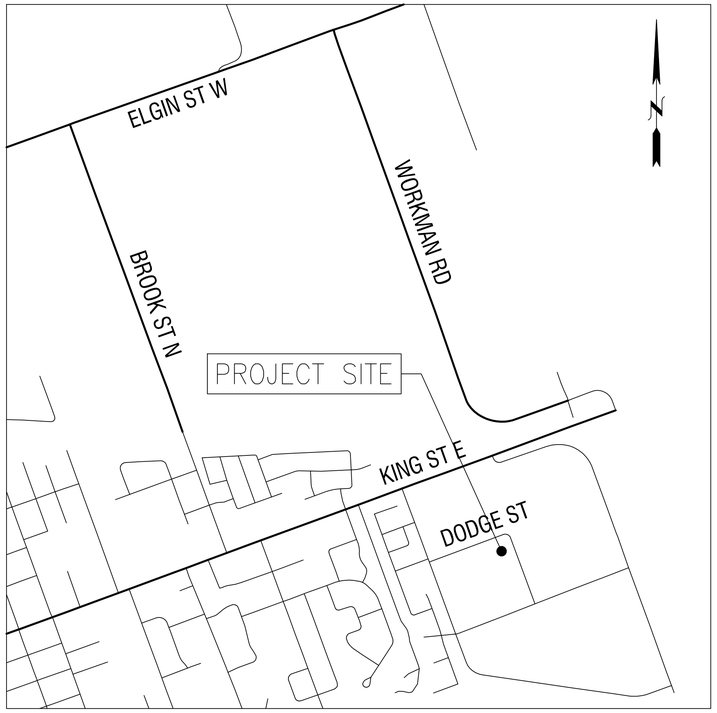
# COBA STEEL INDUSTRIAL DEVELOPMENT
# XX DODGE STREET, COBOURG, ONTARIO
# GRADING/ SITE SERVICING/EROSION CONTROL




## DRAWING LIST

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|---|---|
| C01 | COVER SHEET |
| C02 | NOTES & DETAILS |
| C03 | SITE SERVICING PLAN |
| C04 | GRADING PLAN |
| C05 | EROSION & SEDIMENT CONTROL |
| C06 | STORMFILTER DETAILS |
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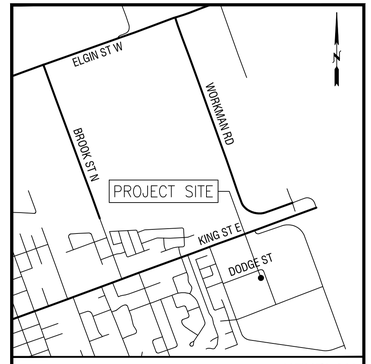


KEYPLAN

LEGENDS

| | | | |
|---|---|---|---|
| FFE | FIRST FLOOR ELEVATION | | SWALE DRAINAGE |
| TFE | TOP OF FOUNDATION ELEVATION | | SHEET DRAINAGE |
| BFE | BASEMENT FLOOR ELEVATION | | ROOF LEADER |
| UFE | UNDERSIDE OF FOOTING ELEVATION | MH | MAINTENANCE HOLE |
| 12.3 45 | EXISTING SPOT ELEVATION | CB | CATCH BASIN |
| x100.00 | PROPOSED ELEVATION | POLE | UTILITY POLE |
| TB | TERMINAL BOX | WV | WATER VALVE |
| 0.10m | DECIDUOUS TREE W/TRUNK DIAMETER | FH | FIRE HYDRANT |
| | | ø | ROUND |
| | | OH | OVERHEAD UTILITY WIRES |
| | PROPERTY LINE | | |
| | STORM SEWER | | |
| | SANITARY SEWER | | |
| | WATERMAIN | | |
| | SILT FENCE | | |

| REV. | DATE | DESCRIPTION | BY |
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| 0 | 2022/05/16 | FOR SITE PLAN APPROVAL | FS |

ENGINEER'S STAMP

CONSULTANT'S NAME


LUBAN
7373 LIONSHEAD AVENUE, NIAGARA FALLS, ONTARIO, L2G7S4
TEL. 226-688-7928, EMAIL: FENG.SHI@LUBAN.CA


COVER

COBA STEEL INDUSTRIAL DEVELOPMENT

XX DODGE STREET, COBOURG, ONTARIO

| | | | |
|---|---|---|---|
| DESIGNED BY: | MG | SCALE: | CONTRACT No. |
| CHECKED BY: | FS | HORIZONTAL: | SHEET No 1 OF 6 |
| DRAWN BY: | MG | VERTICAL: | C01 DRAWING No. |
| DATE: | 2022/05/16 | | |

**GEODETIC BENCHMARK INFORMATION**

ELEVATIONS ARE GEODETIC AND REFERRED TO THE TOWN OF COBOURG BENCHMARK # 32. ELEVATION = 85.212

**TOPO SURVEY**

TOPO SURVEY IS PROVIDED BY IBW SURVEYORS, DATED 2022/02/17.

