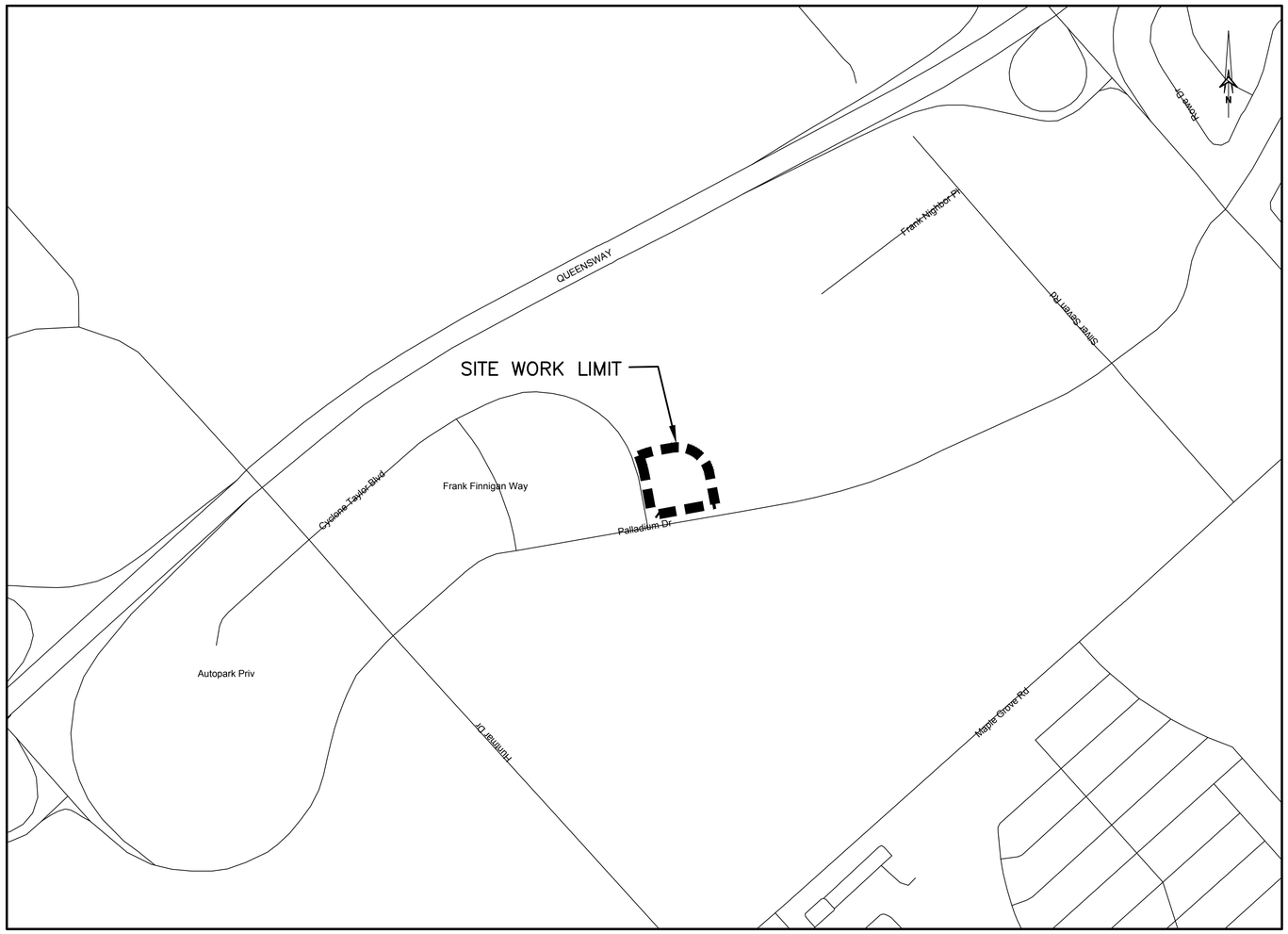
Cominar



OFFICE DEVELOPMENT
800 PALLADIUM DR

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 – 1 of 2
C006	NOTES PLAN – 2 of 2
C007	SITE PLAN
C008	GRADING PLAN
C009	SERVICING PLAN
C010	DETAILS PLAN – 1 of 10
C011	DETAILS PLAN – 2 of 10
C012	DETAILS PLAN – 3 of 10
C013	DETAILS PLAN – 4 of 10
C014	DETAILS PLAN – 5 of 10
C015	DETAILS PLAN – 6 of 10
C016	DETAILS PLAN – 7 of 10
C017	DETAILS PLAN – 8 of 10
C018	DETAILS PLAN – 9 of 10
C019	DETAILS PLAN – 10 of 10

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110-340 Gatineau Street, Ottawa, ON, K2P 2G9 CANADA

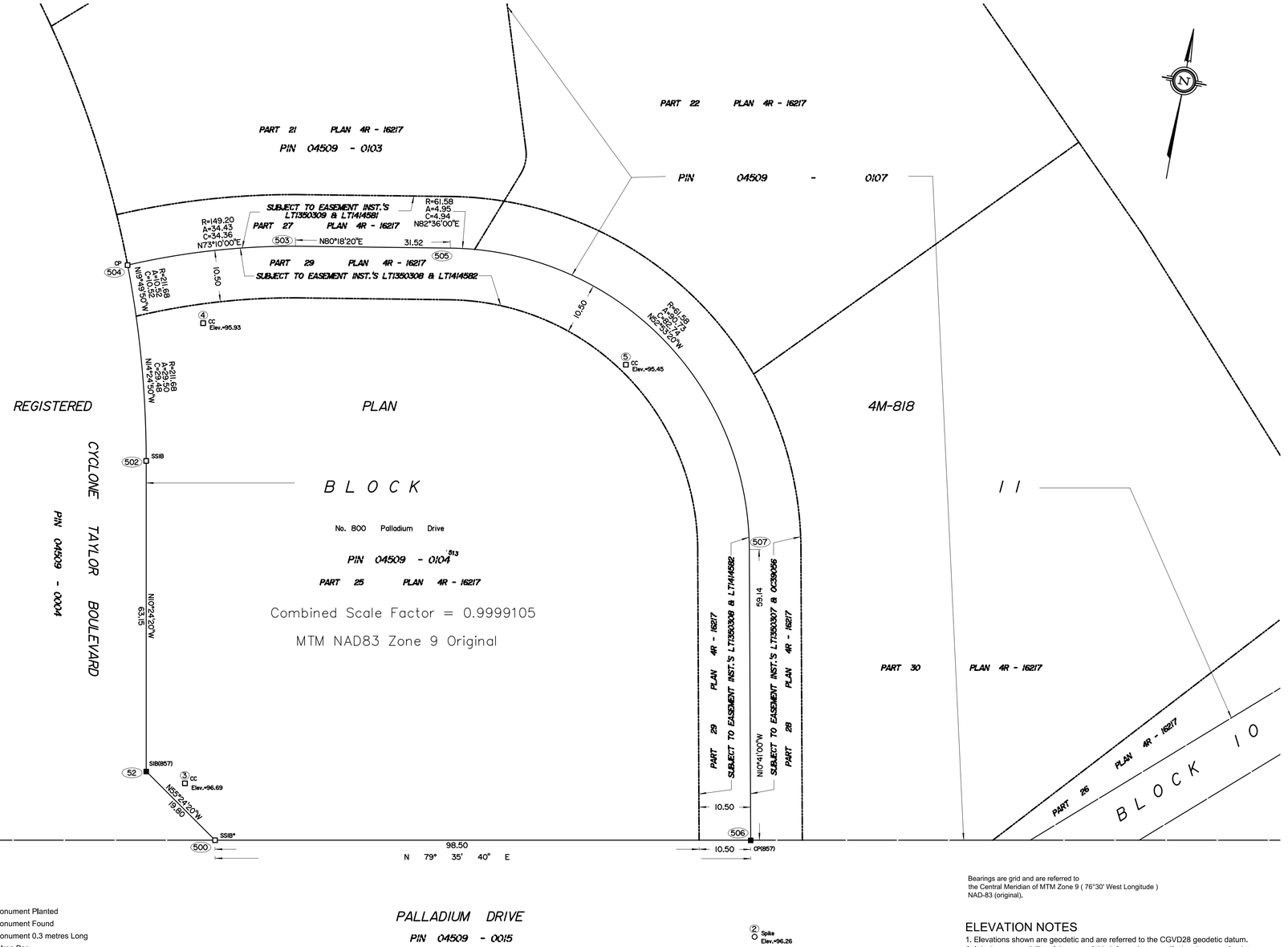
OFFICE DEVELOPMENT
800 PALLADIUM DR.
SITE PLAN CONTROL 2nd ROUND - RESPONSES - JUNE 12th, 2019

Cominar

C001

O:\A\A000919_800 Palladium Ottawa\400\460_Civil\C001 – Cover Page.dwg
11 juin 2019 Simon Charron–Poggioli

STGM_CART_A1RFA (841 x 594)



Notes & Legend

	Denotes	
—□—	"	Survey Monument Planted
—■—	"	Survey Monument Found
▪	"	Survey Monument 0.3 metres Long
SIB	"	Standard Iron Bar
SSIB	"	Short Standard Iron Bar
IB	"	Iron Bar
CC	"	Cut Cross
CP	"	Concrete Pin

NOTES

INSTRUMENTS OC39056, LT1350307, LT1350308, LT1350309, LT1414581 AND LT1414582 ARE EASEMENTS FOR THE PURPOSES OF VEHICULAR AND PEDESTRIAN INGRESS AND EGRESS.

Bearings are grid and are referred to the Central Meridian of MTM Zone 9 (76°30' West Longitude) NAD-83 (original).

ELEVATION NOTES

1. Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
2. It is the responsibility of the user of this information to verify that the control points have not been altered or disturbed and that it's relative elevation and description agrees with the information shown on this drawing.
3. Elevations derived from GPS observation only and have not been verified to actual published control monuments.

SURVEYING

0 5 10 20 30 40 50

Cominar

PROFESSIONAL ADVISORS

Architecture :

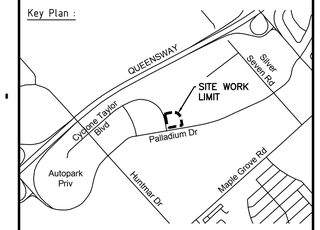
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
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3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

LEGAL PLAN

Designed By :	Drawn By :
-	JEAN-PHILIPPE PHARAND

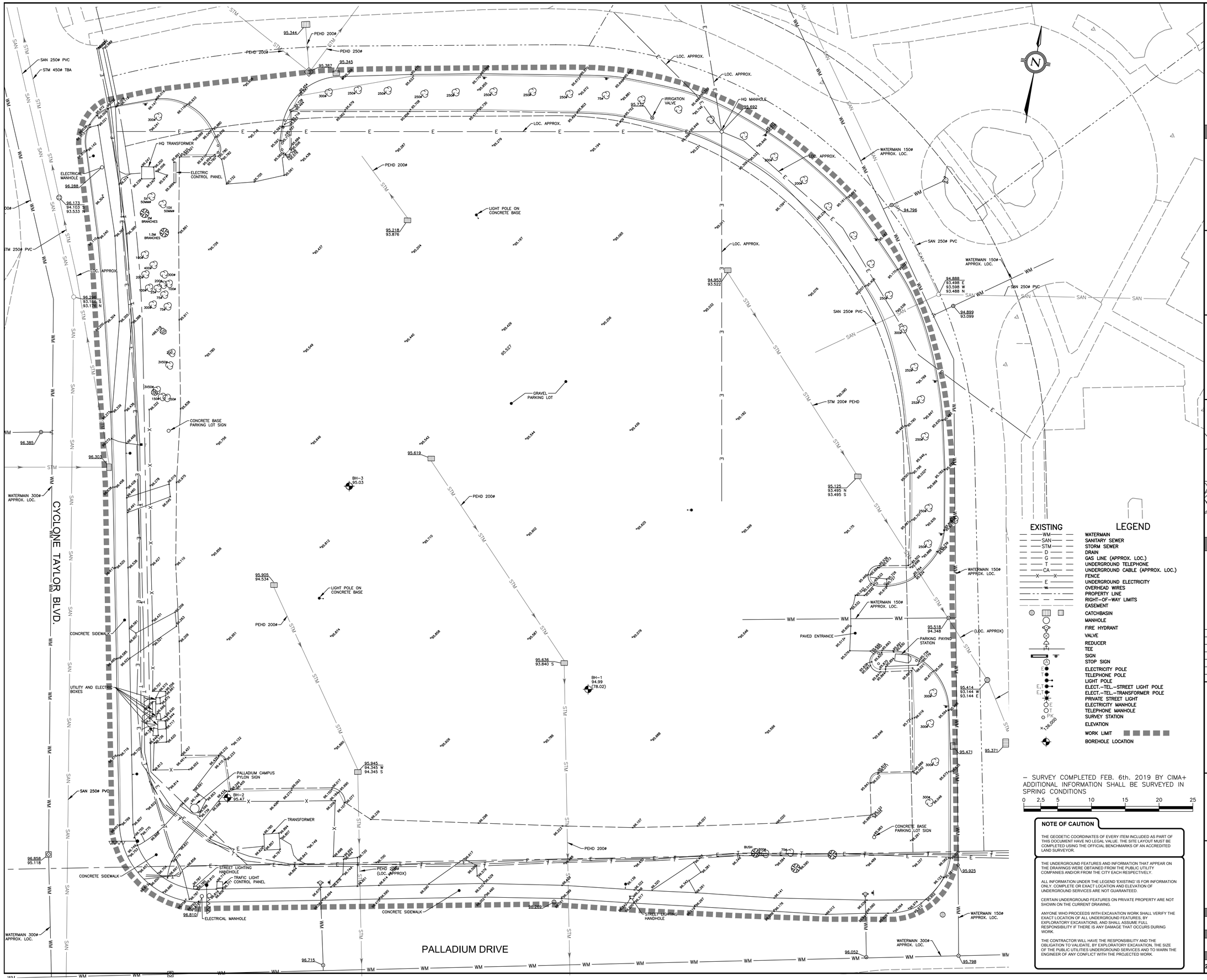
Approved By :	File name .DWG	Scale :
C.L.-L.	C002 - Legal Plan.DWG	1:500

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C002	

PLAN No. 17904

007-12-19-0045

STGM_CART_A1RFA (841 x 594)



EXISTING

LEGEND

- WM — WATERMAIN
- SAN — SANITARY SEWER
- STM — STORM SEWER
- D — DRAIN
- G — GAS LINE (APPROX. LOC.)
- T — UNDERGROUND TELEPHONE
- CA — UNDERGROUND CABLE (APPROX. LOC.)
- X — X — FENCE
- E — UNDERGROUND ELECTRICITY
- OHE — OVERHEAD WIRES
- PROPERTY LINE
- RIGHT-OF-WAY LIMITS
- EASEMENT
- CATCHBASIN
- MANHOLE
- FIRE HYDRANT
- VALVE
- REDUCER
- TEE
- SIGN
- STOP SIGN
- D — ELECTRICITY POLE
- T — TELEPHONE POLE
- LIGHT POLE
- E,T — ELECT.-TEL.-STREET LIGHT POLE
- E,T — ELECT.-TEL.-TRANSFORMER POLE
- PRIVATE STREET LIGHT
- E — ELECTRICITY MANHOLE
- T — TELEPHONE MANHOLE
- PK — SURVEY STATION
- 136.600 — ELEVATION
- WORK LIMIT
- BOREHOLE LOCATION

- SURVEY COMPLETED FEB. 6th. 2019 BY CIMA+
ADDITIONAL INFORMATION SHALL BE SURVEYED IN SPRING CONDITIONS

0 2.5 5 10 15 20 25

NOTE OF CAUTION

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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.

Cominar

PROFESSIONAL ADVISORS

Architecture :

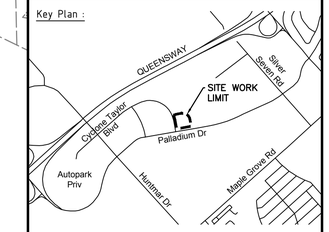
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



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1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

TOPOGRAPHICAL SURVEY PLAN

Designed By :	Drawn By :
-	JEAN-PHILIPPE PHARAND

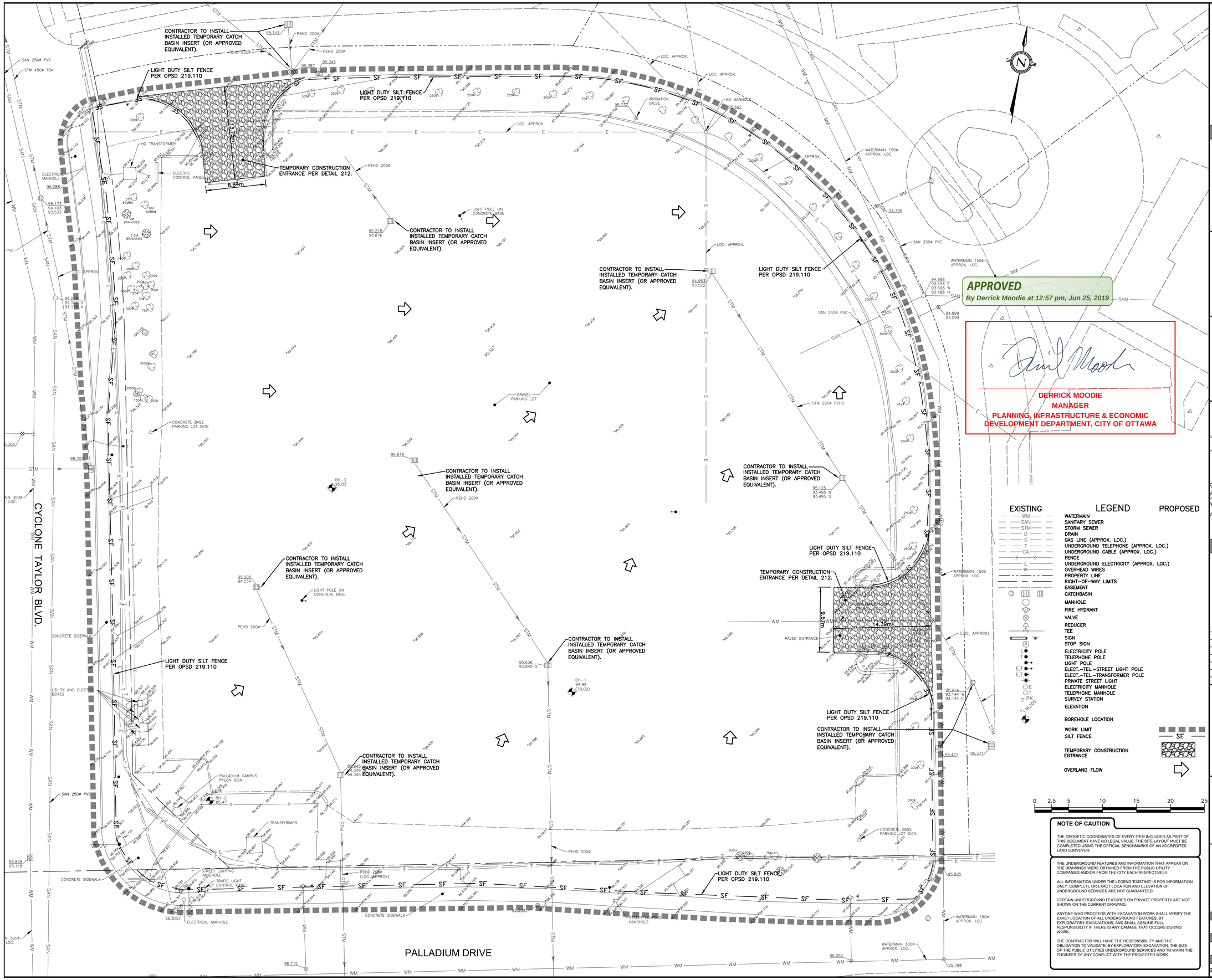
Approved By :	File name .DWG	Scale :
C.L-L.	C003 - Topographical Survey Plan.DWG	1:250

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C003	

PLAN No. 17904

007-12-11-0045

STGM_CART_A1RFA (841 x 594)



EXISTING — LEGEND — PROPOSED

- WM — WATERMAIN
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- STM — STORM SEWER
- D — DRAIN
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- PRIVATE STREET LIGHT
- ELECTRICITY MANHOLE
- TELEPHONE MANHOLE
- SURVEY STATION
- ELEVATION
- BOREHOLE LOCATION
- WORK LIMIT
- SILT FENCE — SF
- TEMPORARY CONSTRUCTION ENTRANCE
- OVERLAND FLOW

0 2.5 5 10 15 20 25

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Cominar

PROFESSIONAL ADVISORS

Architecture :

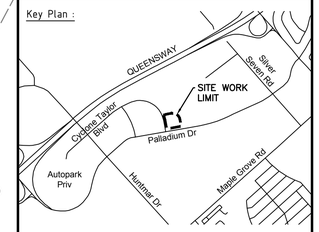
stgmarchitectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

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1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

LICENSED PROFESSIONAL ENGINEER C.LAVOIE-LEBEL 100087842 PROVINCE OF ONTARIO

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

SEDIMENT AND EROSION CONTROL PLAN

Designed By :	Drawn By :	
BENJAMIN TARDIOLI	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C004 - Sediment and Erosion Control Plan.DWG	1:250
Date :	Project Number :	Sheet : / Number :
2019/03/08	A000919	C004

PLAN No. 17904

007-12-11-0045

1. GRADING - 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 generals conditions, 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). Furthermore the requirements of the the Ontario Ministry of the Environment, Conservation and Parks (MECP), the Ontario Ministry of Natural Resources and Forestry (MNRF), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities must be adhered to 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 shall refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.

