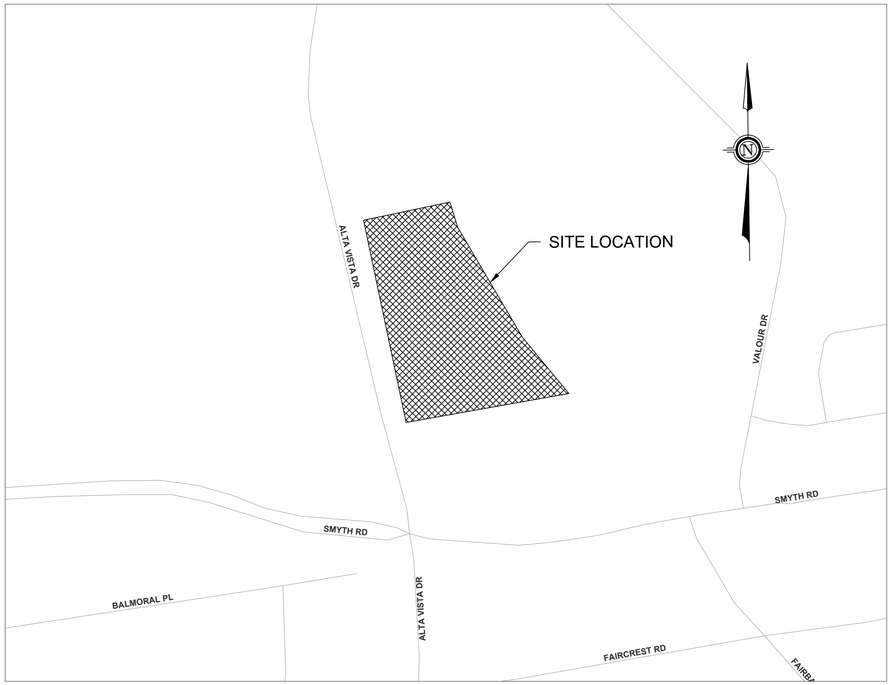
PROPOSED MULTI STOREY APARTMENT
1867 ALTA VISTA DRIVE, OTTAWA, ONTARIO

SITE PLAN CONTROL SUBMISSION REV. 1

OCTOBER 5, 2026



DWG. NO.	DRAWING NAME
C-100	TITLE PAGE
C-101	EROSION AND SEDIMENT CONTROL
C-102	REMOVALS
C-103	SITE SERVICING - PLAN AND PROFILE
C-104	SITE SERVICING
C-105	GRADING PLAN
C-106	STORM WATER MANAGEMENT PLAN
C-107	PRE- DEVELOPMENT DRAINAGE PLAN
C-108	POST- DEVELOPMENT DRAINAGE PLAN
C-109	GENERAL NOTES
C-110	CONSTRUCTION DETAILS PAGE 1
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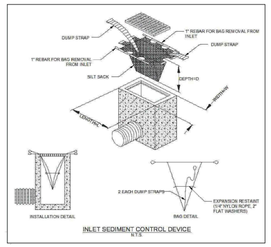
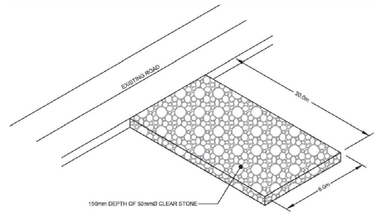
PARSONS



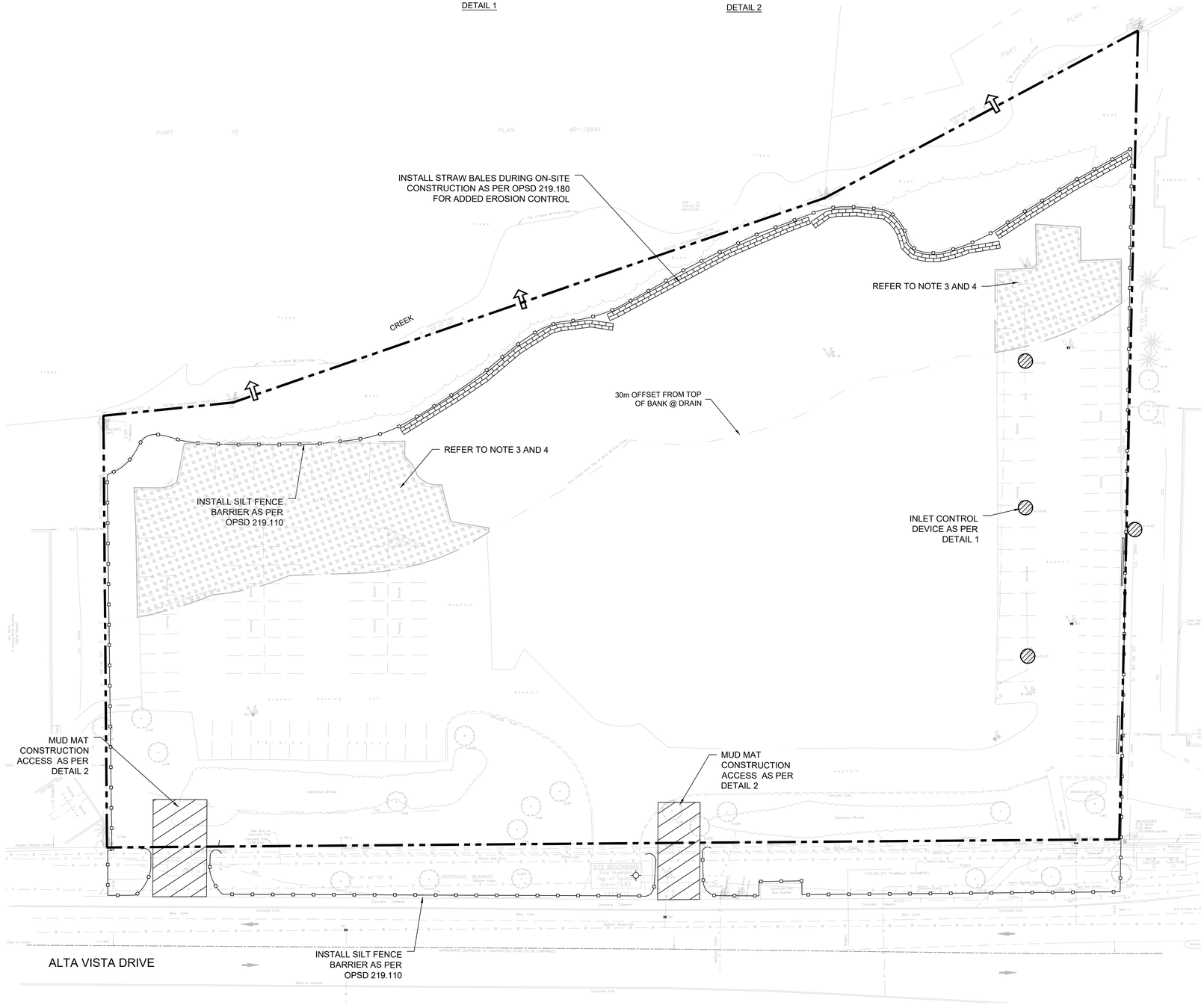
INLET SEDIMENT CONTROL DEVICE
N.T.S.

DETAIL 1



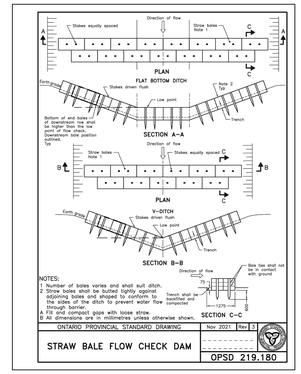
MUD MAT - CONSTRUCTION ACCESS
NTS

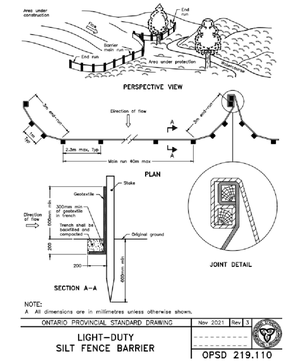
DETAIL 2



LEGEND:

- SITE PROPERTY LINE
- INLET CONTROL DEVICE
- PROPOSED SILT FENCE AS PER OPSD 219.110





TEMPORARY EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION AND SHALL NOT DISTURB THE EXISTING VEGETATED SLOPE BEYOND THE LIMITS OF CONSTRUCTION.
2. INSTALL AND MAINTAIN SILT FENCE ALONG THE DOWNSLOPE PERIMETER OF ALL DISTURBED AREAS, AS SHOWN ON THE DRAWINGS, PRIOR TO COMMENCING ASPHALT REMOVAL, EXCAVATION, GRADING, OR OTHER SOIL-DISTURBING ACTIVITIES.
3. MINIMIZE THE EXTENT AND DURATION OF EXPOSED SOIL. ALL DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED IMMEDIATELY FOLLOWING DISTURBANCE, OR AS SOON AS PRACTICABLE, USING AN APPROVED METHOD SUITABLE FOR THE SITE CONDITIONS. ACCEPTABLE METHODS MAY INCLUDE EROSION-CONTROL BLANKET, STRAW MULCH WITH TACKIFIER, BONDED-FIBRE MATRIX, HYDROSEEDING, SOD, OR OTHER APPROVED EQUIVALENT.
4. TEMPORARY STABILIZATION SHALL REMAIN IN PLACE AND SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION HAS BEEN COMPLETED AND FINAL VEGETATION OR OTHER PERMANENT COVER IS ESTABLISHED.
5. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT-CONTROL MEASURES DAILY AND FOLLOWING RAINFALL EVENTS. DAMAGED OR INEFFECTIVE MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED BEFORE IT REDUCES THE EFFECTIVE CAPACITY OF THE CONTROL.
6. ADDITIONAL EROSION AND SEDIMENT-CONTROL MEASURES SHALL BE INSTALLED WHERE REQUIRED BY THE CONSULTANT, THE CITY, OR SITE CONDITIONS TO PREVENT SEDIMENT FROM ENTERING THE CREEK OR ADJACENT DRAINAGE SYSTEM.
7. NO SOIL, SEDIMENT, CONSTRUCTION DEBRIS, CONCRETE WASH WATER, ASPHALT DEBRIS, MULCH, OR OTHER DELETERIOUS MATERIAL SHALL BE PERMITTED TO ENTER THE CREEK.
8. STOCKPILES SHALL BE COVERED OR STABILIZED WHENEVER THEY ARE NOT ACTIVELY BEING WORKED AND BEFORE FORECAST RAINFALL WHERE PRACTICABLE.



TOPOGRAPHIC INFORMATION & BENCHMARK

TOPOGRAPHIC SURVEY COMPLETED BY ANNIS O'SULLIVAN VOLLEBEKK LTD. ON JUNE 26th, 2025. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-28 GEODETIC DATUM.

SITE BENCHMARK No.1 LOCATED AT HYDRANT AT EXISTING ENTRANCE ALONG ALTA VISTA DRIVE. FIRE HYDRANT TOP OF SPINDLE = 73.83

NOT FOR CONSTRUCTION

No.	DATE	DESCRIPTION	BY
03	2026-10-05	RE-ISSUED FOR SPA	T.H.
02	2026-06-30	ISSUED FOR SPA	T.H.
01	2025-12-17	ISSUED FOR OPA/ZBA	T.H.

REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

5m 2 0 5 10m
SCALE: 1:300

PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT
TCU DEVCORP

PROJECT
1867 ALTA VISTA DRIVE
OTTAWA, ONTARIO

TITLE
EROSION/ SEDIMENT CONTROL

DESIGNED BY	T.H.	PROJECT NO.	479542
DRAWN BY	R.G	C-101	ESC
CHECKED BY	M.M.		
DATE	OCTOBER 2026		
SCALE	1:300	DRAWING NO.	DRAWING

LEGEND:

- SITE PROPERTY LINE
- STRUCTURE TO BE REMOVED
- SERVICE TO BE REMOVED
- EXISTING CURB REMOVAL
- REMOVALS

EXISITING STORM LINE TO BE CONFIRM AND LOCATED AND REMOVED CLOSE THE THE PL TO ALLOW FOR NEW STORM SEWER COUPLING CONNECTION.

WATER VALVES NOTED ON SURVEY. CONFIRM ON SITE IF THIS WATER SERVICE HAS ALREADY BEEN ABANDONED. IF NOT ABANDON AND CAP SERVICE AT PL.