**AS-BUILT INFORMATION**

AS-BUILT DRAWINGS REFER TO:
- DWG NO. 1 – DODGE STREET ROAD CONSTRUCTION AND STORM SEWERS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
- DWG NO. 2 – DODGE STREET SANITARY SEWERS & WATER WORKS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
- DWG NO. 3 – DODGE STREET ROAD CONSTRUCTION AND STORM SEWERS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
- DWG NO. 4 – DODGE STREET SANITARY SEWERS & WATER WORKS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990

**GEOTECHNICAL REPORT**

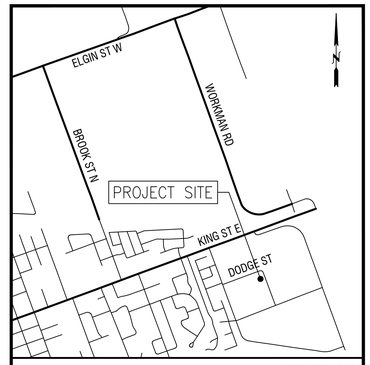
GEOTECHNICAL REPORT REFER TO GEOTECHNICAL INVESTIGATION #2203-S086, BY SOIL ENGINEERS LTD, MAY 2022.

**GENERAL NOTES:**

4. READ ALL CIVIL DRAWINGS IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS, INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, LANDSCAPE AND VENDOR DRAWINGS AS APPLICABLE.
5. THE CONTRACTOR MUST FIELD CHECK AND VERIFY ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT PRIOR TO COMMENCEMENT OF ANY WORK.
6. THE CONTRACTOR SHALL KEEP WORK SITES CLEAN AND FREE OF ALL CONSTRUCTION DEBRIS DURING THE PROCESS OF CONSTRUCTION AND LEAVE THE SITE CLEAN UPON COMPLETION OF WORK OR PORTIONS OF THE WORK.
7. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING:
   - OCCUPATIONAL HEALTH AND SAFETY ACT
   - ONTARIO REGULATION 213/91 – CONSTRUCTION PROJECTS
   - THE ONTARIO BUILDING CODE AND THE NATIONAL BUILDING CODE
   - THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS / DRAWINGS
5. PROVIDE APPROPRIATE SHORING FOR TRENCH EXCAVATION IN ACCORDANCE WITH THE LATEST REVISION OF THE OHSA GUIDELINE FOR CONSTRUCTION PROJECTS.
6. ALL BUILDING ELEVATIONS (MAIN FINISHED FLOOR, TOP OF FOUNDATION, BASEMENT FINISHED FLOOR) TO BE COORDINATED WITH ARCHITECTURAL DRAWINGS.
7. MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND SEWERS SHALL BE 2.5m. MINIMUM VERTICAL CLEARANCE BETWEEN SEWERS AND WATER MAINS WHICH CROSS IS 0.3m.
8. RIGID PIPE TRENCH EXCAVATION AS PER OPSD 802.030 FOR EARTH EXCAVATION AND OPSD 802.033 FOR ROCK EXCAVATION, AS APPLICABLE.
9. FLEXIBLE PIPE TRENCH EXCAVATION AS PER OPSD 802.010 FOR EARTH EXCAVATION AND OPSD 802.013 FOR ROCK EXCAVATION, AS APPLICABLE.
10. ALL SANITARY SEWER CONNECTIONS SHALL BE WITH PRE-MANUFACTURED TEES AND SHALL BE INSTALLED AT A MINIMUM GRADE OF 2% UNLESS NOTED OTHERWISE.
11. CCTV SHALL BE COMPLETED PRIOR TO AND AFTER CONSTRUCTION TO ENSURE THAT THE EXISTING SANITARY SEWER HAS NOT BEEN COMPROMISED DURING CONSTRUCTION.
12. ALL WATER SERVICES TO BE INSTALLED WITH TRACER WIRE.
13. ALL WATER SERVICES TO BE INSTALLED WITH A MINIMUM OF 1.5m COVER. ON PRIVATE PROPERTY THE MINIMUM SANITARY SEWER COVER IS TO BE NO LESS THAN 1.2m.
14. ALL WATER MAIN FITTINGS SHALL BE MECHANICALLY RESTRAINED. ALL FITTINGS SHALL BE INSTALLED WITH CORROSION RESISTANT COR-BLUE TEE BOLTS AND NUTS, OR APPROVED EQUAL.
15. ALL WATER MAIN FITTINGS SHALL BE CATHODICALLY PROTECTED AS PER OPSD 1109.011.
16. BUILDING SERVICES SHALL TERMINATE AT 1.5m FROM THE FACE OF THE BUILDING. SITE SERVICES CONTRACTOR TO COORDINATE, WITH THE MECHANICAL CONTRACTOR, THE CONNECTION OF SITE SERVICES, INCLUDING SANITARY STORM AND WATER, TO THE INTERNAL SERVICES.
17. GRADING IS NOT TO ADVERSELY AFFECT ADJACENT PROPERTIES.
18. ALL WORK WITHIN MUNICIPAL RIGHT-OF-WAYS REQUIRES ROAD OCCUPANCY PERMIT.
19. THE CONTRACTOR SHALL ENSURE ALL NEW AND EXISTING MANHOLES / CATCHBASINS / VALVES AND ANY OTHER APPURTENANCE WITHIN THE CONSTRUCTION AREA, TO MATCH FINISHED GRADE, AS REQUIRED.
20. NEW MAINTENANCE HOLES TO CONFORM TO OPSD 701.010 – 701.015 AS APPROPRIATE, WITH TYPICAL MAINTENANCE HOLE BENCHING AS PER OPSD 701.021.
21. NEW DITCH INLET CATCH BASINS TO BE PER OPSD 705.030 TYPE A WITH 2H:1V GRATE.
22. REMOVAL OF EXISTING FEATURES OF THE SITE ARE TO BE CARRIED OUT IN ACCORDANCE WITH OPSS 510 AS APPLICABLE.
23. ROAD, PAVED AREAS AND GRASSED AREAS TO BE RESTORED TO THEIR ORIGINAL CONDITION. TRENCH BACKFILLS WITHIN MUNICIPAL ROADWAYS TO BE WITH FULL DEPTH GRANULAR 'A'.
24. ALL BARRIER CURBS AS PER OPSD 600.110.
25. SIDEWALKS AS PER OPSD 310.010. IN LOCATIONS WHERE SIDEWALK IS ADJACENT TO CURB AND GUTTER, SIDEWALK TO BE AS PER OPSD 310.020. SIDEWALKS TO BE 125mm THICK, 30MPa CONCRETE COMPLETE WITH 100mm THICK GRANULAR 'A' BASE COMPACTED TO 98% SPMDD. SIDEWALKS ARE TO MEET THE LATEST TOWN OF COBORUG STANDARDS.
26. COMPACTION TESTS TO BE PROVIDED BY THE CONTRACTOR THROUGH A THIRD PARTY TESTING AGENCY.
27. PROVIDE SILTATION CONTROL DEVICE ON ALL NEW AND EXISTING CATCH BASIN COVERS AND AROUND PERIMETER OF AREA OF WORK DURING CONSTRUCTION AND REMOVE UPON COMPLETION.