1.5. Contractor is responsible for obtaining all permits required to complete all works and bear cost of same, including but not limited to road cut permit, sewer discharge permit, Permit to Take Water/EASR, etc. 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 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.

1.8. 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 shall 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 shall conform to the following requirements:

Exposed subgrade:
95% Standard Proctor maximum dry density (SPMDD)

Granular foundations:
98% Standard Proctor maximum dry density (SPMDD)

Asphalt Pavement (Performance Graded (PG) 58-34 asphalt cement):
As per OPSS 310

Subgrade fill (pavement areas - Either acceptable fill, in situ soil, or OPSS Granular B Type I or II material placed over in situ soil or fill):
95% Standard Proctor Maximum Dry Density (SPMDD)

Structural fill (building and light standard footprints OPSS Granular 'A' or Granular 'B' Type II Material):
98% Standard Proctor Maximum Dry Density (SPMDD)

1.11. If groundwater is encountered during construction, dewatering of excavations could be required as per OPSS 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.

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 Ministry of Environment, Conservation and Parks (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.

a. When discharging to the sanitary sewer the Contractor must obtain a Sanitary Sewer Agreement for Dewatering from the City of Ottawa in accordance with City of Ottawa Sewer Use By-Law No. 2003-514 and pay all associated fees.

- A copy of the signed Sanitary Sewer Agreement for Dewatering must be provided to the Client Representative in advance of dewatering and discharge.
- The Contractor must ensure all requirements of the Discharge Agreement are adhered to and all prerequisite requirements of the Agreement are in place prior to commencing dewatering.
- Provide flow meter and record discharge rate in accordance with City of Ottawa requirements.
- Dewatering discharge rate to sanitary sewer not to exceed rate specified by City.

b. For off-site disposal of dewatering effluent, Contractor to provide Client Representative proof of receipt that dewatering effluent was received at a licensed landfill facility and pay all associated disposal fees.

- Contractor must provide name of proposed licensed disposal facility to Client Representative in advance of any dewatering waste leaving the site.
- Contractor is responsible for paying all costs associated with any water quality sampling and testing required.

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 barriers, posters, guards and others to ensure safety;

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. That is, side slopes must extend 1 horizontal and 1 vertical from the base of the excavation. If excavations extend below the water table then side slopes of 3 horizontal to 1 vertical, or gentler, may be required to maintain stability of the side slopes.

Where these slopes are not practical due to obstacles or space restrictions, shoring must be implemented according to the OHSA, O. Reg. 213/91.

The subsoil at this site is considered to be mainly a Type 2 and Type 3 soil according to the Occupational Health and Safety Ace and Regulations for Construction Projects.

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 shall clean roadways at his own cost as directed by the Client 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 work area clean at 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 Client, the Consultant, the Municipality, the MTO, and other governing authorities.

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

1.21. 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 Ministry of Environment, Climate and Parks at 1-800-268-6060. Hydrocarbons and contaminated soils will be recovered by a specialized firm.

1.22. 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. SEDIMENT AND EROSION CONTROL

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

2.2. The Contractor must implement best management practices and provide adequate sediment and erosion control measures during construction in order to:

- 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.

2.3. 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.

2.4. The Contractor must set up the measures indicated in/on the plan, inspect them frequently, particularly following rainfalls events, and clean and repair or replace the deteriorated structures.

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

2.6. 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.

2.7. During the construction period, catchbasin inserts must be installed and maintained between the frame and cover of all catchbasins and catchbasin/manholes to minimize sediments entering the storm sewer system. All landscaping areas must be completed prior to the removal of the inserts.

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

2.9. 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.

2.10. For dust control, Contractor to apply calcium chloride (Type L - OPSS 2501 and CAN/CGSB-15-1) and water with equipment approved by the Client representative at rate in accordance to OPSS 506 when directed by the Client representative.

2.11. 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.

2.12. This Sediment and Erosion Control Plan is a "Living Document" which may be revised in the event that the control measures are not sufficient.

3. DEMOLITION AND REMOVALS

3.1. 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.

3.2. 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 Client representative and without additional expense to the Client.

3.3. The Contractor must carry out necessary saw cuts.

3.4. The Contractor must entirely remove the demolition wreckage from the construction site in accordance with the requirements of the Ministry of Environment, Conservation and Parks (MECP).

- The Contractor must discard recyclable demolition materials in collaboration with a regional recycling company. The Contractor must provide proof to the Client representative 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 to the Client representative.

3.5. 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.

3.6. Sewer / watermain pipes to be abandoned must be cut, filled with unshrinkable concrete conforming to OPSS 1359, and capped.

3.7. The Contractor must complete all removals as shown on the drawings and as required to make the work complete.

3.8. All materials, products and others coming from the demolition belong to the Contractor, unless specified otherwise.

3.9. Surfaces and works located outside of the construction work limit must be reinstated as they were before beginning of work.

4. GENERAL SUBGRADE PREPARATION

4.1. Earth removal shall 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.

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

4.3. 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 (OPSS Granular B Type II) as directed by the Geotechnical Engineer and/or an approved non-woven Class 1 geotextile, as per OPSS 1860. Transition around sub-excavation, 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.

4.4. All granular fill must be placed in maximum 300 mm thick loose lifts and compacted using suitable methods as per the requirements.

4.5. All heavy equipment shall not operate directly on the **clay** subgrade. A minimum of 500 mm of fill/granulars shall be used to allow traffic over the underlying clay subgrade. Clay subgrade surfaces will be prone to disturbance by weather and traffic, therefore preparation of the subgrade/granular infrastructure shall be scheduled such that the granular materials are placed as quickly as possible. A lean concrete slab may also be used in lieu of a granular pad to stabilize the subgrade upon approval from the Geotechnical Consultant.

4.6. If contaminated material is encountered during the work, the Contractor must dispose off-site all materials from the contaminated area in accordance with the requirements of the Ontario Ministry of the Environment, Conservation and Parks (MECP). Prior to the start of work the Contractor must provide the name and location of landfill(s) where the contaminated materials will be disposed to the Client Representative. The Contractor must obtain from the landfill Owner documents confirming that he has the right to accept the contaminated material. During the work, the contractor must provide to the Client Representative a copy of all check-in receipts issued by the landfill Owner.

4.7. The Contractor is responsible to provide a confirmation that the imported material used as subgrade fill is free of any contaminants such as Petroleum Hydrocarbons (C_{10}-C_{50}), PAH (Polycyclic Aromatic Hydrocarbons), MAH (Monocyclic Aromatic Hydrocarbons) and metals like mercury, silver, arsenic, cadmium, cobalt, chromium, copper, tin, manganese, molybdenum, nickel, lead and zinc.

5. EXCAVATION AND BACKFILL - PARKING AREAS, ACCESS ROADS, AND LANDSCAPED AREAS

5.1. The parking and access road subgrade preparation shall be completed as per Section "4.0 General Subgrade Preparation".

5.2. Beneath the proposed parking, access roads and landscaped areas, all surface vegetation, surface water, rootmat, organics, underlying topsoil, frozen soils, existing fill, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. Organic soils below 1.8 m of finished grade and existing fill may remain beneath proposed pavement areas provided they are proven competent by proof rolling and approved by the Geotechnical Engineer.

5.3. Subgrade fill used for grading beneath asphalt or concrete pavement must consist of either acceptable fill, in situ soil, or OPSS Granular B Type I or II material placed over in situ soil or fill, approved by the Geotechnical Consultant prior to delivery to the site. Subgrade fill used below rigid surfaces, such as concrete sidewalks and concrete slabs, must not contain more than 25% silt.

5.4. Non-specified fills and on-site excavated soils may be used in landscaping areas and beneath parking areas where settlement of the ground surface is of minor concern. In landscaped areas the fill must be spread in thin lifts and compacted by the tracks of spreading equipment to minimize voids. When used to build up subgrade level in areas to be paved fill should be compacted in thin lifts to a minimum density of 95% SPMDD.

5.5. Existing engineered fill is also suitable for re-use as backfill material under pavement structures. Site excavated materials for re-use must be approved by the Geotechnical Consultant at the time of construction and stored on site in a way to avoid water infiltration and freezing.

5.6. The Contractor is responsible for constructing all temporary access roads, as required to complete the work. The Contractor must also maintain all temporary access roads in good and tidy condition at all times to the satisfaction of the Owner and/or Consultant.

All temporary access roads shall consist of approved Subgrade Material to allow heavy equipment traffic. If the building is constructed during the winter period, the Contractor is responsible for snow removal and spreading of abrasive throughout construction work by the building Contractor and his sub-contractors.

6. EXCAVATION AND BACKFILL - BUILDING FOOTPRINT

6.1. The building subgrade preparation shall be completed as per Section "4.0 General Subgrade Preparation"

6.2. Beneath the proposed footings of buildings, signs, light standards and their influence zones all surface vegetation, surface water, rootmat, organics, underlying topsoil, frozen soils, existing fill, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. The influence zone is defined as a line drawn at 1 horizontal to 1 vertical outward and downward from the edge of footings, down to the competent native soil. All loose or disturbed materials must be removed and replaced with compacted structural fill.

6.3. Existing engineered fill is suitable for re-use as backfill material against foundation walls in combination with a perimeter drainage system (weeping tile).

6.4. Backfill against the exterior sides of the foundation walls must consist of free-draining non frost susceptible granular materials. Imported granular materials, such as clean sand or OPSS Granular B Type I granular material, must be used for this purpose. The greater part of the site excavated materials will be frost susceptible and, as such, are not recommended for re-use as backfill against the foundation walls unless a composite drainage system, such as Miradrain G100N, is provided.

6.5. Structural fill used for grading beneath the footings of buildings, signs and light standards must consist of OPSS Granular 'A' or Granular "B" Type II Material and be approved by the Geotechnical Consultant prior to delivery to the site.

6.6. With the removal of all deleterious materials within the footprint of the proposed building, the native surface is considered an acceptable subgrade surface on which to commence backfilling the floor slab. The upper 150 mm of sub-slab fill must consist of OPSS Granular A material for slab on grade construction. All backfill within the footprint of the proposed building must be placed in maximum 300 mm thick loose lifts and compacted to a minimum density of 98% SPMDD.

7. PAVEMENT STRUCTURES, CONCRETE PADS, CURBS, AND SIDEWALKS

7.1. Construction of granular foundation must conform to OPSS 314.

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

7.3. Light duty and heavy duty asphalt pavements to be constructed as per Details #201, #202, and #205.

7.4. Road cut reinstatement as per City of Ottawa Detail R10. Reinstatement to match existing. Thickness and materials in accordance with detail #202 to be assumed.

7.5. Transition between existing and proposed pavement shall be constructed as per Detail #206.

7.6. Construction of asphalt must conform to OPSS 310.

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

7.8. Asphalt mix design shall be reviewed and approved by the Geotechnical Consultant prior to start of paving.

7.9. Concrete curbs and gutter must conform to OPSS 353.

7.10. Concrete curbs to be constructed as per City of Ottawa Detail SC1.1.

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

7.12. Concrete sidewalks must conform to OPSS 351.

7.13. Concrete sidewalks to be constructed as per Detail 106 and City of Ottawa Details SC2 and SC4, with joints in accordance with SC5.

7.14. Concrete slab for garbage enclosure as per Detail 115.

8. CONTRACT RESPONSIBILITIES AT THE PERIMETER OF BUILDING

8.1. Included in the site works contract:

- Cut or fill up to 300 mm below finished floor elevation for sidewalks and for all other concrete slabs around building.
- All landscaping around the building.

8.2. Included in the building contract:

- All necessary excavation to subgrade, granular materials, compaction and concrete work for sidewalks and all other concrete slabs around building area.

9. BUILDING PAD PREPARATION

9.1. In excavation areas, cut to 300 mm below finished floor elevation. In fill areas, structural fill to be placed to 300 mm below finished floor elevation.

APPROVED
By Derrick Moodie at 12:57 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Cominar

PROFESSIONAL ADVISORS

Architecture :

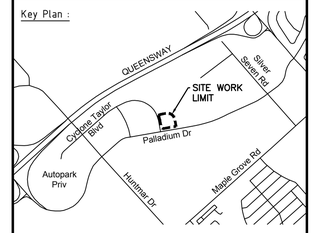
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
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3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

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

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

NOTES PLAN

Designed By :	Drawn By :	
TIM KENNEDY	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C005 - Notes Plan.DWG	NO SCALE
Date :	Project Number :	Sheet : / Number :
2019/03/08	A000919	C005

PLAN No. 17904

007-12-19-0045

1. MUNICIPAL SERVICES - GENERAL

1.0. 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.

1.1. Unless otherwise indicated, all generals conditions, 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). Furthermore the requirements of the the Ontario Ministry of the Environment, Conservation and Parks (MECP), the Ontario Ministry of Natural Resources and Forestry (MNRF), applicable Conservation Authorities, the municipal standard specifications and drawings, and all other governing authorities must be adhered to as they apply.

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

1.3. The Contractor must complete compaction as per OPSS 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

1.4. 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.

1.5. Advise the City Public Works at least 72 hours in advance before any connection to the City services. Coordinate with City as required.

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

1.7. 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 310.
- Landscape areas to be reinstated with 150 mm of topsoil and sod in accordance with OPSS 802 and OPSS 803.

1.8. Trenching, backfilling and compacting must conform to OPSS 401.

1.9. At least 150 mm of OPSS Granular A must be used for bedding for sewer and water pipes when placed on soil subgrade. The bedding should extend to the spring line of the pipe. Cover material, from the spring line to at least 300 mm above the obvert of the pipe should consist of OPSS Granular A. The bedding and cover materials should be placed in maximum 225 mm thick lifts compacted to a minimum of 95% of the material's SPMDD.

1.10. Within landscaping areas, it should generally be possible to re-use the moist, not wet, site excavated brown silty clay or silty sand above the cover material if the excavation and filling operations are carried out in dry weather conditions. It may not be practical to re-use wet silty clay as compacting this material without an extensive drying period may be impractical.

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

1.12. To reduce long term lowering of the groundwater level at this site, clay seals must be provided in the service trenches. Per City of Ottawa Detail S8. The seals must be at least 1.5 m long (in the trench direction), as compared to the 1 m minimum in the detail, and extend from trench wall to trench wall. Generally, the seals must extend from the frost line and fully penetrate the bedding, subbedding and cover material. The barriers must consist of relatively dry and compactable brown silty clay placed in maximum 225 mm thick loose layers compacted to a minimum of 95% of the material's SPMDD. The clay seals must be placed at the site boundaries and at strategic locations at no more than 60 m intervals in the service trenches.

1.13. Watertight frame and covers are required as per OPSD 401.030 for all storm and sanitary maintenance holes located within the ponding areas. Refer to drawings for location of manholes within ponding areas.

2. WATERMAIN

2.1. Watermain, water service connections and associated appurtenances must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically watermains must conform to OPSS 441 .

2.2. Watermain must be constructed as per OPSS 441 and specifically OPSD 802.010 . 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 W21, 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. Thrust block and restraints must be as per City of Ottawa Details W25.3, W25.4, W25.5 and W25.6.

2.8. Hydrant installation to be as per OPSS 441 and City of Ottawa Detail W19. Hydrants will comply with AWWA C502.

Hydrants must have three exits (two 65.5 mm and one 100.0 mm 'storz' of stainless steel) without drain. Fire hydrants must be installed such that the 'storz' exit points are oriented as directed by the local fire department. The Contractor must ensure that the breakaway flange is located above the finished ground (approximately 150 mm).

Fire flow tests followed by colour coding of hydrants (as per NFPA-291) shall be carried out prior to substantial completion of the work.

2.9. Valves to be installed as per OPSS 441 and City of Ottawa Detail W24.

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

2.11. When a watermain pipe crosses a sewer pipe, installation shall be as per City of Ottawa Details W-25 and/or W-25.2.

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

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

2.14. The Contractor must make arrangements with and give a minimum of 24 hours' notice to the City for the closing off of necessary valves in the water distribution system. The City will operate valves at the time of tie-ins, etc. at no expense to the Contractor under normal conditions; however the Contractor will be responsible for all costs associated with emergency shutdowns if they occur outside of the normal working hours of the City forces (Monday to Friday, 7:00 a.m. to 5:00 p.m.)

2.15. 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.

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

2.17. The Contractor must obtain a permit from the City before using an existing fire hydrant located within the City's territory.

2.18. The Contractor must coordinate and pay the cost of connection, inspection and disinfection by municipal personnel.

2.19. 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. The Contractor must clean, flush and CCTV the existing 200mm catchbasin leads from new connection points to existing 1050mm storm sewer located in Palladium Dr. as per OPSS 409. All existing deficiencies must be noted in the report and the Engineer must be provided with two (2) copies and the CCTV inspection in DVD format only.

3.2. Storm sewers, laterals and storm service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically storm sewers must conform to OPSS 410.

3.3. Concrete storm sewer material to conform to OPSS 1820. Concrete storm sewers to be installed as per OPSD 802.031 (Class B Bedding). Bedding and cover material to be OPSS Granular 'A'.

3.4. PVC storm sewer material to conform to OPSS 1841. PVC storm sewers to be installed as per OPSD 802.010. Bedding and cover material to be OPSS Granular 'A'.

3.5. 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

3.6. All storm sewer pipes shall be as follows:

PIPE DIAMETER (mm)	TYPE OF PIPE
≤ 150	PVC SDR-28
> 150 and ≤ 375	PVC SDR-35
> 375	Concrete Pipes (CSA A257)

3.7. All storm sewers to be C.C.T.V. inspected by the Contractor as per OPSS 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 'A' compacted to 98% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections shall be wrapped in a non-woven geotextile.

3.12. Storm manholes and manhole/catchbasins to be as per OPSD 701.010 to 701.015 (sizes specified on drawings) and shall be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert. Additional knockouts needed for connection of subdrains to manhole/catchbasins where required.

3.13. Storm manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover outside of ponding areas. Watertight frame and covers as per OPSD 401.030 required within ponding areas. Refer to Municipal Services Plan for location of manholes within ponding areas.

3.14. Storm manhole/catchbasin frame and cover to be as per OPSD 401.010 Type "B" open cover.

3.15. All catchbasins (excluding 'T' and 'elbow' type catchbasins) to be as per OPSD 705.010 complete with frame and grate as per OPSD 400.020.

3.16. All 'T' and 'elbow' type catchbasins to be as per detail 315.

3.17. All catchbasin leads to be 200 mm diameter, PVC SDR-35 with a minimum slope of 2.0% unless otherwise noted. The Contractor may use long radius bends as per City of Ottawa Details S11 and S11.1.

3.18. All catchbasins shall have sumps (600 mm deep).

3.19. In order to facilitate drainage for the pavement structure, perforated subdrains must be installed on all sides at each catchbasin and catchbasin manhole, extending out approximately 3 meters. The subdrains must be installed directly below the new or existing granular sub-base of the pavement structure. Positive drainage towards the catchbasins must be provided. The top end of the subdrain must be capped. See detail 305.

