












































CIVIL DRAWING LIST

- C1 CIVIL DRAWING LIST AND LEGEND
- C2 TOPOGRAPHICAL SURVEY PLAN
- C3 GENERAL NOTES
- C4 CIVIL SITE PLAN
- C5 MUNICIPAL SERVICES AND GRADING PLAN
- C6 DETAILS
- C7 DETAILS
- C8 DETAILS
- C9 DETAILS
- C10 DETAILS
- C11 DETAILS
- C12 DETAILS












































EXISTING

-  Manhole
-  Catchbasin
-  Manhole-Catchbasin
-  Corrugated Steel Pipe
-  Corrugated Plastic Pipe
-  Gas Meter
-  Inspection Hole
-  Bollard
-  Sign
-  Chain Link Fence
-  Gate
-  Metal Pole
-  Utility Pole
-  Anchor
-  Light Standard
-  Well Cap
-  Air Conditioner
-  Fuel Tank Vent
-  Deciduous Tree
-  Coniferous Tree
-  Shrubs
-  Fire Hydrant
-  Water tap
-  Diametre
-  Location of Elevation
-  Location of Elevation (Top of Wall)
-  Top of Grate
-  Top of Pipe
-  Invert
-  Centerline
-  Property Limit
-  Concrete Retaining Wall
-  Underground Storm Sewer
-  Subdrain
-  Underground Sanitary Sewer
-  Underground Water
-  Forcemain
-  Underground Power
-  Underground Gas
-  Underground Bell
-  Aerial wire
-  Underground High Voltage
-  Underground Electrical
- Underground Compressed Air
- Swale
- Concrete Curb
- Concrete Slab
- Exploration Hole
- Depressed Curb
- Jersey Barrier
- Cut Cross
- Temporary Filter Cloth
- Work Limit Area
- Survey Marker
- Bench Mark
- Ditch
- Top of Bank
- Pavement
- Gravel
- Test Pit
- Rip-Rap

LEGEND

- Manhole
- Catchbasin
- Manhole-Catchbasin
- Corrugated Steel Pipe
- Corrugated Plastic Pipe
- Gas Meter
- Inspection Hole
- Bollard
- Sign
- Chain Link Fence
- Gate
- Metal Pole
- Utility Pole
- Anchor
- Light Standard
- Well Cap
- Air Conditioner
- Fuel Tank Vent
- Deciduous Tree
- Coniferous Tree
- Shrubs
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- Location of Elevation
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- Temporary Filter Cloth
- Work Limit Area
- Survey Marker
- Bench Mark
- Ditch
- Top of Bank
- Pavement
- Gravel
- Test Pit
- Rip-Rap

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Not for construction

plan-repère key plan

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.



no.	description	date
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
C	Preliminary drawing for coordination	June 8 2016
B	50% Submission	April 29 2016
A	Preliminary submission	Feb. 23 2016

REVISION

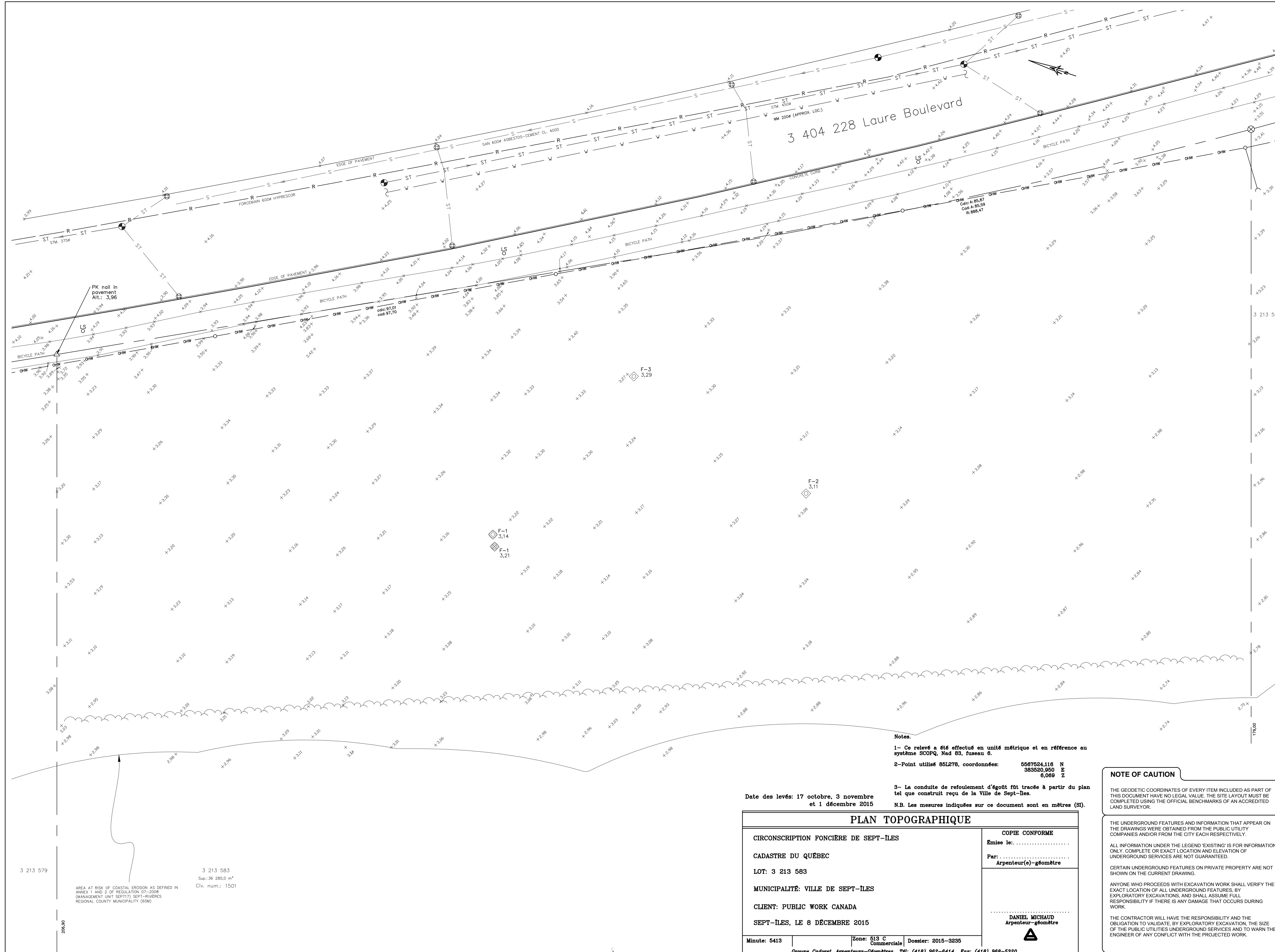
project project
New Building Construction, Sept-Îles, Québec
1501 Laure Boulevard, Sept-Îles, QC

dessin drawing

CIVIL DRAWING LIST AND LEGEND

conception	conception	no. dossier	project no.
E. Potvin	drawn	A000566A	
P. Desrosiers	approved	C1_Liste des plans civil	
E. Potvin	scale	imprimé	plot date
N/A			

no. page	sheet number	rev
C1		E



3 404 228 Laure Boulevard

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CIMA 240 Catherine St., Suite 110
Ottawa (Ontario) K2P 3J8
Telephone: (613) 860-2462
Fax: (613) 860-1870
www.cima.ca

Not for construction

0 2.5 5 10 15 20

plan-repère key plan

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.

secau stamp

no.	description	date
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
C	Preliminary drawing for coordination	June 8 2016
B	50% Submission	April 29 2016
A	Preliminary submission	Feb. 23 2016

REVISION

projet

New Building Construction, Sept-Îles, Québec

1501 Laure Boulevard, Sept-Îles, QC

dessin drawing

TOPOGRAPHIC SURVEY PLAN

conception	no. dossier	project no.
E. Polvin	A000566A	
dessiné	drawn	cad file
P. Desrosiers	C2_Plan topographique	
approuvé	approved	client file
E. Polvin		
échelle	scale	plot date
1 : 250		
no. page	sheet number	rev
C2		E

Notes.

1- Ce relevé a été effectué en unité métrique et en référence au système SCOPQ, Nad 83, fuseau 6.

2- Point utilisé 85L278, coordonnées: 5587554,116 N
383520,850 E
6,089 Z

3- La conduite de refoulement d'égout fut tracée à partir du plan tel que construit reçu de la Ville de Sept-Îles.
N.B. Les mesures indiquées sur ce document sont en mètres (SI).

Date des levés: 17 octobre, 3 novembre et 1 décembre 2015

PLAN TOPOGRAPHIQUE

CIRCONSCRIPTION FONCIÈRE DE SEPT-ÎLES

CADASTRE DU QUÉBEC

LOT: 3 213 583

MUNICIPALITÉ: VILLE DE SEPT-ÎLES

CLIENT: PUBLIC WORK CANADA

SEPT-ÎLES, LE 8 DÉCEMBRE 2015

Minute: 5413 Zone: B13 C Commerciale Dossier: 2015-3235

Groupe Cadoret, Arpenteurs-Géomètres Tél: (418) 962-6414 Fax: (418) 968-5320

COPIE CONFORME

Émise le:

Par:

Arpenteur(e)-géomètre

DANIEL MICHAUD
Arpenteur-géomètre

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.

GRADING

1. GENERAL - GRADING

- 1.1. Unless otherwise indicated, all work must conform with the latest edition of the standardized specification from the Bureau de normalisation du Québec (BNQ 1809-300/2004), the "cahier des charges et devis généraux (CCDG)" from the "ministère des Transports du Québec (MTQ)", the City standards and all other governing requirements as they apply.
- 1.2. Wherever standards, laws and/or regulations are mentioned, they refer to their current versions, modifications included.
- 1.3. The Contractor is responsible for obtaining all permits required to complete all works and bear all associated costs.
- 1.4. Site preparation includes, clearing, grubbing, stripping of topsoil (±450mm thick), demolition, removal of unsuitable materials, cut, fill, and rough grading of all areas to receive finished surfaces, including building pad and temporary ditches.
- 1.5. The boreholes and test pits shown on drawings are for information purposes only. Their locations on the drawings are approximate. The Contractor must refer to the boreholes and test pit records to obtain information about observed stratigraphy on site.
- 1.6. All material must conform to the "ministère des Transports du Québec (MTQ)" specifications, be compacted as per the requirements and be approved by the Departmental Representative prior to delivery to the site.
- 1.7. Compaction must conform to the following requirements:

MATERIAL	COMPACTION
Exposed subgrade	92% Modified Proctor (MPMDD)
Granular foundations	95% Modified Proctor (MPMDD)
Asphalt pavement	92% to 98% Maximum Density
Structural fill : building and light standard footprints	95% Modified Proctor (MPMDD)
Subgrade fill : parking and access road	92% Modified Proctor (MPMDD)
- 1.8. The Contractor must visit the premises in order to observe the existing site conditions and be aware of all the elements to be removed and demolished. No claim due to a wrongful evaluation of work to be carried out will be accepted.
- 1.9. Unless otherwise specified, all materials, products and any waste generated by the demolition work becomes the property of the Contractor.
- 1.10. All other demolition materials must be disposed off-site at authorized licensed landfills per the "ministère du Développement durable, de l'Environnement et de la Lutte au Changement Climatique (MDDELCC)" regulations. Upon request, the Contractor must be able to provide a copy of the disposal tickets to the Departmental Representative.
- 1.11. Unless they are to be modified within the contract documents scope of work, all altered existing infrastructures must be reinstated to its original condition.
- 1.12. The Contractor is responsible to protect and maintain in service the existing infrastructures that must remain in place. If they are damaged, The Contractor must immediately provide replacements and/or necessary repairs to the satisfaction of the owner's representative without additional expenses for the owner.
- 1.13. The Contractor is responsible to locate all public utility services such as gas, hydro, telephone, cable, etc.
- 1.14. The Contractor is the only party in charge of the safety of its construction site, the adequate protection of the workers, the personnel and the general public, the protection of materials, as well as maintaining the ongoing works in good condition. Therefore, the Contractor must provide at all time:
 - 1.14.a. A sufficient number of fences, barriers, posters, and others to ensure safety;
 - 1.14.b. Necessary conveniences for the completion of the work such as heating, lighting, ventilation and others.
- 1.15. Cleanliness on site:
 - 1.15.a. Contractor must organize its equipment and materials in tidy and safe manner on the construction site.
 - 1.15.b. All materials and the temporary structures no longer necessary for the execution of the contract must be removed from the site.
- 1.16. Dewatering of the excavations will be required. Before the start of work, the Contractor will need to lower the groundwater table with drainage ditches and pumps. For information, during the drilling of the bore holes in December 2015, the groundwater table was within 300mm of the existing ground surface
- 1.17. Maintain benchmarks and landmark references as is, otherwise these references will be repositioned by a certified land surveyor at the Contractor's expense.

2. GENERAL SUBGRADE PREPARATION

- 2.1. Earth removal must be inspected by the Departmental Representative to ensure that all unsuitable materials are removed prior to placement of fill, concrete or others and to confirm the compaction degree and the conditions of the founding soils. All unsuitable materials must be hauled off-site.
- 2.2. All soft, wet or disturbed areas revealed under surface compaction must be removed, to a maximum depth of 500 mm, and replaced with suitable compacted fill as directed by the Departmental Representative. Transition around subexcavation must be sloped at 3H:1V within 1.2 m of finished surface.
- 2.3. All structural and subgrade fill must be placed in maximum 300 mm loose lifts and compacted using suitable methods as per the requirements.
- 2.4. All heavy equipment must not operate directly on the subgrade. A minimum of 500 mm of fill must be used to allow traffic over subgrade. Subgrade surfaces will be prone to disturbance by weather and traffic, therefore preparation of the subgrade must be scheduled such that the granular materials are placed as quickly as possible.
- 2.5. Provisions must be made for erosion and sediment control measures prior to stripping the site of vegetation and other deleterious materials. Measures such as phase stripping, vegetation buffer zones, silt fences, sediment control fences, straw bales, must be constructed and maintained in order to control sediment, as required by the Departmental Representative.
- 2.6. During excavation work, if the Contractor encounters contaminated material, these materials must remain on-site. All surplus excavation material containing contaminated materials must be stockpiled on-site at a location specified by the Departmental Representative. The latter may request for the contaminated materials to be disposed off-site. Prior to commencing work, the Contractor must provide the name and location of the landfill(s) where the contaminated material will be disposed. The landfill Owner must provide the documents from the MDDELCC confirming that he has the right to accept the contaminated material. Also, prior to commencing work, the Departmental Representative must approve the disposal site(s). During work, the Contractor must provide to the Departmental Representative all check-in receipts issued by the landfill Owner.
- 2.7. 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 (C10-C50), 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.
3. **BUILDING PAD PREPARATION**
 - 3.1. The building pad subgrade preparation must be completed as per section "2.0 General Subgrade Preparation".
 - 3.2. Beneath the proposed building footprint, all surface vegetation, surface water, topsoil/organics/rootmat, trees, frozen soils, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. All loose or disturbed materials must be removed and replaced with compacted structural fill.
 - 3.3. For the building pad area, structural fill must be placed to 300 mm below the finish floor elevation.
 - 3.4. Structural fill used for the building pad preparation must consist of clean sand and gravel material such as MG-112 material, approved by the Departmental Representative prior to its delivery on site. Structural fill used for the building pad must consists of virgin material with no recycled materials, such as asphaltic concrete or Portland cement concrete.

4. EXCAVATION AND BACKFILL - PARKING AREAS AND ACCESS ROADS

- 4.1. The parking and access road subgrade preparation must be completed as per Section "2.0 General Subgrade Preparation".
- 4.2. Beneath the proposed parking, access roads and landscaped areas, all surface vegetation, surface water, topsoil/organics/rootmat, trees, frozen soils, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed.
- 4.3. Beneath the proposed footings of signs and light standards and their influence zones, all surface vegetation, surface water, topsoil/organics/rootmat, trees, frozen soils, fill, debris, soft drainage ditch sediments, test pit backfill and other deleterious material must be removed. These materials must be removed and replaced with compacted structural fill. The influence zone is defined by a line drawn at 1 horizontal to 1 vertical outward and downward from the edge of footings, down to the competent native soil considered acceptable by the Departmental Representative.
- 4.4. Subgrade fill used for grading beneath the parking areas, access roads and sidewalks, must consist of clean, non-organic compactable material with 300 mm maximum size of the largest face, and be approved by the Departmental Representative prior to its delivery on site. Subgrade fill used below rigid surfaces, such as concrete sidewalks or concrete slabs, must not contain more than 25% silt.
- 4.5. Structural fill used for grading beneath the footings of signs and light standards must consists of granular material MG-112 and be approved by the Departmental Representative prior to its delivery on site.
- 4.6. In landscaping areas, non-specified fills and on-site excavated soils may be used. The fill must be spread in thin lifts and compacted by the tracks of spreading equipment to minimize voids.

5. PAVEMENT STRUCTURES, CURBS, SIDEWALKS AND CONCRETE SLABS

- 5.1. Granular materials used on site must conform to the NQ 2560-114 requirements.
- 5.2. Asphalt pavement structure must be constructed as per detail 202 of the detail drawings.
- 5.3. Transition between existing and proposed pavement must be constructed as per detail 206 of the detail drawings.
- 5.4. Asphalt concrete mixes must conform to the 4202 MTQ standard, and be reviewed and approved by the Departmental Representative.
- 5.5. Concrete sidewalks and islands must be constructed as per the details 101, 105, 108, 109 and 114 of the detail drawings, and must conform to the BNQ 1809-500/2006 standardized specifications.
- 5.6. The concrete curbs must be constructed as per the details 109, 112A and 113 of the detail drawings, and must conform to the BNQ 1809-500/2006 standardized specifications.
- 5.6. The concrete slabs adjacent to the building doors, and the concrete slabs for the generator, the garbage bin and the metallic shelter must be constructed as per the details 108 and 115A of the detail drawings.
- 5.7. The concrete paver structure must be constructed as per the detail 214 of the detail drawings. The prefabricated concrete pavers must also conform to the CSA A231.1/A231.2 standard and must be of type «Lattice Stone» of Permacon or approved equivalent.
6. **MISCELLANEOUS**
 - 6.1. Chain-link fences and gates to be constructed as per details 126, 126A, 126B, 126C and 126D of the detail drawings.
 - 6.2. Bollard to be constructed as per detail 403 of the detail drawings.
 - 6.3. Pavement markings must be as per details 409B and 410 of the detail drawings, and must conform to the 10201 MTQ standard (alkyd paint).

7. CONTRACT RESPONSIBILITIES AT THE BUILDING PERIMETER

- 7.1. Work included in these Civil exterior site work drawings:
 - 7.1.1. Remove all organics and unsuitable materials as per note 3.2;
 - 7.1.2. All necessary MG-112 structural fill up to 300mm below the building's finish elevation as per notes 3.3 and 3.4;
 - 7.1.3. All necessary excavation down to the subgrade, the granular materials, the compaction, and the concrete work for the sidewalks and exterior slabs around the building;
 - 7.1.4. All bollards around the building;
 - 7.1.5. All landscaping around the building;
- 7.2. Work excluded from these Civil exterior site work drawings:
 - 7.2.1. The building foundations including the required excavation, and their mud slabs;
 - 7.2.2. The 200mm thick MG-20 granular base under the building floor slab;
 - 7.2.3. The vapour barrier between the granular bed and the building floor slab;
 - 7.2.4. The building floor slab and the building itself.

MUNICIPAL SERVICES

8. GENERAL - MUNICIPAL SERVICES

- 8.1. Unless otherwise indicated, all work must conform to the latest edition of the standardized specification from the Bureau de normalisation du Québec (BNQ 1809-300/2004), the "cahier des charges et devis généraux (CCDG)" from the "ministère des Transports du Québec (MTQ)", the City standards and all other governing requirements as they apply.
- 8.2. Wherever standards, laws and/or regulations are mentioned, they refer to their current versions, modifications included.
- 8.3. The Contractor is responsible for obtaining all permits required to complete all works and bear all associated costs.
- 8.4. The boreholes and test pits shown on drawings are for information purposes only. Their locations on the drawings are approximate.
- 8.5. Terminate and plug all service connections at 1.0 m from the edge of building.
- 8.6. Compaction must conform to the following requirements :

MATERIALS	COMPACTION
Pipe bedding and cover	92% Modified Proctor
Trench backfill	92% Modified Proctor
- 8.7. Prior to connection to the City sewers and watermain, and prior to pavement work, the Contractor must provide all tests results performed on the internal municipal services to the Departmental Representative and the City for approval. Tests results include: 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. A written consent from the Departmental Representative must also be obtained.
- 8.8. The new watermain and sewer pipe sections proposed in the municipal boulevard easement will be constructed by the City. The Contractor must coordinate that work with the City.
- 8.9. All disturbed areas to be restored to original condition and/or at the Departmental Representative's satisfaction.
- 8.10. All concrete sewer pipes must conform to NQ 2622-126 requirements.
- 8.11. All PVC gravity sewer pipes must conform to NQ 3624-130 and NQ 3624-135 requirements.
- 8.12. All HDPE gravity sewer pipes must conform to NQ 3624-120 requirements.
- 8.13. The deformation of all PVC or HDPE sewer pipes must not exceed 7.5%. The testing of the inside diameter must be performed as per the BNQ 1809-300/2004 standardized specifications.
- 8.14. All concrete manholes and catchbasins must conform to NQ 2622-420 requirements.
- 8.15. Before undertaking any connection works to the existing networks, the Contractor is responsible to locate existing pipes and to confirm their exact location.
- 8.16. The Contractor must determine the exact invert (geodetic elevation), diameter, and construction material of the existing pipes at the proposed connections. This information must immediately be provided to the Departmental Representative prior to undertaking any municipal services work and a 48 hour period must be allowed to the Departmental Representative for design review.

9. WATERMAIN

- 9.1. In accordance with the above note 8.8, the Contractor must connect the site's new watermain to the new watermain section constructed by the City within the municipal right-of-way of the Laure Boulevard. More precisely, the Contractor must perform the connection at the lot line using a waterproof rubber sleeve (that shrinks when heated) and a stainless steel clamp or other approved by the Municipal Inspector.
- 9.2. Watermains and accessories must be PVC DR-18 cl.150 and conform to NQ 3624-250 requirements and NFPA 24.
- 9.3. All watermains must have a minimum cover of 2.10 m.
- 9.4. All valves must be gate valve model A2360-23 from Mueller Canada or approved equivalent and must conform to the AWWA C-509 requirements with operating pressure 1200 kPa. The valves must be equipped with a zinc anode of 5.4 kg.
- 9.5. All valve boxes must conform to NQ 3221-500 requirements.
- 9.6. Trust blocks are not allowed. See detail 313 of the detail drawings for the restraint system.
- 9.7. Hydrostatic leakage tests, flushing and disinfecting operations must be performed by the Contractor according to BNQ 1809-300/2004 standardized specifications under the direct supervision of the Departmental Representative.
- 9.8. A municipal fire hydrant will be added within the municipal right-of-way by the City in accordance with the above note 8.8.
- 9.9. All ductile iron watermain fittings must be equipped with a zinc anode of 5.4 kg.

10. STORM SEWER


- 10.1. Before the start of the pavement work, all storm sewers are to be T.V. inspected by the Contractor as per BNQ 1809-300/2004, City, and departmental Representative standards. The Contractor must provide two (2) copies of the inspection report in DVD format and in colour, and he must obtain a written consent from the Departmental Representative.
- 10.2. All storm sewer pipes must be as follow:

PIPE DIAMETER (mm)	TYPE OF PIPE
≤ 150	- PVC DR-28 - HDPE 320 kPa (smooth interior) - PVC DR-35
> 150 and ≤ 375	- HDPE 320 kPa (smooth interior)
> 375 and ≤ 900	- HDPE 320 kPa (smooth interior) - Concrete CI.IV
- 10.3. Unless otherwise noted, all catchbasin leads have a minimum diameter of 200 mm and a minimum slope of 1.0%. The Contractor may use long radius vertical bends with a maximum angle of 22.5°.
- 10.4. The storm sewer pumping station must be factory pre-assembled and constructed as per detail 500 of the detail drawings. The pumping station must be of model DUP-1500/I/R/PE/PC/SPE by Pompex inc. or approved equivalent, and include the following pumps:
 - Two (2) FLYGT electrical submersible pumps of model NP3085MT-3po, impeller 463, motor 2.2kw (3.0cv), 600V 3ph, 60Hz.