POTENTIAL EXSITING WATER SERVICE LOCATION

ROAD CUT LIMITS MATCH TO EXISTING ASPHALT

REMOVE AND RELOCATE EXISTING FIRE HYDRANT AND ALL ASSOCIATED APPURTENANCES 4.5m NORTH



KEY PLAN

TOPOGRAPHIC INFORMATION & BENCHMARK

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REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

5m 2 0 5 10m
SCALE: 1:300

PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT
TCU DEVCORP

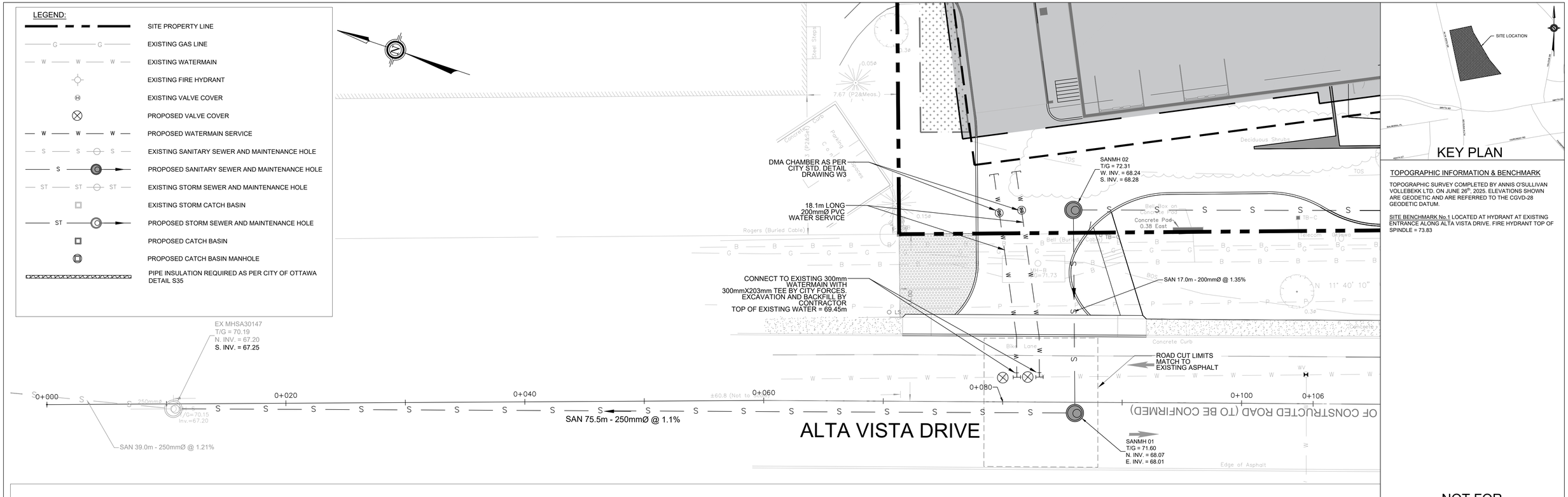
PROJECT
1867 ALTA VISTA DRIVE
OTTAWA, ONTARIO

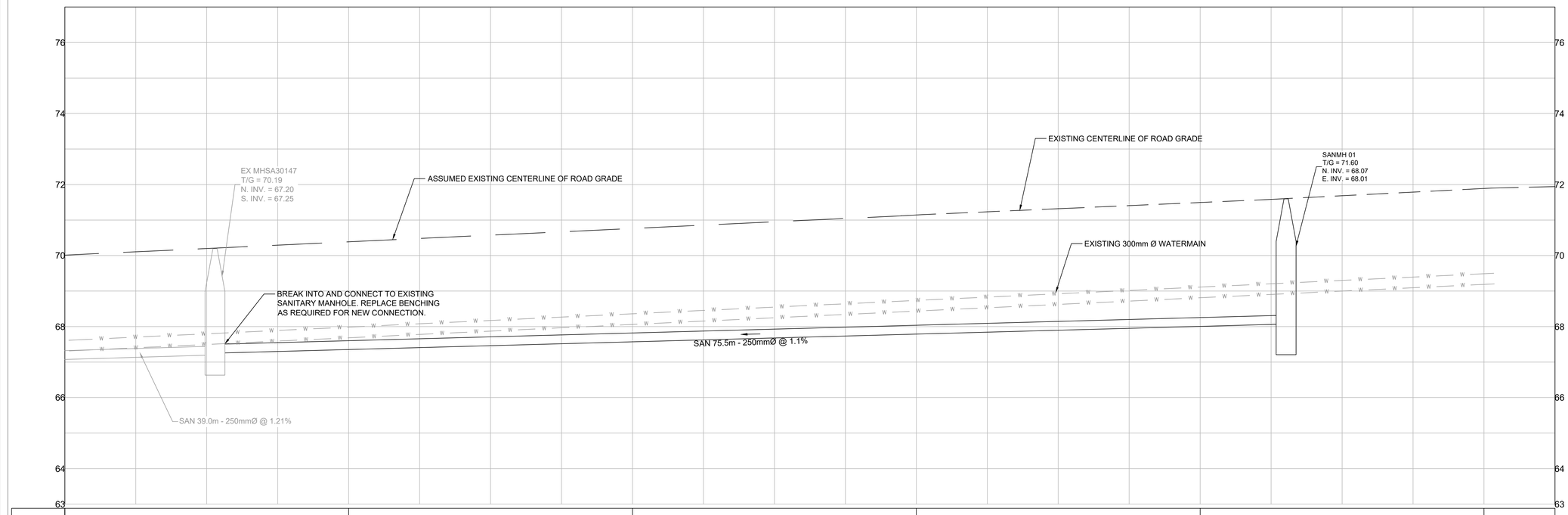
TITLE
REMOVALS PLAN

DESIGNED BY: T.H.	PROJECT NO.: 479542
DRAWN BY: R.G	
CHECKED BY: M.M.	C-102 (DRAWING NO.) / REM (DRAWING)
DATE: OCTOBER 2026	
SCALE: 1:300	

LEGEND:

- SITE PROPERTY LINE
- EXISTING GAS LINE
- EXISTING WATERMAIN
- EXISTING FIRE HYDRANT
- EXISTING VALVE COVER
- PROPOSED VALVE COVER
- PROPOSED WATERMAIN SERVICE
- EXISTING SANITARY SEWER AND MAINTENANCE HOLE
- PROPOSED SANITARY SEWER AND MAINTENANCE HOLE
- EXISTING STORM SEWER AND MAINTENANCE HOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM SEWER AND MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- PROPOSED CATCH BASIN MANHOLE
- PIPE INSULATION REQUIRED AS PER CITY OF OTTAWA DETAIL S35





EXISTING ELEVATION			
SANITARY PIPE DATA	EXISTING 39.0m LONG 250mm Ø SANITARY@ 1.21%	0+34.72 230.28	75.50m - 250mmØ PVC SDR35 SANITARY SEWER @ 1.1% / 2+82.33 234.90
STATION			

TOPOGRAPHIC INFORMATION & BENCHMARK

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REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

3.0m 1.5 0 3.0 6.0m
SCALE: 1:150

PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT

TCU DEVCORP

PROJECT

1867 ALTA VISTA DRIVE
OTTAWA, ONTARIO

TITLE

SITE SERVICING
PLAN AND PROFILE

DESIGNED BY	T.H.	PROJECT NO.	479542
DRAWN BY	R.G		
CHECKED BY	M.M.	C-103	SS
DATE	OCTOBER 2026		
SCALE	1:150	DRAWING NO.	DRAWING

LEGEND:

- SITE PROPERTY LINE
- EXISTING GAS LINE
- EXISTING WATERMAIN
- EXISTING FIRE HYDRANT
- EXISTING VALVE COVER
- PROPOSED VALVE COVER
- PROPOSED WATERMAIN SERVICE
- EXISTING SANITARY SEWER AND MAINTENANCE HOLE
- PROPOSED SANITARY SEWER AND MAINTENANCE HOLE
- EXISTING STORM SEWER AND MAINTENANCE HOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM SEWER AND MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- PROPOSED CATCH BASIN MANHOLE
- PIPE INSULATION REQUIRED AS PER CITY OF OTTAWA DETAIL S35

CONNECT TO EXISTING 300mm STORM SEWER. STORM SEWER INVERT AT PL IS APPROXIMATELY 71.53

STMH02
T/G = 72.52
SW. INV. = 71.53

STM 9.6m - 300mmØ @ 2.50%

STMH01
T/G = 73.87
W. INV. = 72.14
NE. INV. = 72.08

STM 10.6m - 300mmØ @ 2.50%

UNDERGROUND STORM WATER AND IRRIGATION CISTERN.
STORMTANK VOLUME = 56CU.M
IRRIGATION TANK VOLUME = 143CU.M

IRRIGATION RESERVES AND STORM TANK TO BE SEPARATED BY AN INTERNAL WALL. INCOMING WATER FROM ROOF DRAINS, LANDSCAPE AREA DRAINS AND LANEWAY CATCHBASIN TO BE DIRECTED THROUGH BUILDINGS MECHANICAL SYSTEM TO THE IRRIGATION SIDE OF THE TANK. THE WALL INSIDE THE TANK WILL HOLD BACK THE IRRIGATION WATER VOLUME, BUT WILL ALLOW EXCESS WATER TO SPILL OVER DURING STORM EVENTS. CISTERN PUMP TO CONTROL RELEASE RATE AT 5-YEAR STORM TO 85.2(L/S AND AT 100-YEAR STORM TO 129.6L/S.

INV. AT BUILDING 72.41m

RYCB 1
T/G=74.81

RYCB 2
T/G=74.83

FLOWS FROM LANDSCAPE AREA DRAINS TO BE CARRIED TO UNDERGROUND PARKING GARAGE, THROUGH BUILDING MECHANICAL SYSTEM AND DIRECTED TO UNDERGROUND CISTERN..

OUTLINE OF PARKING LEVELS BELOW

PROPOSED 9 STOREY RESIDENTIAL BUILDING
FFE = 74.00m
USF = 65.30m

SANITARY BACKWATER VALVE AS PER CITY STD. DETAIL DWG. S14.1 REFER TO MECHANICAL DRAWINGS FOR BACKWATER VALVE DETAILS

CONNECT TO UNDERGROUND PARKING GARAGE. FLOWS TO BE CARRIED THROUGH BUILDING MECHANICAL SYSTEM AND DIRECTED TO UNDERGROUND CISTERN.

INVERT AT BUILDING APPROX. 68.78m

AREA DRAIN

NO. 1815 2 Storey Brick Building

NO. 255 Smyth Road 2 Storey Brick Building

SAN 9.8m - 200mmØ @ 2.6%

STM 9.0m - 200mmØ @ 1.00%

CBMH 01
(JELLYFISH STORMWATER FILTER MANHOLE OR APPROVED EQUAL)
T/G = 73.05
E. INV. = 70.85

SANMH 04
T/G = 73.53
NW. INV. = 68.98
E. INV. = 69.04

SAN 54.0m - 200mmØ @ 1.0%

DMA CHAMBER AS PER CITY STD. DETAIL DRAWING W3

SANMH 02
T/G = 72.31
W. INV. = 68.24
S. INV. = 68.28

18.1m LONG 200mmØ PVC WATER SERVICE

SANMH 03
T/G = 73.25
N. INV. = 68.82
SE. INV. = 68.88

SAN 9.8m - 200mmØ @ 1.0%

CONNECT TO EXISTING 300mm WATERMAIN WITH 300mmX203mm TEE BY CITY FORCES EXCAVATION AND BACKFILL BY CONTRACTOR
TOP OF EXISTING WATER = 69.45m

SAN 17.0m - 200mmØ @ 1.35%

EX MHSA30147
T/G = 70.19
N. INV. = 67.20
S. INV. = 67.25

0+020 0+040 0+060 0+080 0+100 0+106

SAN 75.5m - 250mmØ @ 1.1%

SAN 39.0m - 250mmØ @ 1.21%

ROAD CUT LIMITS MATCH TO EXISTING ASPHALT

SANMH 01
T/G = 71.60
N. INV. = 68.07
E. INV. = 68.01

REMOVE AND RELOCATE EXISTING FIRE HYDRANT AND ALL ASSOCIATED APPURTENANCES 4.5m NORTH

ROAD CUT LIMITS MATCH TO EXISTING ASPHALT

SITE BENCHMARK
Fire Hydrant
Top of Spindle
Elev=73.83
BENCHMARK LOCATION WILL HAVE TO BE MOVED AS THE HYDRANT WILL BE RELOCATED.



KEY PLAN

TOPOGRAPHIC INFORMATION & BENCHMARK

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REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100233503
10-05-2026
PROVINCE OF ONTARIO

SCALE: 1:300

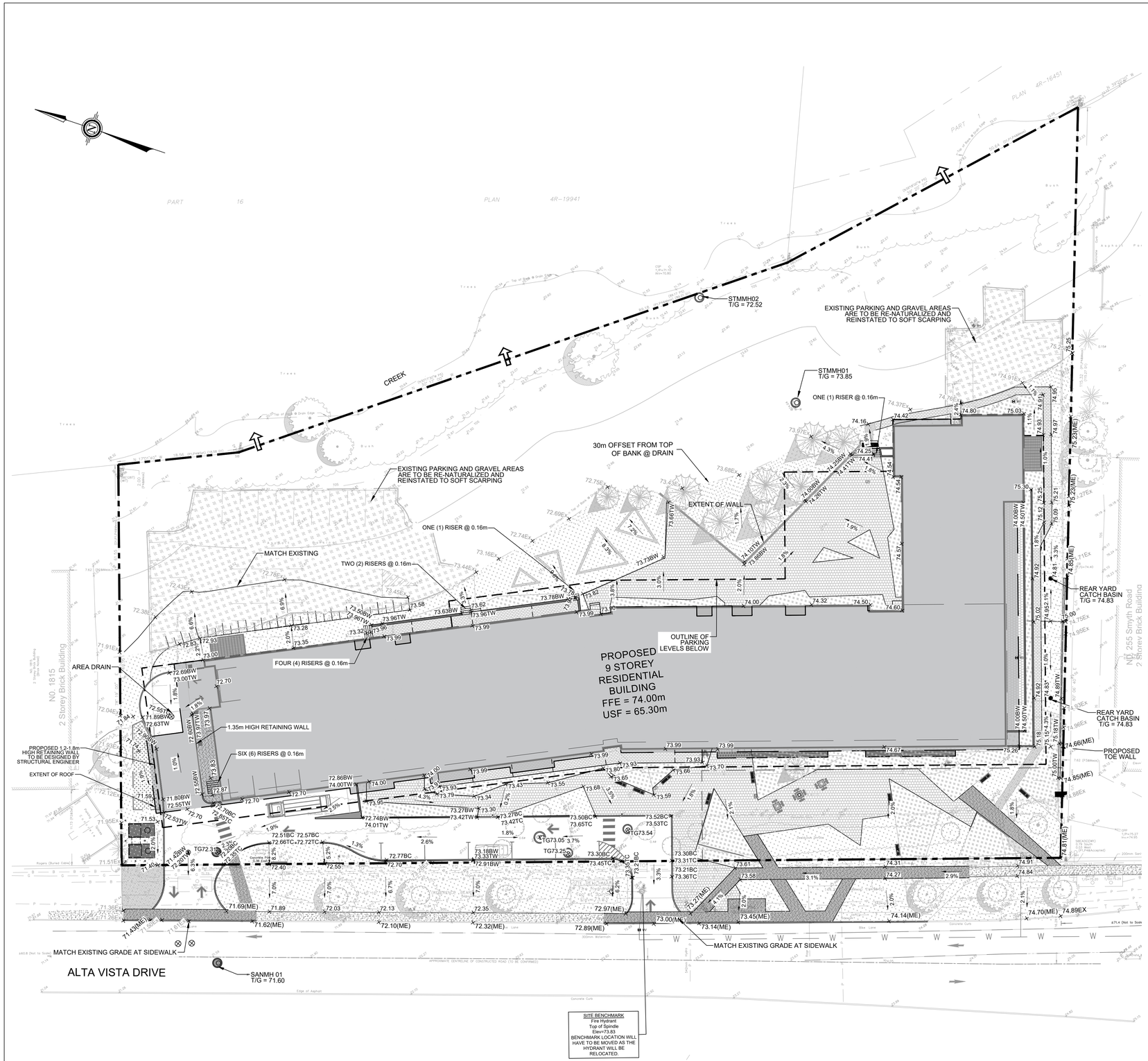
PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