**EROSION AND SEDIMENTATION CONTROL**

1. PRIOR TO COMMENCEMENT OF ANY ON-SITE WORK/SOIL STRIPPING, EROSION & SEDIMENT CONTROL (ESC) MEASURES, AS PER ACCEPTED SITE ALTERATION PLANS. MUST BE INSTALLED AND APPROVED BY THE DIRECTOR OF ENGINEERING. ADDITIONAL ESC MEASURES, IF REQUIRED, SHALL BE INSTALLED AS DIRECTED BY THE DIRECTOR OF ENGINEERING. THE ESC MEASURES SHALL REMAIN IN PLACE UNTIL DIRECTED BY THE DIRECTOR OF ENGINEERING FOR THEIR REMOVAL.
2. NO CONSTRUCTION ACTIVITIES OR MACHINERY SHALL BE ALLOWED BEYOND THE SILT FENCE OR LIMITS OF THE PROPERTY.
3. THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT DUST CONTROL MEASURES AND CONSTRUCTION PRACTICE GUIDELINES AS APPROVED BY THE TOWN.
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ESC MEASURES IN WORKING CONDITIONS AT ALL TIMES TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING. THE CONTRACTOR SHALL ROUTINELY INSPECT ALL ESC MEASURES AT A MINIMUM OF ONCE A WEEK AND AFTER EACH RAINFALL EVENT GREATER THAN 10 MM TO ENSURE THAT ESC MEASURES ARE IN PROPER WORKING CONDITIONS. ANY DAMAGES MUST BE REPAIRED WITHIN 24 HOURS.
5. ALL CONSTRUCTION VEHICLES MUST ENTER AND EXIT THE SITE ONLY FROM THE APPROVED ACCESS ROUTE(S) AS SHOWN ON THE ACCEPTED EROSION & SEDIMENT CONTROL PLANS.
6. ALL DISTURBED GROUND LEFT INACTIVE FOR OVER 30 DAYS SHALL BE VEGETATED, SUBJECT TO WEATHER CONDITIONS, BY SEEDING OR APPROVED EQUIVALENT TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING.
