FASTFRATE

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

SOMME STREET, OTTAWA, ONTARIO

LIST OF DRAWINGS

PLAN No:	DESCRIPTION
C001	COVER PAGE
C002	LEGAL PLAN
C003	TOPOGRAPHICAL SURVEY PLAN
C004	SEDIMENT AND EROSION CONTROL PLAN
C005	NOTES PLAN
C006A	GRADING PLAN
C006B	SECTIONS
C007	SITE SERVICING PLAN
C008	SEPTIC SYSTEM CONFIGURATION AND SECTIONS
C009	DETAILS PLAN
C010	DETAILS PLAN
C011	DETAILS PLAN
C012	DETAILS PLAN
C013	DETAILS PLAN
C014	DETAILS PLAN
C015	DETAILS PLAN
C016	DETAILS PLAN
C017	DETAILS PLAN
C018	DETAILS PLAN
C019	DETAILS PLAN

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110-300 Catherine Street, Ottawa, ON K2P 2G8 CANADA

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY
SOMME STREET, OTTAWA, ONTARIO
SITE PLAN APPROVAL - AUGUST 13th, 2021

FASTFRATE

C001

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13 August 2021 David Conn

SCHEDULE			
PART	LOT/BLOCK	PLAN/CON.	P.I.N.
1	PART OF BLOCK 5	4M–1388	PART OF 04326–0617
2			
3			
4	PART OF BLOCK 14		PART OF 04326–0626
5			
6			
7	PART OF LOT 26	CONCESSION 6 (RIDEAU FRONT)	PART OF 04326–0267
8			
9			

PART 2: SUBJECT TO EASEMENT AS IN INST. OC1253753 & OC1253757
PART 5: SUBJECT TO EASEMENT AS IN INST. OC1252525 & OC1265943

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

DATE SEPTEMBER 16, 2020

J.P. SHIPMAN

PLAN 4R–33406
RECEIVED AND DEPOSITED
DATE Dec. 22 / 2020

REPRESENTATIVE FOR LAND REGISTRAR FOR THE LAND TITLES DIVISION OF OTTAWA–CARLETON (No.4)

PLAN OF SURVEY OF
PART OF LOT 26
CONCESSION 6 (RIDEAU FRONT)
GEOGRAPHIC TOWNSHIP OF GLOUCESTER and
PART OF BLOCKS 5 AND 14
REGISTERED PLAN 4M–1388
CITY OF OTTAWA
SCALE 1:1000

0 10 20 30 40 50 75 100
METRES

METRIC

DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

NOTES

BEARINGS HEREON ARE GRID BEARINGS, DERIVED FROM ISCM 019871768 (N 5016745.786, E 379008.599) AND ISCM 019871769 (N 5016468.145, E 378560.015) AND ARE REFERRED TO THE CENTRAL MERIDIAN 76° 30'W LONGITUDE OF THE 3° M.T.M. ONTARIO CO–ORDINATE SYSTEM (NAD 83).

DISTANCES SHOWN ON THIS PLAN ARE HORIZONTAL GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999955

BEARINGS AND DISTANCES SHOWN ON THIS PLAN AGREE WITH UNDERLYING AND ABUTTING PLANS UNLESS OTHERWISE NOTED.

S.I.B.	DENOTES 0.025 SQ., 1.2 LONG, STANDARD IRON BAR
S.S.I.B.	DENOTES 0.025 SQ., 0.6 LONG, SHORT STANDARD IRON BAR
I.B.	DENOTES 0.016 SQ., 0.6 LONG, IRON BAR
■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT PLANTED
WIT.	DENOTES WITNESS
1697	DENOTES J.P. SHIPMAN, O.L.S.
725	DENOTES R.W. ARNETT, O.L.S.
U.P.L.	DENOTES UTILITIES POLE LINE
N.T.S.	DENOTES NOT TO SCALE
P	DENOTES PLAN 4M–1388

OBSERVED REFERENCE POINTS (ORP): MTM ZONE 9, NAD 83 (ORIGINAL)		
POINT IDENTIFICATION	NORTHING	EASTING
ORP A	5018947.5	378970.6
ORP B	5018934.5	379233.2

COORDINATES SHOWN TO RURAL ACCURACY IN ACCORDANCE WITH O.REG 216/10, SECTIONS 14, AND 31 TO 35 (BOTH INCLUSIVE).
COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE–ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
(1) THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM;
(2) THE SURVEY WAS COMPLETED ON THE 10th DAY OF DECEMBER, 2020.

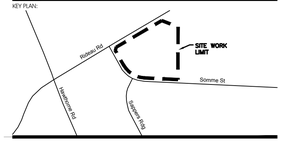
DECEMBER 14, 2020
DATE

J.P. SHIPMAN
ONTARIO LAND SURVEYOR

H.A.KEN SHIPMAN SURVEYING LTD.
P.O. BOX 53, NORTH GOWER, ONT. K0A 2T0

REF No. : GL–502
FILE No. : 19–11756

CLIENT LOGO:
FASTFRATE

KEY PLAN:


TRUE NORTH:

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
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5	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

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PROFESSIONAL STAMP:

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CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC.
14 CHAMBERLAIN AVENUE, SUITE 101
OTTAWA, ON
CANADA K1S 1V9
T. 613.742.7482
WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:
FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

LEGAL PLAN

DRAWN BY:	D.CANN	DRAWING NUMBER:	C002
DATE:			
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083

SURVEY COMPLETED BY: ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
DATE OF SURVEY: OCTOBER 22nd 2020

ELEVATION NOTES

1. ELEVATIONS SHOWN ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC DATUM. DERIVED FROM VERTICAL CONTROL MONUMENT NO. N – 11 HAVING AN ELEVATION OF 78.900 METRES.

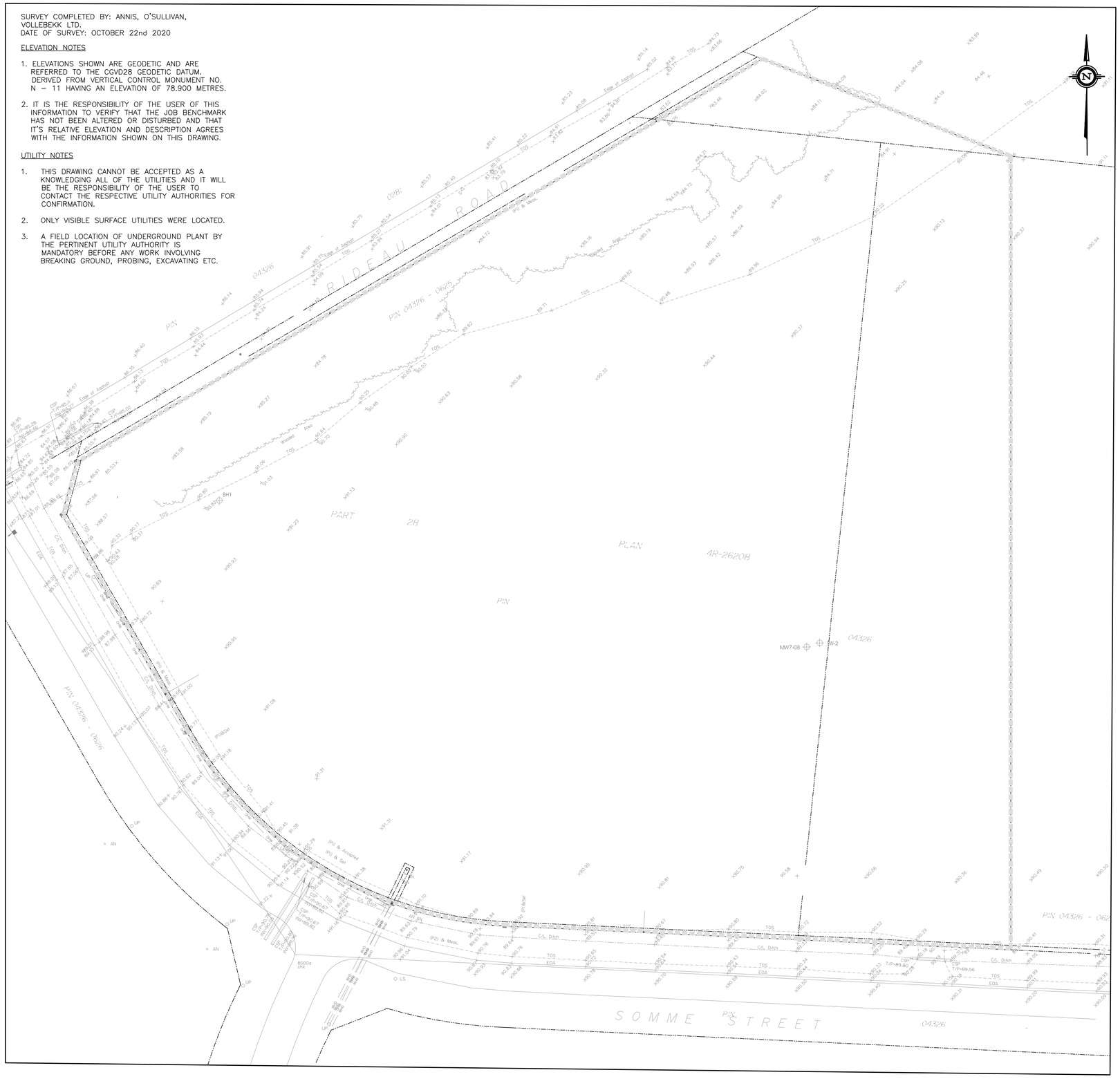
2. IT IS THE RESPONSIBILITY OF THE USER OF THIS INFORMATION TO VERIFY THAT THE JOB BENCHMARK HAS NOT BEEN ALTERED OR DISTURBED AND THAT IT'S RELATIVE ELEVATION AND DESCRIPTION AGREES WITH THE INFORMATION SHOWN ON THIS DRAWING.

UTILITY NOTES

1. THIS DRAWING CANNOT BE ACCEPTED AS A KNOWLEDGING ALL OF THE UTILITIES AND IT WILL BE THE RESPONSIBILITY OF THE USER TO CONTACT THE RESPECTIVE UTILITY AUTHORITIES FOR CONFIRMATION.

2. ONLY VISIBLE SURFACE UTILITIES WERE LOCATED.

3. A FIELD LOCATION OF UNDERGROUND PLANT BY THE PERTINENT UTILITY AUTHORITY IS MANDATORY BEFORE ANY WORK INVOLVING BREAKING GROUND, PROBING, EXCAVATING ETC.



LEGEND

EXISTING		PROPOSED
—□—	SURVEY MONUMENT PLANTED	
—■—	SURVEY MONUMENT FOUND	
SIB	STANDARD IRON BAR	
SSIB	SHORT STANDARD IRON BAR	
IB	IRON BAR	
CC	CUT CROSS	
CP	CONCRETE PIN	
IB#	ROUND IRON BAR	
SSIB*	SHORT STANDARD IRON BAR	
IB*	IRON BAR	
(WIT)	WITNESS	
Meas.	MEASURED	
(AOG)	ANNIS, O'SULLIVAN, VOLLEBEKK LTD.	
(P1)	REGISTERED PLAN 4M-1388	
(P2)	PLAN 4R-26208	
△	SIGN	
LS	LIGHT STANDARD	
UP	UTILITY POLE	
AN	ANCHOR	
	NATURAL GAS LINE	
CSP	CORRUGATED STEEL PIPE	
+ 65.00	LOCATION OF ELEVATIONS	
C/L	CENTRELINE	
	PROPERTY LINE	
TOS	TOP OF SLOPE	
BOS	BOTTOM OF SLOPE	
T/P	TOP OF PIPE	
T/G	TOP OF GRATE	
EOA	EDGE OF ASPHALT	
JB	JERSEY BARRIER	
OHW	OVERHEAD WIRES	
	WORK LIMIT	
BH-1	BOREHOLE	

0 5 10 20 30 40 50

NOTE OF CAUTION

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THE UNDERGROUND FEATURES AND INFORMATION THAT APPEAR ON THE DRAWINGS WERE OBTAINED FROM THE PUBLIC UTILITY COMPANIES AND/OR FROM THE CITY EACH RESPECTIVELY.

ALL INFORMATION UNDER THE LEGEND 'EXISTING' IS FOR INFORMATION ONLY. COMPLETE OR EXACT LOCATION AND ELEVATION OF UNDERGROUND SERVICES ARE NOT GUARANTEED.

CERTAIN UNDERGROUND FEATURES ON PRIVATE PROPERTY ARE NOT SHOWN ON THE CURRENT DRAWING.

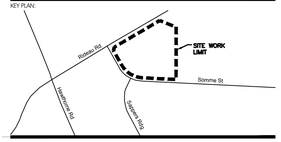
ANYONE WHO PROCEEDS WITH EXCAVATION WORK SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND FEATURES, BY EXPLORATORY EXCAVATIONS, AND SHALL ASSUME FULL RESPONSIBILITY IF THERE IS ANY DAMAGE THAT OCCURS DURING WORK.

THE CONTRACTOR WILL HAVE THE RESPONSIBILITY AND THE OBLIGATION TO VALIDATE, BY EXPLORATORY EXCAVATION, THE SIZE OF THE PUBLIC UTILITIES UNDERGROUND SERVICES AND TO WARN THE ENGINEER OF ANY CONFLICT WITH THE PROJECTED WORK.

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

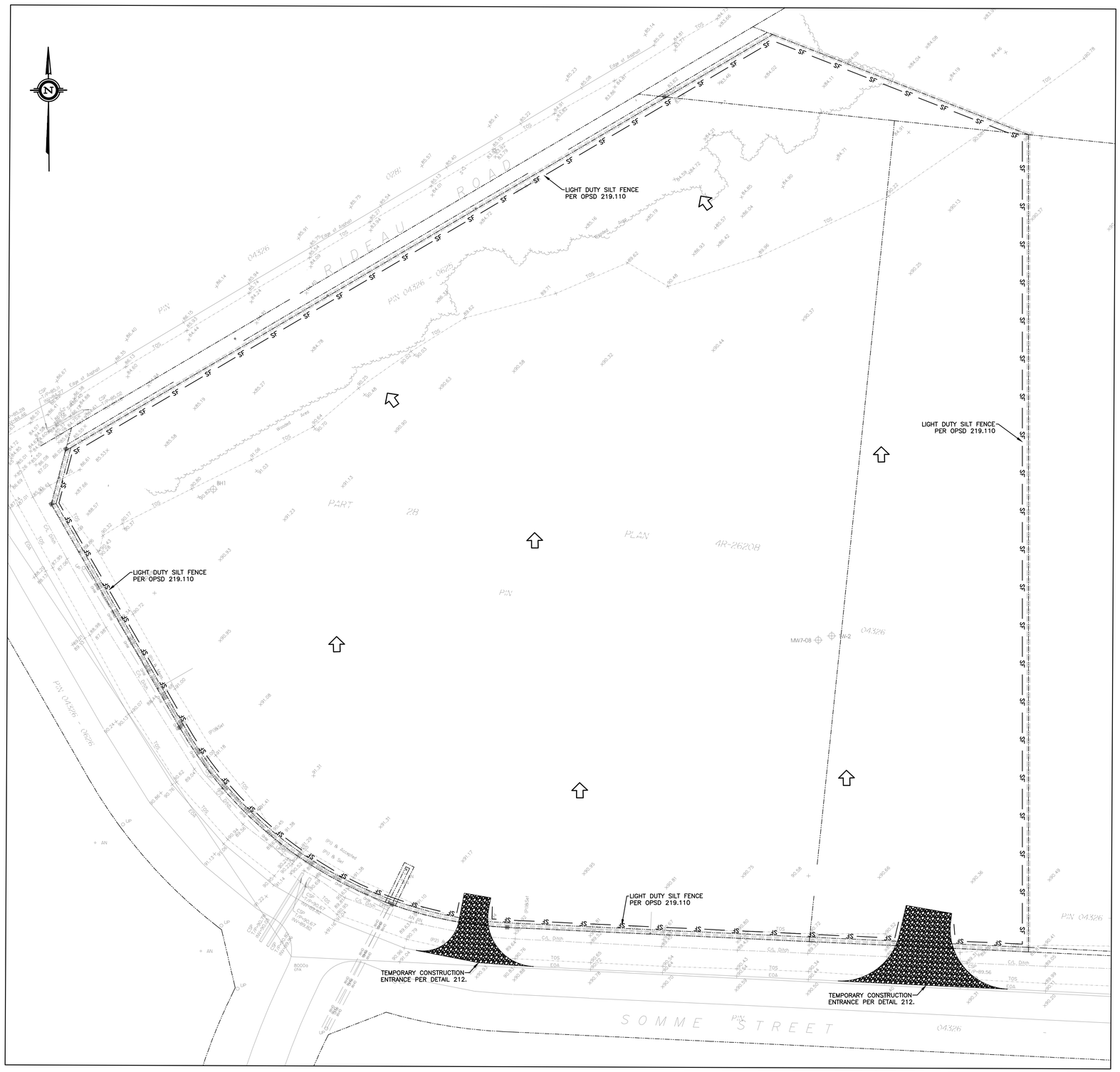
SCALE: 1:500

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

TOPOGRAPHICAL SURVEY PLAN

DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C003
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083



EXISTING LEGEND PROPOSED

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EOA	EDGE OF ASPHALT
JB	JERSEY BARRIER
OHW	OVERHEAD WIRES
	WORK LIMIT
BH-1	BOREHOLE
+ 99.000	ELEVATION
	DRAINAGE DIRECTION
	OVERLAND FLOW
SF	SILT FENCE
	TEMPORARY CONSTRUCTION ENTRANCE

SEDIMENT AND EROSION CONTROL - GENERAL NOTES

1.1. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

1.2. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

1.3. Specifically, sediment and erosion control measures to be constructed as per OPSS.MUNI 805.

1.4. The Contractor must implement best management practices and provide adequate sediment and erosion control measures during construction:

1.5.
- Prevent soil erosion which can result from stormwater runoff or wind erosion during construction;
- Prevent sediment deposits in the storm sewer and/or collecting streams and;
- Prevent air pollution from dust and particulate matter.

1.6. Provisions must be made for sediment and erosion control measures prior to stripping the site of vegetation and other deleterious materials. Measures such as phase stripping, vegetation buffer zones, silt fences, straw bales, sediment traps/basins, rock checks, etc. must be constructed and maintained in order to control sediment, as required by the provincial and municipal governing authorities.

1.7 The Contractor must set up the measures shown on the plan, inspect them frequently and clean and repair or replace the deteriorated structures.

1.8 When the sediment and erosion control measures have to be removed in order to complete a portion of the work, these same measures must be reinstated.