TITLE: SITE SERVICING PLAN

DESIGNED BY: T.H.	PROJECT NO.: 479542
DRAWN BY: R.G	
CHECKED BY: M.M.	C-104 / SS
DATE: OCTOBER 2026	
SCALE: 1:300	DRAWING NO. / DRAWING



LEGEND:

- EXISTING PROPERTY LINE
- TERRACE (3:1 MAX)
- 99.99 — EXISTING GRADE
- 99.99 — PROPOSED GRADE
- 99.99 TW — PROPOSED TOP OF WALL GRADE
- 99.99 BW — PROPOSED BOTTOM OF WALL GRADE
- 99.99 FF — PROPOSED FINISHED FLOOR ELEVATION
- 99.99 SW — PROPOSED SWALE ELEVATION
- 99.99 ME — MATCH EXISTING ELEVATION
- 99.99 TC — PROPOSED TOP OF CURB GRADE
- 99.99 BC — PROPOSED BOTTOM OF CURB GRADE
- 99.9% — PROPOSED SURFACE SLOPE
- PROPOSED VALVE COVER
- PROPOSED SANITARY MAINTENANCE HOLE
- PROPOSED STORM MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- PROPOSED CURB
- GRADE BREAK LINE
- PROPOSED DEPRESSED CONCRETE CURB WITH TWSI PER CITY STD DWG SC7.3
- PROPOSED PAVERS
- PROPOSED CONCRETE AREA / SIDEWALK
- PROPOSED PLANTING AREA
- PROPOSED LANDSCAPE

PAVEMENT STRUCTURES		
MATERIAL	LIGHT DUTY	HEAVY DUTY
Asphaltic Concrete Surface Course: HL-3 (OPSS 1150) (PG 58-34) OR SUPERPAVE 12.5	60 mm	40 mm
Asphaltic Concrete Binder Course: HL-8 (OPSS 1150) (PG 58-34) OR SUPERPAVE 19.0	-	60 mm
Granular Base: OPSS 1010 Granular A	225 mm	200 mm
Granular Sub-base: OPSS 1010 Granular B, Type II	350 mm	450 mm
Geotextile membrane as per OPSS	YES	NO



KEY PLAN

TOPOGRAPHIC INFORMATION & BENCHMARK

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REVISIONS

LICENSED PROFESSIONAL ENGINEER — T. HARB — 100223503 — 10-05-2026 — PROVINCE OF ONTARIO

SCALE: 1:300

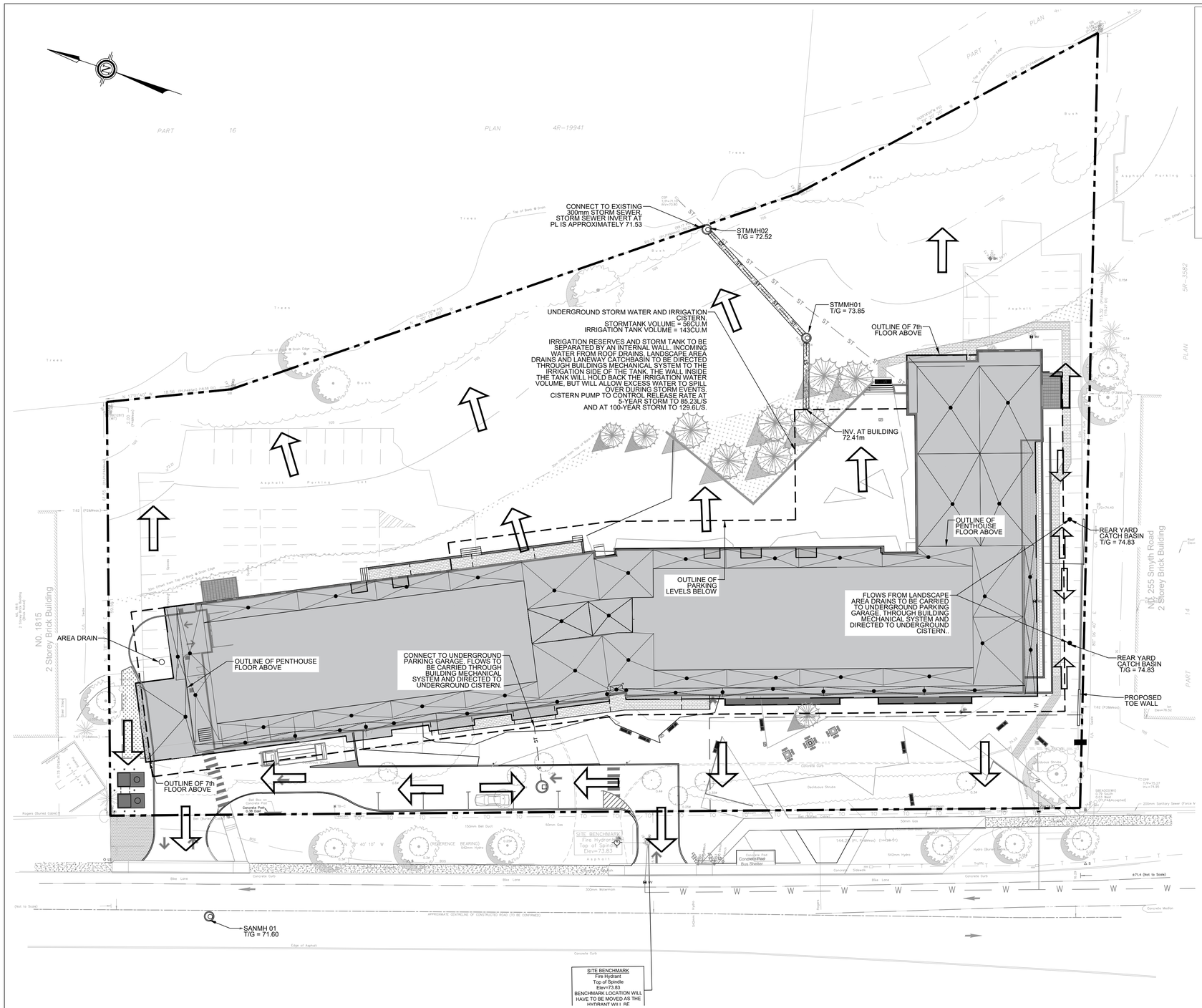
PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

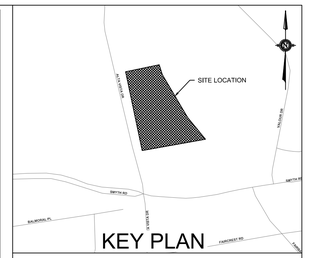
TITLE: GRADING PLAN

DESIGNED BY	T.H.	PROJECT NO.	479542
DRAWN BY	R.G		
CHECKED BY	M.M.	C-105	GR
DATE	OCTOBER 2026		
SCALE	1:300	DRAWING NO.	DRAWING



LEGEND:

- SITE PROPERTY LINE
- EXISTING STORM SEWER AND MAINTENANCE HOLE
- EXISTING STORM CATCH BASIN
- PROPOSED STORM SEWER AND MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- PIPE INSULATION REQUIRED AS PER CITY OF OTTAWA DETAIL S35
- PROPOSED ROOF DRAINS
- OVERLAND FLOW DIRECTION



KEY PLAN

TOPOGRAPHIC INFORMATION & BENCHMARK

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REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

5m 2 0 5 10m
SCALE: 1:300

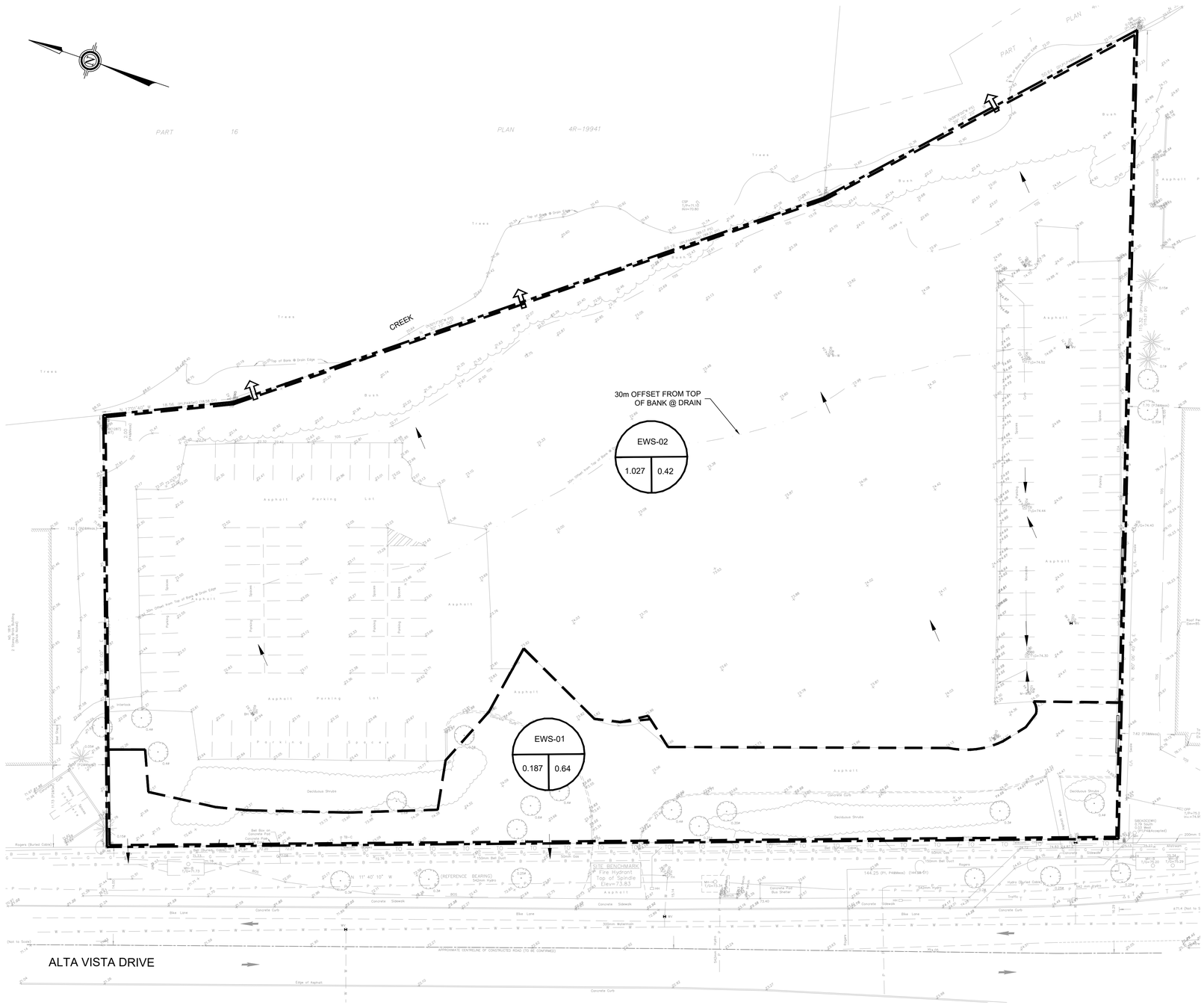
PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

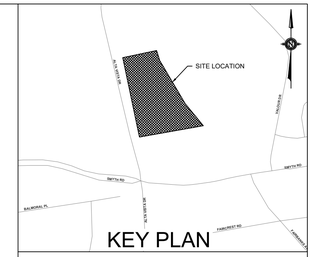
TITLE: STORM WATER MANAGEMENT PLAN

DESIGNED BY	T.H.
DRAWN BY	R.G
CHECKED BY	M.M.
DATE	OCTOBER 2026
SCALE	1:300
PROJECT NO.	479542
DRAWING NO.	C-106
DRAWING	SWM



LEGEND:

- PROPOSED NEW PROPERTY LINE
- WATERSHED BOUNDARY
- WATERSHED NAME (WS-XX / EWS-01)
- RUNOFF COEFFICIENT (1.0XX / XX5)
- AREA IN HECTARES
- MINOR OVERLAND FLOW ROUTE
- MAJOR OVERLAND FLOW ROUTE



KEY PLAN

TOPOGRAPHIC INFORMATION & BENCHMARK

TOPOGRAPHIC SURVEY COMPLETED BY ANNIS O'SULLIVAN VOLLEBEKK LTD. ON JUNE 26th, 2025. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD-28 GEODETIC DATUM.

SITE BENCHMARK No.1 LOCATED AT HYDRANT AT EXISTING ENTRANCE ALONG ALTA VISTA DRIVE. FIRE HYDRANT TOP OF SPINDLE = 73.83

NOT FOR CONSTRUCTION

No.	DATE	DESCRIPTION	BY
03	2026-10-05	RE-ISSUED FOR SPA	T.H.
02	2026-06-30	ISSUED FOR SPA	T.H.
01	2025-12-17	ISSUED FOR OPA/ZBA	T.H.