The storm sewer pumping station must also be equipped with a concrete slab as per detail 510 of the detail drawings to counter the buoyancy effect of the underground water table.
11. **SANITARY SEWER**
 - 11.1. In accordance with the above note 8.8, the Contractor must connect the site's new sanitary sewer to the new sanitary sewer section constructed by the City within the municipal easement of the Laure Boulevard.
 - 11.2. Before the start of the pavement work, all sanitary sewers are to be T.V. inspected by the Contractor as per BNQ 1809-300/2004, City, and departmental Representative standards. The Contractor must provide two (2) copies of the inspection report in DVD format and in colour, and he must obtain a written consent from the Departmental Representative.
 - 11.3. All sanitary sewer pipes and manholes to be tested by the Contractor as per BNQ 1809-300/2004 standardized specifications for infiltration/exfiltration and conform to the municipal regulation No. 92-965, Annexe 1.
 - 11.4. All sanitary sewer pipes must be as follow:

PIPE DIAMETER (mm)	TYPES OF PIPE
≤ 150	- PVC DR-28 - PVC DR-35
> 150	- PVC DR-35

Not for construction

<p>plan-repère</p> <p>Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not mesures on drawings.</p>	<p>key plan</p> <p>seaeu stamp</p> 
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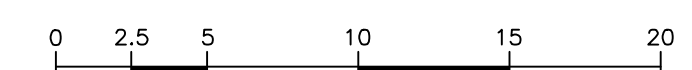
no.	description	date
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
C	Preliminary drawing for coordination	June 8 2016
B	50% Submission	April 29 2016
A	Preliminary submission	Feb. 23 2016
REVISION		

<p>projet</p> <p style="text-align: center;">New Building Construction, Sept-Îles, Québec</p> <p style="text-align: center;">1501 Laure Boulevard, Sept-Îles, QC</p>	<p>project</p>
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<p>dessin</p> <p style="text-align: center;">GENERAL NOTES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>conception</td> <td>conception</td> <td>no. dossier</td> <td>project no.</td> </tr> <tr> <td>E. Potvin</td> <td></td> <td>A000566A</td> <td></td> </tr> <tr> <td>dessine</td> <td>drawn</td> <td>fichier DAO</td> <td>CAD file</td> </tr> <tr> <td>P. Desrosiers</td> <td></td> <td>C3_Plan de notes générales</td> <td></td> </tr> <tr> <td>approuvé</td> <td>approved</td> <td>dossier client</td> <td>client file</td> </tr> <tr> <td>E. Potvin</td> <td></td> <td></td> <td></td> </tr> <tr> <td>échelle</td> <td>scale</td> <td>imprimé</td> <td>plot date</td> </tr> <tr> <td>N/A</td> <td></td> <td></td> <td></td> </tr> <tr> <td>no. page</td> <td colspan="2">sheet number</td> <td>rev</td> </tr> <tr> <td style="text-align: center;">C3</td> <td colspan="2"></td> <td style="text-align: center;">E</td> </tr> </table>	conception	conception	no. dossier	project no.	E. Potvin		A000566A		dessine	drawn	fichier DAO	CAD file	P. Desrosiers		C3_Plan de notes générales		approuvé	approved	dossier client	client file	E. Potvin				échelle	scale	imprimé	plot date	N/A				no. page	sheet number		rev	C3			E	<p>drawing</p>
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4 août 2016 Philippe Desrosiers

Not for construction



plan-référence key plan

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.



no.	description	date
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D	99% Submission	June 23 2016
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REVISION

projet project

New Building Construction, Sept-Îles, Québec

1501 Laure Boulevard, Sept-Îles, QC

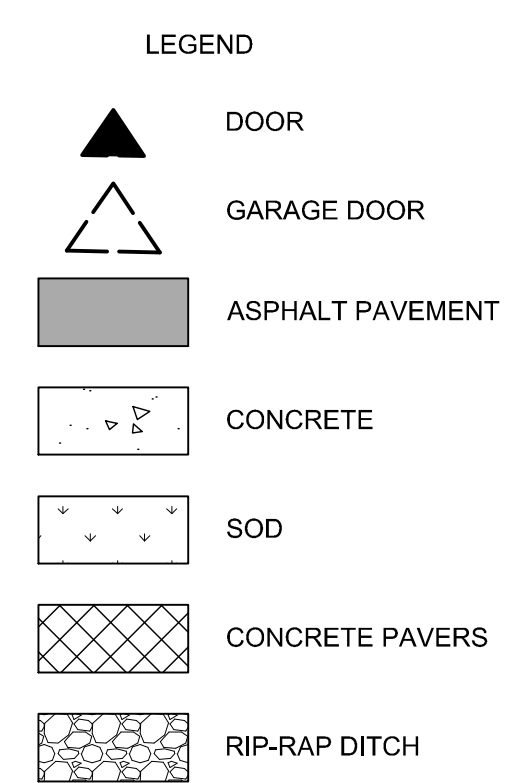
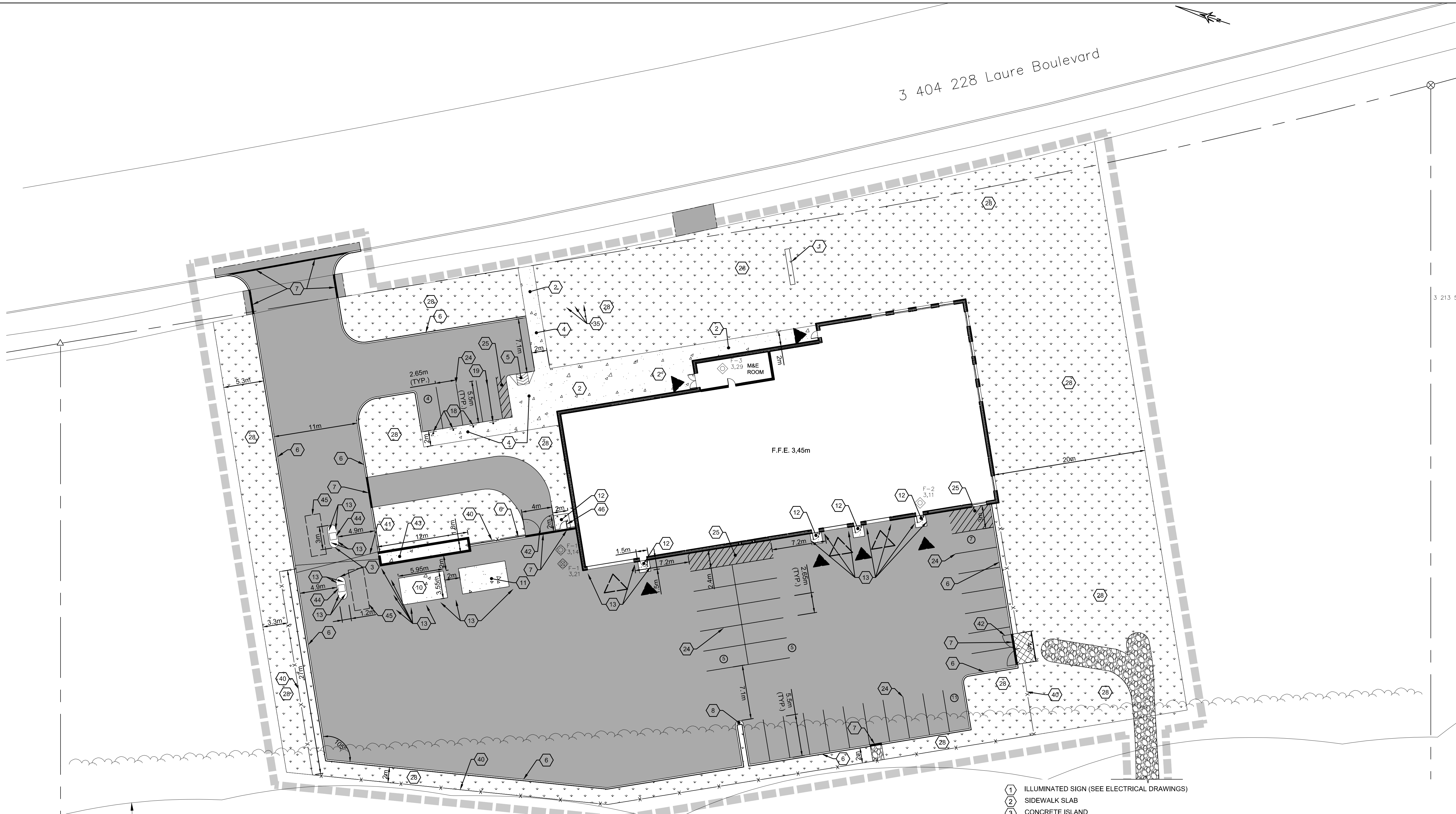
dessin drawing

CIVIL SITE PLAN

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E. Polvin		A000566A	
dessin	drawn	fichier DAO	CAD file
P. Desrosiers		C4_Plan d'ensemble Civil	
approuvé	approved	dossier client	client file
E. Polvin			
échelle	scale	imprimé	plot date
1 : 250			
no. page	sheet number	rev	

C4

E



- 1 ILLUMINATED SIGN (SEE ELECTRICAL DRAWINGS)
- 2 SIDEWALK SLAB
- 3 CONCRETE ISLAND
- 4 MONOLITHIC CONCRETE SIDEWALK
- 5 DEPRESSED CONCRETE SIDEWALK
- 6 CONCRETE CURB
- 7 DEPRESSED CONCRETE CURB
- 8 CONCRETE BULL-NOSE
- 10 CONCRETE SLAB FOR ELECTRICAL GENERATOR
- 11 GARBAGE BIN ENCLOSURE WITH CONCRETE SLAB
- 12 CONCRETE SLAB
- 13 BOLLARD
- 18 FREE STANDING VISITOR'S PARKING SIGN
- 19 ACCESSIBLE PARKING SPACE MARKING AND FREE STANDING SIGN
- 24 90° PARKING MARKING (115mm YELLOW STRIPES)
- 25 PAINTED AREA (115mm YELLOW STRIPES, SPACED 750mm CENTRE TO CENTRE AND AT 45° ANGLES)
- 28 SOD
- 35 FLAG POLES (SEE ARCHITECTURAL DRAWINGS)
- 40 FENCE WITH OPAQUE PVC SLATS
- 41 MOTORIZED SLIDING GATE
- 42 DOUBLE GATE
- 43 CONCRETE SLAB FOR METALLIC SHELTER
- 44 CONCRETE BASE FOR INTERCOM (SEE ELECTRICAL DRAWINGS)
- 45 DETECTION LOOPS (SEE ELECTRICAL DRAWINGS)
- 46 SINGLE GATE

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.

3 213 579
3 213 583
Sup.: 36 280,0 m²
Civ. num.: 1501

AREA AT RISK OF COASTAL EROSION AS DEFINED IN ANNEX 1 AND 2 OF REGULATION 07-2008 (MANAGEMENT UNIT SEPT-ÎLES, SEPT-ÎLES REGIONAL COUNTY MUNICIPALITY (RCM))

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4 août 2016 Philippe Desrosiers



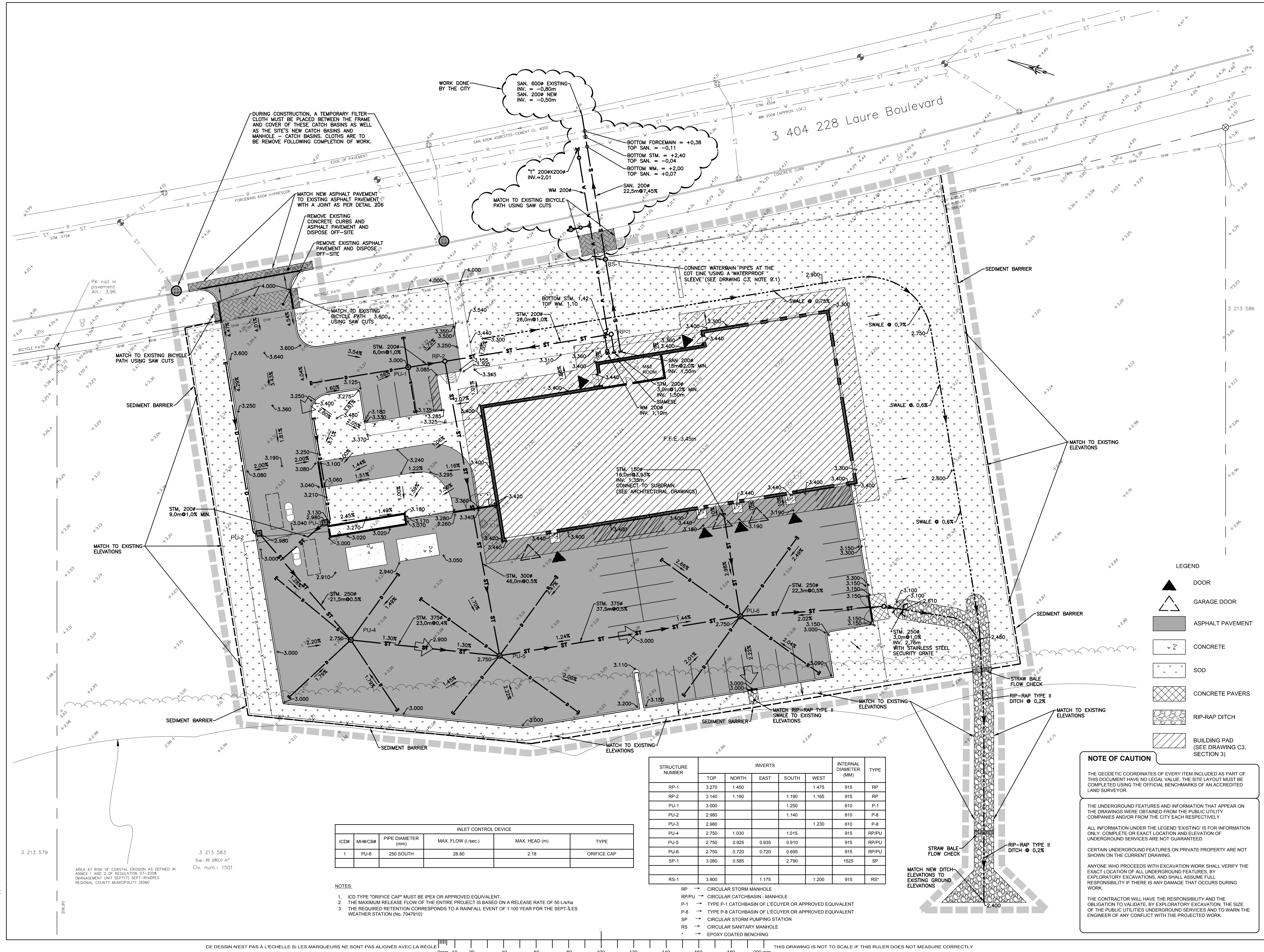
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REVISION

project
New Building Construction, Sept-Îles, Québec
1501 Laure Boulevard, Sept-Îles, QC

drawing
MUNICIPAL SERVICES AND GRADING PLAN

conception	no. dossier	project no.
E. Polvin	A00566A	
dessiné	drawn	CAD file
P. Desrosiers	fichier DAO	
approuvé	approved	client file
E. Polvin	C5_Plan des services	
échelle	scale	plot date
1 : 250		
no. page	sheet number	rev



LEGEND

- ▲ DOOR
- △ GARAGE DOOR
- ASPHALT PAVEMENT
- CONCRETE
- SOD
- ▨ CONCRETE PAVERS
- ▩ RIP-RAP DITCH
- ▧ BUILDING PAD (SEE DRAWING C3, SECTION 3)

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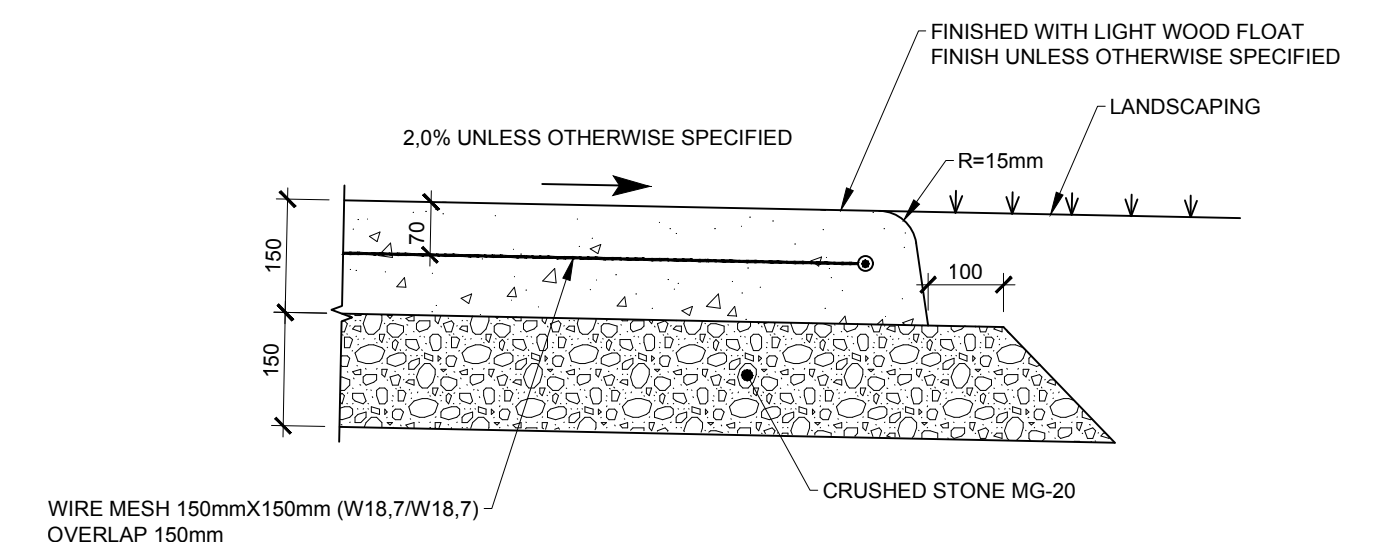
STRUCTURE NUMBER	INVERTS					INTERNAL DIAMETER (MM)	TYPE
	TOP	NORTH	EAST	SOUTH	WEST		
RP-1	3.270	1.450			1.475	915	RP
RP-2	3.140	1.190		1.190	1.165	915	RP
PU-1	3.000		1.250			610	P-1
PU-2	2.980		1.140			610	P-8
PU-3	2.980			1.230		610	P-8
PU-4	2.750	1.030		1.015		915	RP/PU
PU-5	2.750	0.925	0.935	0.910		915	RP/PU
PU-6	2.750	0.720	0.720	0.695		915	RP/PU
SP-1	3.080	0.585		2.790		1525	SP
RS-1	3.900		1.175		1.200	915	RS*

- RP → CIRCULAR STORM MANHOLE
- RP/PU → CIRCULAR CATCHBASIN - MANHOLE
- P-1 → TYPE P-1 CATCHBASIN OF L'ÉCUEUR OR APPROVED EQUIVALENT
- P-8 → TYPE P-8 CATCHBASIN OF L'ÉCUEUR OR APPROVED EQUIVALENT
- SP → CIRCULAR STORM PUMPING STATION
- RS → CIRCULAR SANITARY MANHOLE
- EPOXY COATED BENCHING

INLET CONTROL DEVICE					
ICD#	M/H#	PIPE DIAMETER (mm)	MAX. FLOW (l./sec.)	MAX. HEAD (m)	TYPE
1	PU-6	250 SOUTH	28.80	2.18	ORIFICE CAP

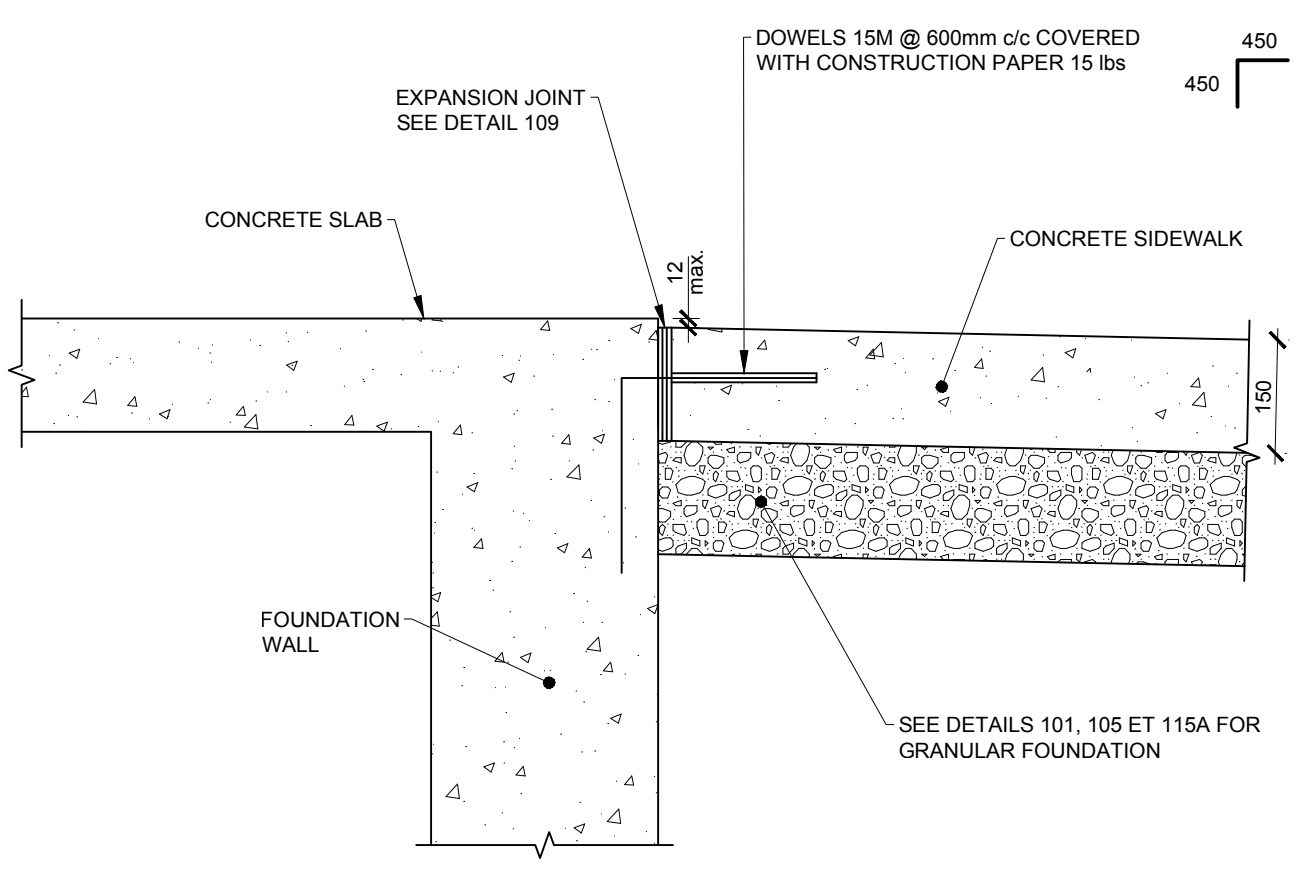
- NOTES:**
- ICD TYPE "ORIFICE CAP" MUST BE IPEX OR APPROVED EQUIVALENT.
 - THE MAXIMUM RELEASE FLOW OF THE ENTIRE PROJECT IS BASED ON A RELEASE RATE OF 50 L/s/ha
 - THE REQUIRED RETENTION CORRESPONDS TO A RAINFALL EVENT OF 1:100 YEAR FOR THE SEPT-ÎLES WEATHER STATION (No. 7047910)

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4 août 2016 Philippe Desrosiers

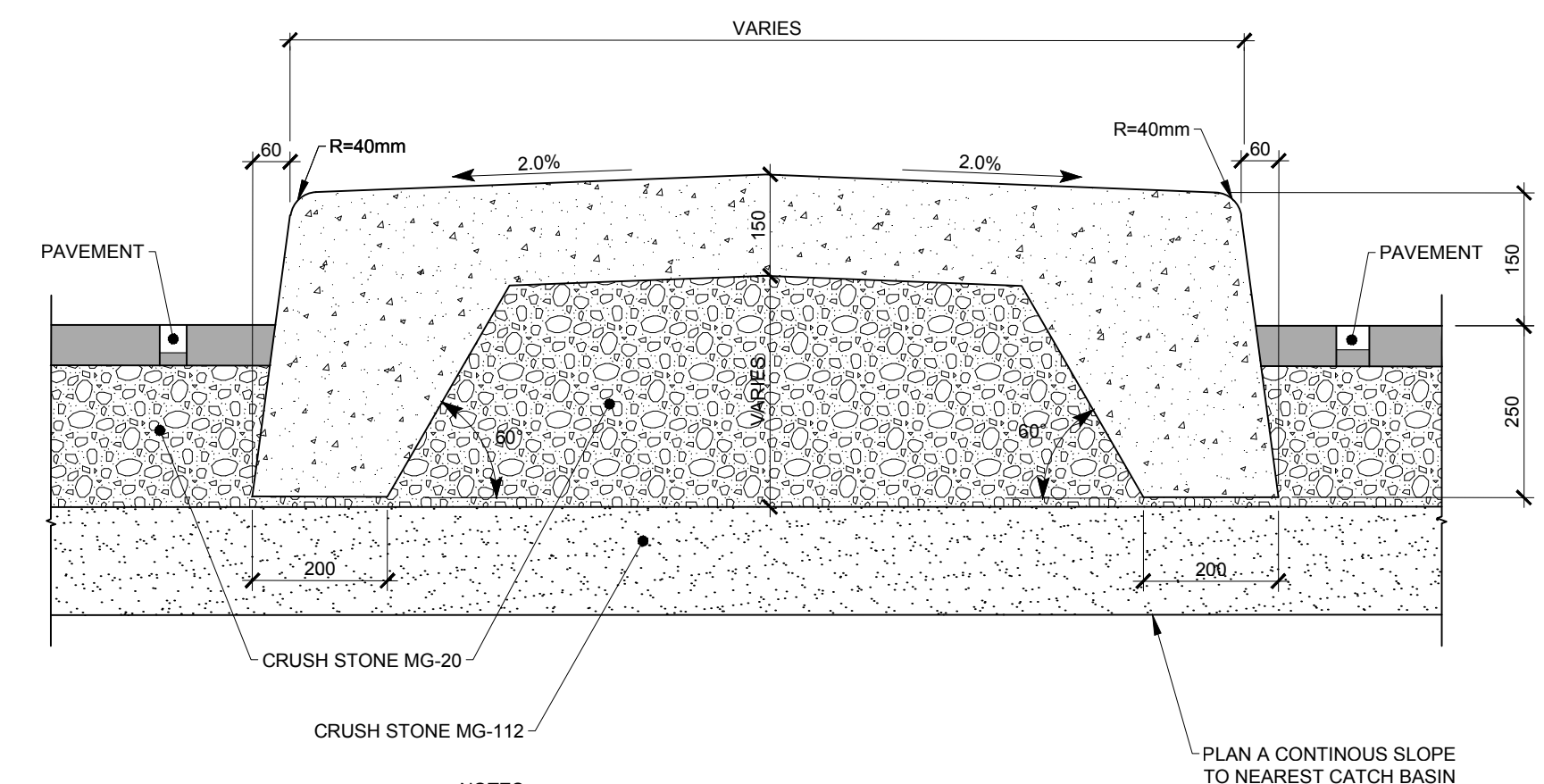


- CONCRETE CLASS: C-2;
 WATER/BINDER MAX. RATIO: 0.45;
 MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa;
 GRANULARS MAXIMAL NOMINAL Ø: 20mm;
 AIR CONTENT: 5% TO 8%;
 SLUMP: 80mm ± 30mm FOR FIXE FORMWORK;
 30mm ± 30mm FOR SLIDING FORMWORK;
 CONTROL AND EXPANSION JOINTS AS PER DETAIL 109.