1.9 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.

The light duty silt fence barrier must be installed as per OPSD 219.110.

1.10. At all times the Contractor must maintain the municipal access roads clean and free of sediments. When cleaning the access roads, the Contractor must take the necessary precautions to clear the surfaces covered with sediment prior to cleaning with water.

1.11. 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.MUNI 506 when directed by Owner's representative.

1.12. At the end of the construction period, the Contractor is responsible for removal of the temporary sediment and erosion control measures and reconditioning the affected areas.

1.9. This plan is a "Living Document" which may be revised in the event that the control measures are not sufficient.

0 5 10 20 30 40 50

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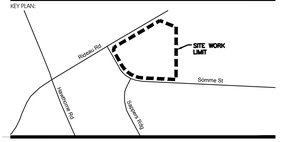

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CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

SCALE: 1:500

SOMME ST.
OTTAWA, ON

DRAWING TITLE:

SEDIMENT AND EROSION CONTROL PLAN

DRAWN BY: D.CANN	DRAWING NUMBER:
DATE:	C004
REVIEWED BY: J.SAUVE	
APPROVED BY:	
PRINT DATE:	REVISION NUMBER:
ISSUED DATE: AUGUST 13, 2021	
CLIENT PROJECT #:	PROJECT #: A001083

GRADING NOTES

1. GRADE CONTROL AND DRAINAGE - GENERAL

1.1. 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.

1.2. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

1.3. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

1.4. The boreholes and test pits shown on the plan are for information purposes only. Their location on the plan is approximate. The Contractor must refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.

1.5. The Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including road cut permit and water permit and their associated costs.

1.6. The Contractor is responsible for the coordination of his activities with others on site.

1.7. The location of existing underground municipal services, wells, 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, wells and/or existing utilities during construction, whether or not shown on the drawings must be repaired by the Contractor at his own expense.

1.8. 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.

1.9. All material must be compacted as per the requirements of the governing authority and be approved by the Consultant prior to delivery to the site.

1.10. Compaction must conform to the following requirements:
- Exposed subgrade & building pad preparation:
  95% Standard Proctor maximum dry density (SPMDD)
- Granular subbase foundations:
  100% Standard Proctor maximum dry density (SPMDD)
- Granular base foundations:
  100% Standard Proctor maximum dry density (SPMDD)
- Asphalt pavement:
  As per OPSS.MUNI 310
- Roller compacted concrete pavement
  98% Mix Design Density
- Subgrade fill (pavement areas - OPSS Select Subgrade Material):
  98% Standard Proctor Maximum Dry Density (SPMDD)
- Structural fill (building footprints, foundation slabs, OPSS Granular 'A' or Granular 'B' Type II Material):
  100% Standard Proctor Maximum Dry Density (SPMDD)

1.11. If groundwater is encountered during construction, dewatering of excavations could be required as per OPSS.MUNI 518. It is assumed that groundwater may be controlled by sump and pumping methods. As required under the "Ontario Water Resources Act (OWRA)", the Contractor must register all water taking activities on Ontario's "Environmental Activity and Sector Registry (EASR)" if water taking exceeds 50,000 l/day, and obtain a "Permit to Take Water (PTTW)" if water taking exceeds 400,000 l/day. Furthermore, Contractor must provide all necessary measures required to ensure dewatering operations does not affect in any way the integrity of the existing surrounding buildings and must plan his work accordingly. Water Taking and Discharge Plan to be prepared by a Qualified Person as stipulated under O.Reg. 63/16.

1.12. Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements and as follows:

1.12.1. Provide flocculation tanks, settling basins, or other treatment facilities to remove suspended solids or other materials to within the required parameters of the receiving body before discharging to storm sewers, watercourses or drainage areas.

1.12.2. Before discharging to storm sewers, watercourses or drainage areas, discharge water must be sampled and tested to ensure quality requirements in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and the MECP are adhered to. The Contractor is to perform all additional sampling and testing as required by City of Ottawa. All associated fees to be paid by the Contractor.

1.12.3. Where water is not suitable for discharge into the adjacent storm sewers, watercourses or drainage areas it must be discharged into the on-site sanitary sewer collection system, or disposed off-site at an approved disposal facility.

1.13. 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.

1.14. 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 supply, install and maintain an appropriate safety fence along the work perimeter until the work is complete.
The Contractor must provide at any time:
- A sufficient number of barriers, posters, guards and others to ensure safety;
- Necessary conveniences for the completion of the work such as heating, lighting, ventilation, etc.

1.15. Temporary excavations in the overburden must be completed as per the requirements of the Occupational Health and Safety Act (OHSA), O. Reg. 213/91, Part III - Excavations.
The side slopes of excavations in the soil and fill overburden materials should either be cut back at acceptable slopes or should be retained by shoring systems from the star of the excavation until the structure is backfilled.
The excavation side slopes above the groundwater level extending to a maximum depth of 3 m should be cut back at 1H:1V or flatter. The flatter slope is required for excavation below groundwater level. The subsurface soil is considered to be Type 3 soil according to the Occupational Health and Safety Act and Regulations for Construction Projects. Slopes in excess of 3 m in height should be periodically inspected by the geotechnical consultant in order to detect if the slopes are exhibiting signs of distress.

1.16. The Contractor must pace deliveries and removals in order to minimize and control stockpiles.

1.17. Stockpile material must be stored away from excavations at a distance at least equal to the depth of the excavation. Construction traffic should be limited near open excavation.

1.18. Cleanliness on the site:
- The Contractor must clean roadways at his own cost as directed by the Owner's representative;
- All site roads and walkways to and from the construction zone must be kept clean at all times, from mud, dirt, granular material, debris, etc.;
- The Contractor must leave the work area clean at the end of each day;
- Materials and equipment must be laid out in an organized and safe manner;
- All material, equipment and temporary structures which are no longer necessary for the execution of the Contract must be removed from the site;
- If required the Contractor must use screens, bulkheads, or any other recognized means in order to reduce noise, dust, interference, obstruction, etc., in conformity with the requirements of the provincial and municipal authorities having jurisdiction.

1.19. 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.

1.20. The Contractor must control surface runoff from precipitation during construction.

1.21. Where trees and other vegetation are proposed within close proximity to hard surfaces (i.e. sidewalks or pavement structures) it is recommended that the vegetation be panted in CU-Structural Soils or approved equivalent. Under the areas of hard surfaces, the CU soil should be compacted to 100% SPMDD using suitable compaction equipment. The CU-structural soil must extend at least 1.0 m below grade and extend to a 3.0 m radius around the trees/vegetation.

1.22. Protection of existing trees and shrubs:
- The contractor must ensure that the existing trees and shrubs that are to remain on site will be protected throughout the construction phase in order to minimize the risk of damaging the trunks and branches and to avoid the compaction of the roots.
- As required, the Contractor must coordinate his work with other professionals to ensure that the existing tree and shrub protection measures are in place prior to any other work and that these measures are maintained until the work is complete;"
- The Contractor must protect the existing trees in accordance with OPSS.MUNI 801 and OPSD 220.010.
- The Contractor must define paths for heavy machinery before construction to avoid compaction of the roots of existing trees and shrubs;
- The Contractor cannot store material at the base of trees and shrubs; The Contractor cannot backfill the trunk of existing trees and shrubs; Prune tree branches, shrubs and roots as needed to complete the work.
- The Contractor must perform any tree cutting prior to April 15 (i.e. outside of the core Migratory Birds sting period, which is April 15 to August 15).

1.23. The Contractor must ensure the following mitigation measures are implemented in order to reduce the risk of ground contamination from petroleum products:

- The list of persons and agencies to contact in the event of an emergency must be posted in plain sight on the work site for the duration of the construction period;
- Machinery must be clean and kept clean to limit any grease or oil deposits inside the work area;
- Frequent inspections must be performed to detect any oil, fuel, grease or other leaks. If a leak is detected, the necessary corrective action must be taken immediately;
- An emergency kit for the recovery of petroleum products must be kept on site at all times. The kit must include at least 30 m of absorbent booms, a box of absorbent pads and solid absorbent
- material (powder or granules). The kit must be stored near the location of work and machinery, and kept within easy reach at all times to ensure a rapid response;
- In the event of a spill the Contractor must immediately report to the Spills Action Centre of the MECP at 1-800-268-6060. Hydrocarbons and contaminated soils will be recovered by a specialized firm.

1.24. The Contractor must ensure the following measures are implemented regarding the handling of concrete:

- 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);
- Excess concrete must be disposed off-site at a location that meets all regulatory requirements;
- The washing of concrete trucks and other equipment used for mixing concrete should not be carried out within 30 m of a watercourse or wetland and should take place outside of the work site;
- 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.

2. DEMOLITION AND REMOVALS

2.1. 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.

2.2. 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.

2.3. The Contractor must perform the nessessary clearing and grubbing in accordance with OPSS.MUNI 201.

2.4. The Contractor must carry out necessary saw cuts even if they are not shown on the drawings.

2.5. The Contractor must entirely remove the demolition wreckage from the construction site in accordance with the requirements of the MECP and in accordance with OPSS.MUNI 180 and OPSS.MUNI 510.

- The Contractor must discard recyclable demolition materials in collaboration with a regional recycling company. The Contractor must be able to provide proof, upon request, that the materials were properly recycled and that the chosen recycling company is recognized in the recycling field.
- 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.

2.6. The Contractor is responsible for locating existing public utilities and (if required) submit a request for the interruption of public utility services, such as gas, telephone, power, cable, sewers, watermain, etc.

2.7. The Contractor must conduct all removals required to make the work complete.

2.8. Unless otherwise specified, all materials, products and others coming from the demolition belong to the Contractor.

2.9. Surfaces and works located outside of the construction work limit must be reinstated as they were before beginning of work.
The existing Well will be abandoned in accordance with O.Reg 903.

3. GENERAL SUBGRADE PREPARATION

3.1. Earth removal must be inspected by an experienced Geotechnical Engineer to ensure that all unsuitable materials are removed prior to the placement of fill, including concrete and/or others, and to confirm the compaction degree and condition of the founding soils. All unsuitable materials must be hauled off site and disposed as per provincial and municipal regulations.

3.2. Subgrade must be approved by experienced geotechnical personnel before proceeding with placement of fill.

3.3. All granular fill must be placed in maximum 200 mm thick loose lifts and compacted using suitable methods as per the requirements.

3.4. All soft, wet or disturbed areas revealed under surface compaction must be removed to a minimum depth of 500 mm and replaced with compacted suitable subgrade fill (i.e. OPSS Granular 'B' Type II material) and an approved non-woven geotextile per OPSS 1860 as directed by the Geotechnical Engineer. Transition around sub-excavations where backfill and native material are not of similar nature, shall be sloped at 5 horizontal to 1 vertical, within 1.8 m of finished surface

3.5. If contaminated material is encountered during the work, the Contractor must retain a Qualified Person (QP, as per the definition under O.Reg 153/04), characterize the soil and dispose off-site all materials from the contaminated area in accordance with the requirements of the MECP O.Reg 406/09 and OPSS.MUNI 180. Prior to the start of work the Contractor must provide the name and location of the intended Receiving Site (s) where the contaminated materials will be disposed to the Consultant. The Contractor must obtain from the Receiving Sites QP documents confirming that the site has the right to accept the contaminated material. During the work, the Contractor must provide the Consultant copies of all reports signed by the Receiving Site's QP.

3.6. The Contractor is responsible for providing a confirmation that the imported material used as subgrade fill is free of any contaminants, as per O.Reg 153/04, such as Petroleum Hydrocarbons (C10-C50), Polycyclic Aromatic Hydrocarbons (PAH), and metals like mercury, silver, arsenic, cadmium, cobalt, chromium, copper, tin, manganese, molybdenum, nickel, lead and zinc.

4. EXCAVATION AND BACKFILL

4.1. Subgrade preparation must be completed as per Section "3.0 General Subgrade Preparation".

4.2. The management of excess materials to comply with OPSS.MUNI 180 and any excess soils with O.REG. 406/19.

4.3. Topsoil and deleterious fill, such as those containing organic materials, must be stripped from under any buildings, paved areas, pipe bedding, and other settlement sensitive structures.

4.4. Non-specified existing fill along with on-site excavated soil can be used as general landscaping fill where settlement of the ground surface is of minor concern. These materials should be spread in thin lifts and at least compacted by the tracks of the spreading equipment to minimize voids. If these materials are to be used to build up the subgrade level for areas to be paved, they should be compacted in thin lifts to a minimum density of 98% of their respective SPMDD.

4.5. Structural fill used for grading beneath the footings of buildings, building floor slabs, sidewalks, pavements and slab on gradesigns and light standards must consist of OPSS Granular 'A' or Granular 'B' Type II Material.

4.6. Construction operations could cause vibrations, and possibly, sources of nuisance to the community. Therefore, means to reduce the vibration levels as much as possible must be incorporated in the construction operations to maintain a cooperative environment with the residents.
The following construction equipments could cause vibrations: piling equipment, hoe ram, compactor, dozer, crane, truck traffic, etc. Vibrations, caused by blasting or construction operations could cause detrimental vibrations on the adjoining buildings and structures. Therefore, it is recommended that all vibrations be limited.
Two parameters determine the recommended vibration limit, the maximum peak particle velocity and the frequency. For low frequency vibrations, the maximum allowable peak particle velocity is less than that for high frequency vibrations. As a guideline, the peak particle velocity should be less than 15 mm/s between frequencies of 4 to 12 Hz, and 50 mm/s above a frequency of 40 Hz (interpolate between 12 and 40 Hz). These guidelines are for current construction standards.
Considering there are several sensitive buildings in close proximity to the subject site, consideration to lowering these guidelines is recommended. These guidelines are above perceptible human level and, in some cases, could be very disturbing to some people. A pre-construction survey is therefore required to minimize the risks of claims during or following the construction of the proposed building.

5. PAVEMENT STRUCTURES, CURBS, AND SIDEWALKS

5.1. Construction of granular foundation must conform to OPSS.MUNI 314.

5.2. Granular materials used on site must conform to the requirements of OPSS.MUNI 1010.

5.3. Road cut reinstatement as per City of Ottawa Detail R10 with surface course key.

5.4. Where the proposed pavement structure abuts the existing pavement, the pavement structure should match the existing pavement layers.

5.5. Construction of asphalt must conform to OPSS.MUNI 310 and OPSS.MUNI 313.

5.5.1. Paving must not be carried out if the roadbed is frozen or wet.

5.5.2. The granular grade must be free of standing water at the time of hot mix asphalt placement. The surface of a pavement upon which hot mix asphalt is to be placed must be dry at the time of hot mix asphalt placement. Following the final compaction of a hot mix asphalt course, a 4 hour minimum time laps must be respected before placing a new new hot mix asphalt course. Additionally, the temperature of the previous course must be 50 °C or less.

5.5.3. As per OPSS.310.07.06.02, the asphalt base course must not be placed unless the air temperature at the surface of the road is a minimum of 2°C and rising.

5.5.4. As per OPSS.310.07.06.02, the asphalt surface course must not be placed unless the air temperature at the surface of the road is a minimum of 7°C and rising.

5.6. Asphalt concrete material must conform to OPSS.MUNI 1150 for Hot Mix Asphalt and OPSS.MUNI 1151 for Superpave and Stone Mastic Asphalt Mixtures. Minimum Performance Graded (PG) 58-34 asphalt cement must be used for this project.

5.7. Asphalt mix design must be reviewed and approved by a Geotechnical Engineer before paving.

5.8. Concrete curbs must conform to OPSS 353.MUNI.

5.9. Concrete Toe-wall to be per OPSD 3120.100 Type I

5.10. Elevation at top of concrete curbs to be 150 mm above the asphalt, unless otherwise indicated on the drawings.

5.11. Concrete sidewalks must conform to OPSS.MUNI 351.

5.12. For all concrete placement during cold weather Contractor must place material in accordance to OPSS.904.MUNI.

5.12.1. When ambient air temperature is 5°C or less, forms for concrete work must be left in place for the duration of the curing period.

5.12.2. When the ambient air temperature is below 0°C at the time of placing, components must be cured with moisture vapour barrier.

5.12.3. Contractor must conform to OPSS.MUNI 904.07.11 for Control of Temperature when subjected to cold weather.

5.13. Construction of Roller-Compacted Concrete Pavement as follows:
- Subgrade to be prepared as specified, and contoured for efficient drainageConstruction of Roller-Compacted Concrete Pavement as follows:
- Subgrade to be prepared as specified, and contoured for efficient drainage
- Concrete should be transported in dump trucks and placed using asphalt pavers.
- If placed in more than one lift, subsequent lift should be placed within 60 minutes of placing the bottom lift.
- Roller compacted concrete must be compacted using 10 ton dual drum vibratory roller within 15 to 45 minutes of placement with 4 to 6 passes, until lift deflects uniformly under roller, and no pumping, shiny or pasty surface is observed.
- The desired density is 98% of the mix design density.
- Transverse saw joints must be placed at 5 m on centres.
- Longitudinal saw joints must be placed at 0.2 m from the edges, and every 8m subsequently.

6. BUILDING PAD PREPARATION

6.1. The Building Pad shall be prepared prior to Dynamic Compaction (DC) to a level that will allow the finished grade to be 450mm below the Finish Floor Elevation (FFE). The Contractor shall assume that the total settlement after DC will be 300mm. Therefore, the Building Pad finished grade Prior DC shall be 91.850m.

6.2. The Building Pad footprint shall extend 2m past the perimeter of the proposed building footprint.

6.3. The final layer of the building pad (Working Pad) shall consist of compacted 600 mm of Granular B type II.

6.4. The Building Pad shall be excavated to 91.850m minus (-) 600mm = 91.250m in Cut areas and or raised to 91.250m plus (+) 600mm = 91.850m in Fill areas.

6.5. In addition to the 600mm Granular pad specified above, in fill areas, the Building Pad shall be raised using excavated surplus materials from the site as per the Excavated Materials Management specifications.

6.6. Fill must be place in lifts no greater than 200mm thick and compacted to the specified density using suitable compaction equipments.

6.7. The building pad preparation must include a 20 m wide temporary access road (up to the property line) around the building and, between the building and the access street. The contractor must be responsible for maintaining the temporary access roads in good and tidy condition at all times to the satisfaction of the Owner and / or Consultant.
All temporary access roads constructed within future pavement areas must consist of compacted granular materials as per pavement infrastructure details.
All temporary access roads constructed within future landscaped areas must consist of compacted OPSS Select Subgrade Material to allow heavy equipment traffic.

6.8. If the building is constructed during the winter period, the Contractor must be responsible for the snow removal and spreading of abrasive throughout the construction work by the building contractor and his sub-contractors.