REVISIONS



5m 2 0 5 10m

SCALE: 1:300

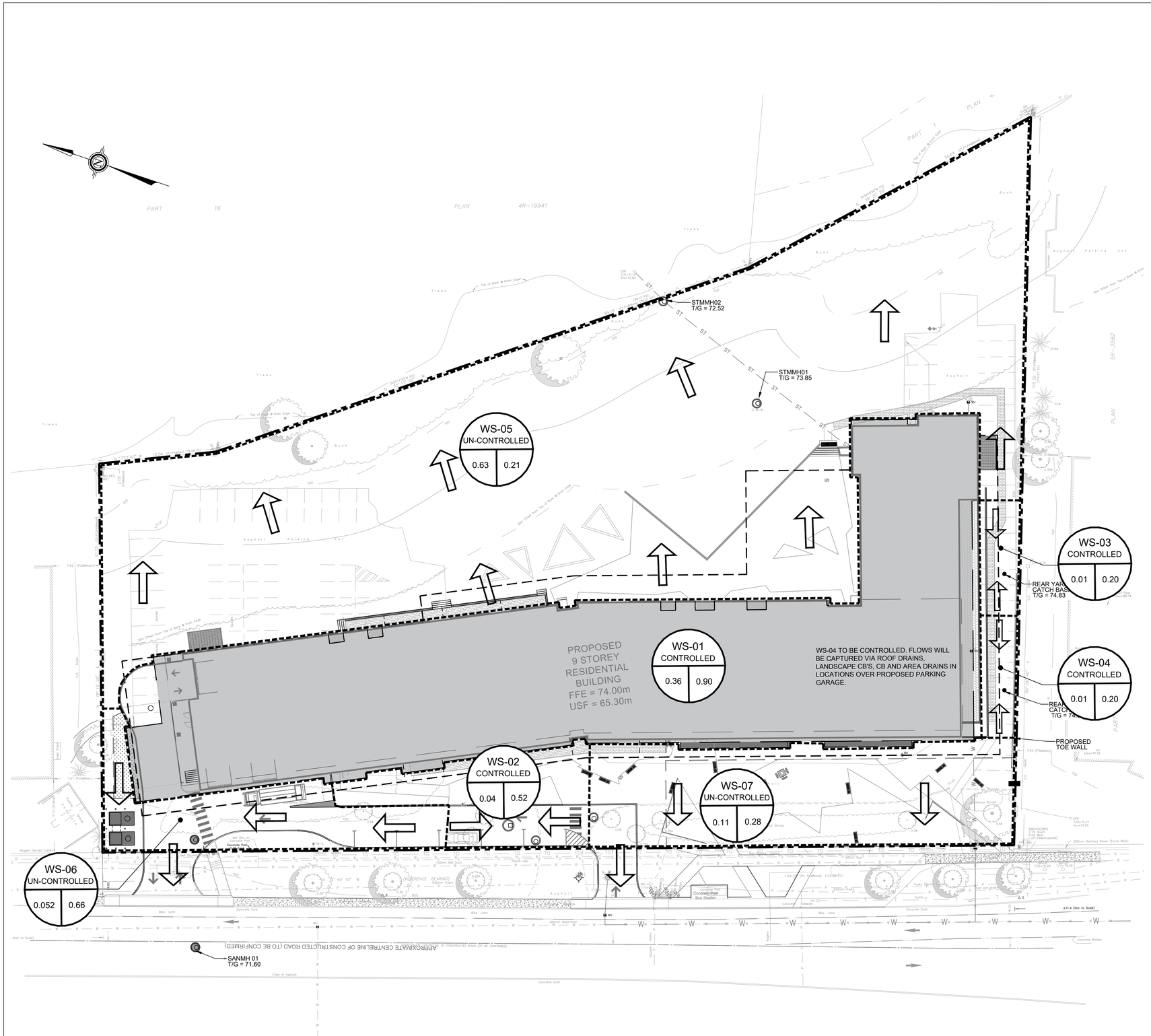
PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

TITLE: PRE DEVELOPMENT DRAINAGE AREAS

DESIGNED BY	T.H.
DRAWN BY	R.G
CHECKED BY	M.M.
DATE	OCTOBER 2026
SCALE	1:300
PROJECT NO.	479542
DRAWING NO.	C107
DRAWING	PRE



LEGEND:

- PROPERTY LINE
- WATERSHED BOUNDARY
- WATERSHED NAME
- RUNOFF COEFFICIENT
- AREA IN HECTARES
- MINOR OVERLAND FLOW ROUTE
- MAJOR OVERLAND FLOW ROUTE



TOPOGRAPHIC INFORMATION & BENCHMARK

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SITE BENCHMARK No.1 LOCATED AT HYDRANT AT EXISTING ENTRANCE ALONG ALTA VISTA DRIVE. FIRE HYDRANT TOP OF SPINDLE = 73.83

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02	2026-06-30	ISSUED FOR SPA	T.H.
01	2025-12-17	ISSUED FOR OPA/ZBA	T.H.

REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

SCALE: 1:300

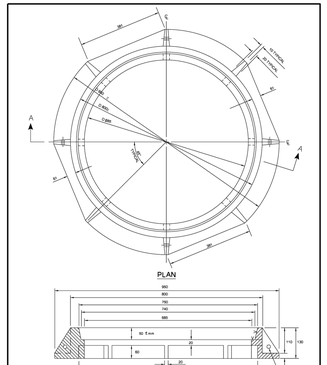
PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

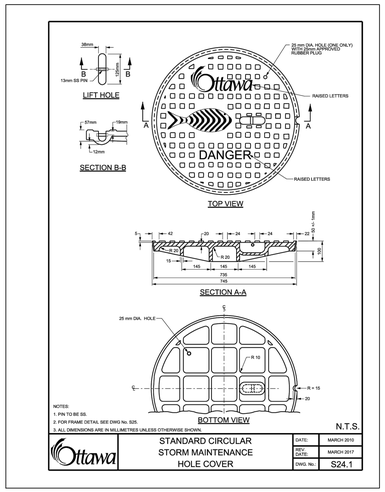
TITLE: POST DEVELOPMENT DRAINAGE AREAS

DESIGNED BY	T.H.
DRAWN BY	R.G
CHECKED BY	M.M.
DATE	OCTOBER 2026
SCALE	1:300
PROJECT NO.	479542
DRAWING NO.	C108
DRAWING	POST



STANDARD CIRCULAR FRAME FOR MAINTENANCE HOLES (MODIFIED OPSD-401.020)

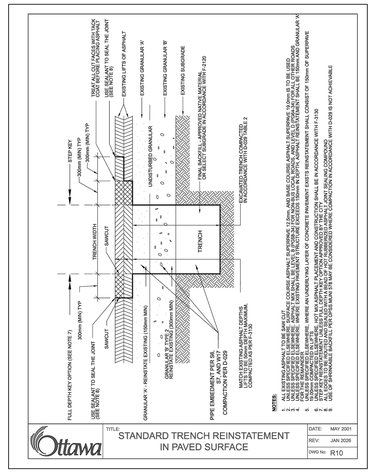
DATE: MAY 2001 | REV. DATE: MARCH 2015 | DWG No: S25



STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER

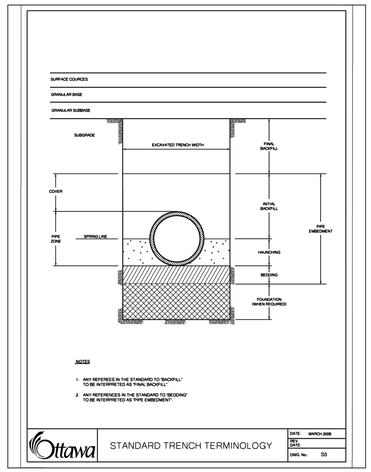
N.T.S.

DATE: MARCH 2015 | REV. DATE: MARCH 2017 | DWG No: S24.1



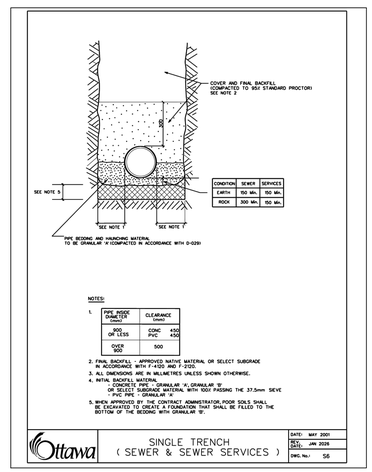
TITLE: STANDARD TRENCH REINSTATEMENT IN PAVED SURFACE

DATE: MAY 2001 | REV.: JAN 2026 | DWG No: R10



STANDARD TRENCH TERMINOLOGY

DATE: MARCH 2026 | REV.: | DWG No: S5



SINGLE TRENCH (SEWER & SEWER SERVICES)

DATE: MAY 2001 | REV.: JAN 2026 | DWG No.: S6



TOPOGRAPHIC INFORMATION & BENCHMARK

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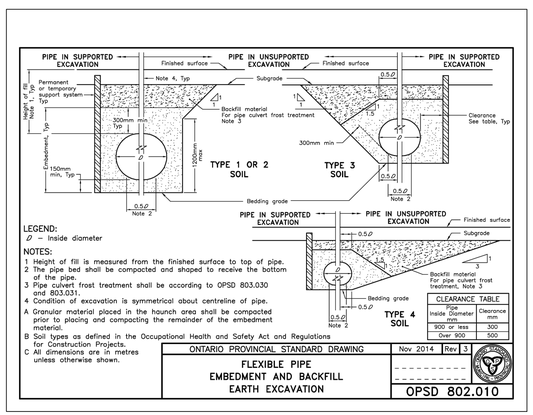
SITE BENCHMARK No.1 LOCATED AT HYDRANT AT EXISTING ENTRANCE ALONG ALTA VISTA DRIVE. FIRE HYDRANT TOP OF SPINDLE = 73.83

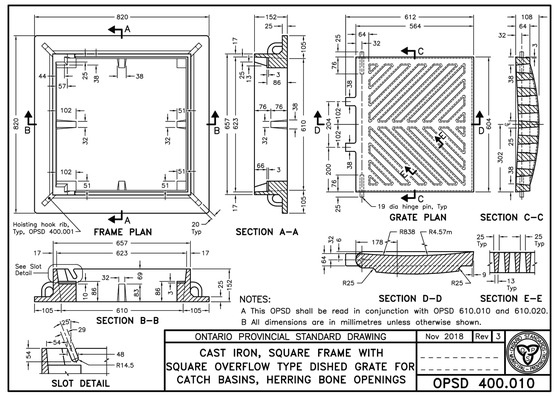
NOT FOR CONSTRUCTION



ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 3

FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION

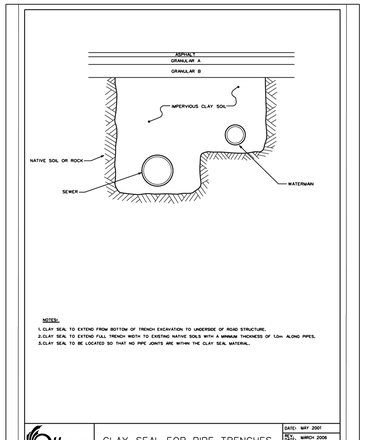
OPSD 802.010



ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2018 | Rev 3

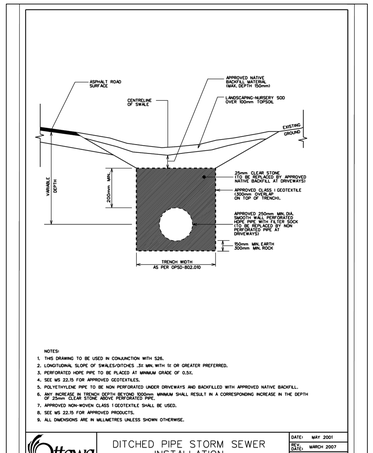
CAST IRON, SQUARE FRAME WITH SQUARE OVERFLOW TYPE DISHED GRATE FOR CATCH BASINS, HERRING BONE OPENINGS

OPSD 400.010



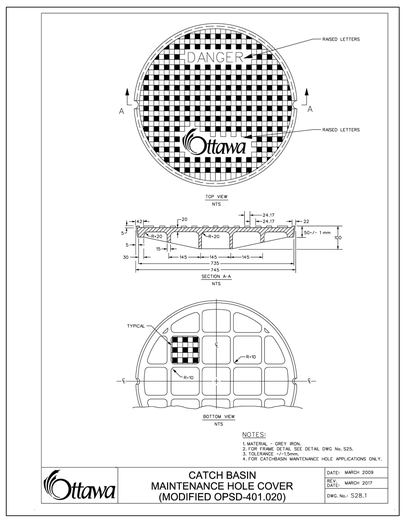
CLAY SEAL FOR PIPE TRENCHES

DATE: MAY 2001 | REV.: MARCH 2008 | DWG No.: S8



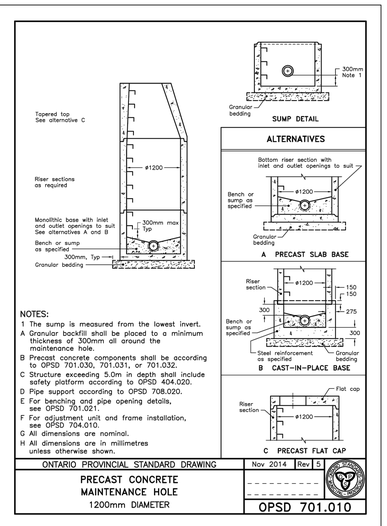
DITCHED PIPE STORM SEWER INSTALLATION

DATE: MAY 2001 | REV.: MARCH 2007 | DWG No.: S9



CATCH BASIN MAINTENANCE HOLE COVER (MODIFIED OPSD-401.020)

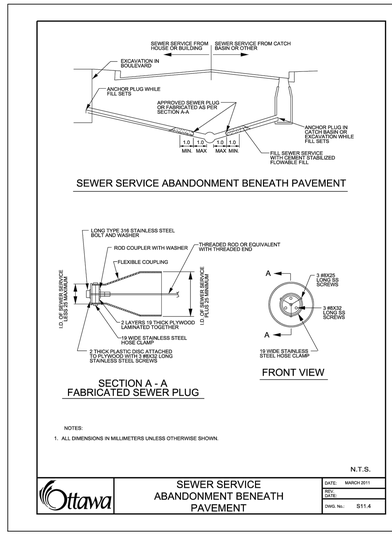
DATE: MARCH 2009 | REV.: MARCH 2017 | DWG No.: S28.1