101 SIDEWALK SLAB - TYPE

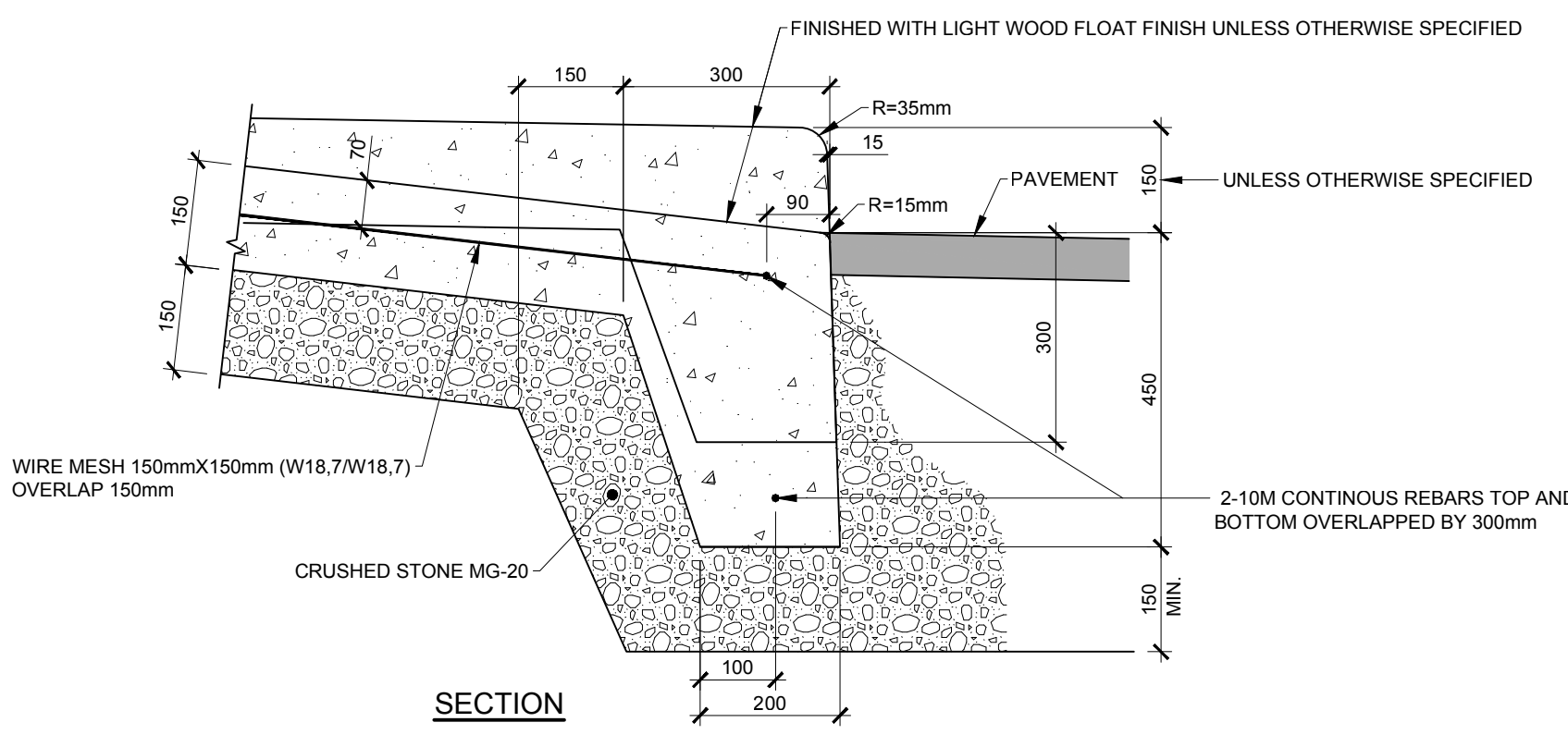


108 BUILDING JOINT (SIDEWALK AND CONCRETE SLAB ADJACENT TO BUILDING)



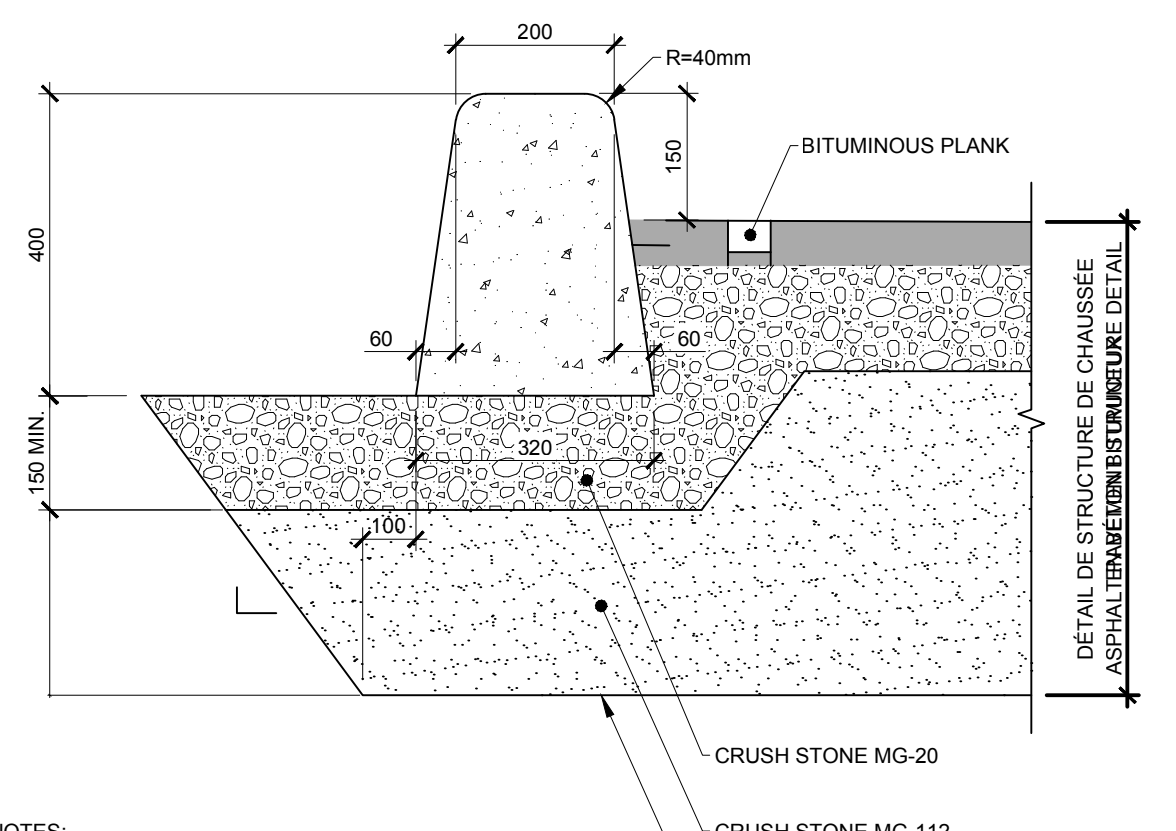
- CONCRETE CLASS: C-2;
 WATER/BINDER MAX. RATIO: 0.45;
 MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa;
 GRANULARS MAXIMAL NOMINAL Ø: 20mm;
 AIR CONTENT: 5% TO 8%;
 SLUMP: 80mm ± 30mm FOR FIXE FORMWORK;
 30mm ± 30mm FOR SLIDING FORMWORK;
 CONCRETE SLAB ADJACENT TO BUILDING, AS PER DETAIL 108.

114 MONOLITHIC CONCRETE ISLAND (TYPICAL)



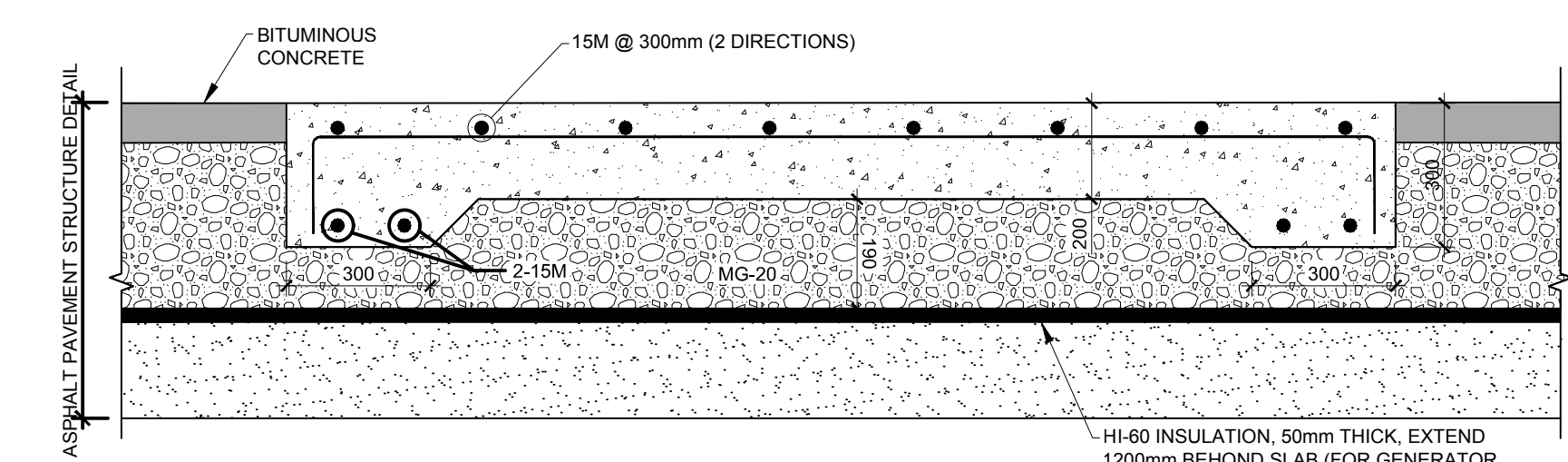
- CONCRETE CLASS: C-2;
 WATER/BINDER MAX. RATIO: 0.45;
 MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa;
 GRANULARS MAXIMAL NOMINAL Ø: 20mm;
 AIR CONTENT: 5% TO 8%;
 SLUMP: 80mm ± 30mm FOR FIXE FORMWORK;
 30mm ± 30mm FOR SLIDING FORMWORK;
 CONTROL AND EXPANSION JOINTS AS PER DETAIL 109.

105 TYPE AND DEPRESSED MONOLITHIC SIDEWALK



- CONCRETE CLASS: C-2;
 WATER/BINDER MAX. RATIO: 0.45;
 MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa;
 GRANULARS MAXIMAL NOMINAL Ø: 20mm;
 AIR CONTENT: 5% TO 8%;
 SLUMP: 80mm ± 30mm FOR FIXE FORMWORK;
 30mm ± 30mm FOR SLIDING FORMWORK;
 CONTROL AND EXPANSION JOINTS AS PER DETAIL 109.

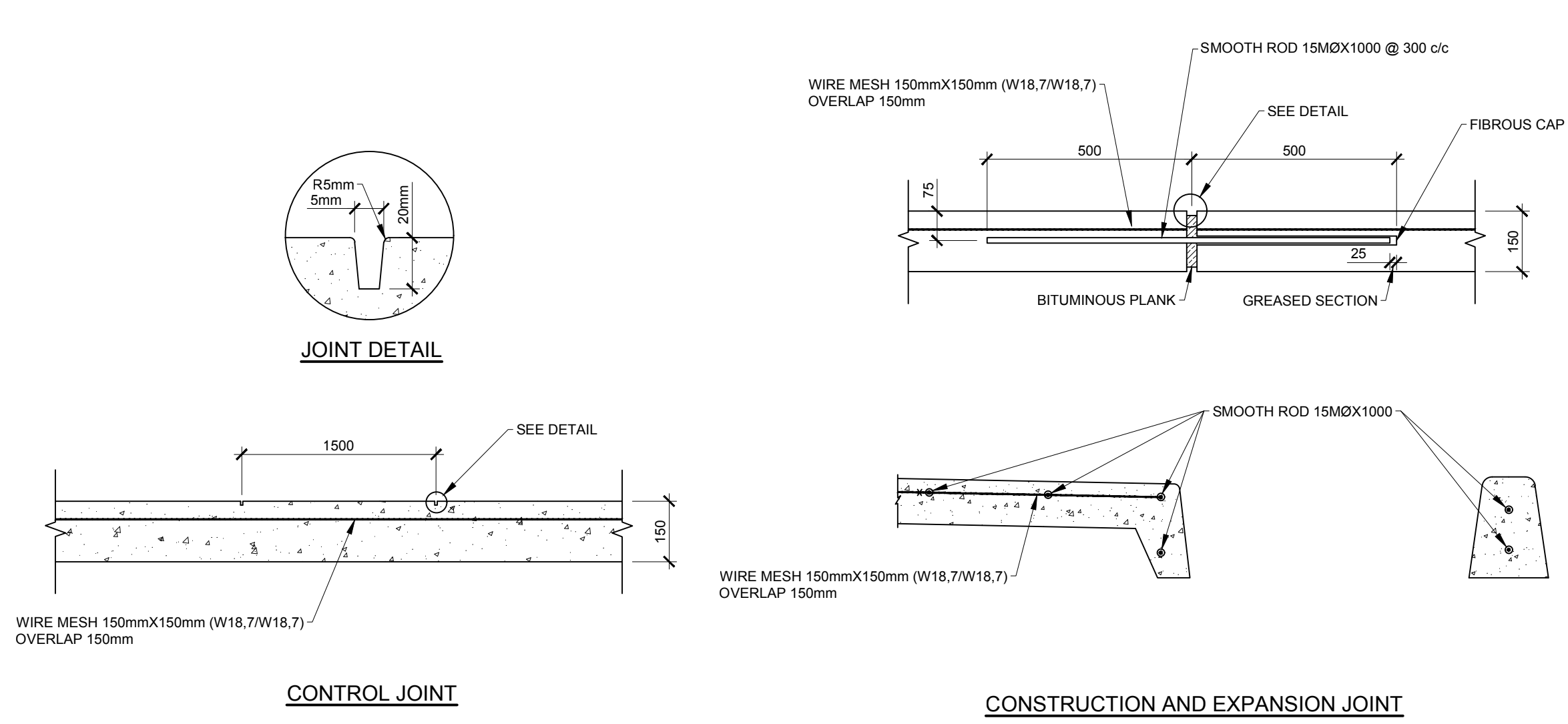
112A CONCRETE CURB DETAIL (TYPICAL)



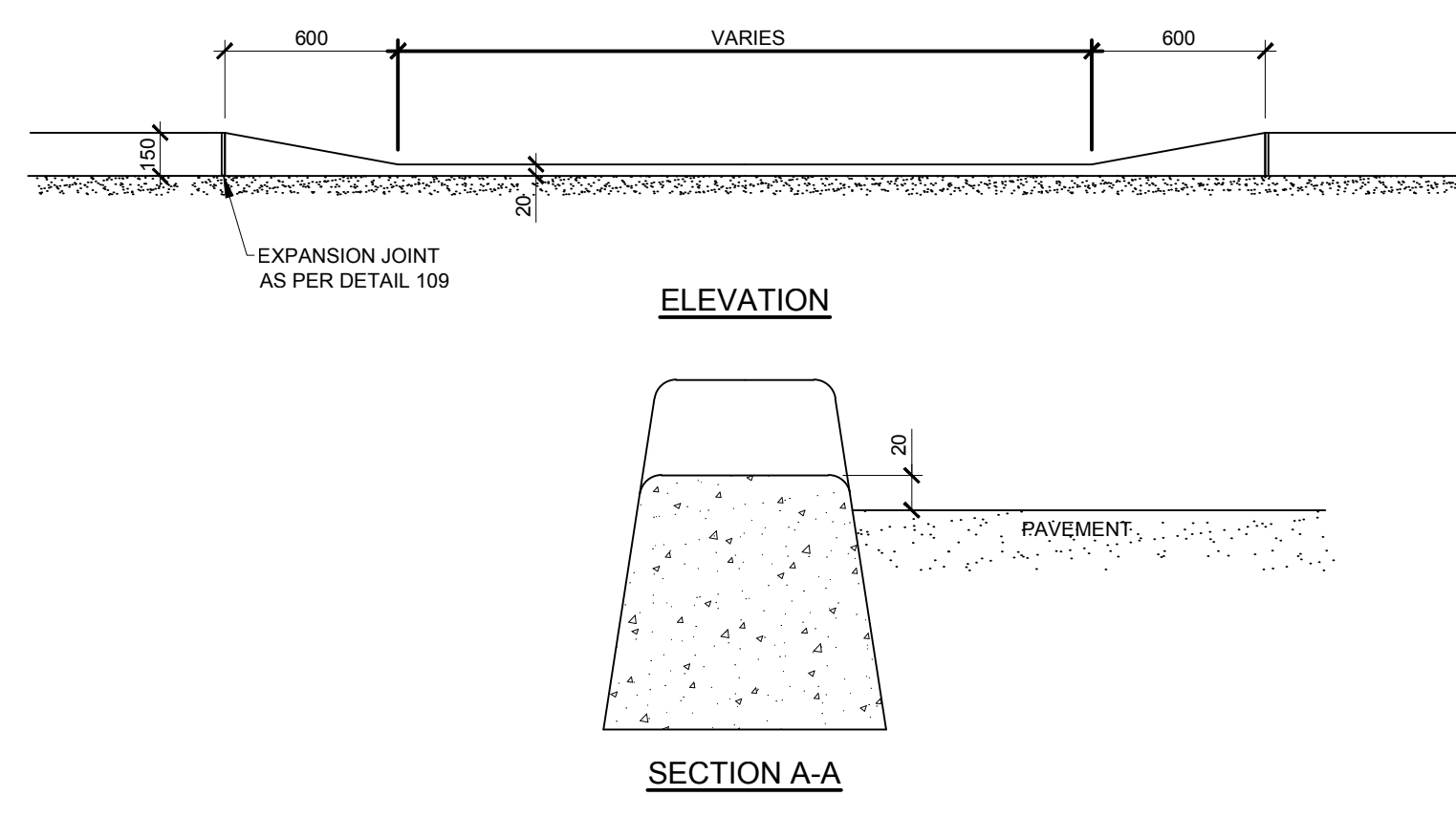
- CONCRETE CLASS: C-2;
 WATER/BINDER MAX. RATIO: 0.45;
 MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 35 MPa;
 GRANULARS MAXIMAL NOMINAL Ø: 20mm;
 AIR CONTENT: 5% TO 8%;
 SLUMP: 80mm ± 30mm FOR FIXE FORMWORK;
 30mm ± 30mm FOR SLIDING FORMWORK;
 CONCRETE SLAB ADJACENT TO BUILDING, AS PER DETAIL 108.

115A CONCRETE SLAB FOR GENERATOR, GARBAGE ENCLOSURE, METALLIC SHELTER AND CONCRETE SLAB ADJACENT TO BUILDING

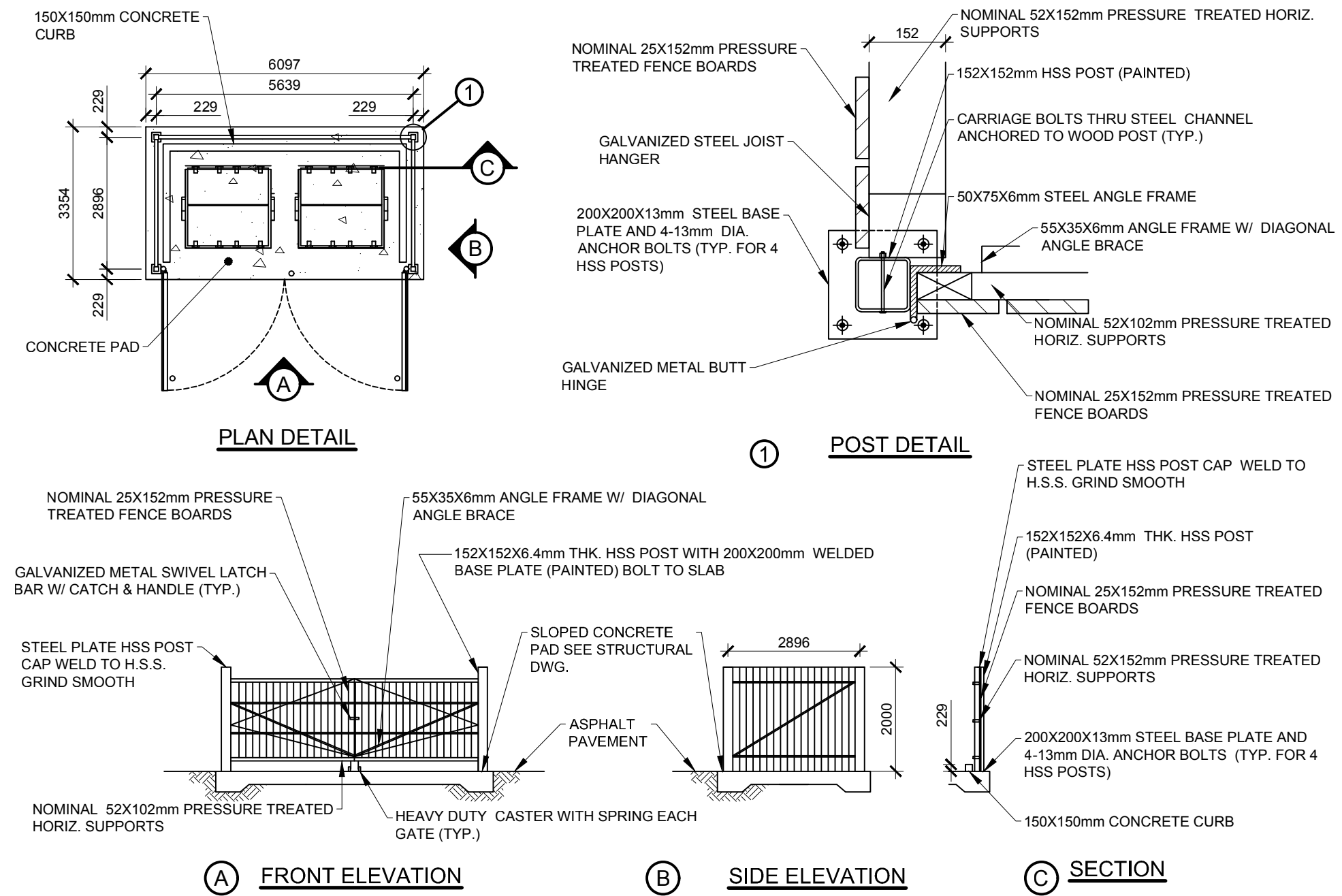
- EXPANSION JOINTS OF CONCRETE WORK AT 6.0m C/C MAX. DIRECTION CHANGE AND AT CONTACT WITH CONCRETE STRUCTURES
 EDGES AND CONTROL JOINTS SHALL BE GROOVED, TOOLED AND BURNISHED WITH BRONZE EDGERS AND GROOVERS.



109 EXPANSION, CONTROL AND CONSTRUCTION JOINTS FOR CONCRETE WORK



113 DEPRESSED CONCRETE CURB



123 2 BINS EXTERIOR GARBAGE ENCLOSURE

Not for construction

plan-référence key plan
 sceau stamp

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.



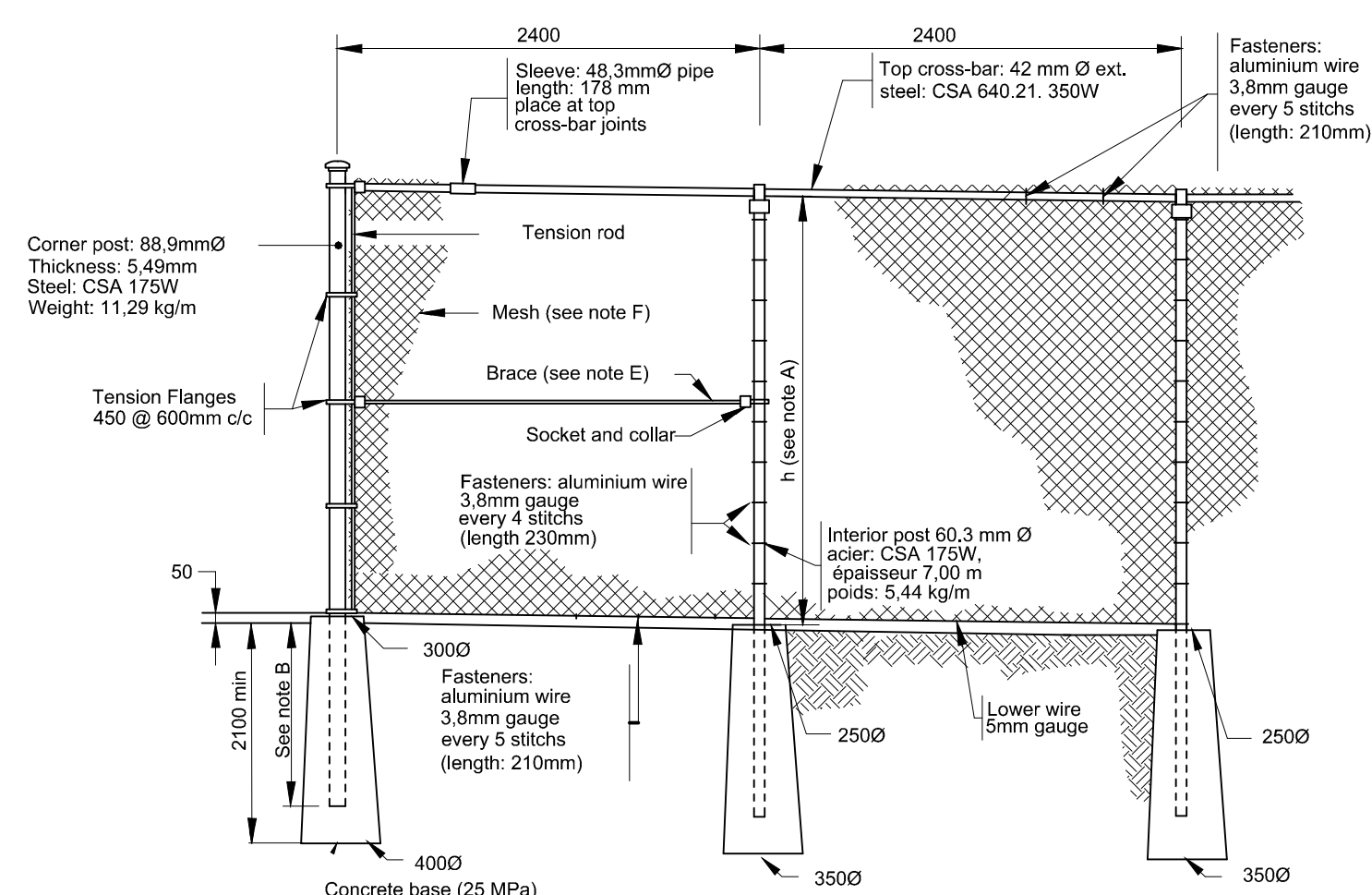
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project project
New Building Construction, Sept-Îles, Québec
 1501 Laure Boulevard, Sept-Îles, QC

dessin drawing		DETAILS	
conception	conception no. dossier	project no.	
E. Polvin	A000566A		
dessiné	drawn	dessiné	CAD file
P. Desrosiers	Cher DAO		
approuvé	approved	dossier client	client file
E. Polvin			
échelle	scale	imprimé	plot date
N/A			
no. page	sheet number		rev

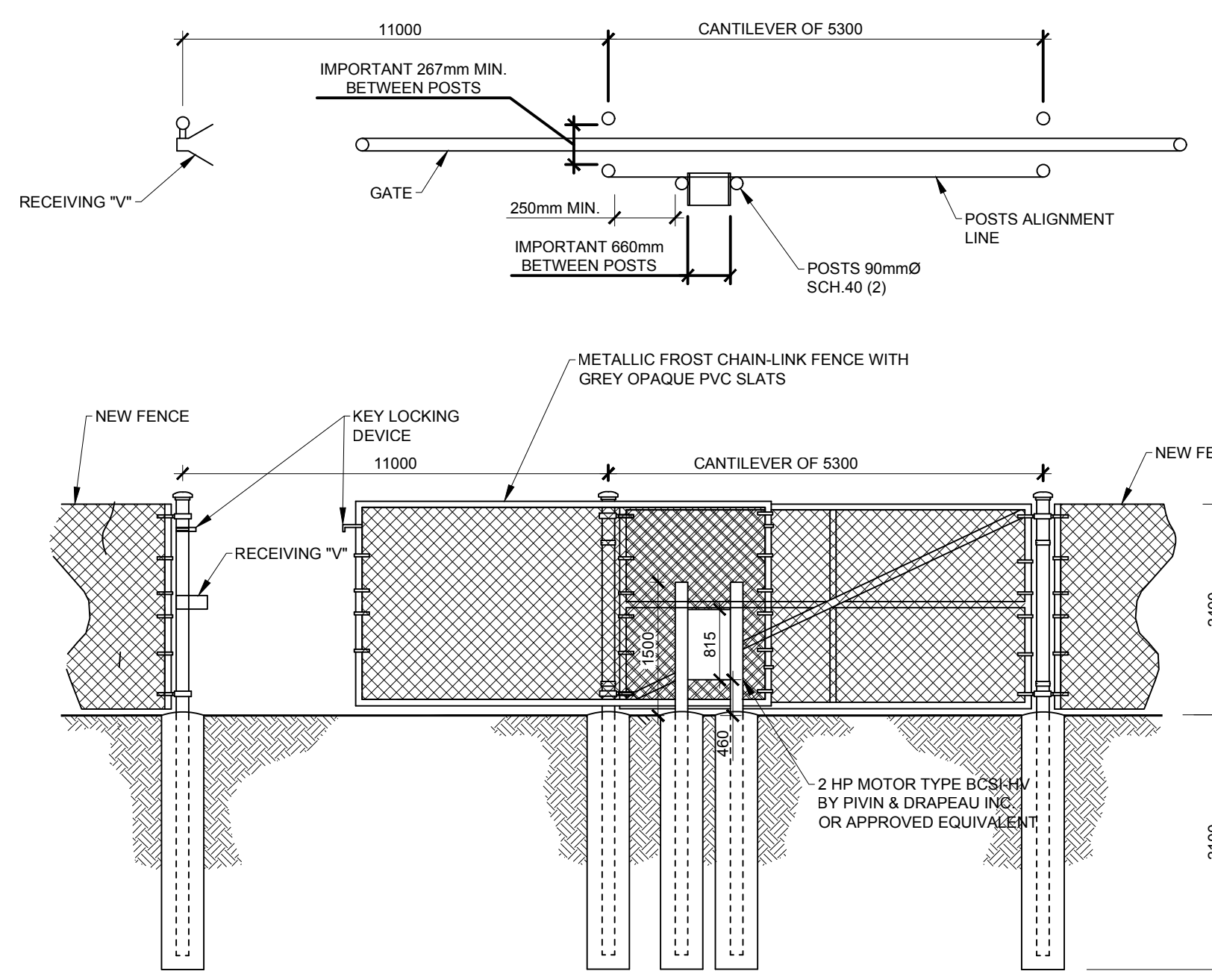
C6 E

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 4 août 2016 Philippe Desrosiers