3.20. 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.

3.21. Storm 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.

3.22. Perforated pipe installation for landscaping applications to be as per detail 305.

3.23. The Contractor shall implement best management practices to provide for protection of receiving storm sewer or drainage during construction activities (i.e. catchbasin inserts (or approved equivalent), straw bale check dams, any other sediment control measures required around all disturbed areas). Dewatering shall be sumped into sediment traps.

3.24. Inlet control devices (ICD's) to be installed on catchbasin and manhole outlets. Type, allowable flow, maximum head and location of ICD's specified on the Municipal Services Plan.

3.25. For building roof drain sizes and location refer to architectural and mechanical drawings. Maximum allowable release flow and retention requirements are provided on the Municipal Services Plan.

3.26. A perimeter foundation drainage system (weeping tile) must be provided for the proposed building to ensure that frost heave sensitive sidewalks adjacent to the building have adequate drainage for the sub-soils. The system must consist of a 150 mm diameter perforated corrugated plastic pipe, surrounded on all sides by 150 mm of 10 mm clear crushed stone, placed at the sub-grade level around the exterior perimeter of the structure. The pipe must have a positive outlet, such as a gravity connection to the storm sewer. The outlet point is shown on C-009.

3.27. All storm sewers must be installed with a minimum of 1.5 m cover from finished grade. Where a minimum of 1.5 m cover is not reached, thermal insulation is required as per City of Ottawa Detail W22.

3.28. The contractor shall submit the shop drawings of the underground retention system for approval.

3.29. Refer to manufacturers requirements for frost protection of the underground retention system. A frost taper of 5:1 is required from the bottom of the excavation up to the bottom of the pavement structure.

4. SANITARY SEWER

4.1. Sanitary sewers, laterals and service connections must be constructed in accordance with the Ontario Provincial Standard Specifications / City of Ottawa Standards Specifications / Ministry of Environment, Conservation and Parks. Specifically sanitary sewers must conform to OPSS 410.

4.2. PVC sanitary sewer pipe material to type PVC SDR-35, conforming to OPSS 1841. PVC sanitary sewers to be installed as per OPSD 802.010 (Class B Bedding). 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. All sanitary sewers to be C.C.T.V. inspected by the Contractor as per OPSS 409. Report must be provided to the Engineer in two (2) copies and the C.C.T.V. inspection in DVD format only.

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

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

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

4.8. Sanitary manholes to be backfilled with OPSS Granular 'A' compacted to 98% Standard Proctor Maximum Dry Density (SPMDD). Joints between sections shall be wrapped in a non-woven geotextile.

4.9. Sanitary manholes to be as per OPSD 701.010 to 701.015 (sizes specified on drawings) and shall be equipped with safety platform as per OPSD 404.020 when exceeding 5.0 m to the lowest invert.

4.10. Sanitary manhole frame and cover to be as per OPSD 401.010 Type "A" closed cover outside of ponding areas. Watertight frame and covers as per OPSD 401.030 required within ponding areas. Refer to Municipal Services Plan for location of manholes within ponding areas.

4.11. 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.

4.12. 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 OPSD City of Ottawa Detail S11.1.

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

4.14. All sanitary sewers must be installed with a minimum of 1.8 m cover from finished grade. Where a minimum of 1.8 m cover is not reached, thermal insulation is required as per City of Ottawa Detail W22.

APPROVED
By Derrick Moodie at 12:57 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Cominar

PROFESSIONAL ADVISORS

Architecture :

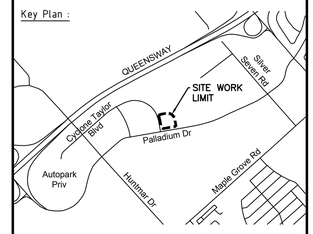
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
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Stamps :

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

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

NOTES PLAN

Designed By :	Drawn By :	
TIM KENNEDY	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C005 - Notes Plan.DWG	NO SCALE
Date :	Project Number :	Sheet : / Number :
2019/03/08	A000919	C006

PLAN No. 17904

007-IC-19-0045

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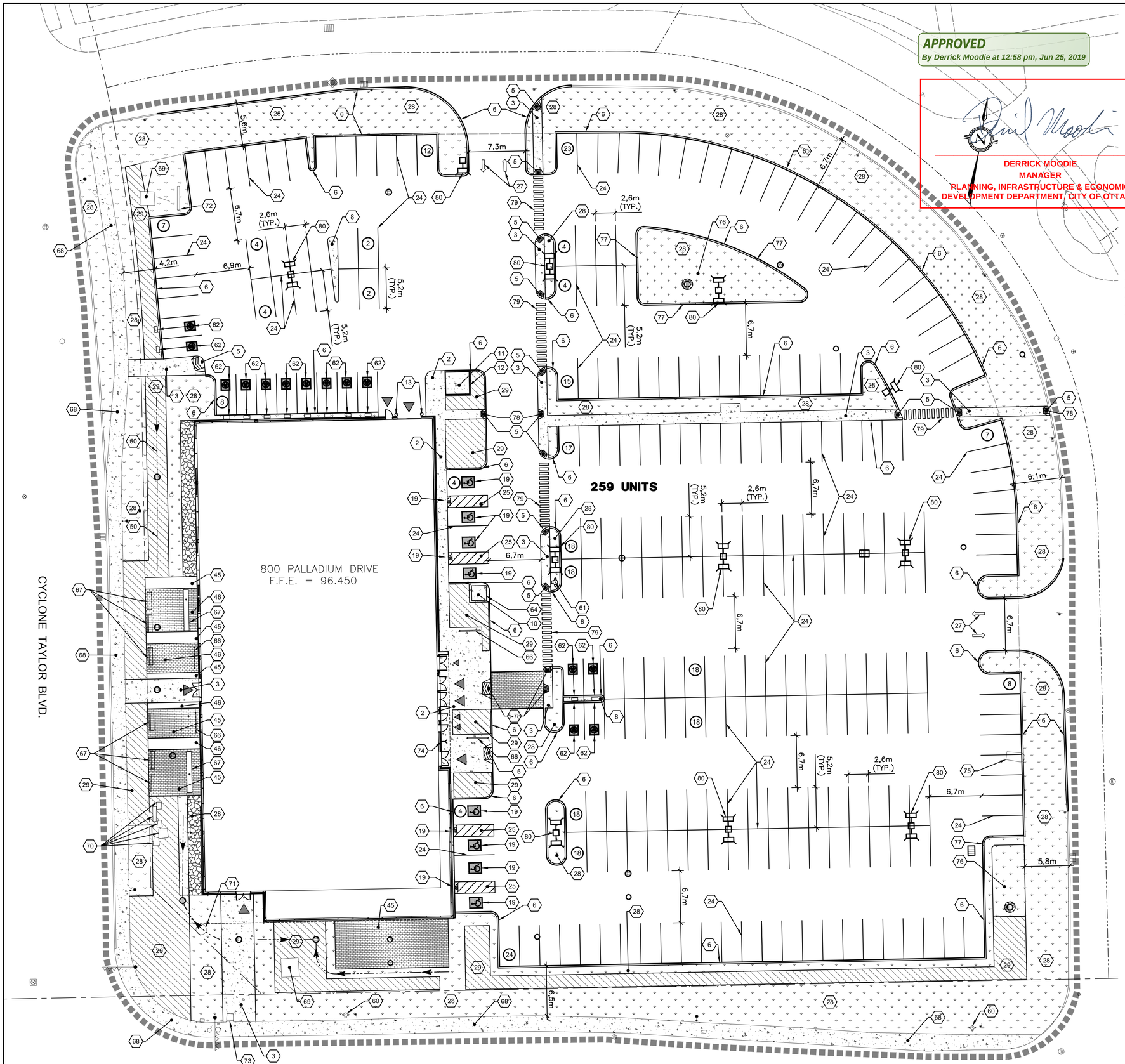

LEGEND

- WORK LIMIT AREA
- CONCRETE
- (99) NUMBER OF PARKING SPACES
- PAINTED ISLAND
- BUILDING ENTRY
- COLUMN
- PROPERTY LIMIT
- RIGHT-OF-WAY LIMITS
- EASEMENT
- ROOF OVERHANG
- F.F.E. FINISHED FLOOR ELEVATION
- LED - 4000K BEACON HUBBREL VPS-36L-65-4K7-2-BL, 7.62m HEIGHT
- LED - 4000K BEACON HUBBREL VPS-36L-65-4K7-4W B2B-BL, 7.62m HEIGHT

SITE STATISTICS

TOTAL SITE AREA	13 700m² / 3,39 acre
WORK LIMIT AREA	14 867m² / 3,67 acre
BUILDING AREA	1 996m² / 0,49 acre
TOTAL PARKING SPACES	259 UNITS
ACCESSIBLE PARKING SPACES	8 UNITS
ELECTRICAL VEHICLE PARKING SPACES	10 UNITS

SEE DETAIL

106/SC5	2	CONCRETE SIDEWALK AT BUILDING
SC2/SC4/SC5	3	CONCRETE SIDEWALK
	5	DEPRESSED CONCRETE SIDEWALK (AS PER CITY OF OTTAWA STANDARD)
SC1.1	6	CONCRETE CURB
120/SC1.1	7	LANDSCAPED ISLAND (CONCRETE CURB)
410/SC2	8	CONCRETE ISLAND
	10	TRANSFORMER PAD (SEE ELECTRICAL)
115	11	GARBAGE ENCLOSURE (SEE ARCHITECT)
	12	GARBAGE ENCLOSURE SCREEN WALL (SEE ARCHITECT)
403	13	BOLLARD
401/405/409B	19	ACCESSIBLE PARKING SPACE MARKING AND SIGN (FREE STANDING)
409B	24	90 DEGREE PARKING STRIPING
410	25	PAINTED AREA (115mm PAINTED YELLOW STRIPES 750mm O.C. AT 45 DEGREE)
405	27	TRAFFIC FLOW ARROWS
120	28	LANDSCAPED AREA (SEE LANDSCAPING)
	29	PLANTATION AREA (SEE LANDSCAPING)
	45	CONCRETE PAVER TYPE 1 (SEE LANDSCAPING)
	46	CONCRETE PAVER TYPE 2 (SEE LANDSCAPING)
L20	50	NEW SWALE
	60	EXISTING FIRE-HYDRANT
	61	NEW FIRE-HYDRANT
401/405/409B	62	ELECTRICAL VEHICLE PARKING SPACE MARKING AND CHARGING STATION (SEE ELECTRICAL)
115	64	TRANSFORMER WITH VISUAL SCREEN (SEE ELECTRICAL)
	66	BIKE RACK (SEE LANDSCAPING)
	67	BENCH (SEE LANDSCAPING)
	68	EXISTING CONCRETE SIDEWALK (TO REMAIN)
	69	EXISTING TRANSFORMER
	70	EXISTING UTILITY AND TELECOM PEDESTALS
	71	EXISTING PYLON SIGN TO BE RELOCATED (BY OTHERS)
	72	EXISTING ELECTRIC COUNTER PANEL TO BE RELOCATED (BY OTHERS)
	73	EXISTING TRAFIC LIGHT CONTROL BOX
	74	SIAMESE (BY BUILDING CONTRACTOR)
	75	EXISTING PAY STATION TO BE REMOVED
355	76	RAIN GARDEN (SEE LANDSCAPING)
SC1.1	77	DEPRESSED CURB
SC7.3	78	TACTILE WALKING SURFACE INDICATOR (TWSI)
407	79	PEDESTRIAN CROSSING
	80	LIGHT POLES (SEE ELECTRICAL)

0 2,5 5 10 15 20 25

NOTE OF CAUTION

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BASE PLAN : R-063 - Q180922_SITE PLAN_2019-05-03

Cominar

PROFESSIONAL ADVISORS

Architecture :

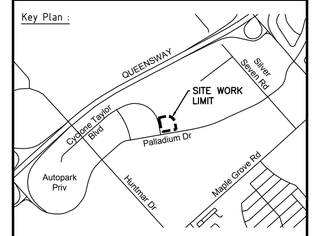
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

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

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

SITE PLAN

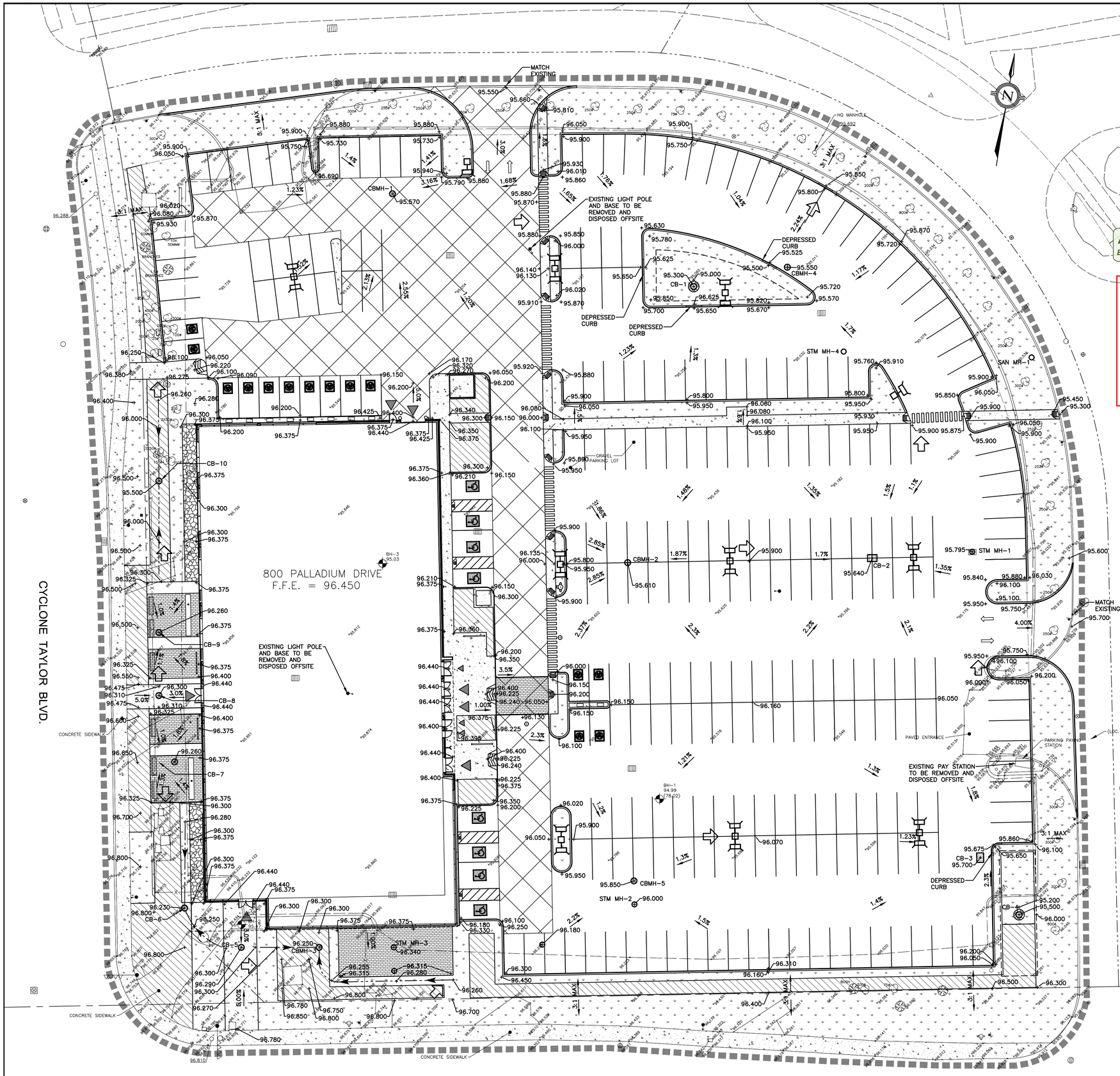
Designed By :	Drawn By :
JEAN-PHILIPPE PHARAND	JEAN-PHILIPPE PHARAND

Approved By :	File name .DWG	Scale :
C.L-L.	C007 - Site Plan.DWG	1:250

Date :	Project Number :	Sheet :	Number :
2019/03/08	D07-12-19-0045	C007	

D07-12-19-0045

PLAN No. 17904



APPROVED
By Derrick Moodie at 12:58 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

LEGEND

EXISTING		PROPOSED
WM	WATERMAIN	
SAN	SANITARY SEWER	
STM	STORM SEWER	
D	DRAIN	
G	GAS LINE (APPROX. LOC.)	
T	UNDERGROUND TELEPHONE (APPROX. LOC.)	
CA	UNDERGROUND CABLE	
X X	FENCE	
E	UNDERGROUND ELECTRICITY	
OH	OVERHEAD WIRES	
	PROPERTY LINE	
	RIGHT-OF-WAY LIMITS	
	EASEMENT	
	CATCHBASIN	
	MANHOLE	
	CATCHBASIN MANHOLE	
	HDPE CATCHBASIN	
	FIRE HYDRANT	
	VALVE	
	REDUCER	
	TEE	
	SIGN	
	STOP SIGN	
	ELECTRICITY POLE	
	TELEPHONE POLE	
	LIGHT POLE	
	ELECT.-TEL.-STREET LIGHT POLE	
	ELECT.-TEL.-TRANSFORMER POLE	
	PRIVATE STREET LIGHT	
	ELECTRICITY MANHOLE	
	TELEPHONE MANHOLE	
	SURVEY STATION	
	ELEVATION	+ 99,000
	BOREHOLE LOCATION	
	WORK LIMIT	
	TOP OF SLOPE	
	DITCH	
	HEAVY DUTY PAVEMENT	
	OVERLAND FLOW	
	FINISHED FLOOR ELEVATION	F.F.E.
	LIGHT POLE	

0 2.5 5 10 15 20 25

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Cominar

PROFESSIONAL ADVISORS

Architecture :

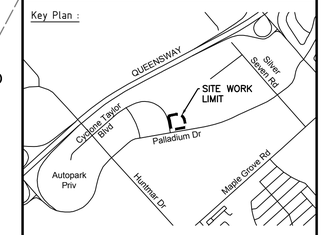
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

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2	2019/04/16	FOR PERMIT	B.T
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T

Stamps :