ONTARIO PROVINCIAL STANDARD DRAWING | Nov 2014 | Rev 5

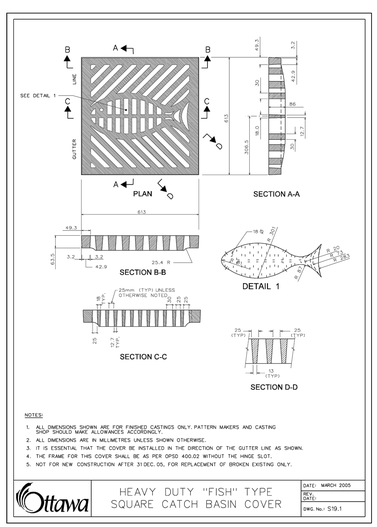
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER

OPSD 701.010



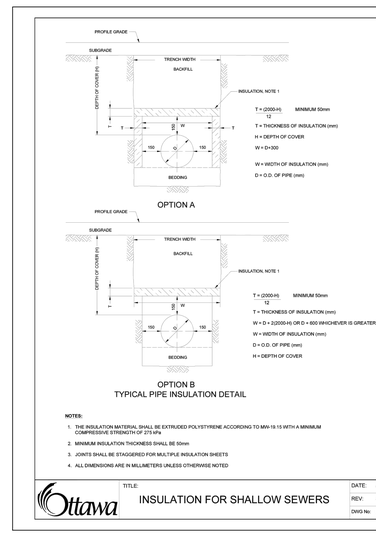
SEWER SERVICE ABANDONMENT BENEATH PAVEMENT

DATE: MARCH 2011 | REV.: | DWG No.: S11.4



HEAVY DUTY "FISH" TYPE SQUARE CATCH BASIN COVER

DATE: MARCH 2005 | REV.: | DWG No.: S19.1



INSULATION FOR SHALLOW SEWERS

DATE: MAY 2001 | REV.: JULY 2024 | DWG No: S35

No.	DATE	DESCRIPTION	BY
03	2026-10-05	RE-ISSUED FOR SPA	T.H.
02	2026-06-30	ISSUED FOR SPA	T.H.
01	2025-12-17	ISSUED FOR OPA/ZBA	T.H.

REVISIONS

LICENSED PROFESSIONAL ENGINEER — T. HARB — 100223503 — 10-05-2026 — PROVINCE OF ONTARIO

5m 2 0 5 10m

SCALE: 1:300

PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

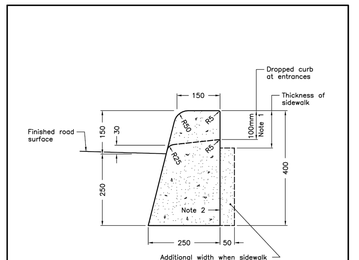
CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

TITLE: DETAIL PAGE 1

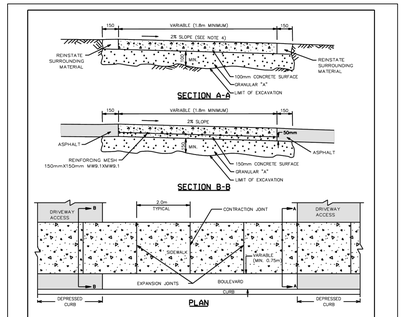
DESIGNED BY: T.H. | DRAWN BY: R.G | CHECKED BY: M.M. | DATE: OCTOBER 2026 | SCALE: N/A

PROJECT NO.: 479542 | DRAWING NO.: C110 | DRAWING: DET1



NOTES:
1 When sidewalk is continuously adjacent, the dropped curb at entrances shall be reduced to 75mm.
2 For slipforming procedure a 5% batter is acceptable.
A Treatment at entrances shall be according to OPSD 351.010.
B Outlet treatment shall be according to the OPSD 610 Series.
C The transition from one curb type to another shall be a minimum length of 3.0m, except in conjunction with guide rail where it shall be according to the OPSD 900 Series.
D All dimensions are in millimetres unless otherwise shown.

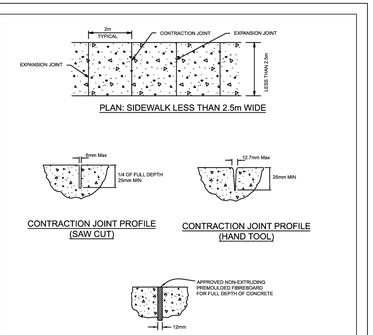
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2012	Rev. 2
CONCRETE BARRIER CURB		OPSD 600.110



NOTES:
1. LONGITUDINAL EDGES TO BE FINISHED WITH A 50mm EDGING TOOL.
2. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
5. SIDEWALK NOT TO BE DEPRESSED ACROSS DRIVEWAY ACCESSES.
6. EXPANSION AND CONTRACTION JOINT CONSTRUCTION PER SC5

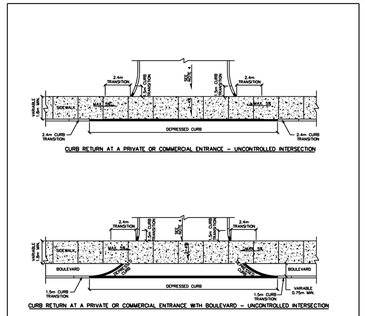
NTS

TYPICAL CONCRETE SIDEWALK IN BOULEVARD	DATE: MAY 2001
	REV. DATE: JANUARY 2026
	DWG. No.: SC4



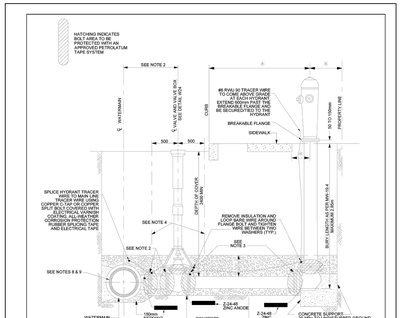
NOTES:
1. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4M MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC.
2. LONGITUDINAL EDGES ARE TO BE FINISHED WITH A 50mm EDGING TOOL.
3. CONTRACTION JOINTS ARE TO BE SAW CUT OR FINISHED WITH A HAND TOOLING
4. THE TERMINATION OF THE JOINTS AT BOTH THE FRONT AND BACK OF SIDEWALKS SHALL BE NO LESS THAN 600mm APART
5. JOINTS IN ALL CONCRETE ELEMENTS SHALL BE LAID OUT TO ENSURE THAT NO INDIVIDUAL RESULTING CONCRETE PANEL IS LESS THAN 0.5m2 OR GREATER THAN 6m2

SIDEWALK CONSTRUCTION JOINTS	DATE: MAY 2001
	REV. DATE: JAN 2026
	DWG No.: SC5



NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. CURB DETAILS SEE SC1.1, SC1.2 AND SC1.3.
3. SIDEWALK DETAILS SEE SC2 AND SC3.
4. MAXIMUM SLOPE VARIES, SEE PRIVATE APPROACH BYLAW.
5. UNCONTROLLED INTERSECTION MEANS AN ENTRANCE NOT LOCATED AT A TRAFFIC SIGNAL OR ALL-WAY STOP CONTROL.

CURB RETURN ENTRANCES - UNCONTROLLED INTERSECTIONS	DATE: MARCH 2007
	REV. DATE: MARCH 2021
	DWG. No.: SC7.1



NOTES:
FOR ALL WATERMAINS
1. SEE DETAIL W20 FOR HYDRANTS IN DITCH AREAS
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/RESTRAINING DEVICES TO BE UTILIZED. FOR WATERMAINS 600mm AND OVER, BOLT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE
3. HYDRANT BREAKABLE FLANGE TO BE AT GRADE
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-18.4 AND F-4414
5. SEE SPF-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA
6. SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS
7. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
8. FOR ALL 300mm WATERMAINS USE A 300 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP
9. FOR ALL 400mm WATERMAINS USE A 400 x 150 TANGENTIAL TEE WITH THE 150mm OUTLET ON TOP
10. FOR ALL METALLIC WATERMAINS, BOND ACROSS ALL MECHANICAL JOINTS WITHIN EACH PIPEFITTING JOINT OR CONNECTION TO ENSURE ELECTRICAL CONTINUITY ALONG ALL METALLIC COMPONENTS
11. ALL MATERIALS SHALL BE IN ACCORDANCE WITH MW-18.15
12. TRACER WIRE BOLT CONNECTIONS TO BE COMPLETED PER W65
13. TRACER WIRE SPLICES TO BE COMPLETED PER W47

HYDRANT INSTALLATION - NEW CONSTRUCTION	DATE: MAY 2001
	REV.: MAR 2023
	DWG No: W19



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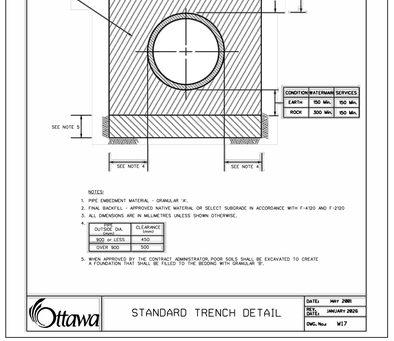
SITE BENCHMARK No.1 LOCATED AT HYDRANT AT EXISTING ENTRANCE ALONG ALTA VISTA DRIVE. FIRE HYDRANT TOP OF SPINDLE = 73.83

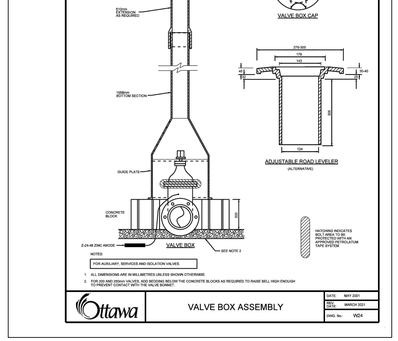


NOTES:
1. PIPE EMBEDMENT MATERIAL - GRANULAR 'A'.
2. FINAL BACKFILL - APPROVED NATIVE MATERIAL OR SELECT SUBGRADE IN ACCORDANCE WITH F-4120 AND F-2120
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4.

PIPE OUTSIDE DIA.	CLEARANCE (mm)
900 or LESS	450
OVER 900	500

5. WHEN APPROVED BY THE CONTRACT ADMINISTRATOR, POOR SOILS SHALL BE EXCAVATED TO CREATE A FOUNDATION THAT SHALL BE FILLED TO THE BEDDING WITH GRANULAR 'B'.

STANDARD TRENCH DETAIL	DATE: MAY 2001
	REV. DATE: JANUARY 2026
	DWG. No.: W17



NOTES:
FOR AUXILIARY SERVICES AND ISOLATION VALVES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR 200 AND 250mm VALVES, ADD SECOND MEL@THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

VALVE BOX ASSEMBLY	DATE: MAY 2001
	REV. DATE: MARCH 2021
	DWG. No.: W24

1. SOIL DESCRIPTION: VERY FINE SANDS, SANDY CLAYS, CLAYS.
SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 KPa

PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	250	250	200	200
152	400	400	250	300
203	550	550	300	450
254	650	650	400	500
305	800	800	450	650
406	1050	1050	600	850

2. SOIL DESCRIPTION: SILTY SAND,GRAVELS OR CLAYEY SAND GRAVEL MIXTURES, MODERATE AMOUNT OF FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 KPa

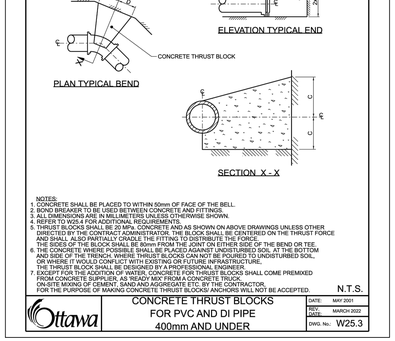
PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	200	200	150	150
152	250	250	200	200
203	350	350	250	270
254	450	450	300	350
305	500	500	350	400
406	750	750	400	600

3. SOIL DESCRIPTION: SANDS, GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

PIPE DIAMETER	DIMENSION NOTED ON W25.3			
	A	B	C	D
102	150	150	150	150
152	200	200	200	200
203	300	300	200	230
254	400	400	250	270
305	450	450	300	300
406	650	650	350	450

NOTES
1. THE ABOVE THRUST BLOCK DIMENSIONS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. THE ASSUMPTIONS MADE IN THE DESIGN OF THESE BLOCKS ARE AS FOLLOWS:
a) MAXIMUM OPERATING PRESSURE OF 690 kPa
b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.6 m/s
OF 1140 kPa FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 1290 psi
3. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
4. DIMENSIONS MAY BE ADJUSTED SO LONG AS THE BEARING SURFACE AREA OF THE THRUST BLOCK IS NOT REDUCED.
5. TO BE USED IN CONJUNCTION WITH W25.3.

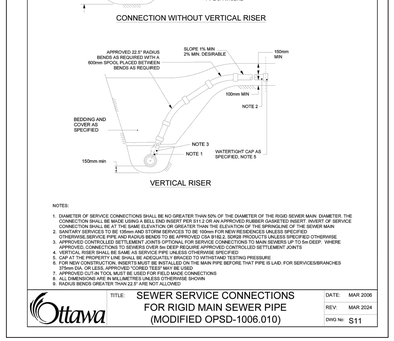
THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001
	REV. DATE: JAN 2026
	DWG No.: W25.4



NOTES:
1. CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
2. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
5. THE SIZES OF THE BLOCKS SHALL BE AS SHOWN ON ABOVE DRAWINGS UNLESS OTHER DIRECTED BY THE CONTRACT ADMINISTRATOR. THE BLOCK SHALL BE CENTERED ON THE THRUST FORCE AND SHALL ALSO PARTIALLY CRADLE THE FITTING TO DISTRIBUTE THE FORCE. THE SIDES OF THE BLOCK SHALL BE 80mm FROM THE JOINT ON EITHER SIDE OF THE BEND OR TEE.
6. THE CONCRETE WHERE POSSIBLE SHALL BE PLACED AGAINST UNDISTURBED SOIL. AT THE BOTTOM OF TRENCHES IN ROCK, THE CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL OR WHERE IT WOULD CONFLICT WITH EXISTING OR FUTURE INFRASTRUCTURE.
7. THE THRUST BLOCK SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER.
8. EXCEPT FOR THE ADDITION OF WATER, CONCRETE FOR THRUST BLOCKS SHALL COME PREMIXED FROM CONCRETE SUPPLIER, AS 'READY MIX' FROM A CONCRETE TRUCK. ON-SITE MIXING OF CEMENT, SAND AND AGGREGATES, BY THE CONTRACTOR, WILL NOT BE ACCEPTED.
FOR THE PURPOSE OF MAKING CONCRETE, CONCRETE BLOCK CONSTRUCTION WILL NOT BE ACCEPTED.