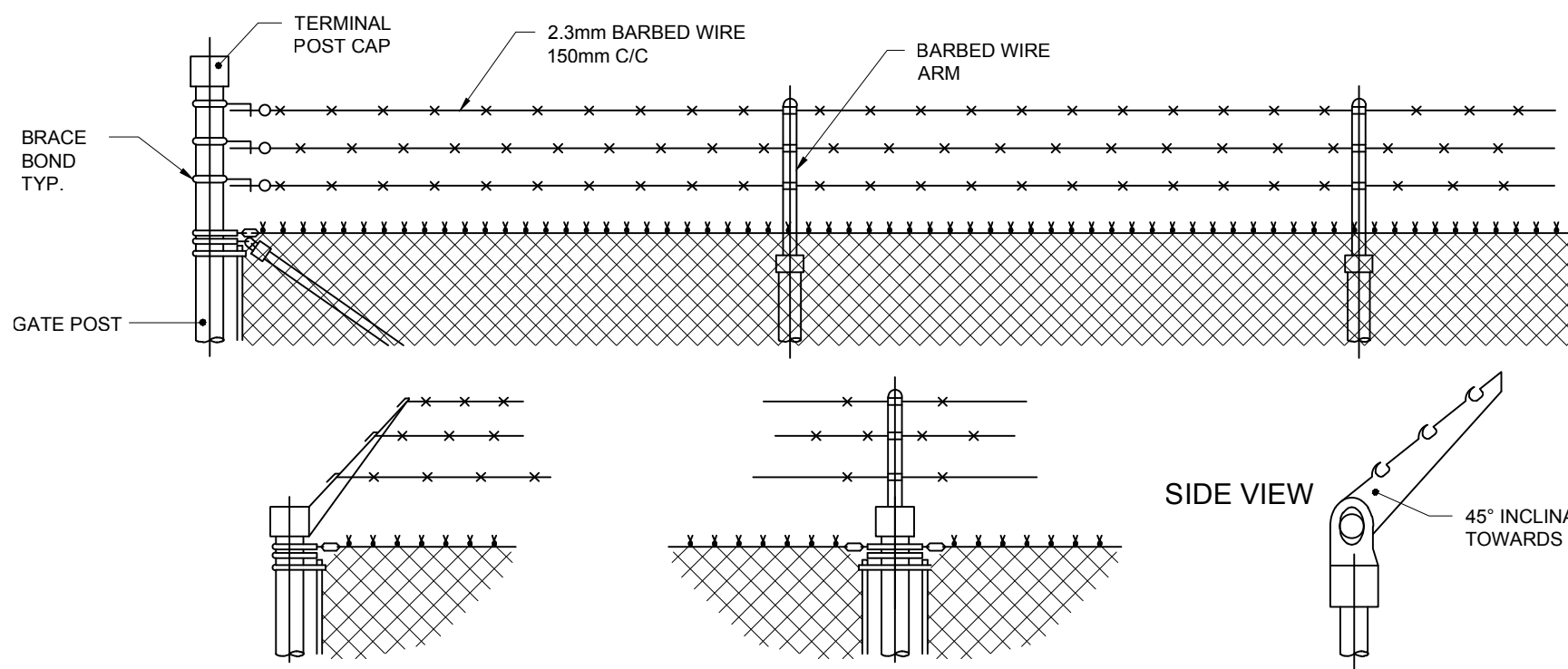
**126 GALVANIZED METALLIC MESH FENCE
2,4m HIGH**

- NOTES:**
- A. WIRE MESH HEIGHT: 2.40 m.
 - B. UNDERGROUND POST DEPTH: 1.35 m.
 - C. CORNER POST: 88.9 mm Ø WITH TWO BRACES.
 - D. REINFORCEMENT POST: 88.9 mm Ø EVERY 60 m WITH TWO BRACES.
 - E. BRACES: 42.2 mm Ø, AGIER CSA 350W.
 - F. GALVANIZED WIRE MESH 50mm X 50mm, GAUGE #6 (6mm).
 - G. ALL METALLIC COMPONENTS MUST BE GALVANIZED.
 - H. WIRE MESH AND METALLIC COMPONENTS MUST BE GREY WITH GREY INDUSTRIAL PVC SLATS FROM "SUPER INTIMITÉ".
 - I. BARBED WIRE MUST BE INSTALLED ON FENCES AS PER DETAIL 126A.
 - J. ALL MEASUREMENTS ARE IN MILLIMETERS.



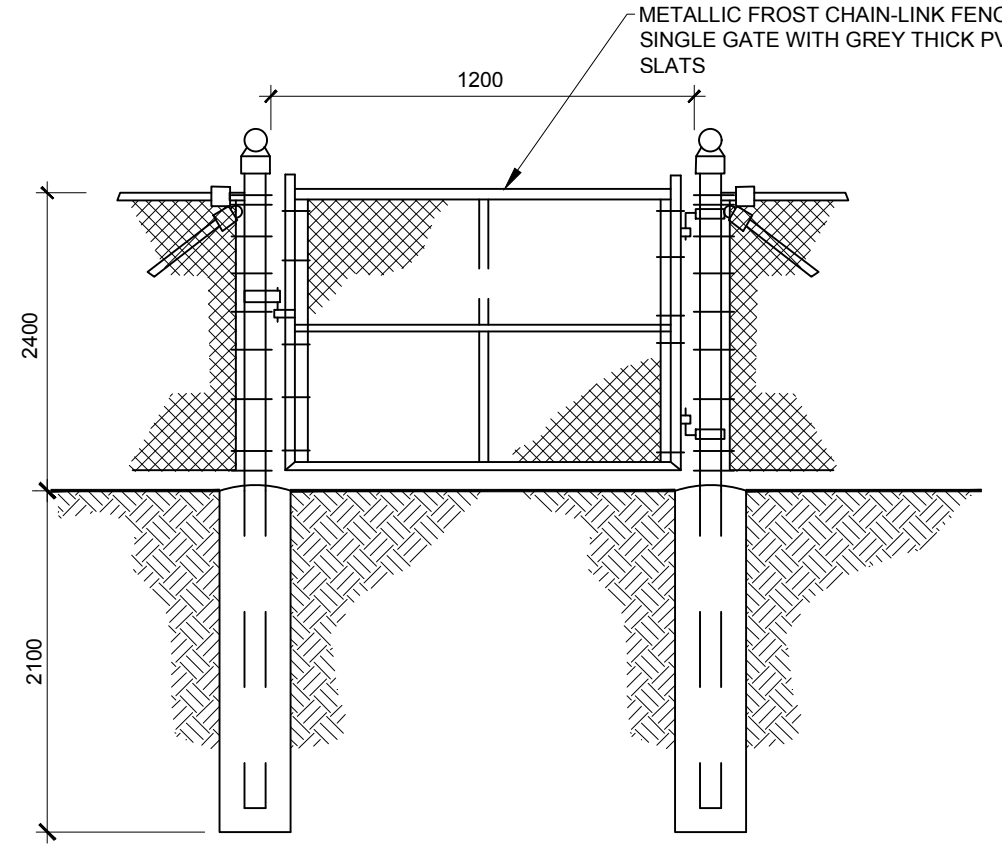
126C MOTORIZED SLIDING GATE

- NOTES:**
- A. SLIDING GATE MUST BE TYPE BCSI ON DOUBLE RAILS BY PIVIN & DRAPEAU OR APPROVED EQUIVALENT.
 - B. THE MOTOR AND THE GATE IN THE RETRACTED POSITION MUST BE PROTECTED WITH A WEATHERPROOF METALLIC SHELTER BY PIVIN & DRAPEAU OR APPROVED EQUIVALENT AS PER THE MINIMUM DIMENSIONS SHOWN ON DRAWING C4.
 - C. BARBED WIRE TO INSTALL ON SLIDING GATE AS PER DETAIL 126A AND ON METALLIC SHELTER.
 - D. ALL MEASUREMENTS ARE IN MILLIMETERS.



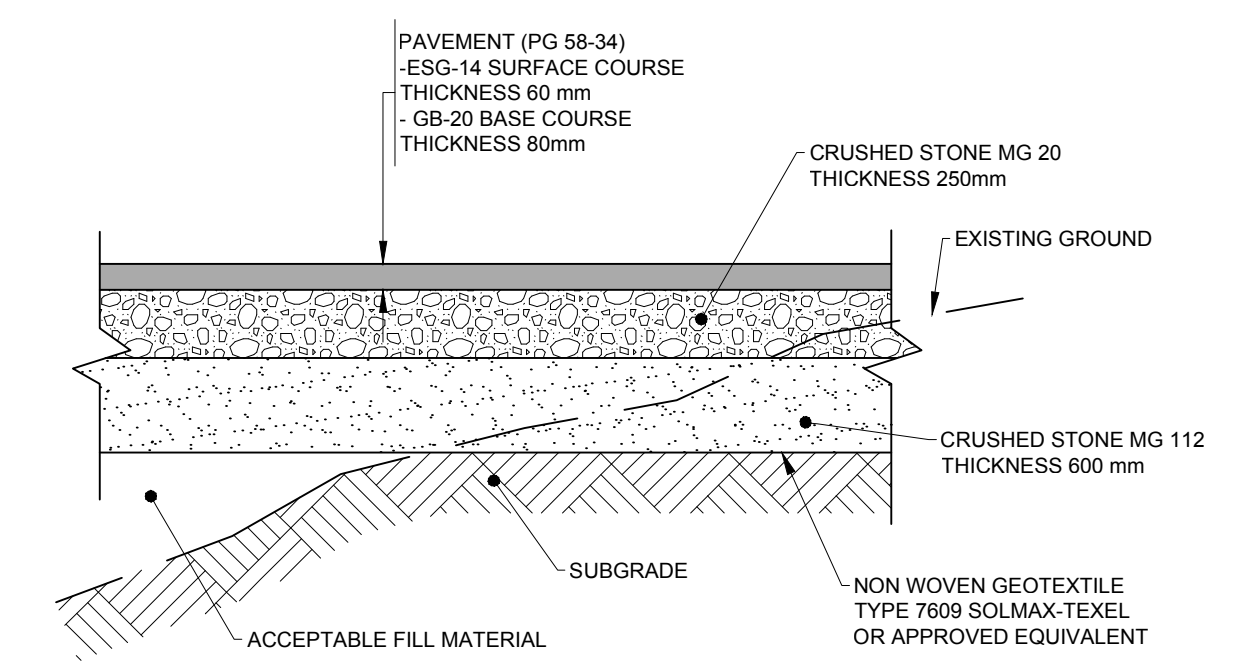
126A BARBED WIRE

- NOTES:**
- A. BARBED WIRE MUST BE INSTALLED ON CHAIN-LINK FENCES INCLUDING GATES OF DETAILS 126B, 126C AND 126D. BARBED WIRE ON TOP OF GATES MUST BE STRAIT AND NOT INCLINED AT 45°.
 - B. BARBED WIRE MUST BE IN GALVANIZED STEEL.

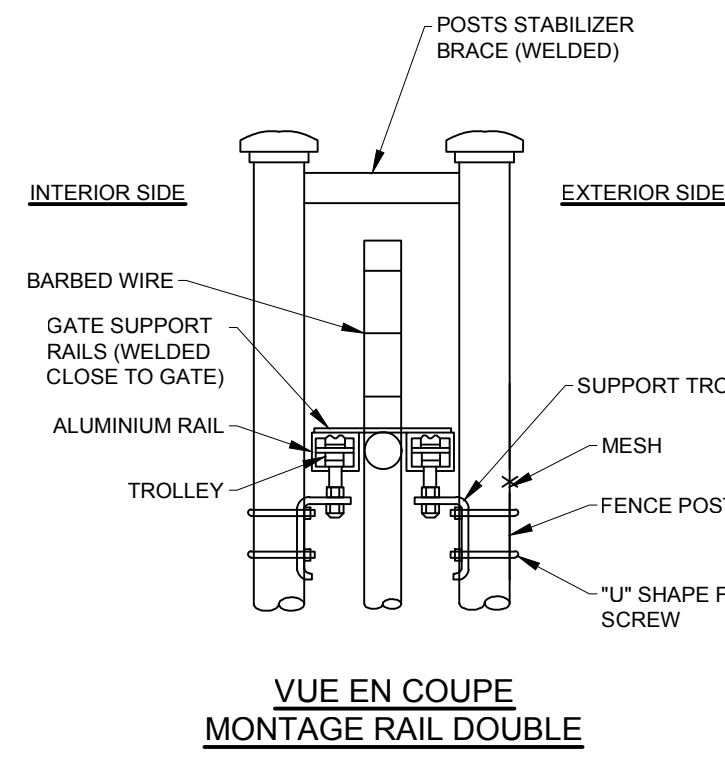


126D SINGLE FENCE BARRIERE

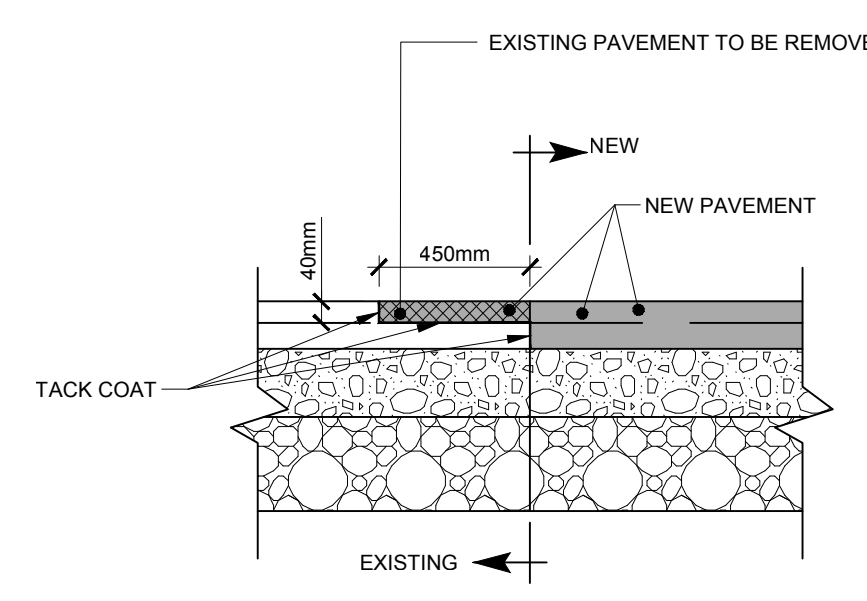
- NOTES:**
- A. BARB WIRE TO BE INSTALL ON TOP OF SINGLE BARRIER AS PER DETAIL 126A.
 - B. ALL MEASUREMENTS ARE IN MILLIMETERS.



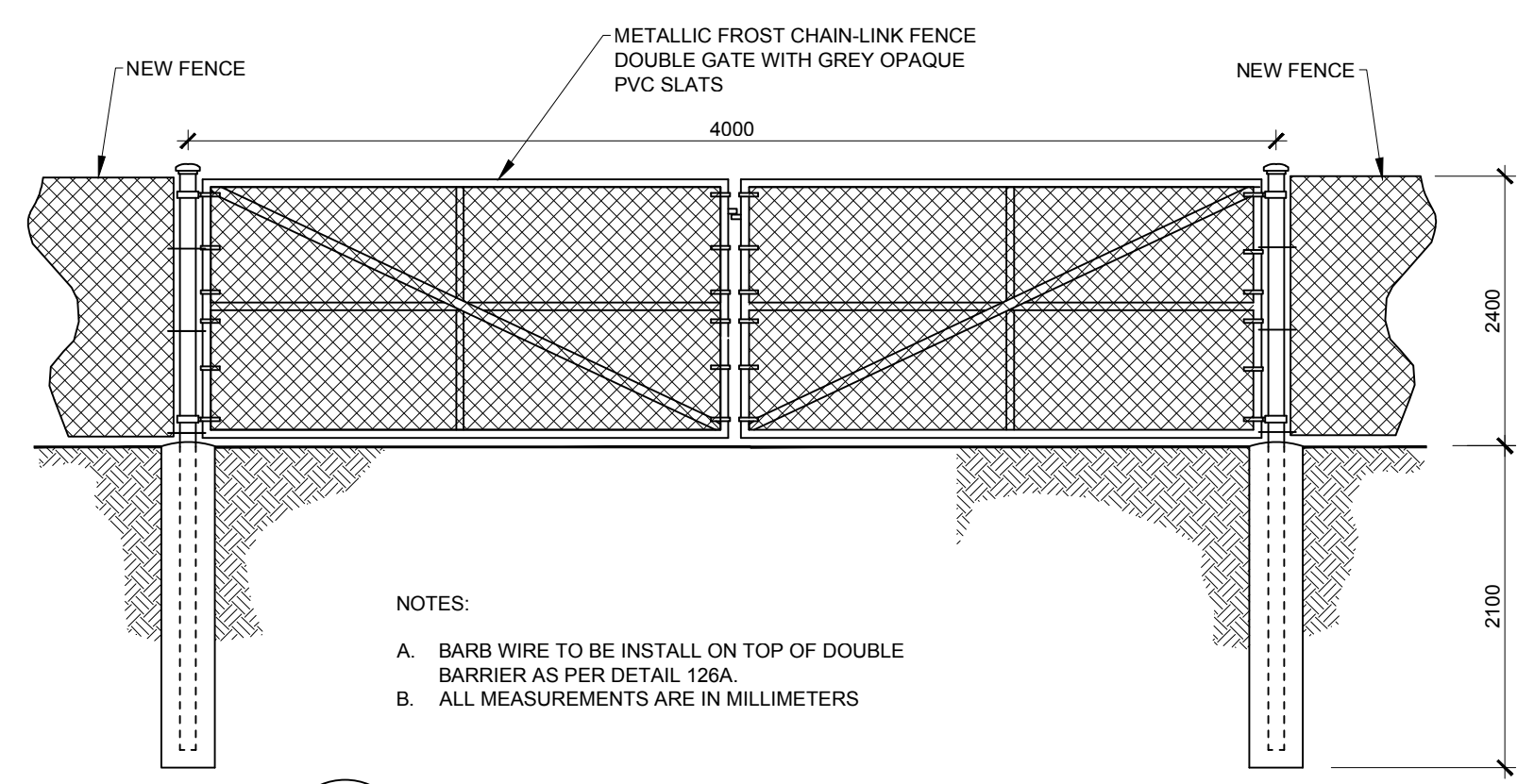
202 ASPHALT PAVEMENT STRUCTURE



200 VUE EN COUPE MONTAGE RAIL DOUBLE

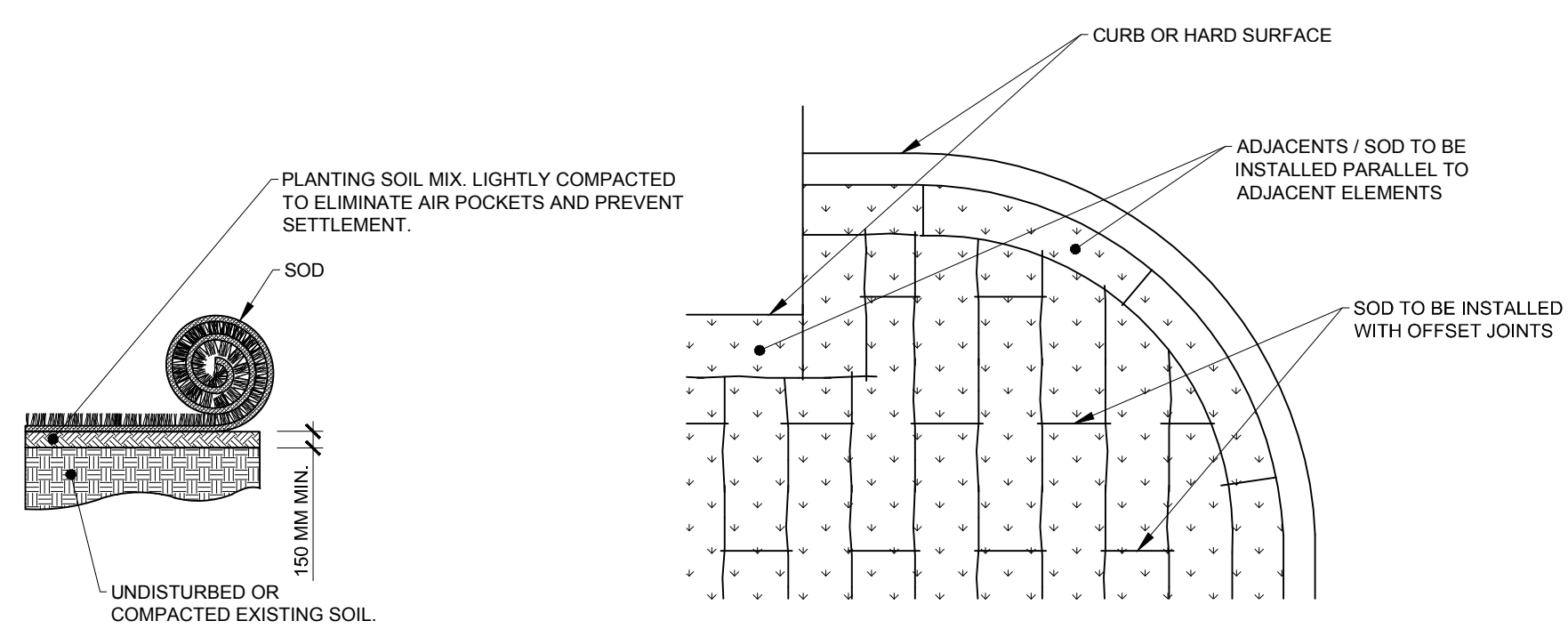


206 TRANSITION BETWEEN EXISTING AND NEW PAVEMENT

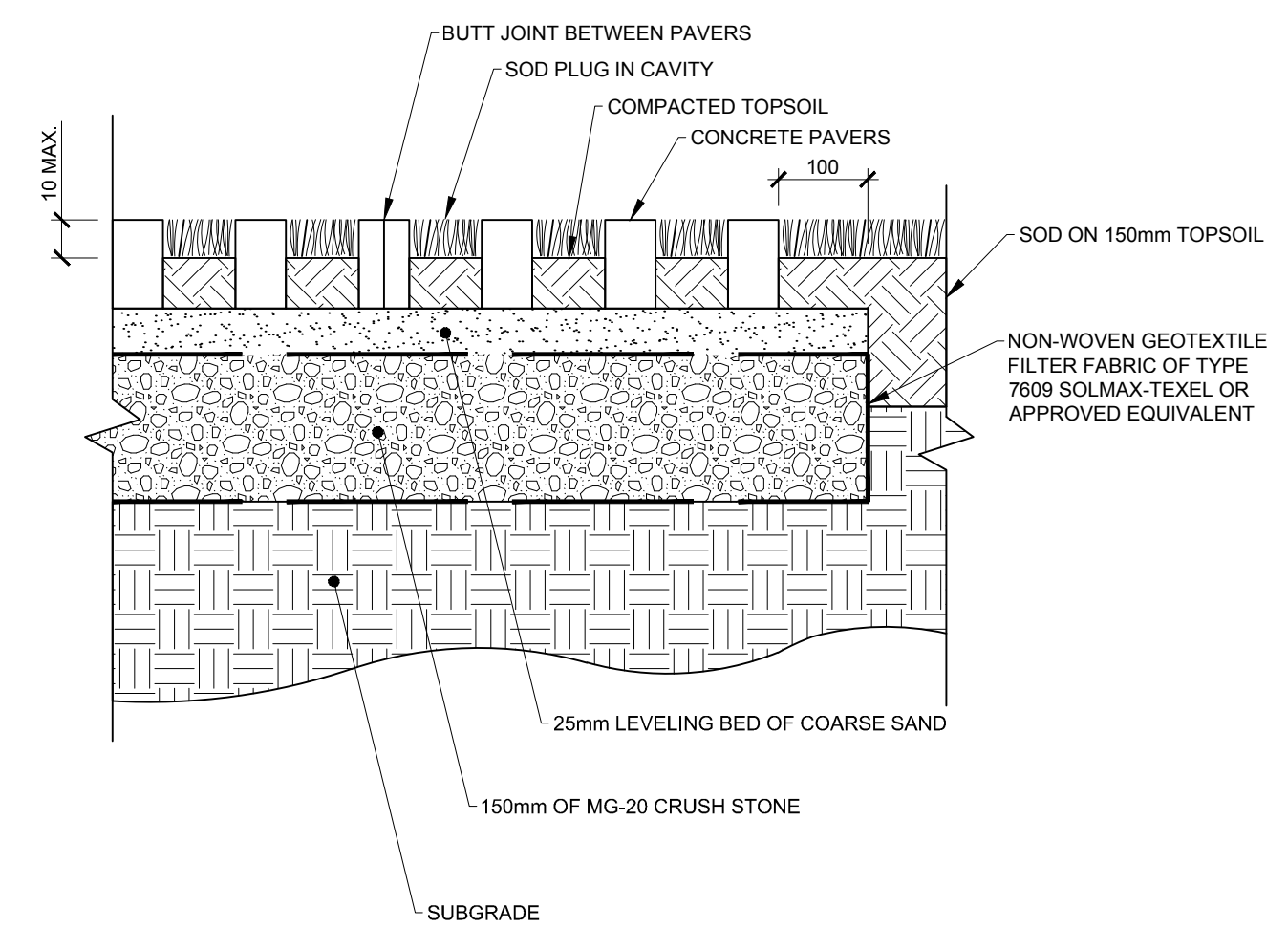


126B DOUBLE FENCE BARRIERE

- NOTES:**
- A. BARB WIRE TO BE INSTALL ON TOP OF DOUBLE BARRIER AS PER DETAIL 126A.
 - B. ALL MEASUREMENTS ARE IN MILLIMETERS.



142 SOD PLANTING



214 CONCRETE PAVER STRUCTURE

- NOTES:**
- THE CONCRETE PAVERS MUST BE OF TYPE "LATTICE STONE" OF PERMACON OR APPROVED EQUIVALENT (95mm THICK).
 - PAVERS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS WITH TIGHT BUTT JOINTS OF APPROXIMATELY 3mm, ON A SAND BASE.
 - SAW CUT PAVERS AS REQUIRED.
 - ALL DAMAGED OR CHIPPED PAVERS MUST BE REPLACED AT THE CONTRACTOR'S COST.
 - ALL MEASUREMENTS ARE IN MILLIMETERS.

C:\A\A000566A_RCPM - New Building in Sept-Îles\400_V60_V60_C6_Details.dwg 4 août 2016 Philippe Desrosiers

DFS architecture & design INC.

