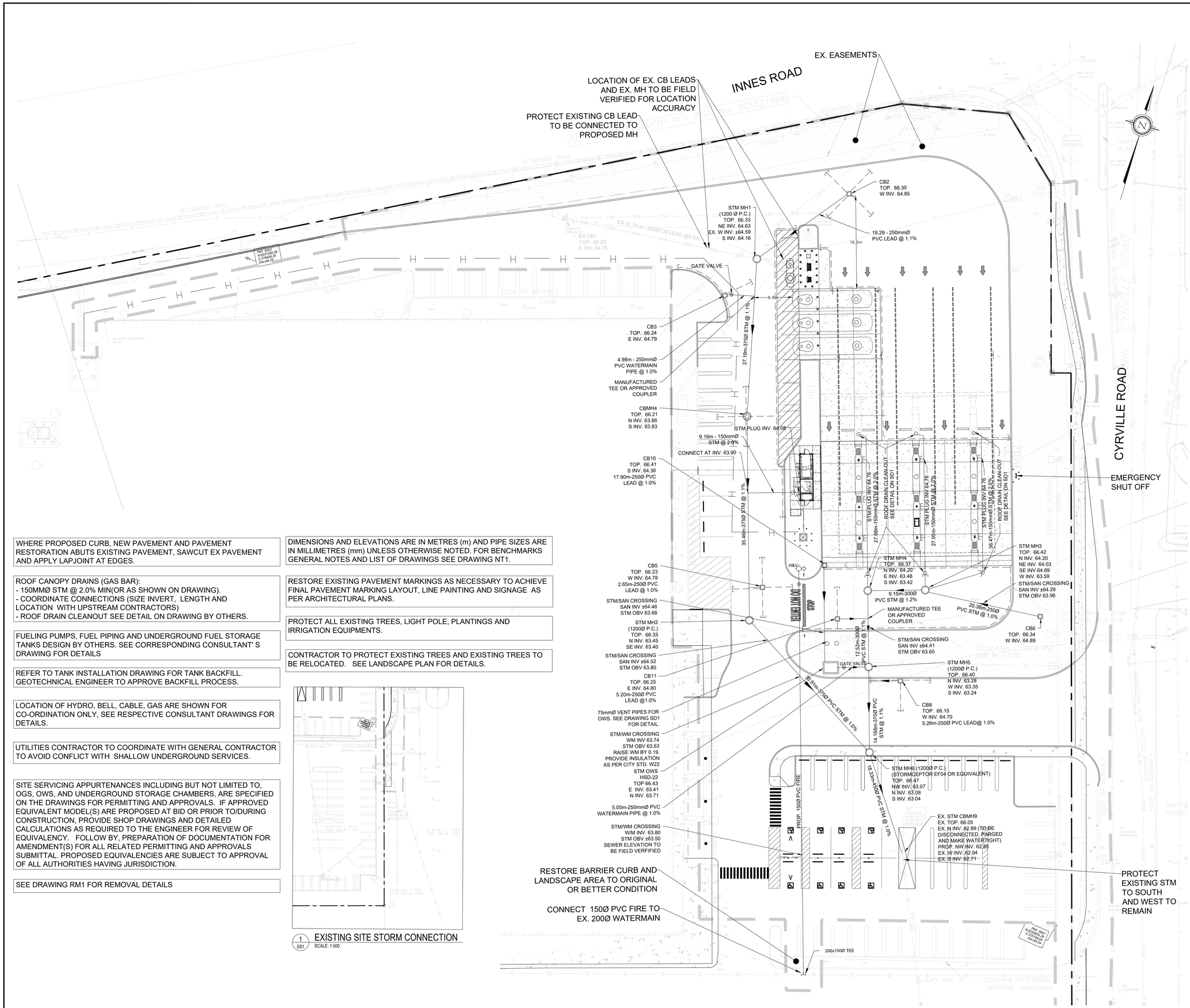
MUNICIPALITY: CITY OF OTTAWA

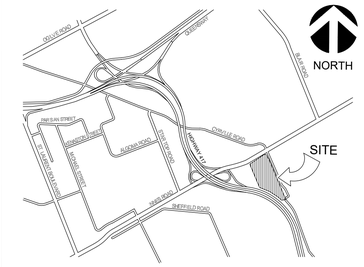
PROJECT TITLE: COSTCO GLOUCESTER GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE: SITE GRADING PLAN