7. EXCAVATED MATERIAL MANAGEMENT

7.1. During site preparation excavation work, the Contractor shall ensure that the excavated existing fill material remains on-site as much as possible and is incorporated within its work. All surplus excavation of existing Fill material shall be managed as per the following priorities

7.1.1. Surplus excavated materials may come from excavation required to construct the proposed ponds and parking areas at specified finished elevations.

7.1.2. First, surplus excavated materials shall be incorporated within the Building Pad Preparation to raise the Pad to the required elevation and allowing for the Working Pad layer mentioned at 6.3

7.1.3. Second, surplus materials shall be used to backfill the Vegetated Retaining wall.

7.1.4. The remaining surplus material shall be remove off-site as per the specification herein.

SERVICES NOTES

1. MUNICIPAL SERVICES - GENERAL

1.1. Unless otherwise indicated, all materials and construction methods to be in accordance with the requirements of the latest edition of the Ontario Provincial Standard Specifications and Drawings (OPSS and OPSD), the Ontario Ministry of Environment, Conservation and Parks (MECP), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities as they apply.

1.2. Wherever standards, laws and/or regulations are mentioned they refer to their current versions, modifications included.

1.3. The boreholes and test pits shown on the plan are for information purposes only. Their location on the plan is approximate. The Contractor must refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.

1.4. 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.

1.5. The Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including water permit and associated costs.

1.6. The Contractor is responsible for the coordination of his activities with others on-site.

1.7. Terminate and plug all service connections at 1.0 meter from edge of the building.

1.8. The Contractor must complete compaction as per OPSS.MUNI 501 and note the following requirements for service trenching:

MATERIALS	COMPACTION
Pipe bedding	95% Standard Proctor Maximum Dry Density
Trench backfill and pipe cover	95% Standard Proctor Maximum Dry Density

1.9. The Contractor is responsible for making or arranging all connections to the existing sewers as per municipal requirements. Prior to connection, the Contractor must provide, to the Engineer and the City for approval, all test results performed on the internal services. Test results must include C.C.T.V. inspection of sewers, infiltration/exfiltration tests for sewers and manholes, deformation tests of sewers, watermain hydrostatic leakage test, flushing and disinfecting operations, and bacteriological water analysis.

1.10. The Contractor must determine the exact invert (geodetic elevation), diameter and construction material of the existing conduits at the proposed connections. He must also carry out, if necessary, exploratory excavations in order to determine the exact location and inverts of existing duct banks. This information must immediately be provided to the Engineer prior to start undertaking any municipal services work and a 48 hour period must be allocated to the Engineer for design review.

1.11. The Contractor is responsible for all excavation, backfill and reinstatement of all areas disturbed during construction to existing conditions or better and all associated works to the satisfaction of the Engineer and municipal authorities.

- Asphalt reinstatement must be in accordance with OPSS.MUNI 310.
- Landscape areas to be reinstated with 150 mm of topsoil and sod in accordance with OPSS.MUNI 802 and OPSS.MUNI 803.

1.12. It is recommended that a trench box be used at all times to protect personnel working in trenches with steep or vertical sides. Services are expected to be installed by "cut and cover" methods and excavations should not remain open for extended periods of time.

1.13. The pipe bedding for sewer and water pipes must consist of at least 150 mm of OPSS Granular A material The material must be placed in maximum 300 mm thick lifts and compacted to a minimum of 95% of its SPMDD. The bedding material should extend at least to the spring line of the pipe.

1.14. The cover material, which must consist of OPSS Granular A, will extend from the spring line of the pipe to at least 300 mm above the obvert of the pipe. The material must be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of its SPMDD.

1.15. Where hard surface areas are considered above the trench backfill, the trench backfill material within the frost zone (about 1.8 m below finished grade) must match the soils exposed at the trench walls to minimize differential frost heaving. The trench backfill must be placed in maximum 300 mm thick loose lifts and compacted to a minimum of 95% of the material's SPMDD..

1.16. Dewatering of pipeline, utility and associated structure in rock excavations to be completed as per OPSS.MUNI 403.

1.17. Trenching, backfilling and compacting must conform to OPSS.MUNI 401.

2. WATERMAIN

2.1. Watermain, water service connections and associated appurtenances must be constructed in accordance with the Ontario Provincial Standard Specifications. Specifically watermains must conform to OPSS.MUNI 441.

2.2. Watermain must be constructed as per OPSS.MUNI 441 and specifically OPSD 802.010 for earth excavation and 802.013 for rock excavation. Bedding and cover material to be OPSS Granular 'A' compacted to 95% Standard Proctor Maximum Dry Density.

2.3. Watermain pipe materials must be class 150 PVC DR 18 or approved equivalent, unless otherwise shown on the Drawings. Materials must conform to OPSS 441.

2.4. All watermain must be installed with a minimum of 2.40 meters cover from finished grade. Where a minimum of 2.40 meters cover is not reached, thermal insulation is required as per City of Ottawa Details W22 and W23.

2.5. Watermain service connections must be installed a minimum of 2.40 meters from any catchbasin, manhole or object that may contribute to freezing. Thermal insulation must be installed as per City of Ottawa Details W22 and W23 where 2.40 meters of separation cannot be achieved.

2.6. Cathodic protection (if required) must be installed as per City of Ottawa Details W40 and W42.

2.7. Restraints must be as per City of Ottawa Details W25.5 and W25.6.

2.8. Valves to be installed as per OPSS 441 and conform to the following:

- All valves must open in a counter clockwise direction;
- Designed for cold water working pressure of 1035 kPa;
- Types must be one of the following:
- Valves less than 75 mm to be brass or bronze gate valves;
- Valves greater than or equal to 75 mm, and less than or equal to 300 mm, to be cast or ductile iron gate valves;
- Valves greater than 300 mm up to and including 500 mm to be gate or butterfly valves;
- Valves greater than 500 mm to be butterfly valves.

2.9. A continuous 12 gauge copper tracer wire must be installed over all watermains. Tracer wire must be tied to all fire hydrants.

2.10. Valve box assembly to be as per City of Ottawa Detail W24.

2.11. When a watermain pipe crosses a sewer pipe, installation must be as per City of Ottawa Detail W25.2.

2.12. Watermains must be thoroughly flushed and cleaned to remove all dirt and debris prior to the disinfection process.

2.13. All watermains must be hydrostatically and bacteriologically tested as per provincial and municipal regulations. It is the Contractor's responsibility to ensure that all requirements are followed.

2.14. Hydrostatic testing to be completed as per OPSS 441.07.24. Testing must be completed under the supervision of the Contract Administrator. The test section will be either a section between valves or the completed watermain. Test pressure to be 1035 kPa.

2.15. Flushing and Disinfecting to be completed as per OPSS 441.07.25 under the supervision of the Contract Administrator.

2.16. Contractor must coordinate the supply and installation of water meter and remote water meter for the building with the mechanical engineer.

3. STORM SEWER

3.1. Storm sewers, laterals and storm service connections must be constructed in accordance with the Ontario Provincial Standard Specifications. Specifically storm sewers must conform to OPSS.MUNI 410.

3.2. PVC storm sewer material to conform to OPSS.MUNI 1841. PVC storm sewers to be installed as per OPSD 802.010 for earth excavation and 802.013 for rock excavation. Bedding and cover material to be OPSS Granular 'A'.

3.3. The allowable deflected pipe diameter when using flexible pipe is as follows:
- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

3.4 Final backfill material for storm sewers must be approved native material or select subgrade material in conformance with OPSS.MUNI 212.

3.5. Storm sewer pipes must be type PVC SDR-35, unless noted otherwise on the drawings.

3.6. Culverts, when double barreled, must be spaced laterally by 300mm between each barrel.

3.7. All storm sewers to be C.C.T.V. inspected by the Contractor as per OPSS.MUNI 409. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

3.8. Storm manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be installed as per OPSS 407.

3.9. Adjustment or rebuilding of manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS 408.

3.10. Excavating, backfilling, and compacting for manholes, manhole/catchbasins, catchbasins, ditch inlets and valve chambers to be completed as per OPSS 402.

3.11. Storm manhole, manhole/catchbasin and catchbasin excavations to be backfilled with OPSS Granular 'B' compacted to 99% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections must be wrapped in a non-woven geotextile.

3.12. Storm manholes and manhole/catchbasins to be as per OPSD 701.010 and must be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert.

3.13. Storm manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover.

3.14. When a minimum cover of 1.5 meters is not reached, frost protection is required.

3.15. For building roof drain sizes and location refer to architectural and mechanical drawings.

4. SANITARY SEWER

4.1. Sanitary sewers, laterals and service connections must be constructed in accordance with the Ontario Provincial Standard Specifications. Specifically sanitary sewers must conform to OPSS.MUNI 410.

4.2. PVC sanitary sewer pipe material to type PVC SDR-35, conforming to OPSS.MUNI 1841. PVC sanitary sewers to be installed as per OPSD 802.010 for earth excavation and 802.013 for rock excavation. Bedding and cover material to be OPSS Granular 'A'.

4.3. The allowable deflected pipe diameter when using flexible pipe is as follows:

- Pipes 100 to 750 mm: 7.5% of the base inside diameter of the pipe
- Greater than 750 mm: 5.0% of the base inside diameter of the pipe

4.4. Final backfill material for sanitary sewers must be approved native material or select subgrade material in conformance with OPSS.MUNI 212.

4.5. All sanitary sewers to be C.C.T.V. inspected by the Contractor as per OPSS.MUNI 409. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

4.6. Sanitary manholes to be installed as per OPSS 407.

4.7. Adjustment or rebuilding of sanitary manholes to be completed as per OPSS 408.

4.8. Excavating, backfilling, and compacting for sanitary manholes to be completed as per OPSS.MUNI 402.

4.9. Sanitary manholes to be backfilled with OPSS Granular 'B' compacted to 99% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections must be wrapped in a non-woven geotextile.

4.10. Sanitary manholes to be as per OPSD 701.010 and must be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert.

4.11. Sanitary manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover.

4.12. A maintenance hole drop structure tee is to be used as per OPSD 1003.010 when the drop from the inlet invert to the outlet invert is greater than 600 mm and less than 1200 mm. A drop structure wye is to be used as per OPSD 1003.020 when the drop exceeds 1200 mm.

4.13. Sanitary service connections to rigid main sewer pipe to be as per City of Ottawa Detail S11. Connections to flexible main sewer pipe to be as per City of Ottawa Detail S11.1.

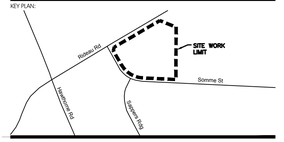
4.14. When a minimum cover of 1.8 meters is not reached, frost protection is required.

4.15. Benching is required inside the concrete bottom of sanitary manholes as per OPSD 701.021.

CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
0		
1		
2		
3		
4		
5		
6	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

ISSUE:

PROFESSIONAL STAMP:

PROFESSIONAL STAMP:

CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC.
14 CHAMBERLAIN AVENUE, SUITE 101
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CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

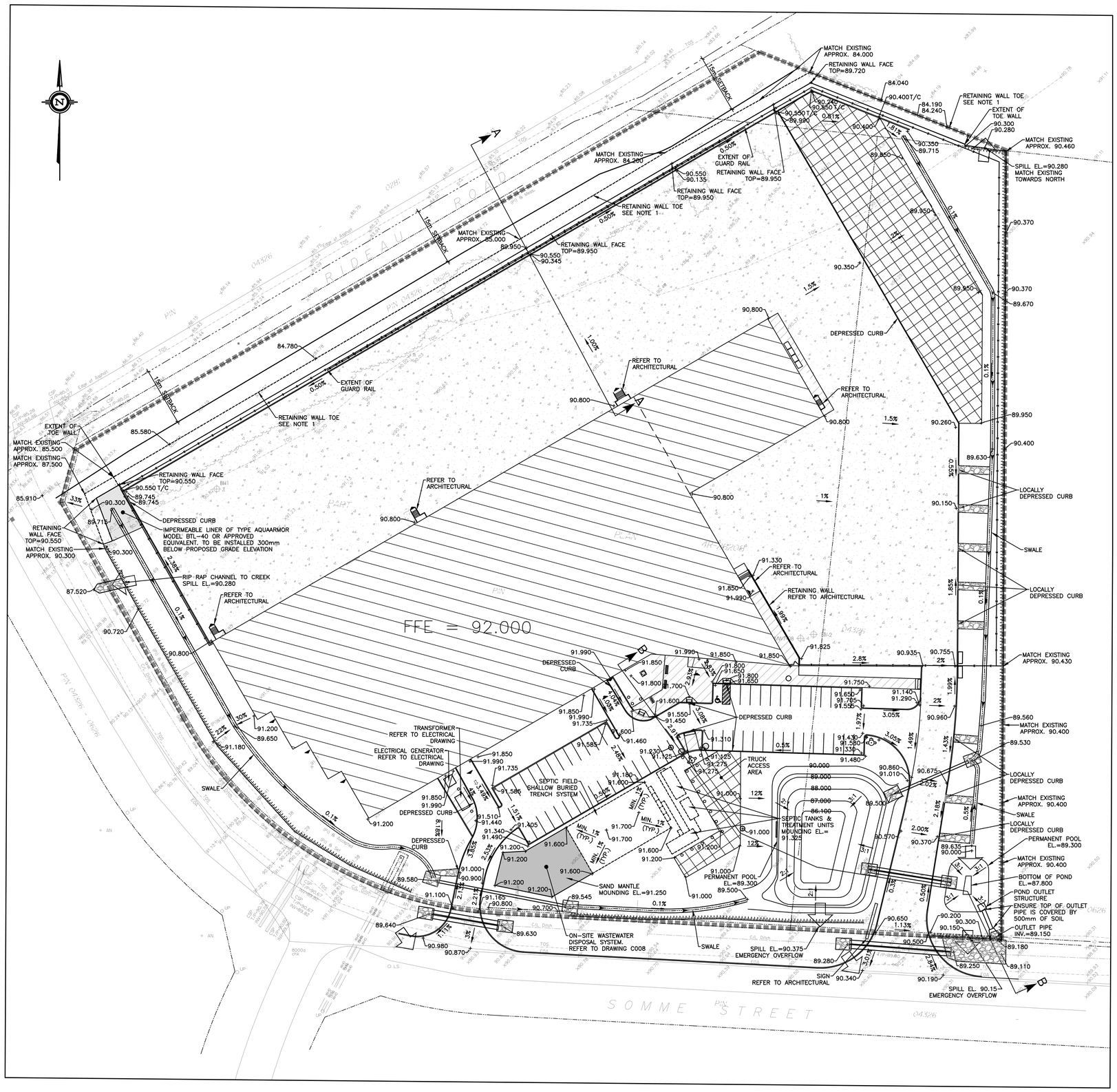
SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

NOTES PLAN

DRAWN BY:	D.CANN	DRAWING NUMBER:
DATE:		**C005**
REVIEWED BY:	J.SAUVE	
APPROVED BY:		
PRINT DATE:		REVISION NUMBER:
ISSUED DATE:	AUGUST 13, 2021	
CLIENT PROJECT #:		PROJECT #: **A001083**



0 5 10 20 30 40 50

EXISTING LEGEND PROPOSED

EXISTING		PROPOSED
—□—	SURVEY MONUMENT PLANTED	
—■—	SURVEY MONUMENT FOUND	
SIB	STANDARD IRON BAR	
SSIB	SHORT STANDARD IRON BAR	
IB	IRON BAR	
CC	CUT CROSS	
CP	CONCRETE PIN	
IB#	ROUND IRON BAR	
SSIB*	SHORT STANDARD IRON BAR	
IB*	IRON BAR	
(WIT)	WITNESS	
Meas.	MEASURED	
(AOS)	ANNIS, O'SULLIVAN, VOLLEBEKK LTD.	
(PI)	REGISTERED PLAN 4M-1388	
(P2)	PLAN 4R-26208	
△	SIGN	
LS	LIGHT STANDARD	
UP	UTILITY POLE	
AN	ANCHOR	
	NATURAL GAS LINE	
CSP	CORRUGATED STEEL PIPE	
89.00	LOCATION OF ELEVATIONS	
C/L	CENTRELINE	
	PROPERTY LINE	
TOS	TOP OF SLOPE	
BOS	BOTTOM OF SLOPE	
T/P	TOP OF PIPE	
T/G	TOP OF GRATE	
EOA	EDGE OF ASPHALT	
JB	JERSEY BARRIER	
ohw	OVERHEAD WIRES	
	WORK LIMIT	
BH-1	BOREHOLE	
W	WATERMAIN	
S	SANITARY SEWER	
SM	STORM SEWER	
D	DRAIN	
G	GAS LINE (APPROX. LOC.)	
T	UNDERGROUND TELEPHONE (APPROX. LOC.)	
CA	UNDERGROUND CABLE (APPROX. LOC.)	
X	FENCE	X
E	UNDERGROUND ELECTRICITY (APPROX. LOC.)	
HS	OVERHEAD WIRES	
	LOT LINE	
	RIGHT-OF-WAY LIMITS	
	EASEMENT	
	WORK LIMITS AREA	
	TOP OF SLOPE	
	DITCH CENTER	
	BOTTOM OF SLOPE	
	WOOD AREA	
	GRADE CROSSING	
	FLAGPOLE	
	CATCHBASIN	
	MANHOLE/CATCHBASIN	
	MANHOLE	
	FIRE HYDRANT	
	VALVE	
	REDUCER	
	TEE	
	VALVE CHAMBER	
	PRIVATE UTILITIES (WATERMAIN)	
	EXTERIOR WATER FAUCET	
	SLUICEWAY	
	NATURAL GAS VALVE	
	SIGN	
	STOP SIGN	
	TRAFFIC LIGHT	
	ELECTRICITY POLE	
	TELEPHONE POLE	
	ELECT.-TEL.-STREET LIGHT POLE	
	ELECT.-TEL.-TRANSFORMER POLE	
	PRIVATE STREET LIGHT	
	ELECTICITY MANHOLE	
	TELEPHONE MANHOLE	
	SURVEY STATION	
1.345.000	ELEVATION	+ 99.000
	DRAINAGE DIRECTION	
	SAMPLING LOCATION	
	OVERLAND FLOW	
	ROLLED CONCRETE (REFER TO DETAIL 203)	
	HEAVY DUTY PAVEMENT (REFER TO DETAIL 202)	
	CONCRETE SIDEWALK (REFER TO DETAIL 101, 102 & 103)	
	GRANULAR PAD (REFER TO DETAIL 202)	
	RIP RAP (REFER TO DETAIL)	

RIP-RAP			
TYPE	CALIBER (mm)	d50 (mm)	THICKNESS (mm)
2	200-100	150	300
3	300-200	250	500

NOTES
1. TOE OF RETAINING WALL SHOWN AT WIDEST LOCATION. LOCATION VARIES WITH HEIGHT OF WALL.
2. RIP RAP SIZE IN MUNICIPAL ROW TO BE TYPE 3; RIP RAP SIZE ON SITE TO BE TYPE 2.