Montréal, QC 400 boul. de Maisonneuve O. Bur. 500
 Saint John, NB Montréal (Québec) H3A 1L4
 T: (514) 879-1708 F: (514) 861-6219
 www.dfsarch.com

Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.

CLELAND JARDINE ENGINEERING LTD.

CIMA 240 Catherine St., Suite 110
 Ottawa (Ontario) K1P 3J8
 Telephone: (613) 860-2462
 Fax: (613) 860-1870
 www.cima.ca

Not for construction

plan-référence	key plan	
Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.	stamp	
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
C	Preliminary drawing for coordination	June 8 2016
B	50% Submission	April 29 2016
A	Preliminary submission	Feb. 23 2016
no.	description	date
REVISION		

projet **New Building Construction, Sept-Îles, Québec** projet

1501 Laure Boulevard, Sept-Îles, QC

DETAILS		
conception	no. dossier	project no.
E. Polvin	A000566A	
dessiné	drawn	client file
P. Desrosiers	C6_Details	
approuvé	approved	plot date
E. Polvin	dossier client	
échelle	scale	sheet number
N/A	imprimé	rev
no. page	sheet number	rev
C7		E

Not for construction

plan-référence key plan
sceau stamp

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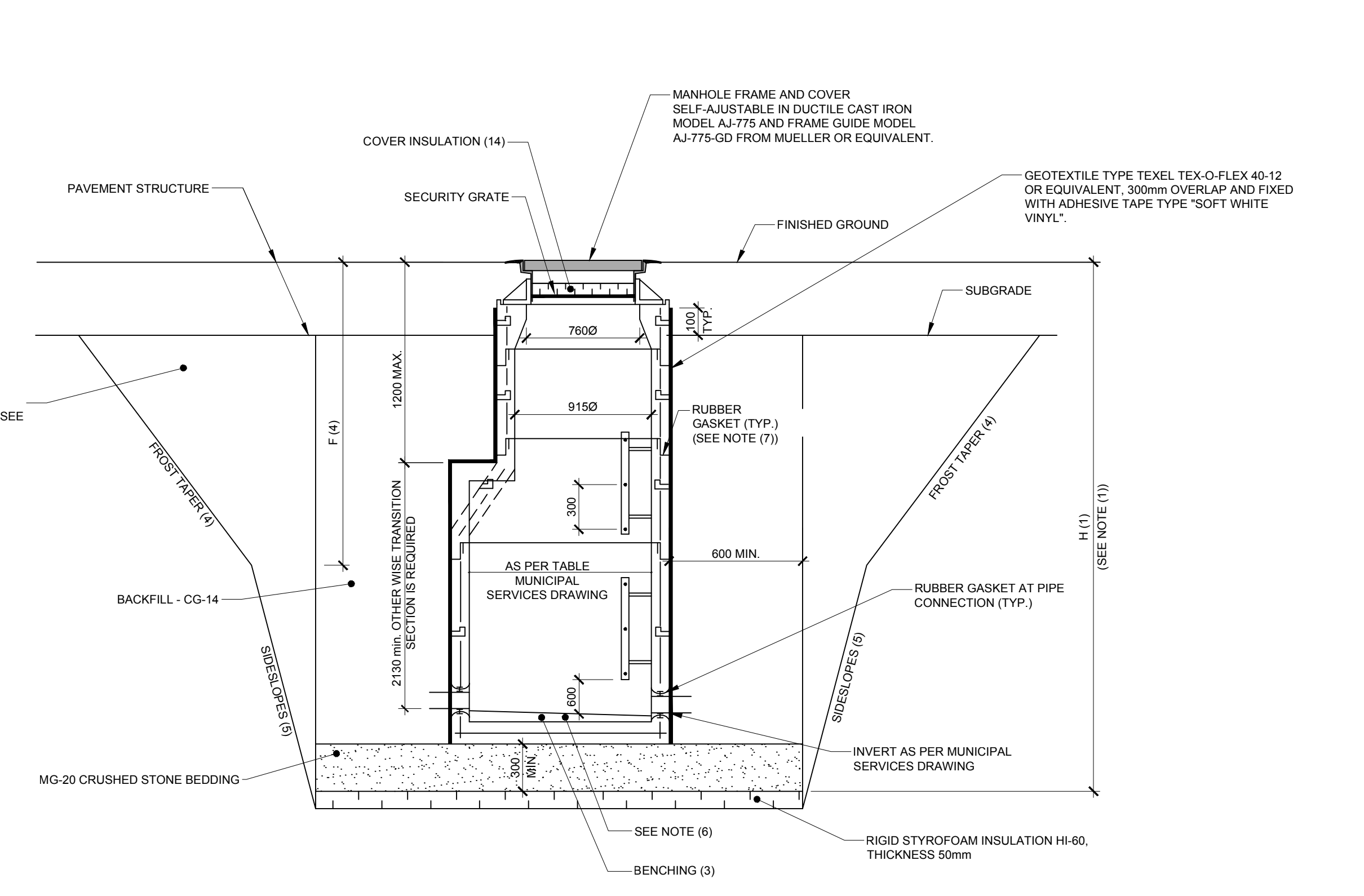


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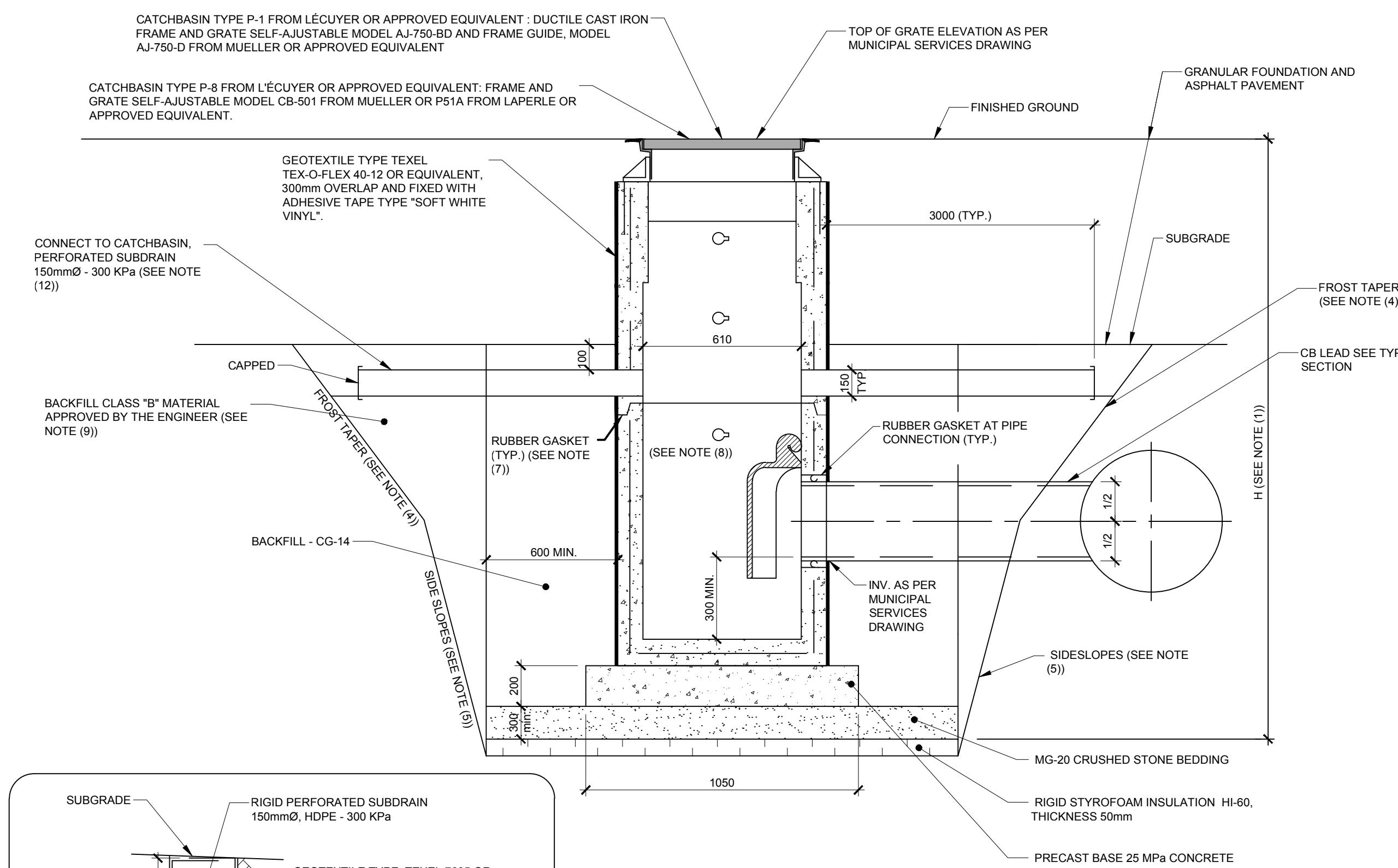
REVISION

proj. New Building Construction, Sept-Îles, Québec
1501 Laure Boulevard, Sept-Îles, QC

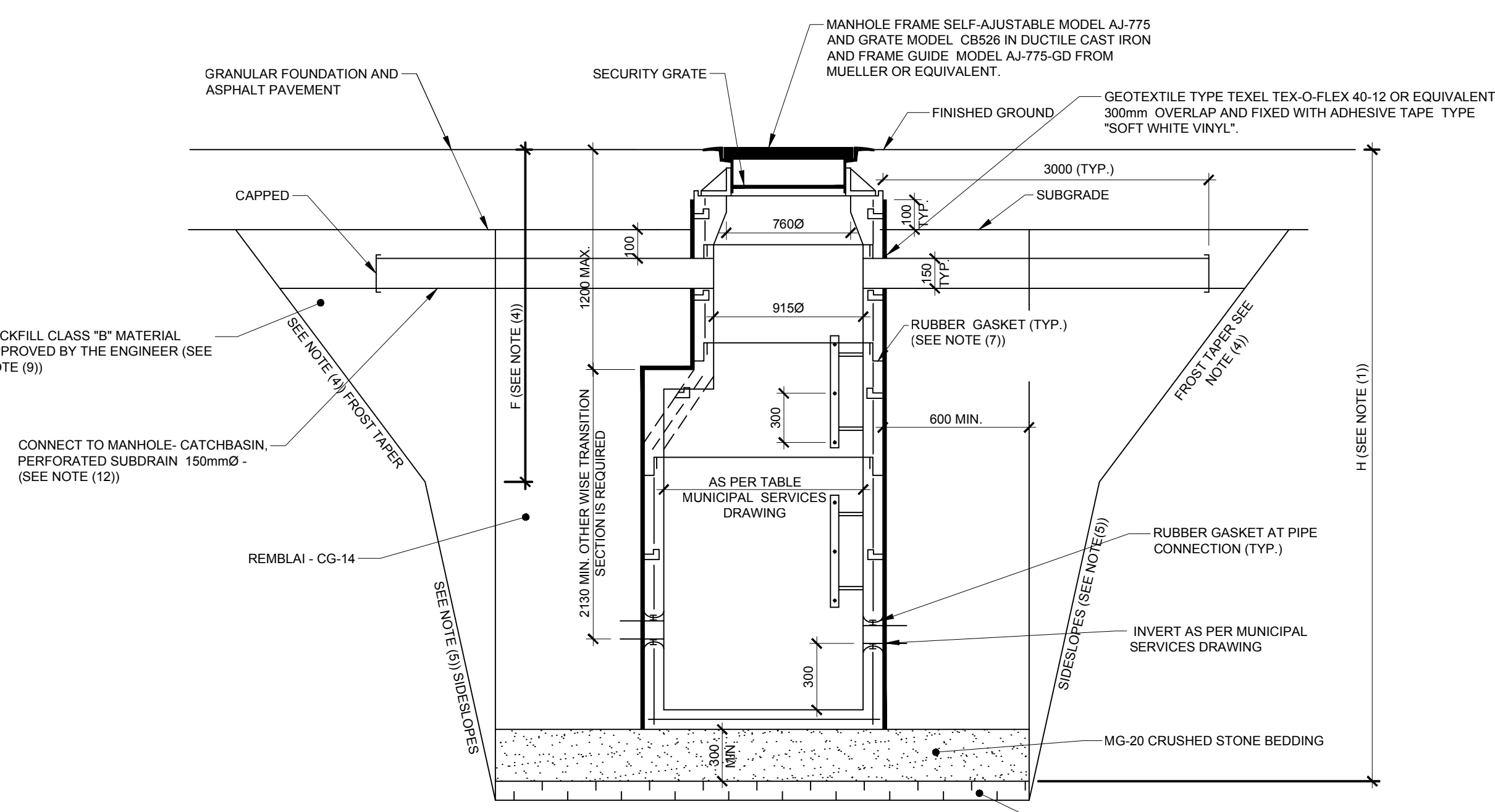
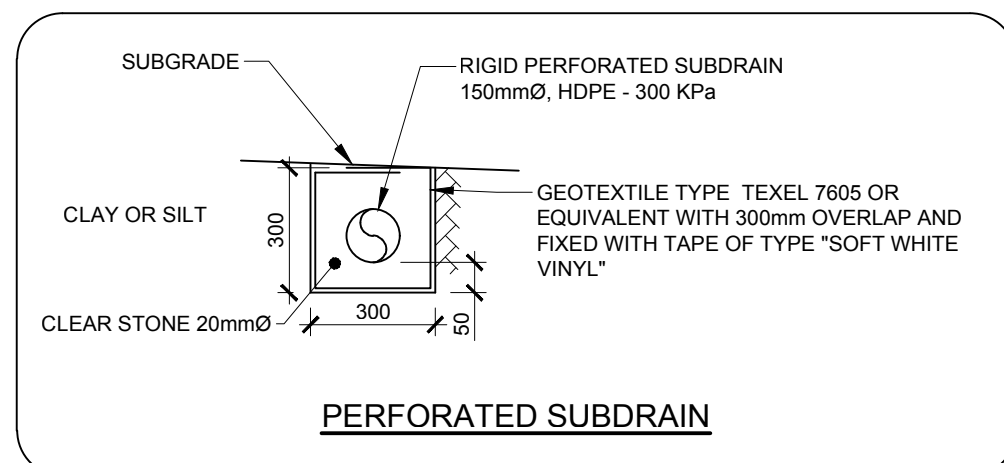
dessin drawing		drawing	
DETAILS			
conception	conception	no. dossier	project no.
E. Polvin		A000566A	
dessiné	drawn	fichier DAO	CAD file
P. Desrosiers		C6_Détails	
approuvé	approved	dossier client	client file
E. Polvin			
échelle	scale	imprimé	plot date
N/A			
no. page	sheet number	rev	
C8		E	



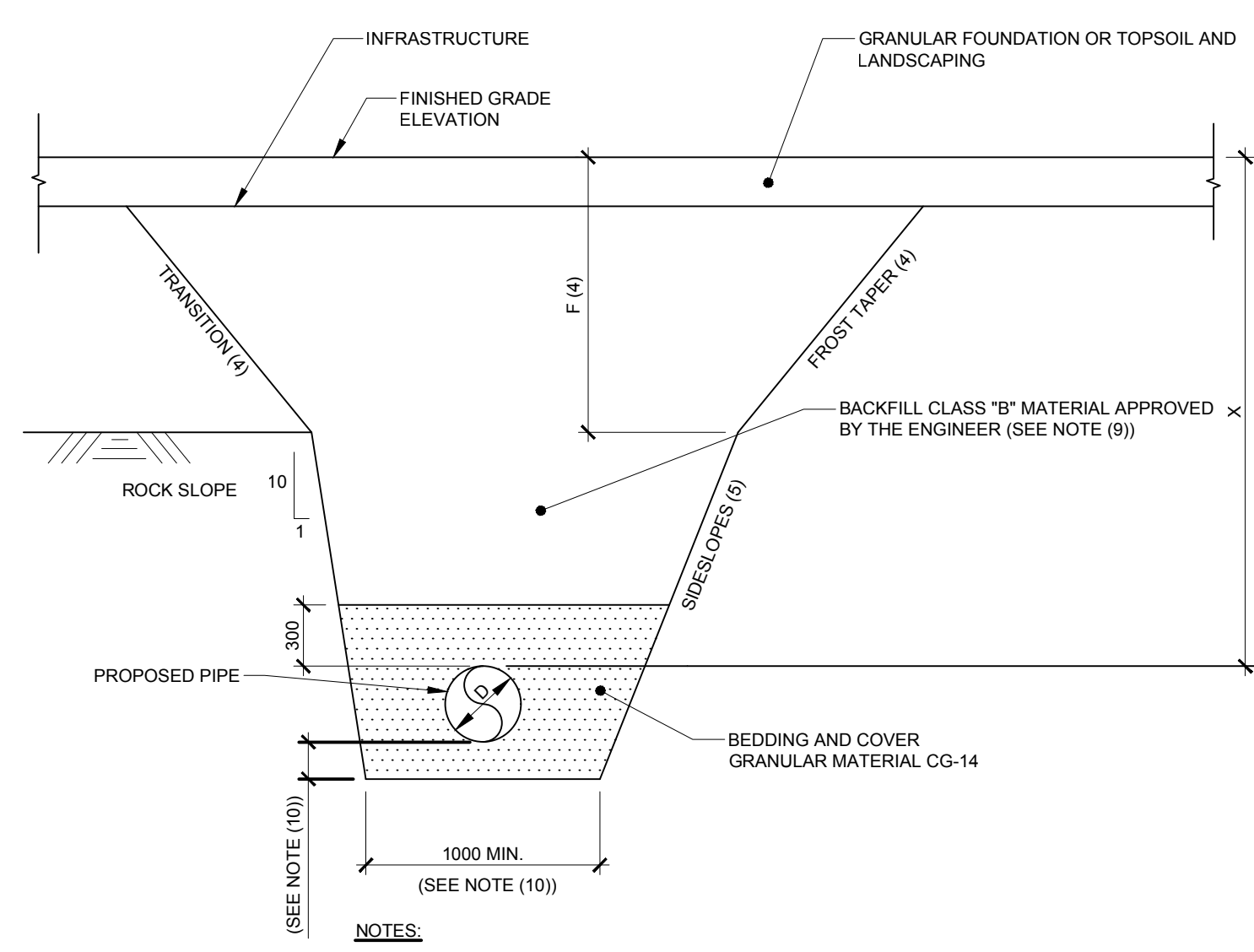
301



303

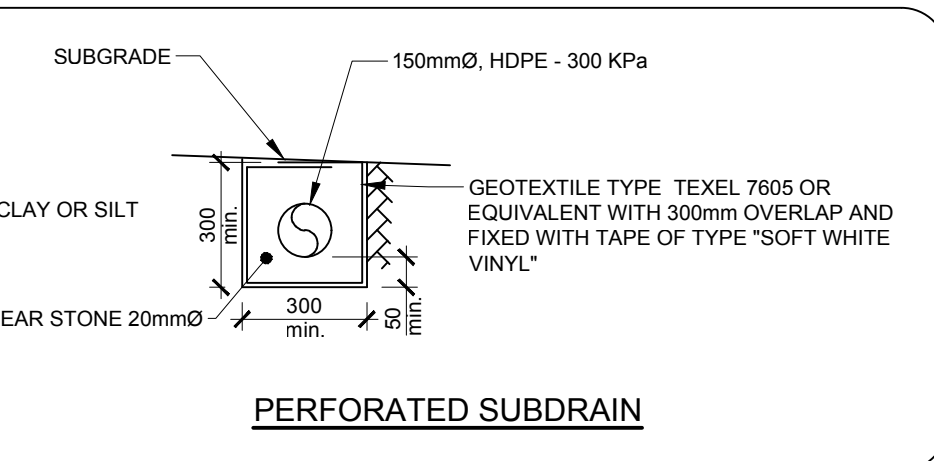


302

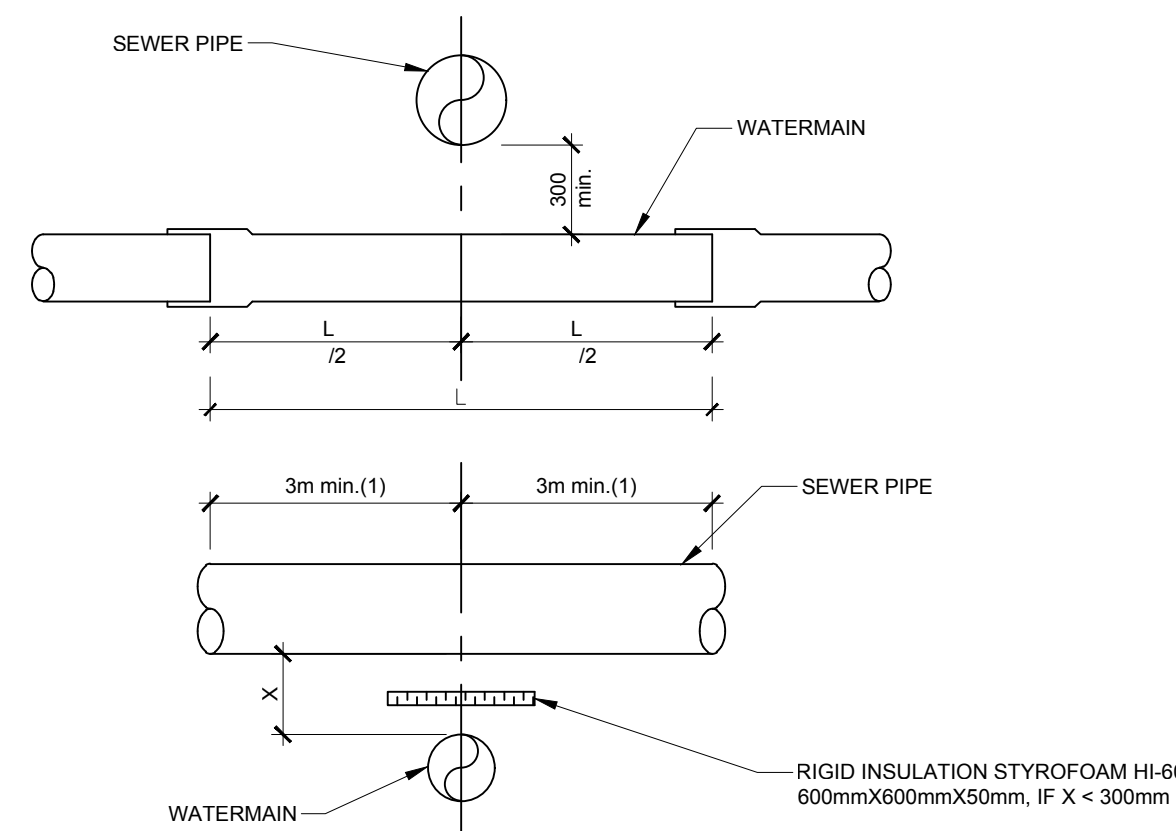


309

- NOTES:**
- WHEN H < 2.1m, INSULATION IS REQUIRED AS PER DETAILS.
 - ALL MANHOLES AND CATCHBASINS TO BE PRECAST AND AS PER BNQ 1809-300/2004 (R2007) AND N.Q. 2622-420. MANHOLES TO BE EQUIPPED WITH SAFETY PLATFORM WHEN HEIGHT EXCEED 6.0m BETWEEN COVER AND BOTTOM OF MANHOLE.
 - FOR SANITARY MANHOLE ONLY, PROVIDE BENCHING UNITS (AS PER DETAIL 301A).
 - FROST TAPER OF 3 HORIZONTAL AND 1 VERTICAL IS REQUIRED WHEN THE BACKFILL MATERIAL IS NOT SIMILAR TO THE EXPOSED MATERIAL IN THE TRENCH, MAXIMUM FROST TAPER DEPTH (F) BELOW FINISH GROUND IS 2.1m FOR TRENCHES AND 2.1m FOR STRUCTURES.
 - TEMPORARY EXCAVATION SIDESLOPES MUST BE CONSTRUCTED AS PER THE REQUIREMENTS OF THE PROVINCIAL "COMMISSION DE SANTÉ ET DE SÉCURITÉ AU TRAVAIL". EXCAVATION SHOULD BE INSPECTED REGULARLY FOR SIGNS OF INSTABILITY AND FLATTENED AS REQUIRED.
 - FOR ALL STORM SEWER MANHOLE, A SPACE OF 300 mm SHALL BE LEFT BETWEEN THE LOWEST INVERT AND THE BOTTOM OF THE MANHOLE.
 - ALL MANHOLES, CATCHBASIN-MANHOLES AND CATCHBASINS SHALL BE EQUIPPED WITH RUBBER GASKETS AND SHALL BE AS PER CITY REQUIREMENTS.
 - CATCHBASIN TRAPS ARE NOT REQUIRED WHERE INLET CONTROL DEVICES TYPE VORTEX ARE INSTALLED.
 - BACKFILL FOR SERVICES TRENCHES IN LANDSCAPING AREA MAY CONSIST OF NON-ORGANIC MATERIAL WITH 300mm MAXIMUM SIZE OF THE LARGEST FACE, COMPACTED IN MAXIMUM 300mm LIFTS OR AS INDICATED ON THE DRAWINGS.
 - THE TRENCHES BASE WIDTH AND MINIMUM BEDDING / COVER THICKNESS SHALL BE AS PER BNQ 1809-300/2004 FIG. 29, 35, 36, 37 AND 38.
 - N/A
 - PERFORATED SUBDRAIN 150mmØ SHALL BE CONNECTED ON THE CATCHBASIN AND MANHOLE/CATCHBASIN, AS PER DRAWING C-5.
 - FIRE HYDRANT DRAINING OUTLETS SHALL BE PLUGGED.
 - WHEN H < 2.1m, THE SANITARY MANHOLE COVER SHALL BE INSULATED.