LICENSED PROFESSIONAL ENGINEERS
C. LAVOIE-LEBEL
100057842
PROVINCE OF ONTARIO

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

GRADING PLAN

Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

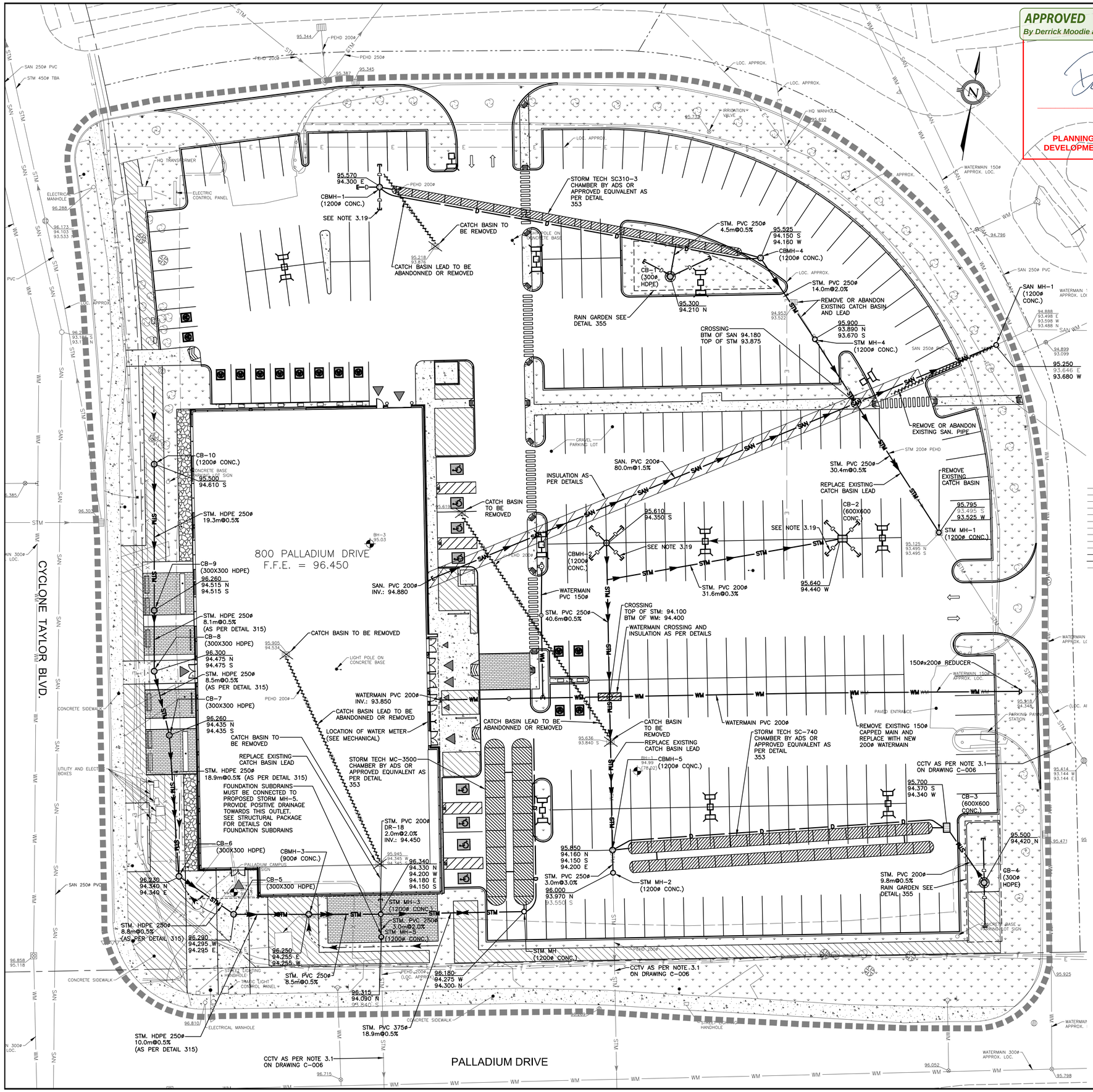
Approved By :	File name .DWG	Scale :
C.L-L.	C008 - Grading Plan.DWG	1:250

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C008	

PLAN No. 17904

07-12-21-0045

STGM_CART_A1RFA (841 x 594)



APPROVED
By Derrick Moodie at 12:58 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

WATERMAIN

FINISHED GRADE	TOP OF WATERMAIN	ITEM
96.000	93.550	REDUCER
96.000	94.600	CROSSING OVER 250MM STORM SEWER
96.040	93.640	FIRE HYDRANT LEAD 'T' JOINT
96.000	93.500	FIRE HYDRANT
96.440	94.050	END CAP

INLET CONTROL DEVICES

ICD #	MH # / CB #	PIPE	MAXIMUM FLOW (l/sec)	MAX HEAD (m)	TYPE
1	CBMH-4	250 S	13.33	1.58	VORTEX
2	CBMH-5	250 S	20.33	1.62	VORTEX
3	MH-3	250 S	10.84	1.99	VORTEX

NOTES:

1. ICD TYPE "VORTEX" SHALL BE TYPE HYDROVEX FROM JOHN MEUNIER OR APPROVED EQUIVALENT.
2. ICD TYPE "ORIFICE CAP" SHALL BE BY IPEX OR APPROVED EQUIVALENT.
3. THE MAXIMUM RELEASE FLOW FOR THE ENTIRE PROJECT IS BASED ON A RELEASE RATE OF 44.5 L/s FOR THE SITE.
4. THE REQUIRED STORAGE ON ROOF IS 57.55 m³.

LEGEND

EXISTING		PROPOSED
WM	WATERMAIN	WM
SAN	SANITARY SEWER	SAN
STM	STORM SEWER	STM
D	PERFORATED SUBDRAIN	D
G	GAS LINE (APPROX. LOC.)	
T	UNDERGROUND TELEPHONE	
CA	UNDERGROUND CABLE (APPROX. LOC.)	
X X	FENCE	
E	UNDERGROUND ELECTRICITY	
OH	OVERHEAD WIRES	
	PROPERTY LINE	
	RIGHT-OF-WAY LIMITS	
	EASEMENT	
	CATCHBASIN	
	MANHOLE	
	CATCHBASIN MANHOLE	
	HDPE CATCHBASIN	
	FIRE HYDRANT	
	VALVE	
	REDUCER	
	TEE	
	SIGN	
	STOP SIGN	
E	ELECTRICITY POLE	
T	TELEPHONE POLE	
	LIGHT POLE	
E,T	ELECT.-TEL.-STREET LIGHT POLE	
E,T	ELECT.-TEL.-TRANSFORMER POLE	
	PRIVATE STREET LIGHT	
E	ELECTRICITY MANHOLE	
T	TELEPHONE MANHOLE	
PK	SURVEY STATION	
365.000	ELEVATION	
	BOREHOLE LOCATION	
	WORK LIMIT	
	DITCH	
F.F.E.	FINISHED FLOOR ELEVATION	
	REMOVE SEWER	
	REMOVE STRUCTURE	
	LIGHT POLE	
TOP ELEVATION PIPE INVERT (N) PIPE INVERT (S) PIPE INVERT (E) PIPE INVERT (W)	SEWER STRUCTURE TOP ELEVATION AND PIPE INVERTS	

0 2.5 5 10 15 20 25

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Cominar

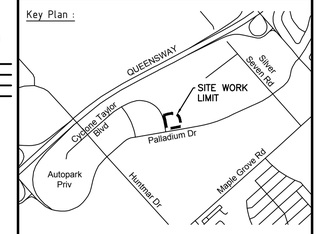
PROFESSIONAL ADVISORS

Architecture : stgm architectes

Structure / Civil : CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
7	2019/06/17	SITE PLAN CONTROL 3rd ROUND - RESPONSES	B.T.
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
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1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

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

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

SERVICING PLAN

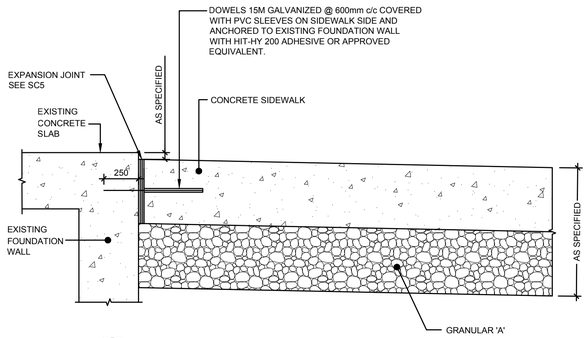
Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C009 - Servicing Plan.DWG	1:250

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C009	

PLAN No. 17904

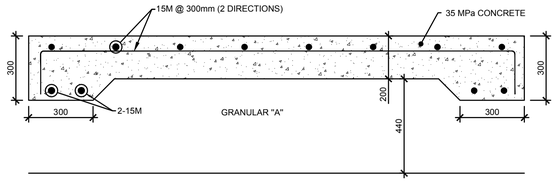
007-17-19-0045



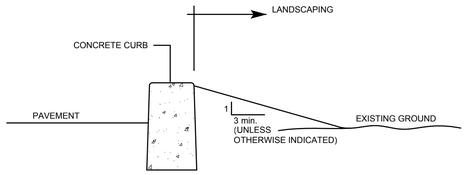
106 SIDEWALK ADJACENT TO BUILDING

NOTE :

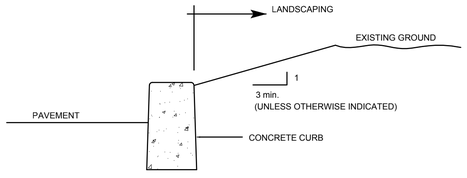
1. DOWELS ONLY REQUIRED AT DOORWAYS
2. CONSTRUCTION OF DOWELS SHALL BE IN ACCORDANCE WITH OPSS 904



115 GARBAGE ENCLOSURE-CONCRETE SLAB

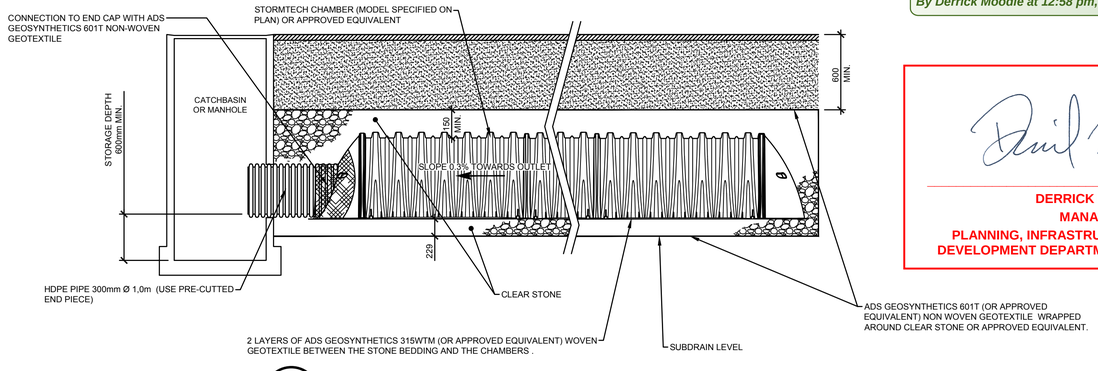


SIDE VIEW - LOWER EXISTING GROUND

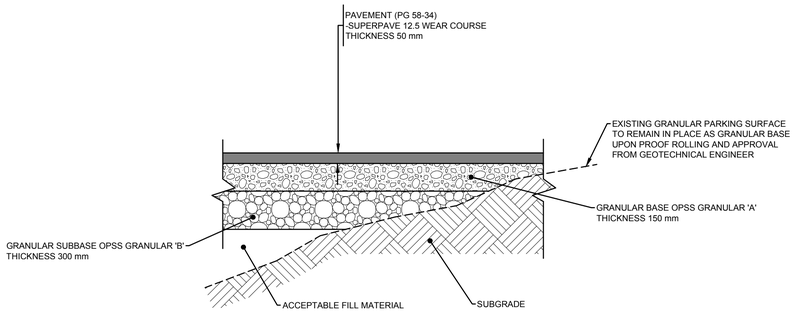


SIDE VIEW - UPPER EXISTING GROUND

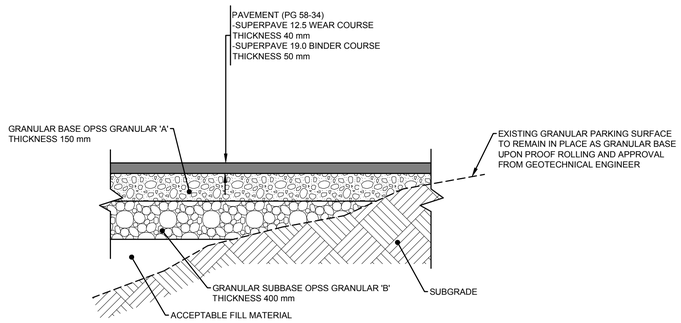
120 LANDSCAPING ADJACENT TO CONCRETE CURB (TYPICAL)



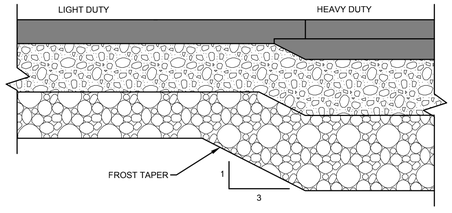
353 STORMTECH CHAMBERS



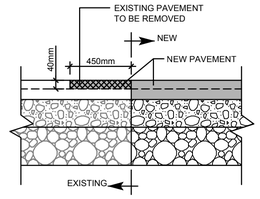
201 TYPICAL SECTION - GRANULAR FOUNDATION AND ASPHALT PAVEMENT (LIGHT DUTY)



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

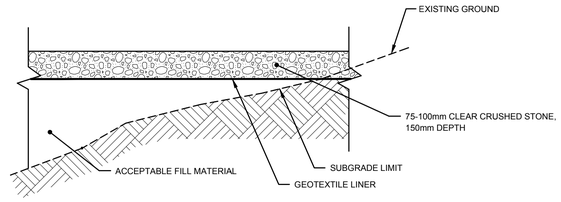


205 TYPICAL SECTION - TRANSITION BETWEEN DIFFERING PAVEMENT STRUCTURES

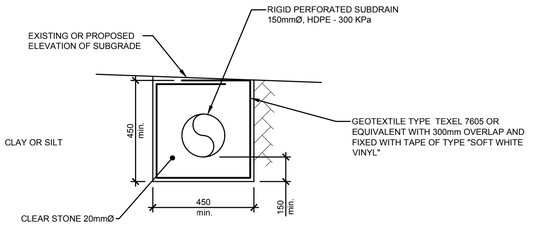


HEAVY-DUTY

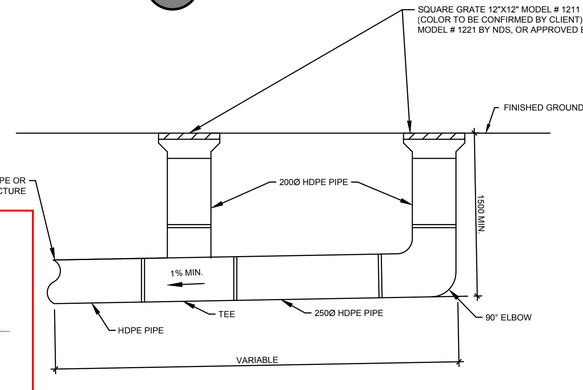
206 TYPICAL SECTION - TRANSITION BETWEEN EXISTING AND NEW PAVEMENT



212 TYPICAL SECTION - TEMPORARY CONSTRUCTION ENTRANCE



305 PERFORATED SUBDRAIN



315 INLINE DRAIN DETAIL

NOTES:

UNLESS SPECIFIEDOTHERWISE ONLY TYPE OF DRAINS WILL BE INSTALLED IN THE "HARDSCAPE" AREA.

APPROVED
By Derrick Moodie at 12:58 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Cominar

PROFESSIONAL ADVISORS

Architecture :

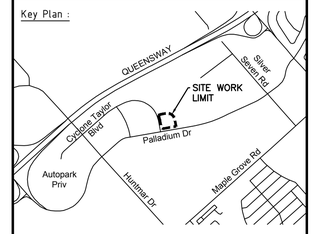
stgmarchitectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



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Stamps :

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

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C010	

PLAN No. 17904

001-12-19-0045

CHARGING STATION SIGN

FIRE LANE SIGN

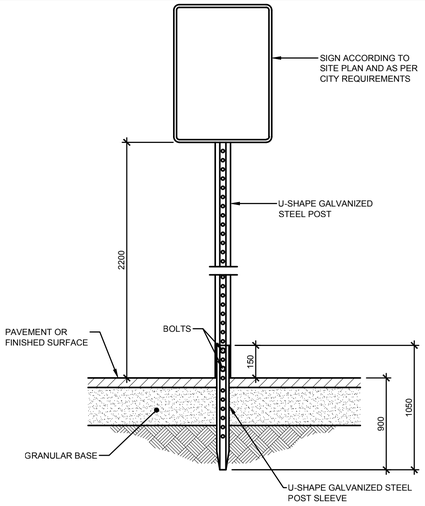
P-18

ACCESSIBLE PARKING SIGN

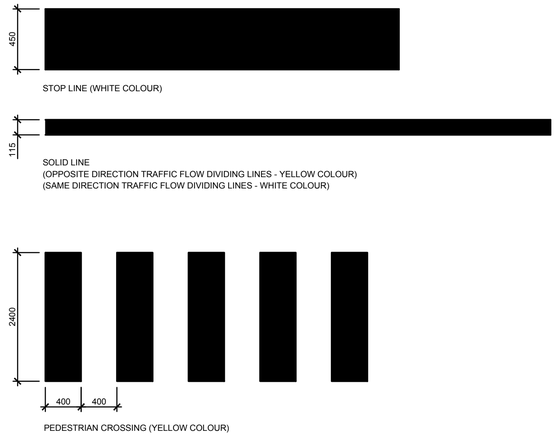
P-150-5

NO PARKING SIGN

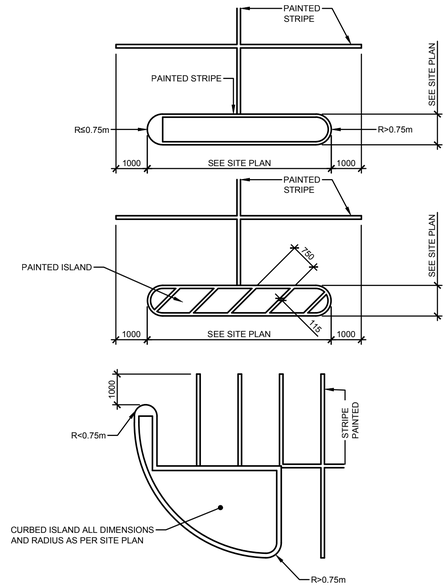
P-150-2-G-D



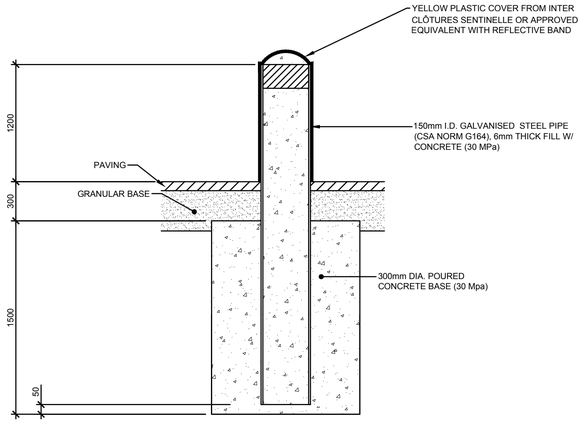
401 FREE STANDING SIGN



407 PAVEMENT MARKINGS (PAINTED LINES)

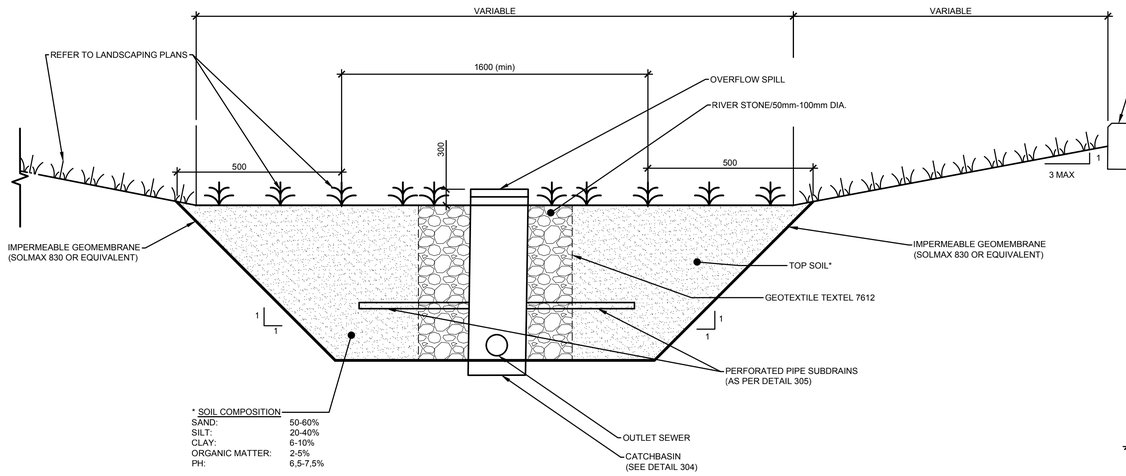


410 TYPICAL ISLANDS

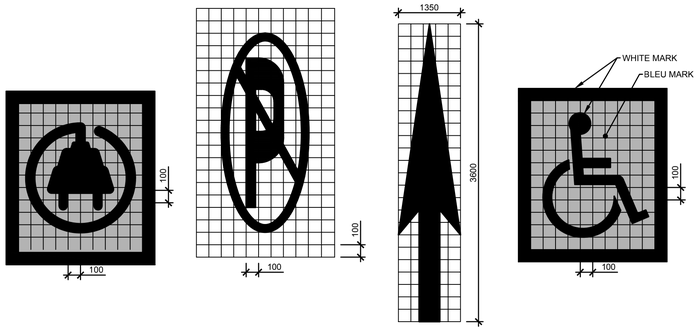


NOTE:
ALL BOLLARD INSTALLED IN SIDEWALKS SHALL BE 915mm
HIGHER THAN THE TOP OF THE SIDEWALK.