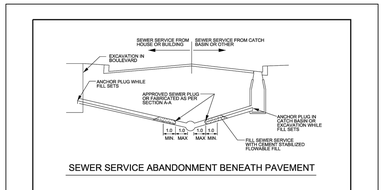
N.T.S.

CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001
	REV. DATE: MARCH 2022
	DWG. No.: W25.3

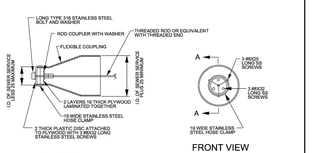


NOTES:
1. DIAMETER OF SERVICE CONNECTIONS SHALL BE NO GREATER THAN 50% OF THE DIAMETER OF THE RIGID SEWER MAIN. DIAMETER, THE CONNECTION SHALL BE MADE USING A BELL END INSERT PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN.
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE.SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE
3. SANITARY SERVICES TO BE 200mm AND STORM SERVICES TO BE 150mm FOR INDUSTRIAL BUILDINGS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED
5. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES ON EXISTING MAINS, SADDLES MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
9. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE: MAR 2006
	REV.: MAR 2024
	DWG No: S11



SEWER SERVICE ABANDONMENT BENEATH PAVEMENT

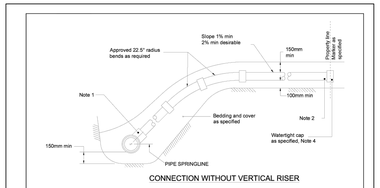


SECTION A - A
FABRICATED SEWER PLUG

NOTES:
1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

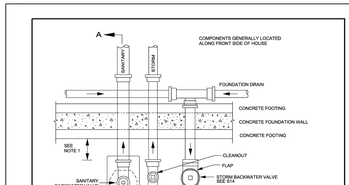
N.T.S.

SEWER SERVICE ABANDONMENT BENEATH PAVEMENT	DATE: MARCH 2011
	REV. DATE:
	DWG No.: S11.4



NOTES:
1. THE CONNECTION SHALL BE MADE USING AN APPROVED TEE OR WYE FITTINGS. INVERT OF SERVICE CONNECTION SHALL BE AT THE SAME ELEVATION OR GREATER THAN THE ELEVATION OF THE SPRINGLINE OF THE SEWER MAIN.
2. SANITARY SERVICES TO BE 150mm AND STORM SERVICES TO BE 100mm FOR MAIN RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE
3. SANITARY SERVICES TO BE 200mm AND STORM SERVICES TO BE 150mm FOR INDUSTRIAL BUILDINGS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS
4. CAP AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
6. RADIUS BENDS GREATER THAN 22.5° ARE NOT ALLOWED

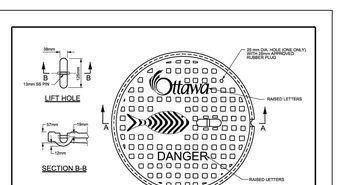
SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE	DATE: MAR 2006
	REV. DATE: JAN 2026
	DWG No: S11.1



NOTES:
1. BACKWATER VALVE, CLEAN-OUTS AND ANY OTHER FITTINGS MUST BE INSTALLED A MINIMUM OF 300mm INSIDE OF THE BASEMENT FOOTING. THIS IS TO ENSURE THERE IS SUFFICIENT ROOM TO REPLACE THESE COMPONENTS IN THE FUTURE WITHOUT HAVING TO DAMAGE THE FOOTING/WALL DURING THE PROCESS.
2. JOINTS BETWEEN THE ACCESS BOX SECTIONS AND THE ACCESS BOX AND THE BACKWATER VALVE AND THE FLOOR SLAB SHALL BE SEALED.

N.T.S.

SANITARY BACKWATER VALVE INSTALLATION TYPE 1	DATE: MARCH 2010
	REV. DATE: MARCH 2011
	DWG No.: S14.1



NOTES:
1. PIN TO BE SS.
2. FOR FRAME DETAIL SEE DWG No. S25.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

STANDARD CIRCULAR STORM MAINTENANCE HOLE COVER	DATE: MARCH 2010
	REV. DATE: MARCH 2017
	DWG. No.: S24.1

NOT FOR CONSTRUCTION

No.	DATE	DESCRIPTION	BY
03	2026-10-05	RE-ISSUED FOR SPA	T.H.
02	2026-06-30	ISSUED FOR SPA	T.H.
01	2025-12-17	ISSUED FOR OPA/ZBA	T.H.

REVISIONS

LICENSED PROFESSIONAL ENGINEER
T. HARB
100223503
10-05-2026
PROVINCE OF ONTARIO

5m 2 0 5 10m
SCALE: 1:300

PARSONS
1223 Michael Street, Suite 100, Ottawa, Ontario, Canada K1J 7T2
Tel: (613) 738-4160 Fax: (613) 739-7105

CLIENT: TCU DEVCORP

PROJECT: 1867 ALTA VISTA DRIVE OTTAWA, ONTARIO

TITLE: DETAIL PAGE 2

DESIGNED BY	T.H.	PROJECT NO.	479542	
DRAWN BY	R.G			
CHECKED BY	M.M.		C111	DET2
DATE	OCTOBER 2026			
SCALE	N/A		DRAWING NO.	DRAWING

EROSION AND SEDIMENT CONTROL MEASURES:

- CONTRACTOR IS RESPONSIBLE FOR ALL INSTALLATION, MONITORING, REPAIR AND REMOVAL OF ALL EROSION AND SEDIMENT CONTROL FEATURES. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES, TO PROVIDE FOR PROTECTION OF THE AREA DRAINAGE SYSTEM AND THE RECEIVING WATERCOURSE, DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR ACKNOWLEDGES THAT FAILURE TO IMPLEMENT APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURE MAY BE SUBJECT TO PENALTIES IMPOSED BY ANY APPLICABLE REGULATORY AGENCY
- SEDIMENT AND EROSION CONTROL PLAN OBJECTIVES:
- PREVENT SOIL EROSION. THIS CAN RESULT FROM STREAMING RAIN WATER OR WIND EROSION DURING CONSTRUCTION.
- PREVENT SEDIMENT DEPOSITS IN THE SEWER PIPES AND NEARBY COLLECTING STREAMS (AS APPLICABLE),
- PREVENT AIR POLLUTION FROM PARTICULATE MATTER AND DUST.

1. PRIOR TO START OF CONSTRUCTION:

PRIOR TO THE REMOVAL OF ANY VEGETATIVE COVER, MOVING OF SOIL AND CONSTRUCTION:

- INSTALL SILT FENCE (AS PER OPSD 219.110) ALONG DITCHES IMMEDIATELY DOWNSTREAM FROM AREAS TO BE DISTURBED (SEE PLAN FOR LOCATION).
- INSTALL FILTER CLOTH ON DOWNSTREAM MANHOLE COVERS.
- INSTALL SILTSACK FILTERS IN ALL CONCRETE CATCH BASINS STRUCTURES.
- INSPECT MEASURES IMMEDIATELY AFTER INSTALLATION.
- THE CONTRACTOR MUST SET UP THE MEASURES INDICATED ON THE PLAN, INSPECT THEM FREQUENTLY AND CLEAN AND REPAIR OR REPLACE THE DETERIORATED STRUCTURES. AT THE END OF THE CONSTRUCTION PERIOD, THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF THE TEMPORARY STRUCTURES AND RECONDITIONING THE AFFECTED AREAS

2. DURING CONSTRUCTION:

- SEDIMENT AND EROSION CONTROL MEASURES TO BE CONSTRUCTED AS PER OPSS 805.
- WHEN SEDIMENT AND EROSION CONTROL MEASURES MUST BE REMOVED TO COMPLETE A PORTION OF THE WORK, THE SAME MEASURES MUST BE REINSTATED UPON THE WORK'S COMPLETION.
- WORK TO BE DONE IN THE VICINITY OF MAJOR WATERWAYS TO BE CARRIED OUT FROM JULY AND SEPTEMBER ONLY.
- MINIMIZE THE EXTENT OF DISTURBED AREAS AND THE DURATION OF EXPOSURE.
- PROTECT DISTURBED AREAS FROM RUNOFF.
- PROVIDE TEMPORARY COVER SUCH AS SEEDING OR MULCHING IF DISTURBED AREA WILL NOT BE REHABILITATED SHORTLY.
- INSPECT STRAW BALE FLOW CHECK DAMS, SILT FENCES, SILT SACKS, AND CATCH BASIN SUMPS REGULARLY AND AFTER EVERY MAJOR STORM EVENT. CLEAN AND REPAIR WHEN NECESSARY.
- PLAN TO BE REVIEWED AND REVISED AS REQUIRED DURING CONSTRUCTION.
- EROSION CONTROL FENCING TO BE ALSO INSTALLED AROUND THE BASE OF ALL STOCKPILES.
- DO NOT LOCATE TOPSOIL PILES AND EXCAVATION MATERIAL CLOSER THAN 2.5m FROM ANY PAVED SURFACE, OR ONE WHICH IS TO BE PAVED BEFORE THE PILE IS REMOVED. ALL TOPSOIL PILES ARE TO BE SEEDED IF THEY ARE TO REMAIN ON SITE LONG ENOUGH FOR SEEDS TO GROW (LONGER THAN 30 DAYS). WHEN STORING SOIL ON SITE IN PILES THE CONTRACTOR MUST COVER EACH PILE WITH TARPS, STRAW OR A GEOTEXTILE FABRIC TO AVOID FINE PARTICLE TRANSPORT BY WIND AND/OR STREAMING RAIN WATER.
- CONTROL WIND-BLOWN DUST OFF SITE TO ACCEPTABLE LEVELS BY SEEDING TOPSOIL PILES AND OTHER AREAS TEMPORARILY (PROVIDE WATERING AS REQUIRED). FOR DUST CONTROL, CONTRACTOR TO APPLY CALCIUM CHLORIDE (TYPE I – OPSS 2501 AND CAN/CGSB-15-1) AND WATER WITH EQUIPMENT APPROVED BY THE OWNER'S REPRESENTATIVE AT RATE IN ACCORDANCE TO OPSS 506 WHEN DIRECTED BY OWNER'S REPRESENTATIVE.
- ALL EROSION CONTROL STRUCTURE TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN STABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER. SEDIMENT CAPTURE SILT SACKS MUST BE MAINTAINED AND CANNOT BE REMOVED UNTIL ALL LANDSCAPING AREAS ARE COMPLETED.
- NO ALTERNATE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVES BY THIS CONSULTING ENGINEER AND THE CITY OF OTTAWA DEPARTMENT OF PUBLIC WORKS.
- CONTRACTOR RESPONSIBLE FOR MUNICIPAL ROADWAY AND SIDEWALK TO BE CLEANED OF ALL SEDIMENT FROM VEHICULAR TRACKING ETC. AT THE END OF EACH WORK DAY.
- DURING WET CONDITIONS, TIRES OF ALL VEHICLES/EQUIPMENT LEAVING THE SITE ARE TO BE SCRAPED.
- ANY MUD/MATERIAL TRACKED ONTO THE ROAD SHALL BE REMOVED IMMEDIATELY BY HAND OR RUBBER TIRE LOADER.
- TAKE ALL NECESSARY STEPS TO PREVENT BUILDING MATERIAL, CONSTRUCTION DEBRIS OR WASTE BEING SPILLED OR TRACKED ONTO ABUTTING PROPERTIES OR PUBLIC STREETS DURING CONSTRUCTION AND PROCEED IMMEDIATELY TO CLEAN UP ANY AREAS SO AFFECTED.
- PROVIDE GRAVEL ENTRANCE WHEREVER EQUIPMENT LEAVES THE SITE TO PROVIDE MUD TRACKING ONTO PAVED SURFACES. GRAVEL BED SHALL BE A MINIMUM OF 10m LONG, 4m WIDE, AND 0.15m DEEP AND SHALL CONSIST OF COARSE MATERIAL. MAINTAIN GRAVEL ENTRANCE IN CLEAN CONDITION.

3. AFTER CONSTRUCTION:

- PROVIDE PERMANENT COVER CONSISTING OF TOPSOIL AND SEED TO DISTURBED AREAS.
- ALL SEDIMENT AND EROSION CONTROL MEASURES TO BE REMOVED BY THE CONTRACTOR FOLLOWING THE COMPLETION OF WORK AND AFTER DISTURBED AREAS HAVE BEEN REHABILITATED AND STABILIZED, THIS INCLUDES REMOVE STRAW BALE FLOW CHECK DAMS, SILT FENCES AND FILTER CLOTHS ON CATCH BASINS AND MANHOLE COVERS.
- INSPECT AND CLEAN CATCH BASIN SUMPS AND STORM SEWERS.