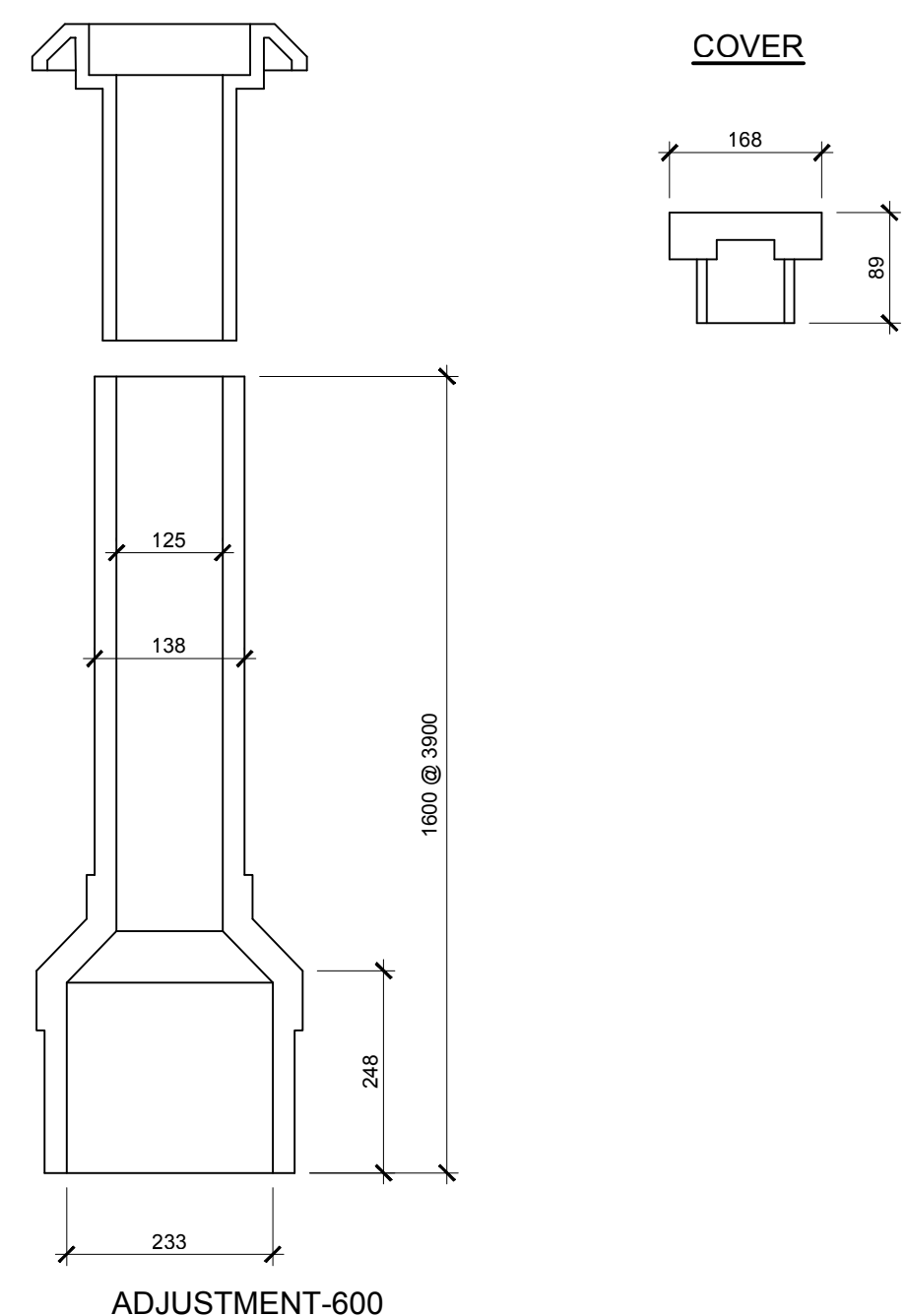


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NOTE: (1) MINIMUM OF 3m OF IMPERVIOUS SEWER PIPE ON EACH SIDE OF THE CROSSING.

310 TYPICAL SECTION CROSSING SEWER PIPE AND WATERMAIN DETAIL



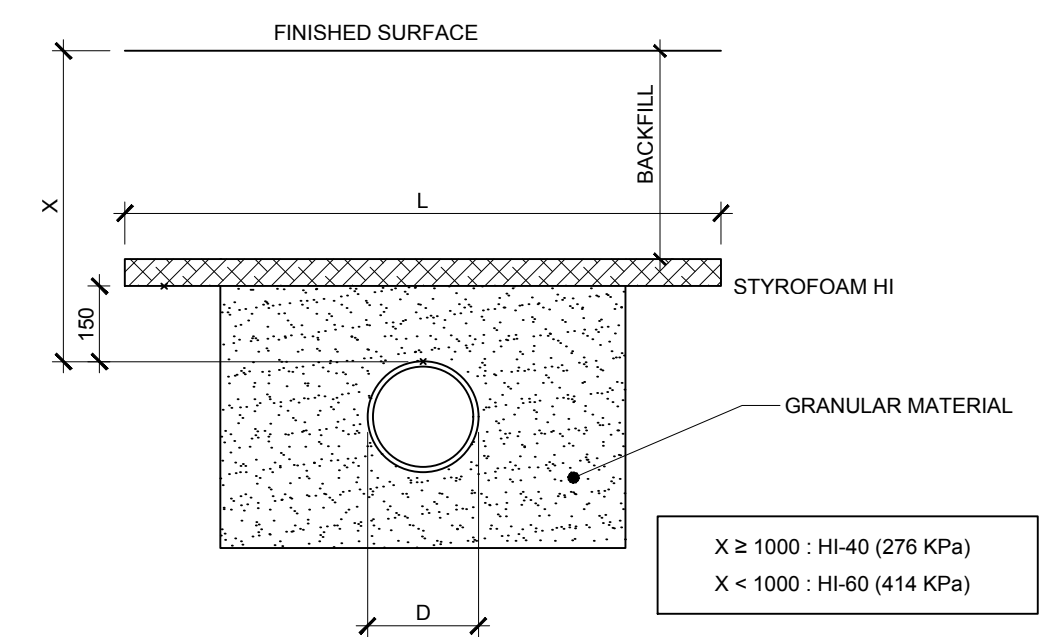
312 VALVE BOX

REQUIRED ANCHORING (METERS)

DIAMETER	ACCESSORIES	ELBOW 11 1/4" & 22 1/2"	ELBOW 45°	ELBOW 90°	TEE	FIRE HYDRANT, CAP AND VALVE*
150mm AND 200mm	HORIZONTAL AND VERTICAL UPWARD ELBOWS	2	3	7		
	VERTICAL DOWNWARD ELBOW	4	6	14		
250mm	HORIZONTAL AND VERTICAL UPWARD ELBOWS	2	3	8	6	14
	VERTICAL DOWNWARD ELBOW	4	7	16	8	16

- NOTES:**
- THE ANCHORING LENGTH FOR SHUT OFF VALVES IS REQUIRED ON EACH SIDE.
 - THE ANCHORING LENGTH FOR REDUCERS IS REQUIRED ON THE LARGER DIAMETER SIDE AS PER FOLLOWING:
 - 150MM TO 100MM REDUCER = 7.5 METERS
 - 200MM TO 150MM REDUCER = 8.0 METERS
 - 250MM TO 200MM REDUCER = 8.0 METERS
 - THE CONTRACTOR CAN ALSO MAKE HIS OWN ANCHORING LENGTH COMPUTATIONS BUT SHOULD REFER TO THE THRUST RESTRAINT DESIGN FOR DUCTILE CAST IRON PIPE HANDBOOK 5TH EDITION OR MORE RECENT EDITION PUBLISHED BY THE DUCTILE CAST IRON PIPE RESEARCH ASSOCIATION (DIPRA). CONTRACTOR MUST USE CORRECTION FACTORS AS MENTIONED IN THE B.NQ-1809-300/2004 (2007), IF THE PIPE MATERIAL USED'S PVC. THE CONTRACTORS ENGINEERING DESIGN COMPUTATIONS MUST BE SIGNED AND SEALED BY THE CONTRACTORS ENGINEER AND APPROVED PRIOR TO START WORKS AS PER ARTICLE 10.4.7 OF THE B.NQ-1809-300/2004 (2007). THE TYPE OF GROUND SELECTED WILL CORRESPOND TO THE TYPE OF GROUND HAVING THE LOWEST BEARING CAPACITY (R_B) AMONG THE FOLLOWING TYPES: MOVABLE DEPOSITS, BASE COURSE AND COATING MATERIALS AND BACKFILL MATERIALS. THE FRICTION FORCE (F_a) USED FOR THE TYPE OF SOIL MUST BE AS PER THE BASE COURSE AND COATING MATERIALS, PROVIDED THAT THE PIPING IS COMPLETELY COATED. IN THE EVENT THAT IT WAS NOT COMPLETELY COATED, THE TYPE OF MATERIAL TO BE USED WILL BE THAT OF THE ONE PRODUCING THE LONGEST ANCHORING DISTANCE. SIGNED AND SEALED COMPUTATIONS MUST BE SUBMITTED FOR EACH ACCESSORY TO BE RESTRAINED. A 1.5 OR GREATER SAFETY FACTOR MUST BE USED AND THE OPERATING PRESSURE MUST BE 1 035 KPa.
 - THE CONTRACTOR MUST MAKE HIS OWN COMPUTATIONS WHILE REFERRING TO NOTE 3 FOR ANY OTHER DIAMETER OR ACCESSORY NOT SHOWN IN THE TABLE.

313 RESTRAINT SYSTEM



MINIMUM WIDTH OF ISULATION TABLE (L)

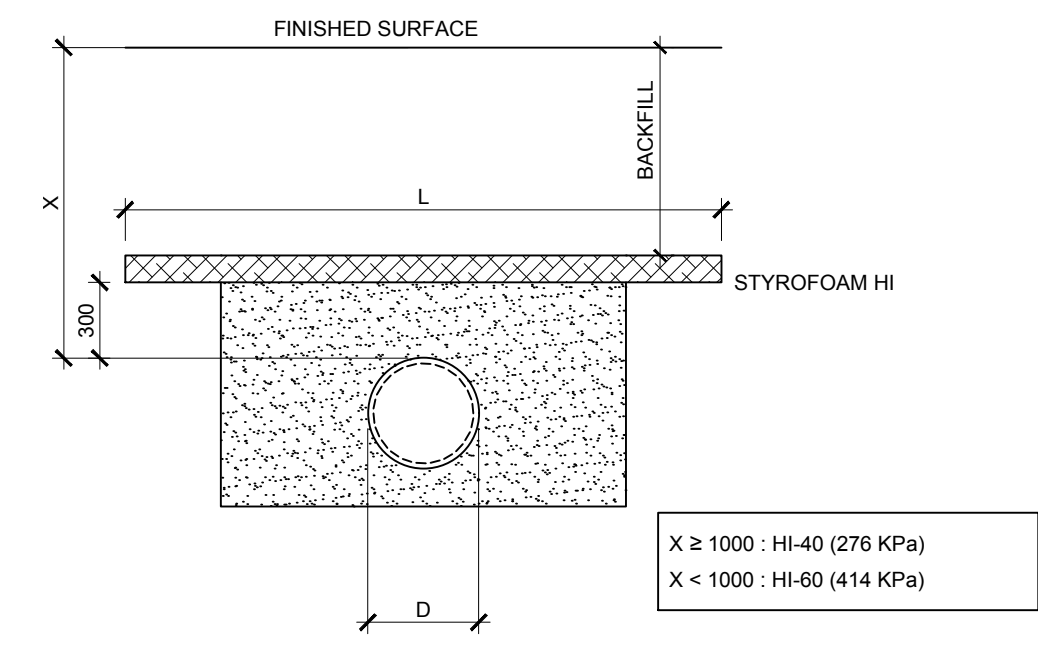
X \ D	≤150	200	250	300	400	500	600
750	1850	1900	1950	2000	2100	2200	2300
1000	1350	1400	1450	1500	1600	1700	1800
1250	850	900	950	1000	1100	1200	1300
1500	600	600	600	600	600	700	800
1550	600	600	600	600	600	600	700

INSULATION THICKNESS

100
100
100
75
75

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

314C PIPE INSULATION (1.6m-COVER)



MINIMUM WIDTH OF ISULATION TABLE (L)

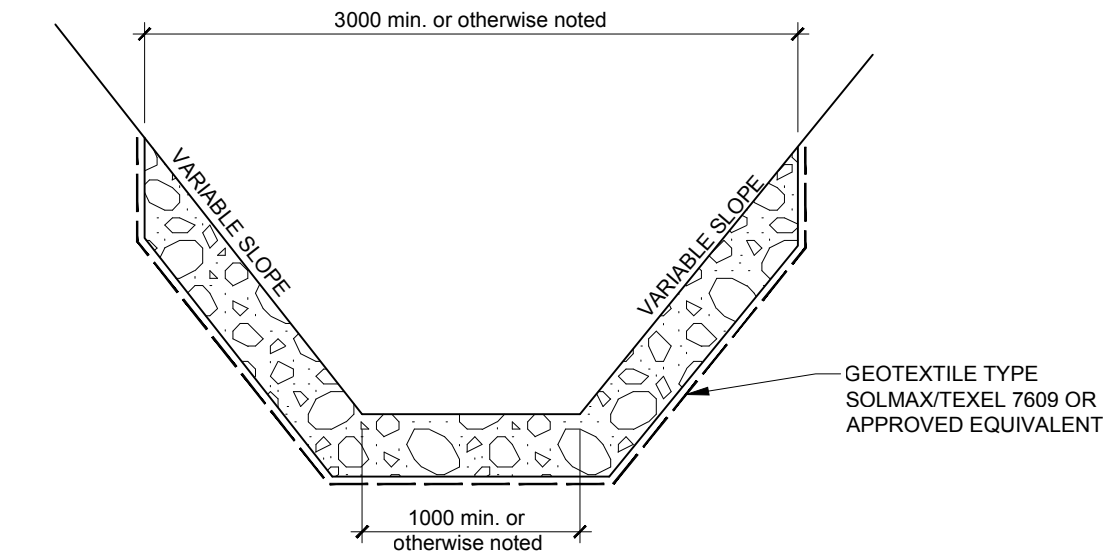
X \ D	≤150	200	250	300	400	500	600
750	2850	2900	2950	3000	3100	3200	3300
1000	2350	2400	2450	2500	2600	2700	2800
1250	1850	1900	1950	2000	2100	2200	2300
1500	1350	1400	1450	1500	1600	1700	1800
1750	850	900	950	1000	1100	1200	1300
2000	600	600	600	600	600	700	800
2050	600	600	600	600	600	600	700

INSULATION THICKNESS

100
100
100
75
75
50
50

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

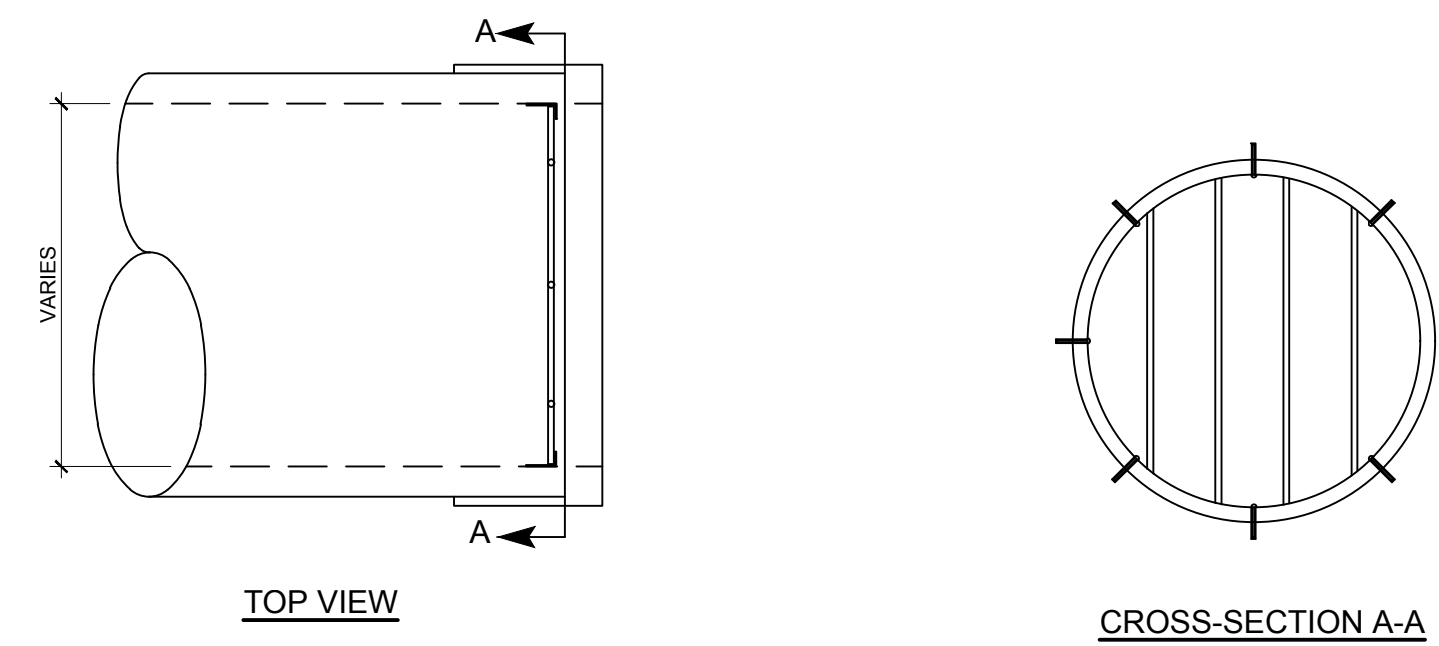
314B WATERMAIN INSULATION (2.1m-COVER)



RIP-RAP

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

320 RIP-RAP FOR DITCH (TYPICAL)



321B STAINLESS STEEL SECURITY GRATE AT PIPE EXIT FOR PVC OR HDPE PIPES

- NOTES:**
- WHEN H < 2.1m, INSULATION IS REQUIRED AS PER DETAILS.
 - ALL MANHOLES AND CATCHBASINS TO BE PRECAST AND AS PER B.NQ 1809-300/2004 (R2007) AND N.Q. 2622-420. MANHOLES TO BE EQUIPPED WITH SAFETY PLATFORM WHEN HEIGHT EXCEED 6.0m BETWEEN COVER AND BOTTOM OF MANHOLE.
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 - THE TRENCHES BASE WIDTH AND MINIMUM BEDDING / COVER THICKNESS SHALL BE AS PER B.NQ 1809-300/2004 FIG. 29, 35, 36, 37 AND 38.
 - N/A
 - PERFORATED SUBDRAIN 150mmØ SHALL BE CONNECTED ON THE CATCHBASIN AND MANHOLE/CATCHBASIN, AS PER DRAWING C-5.
 - FIRE HYDRANT DRAINING OUTLETS SHALL BE PLUGGED.
 - WHEN H < 2.1m, THE SANITARY MANHOLE COVER SHALL BE INSULATED.

C:\A\A000566A\RCMP - New Building in Sept-Îles\400\460\CE_Détails.dwg 4 août 2016 Philippe Desrosiers

plan-référence key plan

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.

INGÉNIEUR
 Eric Potvin
 146199
 4 août 2016
 QUÉBEC

no.	description	date
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
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REVISION

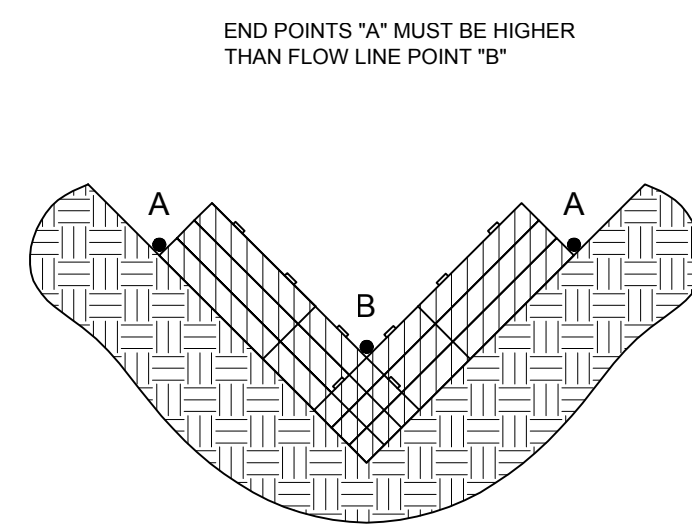
proj. New Building Construction, Sept-Îles, Québec

1501 Laure Boulevard, Sept-Îles, QC

dessin drawing

DETAILS

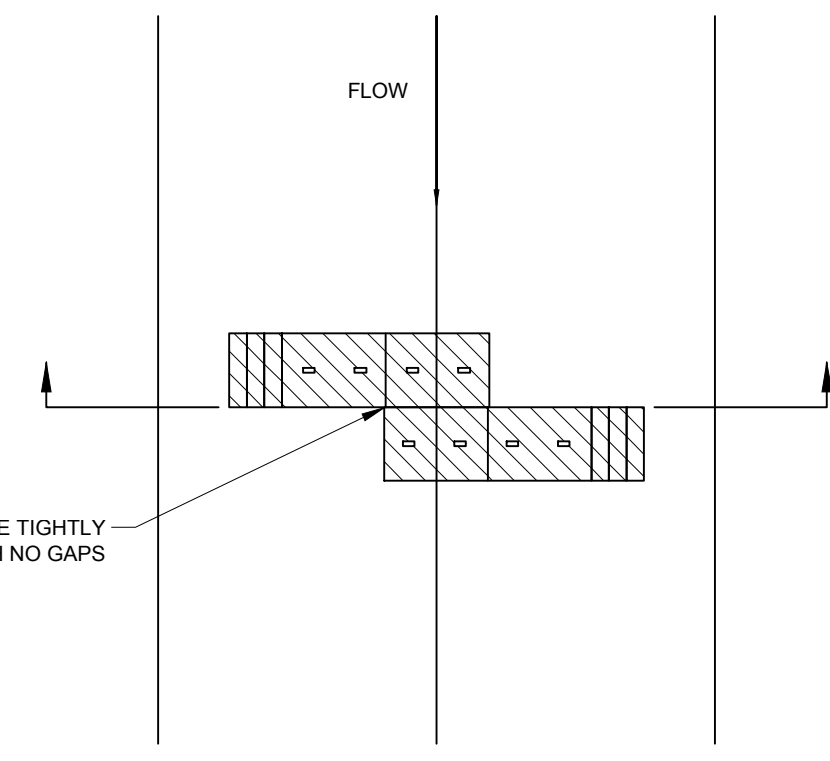
conception	conception	no. dossier	project no.
E. Potvin		A000566A	
dessine	drawn	fichier DAO	CAD file
P. Desrosiers		CE_Détails	
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échelle	scale	imprimé	plot date
N/A			
no. page	sheet number	rev	
C9	E		