403 STANDARD BOLLARD



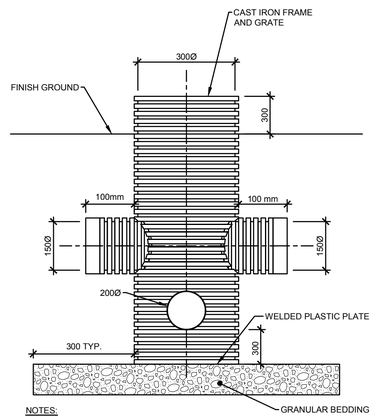
355 RAIN GARDEN



1-TRAFFIC ARROWS AND SYMBOLS PAINTED
WHITE COLOUR ON PAVEMENT UNLESS
OTHERWISE SPECIFIED

2- ALL PAVEMENT MARKINGS SHALL BE AS
PER CITY REQUIREMENTS

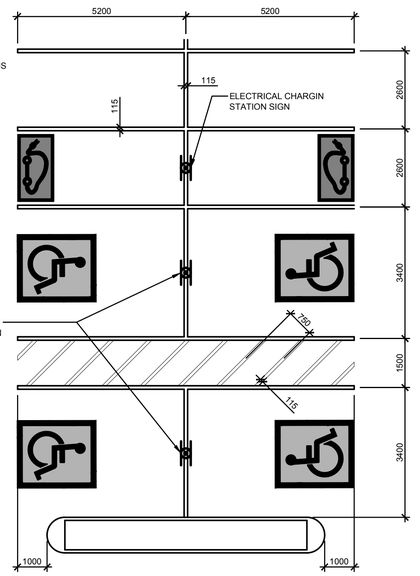
405 TRAFFIC ARROWS AND SYMBOLS



NOTES:
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.

304 HDPE CATCHBASIN FOR RAIN GARDEN

ALL PARKING LINES AND SIGNS
TO BE PAINTED YELLOW
UNLESS OTHERWISE NOTED



409B PARKING STALLS

APPROVED
By Derrick Moodie at 12:59 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Cominar

PROFESSIONAL ADVISORS

Architecture :

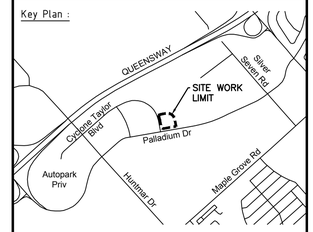
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

LICENSED PROFESSIONAL ENGINEER
C. LAVOIE-LEBEL
100057842
PROVINCE OF ONTARIO

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

Designed By :	Drawn By :	
BENJAMIN TARDIOLI	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN
Date :	Project Number :	Sheet : / Number :
2019/03/08	A000919	C011

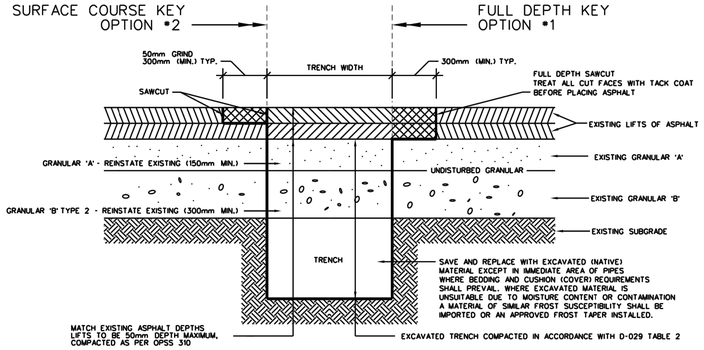
PLAN No. 17904

007-12-19-0045

STGM_CART_A1RFA (841 x 594)

STANDARD TRENCH REINSTATMENT IN PAVED SURFACE

DWG. No.: R10 | REV. DATE: MARCH 2017 | DATE: MAY 2001

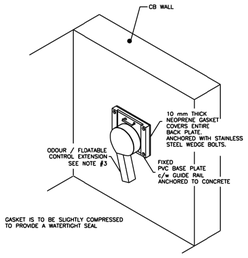


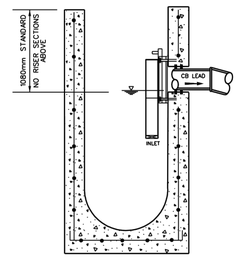
NOTES

1. ALL EXISTING ASPHALT TO BE SAW CUT.
2. UNLESS SPECIFIED ELSEWHERE, SURFACE COURSE ASPHALT SUPERPAVE 12.5mm LEVEL B (PG58-34) AND BASE COURSE ASPHALT SUPERPAVE 19.0mm LEVEL B (PG58-34) IS TO BE USED.
3. UNLESS SPECIFIED ELSEWHERE, WHERE EXISTING PAVEMENT STRUCTURE EXCEEDS 150mm IN DEPTH, ASPHALT REINSTATEMENT SHALL BE 150mm AND GRANULAR "A" FOR THE REMAINDER.
4. UNLESS SPECIFIED ELSEWHERE, WHERE AN UNDERLYING LAYER OF CONCRETE PAVEMENT EXISTS, REINSTATEMENT SHALL CONSIST OF 150mm OF SUPERPAVE 19.0mm LEVEL B (PG58-34) COMPACTED IN LIFTS.
5. UNLESS SPECIFIED ELSEWHERE, HOT MIX ASPHALT PLACEMENT AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH F-3130.

APPROVED
By Derrick Moodie at 12:59 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC
DEVELOPMENT DEPARTMENT, CITY OF OTTAWA





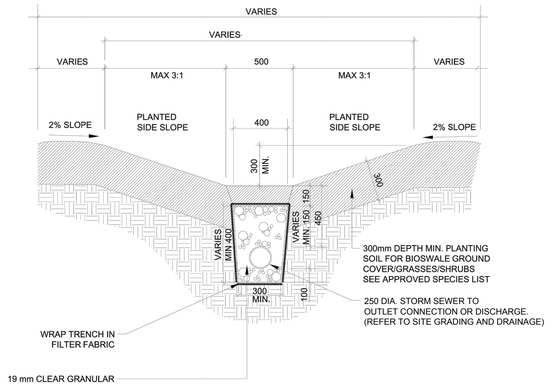
VORTEX ICD WITH
ODOUR/FLOATABLE CONTROL
SECTION

NOTES:

1. VORTEX ICD'S ARE USED TO RESTRICT FLOWS BELOW 15L / s. The (LOWEST) RESTRICTION ALLOWED TYPICALLY IS 6L / s. PRODUCTS MAY SLIGHTLY DIFFER AS SHOWN ABOVE.
2. CURVES ARE AVAILABLE FROM THE MANUFACTURER. SEE MS - 22.15 FOR APPROVED PRODUCTS.
3. ODOUR CONTROL TYPE IS TO BE USED IN CB'S THAT ARE CONNECTED TO A COMBINED SEWER DIRECTLY. FOR STORM SEWERS ODOUR / FLOATABLE CONTROL EXTENSIONS ARE NOT REQUIRED.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

N.T.S.

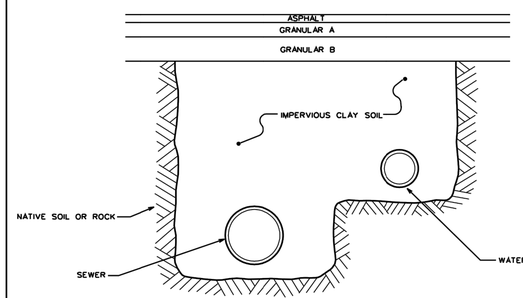
VORTEX ICD INSTALLATION	DATE: MARCH 2008
	REV. DATE: MARCH 2009
	DWG. No.: S4.1



NOTE:

1. MIN. WIDTH OF BIOSWALE IS 2.3m FROM TOP OF BANK. WIDTH VARIES FROM 2.3 TO 3.5 WHERE WIDTH ALLOWS.
2. CENTRE LINE OF BIOSWALE TO MEANDER WHERE WIDTH ALLOWS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

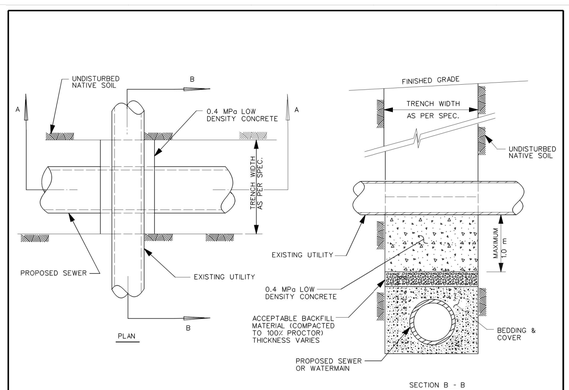
TITLE: BIO-SWALE	DATE: FEB 2013
	REV: FEB 2014
	DWG No: L20

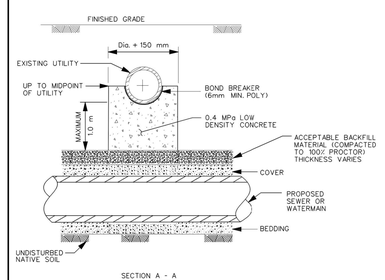


NOTES:

1. CLAY SEAL TO EXTEND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE.
2. CLAY SEAL TO EXTEND FULL TRENCH WIDTH TO EXISTING NATIVE SOILS WITH A MINIMUM THICKNESS OF 1.0m ALONG PIPES.
3. CLAY SEAL TO BE LOCATED SO THAT NO PIPE JOINTS ARE WITHIN THE CLAY SEAL MATERIAL.

CLAY SEAL FOR PIPE TRENCHES	DATE: MAY 2001
	REV. DATE: MARCH 2006
	DWG. No.: S8





SUPPORT DETAIL FOR EXISTING UTILITY CROSSING SEWER OR WATERMAIN TRENCH	DATE: MAY 2001
	REV. DATE: NONE
	DWG. No.: S10

Cominar

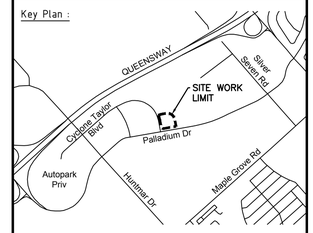
PROFESSIONAL ADVISORS

Architecture :
stgmarchitectes

Structure / Civil :
CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

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2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

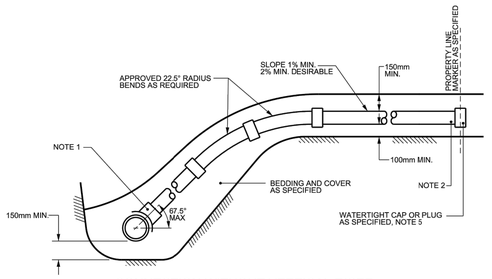
Drawing :

DETAILS PLAN

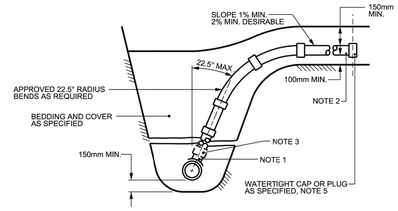
Designed By :	Drawn By :	
BENJAMIN TARDIOLI	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN
Date :	Project Number :	Sheet : / Number :
2019/03/08	A000919	C012

PLAN No. 17904

007-12-19-0045



CONNECTION WITHOUT VERTICAL RISER



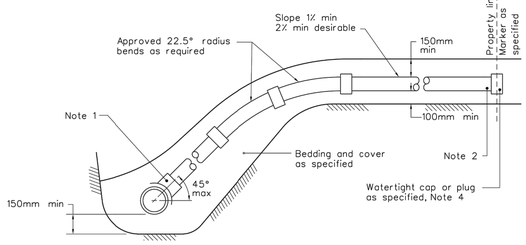
VERTICAL RISER

NOTES:

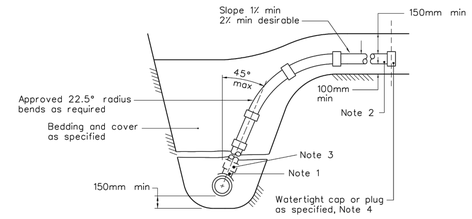
1. ALL DIAMETERES OF SERVICE CONNECTIONS THAT HAVE NOMINAL DIAMETERS NO GREATER THAN 50% OF THE NOMINAL DIAMETER OF THE RIGID SEWER PIPE SHALL BE MADE USING A BELL END INSERT AS PER S11.2 OR AN APPROVED RUBBER GASKETED INSERT, INSTALLED ABOVE THE SPRING LINE.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. VERTICAL RISER SHALL BE SAME AS SERVICE PIPE UNLESS OTHERWISE SPECIFIED.
5. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
6. FOR NEW CONSTRUCTION, INSERTS MUST BE INSTALLED ON THE MAIN PIPE BEFORE THAT PIPE IS LAID. FOR SERVICES/BRANCHES 375mm DIA. OR LESS, APPROVED "CORED TEES" MAY BE USED.
7. APPROVED CUT-IN TOOL MUST BE USED FOR FIELD MADE CONNECTIONS.
8. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

N.T.S.

Ottawa	SEWER SERVICE CONNECTIONS FOR RIGID MAIN SEWER PIPE (MODIFIED OPSD-1006.010)	DATE:	MARCH 2006
		REV. DATE:	MARCH 2014
		DWG. No.:	S11



CONNECTION WITHOUT VERTICAL RISER

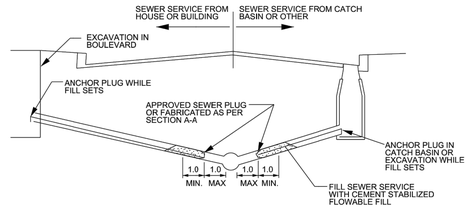


VERTICAL RISER

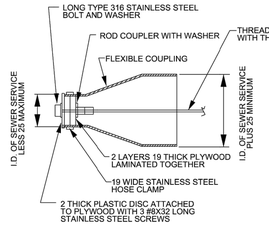
NOTES:

1. ALL DIAMETERS OF SERVICE CONNECTIONS TO FLEXIBLE MAIN SEWER SHALL BE MADE USING APPROVED TEE OR WYE FITTINGS.
2. SANITARY SERVICES TO BE 135mm AND STORM SERVICES TO BE 100mm FOR NEW RESIDENCES UNLESS SPECIFIED OTHERWISE. SERVICE PIPE AND RADIUS BENDS TO BE APPROVED CSA B182.2, SDR28 PRODUCTS UNLESS SPECIFIED OTHERWISE.
3. APPROVED CONTROLLED SETTLEMENT JOINTS OPTIONAL FOR SERVICE CONNECTIONS TO MAIN SEWERS UP TO 5m DEEP. WHERE APPROVED, CONNECTIONS TO SEWERS OVER 5m DEEP REQUIRE APPROVED CONTROLLED SETTLEMENT JOINTS.
4. CAP OR PLUG AT THE PROPERTY LINE SHALL BE ADEQUATELY BRACED TO WITHSTAND TESTING PRESSURE.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.

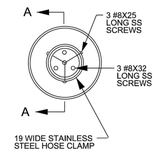
Ottawa	SEWER SERVICE CONNECTIONS FOR FLEXIBLE MAIN SEWER PIPE (MODIFIED OPSD-1006.020)	DATE:	MARCH 2006
		REV. DATE:	MARCH 2013
		DWG. No.:	S11.1



SEWER SERVICE ABANDONMENT BENEATH PAVEMENT



SECTION A - A
FABRICATED SEWER PLUG



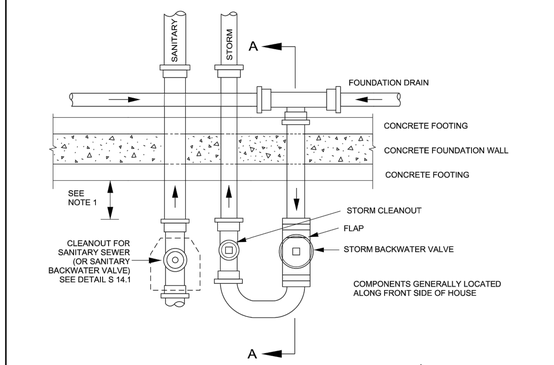
FRONT VIEW

NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE SHOWN.

N.T.S.

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



SECTION A-A

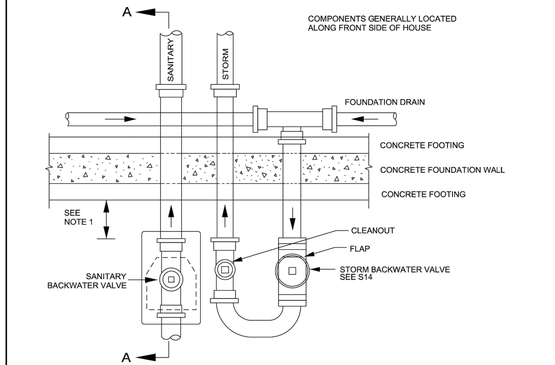
STORM BACKWATER VALVE

NOTES:

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

N.T.S.

Ottawa	FOUNDATION DRAIN BACKWATER VALVE INSTALLATION	DATE:	DEC. 2002
		REV. DATE:	MARCH 2011
		DWG. No.:	S14



SECTION A-A

SANITARY BACKWATER VALVE

NOTES:

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

N.T.S.

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

APPROVED
By Derrick Moodie at 12:59 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Cominar

PROFESSIONAL ADVISORS

Architecture :

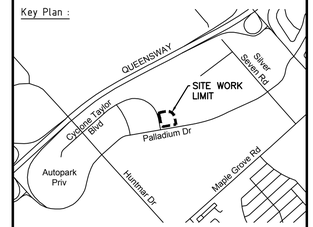
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

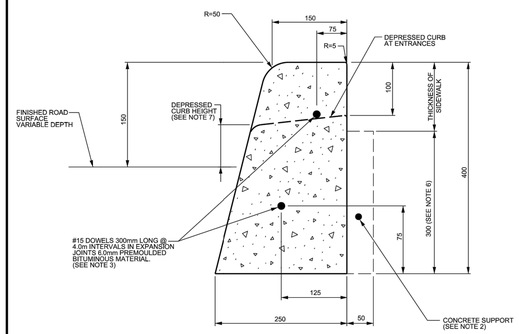
Drawing :

DETAILS PLAN

Designed By :	Drawn By :	
BENJAMIN TARDIOLI	JONATHAN HAMEL	
Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN
Date :	Project Number : / Sheet :	Number :
2019/03/08	A000919 / C013	

PLAN No. 17904

07-12-19-0045



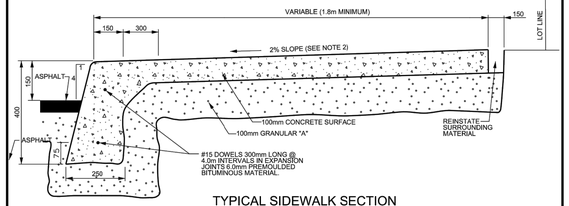
CONCRETE BARRIER CURB

NOTES:

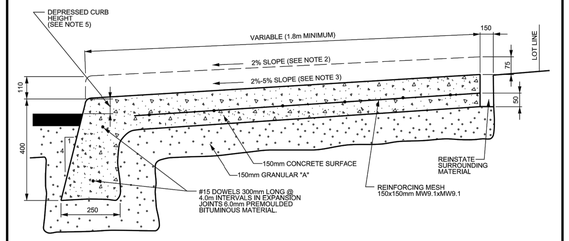
1. THE FULL CURB DEPTH SHALL BE CARRIED THROUGH THE DEPRESSED ACCESS CROSSING.
2. A CONCRETE SUPPORT IS REQUIRED WHEN BUILT ADJACENT TO THE SIDEWALK.
3. IF AN EXTRUSION CURBING MACHINE IS USED, THE EXPANSION BITUMINOUS MATERIAL AND THE #15 DOWELS ARE TO BE PLACED AT THE END OF THE EXTRUSION.
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
5. DUMMY JOINTS SHALL BE 25mm DEEP, FRONT, BACK AND TOP OF SECTION AT 2m SPACING.
6. FOR DEPRESSED CURB AT ENTRANCES USE 250.
7. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

N.T.S.