7. STREET SWEEPING/CATCHBASIN CLEANING PROGRAM SHALL BE IMPLEMENTED UPON COMPLETION OF BASE ASPHALT TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING.
8. THE CONTRACTOR SHALL ENDEAVOUR TO PREVENT MUD TRUCKING ONTO EXISTING RIGHT-OF-WAY AND SHALL PROVIDE CLEAN UP AT HIS/HER OWN EXPENSE AS DIRECTED BY THE DIRECTOR OF ENGINEERING.




KEYPLAN

## LEGENDS

| | | | |
|---|---|---|---|
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| TFE | TOP OF FOUNDATION ELEVATION | | SHEET DRAINAGE |
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| 123.45 | EXISTING SPOT ELEVATION | POLE | UTILITY POLE |
| | | WV | WATER VALVE |
| x100.00 | PROPOSED ELEVATION | FH | FIRE HYDRANT |
| TB | TERMINAL BOX | # | ROUND |
| | | OH | OVERHEAD UTILITY WIRES |
| 0.50m | DECIDUOUS TREE W/TRUNK DIAMETER | | |
| | | PL | PROPERTY LINE |
| | | | STORM SEWER |
| | | | SANITARY SEWER |
| | | | WATERMAIN |
| | | X | SILT FENCE |

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ENGINEER'S STAMP

LICENCED PROFESSIONAL ENGINEER
F. SHI
100065602
PROVINCE OF ONTARIO

CONSULTANT'S NAME

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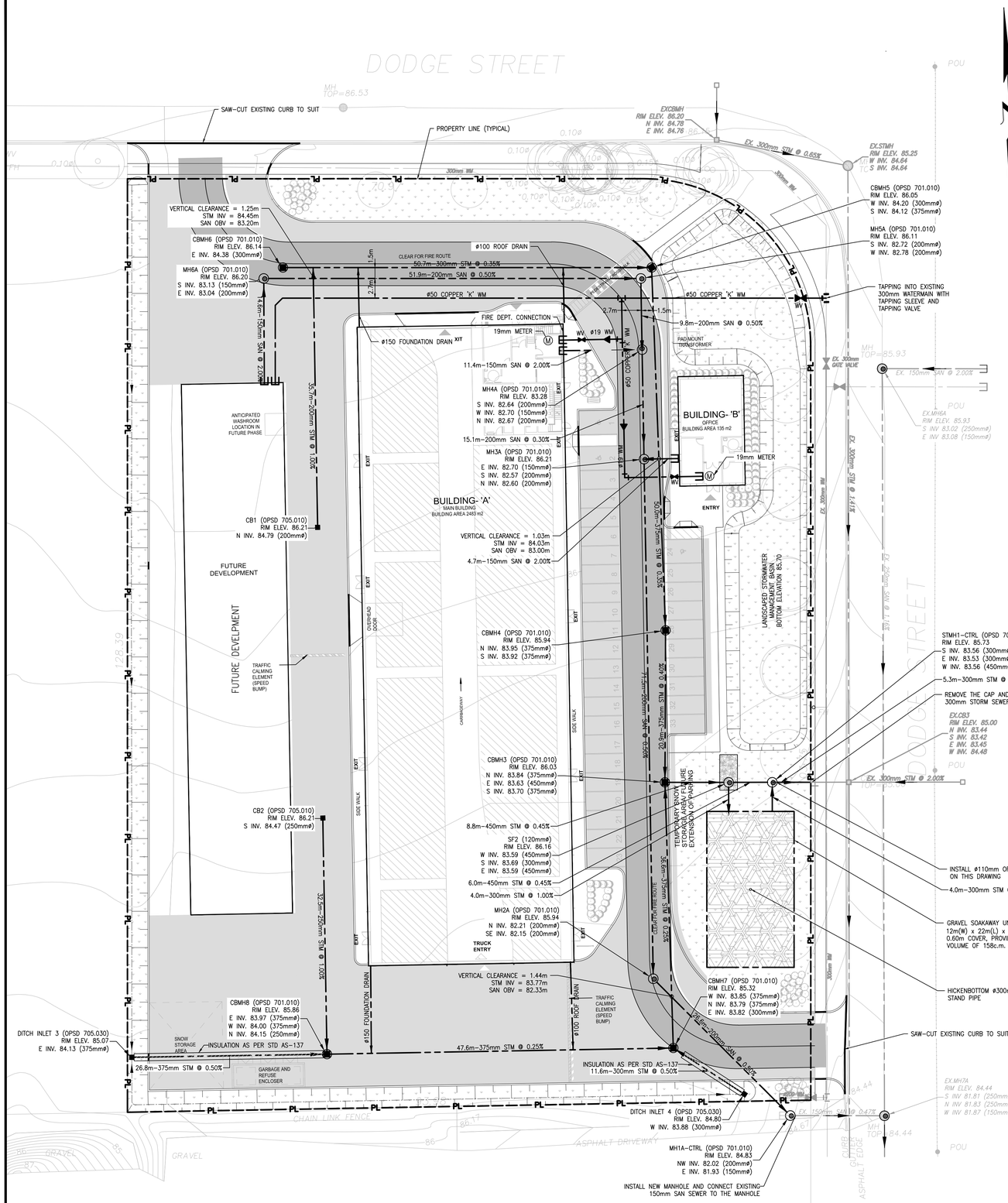
7373 LIONSHEAD AVENUE, NIAGARA FALLS, ONTARIO, L2G7S4
TEL. 226-688-7928, EMAIL: FENG.SHI@LUBAN.CA