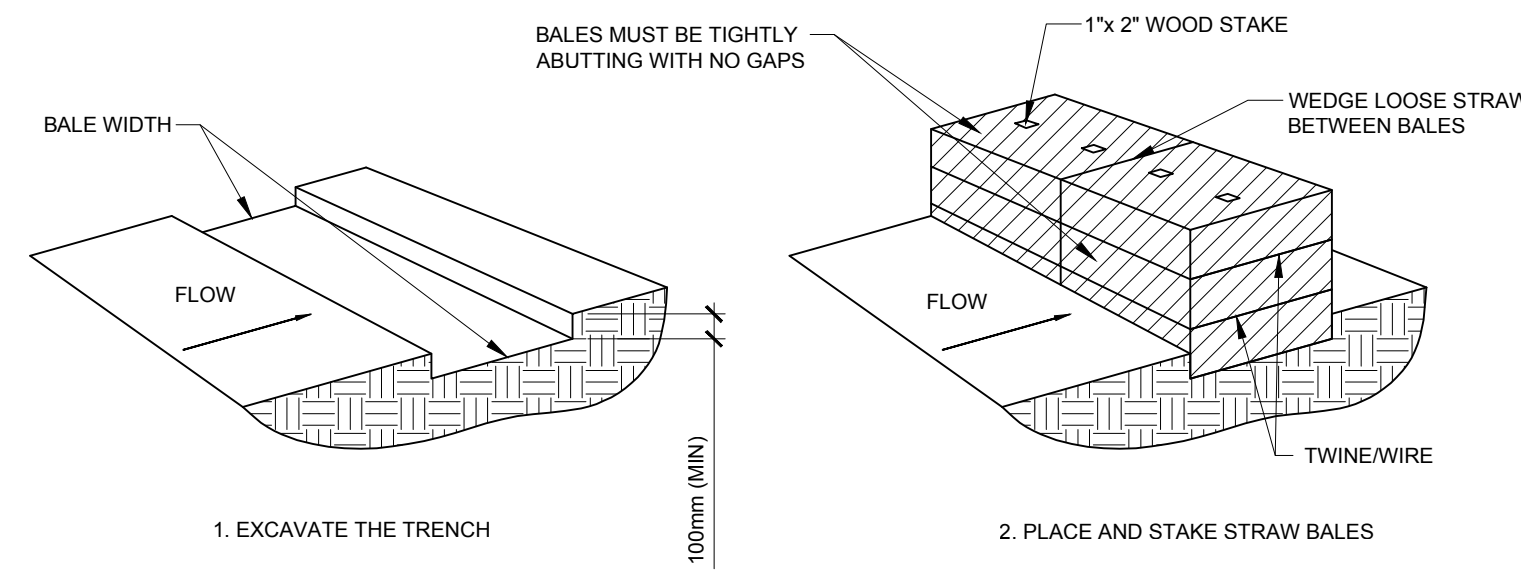
CROSS SECTION

VALUE OF Z	MINIMUM NUMBER OF BALES
1.0 OU <	1**
1.0 - 3.5	2**
3.5 - 5.0	3**
5.0 - 7.0	4**
7.0 OU >	NOT RECOMMENDED

** ASSUMES DEPTH OF WATER ABOVE POINT 'B' WILL NOT EXCEED 6 INCHES

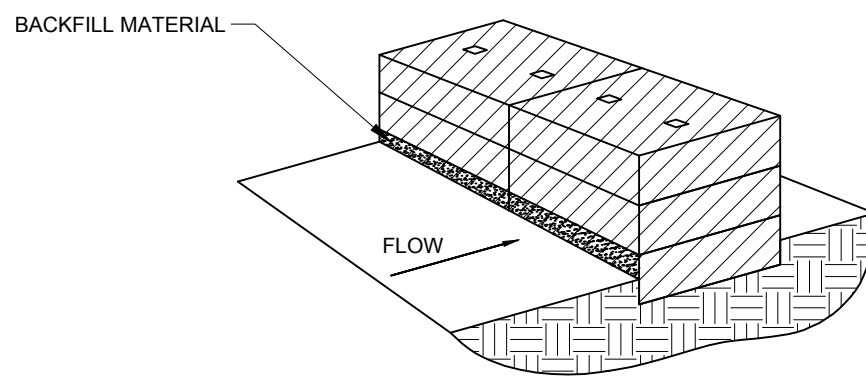


PLAN VIEW

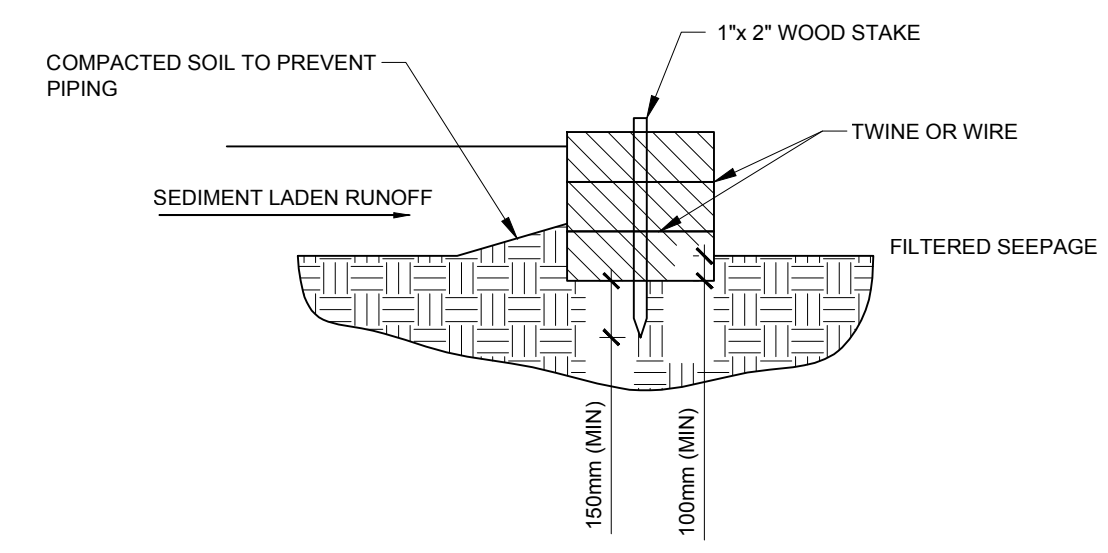


1. EXCAVATE THE TRENCH

2. PLACE AND STAKE STRAW BALES



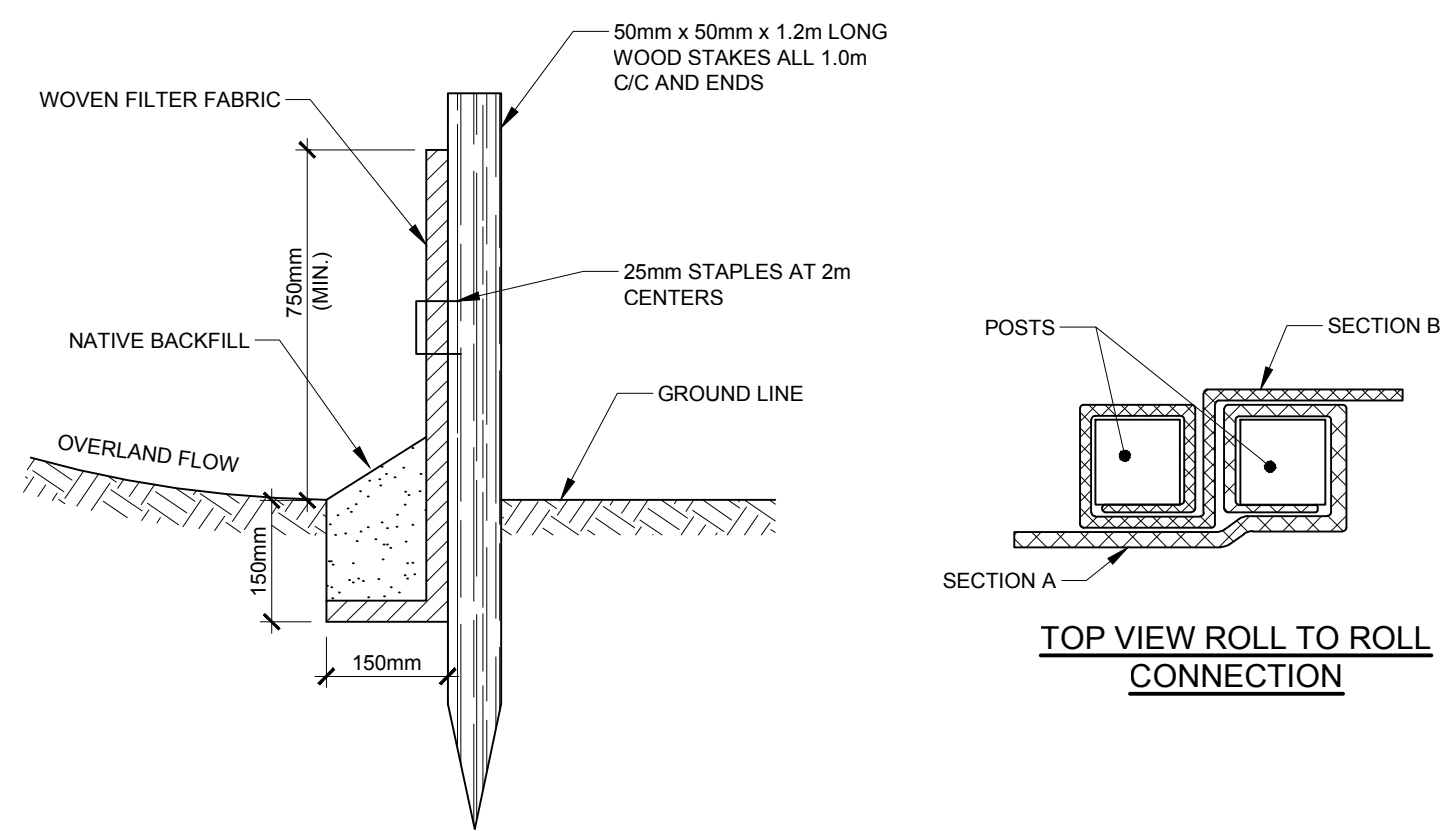
3. BACKFILL AND COMPACT EXCAVATED SOIL



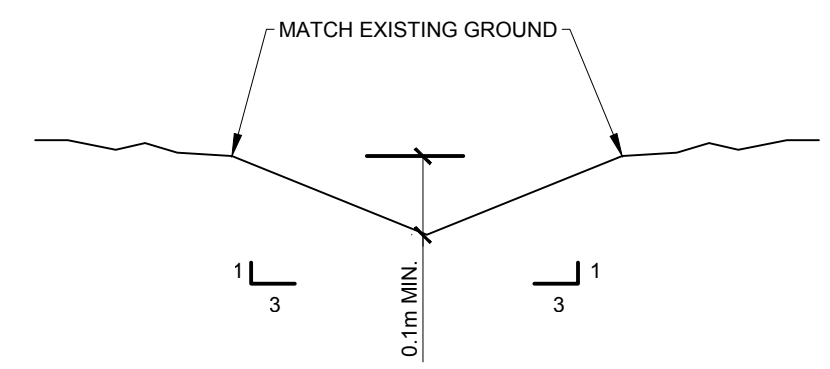
INSTALLATION

328

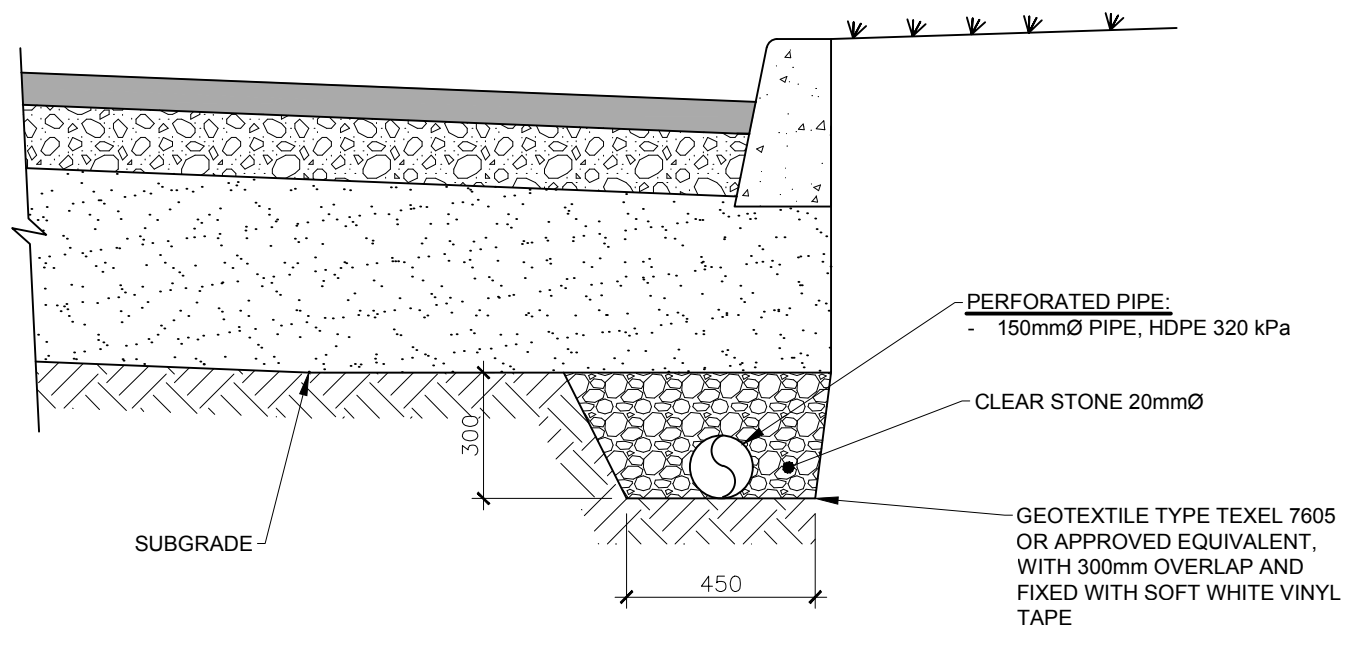
STRAW BALE FLOW CHECK



322 SEDIMENT BARRIER

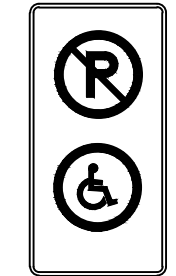


333 SWALE (TYPICAL)



348 ACCESS ROAD SUBDRAIN TYPICAL SECTION

ACCESSIBLE PARKING SIGN

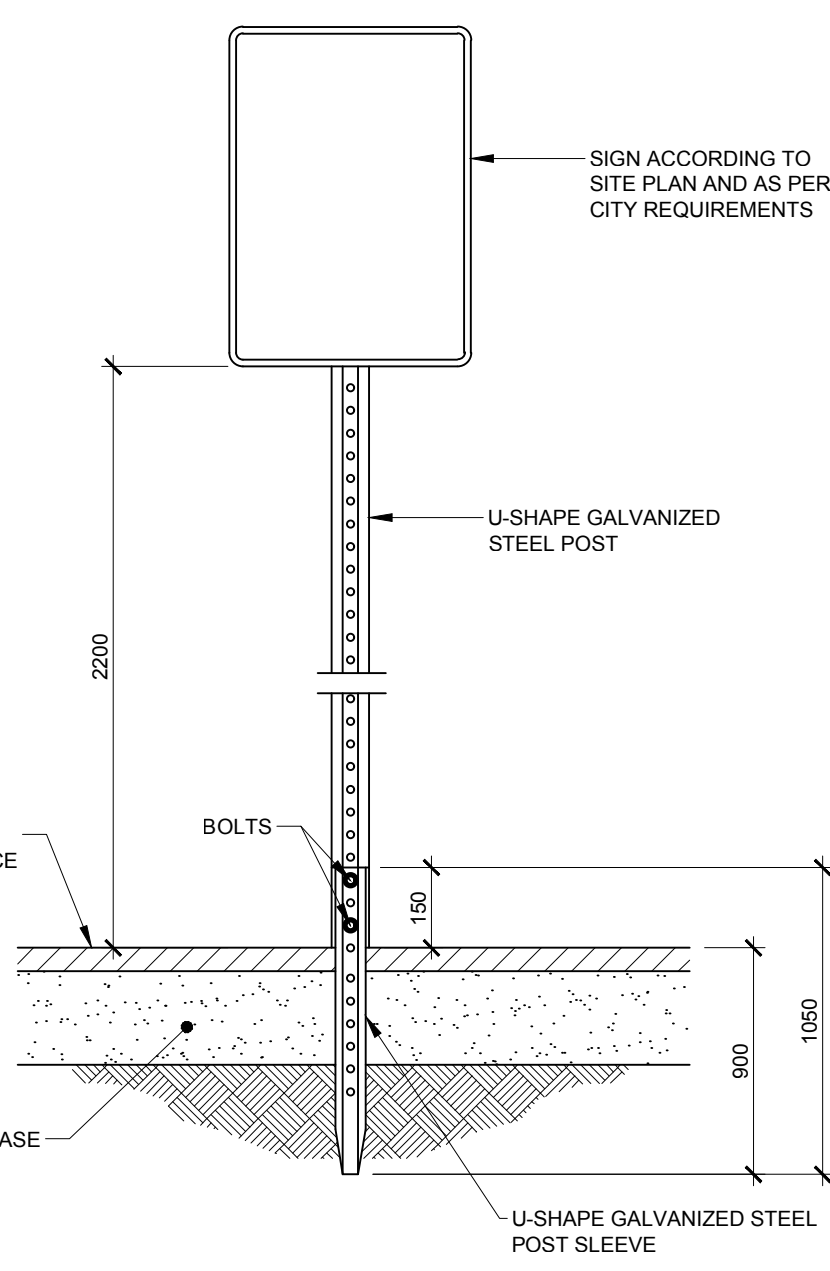


P-150-5

VISITOR PARKING SIGN

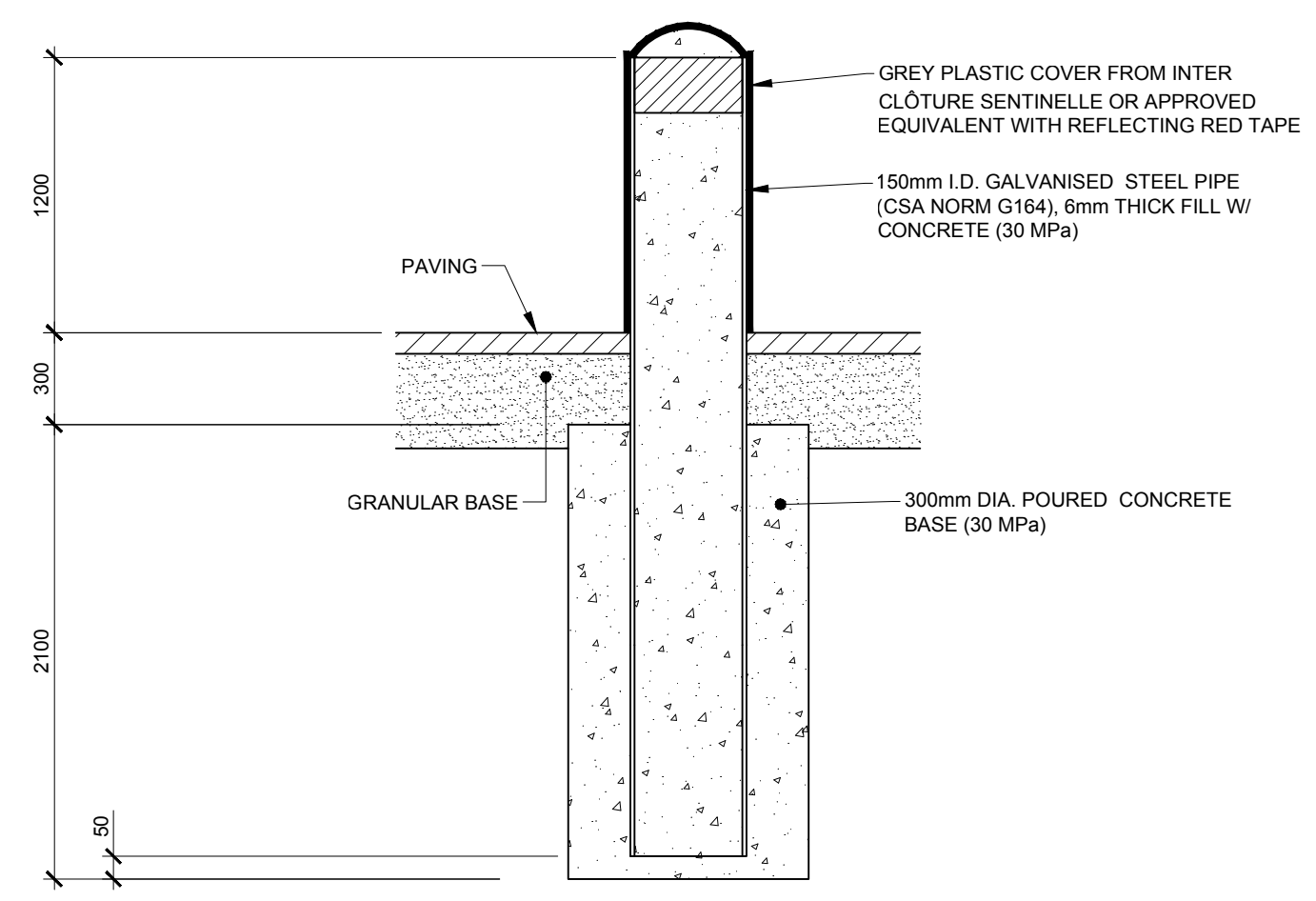


SIGN FABRICATED ON DEMAND



401

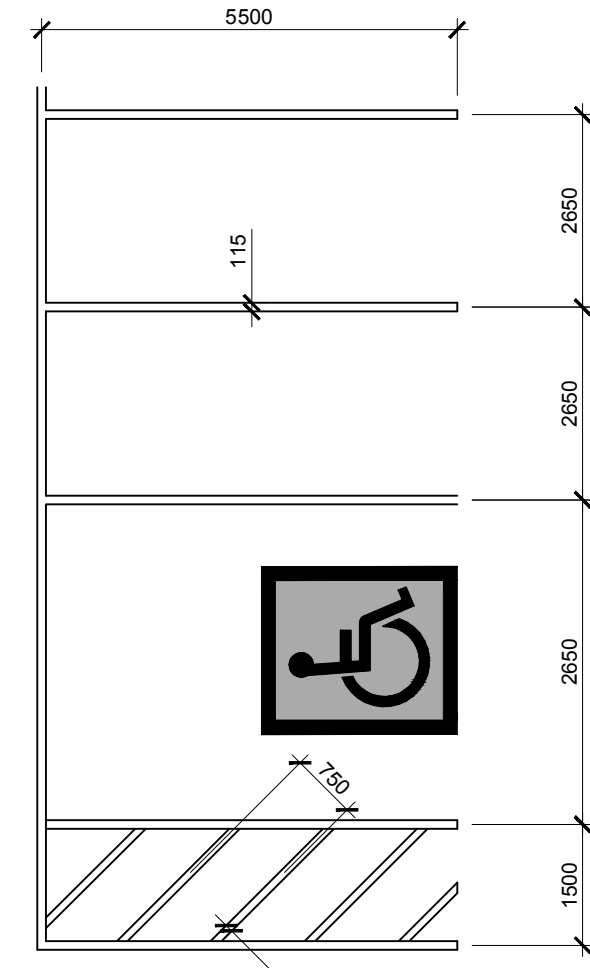
FREE STANDING SIGN



403

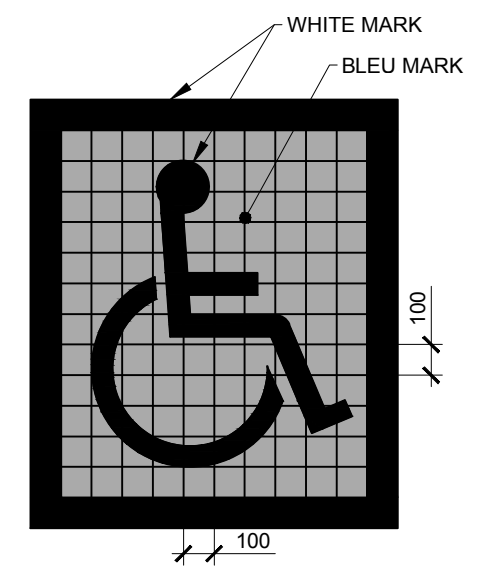
BOLLARD STANDARD

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



409B

PARKING STALLS



410

HANDICAP PARKING SPACE MARKING

Not for construction

plan-référence key plan

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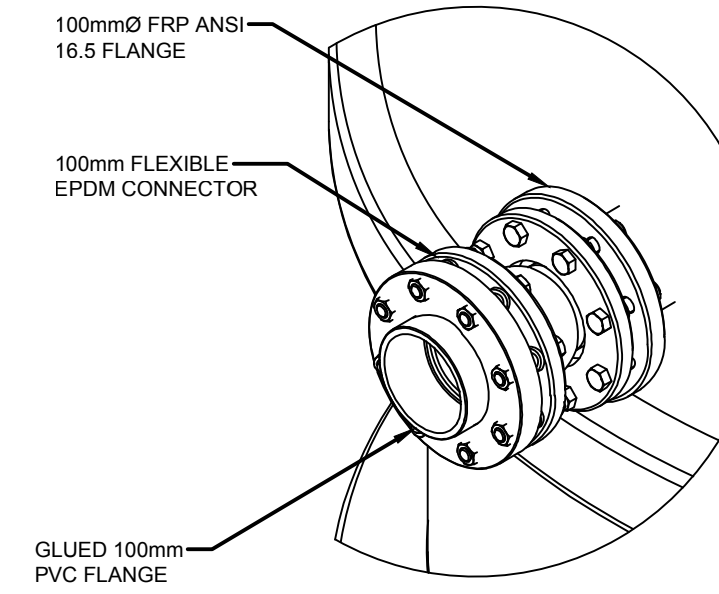
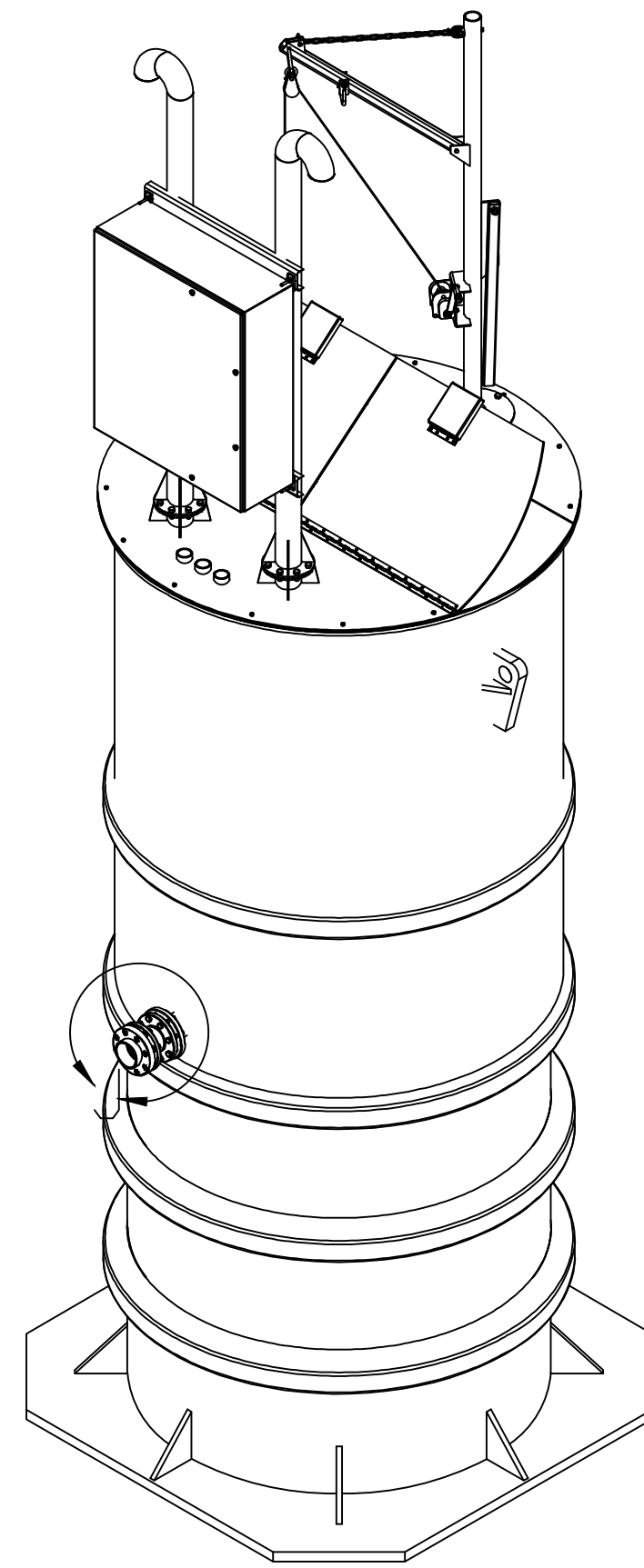
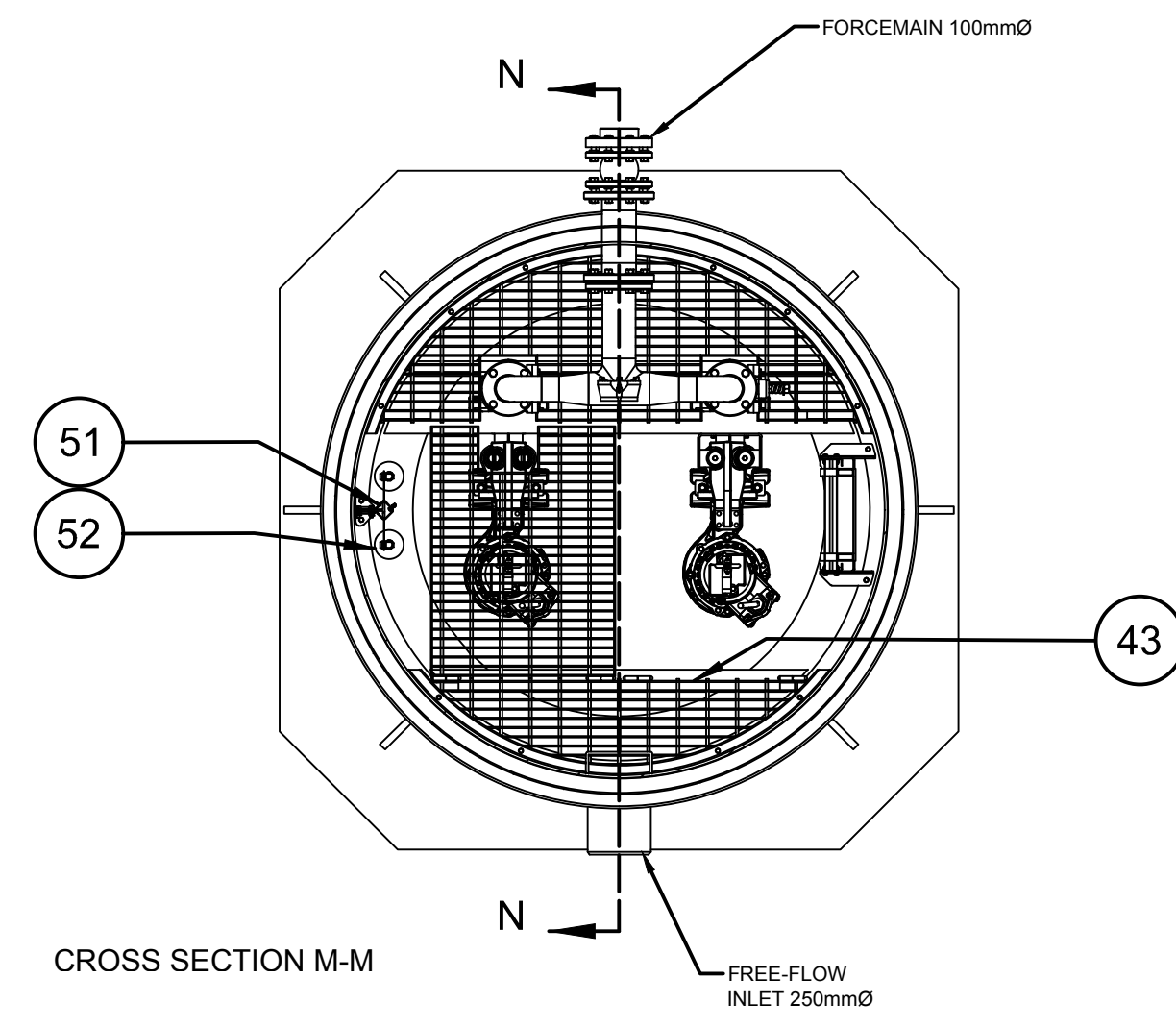
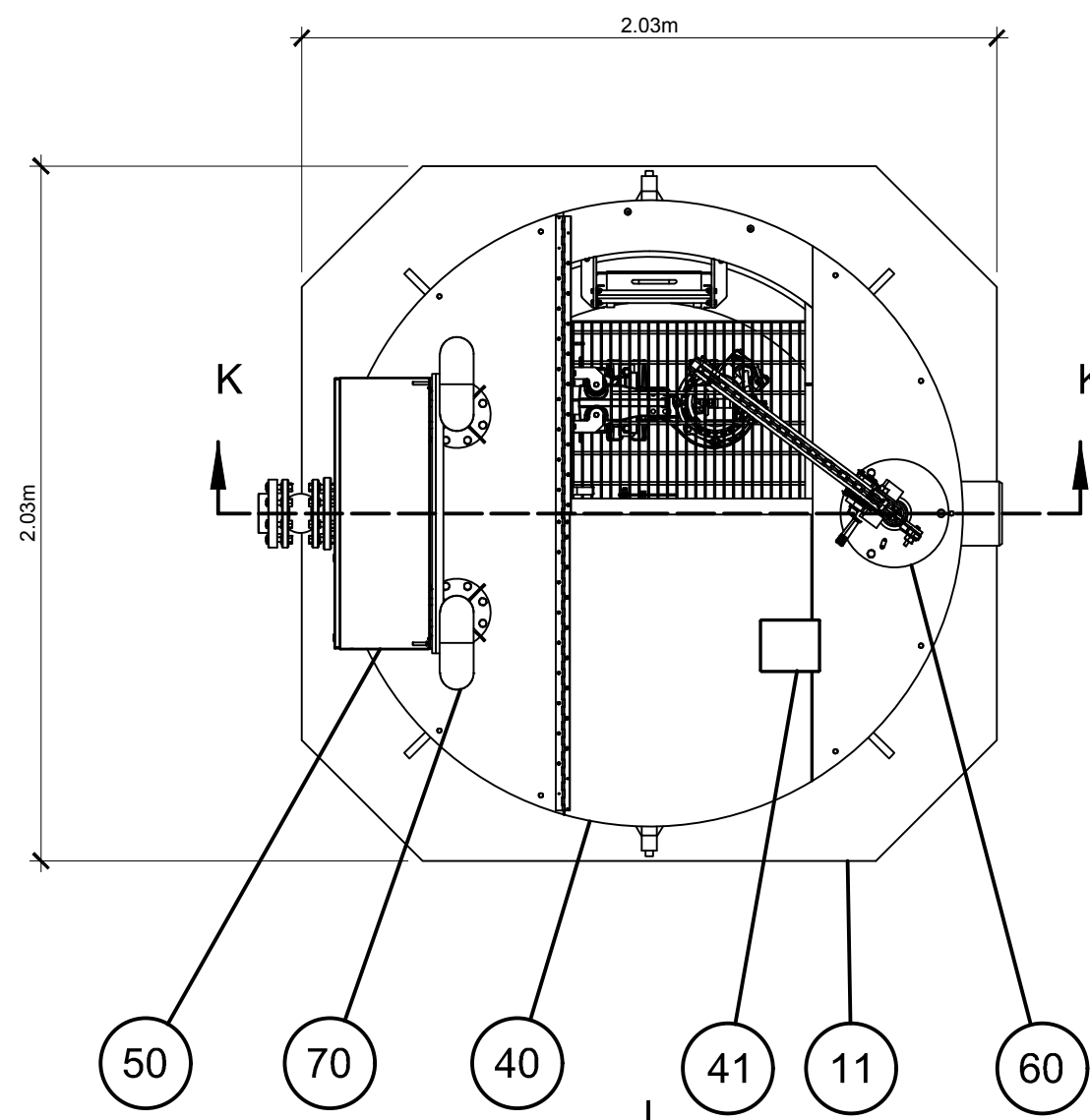
REVISION

projet
New Building Construction, Sept-Îles, Québec
1501 Laure Boulevard, Sept-Îles, QC