NOTE OF CAUTION

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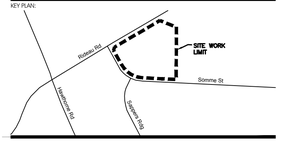
CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
6		
5		
4		
3		
2		
1	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

ISSUE:

PROFESSIONAL STAMP:

LICENSED PROFESSIONAL ENGINEER
J.A. SAUVE
100200100
PROVINCE OF ONTARIO

PROFESSIONAL STAMP:

LICENSED PROFESSIONAL ENGINEER
C. LAVOIE-LEBEL
100067842
PROVINCE OF ONTARIO

CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE
CIVITAS ARCHITECTURE INC. 14 CHAMBERLAIN AVENUE, SUITE 101
OTTAWA, ON CANADA K1S 1V9
T. 613.742.7482 WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

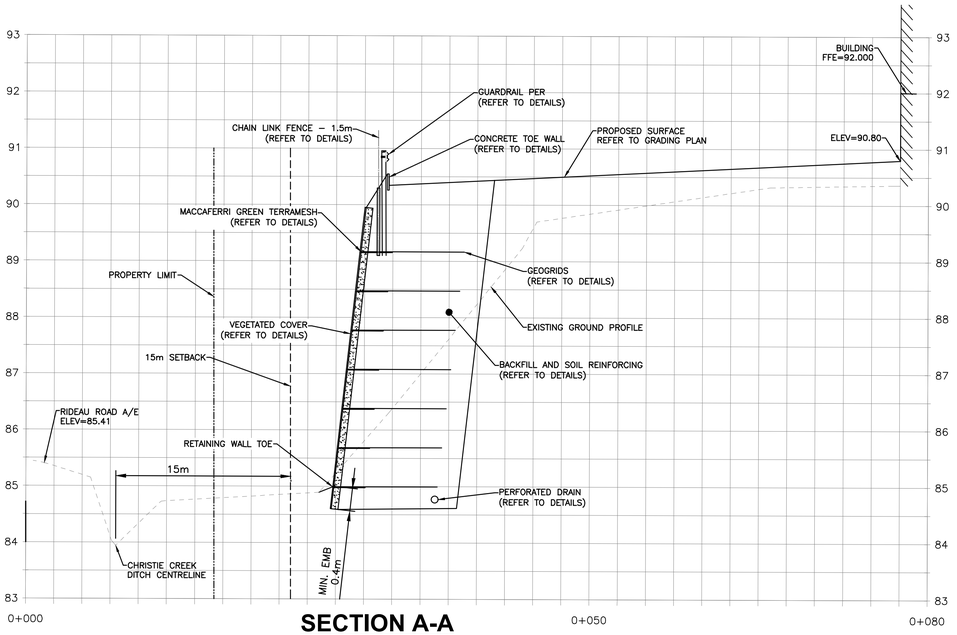
SCALE: 1:500

SOMME ST.
OTTAWA, ON

DRAWING TITLE:

GRADING PLAN

DRAWN BY:	D.CANN	DRAWING NUMBER:	C006A
DATE:			
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083



SECTION A-A
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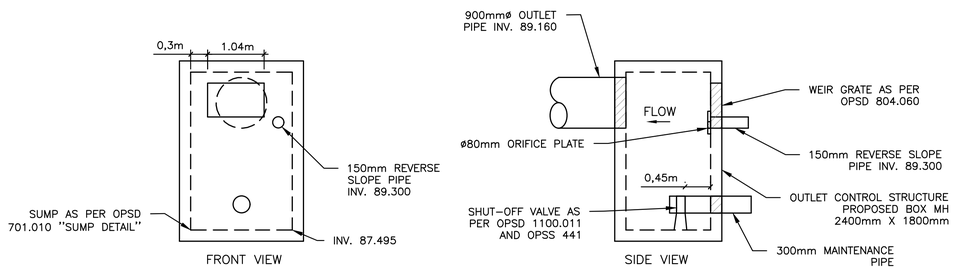
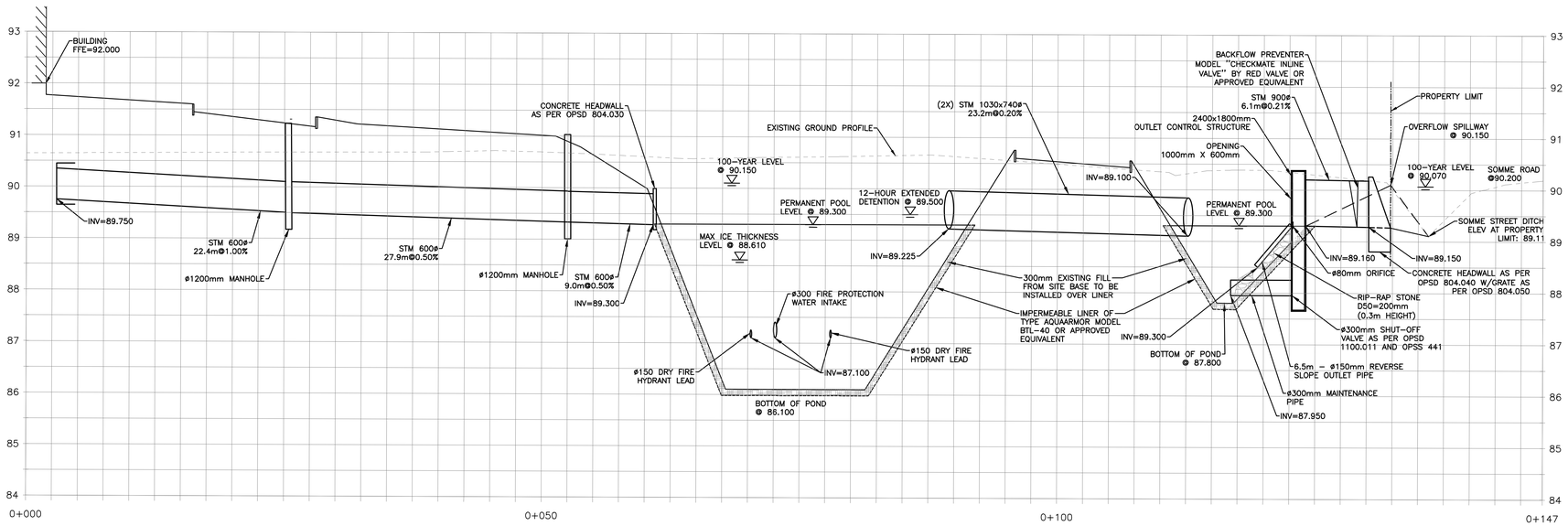


OULTET CONTROL STRUCTURE DETAILS
SCALE: NTS



SECTION B-B
H=1:250 V:1:50

0 5 10 20 30 40 50

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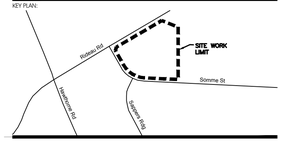
CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
0		
1	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021
2		
3		
4		
5		
6		
7		

ISSUE:

PROFESSIONAL STAMP:

PROFESSIONAL STAMP:

CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC. 14 CHAMBERLAIN AVENUE, SUITE 101 OTTAWA, ON CANADA K1S 1V9 T: 613.742.7482 WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

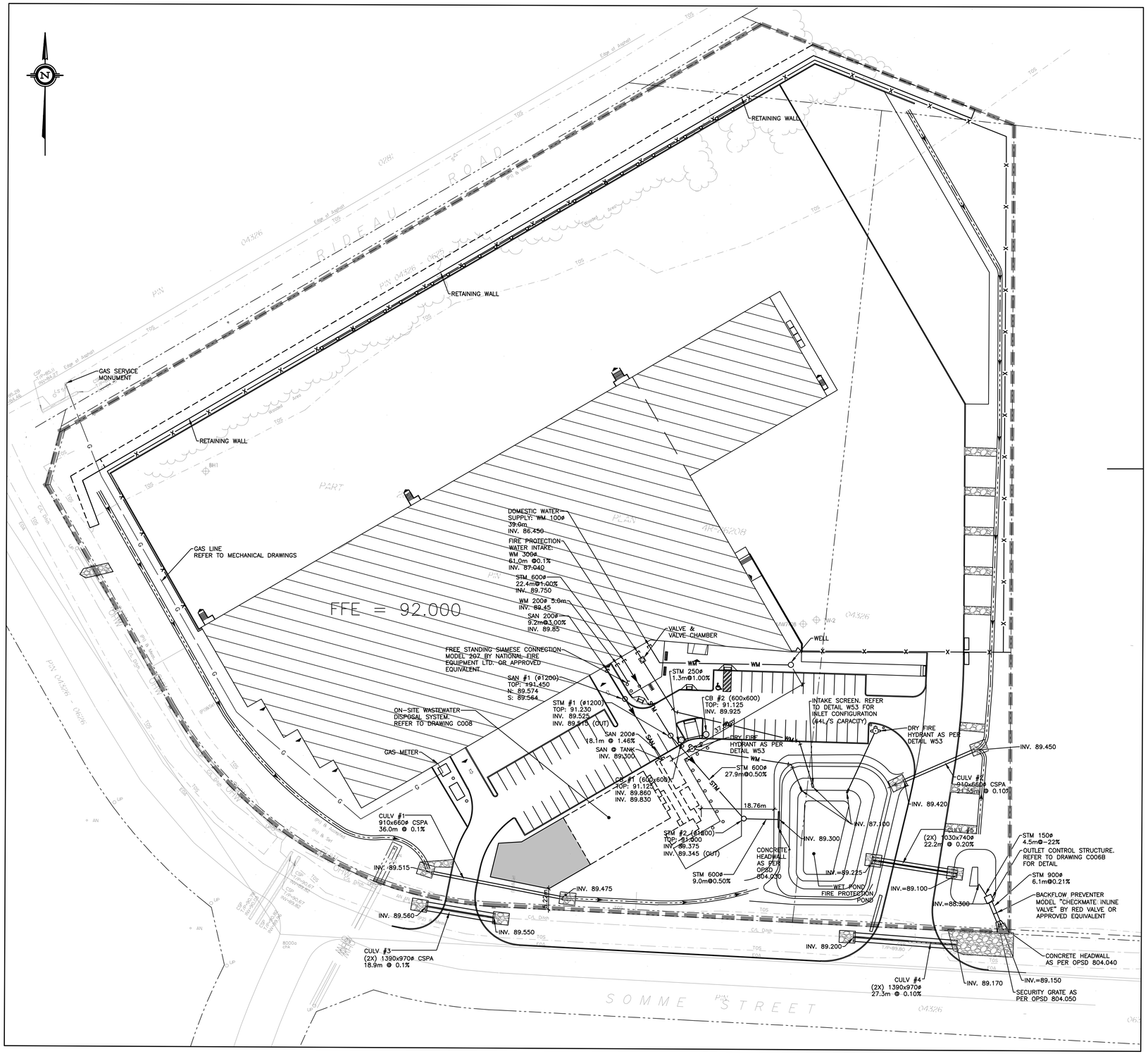
SCALE: 1:500

SOMME ST, OTTAWA, ON

DRAWING TITLE:

SECTIONS

DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C006B
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083



LEGEND

EXISTING / PROPOSED

- SURVEY MONUMENT PLANTED
- SURVEY MONUMENT FOUND
- SIB — STANDARD IRON BAR
- SSIB — SHORT STANDARD IRON BAR
- IB — IRON BAR
- CC — CUT CROSS
- CP — CONCRETE PIN
- IBø — ROUND IRON BAR
- SSIB* — SHORT STANDARD IRON BAR
- IB* — IRON BAR
- (WIT) — WITNESS
- Meas. — MEASURED
- (AOG) — ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
- (P1) — REGISTERED PLAN 4M-1388
- (P2) — PLAN 4R-26208
- SIGN
- LS — LIGHT STANDARD
- UP — UTILITY POLE
- AN — ANCHOR
- NATURAL GAS LINE
- CSP — CORRUGATED STEEL PIPE
- 45.000 — LOCATION OF ELEVATIONS
- C/L — CENTRELINE
- PROPERTY LINE
- TOS — TOP OF SLOPE
- BOS — BOTTOM OF SLOPE
- T/P — TOP OF PIPE
- T/G — TOP OF GRATE
- EOA — EDGE OF ASPHALT
- JB — JERSEY BARRIER
- OVERHEAD WIRES
- WORK LIMIT
- BH 1 — BOREHOLE
- A — WATERMAIN — W
- S — SANITARY SEWER — SAN
- P — STORM SEWER — STM
- D — DRAIN — D
- G — GAS LINE (APPROX. LOC.)
- T — UNDERGROUND TELEPHONE (APPROX. LOC.)
- CA — UNDERGROUND CABLE (APPROX. LOC.)
- X — FENCE
- E — UNDERGROUND ELECTRICITY (APPROX. LOC.)
- OVERHEAD WIRES
- LOT LINE
- RIGHT-OF-WAY LIMITS
- EASEMENT
- WORK LIMITS AREA
- TOP OF SLOPE
- DITCH CENTER
- BOTTOM OF SLOPE
- WOOD AREA
- GRADE CROSSING
- FLAGPOLE
- CATCHBASIN
- MANHOLE/CATCHBASIN
- MANHOLE
- FIRE HYDRANT
- VALVE
- REDUCER
- TEE
- VALVE CHAMBER
- PRIVATE UTILITIES (WATERMAIN)
- EXTERIOR WATER FAUCET
- SLUICEWAY
- NATURAL GAS VALVE
- SIGN
- STOP SIGN
- TRAFFIC LIGHT
- ELECTRICITY POLE
- TELEPHONE POLE
- ELECT.-TEL.-STREET LIGHT POLE
- ELECT.-TEL.-TRANSFORMER POLE
- PRIVATE STREET LIGHT
- ELECTICITY MANHOLE
- TELEPHONE MANHOLE
- SURVEY STATION
- ELEVATION + 99,000
- DRAINAGE DIRECTION
- OVERLAND FLOW

0 5 10 20 30 40 50

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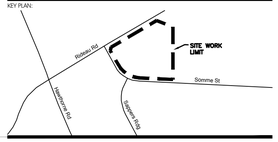
CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

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RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
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5		
4		
3		
2		
1	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

ISSUE:

PROFESSIONAL STAMP:

PROFESSIONAL STAMP:

CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC. | OTTAWA, ON | 1.613.742.7482
14 CHAMBERLAIN AVENUE, SUITE 101 | CANADA K1S 1V9 | WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

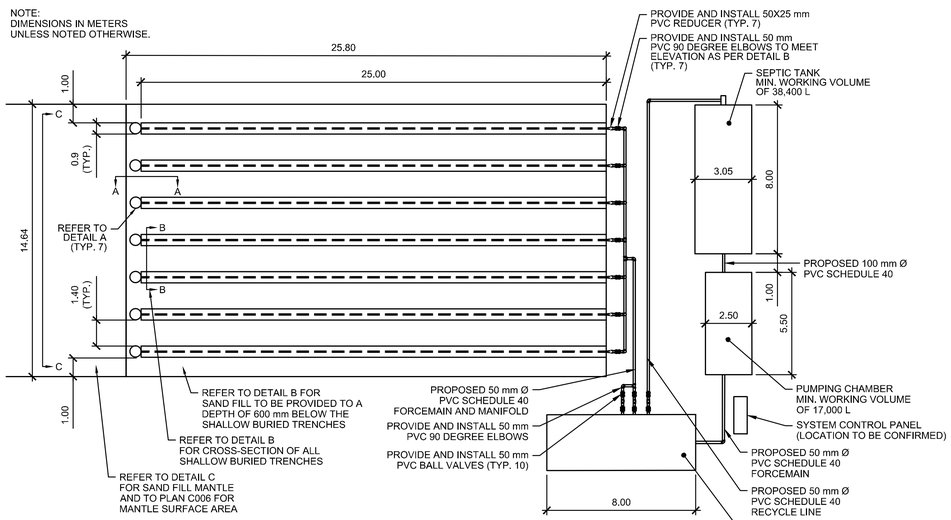
SCALE: 1:500

SOMME ST.
OTTAWA, ON

DRAWING TITLE:

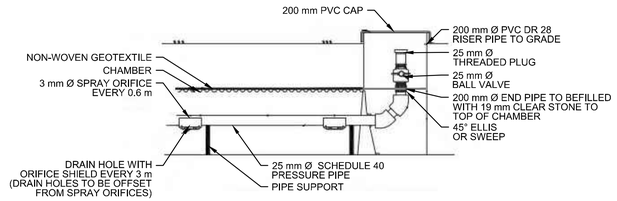
SITE SERVICING PLAN

DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			**C007**
REVIEWED BY:	J.SAUVÉ		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	**A001083**



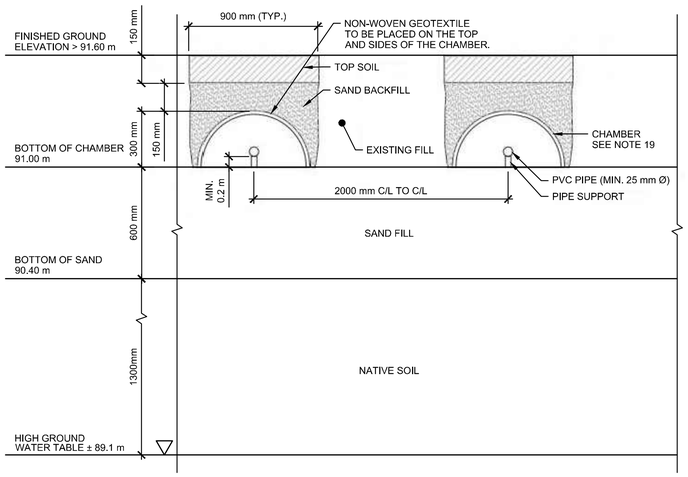
PLAN VIEW - SEPTIC SYSTEM

SCALE: N.T.S.