# NOTES

## COBA STEEL INDUSTRIAL DEVELOPMENT

XX DODGE STREET, COBOURG, ONTARIO

| | | | |
|---|---|---|---|
| DESIGNED BY: | MG | SCALE: | CONTRACT No. |
| CHECKED BY: | FS | HORIZONTAL: | SHEET No 2 OF 6 |
| DRAWN BY: | MG | VERTICAL: | C02 DRAWING No. |
| DATE: | 2022/05/16 | | |




METRIC

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

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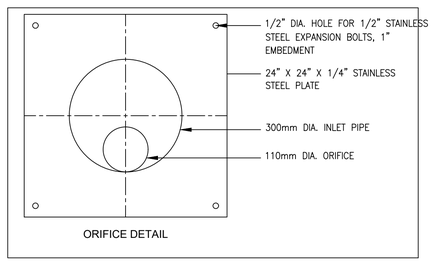
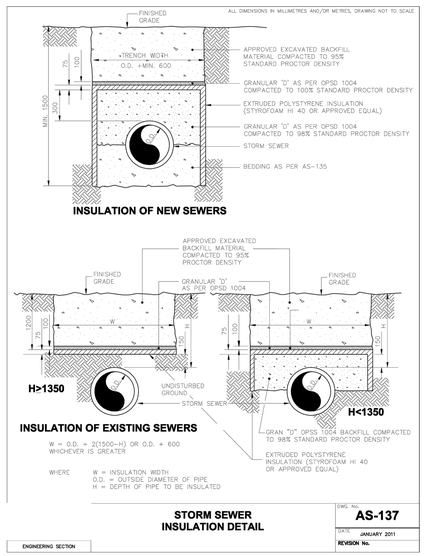
## NOTES