wsp

DESIGNED: S.M. | DRAWN: J.T. | CHECKED: I.J.
SCALE: 1:250 | DATE: JUNE 2026
PROJECT NUMBER: 211-12161 | DWG. NUMBER: SG1





KEY PLAN NTS

WHERE PROPOSED CURB, NEW PAVEMENT AND PAVEMENT RESTORATION ABUTS EXISTING PAVEMENT, SAWCUT EX PAVEMENT AND APPLY LAPJOINT AT EDGES.

ROOF CANOPY DRAINS (GAS BAR):
- 150MMØ STM @ 2.0% MIN(OR AS SHOWN ON DRAWING).
- COORDINATE CONNECTIONS (SIZE INVERT, LENGTH AND LOCATION WITH UPSTREAM CONTRACTORS)
- ROOF DRAIN CLEANOUT SEE DETAIL ON DRAWING BY OTHERS.

FUELING PUMPS, FUEL PIPING AND UNDERGROUND FUEL STORAGE TANKS DESIGN BY OTHERS. SEE CORRESPONDING CONSULTANT' S DRAWING FOR DETAILS

REFER TO TANK INSTALLATION DRAWING FOR TANK BACKFILL. GEOTECHNICAL ENGINEER TO APPROVE BACKFILL PROCESS.

LOCATION OF HYDRO, BELL, CABLE, GAS ARE SHOWN FOR CO-ORDINATION ONLY, SEE RESPECTIVE CONSULTANT DRAWINGS FOR DETAILS.

UTILITIES CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH SHALLOW UNDERGROUND SERVICES.

SITE SERVICING APPURTENANCES INCLUDING BUT NOT LIMITED TO, OGS, OWS, AND UNDERGROUND STORAGE CHAMBERS, ARE SPECIFIED ON THE DRAWINGS FOR PERMITTING AND APPROVALS. IF APPROVED EQUIVALENT MODEL(S) ARE PROPOSED AT BID OR PRIOR TO/DURING CONSTRUCTION, PROVIDE SHOP DRAWINGS AND DETAILED CALCULATIONS AS REQUIRED TO THE ENGINEER FOR REVIEW OF EQUIVALENCY. FOLLOW BY, PREPARATION OF DOCUMENTATION FOR AMENDMENT(S) FOR ALL RELATED PERMITTING AND APPROVALS SUBMITTAL. PROPOSED EQUIVALENCIES ARE SUBJECT TO APPROVAL OF ALL AUTHORITIES HAVING JURISDICTION.

SEE DRAWING RM1 FOR REMOVAL DETAILS

DIMENSIONS AND ELEVATIONS ARE IN METRES (m) AND PIPE SIZES ARE IN MILLIMETRES (mm) UNLESS OTHERWISE NOTED. FOR BENCHMARKS GENERAL NOTES AND LIST OF DRAWINGS SEE DRAWING NT1.

RESTORE EXISTING PAVEMENT MARKINGS AS NECESSARY TO ACHIEVE FINAL PAVEMENT MARKING LAYOUT, LINE PAINTING AND SIGNAGE AS PER ARCHITECTURAL PLANS.

PROTECT ALL EXISTING TREES, LIGHT POLE, PLANTINGS AND IRRIGATION EQUIPMENTS.

CONTRACTOR TO PROTECT EXISTING TREES AND EXISTING TREES TO BE RELOCATED. SEE LANDSCAPE PLAN FOR DETAILS.