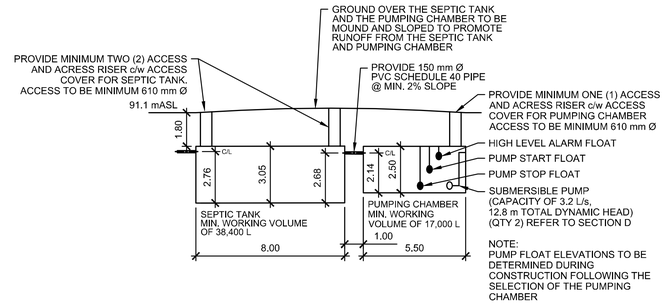
A SHALLOW BURIED TRENCH ENDPORT

SCALE: N.T.S.



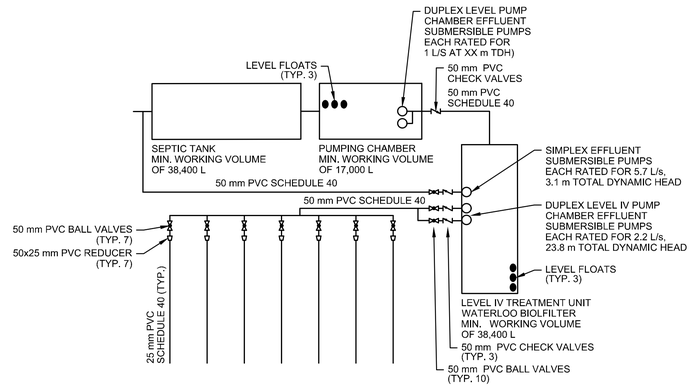
B SHALLOW BURIED TRENCH DETAIL

SCALE: N.T.S.



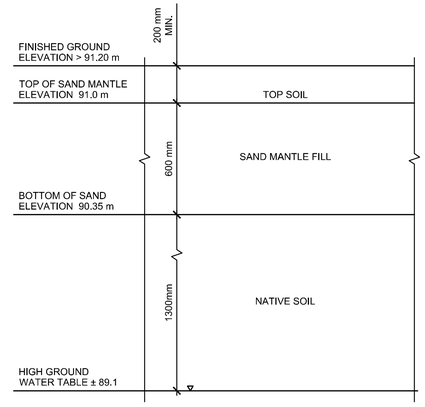
D SECTION VIEW OF SEPTIC TANK, PUMPING CHAMBER PUMPS AND DISCHARGE PIPE

SCALE: N.T.S.



PROCESS FLOW SCHEMATIC

SCALE: N.T.S.



C SAND MANTLE DETAIL

SCALE: N.T.S.

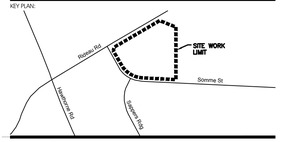
CLASS 4 SEPTIC SYSTEM NOTES

1. THE SEPTIC SYSTEM AND ALL APPURTENANCES SHALL ADHERE TO ONTARIO BUILDING CODE (OBC) PART 8.
2. THE DAILY DESIGN FLOW IS 12,800 L/DAY, THE SEPTIC TANK AND LEVEL IV TREATMENT UNIT TANK SHALL HAVE A MINIMUM WORKING VOLUME OF 38,400 L (THREE TIMES THE DAILY DESIGN FLOW).
3. THE SEPTIC SYSTEM TANK, PUMPING CHAMBER, AND LEVEL IV TREATMENT UNIT SHOWN ON THE DRAWINGS ARE APPROXIMATE SIZES. CONTRACTOR TO SUBMIT CUTSHEETS OF PROPOSED SEPTIC SYSTEM TANK, PUMPING CHAMBER, AND LEVEL IV TREATMENT TANK TO ENGINEER. ENGINEER TO APPROVE TANKS PRIOR TO THE CONTRACTOR ORDERING THE TANKS.
4. PROPOSED CHANGES TO SEPTIC SYSTEM DESIGN BY CONTRACTOR TO BE APPROVED BY THE ENGINEER.
5. SANITARY FLOWS FROM THE WAREHOUSE BY GRAVITY TO THE SEPTIC TANK. THE EFFLUENT FROM THE SEPTIC TANK TO THE PUMPING CHAMBER IS GRAVITY DRIVEN.
6. THE SEPTIC, PUMPING CHAMBER, AND LEVEL IV TREATMENT UNIT TO BE WRAPPED IN MEL-ROL (OR APPROVED EQUAL) ON THE TOP, BOTTOM AND SIDES.
7. THE LEVEL IV TREATMENT UNIT TO BE PROVIDED BY WATERLOO BIOFILTER.
8. THE LEVEL IV TREATMENT SYSTEM TO BE DESIGNED FOR THE FOLLOWING EFFLUENT OBJECTIVES: CBOD5 = 10 MG/L AND TSS = 10 MG/L.
9. THE SIMPLEX PUMP IN THE LEVEL IV TREATMENT UNIT RECIRCULATES A PORTION OF THE EFFLUENT TO THE INLET OF THE SEPTIC TANK.
10. THE PUMP TANK EFFLUENT TO BE DOSED TO THE WATERLOO BIOFILTER BASKET, HOUSING TWO BASKETS FILLED WITH BIOFILTER MEDIUM. THE PUMP TANK EFFLUENT TO BE EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM. A PASSIVE CHARCOAL VENTING TO BE PROVIDED.
11. ALL PUMPS TO BE OPERATED BY WATERLOO SMART PANEL(S). THE WATERLOO SMART PANEL SHALL PROVIDE REMOTE MONITORING, CONTROL, AND DATALOGGING OVER A STABLE WIRELESS CELLULAR NETWORK.
12. PROVIDE ACCESS FROM GRADE TO SEPTIC TANK EFFLUENT FILTER AS PER THE OBC.
13. PROVIDE SEPTIC TANK EFFLUENT FILTER PER OBC REQUIREMENTS DESIGNED FOR A MINIMUM CAPACITY OF 25,000 L/DAY.
14. ALL TANKS TO BE DESIGNED FOR A MINIMUM OF 2m OF BURIAL OVERTOP OF THE TANK.
15. PRIOR TO PLACEMENT OF THE IMPORTED SAND FILL ANY SURFICIAL ORGANICS ARE TO BE REMOVED FROM THE SBT BED AND MANTLE AREA.
16. THE EXISTING FILL MATERIAL IS TO BE COMPACTED TO ENSURE UNEVEN SETTLEMENT DOES NOT OCCUR.
17. ALL SAND FILL (SEPTIC SAND) TO HAVE A MINIMUM AND MAXIMUM PERCOLATION RATES OF 6 MINUTES/CM AND 10 MINUTES/CM RESPECTIVELY. SAND TO HAVE A MAXIMUM 5% FINES PASSING THROUGH A NO. 200 SIEVE. CONTRACTOR TO SUBMIT GRADATION CURVES AND PERCOLATION TEST RESULTS FOR PROPOSED SAND FILL MATERIAL TO THE ENGINEER FOR APPROVAL PRIOR TO DELIVERING MATERIAL TO THE SITE.
18. CONTRACTOR TO SUBMIT WORKING DRAWINGS FOR: SEPTIC TANK, SEPTIC TANK APPURTENANCES, PUMPING CHAMBER, PUMPING CHAMBER APPURTANENCES, ALL PUMPS, WATERLOO BIOFILTER, LEVEL FLOATS, SBT CHAMBERS, PIPE SUPPORTS, CHECK VALVES, BALL VALVES, THREADED PLUG, PIPES, REDUCERS, PVC CAPS, GEOTEXTILE, ORFICE SHEILDS TO BE REVIEWED AND ACCEPTED BY THE ENGINEER.
19. APPROVED CHAMBERS FOR SBT INCLUDE: CULTEC RECHARGER 150XLHD OR APPROVED EQUAL. CONTRACTOR TO SUBMIT WORKING DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.
20. SEPTIC TANK, PUMPING CHAMBER, AND LEVEL IV TREATMENT UNIT TANKS TO BE PRE-CAST CONCRETE. CONCRETE AND RATED FOR H-20 LOADING. ALL TANKS TO CONFORM TO NATIONAL STANDARDS OF CANADA CAN/CSA B66-10 AND CSA A23.4-19. CONTRACTOR TO SUBMIT WORKING DRAWINGS FOR REVIEW AND APPROIVAL BY THE ENGINEER.

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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0		
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2		
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5	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

ISSUE:

PROFESSIONAL STAMP:

PROFESSIONAL STAMP:

CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC.
14 CHAMBERLAIN AVENUE, SUITE 101
OTTAWA, ON
CANADA K1S 1V9
T. 613.742.7482
WWW.CIVITASINC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

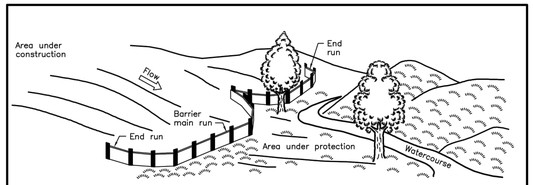
SCALE: NONE

SOMME ST.
OTTAWA, ON

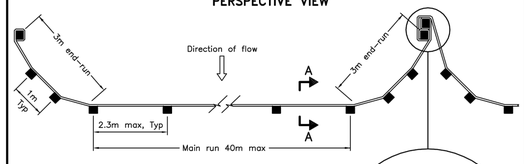
DRAWING TITLE:

SEPTIC SYSTEM CONFIGURATION AND SECTIONS

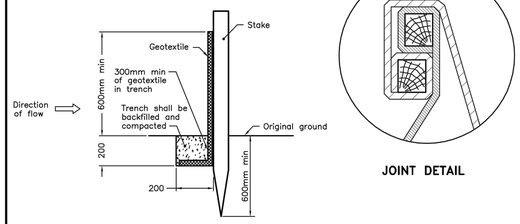
DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C008
REVIEWED BY:	K.SCHMIDT		
APPROVED BY:		REVISION NUMBER:	
PRINT DATE:			
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083



PERSPECTIVE VIEW



PLAN

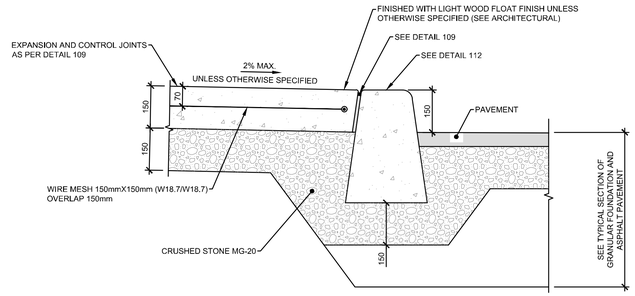


SECTION A–A

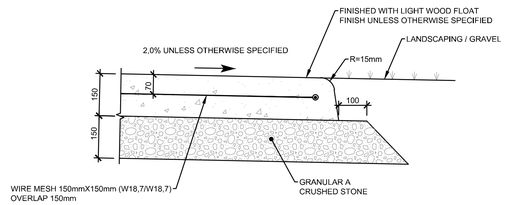
JOINT DETAIL

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

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev	2
LIGHT–DUTY SILT FENCE BARRIER			
	OPSD 219.110		



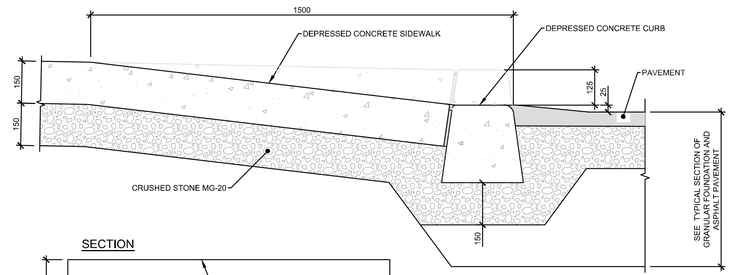
102 SIDEWALK - BUILDING TYPE - SLAB AND CURB
AUCUNE / NTS

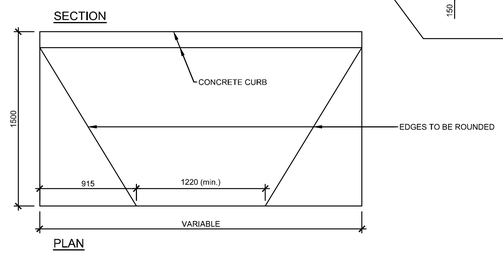


NOTES:

- CONCRETE CLASS: C-2;
- WATER/BINDER MAX. RATIO: 0.45;
- MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 32 MPa;
- GRANULARS MAXIMAL NOMINAL Ø: 20mm;
- AIR CONTENT: 5% TO 8%;
- SLUMP: 80mm ± 30mm FOR FIXE FORMWORK
  30mm ± 30mm FOR SLIDING FORMWORK;
- CONTROL AND EXPANSION JOINTS AS PER DETAIL 109.

101 SLAB SIDEWALK
AUCUNE / NTS





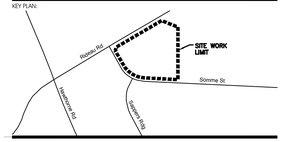
103 DEPRESSED SIDEWALK TYPE SLAB AND CURB
AUCUNE / NTS

\\CIMA PLUS\CIMA\CIMA-C10\OT_PROJECTS\AA\001000-A001499\A001083_FASTFRATE WAREHOUSE DEVELOPMENT\400\460_CIVIL\XREF

CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
0		
1		
2		
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ISSUE:

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CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE
CIVITAS ARCHITECTURE INC.
14 CHAMBERLAIN AVENUE, SUITE 101
OTTAWA, ON
CANADA K1S 1V9
T. 613.742.7482
WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

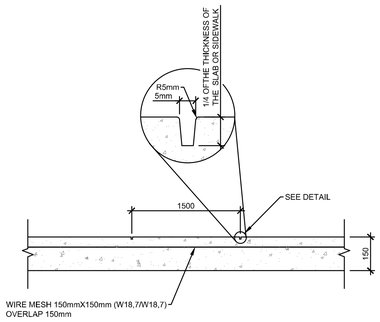
SCALE: NONE

SOMME ST.
OTTAWA, ON

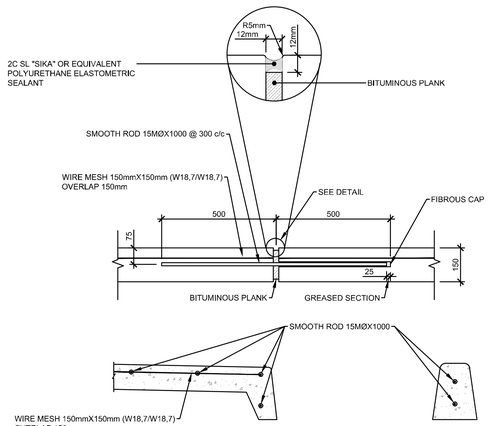
DRAWING TITLE:

DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	C009
DATE:			
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083



CONTROL JOINT



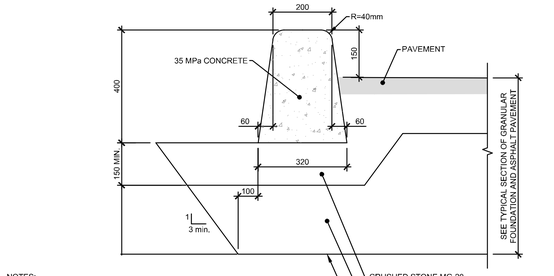
CONSTRUCTION AND EXPANSION JOINT

NOTES :

- EXPANSION JOINTS OF CONCRETE WORK AT 6,0m C/C MAX. DIRECTION CHANGE AND AT CONTACT WITH CONCRETE STRUCTURES
- EDGES AND CONTROL JOINTS SHALL BE GROOVED, TOOLED AND BURNISHED WITH BRONZE EDGERS AND GROOVERS.

109 EXPANSION, CONTROL AND CONSTRUCTION JOINTS FOR CONCRETE WORK

AUCUNE / NTS

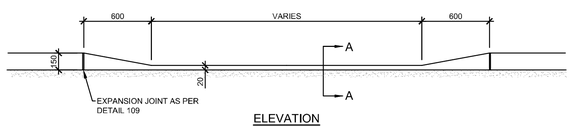


NOTES:

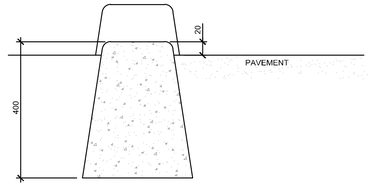
- WHERE THE CONCRETE CURB DOES NOT FINISH FLUSH WITH A SIDEWALK, A WALL OR ANY EXISTING CURB OR SIDEWALK, THE CURB SHOULD FINISH WITH A 3:1 SLOPE
- CONTROL AND EXPANSION JOINTS AS PER DETAIL 109

112A CONCRETE CURB DETAIL (TYPICAL)

AUCUNE / NTS



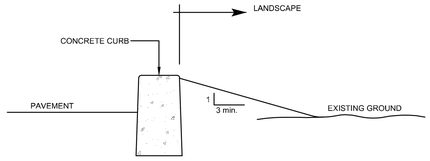
ELEVATION



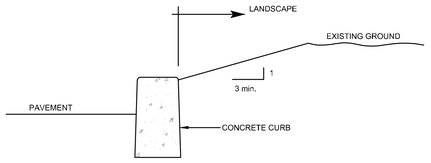
SECTION A-A

113 DEPRESSED CONCRETE CURB

AUCUNE / NTS



SIDE VIEW - LOWER EXISTING GROUND



SIDE VIEW - UPPER EXISTING GROUND

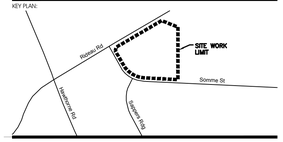
120 TYPICAL SECTION - LANDSCAPE CONCRETE CURB

AUCUNE / NTS

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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OTTAWA, ON
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T. 613.742.7482
WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

DETAILS

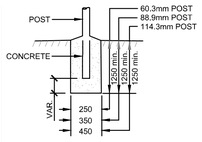
DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C010
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083

POST DETAILS				
POST TYPE	OUTSIDE DIA. (mm)	POST LENGTH		SLEEVES
		STANDARD (m)	RETAINING WALLS (m)	OUT. DIA. (mm)
LINE POST	60.3	2.6	2.0	88.9
END, CORNER, OR STRAINING POST	88.9	2.9	2.3	114.3

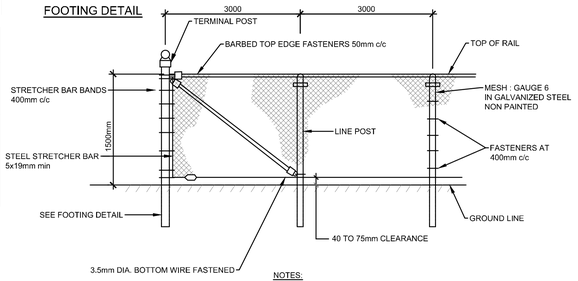
GATE AND GATE POST DETAILS			
GATE TYPE AND MAX. OPENING (m)	FRAME MEMBER RENFORT MIN OUT. DIA.(mm)	POST DIA. MIN. OD(mm)	LENGTH STANDART (m)
SINGLE SWING 3.0 DOUBLE SWING 6.0	42.9	88.9	2.6
SINGLE SWING 4,5 SINGLE SWING 6,0 DOUBLE SWING 9.0	48.3	114.3	2.9

NOTE:

GATE LEAVES GREATER THAN 3,6m IN WIDTH ARE SUPPLIED WITH DIAGONAL BRACES.