NOTES: REMOVALS AND DEMOLITION

1. PRE-REMOVAL, THE CONTRACTOR MUST VISIT THE PREMISES IN ORDER TO BE FULLY AWARE OF EXISTING CONDITIONS ON SITE, INCLUDING ALL ELEMENTS TO BE REMOVED AND DEMOLISHED. NO CLAIM WILL BE ACCEPTED DUE TO A POOR EVALUATION OF THE WORK TO BE COMPLETED.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND THE REQUEST FOR INTERRUPTION OF PUBLIC UTILITY SERVICES, SUCH AS GAS, TELEPHONE, POWER, CABLE, SEWERS, WATERMAIN, ETC. BEFORE PROCEEDING WITH WORK, COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES.
3. FIRE HYDRANTS TO BE TAGGED AND BAGGED AND/OR PROTECTED AS INDICATED ON DRAWING.
4. CURB, ASPHALT, SIDEWALK, AND GRANULAR BASE TO BE EXCAVATED WITHIN LIMITS OF DEMOLITION REMOVAL. THE CONTRACTOR MUST CARRY OUT NECESSARY SAW CUTS.
5. SEWER / WATERMAIN PIPES TO BE ABANDONED MUST BE CUT, FILL WITH UNSHRINKABLE CONCRETE CONFORMING TO OPSS 1359, AND CAPPED.
6. REMOVE AND DISPOSE SEWERS AS INDICATED. PLUG ANY SERVICE LATERALS TO BE ABANDONED.
7. THE CONTRACTOR MUST ENTIRELY REMOVE THE DEMOLITION WRECKAGE FROM THE CONSTRUCTION SITE OFFSITE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MINISTRY OF ENVIRONMENT CONSERVATION AND PARKS (MECP).
   a. THE CONTRACTOR MUST DISCARD RECYCLABLE DEMOLITION MATERIALS IN COLLABORATION WITH A REGIONAL RECYCLING COMPANY.
   b. ALL OTHER DEMOLITION MATERIALS MUST BE DISPOSED OFF-SITE AT AUTHORIZED LICENSED LANDFILLS AND IN CONFORMITY WITH THE APPLICABLE LAWS AND REGULATIONS. THE CONTRACTOR MUST BE ABLE TO PROVIDE, UPON REQUEST, COPIES OF THE DISPOSAL TICKETS TO THE OWNER'S REPRESENTATIVE.
8. SURFACES AND WORKS LOCATED OUTSIDE OF THE CONSTRUCTION WORK LIMIT MUST BE REINSTATED AS THEY WERE BEFORE BEGINNING OF WORK. CONTRACTOR IS RESPONSIBLE TO MAKE GOOD ON ANY DAMAGES TO EXISTING CURB AND ASPHALT NOT SCHEDULED FOR REMOVAL.
9. ALL MATERIALS, PRODUCTS AND OTHERS COMING FROM THE DEMOLITION BELONG TO THE CONTRACTOR, UNLESS SPECIFIED OTHERWISE.
10. THE CONTRACTOR MUST COMPLETE ALL REMOVALS AS SHOWN ON THE DRAWINGS AND AS REQUIRED TO MAKE THE WORK COMPLETE.
11. THE CONTRACTOR MUST PROTECT AND MAINTAIN IN SERVICE THE EXISTING WORKS WHICH MUST REMAIN IN PLACE. IF THEY ARE DAMAGED, THE CONTRACTOR MUST IMMEDIATELY MAKE THE REPLACEMENTS AND NECESSARY REPAIRS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AND WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
12. THE CONTRACTOR MUST NOT PERFORM ANY TREE CUTTING DURING THE CORE MIGRATORY BIRDS NESTING PERIOD, WHICH IS APRIL 15 TO AUGUST 15.

NOTES: SEWER

1. ALL CATCH BASIN, TRENCH DRAIN, MAINTENANCE HOLE COVERS AND OTHER STORM SEWER CONNECTION SHALL BE EQUIPPED WITH NITRILE RUBBER GASKET.
2. CONTRACTOR TO CONFIRM ELEVATION OF EXISTING STORM AND SANITARY SEWERS AT PROPOSED CONNECTION POINTS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE COMMENCING ANY WORK.
3. ALL WORK SHALL BE PERFORMED, AS APPLICABLE IN ACCORDANCE WITH OPSS 407, AND 410.
4. PIPE MATERIAL TO BE PVC SDR-35 AND CONFORMING TO OPSS 1841, UNLESS INDICATED OTHERWISE. PVC SEWERS TO BE INSTALLED PER OPSD 802.010 (MODIFIED). BEDDING AND COVER MATERIALS TO BE OPSS 1010 GRANULAR 'A' CRUSHER-RUN LIMESTONE BEDDING COMPACTED TO 95% SPMDD.
5. ALL SEWERS WITH LESS THAN 1.8 METERS OF COVER ARE SUBJECTED TO INSULATION DETAIL S35 OF THE CITY OF OTTAWA ON DRAWING C-104
6. PIPE BACKFILL MATERIAL TO BE APPROVED NATIVE MATERIAL OR SELECT SUBGRADE MATERIAL IN CONFORMANCE WITH OPSS 212.
7. ALL MAINTENANCE HOLES AND CATCH BASIN MAINTENANCE HOLES TO BE 1200mmØ AS PER OPSD 701.010, UNLESS INDICATED OTHERWISE. MAINTENANCE HOLES AND CATCH BASIN MAINTENANCE HOLES TO BE INSTALLED PER OPSS 407.
8. ALL CATCH BASINS TO BE 600x600mm AS PER OPSD 705.010, UNLESS INDICATED OTHERWISE. CATCH BASINS TO BE INSTALLED PER OPSS 407.
9. EXCAVATING, BACKFILLING, AND COMPACTING REQUIRED FOR MAINTENANCE HOLES, CATCH BASIN MAINTENANCE HOLES, AND CATCH BASINS TO BE COMPLETED AS PER OPSS 402. THEY ARE TO BE BACKFILLED WITH OPSS GRANULAR 'B' COMPACTED TO 98% SPMDD. JOINTS BETWEEN SECTIONS TO BE WRAPPED WITH NON-WOVEN GEOTEXTILE.
10. FOR SANITARY STRUCTURES: CAST IRON MAINTENANCE HOLE COVER AS PER OPSD 401.010 TYPE 'A'.
11. FOR STORM STRUCTURES: CAST IRON CATCH BASIN MAINTENANCE HOLE COVER AS PER OPSD 401.010 TYPE 'B' AND CAST IRON CATCH BASIN COVER AS PER OPSD 400.020.
12. SANITARY MAINTENANCE HOLES REQUIRE BENCHING AS PER OPSD 701.021.
13. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING OR ARRANGING ALL CONNECTIONS TO THE EXISTING SEWERS AS PER MUNICIPAL REQUIREMENTS. PRIOR TO CONNECTION, THE CONTRACTOR MUST PROVIDE, TO THE CONSULTANT / ENGINEER AND THE CITY FOR APPROVAL, ALL TEST RESULTS PERFORMED ON THE INTERNAL SERVICES.
14. ADVISE THE CITY PUBLIC WORKS AT LEAST 72 HOURS IN ADVANCE BEFORE ANY CONNECTION TO THE CITY SERVICES. CO-ORDINATE WITH CITY OF OTTAWA AS REQUIRED.
15. TERMINATE AND PLUG ALL SERVICE CONNECTIONS AT 1.0 m FROM EDGE OF THE BUILDING.
16. ALL SEWERS TO BE C.C.T.V. INSPECTED BY THE CONTRACTOR AS PER OPSS 409. TWO COPIES OF THE INSPECTION REPORT MUST BE PROVIDED TO THE CONSULTANT AND THE C.C.T.V. INSPECTION IN DVD FORMAT ONLY.
17. SUBDRAIN KNOCKOUT (KO) WILL BE PRE-MANUFACTURED WITH CATCH BASINS AND MAINTENANCE HOLES.
18. THE STORMWATER TSS QUALITY REQUIREMENTS WILL BE ACHIEVED BY INSTALLING A FSC04-04 OR EQUIVALENT TO ACHIEVE 80% TSS REMOVAL. THE OIL/GRIT SEPARATOR IS TO HAVE A SEDIMENT CAPACITY OF 1190L, AN OIL CAPACITY OF 265L, AND FOR A MAXIMUM TREATMENT FLOW RATE OF 12.9 L/s.
19. OGS WILL REQUIRE PERIODIC MAINTENANCE AND CLEANING AS PER MANUFACTURERS SPECIFICATIONS - TYPICAL CLEANING INTERVAL IS ONCE A YEAR. ANNUAL CLEANING AGREEMENT NEEDS TO BE WITNESSED BY THE CITY.
20. ALL BUILDINGS FOUNDATION DRAINS TO BE CONNECTED TO THE STORM SEWER DOWNSTREAM OF THE ICD.

NOTES: WATERMAIN

1. ALL WATERMAIN TO BE INSTALLED AT MINIMUM COVER OF 2.4m BELOW FINISHED GRADE. WHERE THE MINIMUM COVER OF 2.4m IS NOT REACHED, THERMAL INSULATION IS REQUIRED AS PER CITY OF OTTAWA DETAIL W22.
2. WATERMAIN PIPE MATERIALS TO BE CLASS PVC DR-18, OR APPROVED EQUAL, UNLESS INDICATED OTHERWISE.
3. WATERMAIN TO BE CONSTRUCTED AS PER OPSS 441 AND OPSD 802.010. WATERMAIN BEDDING AND COVER MATERIAL TO BE OPSS 1010 GRANULAR 'A' CRUSHER-RUN LIMESTONE COMPACTED TO 95% SPMDD.
4. A CONTINUOUS 12 GAUGE COPPER TRACER WIRE MUST BE INSTALLED OVER ALL WATERMAINS. TRACER WIRE SHALL BE TIED TO ALL FIRE HYDRANTS.
5. INSTALLATION OF A WATERMAIN PIPE CROSSING A SEWER PIPE SHALL BE AS PER CITY OF OTTAWA DETAILS W25 AND W26.
6. IF WATERMAIN PIPE MUST BE DEFLECTED TO MEET ALIGNMENT, ENSURE THAT THE AMOUNT OF DEFLECTION USED IS LESS THAN HALF THAT RECOMMENDED BY THE MANUFACTURER.
7. CATHODIC PROTECTION REQUIRED FOR ALL IRON FITTINGS AS PER OPSD 1109.011.
8. THRUST BLOCKS AND RESTRAINING AS PER OPSD 1103.010 AND OPSD 1103.020.
9. HYDRANT INSTALLATION AS PER OPSD 1105.010 AND OPSS 441. HYDRANT TO COMPLY WITH AWWA C502.
   a. HYDRANTS MUST HAVE THREE EXITS (TWO 65.5 mm AND ONE 100.0 mm 'STORZ' OF STAINLESS STEEL) WITH DRAIN. FIRE HYDRANTS MUST BE INSTALLED SUCH THAT THE 'STORZ' EXIT POINTS TOWARDS THE BUILDING IT WILL SERVICE. THE CONTRACTOR MUST ENSURE THAT THE BREAKAWAY FLANGE IS LOCATED ABOVE THE FINISHED GROUND (APPROXIMATELY 150 mm).
   b. FIRE FLOW TESTS FOLLOWED BY COLOUR CODING OF HYDRANTS (AS PER NFPA-291) SHALL BE CARRIED OUT PRIOR TO SUBSTANTIAL COMPLETION OF THE WORK.
10. WATERMAIN AND HYDRANT CONTROL VALVES IN THE 100 – 300 mm RANGE WILL BE RESILIENT SEATING GATE VALVES (AWWA C509) WITH MECHANICAL JOINT CONNECTIONS. VALVES WILL OPERATE COUNTER-CLOCKWISE TO OPEN WITH A NON-RISING STEM. VALVES WILL BE COMPLETE WITH THE STANDARD AWWA 50 mm OPERATING NUT. VALVES TO BE INSTALLED AS PER OPSS 441.
11. PIPE FITTINGS (BENDS, TEES, CROSSES, REDUCERS, ETC.) WILL BE MECHANICAL JOINT (AWWA C-111) WITH CEMENT MORTAR LINING (AWWA C-104).
12. COUPLERS MUST BE COMPRESSION TYPE WITH MINIMUM PRESSURE RATING OF 1035 kPa. COUPLERS MUST BE MUELLER 11-12940.
13. VALVE BOXES MUST BE COMPLETE (FULLY METALLIC) 3 PIECE SLIDING TYPE WITH GUIDE PLATES.
14. WATERMAINS MUST BE THOROUGHLY FLUSHED AND CLEANED TO REMOVE ALL DIRT AND DEBRIS PRIOR TO THE DISINFECTION PROCESS.
15. ALL WATERMAINS SHALL BE HYDROSTATICALLY AND BACTERIOLOGICALLY TESTED AS PER PROVINCIAL AND MUNICIPAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIREMENTS ARE FOLLOWED.
16. THE DISINFECTION PROCEDURE WHICH FOLLOWS INITIAL FLUSHING AND CLEANING CONSISTS OF CHLORINATION, FINAL FLUSHING AND BACTERIOLOGICAL TESTING. DISINFECTION MUST BE PERFORMED BY THE CONTRACTOR USING METHODS APPROVED BY THE CITY OF OTTAWA AND IN ACCORDANCE WITH MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE GUIDELINES. DOSAGE MUST BE 100 ppm WITH A MINIMUM RESIDUAL OF 25 ppm AFTER 24 HOURS. DISINFECTANT MUST BE SUPPLIED BY THE CONTRACTOR AND MUST BE ANSI APPROVED. TESTING AND TEST RESULTS MUST BE WITNESSED BY CITY OF OTTAWA PERSONNEL.
17. ALL DISINFECTANT WATER IS TO BE REMOVED FROM THE NEW WATERMAINS AND REPLACED WITH DISTRIBUTION SYSTEM WATER PRIOR TO PRESSURE TESTING OF THE WATERMAIN.
18. PRESSURE TESTING OF ALL WATERMAINS AND APPURTENANCES INSTALLED BY THE CONTRACTOR MUST BE PERFORMED BY THE CONTRACTOR USING METHODS MEETING THE APPROVAL OF THE CITY OF OTTAWA. TESTING AND RESULTS MUST BE WITNESSED BY CITY OF OTTAWA PERSONNEL.
19. MAINS AND SERVICES MUST BE PRESSURE TESTED AT 1035 kPa (150 psi) IN ACCORDANCE WITH AWWA C-600-82 (MINIMUM REQUIREMENT).
20. LEAKAGE TESTS MUST BE CONDUCTED AS PER AWWA C-600-82 (MINIMUM REQUIREMENT).
21. ONCE THE DISINFECTION AND PRESSURE TESTING RESULTS HAVE BEEN APPROVED, THE CONTRACTOR MUST ENSURE THAT ALL WATERMAIN PIPES ARE FLUSHED UNTIL THE CHLORINE LEVEL IN THE WATER IS SIMILAR TO THE LEVEL OF CHLORINE IN THE MUNICIPAL WATERMAIN NETWORK IN THE AREA.
22. BACTERIOLOGICAL TESTING MUST CONSIST OF TWO SAMPLINGS TWENTY FOUR HOURS APART. IF BACTERIOLOGICAL SAMPLES ARE SATISFACTORY THE WATERMAIN MAY BE PLACED ON LINE.
23. ALL WATERMAIN VALVES TO BE OPERATED BY THE CITY OF OTTAWA ONLY.