Ottawa	CONCRETE BARRIER CURB FOR GRANULAR BASE PAVEMENT (MODIFIED OPSD-600.110)	DATE:	JANUARY 2003
		REV. DATE:	MARCH 2014
		DWG. No.:	SC1.1



TYPICAL SIDEWALK SECTION



SECTION AT PRIVATE ENTRANCE AND PEDESTRIAN RAMPS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
3. FOR CURB RAMPS, SLOPE OF 2% TO 5%, MAXIMUM 8%.
4. EXPANSION AND DUMMY JOINTS AS PER SC5.
5. DEPRESSED CURB HEIGHT - FOR PEDESTRIAN CURB RAMPS 0 TO 6 mm AND FOR PRIVATE ENTRANCES 0 TO 25mm.

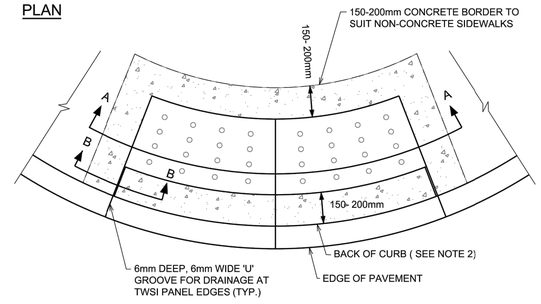
N.T.S.

Ottawa	MONOLITHIC CONCRETE CURB AND SIDEWALK	DATE:	MAY 2001
		REV. DATE:	MARCH 2016
		DWG. No.:	SC2

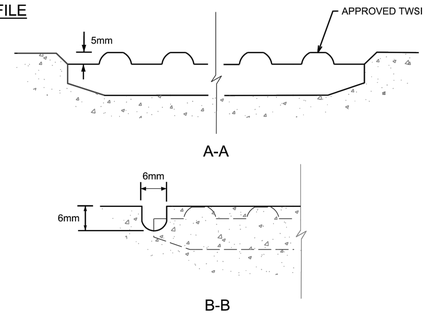
APPROVED
By Derrick Moodie at 12:59 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

PLAN



PROFILE

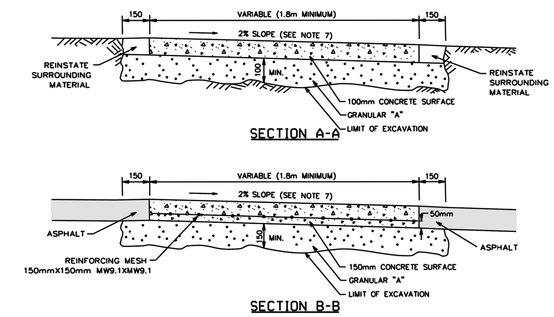


NOTES:

1. TOPS OF TWSI'S (TACTILE WALKING SURFACE INDICATOR) SHALL BE ALIGNED & LEVEL WITH THE ADJACENT CONCRETE SURFACE & INSTALLATION IN WET CONCRETE SHALL BE EFFECTIVE IN PERMANENTLY SECURING THE TWSI IN PLACE ONCE DRY.
2. FOR MONOLITHIC SIDEWALKS, TWSI SHALL BE 300 TO 350mm BACK FROM THE CURB FACE.

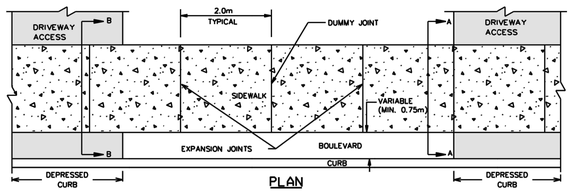
N.T.S.

Ottawa	TWSI DETAIL	DATE:	MARCH 2015
		REV. DATE:	MARCH 2016
		DWG. No.:	SC7.3



SECTION A-A

SECTION B-B

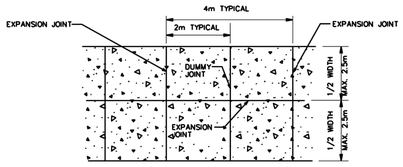


PLAN

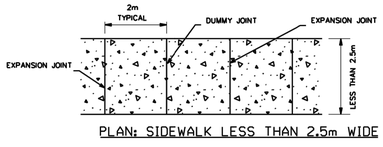
NOTES:

1. CONCRETE AND GRANULAR "A" IS TO BE INCREASED TO 150mm AT THE ENTRANCE AND 150x150mm MW9.1 x MW9.1 REINFORCING MESH IS TO BE PLACED MID DEPTH WITHIN DRIVEWAY ACCESS.
2. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC.
3. WHEN THE OVERALL SIDEWALK WIDTH EXCEEDS 2.5m, A LONGITUDINAL CONSTRUCTION JOINT SHALL BE CREATED AT ITS MIDPOINT.
4. EDGES AND JOINTS ARE TO BE FINISHED WITH A 75mm EDGING TOOL.
5. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
7. THE MAXIMUM SLOPE IS NOT TO EXCEED 2%.
8. INSTALL DUMMY TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS.
9. SIDEWALK NOT TO BE DEPRESSED ACROSS DRIVEWAY ACCESSES.
10. EXPANSION AND DUMMY JOINTS AS PER SC5

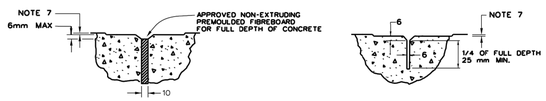
Ottawa	TYPICAL CONCRETE SIDEWALK IN BOULEVARD	DATE:	MAY 2001
		REV. DATE:	MARCH 2016
		DWG. No.:	SC4



PLAN: SIDEWALK 2.5m WIDE AND OVER



PLAN: SIDEWALK LESS THAN 2.5m WIDE



EXPANSION JOINT PROFILE

DUMMY JOINT PROFILE

NOTES:

1. EXPANSION JOINTS IN SIDEWALK SHALL BE IN LINE WITH EXPANSION JOINTS IN CURB.
2. TRANSVERSE EXPANSION JOINTS ARE REQUIRED AT THE ENDS, THE MIDPOINT, AT INTERVALS OF 4m MAXIMUM, AND ALSO TO ISOLATE OBSTRUCTIONS FROM SIDEWALK, HYDRANTS, POLES, BUILDINGS, ETC.
3. EDGES AND JOINTS ARE TO BE FINISHED WITH A 75mm EDGING TOOL.
4. ALL CONCRETE SIDEWALKS ARE TO HAVE A BROOM FINISH UNLESS OTHERWISE SPECIFIED.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
6. INSTALL DUMMY TRANSVERSE JOINTS AS REQUIRED SO THERE IS A MAXIMUM SPACING OF 2m BETWEEN ALL JOINTS.
7. SMOOTH ALL TOOLED EDGES TO A MAXIMUM DEPTH OF 1mm.

Ottawa	SIDEWALK CONSTRUCTION JOINTS	DATE:	MAY 2001
		REV. DATE:	MARCH 2016
		DWG. No.:	SC5

Cominar

PROFESSIONAL ADVISORS

Architecture :

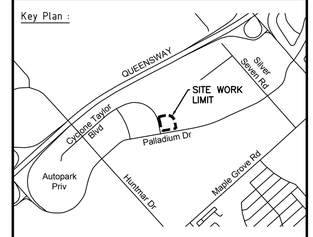
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

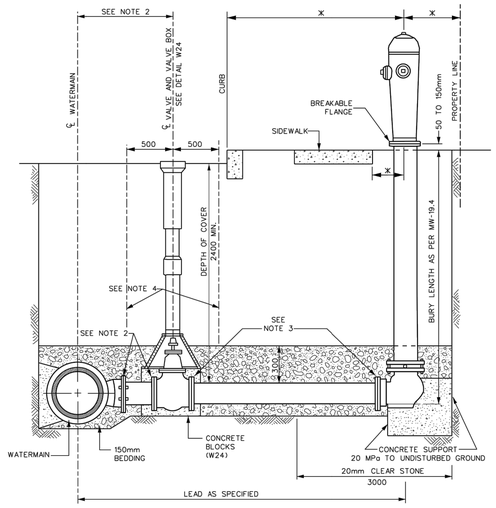
Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C014	

PLAN No. 17904

007-12-19-0045



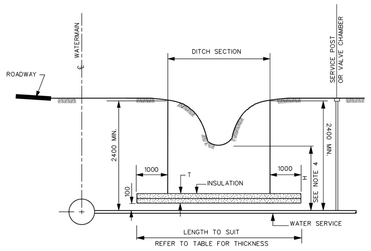
NOTES

FOR ALL WATERMAINS

1. SEE DETAIL W20 FOR HYDRANTS IN DITCH AREAS.
2. FOR WATERMAINS 400mm AND UNDER, LOCATE VALVE WITHIN 1.0m OF CENTRELINE. RETAINING/RESTRAINING DEVICES TO BE UTILIZED. FOR WATERMAINS 600mm AND OVER, BOLT VALVE WITH FLANGED END DIRECTLY TO FLANGED TEE.
3. RETAINING/RESTRAINING DEVICES TO BE UTILIZED.
4. HYDRANT BREAKABLE FLANGE ELEVATION TO BE ESTABLISHED PRIOR TO INSTALLATION. REFER TO MW-19.4 AND F-4414.
5. SEE SPF-2120 FOR BACKFILL REQUIREMENTS IN THIS AREA.
6. • SEE F-4414 FOR HYDRANT LOCATION REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | HYDRANT INSTALLATION

DATE:	MAY 2001
REV. DATE:	MARCH 2013
DWG. No.:	W19



INSULATION REFERENCE TABLE	
EFFECTIVE EARTH COVER (H)	REQUIRED THICKNESS (T)
2400 - 1800 mm	50 mm
1800 - 1500 mm	75 mm
1500 - 1200 mm	100 mm

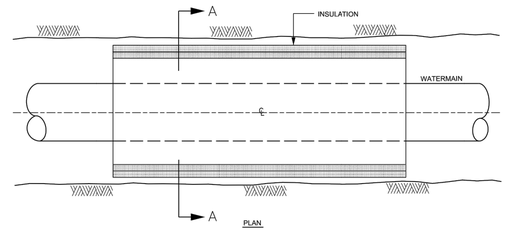
NOTES

FOR MAINS & SERVICES IN DITCHED AREAS WHERE DEPTH OF COVER OR SEPARATION IS LESS THAN 2400mm.

1. FOR INSULATION NEAR MAINTENANCE HOLES AND CULVERTS SEE DETAIL W23.
2. THE INSULATION SHALL BE MINIMUM 1200mm WIDE AND SHALL BE CENTERED OVER THE PIPE.
3. INSULATION SHALL EXTEND 1000mm BEYOND THE DEFINED DITCH SECTION.
4. DIMENSION "H" TO BE 1200mm MINIMUM.
5. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | THERMAL INSULATION IN DITCHED AREAS

DATE:	MAY 2001
REV. DATE:	NONE
DWG. No.:	W21



SECTION A - A

NOTES

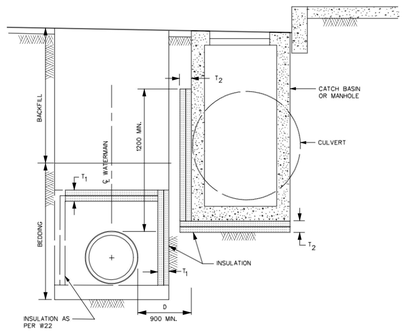
FOR 150 - 400mm (NOMINAL DIAMETER) WATERMAINS, WHERE THE DEPTH OF COVER IS LESS THAN 2400mm

1. INCREMENTS OF THICKNESS SHALL BE ADJUSTABLE TO 25mm.
2. IN PROXIMITY OF MAINTENANCE HOLES, CULVERTS, CATCHBASINS, ETC., INSULATION SHALL BE PLACED PER DETAIL W23
3. DEPTH OF COVER LESS THAN 1200mm REQUIRES SPECIAL DESIGN
4. STAGGER JOINTS OF MULTIPLE SHEETS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa | THERMAL INSULATION FOR WATERMAINS IN SHALLOW TRENCHES

DATE:	MAY 2001
REV. DATE:	MARCH 2013
DWG. No.:	W22

INSULATION REFERENCE TABLE	
D DISTANCE FROM C.B. OR M.H. WALL	REQUIRED INSULATION THICKNESS $T=T_1+T_2$
2400 - 1800 mm.	50 mm
1800 - 1500 mm.	75 mm
1500 - 1200 mm.	100 mm
1200 - 900 mm.	125 mm



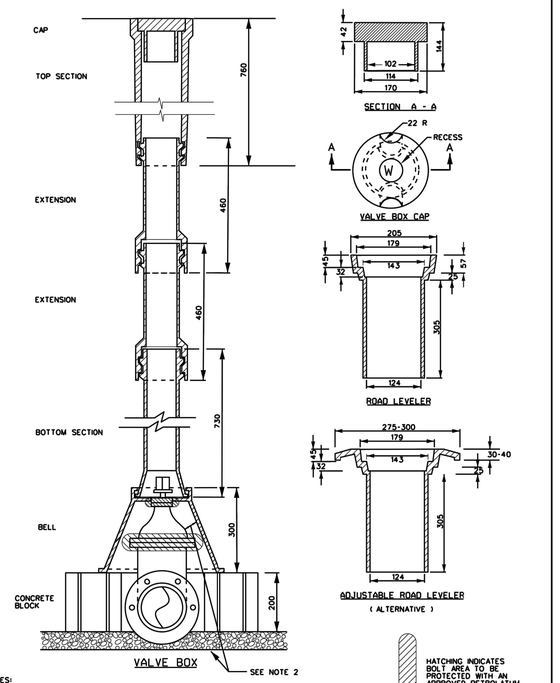
NOTES

FOR WATERMAINS & SERVICES IN PROXIMITY TO CATCHBASINS MAINTENANCE HOLES, CULVERTS ETC.

1. INSULATION SHALL EXTEND 1000 mm EACH WAY FROM THE ENDS OF THE STRUCTURE, PARALLELED TO THE WATERMAIN.
2. STAGGER JOINTS OF MULTIPLE SHEETS.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
4. INSULATION CAN BE AT EITHER LOCATION OR BOTH.

Ottawa | THERMAL INSULATION OF WATER-MAINS AT OPEN STRUCTURES

DATE:	MAY 2001
REV. DATE:	FEB 2004
DWG. No.:	W23



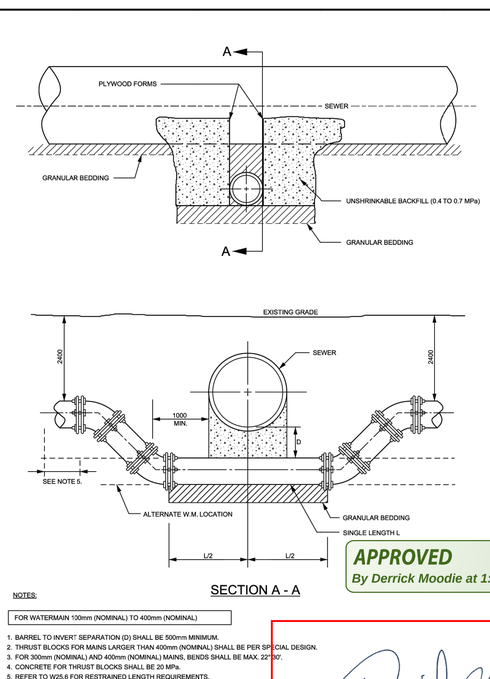
NOTES:

FOR AUXILIARY, SERVICES AND ISOLATION VALVES.

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
2. FOR 200 AND 250mm VALVES, ADD BEDDING BELOW THE CONCRETE BLOCKS AS REQUIRED TO RAISE BELL HIGH ENOUGH TO PREVENT CONTACT WITH THE VALVE BONNET.

Ottawa | VALVE BOX ASSEMBLY

DATE:	MAY 2001
REV. DATE:	MARCH 2016
DWG. No.:	W24



SECTION A - A

NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO INVERT SEPARATION (D) SHALL BE 500mm MINIMUM.
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22°30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
6. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.

APPROVED
By Derrick Moodie at 1:00 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

Ottawa | WATERMAIN CROSSING BELOW SEWER

DATE:	MAY 2001
REV. DATE:	MARCH 2013
DWG. No.:	W25

Cominar

PROFESSIONAL ADVISORS

Architecture :

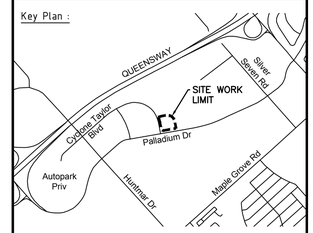
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C015	

PLAN No. 17904

007-12-19-0045

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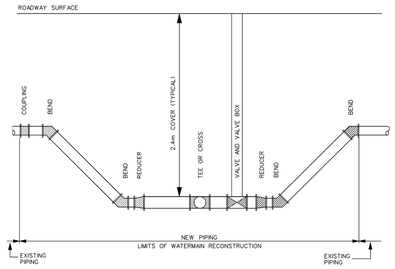
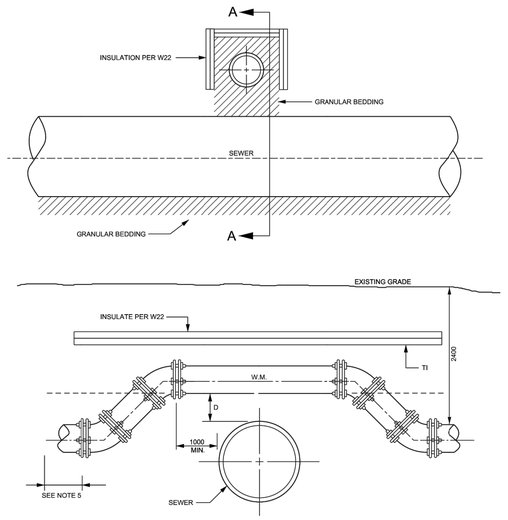


NOTES:

1. FOR 300mm OR GREATER DIAMETER WATERMAIN, BENDS SHALL BE MAXIMUM 22½°
2. INSULATION PER W22 AT EXISTING WATERMAIN.
3. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
4. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
5. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	TYPICAL CONNECTION DETAIL FROM NEW TO EXISTING WATERMAIN	DATE: MAY 2001 REV. DATE: NONE DWG. No.: W25.1



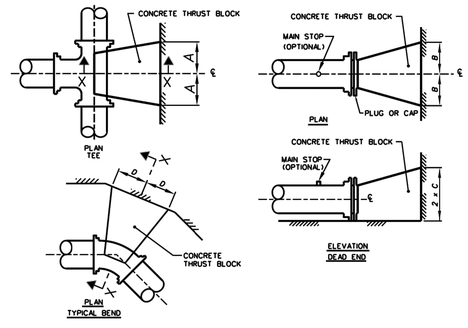
SECTION A - A

NOTES:

FOR WATERMAIN 100mm (NOMINAL) TO 400mm (NOMINAL)

1. BARREL TO BARREL SEPARATION (D) SHALL BE 250mm MINIMUM.
2. THRUST BLOCKS FOR MAINS LARGER THAN 400mm (NOMINAL) SHALL BE PER SPECIAL DESIGN.
3. FOR 300mm (NOMINAL) AND 400mm (NOMINAL) MAINS, BENDS SHALL BE MAX. 22° 30'.
4. CONCRETE FOR THRUST BLOCKS SHALL BE 20 MPa.
5. REFER TO W25.6 FOR RESTRAINED LENGTH REQUIREMENTS.
6. REFER TO W25.3 AND W25.4 FOR THRUST BLOCK REQUIREMENTS.
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.
8. DESIGNED TO MEET THE INTENT OF THE MOE WATERMAIN DESIGN CRITERIA JUNE 2012.