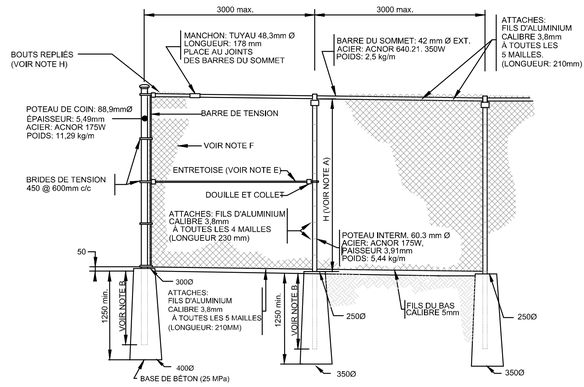


FOOTING DETAIL



NOTES:

1. ALL FASTENERS MADE OF GALVANIZED STEEL (NO ALUMINUM)
2. TOP OF RAIL TYPE "KNUCKLE/KNUCKLE" (NO POINTY EDGE)



NOTES:

A. FENCE HEIGHT: 1.5 m.

B. LENGTH OF UNDERGROUND POLES: 1.1 m

C. CORNER POST: 88.9 mmØ WITH TWO SPACERS.

D. REINFORCING POST: 88.9 mmØ EVERY 60 m WITH TWO SPACERS.

E. SPACERS: 42.2 mmØ, 350W ACNOR STEEL.

F. GALVANIZED GRILLING-008; COVERED WITH VINYL (BLACK) FOR A TOTAL GAUGE #9/0-008; CONFORMS TO CAN/CGSB-138.1 (TYPE 1. CATEGORY A, MEDIUM STYLE) SPACING OF 50mm X 50mm.

G. ALL METAL PARTS ARE GALVANIZED.

H. THE ENDS OF THE MESHES AT THE TOP AND BOTTOM MUST BE FOLDED INWARDS SO AS NOT TO HAVE PRICKLY TIPS.

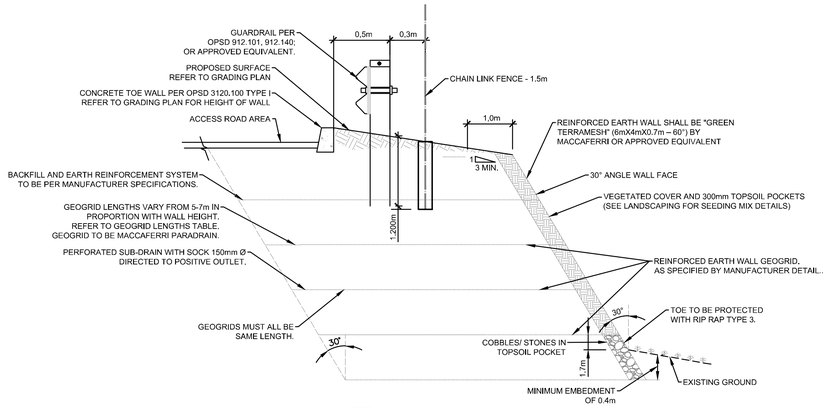
I. THE WIRE MESH AND METAL PARTS MUST BE BLACK WITH PVC STRAP "SUPER PRIVACY" (BLACK) IN THE PLACES INDICATED ON THE OVERALL PLAN

J. MEASUREMENTS ARE IN MILLIMETRES

126

CHAIN LINK FENCE

AUCUNE / NTS



NOTES:

- INSTALLATION OF GUARDRAIL AND FENCE POSTS BY AUGERING STRICTLY PROHIBITED.
- STRUCTURE MUST BE FOUNDED ON APPROVED COMPETENT SOIL
- APPLIED LOAD = 175kPA.
- SHOP DRWAINGS FOR EARTH WALL DESIGN, SIGNED AND SEALED BY AN ENGINEER LICENSED IN ONTARIO SHALL BE SUBMITTED.
- A TRANSITION IS REQUIRED WHERE SUBGRADE FILL MATERIAL HAS DIFFERENT FROST SUCEPTIBILITY. TRANSITION SHALL REACH A MAXIMUM DEPTH OF 1.8m BELOW PROJECTED PAVEMENT ELEVATION.

GEOGRID LENGTH TABLE	
H	REINFORCED PARADRAIN LENGTH Lg (m)
UP TO 4,9 m	5 m
4.91 m TO 6.3 m	6 m
6.31 m TO 7 m	7 m

LOAD TABLE			
PARAMETERS	REINFORCED SOIL	RETAINED SOIL	FOUNDATION SOIL
UNIT WEIGHT, Kn/m³	21.2	19	20
ANGLE OF INTERNAL FRICTIONS, ϕ	32	30	30
COHESION, KPA	0	0	0
SURCHARGE LOAD AWAY FROM BACKSLOPE, kPA	17.00		

138

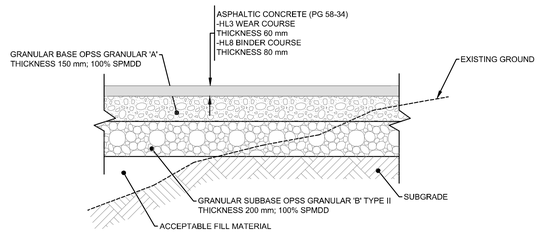
TYPICAL SECTION - RETAINING WALL, GUARDRAIL AND FENCE

AUCUNE / NTS

141A

GALVANIZED METAL MESH FENCE 1.8m HIGH

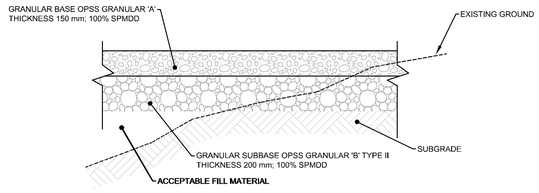
AUCUNE / NTS



202

TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (HEAVY DUTY)

AUCUNE / NTS



202A

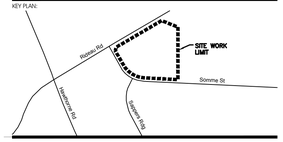
TYPICAL SECTION - GRANULAR PAD

AUCUNE / NTS

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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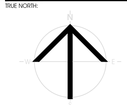

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CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC. OTTAWA, ON T: 613.742.7482
14 CHAMBERLAIN AVENUE, SUITE 101 CANADA K1S 1V9 WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

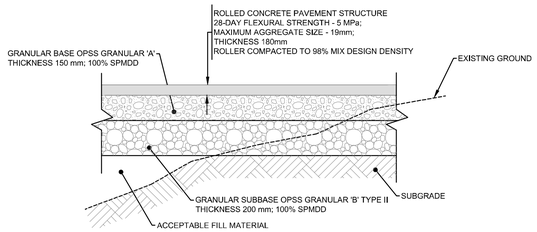
SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

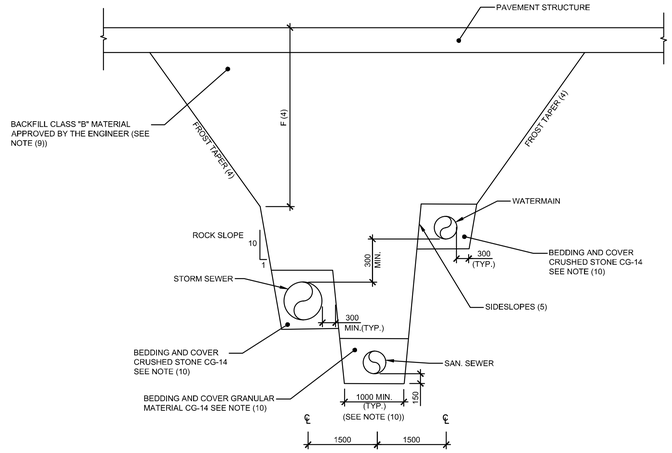
DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C011
REVIEWED BY:	J.SAUVE		
APPROVED BY:		REVISION NUMBER:	
PRINT DATE:			
ISSUED DATE:	AUGUST 13, 2021	PROJECT #:	
CLIENT PROJECT #:			A001083



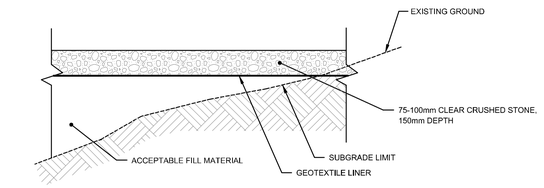
203 TYPICAL SECTION - GRANULAR FOUNDATION AND CONCRETE PAVEMENT (HEAVY DUTY)

AUCUNE / NTS



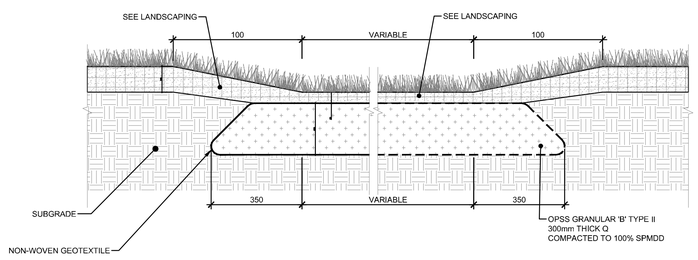
308 TYPICAL SECTION SINGLE TRENCH - MULTIPLE PIPES

AUCUNE / NTS



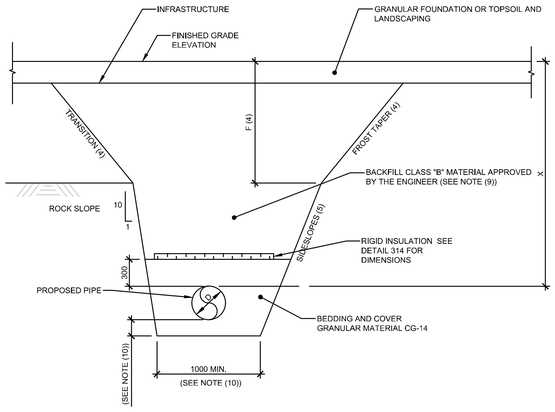
212 TYPICAL SECTION - TEMPORARY CONSTRUCTION ENTRANCE

AUCUNE / NTS



215 SEPTIC SYSTEM MAINTENANCE TRUCK ACCESS AREA

AUCUNE / NTS



NOTES:

A - WHEN X < 1,8m, INSULATION IS REQUIRED FOR WATERMAIN
B - WHEN X < 1,5m, INSULATION ID REQUIRED FOR SEWER

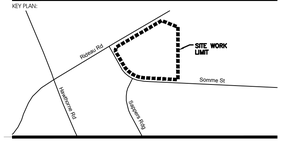
309 TYPICAL SECTION FROST PROTECTION FOR SEWERS, CATCHBASIN LEAD AND WATERMAIN

AUCUNE / NTS

CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

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CIVITAS GROUP
ARCHITECTURE & LANDSCAPE ARCHITECTURE

CIVITAS ARCHITECTURE INC. 14 CHAMBERLAIN AVENUE, SUITE 101 OTTAWA, ON CANADA K1S 1V9 1 613.742.7482 WWW.CIVITAS-INC.CA

CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE
AND DISTRIBUTION FACILITY

SCALE: NONE

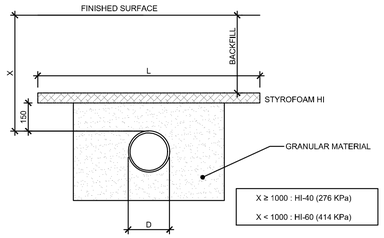
SOMME ST.
OTTAWA, ON

DRAWING TITLE:

DETAILS

DRAWN BY: D.CANN
DATE:
REVIEWED BY: J.SAUVÉ
APPROVED BY:
PRINT DATE:
ISSUED DATE: AUGUST 13, 2021
CLIENT PROJECT #:

DRAWING NUMBER:
C012
REVISION NUMBER:
PROJECT #:
A001083



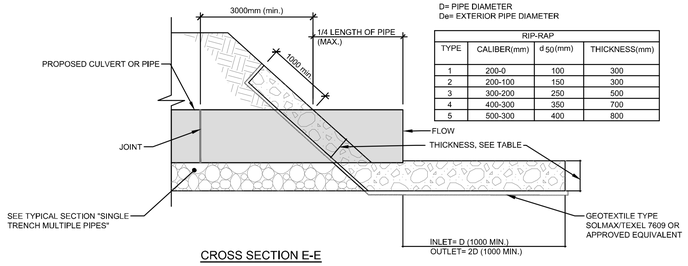
MINIMUM WIDTH OF ISULATION TABLE (L)

X \ D	≤150	200	250	300	375	450	525	600
750	1650	1700	1750	1800	1875	1950	2025	2100
1000	1150	1200	1250	1300	1375	1450	1525	1600
1250	650	700	750	800	875	950	1025	1100
1500	600	600	600	600	600	600	600	600
1750	600	600	600	600	600	600	600	600

INSULATION THICKNESS
100
100
75
75
50

L= INSULATION WIDTH (mm)
D= PIPE DIAMETER (mm)

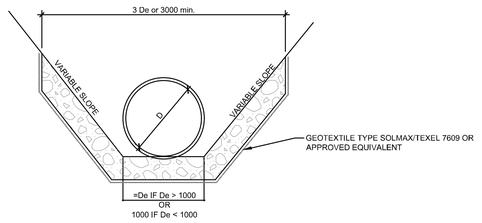
314A PIPE INSULATION (1.8m COVER)
AUCUNE / NTS



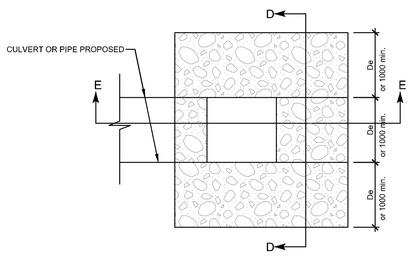
D= PIPE DIAMETER
De= EXTERIOR PIPE DIAMETER

RIP-RAP			
TYPE	CALIBER(mm)	d 50(mm)	THICKNESS(mm)
1	200-0	100	300
2	200-100	150	300
3	300-200	250	500
4	400-300	350	700
5	500-300	400	800

CROSS SECTION E-E

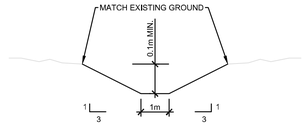


CROSS SECTION D-D

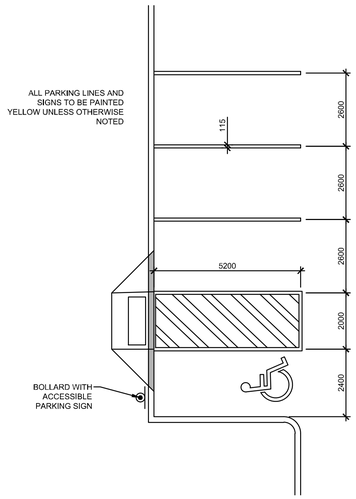


PLAN VIEW

319 INLET/OUTLET FOR CULVERT OR PIPE DETAIL (TYPICAL)
AUCUNE / NTS

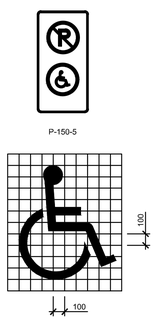


333 SWALE (TYPICAL)
AUCUNE / NTS



408 TYPICAL PARKING STALLS
AUCUNE / NTS

ACCESSIBLE PARKING SIGN

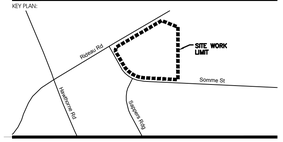


409B ACCESSIBLE PARKING SIGN AND MARKING

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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ARCHITECTURE & LANDSCAPE ARCHITECTURE
CIVITAS ARCHITECTURE INC.
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CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE
AND DISTRIBUTION FACILITY

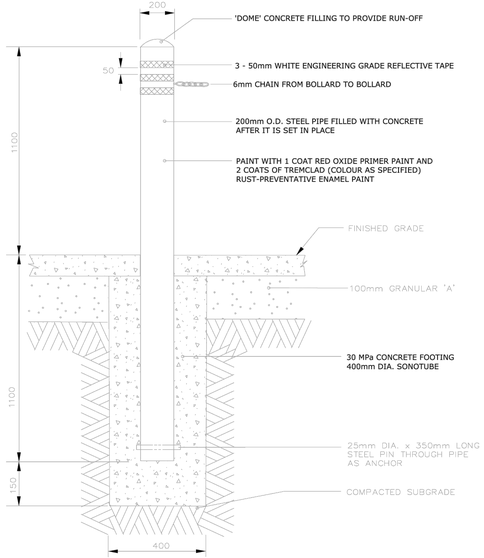
SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	
DATE:			C013
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	A001083

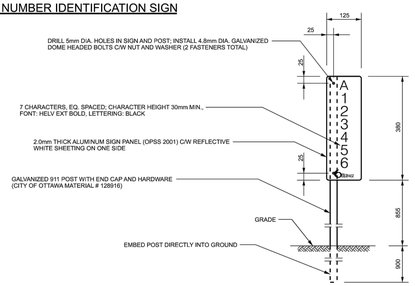


NOTES:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

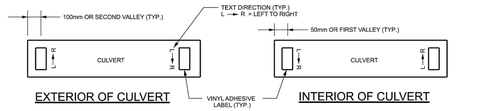
Ottawa	TITLE: 200mm DIAMETER STEEL BOLLARD INSTALLATION FOR ROAD CLOSURE	DATE: MAY 2001 REV: JAN 2015 DWG No: F4

CULVERT NUMBER IDENTIFICATION SIGN



VINYL ADHESIVE LABELS

ADHESIVE LABEL LOCATIONS

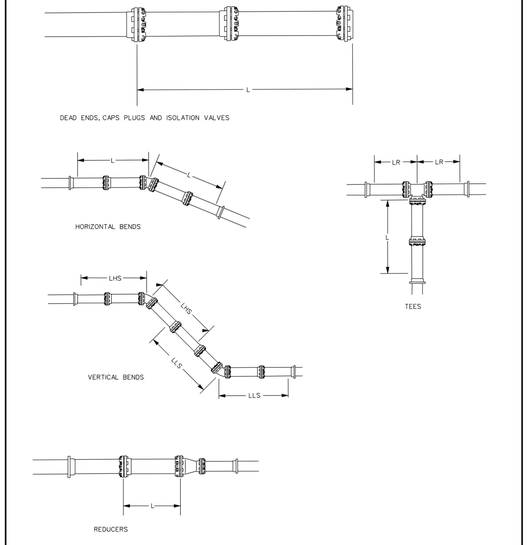


NOTES:

1. REFLECTIVE WHITE SHEETING SHALL BE 3M ENGINEERED PRESSURE SENSITIVE (PS) OR EQUIVALENT.
2. TOTAL OF 2 CULVERT NUMBER IDENTIFICATION SIGNS AND 4 VINYL ADHESIVE LABELS REQUIRED FOR EACH CULVERT.
3. PREPARE SURFACE OF GALVANIZED STEEL AS PER LABEL MANUFACTURER'S RECOMMENDATION TO ACHIEVE PROPER BOND.
4. CITY OF OTTAWA LOGO STAMP SHALL BE AFFIXED TO THE FRONT OF EACH CULVERT NUMBER IDENTIFICATION SIGN.
5. TO BE PLACED NEXT TO CEDAR POST WITH REFLECTIVE STRIP.