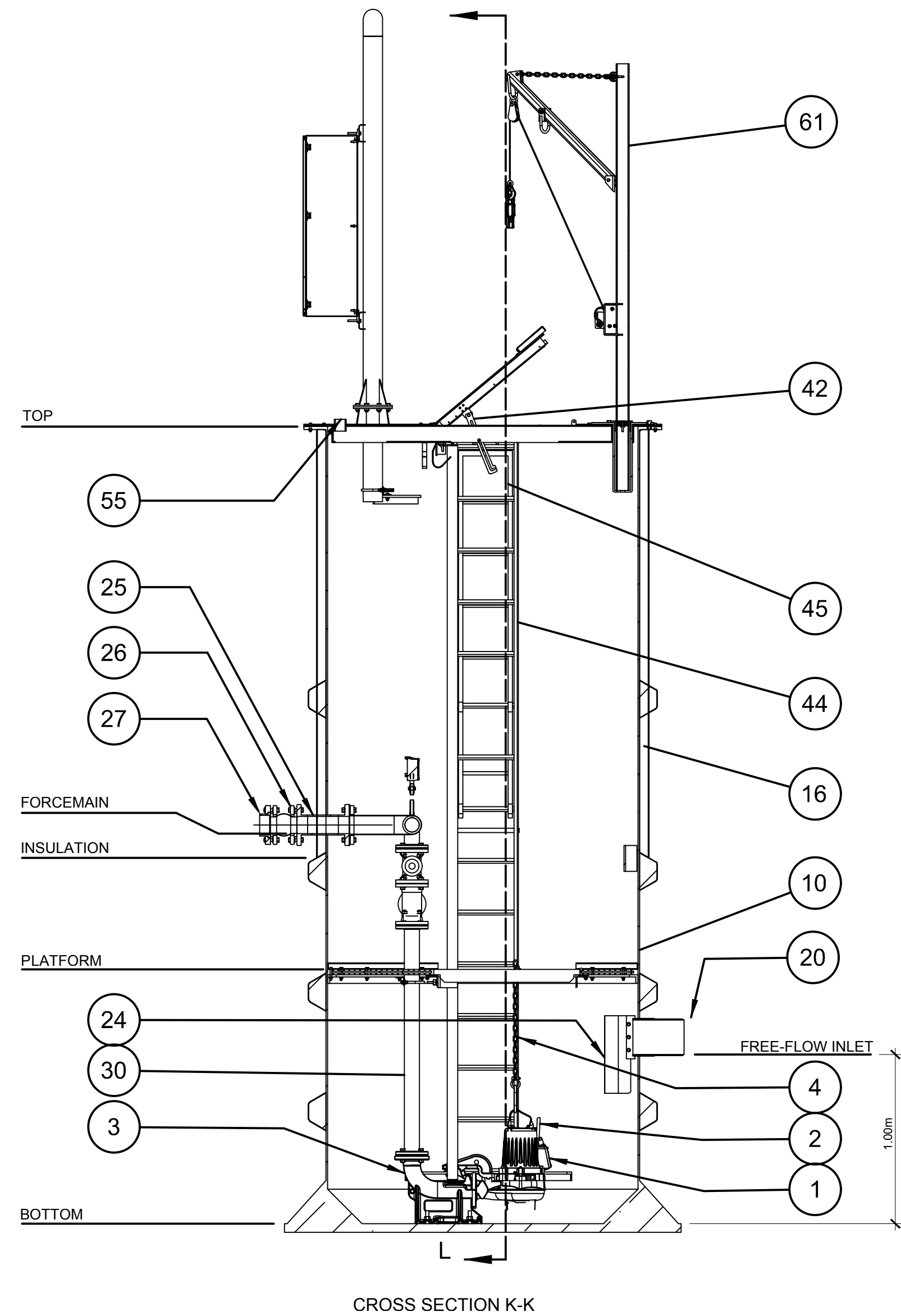
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DETAILS			
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dessiné	P. Desrosiers	projet no.	
approuvé	E. Polvin	drawn	DAO
échelle	N/A	client	C6_Détails
no. page		scale	imprimé
		sheet number	rev

C10

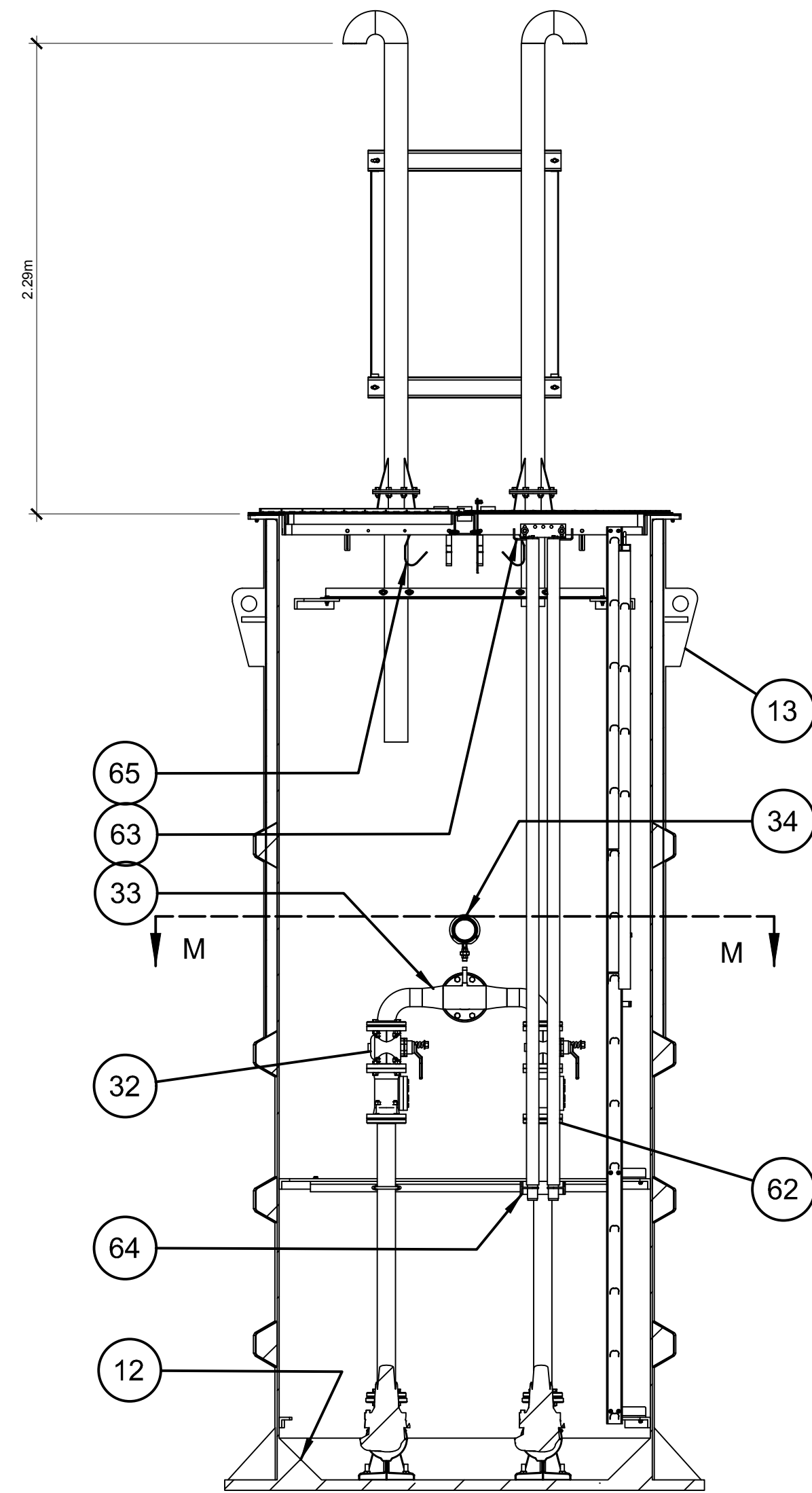
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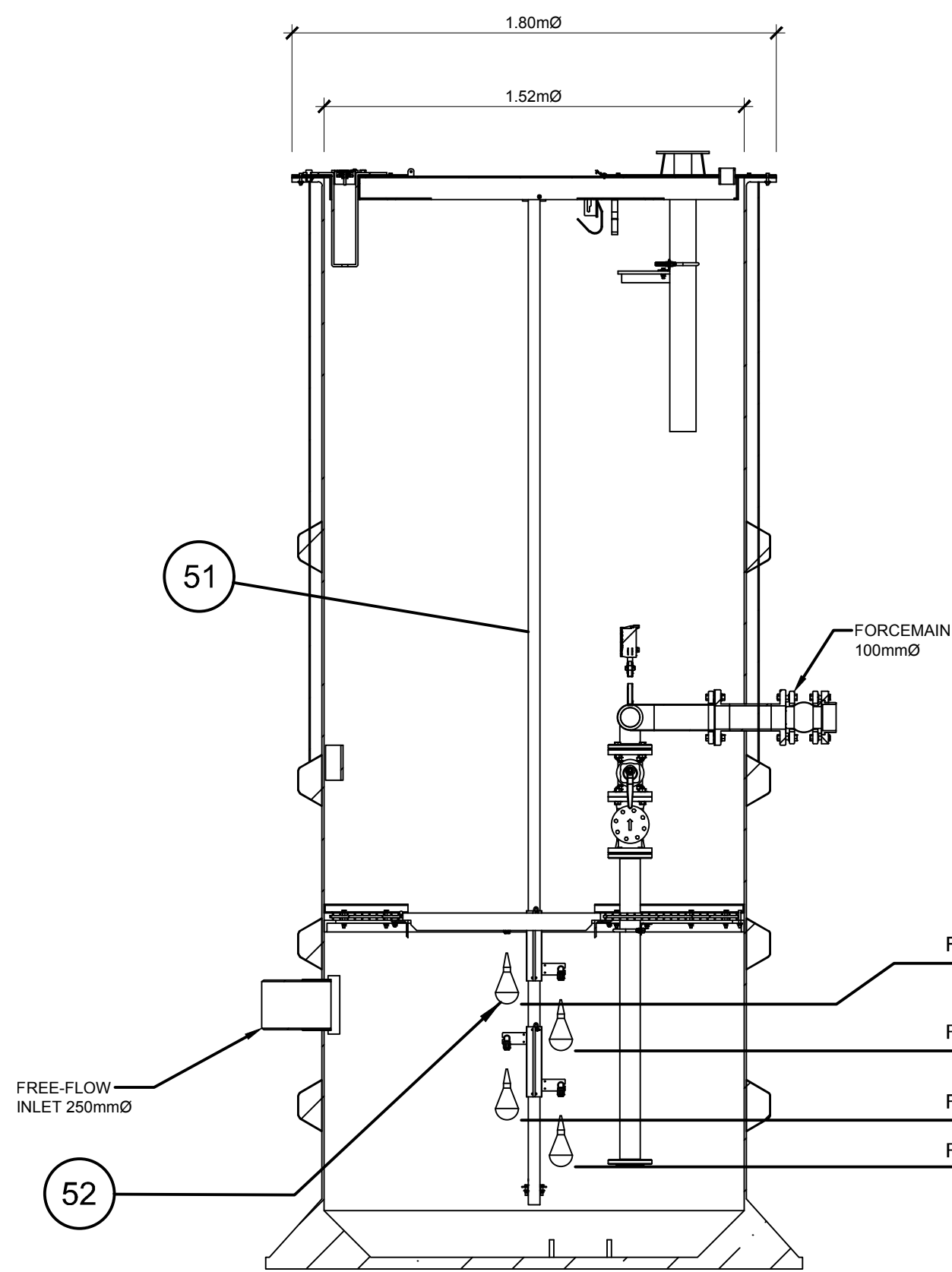
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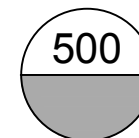
CROSS SECTION K-K



CROSS SECTION L-L



CROSS SECTION N-N



**PRE-ASSEMBLED
PUMPING STATION**

LEVEL	FUNCTION
FL4	High level alarm
FL3	Boost pump start
FL2	Service pump start
FL1	Off and alternation

UNLESS OTHERWISE STATED,
DIMENSIONS ARE IN METERS
(TOLERANCES: ± 0.025m)

ITEM	QTY	DESCRIPTION	MATERIAL
1	2	Submersible Pump: Flygt NP3085MT-3" Impeller 463 3hp/2.2kw 600V/3ph	
2	2x16m	Power and Monitoring Cable	
3	2	75mmØ Connecting Device	Cast-iron
4	2	Lifting Belt	Stainless Steel
10	3.5	1500mmØ Tank	Fiberglass
11	1	Anti-Floating Base	Fiberglass
12	1	Converging Profile	Fiberglass
13	2	Hoisting Eye	Fiberglass
16	2,5m	Thermal Insulation	PU
20	1	250mmØ Laminated Joint Connector Inlet (Free-Flow)	DR35
24	1	Deflector	Stainless Steel
25	1	100mmØ Outlet (Forcemain)	Fiberglass
26	1	100mmØ Flexible Connector	EPDM
27	1	Glue Joint FLANGE for 100mmØ PVC DR26	PVC
30	2	75mmØ Individual Forcemain Pipe	Stainless Steel
31	2	75mmØ HDL-5087 Ball Check Valve	Cast-iron
32	2	75mmØ Ball Valve, Lever actuator	Cast-iron
33	1	100mmØ Common Forcemain Pipe	Stainless Steel
34	1	Pressure Gauge and Isolation Valve	
40	1	Double Hatch Cover with EPS insulation	Aluminium
41	2	Lock Holder	Stainless Steel
42	2	Strut for Cover	Stainless Steel
43	1	Intermediate Slotted Landing	Aluminium
44	1	Anti-Slip Access Ladder	Stainless Steel
45	1	Retractable Security Ladder	Aluminium
50	1	Control Panel	Stainless Steel
51	1	Guide Rail and Level Regulator Supports	Stainless Steel
52	4	Flygt ENM10 6m Level Regulator	
55	3	50mmØ NPT Coupling for Electrical Conduits	Aluminium
60	1	Lift Arm Sleeve	Galvanised Steel
61	1	226kg Lifting Arm	Galvanised Steel
62	2	50mmØ Guide Bar Set	Galvanised Steel
63	2	Guide Bar Supports	Galvanised Steel
64	2	Intermediate Guide Bar Supports	Galvanised Steel
65	6	Chaîne/Cable Hooks	Stainless Steel
70	1	Control Support and 100mmØ Air Vent	Stainless Steel

Not for construction

plan-repère key plan

Contractor must verify drawing dimensions and the site conditions before work. Advise professional of all discrepancies to the construction documents. Do not measure on drawings.



no.	description	date
E	Issued for tender	August 4 2016
D	99% Submission	June 23 2016
C	Preliminary drawing for coordination	June 8 2016
B	50% Submission	April 29 2016
A	Preliminary submission	Feb. 23 2016

REVISION

proj et project
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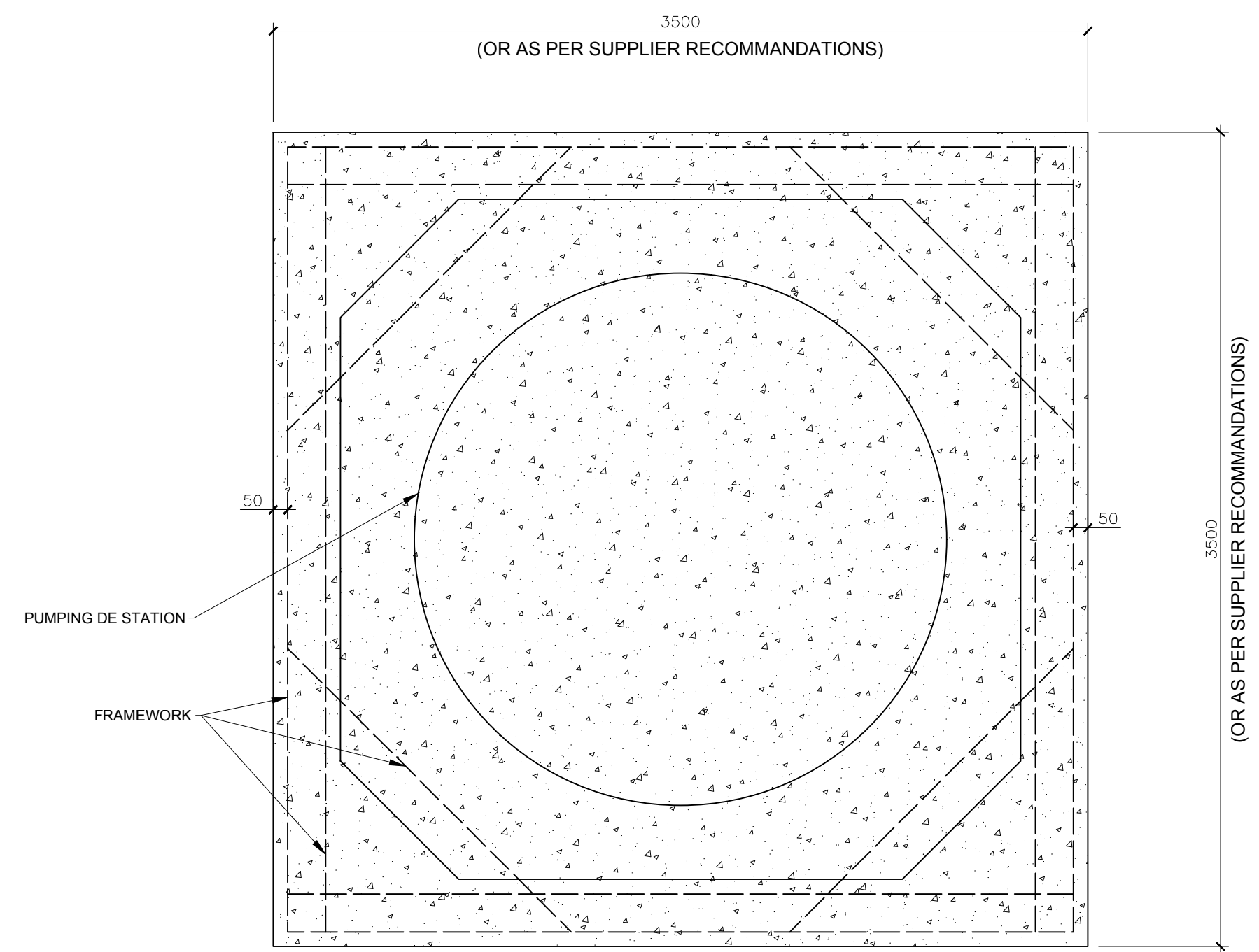
dessin drawing

DETAILS

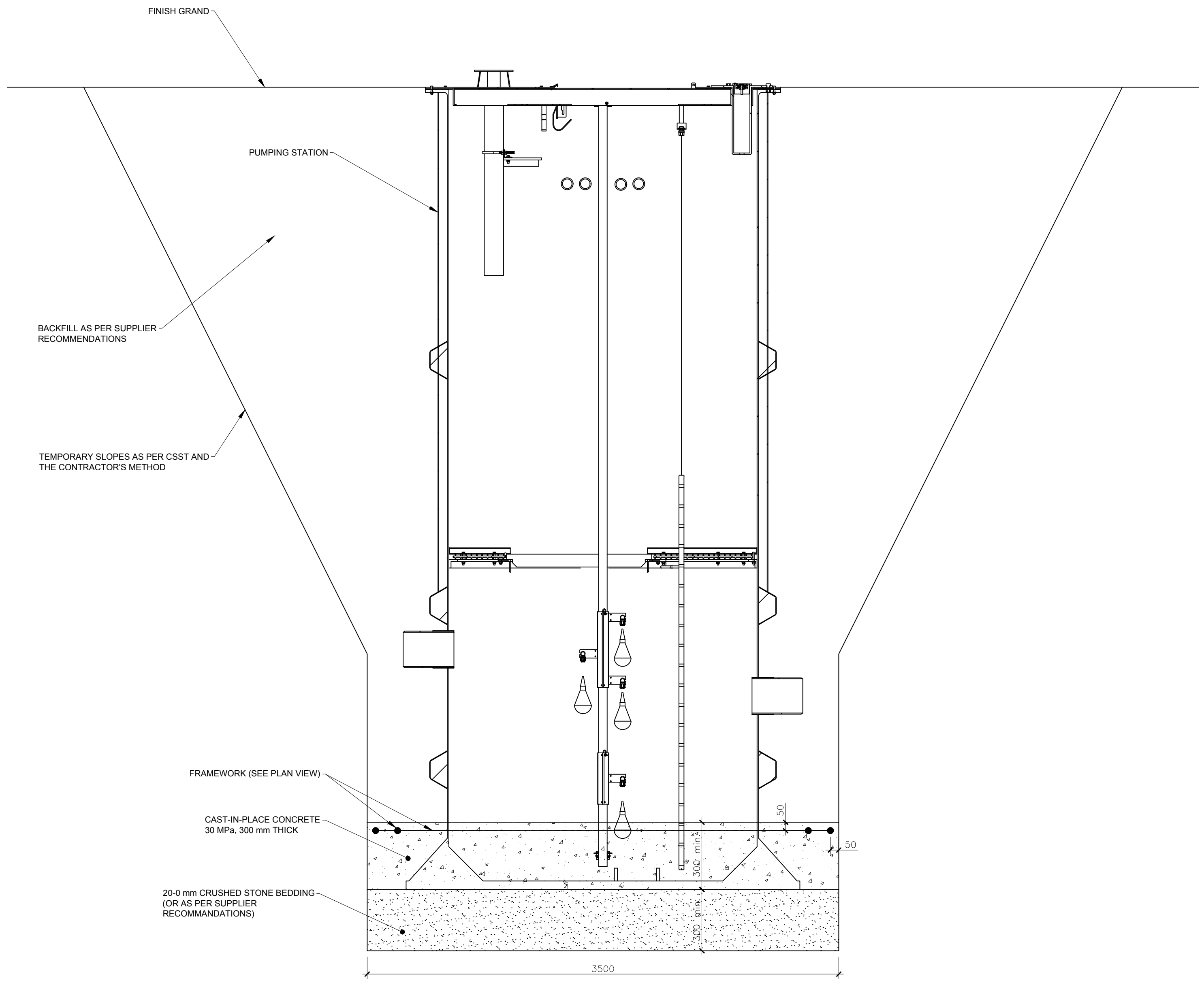
conception	conception no. dossier	project no.	
E. Polvin	A000566A		
dessine	drawn fichier DAO	CAD file	
P. Desrosiers	C6_Détails		
approuvé	approved dossier client	client file	
E. Polvin			
échelle	scale	imprimé	plot date
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PLAN VIEW

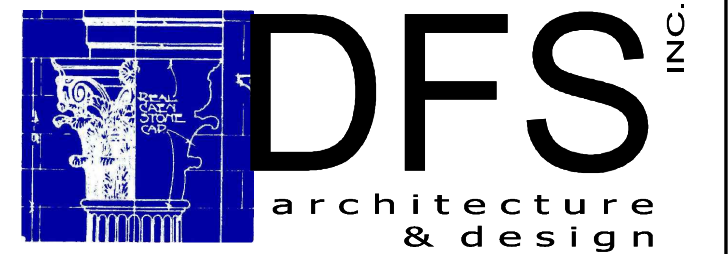


510 PUMPING STATION DETAIL

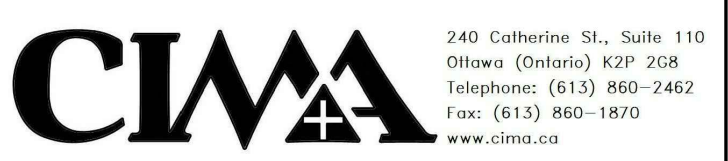
NOTES

1. CONCRETE :
 - A. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS: 30 MPa
 - B. EXPOSITION CLASS : F-1
 - C. WATER/BINDER MAX. RATIO: 0.50
 - D. GRANULARS MAXIMAL NOMINALØ: 20mm
 - E. AIR CONTENT: 5% À 8%
 - F. SLUMP: 80 ± 30mm
2. STEEL FRAMEWORK : CAN/CSA G-30.18 FY : 400 MPa
3. DESIGN CRITERIA FOR BUOYANCY OF THE PUMPING STATION: UNDERGROUND WATER TABLE MUST BE CONSIDERED.

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 4 août 2016 Philippe Desrosiers



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 Dans la province de Québec, les services architecturaux de DFS sont fournis par Fish Pellicier Todd architectes.



Not for construction

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