Ottawa	WATERMAIN CROSSING OVER SEWER	DATE: MAY 2001 REV. DATE: MARCH 2013 DWG. No.: W25.2



NOTES:

1. CONCRETE SHALL BE PLACED TO WITHIN 50mm OF FACE OF THE BELL.
2. BOND BREAKER TO BE USED BETWEEN CONCRETE AND FITTINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
4. REFER TO W25.4 FOR ADDITIONAL REQUIREMENTS.
5. THRUST BLOCKS SHALL BE 20 MPa CONCRETE AND AS SHOWN ON ABOVE DRAWINGS UNLESS OTHERWISE DIRECTED BY THE CONTRACT ADMINISTRATOR, THE BLOCK SHALL BE CENTERED ON THE THRUST FORCE AND SHALL ALSO PARTIALLY CRADLE THE FITTING TO DISTRIBUTE THE FORCE. THE SIDES OF THE BLOCK SHALL BE 80mm FROM THE JOINT ON EITHER SIDE OF THE BEND OR TEE.
6. THE CONCRETE WHERE POSSIBLE SHALL BE PLACED AGAINST UNDISTURBED SOIL AT THE BOTTOM AND SIDE OF THE TRENCH. WHERE IT IS NOT POSSIBLE, THE FILL BETWEEN THE BEARING SURFACE AND THE UNDISTURBED SOIL MUST BE COMPACTED IN ACCORDANCE WITH D-029.
7. EXCEPT FOR THE ADDITION OF WATER, CONCRETE FOR THRUST BLOCKS SHALL COME PREMIXED FROM CONCRETE SUPPLIER, AS 'READY MIX' FROM A CONCRETE TRUCK. ON-SITE MIXING OF CEMENT, SAND AND AGGREGATE ETC. BY THE CONTRACTOR, FOR THE PURPOSE OF MAKING CONCRETE THRUST BLOCKS/ ANCHORS WILL NOT BE ACCEPTED.

Ottawa	CONCRETE THRUST BLOCKS FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2016 DWG. No.: W25.3

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

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

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

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

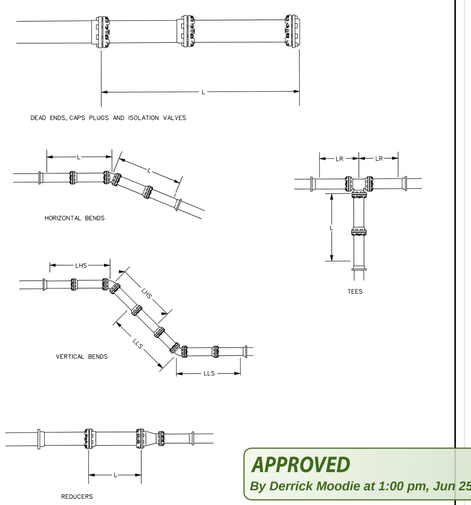
3. SOIL DESCRIPTION: SANDS, GRAVELS AND GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.
SOILS WITH TYPICAL BEARING STRENGTH OF 300 KPa AND OVER

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

NOTES:

1. THE ABOVE THRUST BLOCK DIMENSIONS MEET OR EXCEED THE WATERMAIN DESIGN CRITERIA FOR FUTURE ALTERATIONS AUTHORIZED UNDER A DRINKING WATER WORKS PERMIT.
2. THE ASSUMPTIONS MADE 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. THE TABLES APPLY TO BOTH DUCTILE IRON AND PVC. WHERE ONE LENGTH EXCEEDED THE OTHER THE LONGER LENGTH WAS USED.
4. DIMENSIONS MAY BE ADJUSTED SO LONG AS THE BEARING SURFACE AREA OF THE THRUST BLOCK IS NOT REDUCED.
4. TO BE USED IN CONJUNCTION WITH W28.3.

Ottawa	THRUST BLOCK DIMENSION TABLES FOR PVC AND DI PIPE 400mm AND UNDER	DATE: MAY 2001 REV. DATE: MARCH 2011 DWG. No.: W25.4



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

APPROVED
By Derrick Moodie at 1:00 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

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

Cominar

PROFESSIONAL ADVISORS

Architecture :

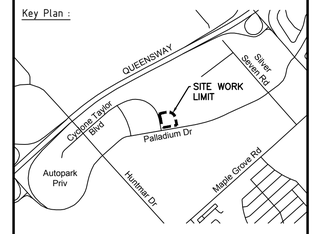
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

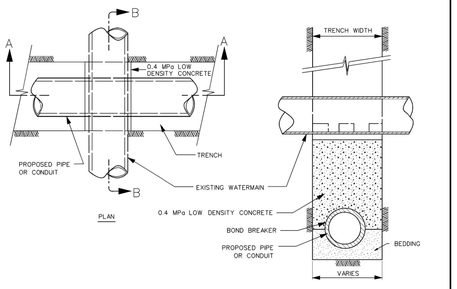
Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C016	

PLAN No. 17904

07-121-P-0045

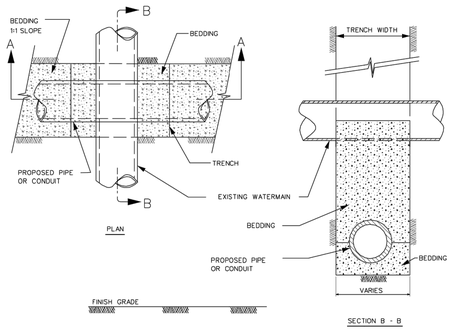


NOTES:

FOR CROSSING WITH A CLEARANCE LESS THAN 1m

1. CONCRETE ENCASED STEEL MAINS SHALL BE SUPPORTED WITH CONCRETE TO UNDERSIDE OF MAIN.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

Ottawa	SUPPORT DETAIL FOR CROSSING BELOW AN EXISTING WATERMAIN	DATE: MAY 2001 REV. DATE: NONE DWG. No.: W29

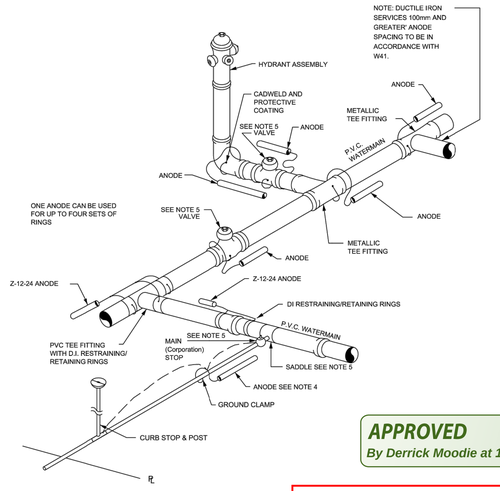


NOTES:

FOR CROSSING A CLEARANCE OF 1m OR MORE.

1. IF ACCESSIBILITY PREVENTS SPECIFIED COMPACTION FROM BEING REACHED, SUBSTITUTE 0.4 MPa LOW DENSITY CONCRETE FOR GRANULAR BEDDING IN THE AFFECTED AREA.

Ottawa	SUPPORT DETAIL FOR CROSSING BELOW AN EXISTING WATERMAIN	DATE: MAY 2001 REV. DATE: MARCH 2005 DWG. No.: W29.1



APPROVED
By Derrick Moodie at 1:00 pm, Jun 25, 2019

NOTES:

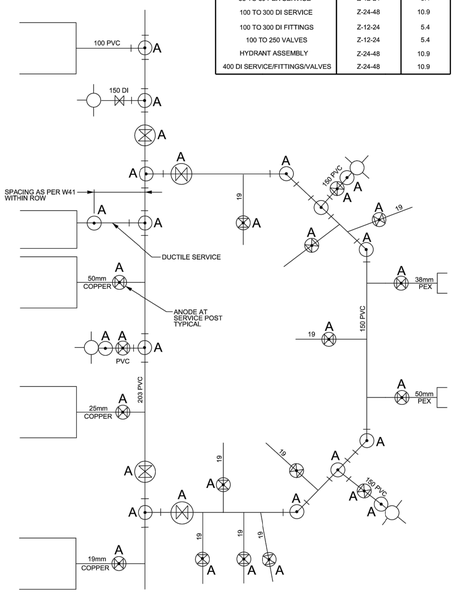
1. ANODE CONNECTING WIRE TO BE LOOPED AROUND PIPES / FITTINGS AND KNOTTED.
2. PROTECTIVE COATING TO BE APPLIED TO ALL CADWELDS.
3. ANODE TYPE & SPACING AS PER W42.
4. CONNECT ANODE TO COPPER SERVICES USING A GROUND CLAMP AND FOR PEX SERVICES CONNECT ANODE TO TRACER WIRE TERMINALS ON BOTH MAIN AND CURB 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.

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

N.T.S.

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

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



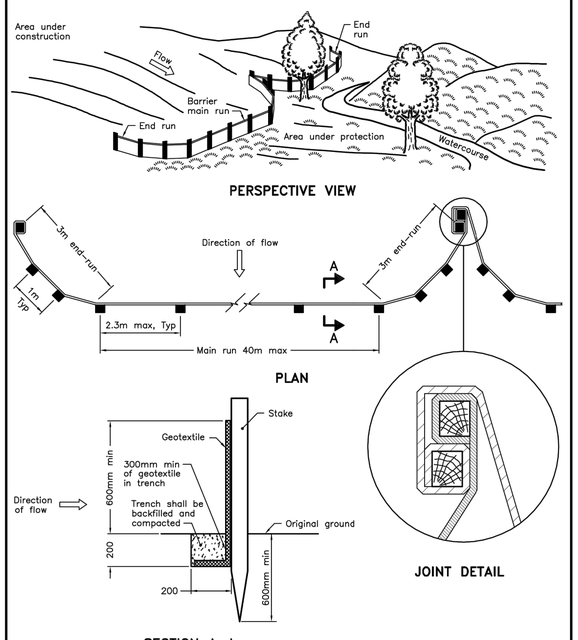
A - DENOTES ANODE LOCATION

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

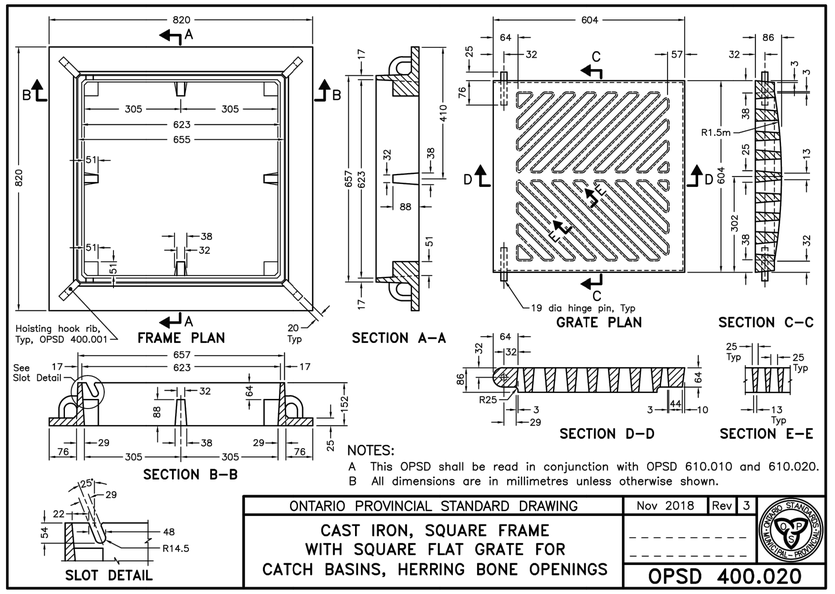
N.T.S.

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



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			



NOTES:
A This OPSD shall be read in conjunction with OPSD 610.010 and 610.020.
B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev	3
CAST IRON, SQUARE FRAME WITH SQUARE FLAT GRATE FOR CATCH BASINS, HERRING BONE OPENINGS			
OPSD 400.020			

Cominar

PROFESSIONAL ADVISORS

Architecture :

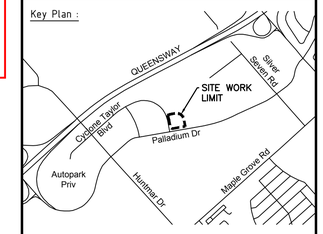
stgmarchitectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND - RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

DETAILS PLAN

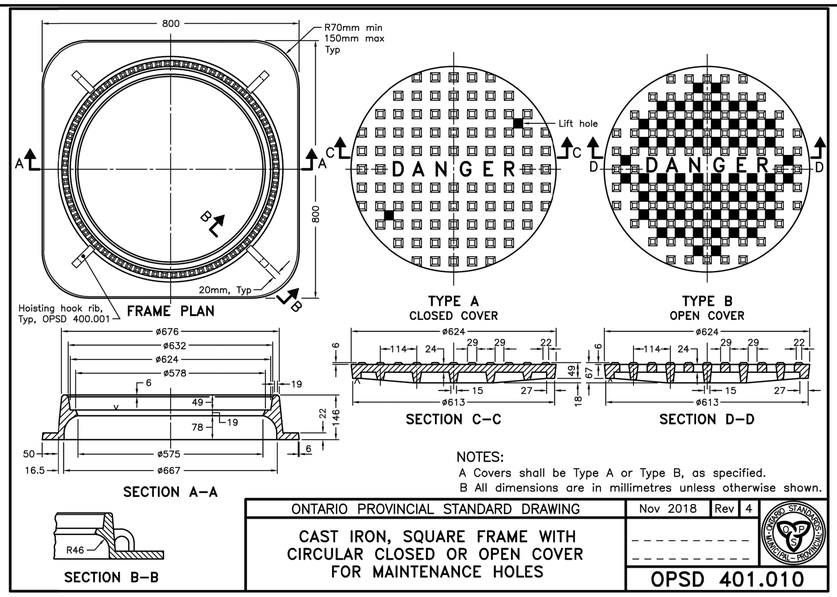
Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C017	

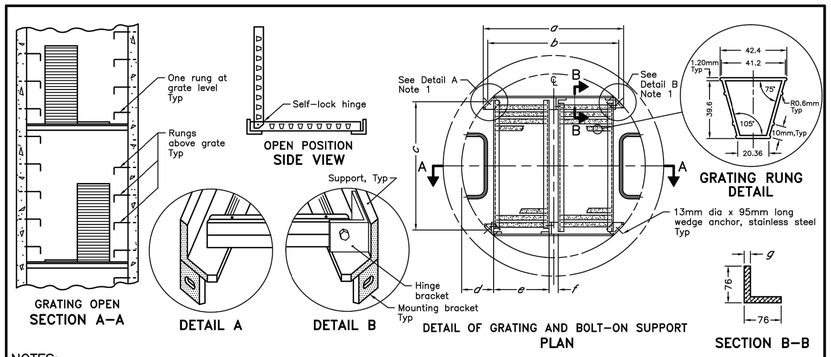
PLAN No. 17904

007-42-19-0045



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

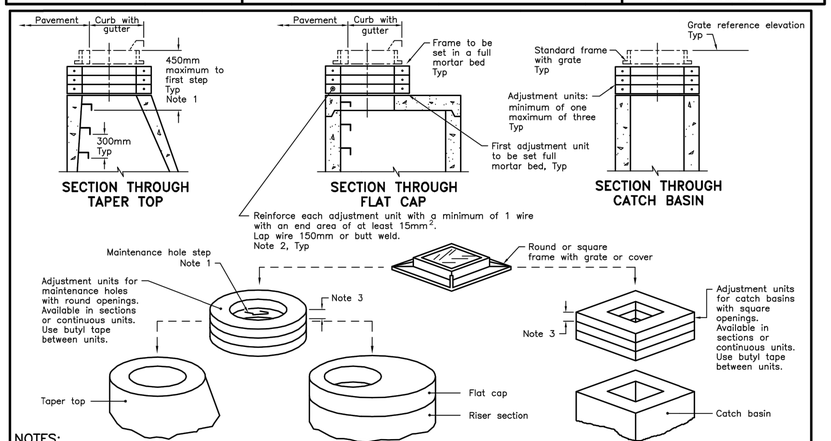
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4
CAST IRON, SQUARE FRAME WITH CIRCULAR CLOSED OR OPEN COVER FOR MAINTENANCE HOLES		
	OPSD 401.010	



NOTES:
1 All hinge brackets and mounting brackets shall be welded all around to support angle.
A All aluminum in contact with concrete shall be thoroughly coated with asphalt paint.
B Maintenance hole depth between 5.0m and 10.0m, grate shall be placed at midpoint. Maintenance hole depth between 10.0m and 15.0m, grates shall be placed at third–points.
C All fasteners shall be 304 stainless steel.
D All welding shall be according to CSA W47.2 and W59.2.
E All aluminum components shall be 6000 series structural aluminum.
F All dimensions are in millimetres unless otherwise shown.

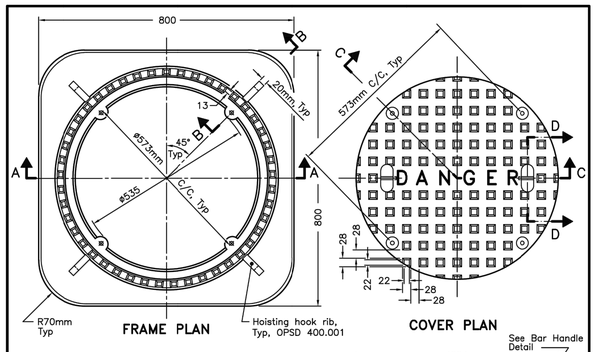
MH Diameter	No of Grates	a	b	c	d	e	f	g
1200	2	900	850	850	225	352	65	10
1500	2	1128	1078	1078	311	419	65	12
1800	3	1344	1293	1293	308	360	65	12
2400	4	1774	1724	1724	401	360	65	12

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4
ALUMINUM SAFETY PLATFORM FOR CIRCULAR MAINTENANCE HOLES		
	OPSD 404.020	



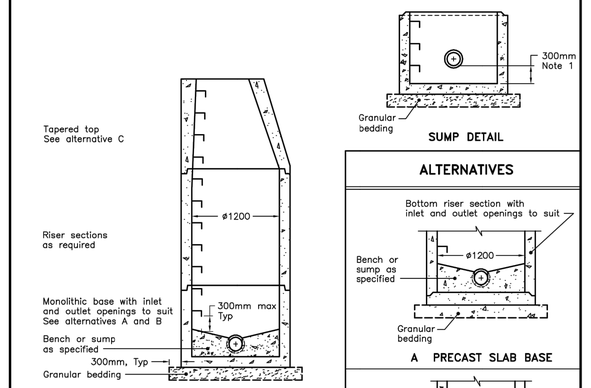
NOTES:
1 If first step is in an adjustment unit, the adjustment unit shall be of the type manufactured with a step in place.
2 Centre reinforcing in adjustment unit ±10mm.
3 Round and square adjustment units are available in sizes of 50, 75, 100, 150, and 300mm.
A Adjustment units shall not extend beyond 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	



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

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4
CAST IRON, SQUARE FRAME WITH CIRCULAR WATERTIGHT COVER FOR MAINTENANCE HOLES		
	OPSD 401.030	

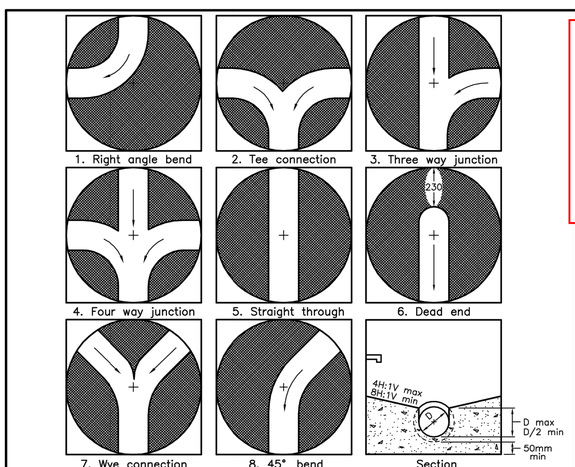


NOTES:
1 The sump is measured from the lowest invert.
A Granular backfill shall be placed to a minimum thickness of 300mm all around the maintenance hole.
B Precast concrete components shall be according to OPSD 701.030, 701.031, or 701.032.
C Structure exceeding 5.0m in depth shall include safety platform 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.