N.T.S.

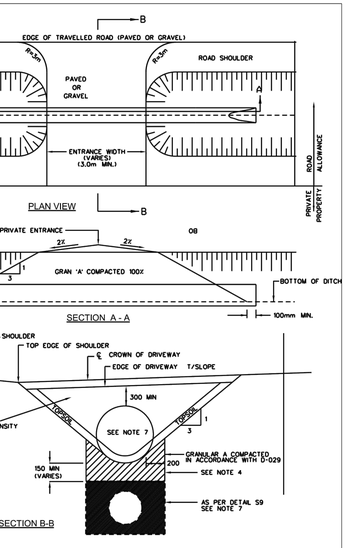
Ottawa	CULVERT IDENTIFICATION SIGN FOR CULVERTS OWNED BY CITY OF OTTAWA	DATE: SEPTEMBER 2006 REV. DATE: MARCH 2021 DWG. No.: S34



NOTES:

1. ANY JOINT THAT FALLS WITHIN THE RECOMMENDED LENGTH (L) SHALL BE RESTRAINED. SEE DRAWING W25.6
2. TO REDUCE THE NUMBER OF RESTRAINERS REQUIRED THE USE OF FULL PIPE LENGTHS IS RECOMMENDED IN THESE AREAS.

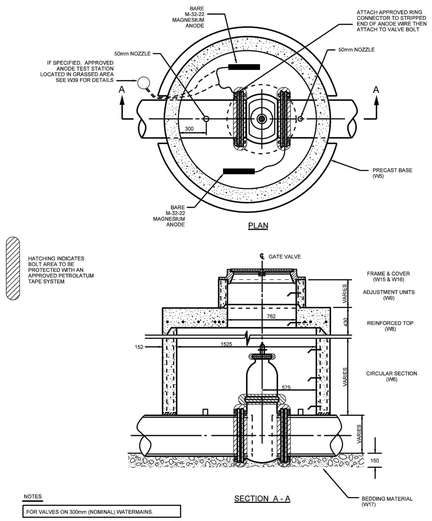
Ottawa	RESTRAINING AND RETAINING RINGS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: NONE DWG. No.: W25.5



NOTES:

1. APPROVED NEW CULVERT MATERIAL ONLY, MIN. 500mm UNLESS SPECIFIC OTHERWISE, DITCH AND CULVERT TO BE SIZED ACCORDING TO SEWER DESIGN GUIDELINE MANUAL.
2. LENGTH OF CULVERTS IS DEPENDENT UPON THE DEPTH OF DITCH AND WIDTH OF ENTRANCE.
3. ENTRANCE CULVERTS GREATER THAN 900mm DIA.OR MULTIPLE CULVERTS MUST BE APPROVED PRIOR TO INSTALLATION. CULVERTS OVER 12m LONG AND HEADWALLS REQUIRE APPROVAL AND PERMIT BY THE CITY.
4. IN FROST SUSCEPTIBLE SOILS SPECIAL BEDDING CONDITIONS WILL BE REQUIRED.
5. REMOVE ALL ORGANICS FROM SIDE SLOPES AND DITCH BOTTOM PRIOR TO PLACING CULVERT AND GRANULARS.
6. CULVERT TO BE COUNTERSUNK 10% OF ITS DIAMETER BELOW FINISHED DITCH INVERT.
7. WHERE SPECIFIED, APPROVED DITCHED PIPE TO BE AT A MINIMUM GRADE OF 0.5% AND BE NON-PERFORATED TYPE UNDER CULVERTS.
8. SEE MS 22.15 FOR APPROVED PRODUCTS. UNLESS OTHERWISE STATED IN THE CONTRACT, CONSTRUCTION AS PER OPSS 421.
9. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	PRIVATE ENTRANCE DETAIL - RURAL	DATE: MAY 2001 REV. DATE: MARCH 2016 DWG. No.: S26



NOTES:

FOR VALVES ON 300mm (NOMINAL) WATERMAINS:

1. CLEARANCE AROUND PIPE AT CHAMBER WALL TO BE 50mm MINIMUM.
2. VALVE CHAMBERS IN LIEU OF BOXES ON WATERMAINS SMALLER THAN 300mm ONLY TO BE USED, IF APPROVED BY THE CONTRACT ADMINISTRATOR.
3. REFER TO MW-13.1 FOR ADDITIONAL REQUIREMENTS.
4. REFER TO MW-18.16 FOR APPROVED MANUFACTURERS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. CATHODIC PROTECTION MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH W09, W40 AND W42.
7. TRACER WIRE REQUIRED FOR PVC, PEX AND HDPE WATERMAIN PIPE ONLY AS PER W06. TRACER WIRE TO BE CONNECTED TO VALVE BOLT AS PER W65 AND SECURED TO TOP OF CHAMBER.

Ottawa	CIRCULAR CHAMBER GATE VALVES	DATE: MAY 2001 REV. DATE: MARCH 2021 DWG. No.: W3

TABLE OF RESTRAINED LENGTHS FOR DI AND PVC WATERMAIN PIPE IN STANDARD GRANULAR 'A' EMBEDMENT IN SOILS OF BEARING CAPACITY OF 100 KPa AND OVER

REDUCERS	LARGER DIAMETER SIDE (TO BE RESTRAINED)					
SMALLER DIAMETER (UNRESTRAINED)	100mm	150mm	200mm	250mm	300mm	400mm
100mm	N/A	3	6	8	10	14
150mm	N/A	N/A	4	6	9	13
200mm	N/A	N/A	N/A	3	6	11
250mm	N/A	N/A	N/A	N/A	4	9
300mm	N/A	N/A	N/A	N/A	N/A	7
400mm	N/A	N/A	N/A	N/A	N/A	N/A

	PIPE DIAMETER					
	100mm	150mm	200mm	250mm	300mm	400mm
DEAD ENDS, CAPS, PLUGS, VALVES						
BEFORE CAPS AND EITHER SIDE OF VALVES - L	5	6	9	10	12	16
VERTICAL BENDS						
LENGTH HIGH SIDE - LHS	3	4	5	6	7	9
LENGTH LOW SIDE - LLS	1.5	2	2.5	3	3.5	4.5
TEES						
LENGTH ALONG THE BRANCH - L	1	1	1	1	1	1
LENGTH ALONG THE RUN - Lr	3	3	3	3	3	3
HORIZONTAL BENDS						
11.25, 22.5, AND 45 DEGREE BENDS	1	1.5	1.5	2	2	2.5

NOTES:

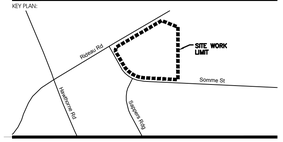
1. THE ABOVE RESTRAINED LENGTHS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. THE ASSUMPTIONS MADE FOR THE ABOVE CALCULATIONS ARE AS FOLLOWS:
   a) MAXIMUM OPERATING PRESSURE OF 100 psi.
   b) MAXIMUM SURGE PRESSURE WITH A FLOW VELOCITY CHANGE OF 0.6 m/s OF 115 psi (115 psi FOR CLASS 52 DI AND FOR PVC MAX. SURGE IS 35 psi)
3. FOR SOFTWARE CALCULATIONS A TEST PRESSURE OF 150 psi AND A SAFETY FACTOR OF 1.5 WAS USED WHICH RESULTS IN 225 psi MAXIMUM PRESSURE.
4. TYPE 5 TRENCH BEDDING.
5. DEPTH TO BURY 2.4 METRES EXCEPT FOR VERTICAL BENDS WHERE THE HIGH SIDE IS AT 1.8 METRES.
6. EMBEDMENT MATERIAL GRANULAR 'A' WITH CHARACTERISTICS OF ASTM D2487 GP.
7. GP SOILS ARE DESCRIBED AS POORLY GRADED GRAVEL AND SAND-GRAVEL MIXES WITH LITTLE OR NO FINES.
8. (L') MUST BE OF SOLID PIPE WITHOUT JOINTS, FITTINGS, ETC.
9. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
10. RESTRAINED LENGTHS ARE IN METRES.

Ottawa	TABLES OF RESTRAINED LENGTHS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2011 DWG. No.: W25.6

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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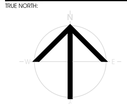

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5	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

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CIVITAS GROUP
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CONSULTANT LOGO:

CIMA+

PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

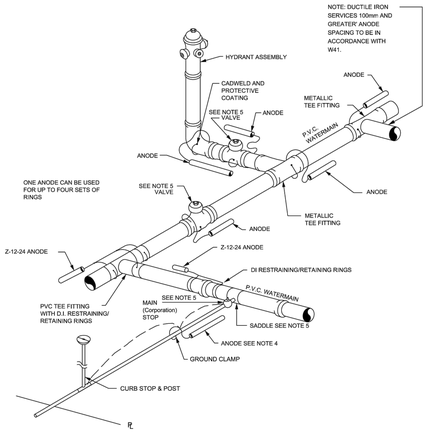
SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	**C014**
DATE:			
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	**A001083**

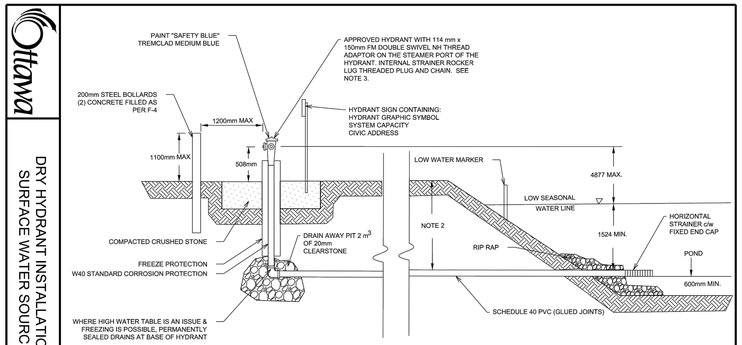


NOTES:

1. ANODE CONNECTING WIRE TO BE LOOPED AROUND PIPES / FITTINGS AND KNOTTED.
2. PROTECTIVE COATING TO BE APPLIED TO ALL CADWELDS.
3. ANODE TYPE & SPACING AS PER W42.
4. CONNECT ANODE TO COPPER SERVICES USING A GROUND CLAMP AND FOR PEX SERVICES CONNECT ANODE TO TRACER WIRE TERMINALS ON BOTH MAIN AND CURB STOPS.
5. PROTECT AUXILIARY VALVES, ISOLATION VALVES, SADDLES AND MAIN STOPS WITH A PETROLATUM WAX TAPE COATING SYSTEM. FOR PEX SERVICES ALSO WAX TAPE CURB STOP UP TO THE BASE OF THE TEE HEAD.
6. ALL DIMENSIONS ARE IN MILLIMETERS.

N.T.S.

CATHODIC PROTECTION FOR PVC WATERMAIN SYSTEMS	DATE: MAY 2001
	REV. DATE: MARCH 2013
	DWG. No.: W40



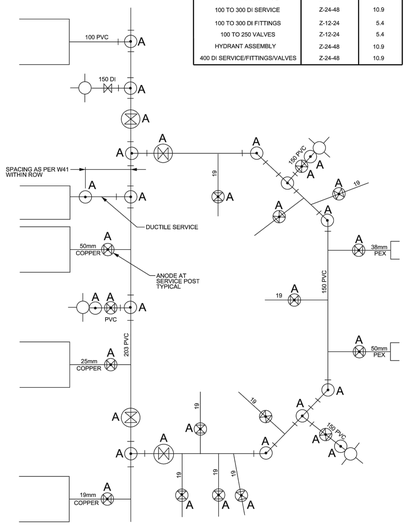
NOTES:

1. THESE ARE TYPICAL SPECIFICATIONS. LOCAL CONDITIONS MAY REQUIRE DEVIATION. ANY DEVIATION MUST BE APPROVED BY CONTRACT ADMINISTRATOR.
2. PIPING TO BE INSTALLED AT POSITIVE GRADE WITH NO HIGH OR LOW POINTS BETWEEN HYDRANT BASE AND INTAKE.
3. ALTERNATE SCHEDULE 40 STEEL PIPE WITH 90° ELBOW AND COULING AT TOP OF RISER PREFERRED WHERE RISK OF FREEZING IS NOT A THREAT.
4. PROVIDE CORROSION AND THRUST RESTRAINT AS PER THE STANDARD.

N.T.S.

DRY HYDRANT INSTALLATION - SURFACE WATER SOURCE	DATE: MARCH 2018
	DWG. No.: W53

SIZE (mm)	ANODE TYPE	WEIGHT (Kg)
19 TO 50 COPPER SERVICE	Z-12-24	5.4
38 TO 50 PEX SERVICE	Z-12-24	5.4
100 TO 300 DI SERVICE	Z-24-48	10.9
100 TO 300 DI FITTINGS	Z-12-24	5.4
100 TO 250 VALVES	Z-12-24	5.4
HYDRANT ASSEMBLY	Z-24-48	10.9
400 DI SERVICE/FITTINGS/VALVES	Z-24-48	10.9



A - DENOTES ANODE LOCATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

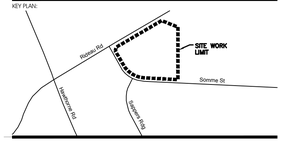
N.T.S.

TYPICAL ANODE INSTALLATION PVC WATERMAIN	DATE: MAY 2001
	REV. DATE: MARCH 2014
	DWG. No.: W42

CLIENT LOGO:

FASTFRATE

KEY PLAN:



TRUE NORTH:

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5	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

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PROJECT TITLE:

FASTFRATE OTTAWA WAREHOUSE
AND DISTRIBUTION FACILITY

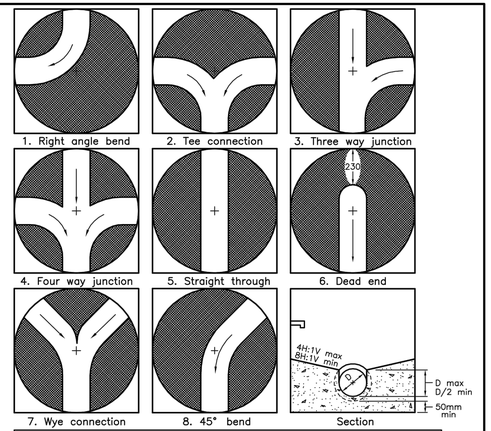
SCALE: NONE

SOMME ST,
OTTAWA, ON

DRAWING TITLE:

DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:
DATE:		C015
REVIEWED BY:	J.SAUVE	
APPROVED BY:		
PRINT DATE:		REVISION NUMBER:
ISSUED DATE:	AUGUST 13, 2021	
CLIENT PROJECT #:		PROJECT #: A001083

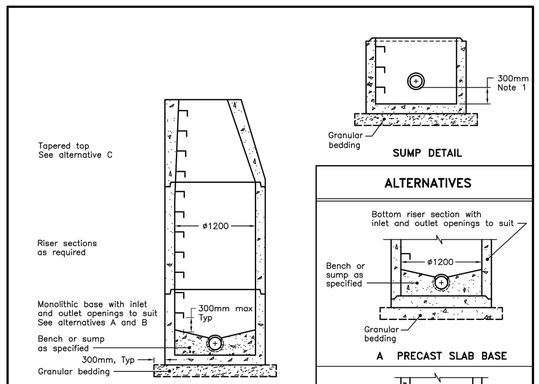


MAXIMUM SIZE HOLE IN THE WALL IN PRECAST RISER SECTIONS					
Maintenance Hole Diameter	No. 1–4	No. 5 and 6	No. 8	No.7	
				Inlet Hole	Outlet Hole
1200	700	860	780	700	860
1500	860	1220	960	860	1170
1800	1220	1485	1220	1220	1485
2400	1485	2020	1760	1485	2020
3000	1930	2450	2300	1930	2450
3600	2470	3085	2730	2470	3085

NOTES:

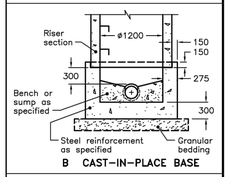
1 Slopes shall be maintained from the outlet hole opening for top of benching.
A Concrete for benching shall be 30MPa.
B When benching is hand–finshed, it shall be given wood float finish, channel shall be given steel trowel finish.
C Benching slope and height shall be as specified.
D When specified, maintenance holes that are 1200mm in diameter with a uniform channel for 200 or 250mm pipe may be prebenched at the manufacturer with standardized benching slope and channel orientation.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev	4
MAINTENANCE HOLE BENCHING AND PIPE OPENING ALTERNATIVES			
	OPSD 701.021		

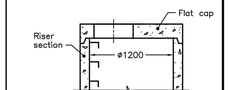


ALTERNATIVES

A PRECAST SLAB BASE



B CAST–IN–PLACE BASE

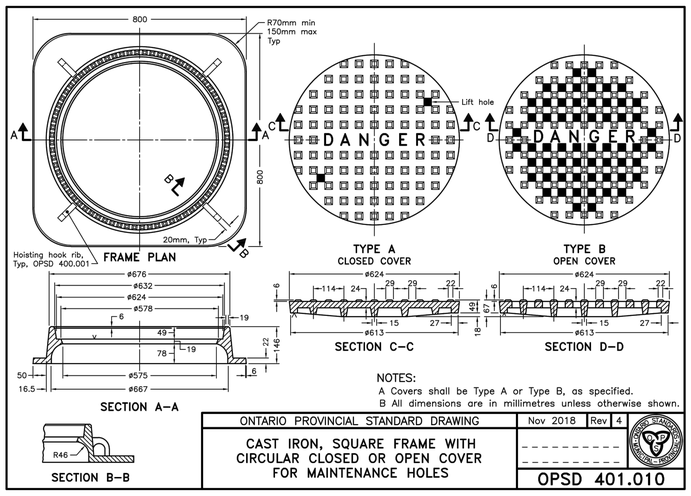


C PRECAST FLAT CAP

NOTES:

1 The sump is measured from the lowest invert.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
C Structure exceeding 5.0m in depth shall include safety platform according to OPSD 404.020.
D Pipe support according to OPSD 708.020.
E For benching and pipe opening details, see OPSD 701.021.
F For adjustment unit and frame installation, see OPSD 704.010.
G All dimensions are nominal.
H All dimensions are in millimetres unless otherwise shown.