1 SS1 EXISTING SITE STORM CONNECTION
SCALE: 1:500

LEGEND

▬ ▬	LIMIT OF CONSTRUCTION
▬ ▪ ▪ ▬	PROPERTY LINE
FFE	FINISHED FLOOR ELEVATION
═	BARRIER CURB OPSD 600.110
▬	DEPRESSED CURB
☒	CART STORAGE
— STM — STM —	EXISTING STORM SEWER
— SAN — SAN —	EXISTING SANITARY SEWER
— T — T —	EXISTING TELECOM. CABLE
▨	EXISTING CATCHBASIN
○ MH	EXISTING MANHOLE
Ⓦ	EXISTING WATER VALVE
Ⓖ MH	EXISTING GAS MANHOLE
-/-/-/-/-	REMOVALS
☼□	EXISTING LIGHT POLE
◎	PROPOSED STORM MANHOLE
◎	PROPOSED STORM CATCHBASIN MANHOLE
▣	PROPOSED CATCHBASIN
⊗	PROPOSED WATER VALVE
⌖	PROPOSED FIRE HYDRANT
E- - - - - -	PROPOSED SUBDRAIN
XXXX	PROPOSED ROAD PAINTING
— — — —	GAS BAR CANOPY
▭	CONCRETE SIDEWALK
▭	LANDSCAPE AREA

0 5m 10m 20m 25m
SCALE: 1:250

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
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4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
SITE SERVICING PLAN