ALTERNATIVES

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

APPROVED
By Derrick Moodie at 1:00 pm, Jun 25, 2019



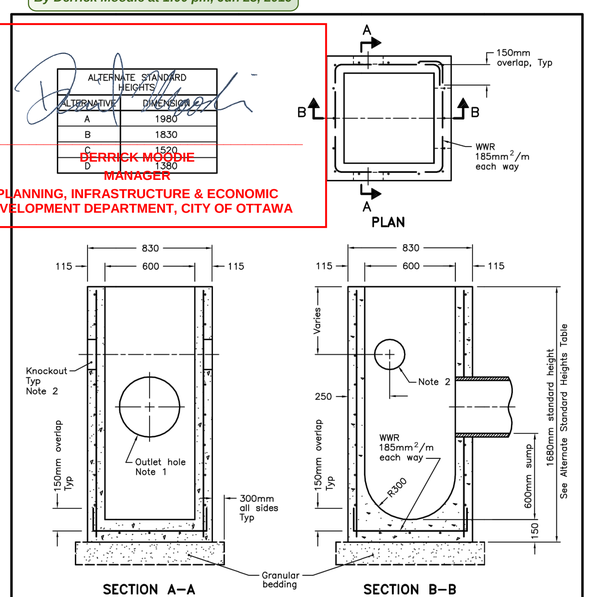
MAXIMUM SIZE HOLE IN THE WALL IN PRECAST RISER SECTIONS					
Maintenance Hole Diameter	No. 1–4	No. 5 and 6	No. 8	No.7	
				Inlet Hole	Outlet Hole
1200	700	860	780	700	860
1500	860	1220	960	860	1170
1800	1220	1485	1220	1220	1485
2400	1485	2020	1760	1485	2020
3000	1930	2450	2300	1930	2450
3600	2470	3085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

ALTERNATE STANDARD HEIGHTS	
ALTERNATIVE	DIMENSION D
A	1980
B	1830
C	1520
D	1380

~~DERRICK MOODIE~~
~~MANAGER~~
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA



NOTES:
1 Outlet hole size 525mm diameter maximum, location as required.
2 200mm diameter knockout to accommodate subdrain. Knockout shall be 60mm deep.
A Centre reinforcing in base slab and walls ±20mm.
B Granular backfill shall be placed to a minimum thickness of 300mm all around the catch basin.
C Frame, grate, and adjustment units shall be installed according to OPSD 704.010.
D Pipe support shall be according to OPSD 708.020.
E All dimensions are nominal.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2014	Rev 3
PRECAST CONCRETE CATCH BASIN 600x600mm		
	OPSD 705.010	

Cominar

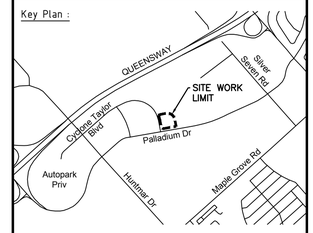
PROFESSIONAL ADVISORS

Architecture :
stgmarchitectes

Structure / Civil :
CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

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Stamps :

Project :
OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :
DETAILS PLAN

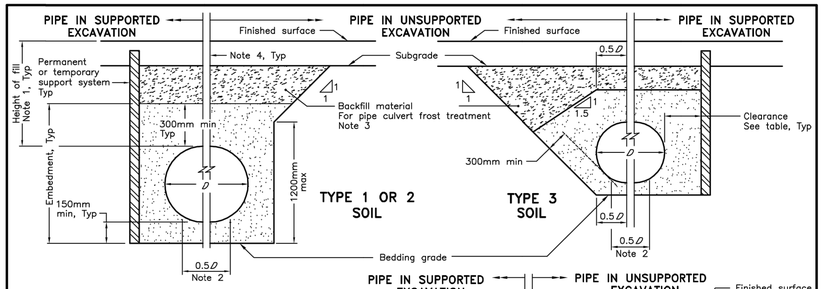
Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C018	

PLAN No. 17904

007-12-19-0045



LEGEND:
D – Inside diameter

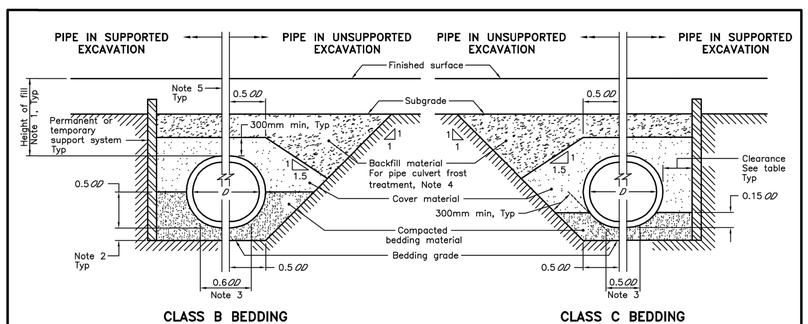
NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
3 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
4 Condition of excavation is symmetrical about centreline of pipe.
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	

APPROVED
By Derrick Moodie at 1:00 pm, Jun 25, 2019

DERRICK MOODIE
MANAGER
PLANNING, INFRASTRUCTURE & ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

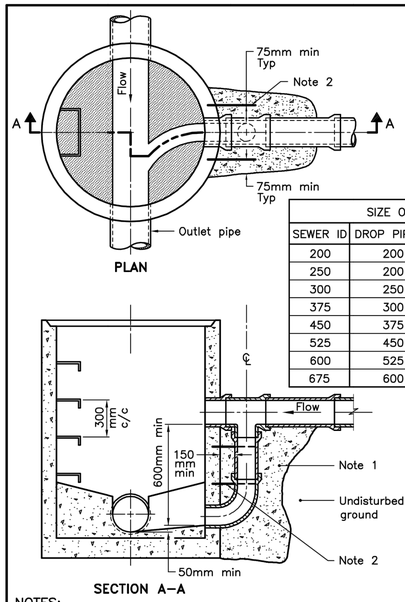


LEGEND:
D – Inside diameter
OD – Outside diameter

NOTES:
1 Height of fill is measured from the finished surface to top of pipe.
2 The minimum bedding depth below the pipe shall be 0.15*D*. In no case shall this dimension be less than 150mm or greater than 300mm.
3 The pipe bed shall be compacted and shaped to receive the bottom of the pipe.
4 Pipe culvert frost treatment shall be according to OPSD 803.030 and 803.031.
5 Condition of excavation is symmetrical about centreline of pipe.
A Soil types as defined in the Occupational Health and Safety Act and Regulations for Construction Projects.
B All dimensions are in metres unless otherwise shown.

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

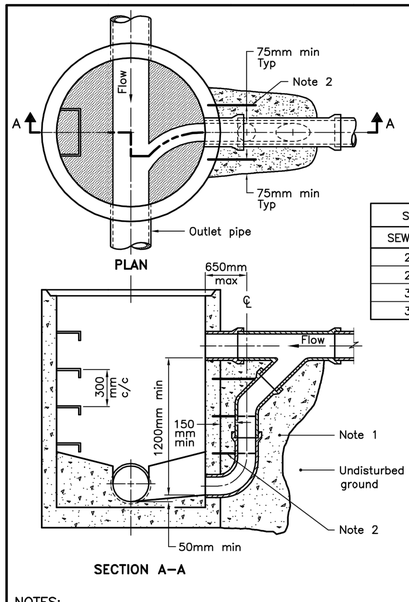
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 3
RIGID PIPE BEDDING, COVER, AND BACKFILL TYPE 3 SOIL – EARTH EXCAVATION		
	OPSD 802.031	



SIZE OF DROP PIPE		
SEWER ID	DROP PIPE ID	APPLICATION
200	200	Storm and Sanitary
250	200	Storm and Sanitary
300	250	Storm and Sanitary
375	300	Storm and Sanitary
450	375	Storm
525	450	Storm
600	525	Storm
675	600	Storm

NOTES:
1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.
A All dimensions are in millimetres unless otherwise shown.

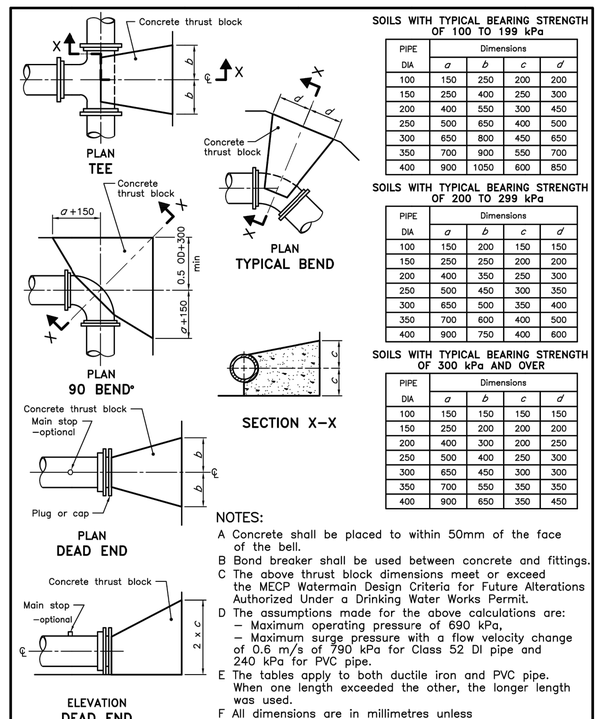
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3
CAST–IN–PLACE MAINTENANCE HOLE DROP STRUCTURE TEE		
	OPSD 1003.010	



SIZE OF DROP PIPE	
SEWER ID	DROP PIPE ID
200	200
250	200
300	250
375	300

NOTES:
1 Concrete shall be placed to undisturbed ground and the outside face of the maintenance hole, but there shall be a minimum of 150mm of 15MPa concrete around the drop pipe.
2 Concrete shall be secured to the maintenance hole with 450mm long, 13mm diameter threaded rods and drilled expansion anchors down either side of the drop pipe at 300mm centres.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2016	Rev 3
CAST–IN–PLACE MAINTENANCE HOLE DROP STRUCTURE WYE		
	OPSD 1003.020	



SOILS WITH TYPICAL BEARING STRENGTH OF 100 TO 199 kPa

PIPE DIA	Dimensions a	b	c	d
100	150	250	200	200
150	250	400	250	300
200	400	550	300	450
250	500	650	400	500
300	650	800	450	650
350	700	900	550	700
400	900	1050	600	850

SOILS WITH TYPICAL BEARING STRENGTH OF 200 TO 299 kPa

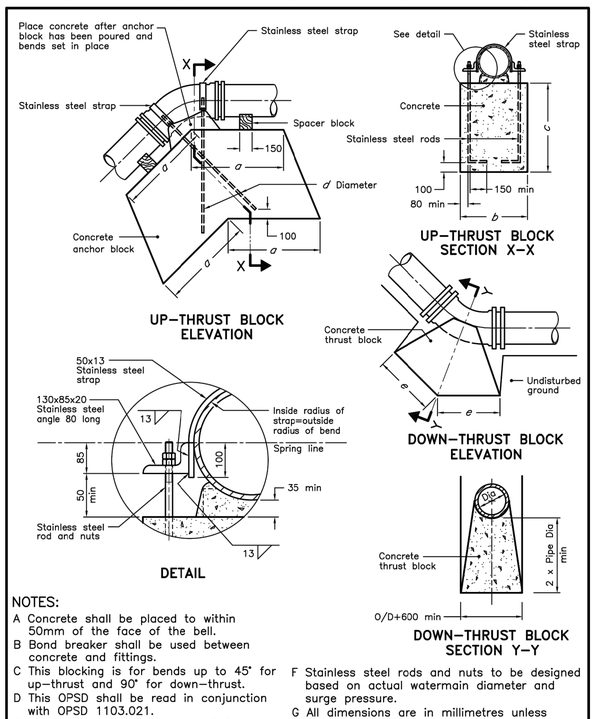
PIPE DIA	Dimensions a	b	c	d
100	150	250	150	150
150	250	250	200	200
200	400	350	250	300
250	500	450	300	350
300	650	500	350	400
350	700	600	400	500
400	900	750	400	600

SOILS WITH TYPICAL BEARING STRENGTH OF 300 kPa AND OVER

PIPE DIA	Dimensions a	b	c	d
100	150	150	150	150
150	250	200	200	200
200	400	300	200	250
250	500	400	250	300
300	650	450	300	300
350	700	550	350	350
400	900	650	350	450

NOTES:
A Concrete shall be placed to within 50mm of the face of the bell.
B Bond breaker shall be used between concrete and fittings.
C The above thrust block dimensions meet or exceed the MECP Watermain Design Criteria for Future Alterations Authorized Under a Drinking Water Works Permit.
D The assumptions made for the above calculations are:
– Maximum operating pressure of 690 kPa,
– Maximum surge pressure with a flow velocity change of 0.6 m/s of 790 kPa for Class 52 DI pipe and 240 kPa for PVC pipe.
E The tables apply to both ductile iron and PVC pipe. When one length exceeded the other, the longer length was used.
F All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 3
CONCRETE THRUST BLOCKS FOR TEES, PLUGS, AND HORIZONTAL BENDS		
	OPSD 1103.010	



NOTES:
A Concrete shall be placed to within 50mm of the face of the bell.
B Bond breaker shall be used between concrete and fittings.
C This blocking is for bends up to 45° for up–thrust and 90° for down–thrust.
D This OPSD shall be read in conjunction with OPSD 1103.021.
E All stainless steel to be type 316.
F Stainless steel rods and nuts to be designed based on actual watermain diameter and surge pressure.
G All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 4
CONCRETE THRUST BLOCKS FOR VERTICAL BENDS		
	OPSD 1103.020	

Cominar

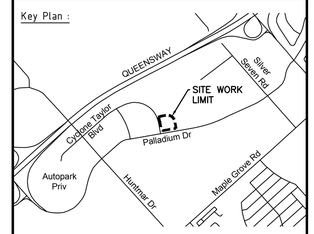
PROFESSIONAL ADVISORS

Architecture :
stgm architectes

Structure / Civil :
CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND – RESPONSES	B.T.
5	2019/05/28	FOR TENDER REVISION 1	B.T.
4	2019/05/28	SITE PLAN CONTROL 1st ROUND – RESPONSES	B.T.
3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :
OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :
DETAILS PLAN

Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

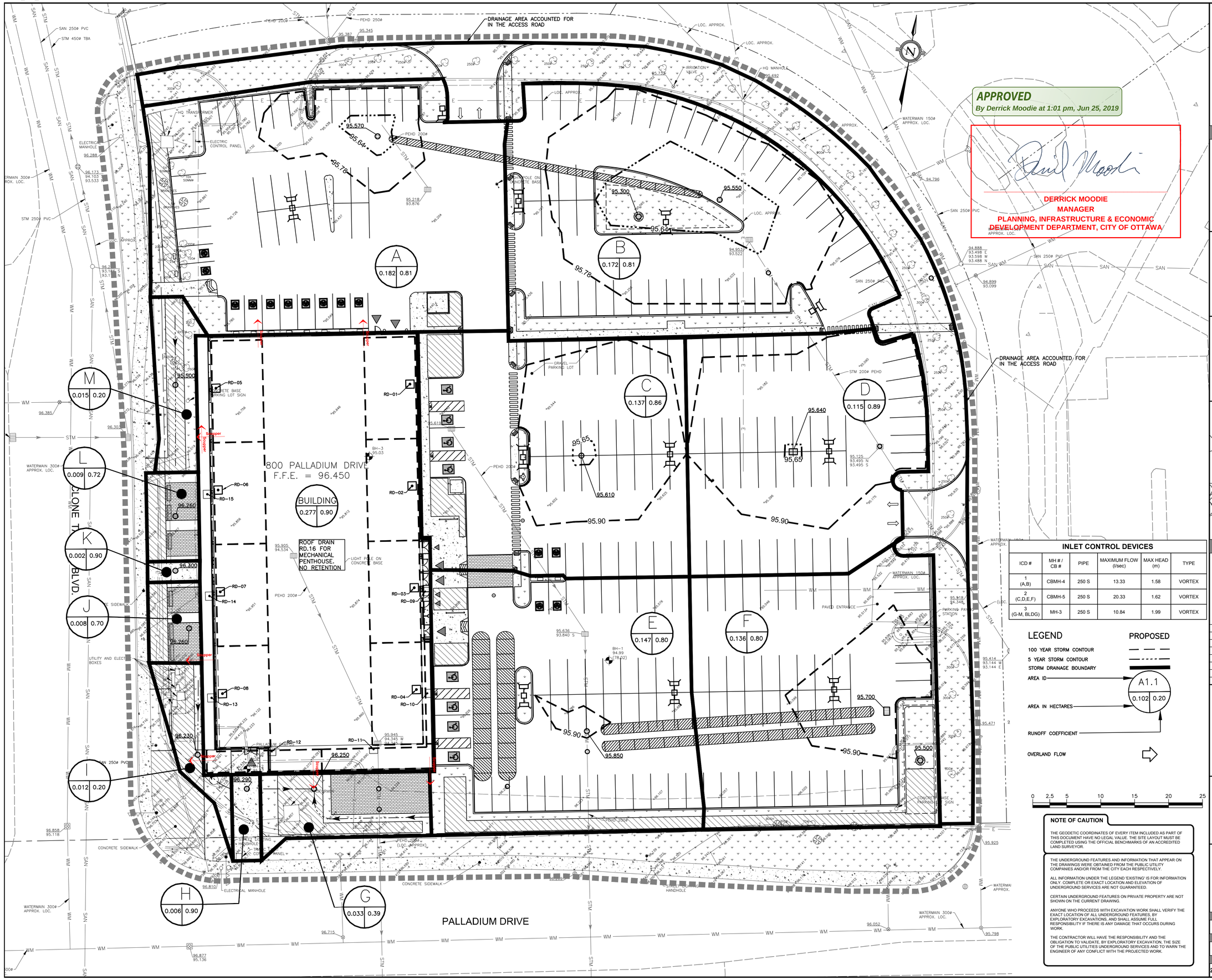
Approved By :	File name .DWG	Scale :
C.L.-L.	C010 - DETAILS PLAN.DWG	AS SHOWN

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	C019	

PLAN No. 17904

007-12-19-0045

STGM_CART_A1RFA (841 x 594)



INLET CONTROL DEVICES

ICD #	MH # / CB #	PIPE	MAXIMUM FLOW (l/sec)	MAX HEAD (m)	TYPE
1 (A,B)	CBMH-4	250 S	13.33	1.58	VORTEX
2 (C,D,E,F)	CBMH-5	250 S	20.33	1.62	VORTEX
3 (G-M, BLDG)	MH-3	250 S	10.84	1.99	VORTEX

LEGEND

PROPOSED

100 YEAR STORM CONTOUR

5 YEAR STORM CONTOUR

STORM DRAINAGE BOUNDARY

AREA ID — A1.1 / 0.102 | 0.20

AREA IN HECTARES

RUNOFF COEFFICIENT

OVERLAND FLOW

0 2.5 5 10 15 20 25

NOTE OF CAUTION

THE GEODETIC COORDINATES OF EVERY ITEM INCLUDED AS PART OF THIS DOCUMENT HAVE NO LEGAL VALUE. THE SITE LAYOUT MUST BE COMPLETED USING THE OFFICIAL BENCHMARKS OF AN ACCREDITED LAND SURVEYOR.

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.

Cominar

PROFESSIONAL ADVISORS

Architecture :

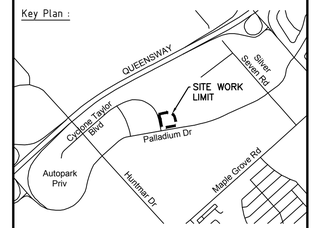
stgm architectes

Structure / Civil :

CIMA+

Mechanical / Electricity :

Key Plan :



REVISIONS

No	yy/mm/dd	Description	By
7	2019/06/17	SITE PLAN CONTROL 3rd ROUND - RESPONSES	B.T.
6	2019/06/12	SITE PLAN CONTROL 2nd ROUND - RESPONSES	B.T.
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3	2019/05/17	FOR TENDER	B.T.
2	2019/04/16	FOR PERMIT	B.T.
1	2019/03/08	FOR SITE PLAN APPROVAL	B.T.

Stamps :

Project :

OFFICE DEVELOPMENT
800 PALLADIUM DR.

Drawing :

STORMWATER MANAGEMENT PLAN

Designed By :	Drawn By :
BENJAMIN TARDIOLI	JONATHAN HAMEL

Approved By :	File name .DWG	Scale :
C.L-L.	SWM.DWG	1:250

Date :	Project Number :	Sheet :	Number :
2019/03/08	A000919	SWM	

PLAN No. 17904

007-17-0045