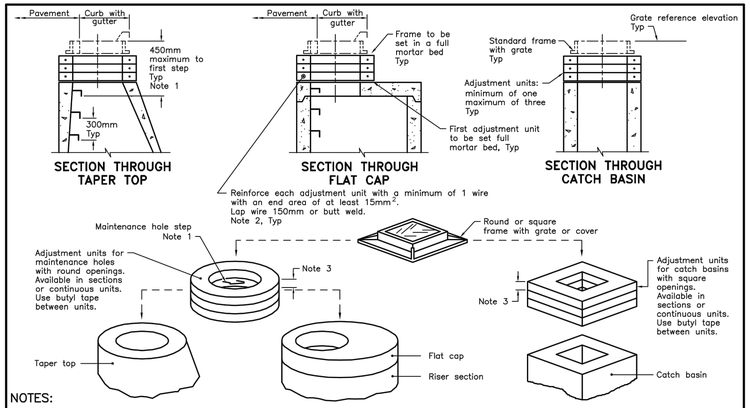
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev	5
PRECAST CONCRETE MAINTENANCE HOLE 1200mm DIAMETER			
	OPSD 701.010		



NOTES:

A Covers shall be Type A or Type B, as specified.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev	4
CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES			
	OPSD 401.010		



NOTES:

1 If first step is in an adjustment unit, the adjustment unit shall be of the type manufactured with a step in place.
2 Centre reinforcing in adjustment unit ±10mm.
3 Round and square adjustment units are available in sizes of 50, 75, 100, 150, and 300mm.

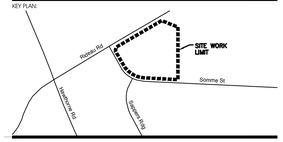
A Adjustment units shall not extend beyond the outside edge of the structure.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev	3
PRECAST CONCRETE ADJUSTMENT UNITS FOR MAINTENANCE HOLES, CATCH BASINS, AND VALVE CHAMBERS			
	OPSD 704.010		

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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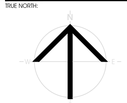

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FASTFRATE OTTAWA WAREHOUSE
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SCALE: NONE

SOMME ST.
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DRAWING TITLE:

DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	C016
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REVIEWED BY:	J.SAUVE		
APPROVED BY:			
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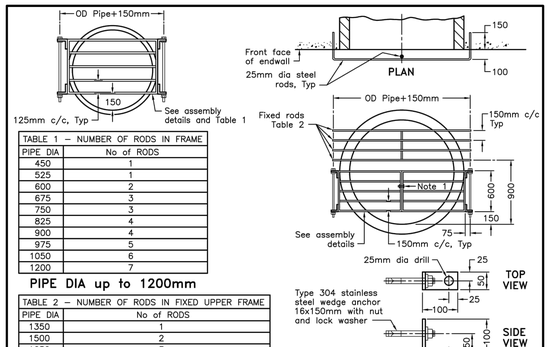


TABLE 1 – NUMBER OF RODS IN FRAME	
PIPE DIA	No of RODS
450	1
525	1
600	2
675	3
750	3
825	4
900	4
975	5
1050	6
1200	7

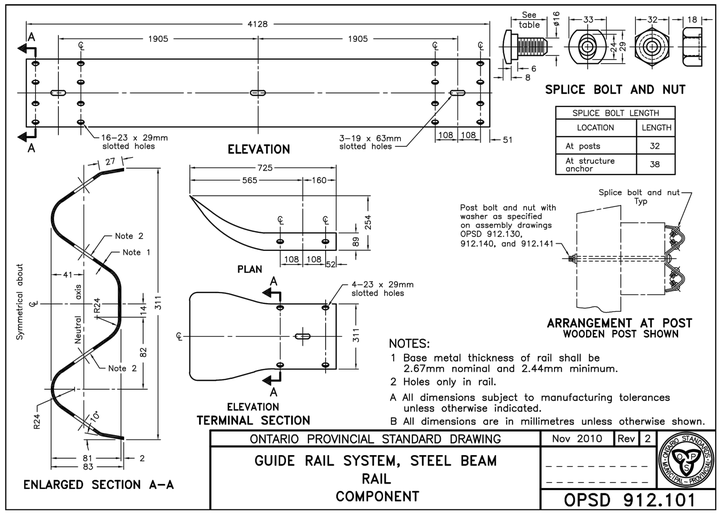
PIPE DIA up to 1200mm

TABLE 2 – NUMBER OF RODS IN FIXED UPPER FRAME	
PIPE DIA	No of RODS
1350	1
1500	2
1650	3
1800	4
1950	5
2100	6
2250	7
2400	8

PIPE DIA 1350 to 2400mm

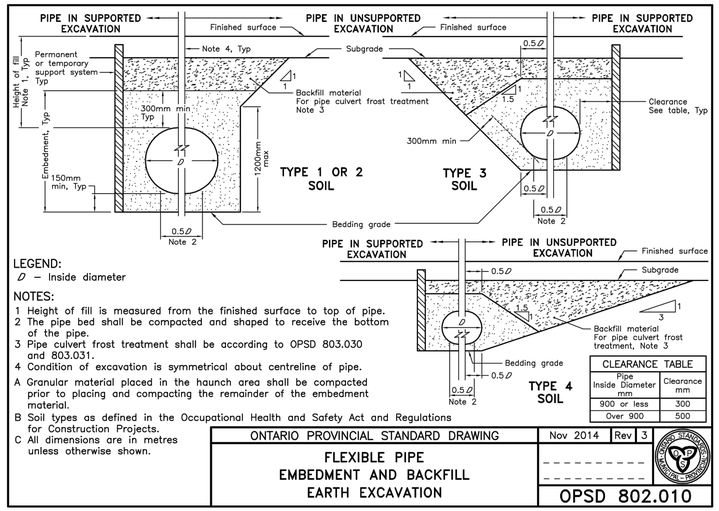
NOTES:
1 Grates shall be secured by either a bolt and nut or a locking device as specified.
A Metal surfaces shall be either painted with 2 coats of self priming abrasion resistant immersion grade epoxy or hot dip galvanized, as specified.
B Frame, hinge strap, mounting bracket, and steel rods shall be medium grade steel.
C All welding shall be according to CSA W59 and W47.1.
D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 2
GRATING FOR CONCRETE ENDWALL		OPSD 804.050



NOTES:
1 Base metal thickness of rail shall be 2.67mm nominal and 2.44mm minimum.
2 Holes only in rail.
A All dimensions subject to manufacturing tolerances unless otherwise indicated.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2010	Rev 2
GUIDE RAIL SYSTEM, STEEL BEAM RAIL COMPONENT		OPSD 912.101

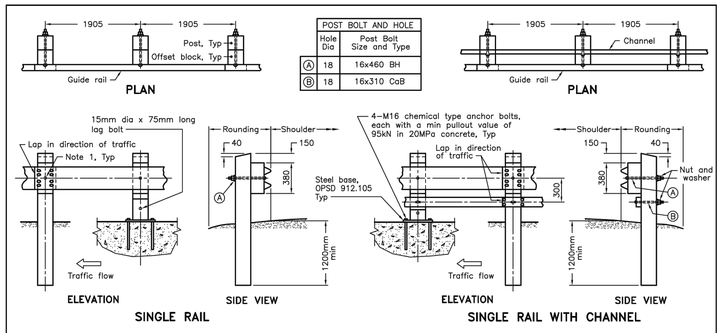


LEGEND:
Ø – Inside diameter

NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
A Granular material placed in the haunch area shall be compacted prior to placing and compacting the remainder of the embedment material.
B Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
C All dimensions are in metres unless otherwise shown.

CLEARANCE TABLE	
Pipe Inside Diameter mm	Clearance mm
900 or less	300
Over 900	500

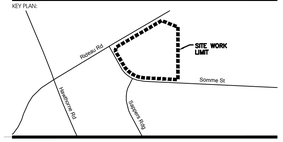
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
FLEXIBLE PIPE EMBEDMENT AND BACKFILL EARTH EXCAVATION		OPSD 802.010



NOTES:
1 Washer shall not be installed at front face of rail. One bolt located at centre of steel beam guide rail.
A Wooden posts and offset blocks shall be 190x190mm. Tops to have 25mm chamfer.
B Steel beam guide rail mounting heights shall be as specified.
C This OPSD to be read in conjunction with OPSD 912.101 and 912.102.
D All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2010	Rev 2
GUIDE RAIL SYSTEM, STEEL BEAM WOODEN POST ASSEMBLY INSTALLATION – SINGLE RAIL		OPSD 912.140

CLIENT LOGO:
FASTFRATE

KEY PLAN:


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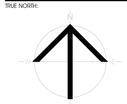

PRELIMINARY
NOT FOR CONSTRUCTION

RECORD OF REVISIONS:

NUMBER:	REVISION:	DATE: (MM/DD/YY)
0		
1		
2		
3		
4		
5	ISSUED FOR SITE PLAN APPROVAL	AUGUST 13, 2021

ISSUE:

PROFESSIONAL STAMP:
LICENSED PROFESSIONAL ENGINEER J. A. SAUVÉ 100200100 PROVINCE OF ONTARIO

PROFESSIONAL STAMP:
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CONSULTANT LOGO:
CIMA+

PROJECT TITLE:
FASTFRATE OTTAWA WAREHOUSE AND DISTRIBUTION FACILITY

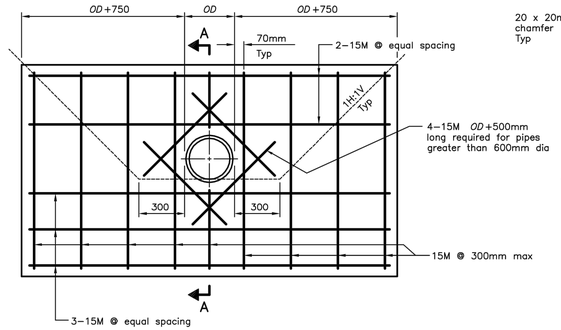
SCALE: NONE

SOMME ST.
OTTAWA, ON

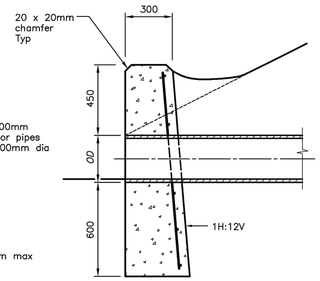
DRAWING TITLE:
DETAILS

DRAWN BY: D.CANN
DATE:
REVIEWED BY: J.SAUVÉ
APPROVED BY:
PRINT DATE:
ISSUED DATE: AUGUST 13, 2021
CLIENT PROJECT #:

DRAWING NUMBER:
C017
REVISION NUMBER:
PROJECT #:
A001083



FRONT ELEVATION



SECTION A–A

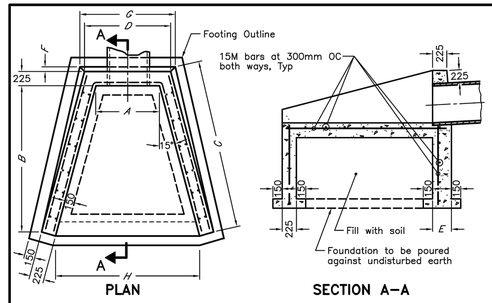
LEGEND:

OD – Outside diameter of pipe

NOTES:

A This OPSD to be read in conjunction with OPSD 3940.150.
B If a steel grate is required, refer to OPSD 804.05.
C Class of concrete: 30MPa.
D Cover to reinforcing bars 70mm ± 20mm.
E All dimensions are in millimetres unless otherwise shown.

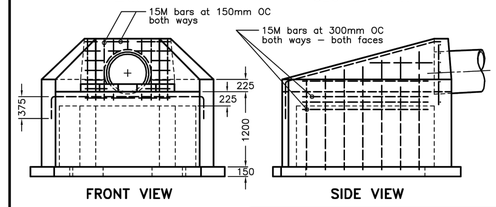
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 2
CONCRETE HEADWALL FOR PIPE LESS THAN 900mm DIAMETER		
	OPSD 804.030	



PLAN

SECTION A–A

PIPE DIA	ENDWALL DIMENSIONS							
	A	*B*	*C*	*D*	*E*	*F*	*G*	*H*
600	1050	2400	2725	1400	300	75	1525	2350
675	1125	2400	2725	1475	300	75	1600	2425
750	1200	2400	2725	1550	300	75	1675	2500
825	1275	2400	2725	1625	300	75	1755	2575
900	1350	2400	2725	1700	300	75	1825	2650
975	1425	2400	2725	1775	375	150	1975	2725
1050	1500	3000	3400	1850	375	150	2050	3100
1200	1650	3000	3400	2000	375	150	2200	3250
1350	1800	3000	3400	2150	375	150	2350	3400
1500	1950	3000	3400	2300	375	150	2500	3550
1650	2100	3000	3400	2450	375	150	2650	3700
1800	2250	3000	3400	2600	375	150	2800	3850
2400	3000	3000	3400	3350	375	150	3550	4600



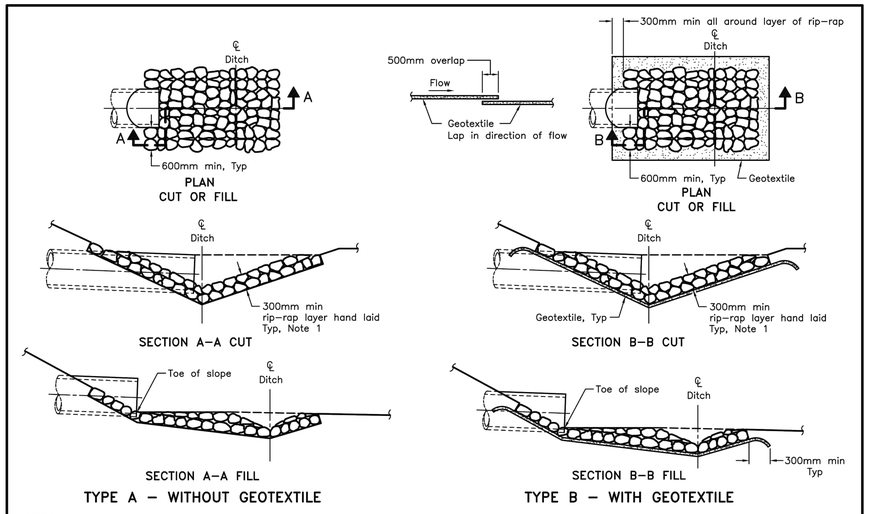
FRONT VIEW

SIDE VIEW

NOTES:

A This OPSD to be read in conjunction with OPSD 3940.150.
B Class of concrete: 30MPa.
C Cover to reinforcing bars: 75mm ±20mm.
D Granular backfill to be placed to 300mm min thickness on all sides.
E All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2017	Rev 1
CONCRETE HEADWALL FOR SEWER OR CULVERT PIPE OUTLET		
	OPSD 804.040	

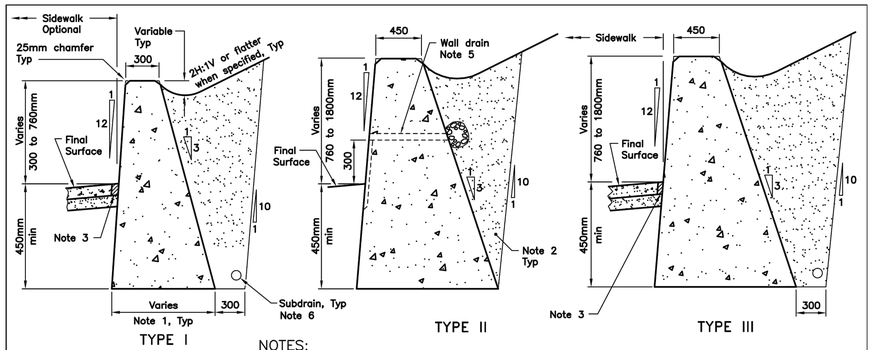


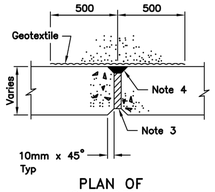
NOTES:

1 The thickness of the rip–rap layer shall be at least 1.5 times the rip–rap mean diameter.

A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
GENERAL RIP–RAP LAYOUT FOR SEWER AND CULVERT OUTLETS		
	OPSD 810.010	





PLAN OF
JOINT DETAIL
IN CONCRETE TOE WALLS
AT 3.0m SPACING

NOTES:

1 Walls shall be founded on undisturbed soil having a minimum bearing capacity at ultimate limit states of 200kPa for Type I and 300kPa for Type II and Type III.
2 Excavation for toe walls shall be backfilled with free draining granular material.
3 10mm preformed joint filler, Type A, non–extruding and resilient bituminous type as specified.
4 Cold applied rubber asphalt joint sealing compound.
5 Where specified, wall drains shall be installed as per OPSD 3190.100.
6 150mm dia perforated pipe subdrain wrapped in geotextile.

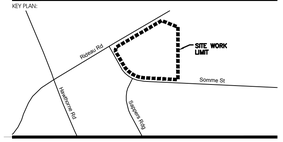
A Maximum height of slope above top of wall is 4m.
B Concrete for toe walls shall be 30MPa.
C All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2010	Rev 2
WALLS RETAINING CONCRETE TOE WALL		
	OPSD 3120.100	

CLIENT LOGO:

FASTFRATE

KEY PLAN:



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FASTFRATE OTTAWA WAREHOUSE
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SCALE: NONE

SOMME ST,
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DETAILS

DRAWN BY:	D.CANN	DRAWING NUMBER:	**C018**
DATE:			
REVIEWED BY:	J.SAUVE		
APPROVED BY:			
PRINT DATE:		REVISION NUMBER:	
ISSUED DATE:	AUGUST 13, 2021		
CLIENT PROJECT #:		PROJECT #:	**A001083**