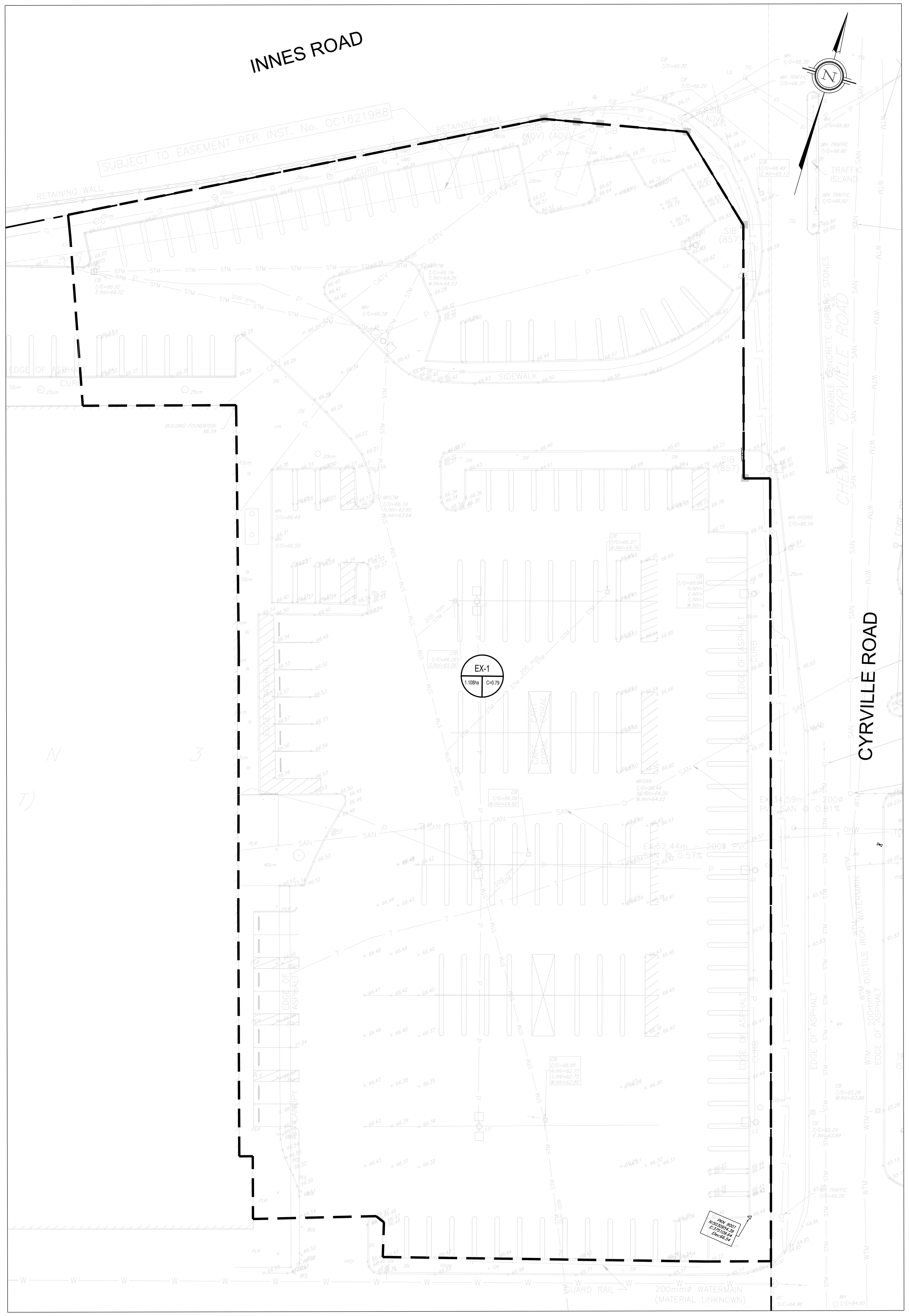
wsp

I. M. JAFFERJEE
100164153
2026-06-04