NOTES: GENERAL

1. THE CONTRACTOR MUST CONFORM TO ALL LAWS, CODES, ORDINANCES, AND REGULATIONS ADOPTED BY FEDERAL, PROVINCIAL OR MUNICIPAL GOVERNMENT COUNCILS AND GOVERNMENT AGENCIES, APPLYING TO WORK TO BE CARRIED OUT. WHEREVER STANDARDS, LAWS AND/OR REGULATIONS ARE MENTIONED THEY REFER TO THEIR CURRENT VERSIONS, MODIFICATIONS INCLUDED.
2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS (OPSS AND OPSD), THE ONTARIO MINISTRY OF ENVIRONMENT AND CLIMATE CHANGE, THE ONTARIO MINISTRY OF NATURAL RESOURCES, APPLICABLE CONSERVATION AUTHORITIES, THE MUNICIPAL STANDARD SPECIFICATIONS AND DRAWINGS, AND ALL OTHER GOVERNING AUTHORITIES AS THEY APPLY, UNLESS OTHERWISE INDICATED.
3. ALL MATERIAL SUPPLIED AND PLACED FOR PARKING LOT AND ACCESS ROAD CONSTRUCTION SHALL BE TO OPSS STANDARDS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. CONSTRUCTION TO OPSS 206, 310 & 314. MATERIALS TO OPSS 1001, 1003 & 1010.
4. THE LOCATION OF EXISTING UNDERGROUND MUNICIPAL SERVICES AND PUBLIC UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES (ON-SITE AND OFF-SITE) PRIOR TO ANY EXCAVATION WORK. DAMAGE TO ANY EXISTING SERVICES AND/OR EXISTING UTILITIES DURING CONSTRUCTION, WHETHER OR NOT SHOWN ON THE DRAWINGS MUST BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
5. THE CONTRACTOR SHALL DETERMINE THE EXACT INVERT (GEODETIC ELEVATION), DIAMETER AND CONSTRUCTION MATERIAL OF THE EXISTING CONDUITS AT THE PROPOSED CONNECTIONS. THEY SHALL ALSO CARRY OUT, IF NECESSARY, EXPLORATORY DIGS IN ORDER TO DETERMINE THE EXACT LOCATION AND INVERTS OF EXISTING DUCK BANKS. THIS INFORMATION SHALL IMMEDIATELY BE PROVIDED TO THE CONSULTANT PRIOR TO START UNDERTAKING ANY MUNICIPAL SERVICES WORK AND A 48 HOUR PERIOD MUST BE ALLOCATED TO THE CONSULTANT FOR DESIGN REVIEW.
6. AT PROPOSED UTILITY CONNECTION POINTS AND CROSSINGS (I.E. STORM SEWER, SANITARY SEWER, WATER, ETC.) THE CONTRACTOR SHALL DETERMINE THE PRECISE LOCATION AND DEPTH OF EXISTING UTILITIES AND REPORT ANY DISCREPANCIES OR CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
7. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT FOR CONSTRUCTION PURPOSES.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK AND ACTIVITIES WITH OTHERS TRADES AND CONTRACTORS.
9. THE CONTRACTOR IS THE ONLY PERSON IN CHARGE OF SAFETY ON THE BUILDING SITE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION OF THE WORKERS, OTHER PERSONNEL AND THE GENERAL PUBLIC, PROTECTION OF MATERIALS, AS WELL AS MAINTAINING IN GOOD CONDITION THE COMPLETED WORKS AND WORKS TO BE COMPLETED. THE CONTRACTOR MUST PROVIDE AT ANY TIME:
   a. A SUFFICIENT NUMBER OF FENCES, BARRIERS, POSTERS, GUARDS AND OTHERS TO ENSURE SAFETY;
   b. NECESSARY CONVENIENCES FOR THE COMPLETION OF WORK SUCH AS HEATING, LIGHTING, VENTILATION ETC.
10. CONTRACTOR IS RESPONSIBLE TO OBTAIN THE VARIOUS PERMITS/APPROVALS REQUIRED TO COMPLETE ALL THE WORKS AND ACTIVITIES AND BEAR COST OF THE SAME, SUCH AS BUT NOT LIMITED TO; ROAD CUT PERMITS, SEWER PERMITS, WATER PERMIT, ETC. AND THEIR ASSOCIATED COSTS.
11. ALL ELEVATIONS ARE GEODETIC AND UTILIZE METRIC UNITS.
12. JOB BENCH MARK - CONFIRM WITH PARSONS PRIOR TO UTILIZATION. THE CONTRACTOR MUST MAINTAIN BENCHMARKS AND LANDMARK REFERENCES AS IS. OTHERWISE THESE REFERENCES WILL BE REPOSITIONED BY A CERTIFIED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
13. ALL GROUND SURFACES SHALL BE EVENLY GRADED WITHOUT PONDING AREAS AND LOW POINTS EXCEPT WHERE APPROVED SWALE OR CATCH BASIN OUTLETS ARE PROVIDED.
14. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, DEWATERING OF EXCAVATIONS COULD BE REQUIRED. IT IS ASSUMED THAT GROUNDWATER MAY BE CONTROLLED BY SUMP AND PUMPING METHODS. THE CONTRACTOR SHALL OBTAIN A PERMIT TO TAKE WATER IF SITE CONDITIONS REQUIRE TAKING MORE THAN A TOTAL OF 400 000 L/DAY.
15. STRIP AND REMOVE ALL TOPSOIL FROM IMPROVED AREAS SITE PREPARATION INCLUDES CLEARING, GRUBBING, STRIPPING OF TOPSOIL, DEMOLITION, REMOVAL OF UNSUITABLE MATERIALS, CUT, FILL AND ROUGH GRADING OF ALL AREAS TO RECEIVE FINISHED SURFACES.
16. ABUTTING PROPERTY GRADE TO BE MATCHED.
17. ALL EDGES OF DISTURBED PAVEMENT SHALL BE SAW CUT TO FORM A NEAT AND STRAIGHT LINE PRIOR TO PLACING NEW PAVEMENT. PAVEMENT REINSTATEMENT SHALL BE WITH STEP JOINTS OF 300mm WIDTH MINIMUM.
18. CURBS TO BE BARRIER, CONSTRUCTED AS PER OPSD 600.110, EXCEPT WHERE INDICATED OTHERWISE. ELEVATION AT TOP OF CONCRETE CURBS TO BE 150 mm ABOVE THE ASPHALT, UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
19. DEPRESSED CURBS TO BE MOUNTABLE, CONSTRUCTED AS PER OPSD 600.100.
20. LIGHT DUTY AND HEAVY DUTY ASPHALT PAVEMENTS TO BE CONSTRUCTED AS PER TABLE ON DRAWING C103.
21. TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT SHALL BE CONSTRUCTED AS PER DETAIL D3 ON DRAWING C104.
22. RESTORE PAVEMENT STRUCTURE AND SURFACES ON EXISTING ROADS TO A CONDITION AT LEAST EQUAL TO ORIGINAL AND TO THE SATISFACTION OF THE CITY AUTHORITIES.
23. CLEANLINESS ON THE SITE, INCLUDES THE CONTRACTOR SHALL CLEAN ROADWAYS AT HIS OWN COST AS DIRECTED BY THE OWNER'S REPRESENTATIVE, MATERIALS AND EQUIPMENT MUST BE LAID OUT IN AN ORGANIZED AND SAFE MANNER, AND ALL MATERIAL, EQUIPMENT AND TEMPORARY STRUCTURES WHICH ARE NO LONGER NECESSARY FOR THE EXECUTION OF THE CONTRACT MUST BE REMOVED FROM THE SITE.
24. CONTRACTOR TO ENSURE MITIGATION MEASURES ARE IMPLEMENTED TO REDUCED THE RISK OF GROUND CONTAMINATION FROM PETROLEUM PRODUCTS.
25. THE CONTRACTOR MUST ENSURE THE FOLLOWING MEASURES ARE IMPLEMENTED REGARDING THE HANDLING OF CONCRETE:
   a. CONCRETE SHOULD EITHER BE MIXED AWAY FROM THE SITE OR SHOULD BE PREPARED ON PAVED SURFACES IF ONLY SMALL QUANTITIES ARE REQUIRED (I.E. MINOR REPAIRS);
   b. EXCESS CONCRETE MUST BE DISPOSED OFF-SITE AT A LOCATION THAT MEETS ALL REGULATORY REQUIREMENTS;
   c. THE WASHING OF CONCRETE TRUCKS AND OTHER EQUIPMENT USED FOR MIXING CONCRETE SHOULD NOT BE CARRIED OUT WITHIN 30 METERS OF A WATERCOURSE OR WETLAND AND SHOULD TAKE PLACE OUTSIDE OF THE WORK SITE;
   d. ALL CONCRETE TRUCKS SHOULD COLLECT THEIR WASH WATER AND RECYCLE IT BACK INTO THEIR TRUCKS FOR DISPOSAL OFF-SITE AT A LOCATION MEETING ALL REGULATORY REQUIREMENTS.
26. THE CONTRACTOR SHALL ENSURE THAT ALL EXCAVATED SURPLUS MATERIALS THAT WILL BE REQUIRED TO BE DISPOSED OFFSITE BE STOCKPILED TEMPORALLY FOR SAMPLING PRIOR BEING LOADED OFFSITE.
27. MINIMIZE DISTURBANCE TO EXISTING VEGETATION DURING THE EXECUTION OF ALL WORKS.
28. TRENCHING, BACKFILLING AND COMPACTING MUST CONFORM TO OPSS 401.
29. DEWATERING OF PIPELINE, UTILITY AND ASSOCIATED STRUCTURE EXCAVATIONS TO BE COMPLETED AS PER OPSS 517.
30. THE CONTRACTOR MUST CONTROL SURFACE RUNOFF FROM PRECIPITATION DURING CONSTRUCTION.
31. FOR ALL GEOTECHNICAL WORK, CONTRACTOR TO REFER TO "GEOTECHNICAL INVESTIGATION, PROPOSED DEVELOPMENT, 1867 ALTA VISTA DRIVE, OTTAWA, ONTARIO, BY PATERSONGROUP. DATED APRIL 22, 2025, PI07401-1
32. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL UNLESS OTHERWISE DIRECTED FROM THE ENGINEER. EXCAVATE AND REMOVE ALL ORGANIC MATERIAL AND DEBRIS LOCATED WITHIN THE PROPOSED BUILDING, PARKING AND ROADWAY LOCATIONS.
33. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, BACKFILL AND REINSTATEMENT OFF ALL AREAS DISTURBED DURING CONSTRUCTION TO EXISTING CONDITIONS OR BETTER AND ALL ASSOCIATED WORKS TO THE SATISFACTION OF THE CONSULTANT AND MUNICIPAL AUTHORITIES. ASPHALT REINSTATEMENT MUST BE IN ACCORDANCE WITH OPSS 310. LANDSCAPE AREAS TO BE REINSTATED WITH 150 mm OF TOPSOIL AND SOD IN ACCORDANCE WITH OPSS 802 AND OPSS 803.
34. DURING THE CONSTRUCTION PERIOD THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING TEMPORARY TRAFFIC SIGNAGE, INCLUDING TRAFFIC SIGNS, TRAFFIC MARKINGS AND TEMPORARY TRAFFIC LIGHTS, AND FLAGMEN, AS REQUIRED BY THE OWNER, THE CONSULTANT, THE MUNICIPALITY, THE MTO, AND OTHER GOVERNING AUTHORITIES.
35. CONSTRUCT SIDEWALK EXPANSION JOINTS & CONTROL JOINTS AS PER OPSD 310.020.
36. CONSTRUCT CONCRETE SIDEWALK AS PER OPSD 310.020 AND OPSS 351. TACTILE WALKING SURFACE INDICATORS PER OPSS 351.
37. DISPOSE OF CONTAMINATED MATERIALS AT APPROPRIATE OFF-SITE FACILITY THAT MEETS ALL REGULATORY REQUIREMENTS.
38. BE PREPARED TO INTERCEPT, CLEAN UP, AND DISPOSE OF SPILLS OR RELEASES THAT MAY OCCUR WHETHER ON LAND OR WATER. MAINTAIN MATERIALS AND EQUIPMENT REQUIRED FOR CLEANUP OF SPILLS OR RELEASES READILY ACCESSIBLE ON SITE.
39. PROMPTLY REPORT SPILLS AND RELEASES POTENTIALLY CAUSING DAMAGE TO ENVIRONMENT TO: AUTHORITY HAVING JURISDICTION OR INTEREST IN SPILL OR RELEASE INCLUDING CONSERVATION AUTHORITY, WATER SUPPLY AUTHORITIES, DRAINAGE AUTHORITY, ROAD AUTHORITY, AND FIRE DEPARTMENT.
40. DECONTAMINATE EQUIPMENT AFTER WORKING IN POTENTIALLY CONTAMINATED WORK AREAS AND PRIOR TO SUBSEQUENT WORK OR TRAVEL ON CLEAN AREAS.
41. DO NOT DISCHARGE DECONTAMINATED WATER, OR SURFACE WATER RUNOFF, OR GROUNDWATER WHICH MAY HAVE COME IN CONTACT WITH POTENTIALLY CONTAMINATED MATERIAL, OFF SITE OR TO MUNICIPAL SEWERS.
42. CONTRACTOR IS TO SUBMIT A TRAFFIC MANAGEMENT PLAN FOR APPROVAL ONE (1) WEEK PRIOR TO ANY WORK WITHIN THE ROW LIM