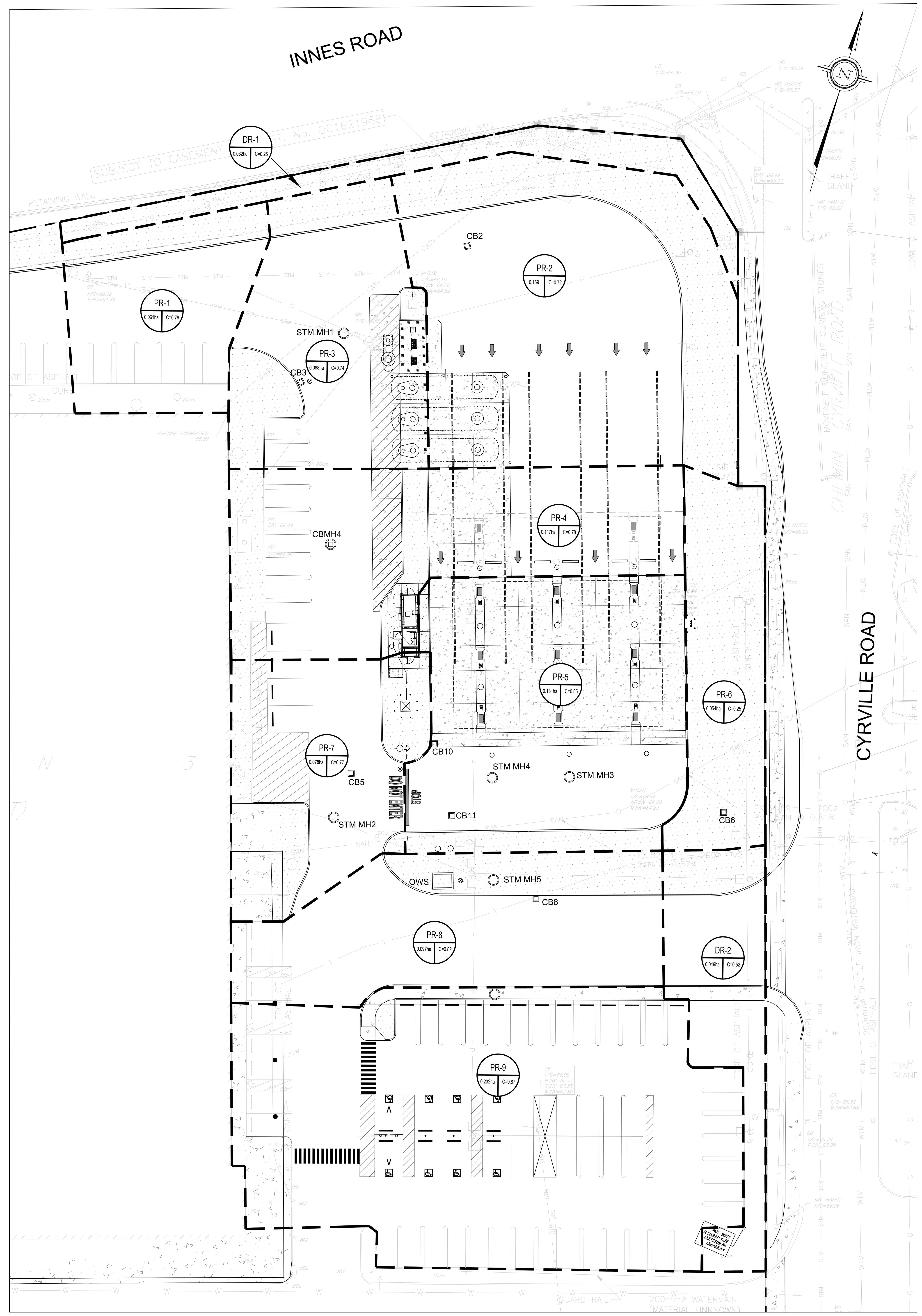
DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

SCALE 1:250
DATE JUNE 2026
PROJECT NUMBER 211-12161
DWG. NUMBER SS1

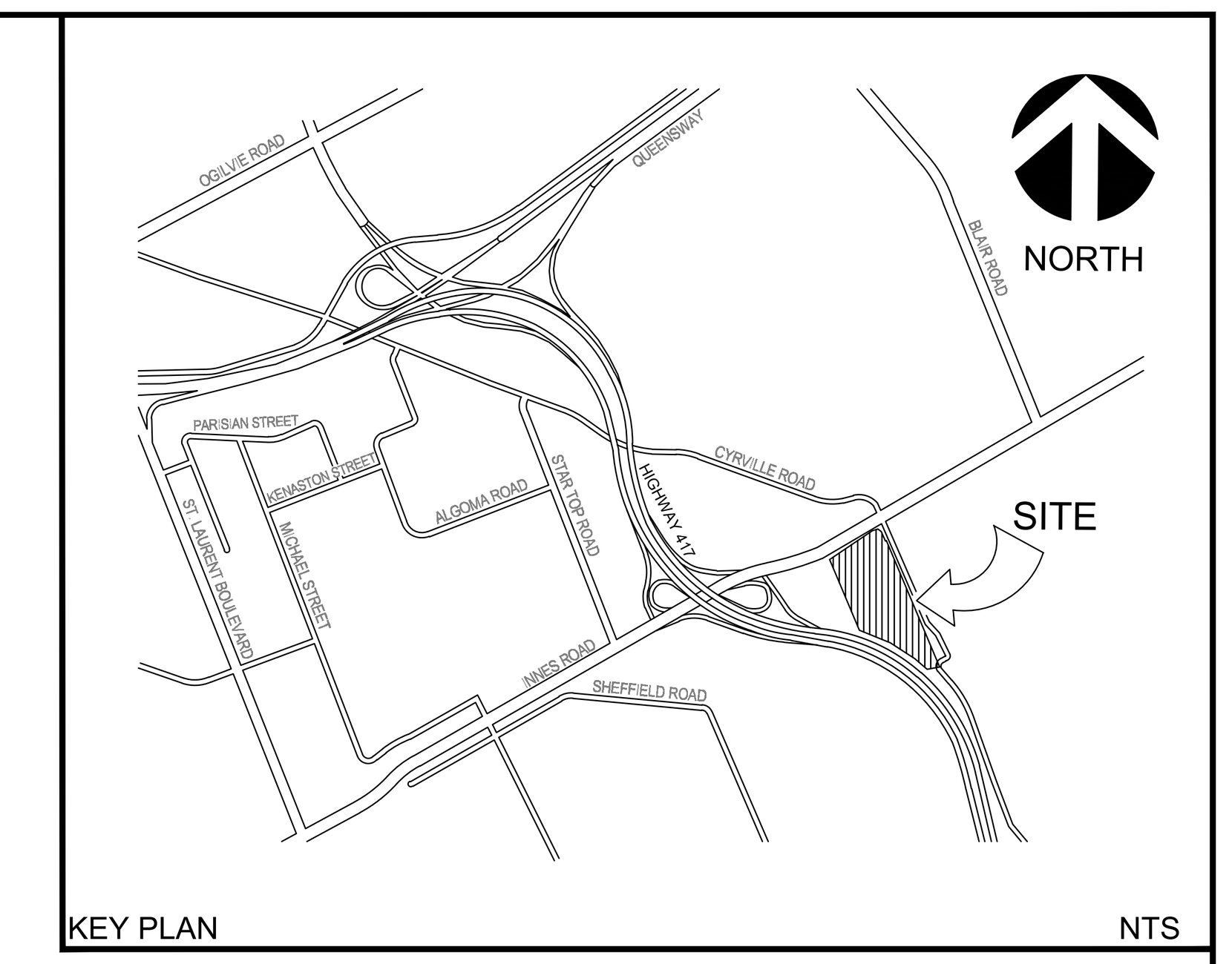
D07-12-25-0160
#19467



1 ST1 EXISTING DRAINAGE AREA PLAN
SCALE: 1:300



2 ST1 PROPOSED DRAINAGE AREA PLAN
SCALE: 1:300



KEY PLAN NTS

LEGEND

- FFE — FINISHED FLOOR ELEVATION
- BARRIER CURB OPSD 600.110
- DEPRESSED CURB
- CART STORAGE (SEE ARCH. DRAWINGS FOR DETAILS)
- CONC. PAVING
- LIGHT POLE (B.O.)
- CB — CATCHBASIN
- CATCHBASIN MANHOLE
- STORM MANHOLE
- SANITARY MANHOLE
- EMERGENCY SPILL SHUTOFF VALVE
- WATER VALVE
- HYDRANT
- PROPERTY LINE
- EXISTING WATER VALVE
- MH — EXISTING GAS MANHOLE
- GAS BAR CANOPY
- DRAINAGE AREA BOUNDARY
- PR-6 — DRAINAGE AREA NAME
- 0.054ha — AREA IN HECTARES
- C=0.25 — RUNOFF COEFFICIENT
- CONCRETE SIDEWALK
- LANDSCAPE AREA

0 5m 10m 20m 30m
SCALE: 1:300

No.	REVISIONS TO DRAWING	BY	DATE	APPR.
11.	REVISED PER CITY COMMENTS	SM	2026-06-04	IJ
10.	POST-BID ADD 02	SM	2026-04-30	IJ
9.	POST-BID ADD 01	SM	03-31-2026	IJ
8.	REVISED PER CITY COMMENTS	SM	03-20-2026	IJ
7.	ISSUED FOR SITE PLAN APPROVAL	SM	11-27-2025	IJ
6.	ISSUED FOR BID	SM	05-16-2025	IJ
5.	ISSUED FOR PERMIT/BID	SM	04-30-2025	IJ
4.	ISSUED FOR QA3	SM	04-21-2025	
3.	ISSUED FOR QA2	SM	04-09-2025	

ALL PREVIOUS ISSUES OF THIS DRAWING ARE SUPERSEDED

CLIENT
COSTCO WHOLESALE

MUNICIPALITY
CITY OF OTTAWA

PROJECT TITLE
COSTCO GLOUCESTER
GAS BAR
1900 CYRVILLE RD, ON, K1B 3V5

SHEET TITLE
DRAINAGE AREA PLAN

wsp

REGISTERED PROFESSIONAL ENGINEER
I. M. JAFFERJEE
100164153
2026-06-04
PROVINCE OF ONTARIO

DESIGNED	DRAWN	CHECKED
S.M.	J.T.	I.J.

SCALE	DATE
1:250	JUNE 2026

PROJECT NUMBER	DWG. NUMBER
211-12161	ST1

D07-12-25-0160
#19467