1. PRIOR TO STARTING ANY WORKS, THE CONTRACTOR MUST ENSURE THAT ALL NECESSARY APPROVALS ARE IN PLACE FROM THE TOWN OF COBOURG, AND OTHER EXTERNAL AGENCIES, AS REQUIRED.
2. ALL RESTORATIONS AND RELOCATION SHALL BE COMPLETED TO THE SATISFACTION OF THE TOWN ENGINEERING DEPARTMENT. ALL AREAS WITHIN PUBLIC RIGHT–OF–WAYS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER. GRASSED AREAS SHALL BE PROVIDED WITH 200 mm OF TOPSOIL AND SODDED TO THE SATISFACTION OF THE TOWN ENGINEERING DEPARTMENT.
3. THE LOCATION OF UTILITIES IS APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY CONSULTING THE CONCERNED UTILITY COMPANIES. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE DURING CONSTRUCTION.
4. TOPO AND LEGAL INFORMATION ARE PROVIDED BY MANDARIN SURVEYORS LIMITED (JOB# 2020–124)
5. ALL DIMENSIONS, ELEVATIONS, AND OTHER INFORMATION SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. ANY DISCREPANCIES FOUND MUST BE REPORTED IMMEDIATELY TO THE ENGINEER PRIOR TO CONSTRUCTION.
6. EXISTING SEWER INFORMATION REFER TO TOWN'S AS–BUILT DRAWING:
   - DWG NO. 1 – DODGE STREET ROAD CONSTRUCTION AND STORM SEWERS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
   - DWG NO. 2 – DODGE STREET SANITARY SEWERS & WATER WORKS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
   - DWG NO. 3 – DODGE STREET ROAD CONSTRUCTION AND STORM SEWERS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
   - DWG NO. 4 – DODGE STREET SANITARY SEWERS & WATER WORKS BY TOTTEN SIMS HUBICKI ASSOCIATES, DATED JUNE 1990
7. OWNER SHALL OBTAIN THE PERMISSION FROM PROPERTY OWNERS FOR ANY WORK ON ADJACENT LANDS
8. THE MINIMUM COVER TO THE TOP OUTSIDE PIPE BARREL OF A SHALLOW STORM SEWER SYSTEM SHALL IN NO CASE BE LESS THAN 1.2m FROM THE CENTRELINE OF THE ROADWAY. WHERE THE COVER IS LESS THAN 1.2m, INSULATION TO BE INSTALLED AS PER DETAIL ON THIS PAGE.
9. STORM SEWER MAINS SHALL BE CONSTRUCTED OF CONCRETE OR PVC, MEETING OPSS STANDARDS.PVC PIPE SHALL BE OF THE SOLID WALL TYPE CONSTRUCTION, GRADE SDR 35 MINIMUM, AND MAY BE USED FOR ALL MAIN LINE SEWER UP TO 375 mm AND FOR REAR LOT CATCHBASIN LEADS.
10. SANITARY SEWER MINIMUM SIZE OF PIPE SHALL BE 200 mm DIAMETER AND THE MINIMUM DEPTH SHALL BE 2.15 m.
11. SANITARY POLYVINYL CHLORIDE (PVC) PIPE SHALL BE USED UP TO 600 mm DIAMETER, REINFORCED CONCRETE PIPE SHALL BE USED FOR GREATER THAN 600 mm DIAMETER. PVC PIPE SHALL HAVE A DIMENSION RATIO (DR) OF 35. WHERE GRADES OF LOCAL SEWERS ARE LESS THAN 0.5%, PVC PIPE SHALL BE DR21 AND BE WHITE IN COLOR.
12. WATER SERVICE CONNECTIONS SHALL HAVE A DEPTH OF MINIMUM 1.8m.
13. WATER SERVICE CONNECTIONS 50 mm DIAMETER OR LESS SHALL BE TYPE "K" COPPER. WATER SERVICE CONNECTIONS LARGER THAN 50 mm DIAMETER AND LESS THAN 300 mm SHALL BE PVC, 300 mm AND LARGER SHALL BE DUCTILE IRON.




ORIFICE DETAIL



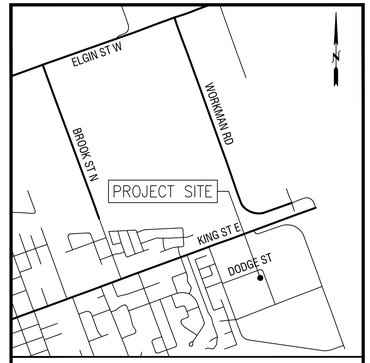

**STORM SEWER INSULATION DETAIL**

ENGINEERING SECTION

DWG. No. **AS-137**

DATE: JANUARY 2011

REVISION No.




KEYPLAN

## LEGENDS

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ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER F. SHI 100085002 2022-08-15 PROVINCE OF ONTARIO

CONSULTANT'S NAME

LUBAN

7373 LIONSHEAD AVENUE, NIAGARA FALLS, ONTARIO, L2G7S4
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# SERVICING PLAN

## COBA STEEL INDUSTRIAL DEVELOPMENT

XX DODGE STREET, COBOURG, ONTARIO

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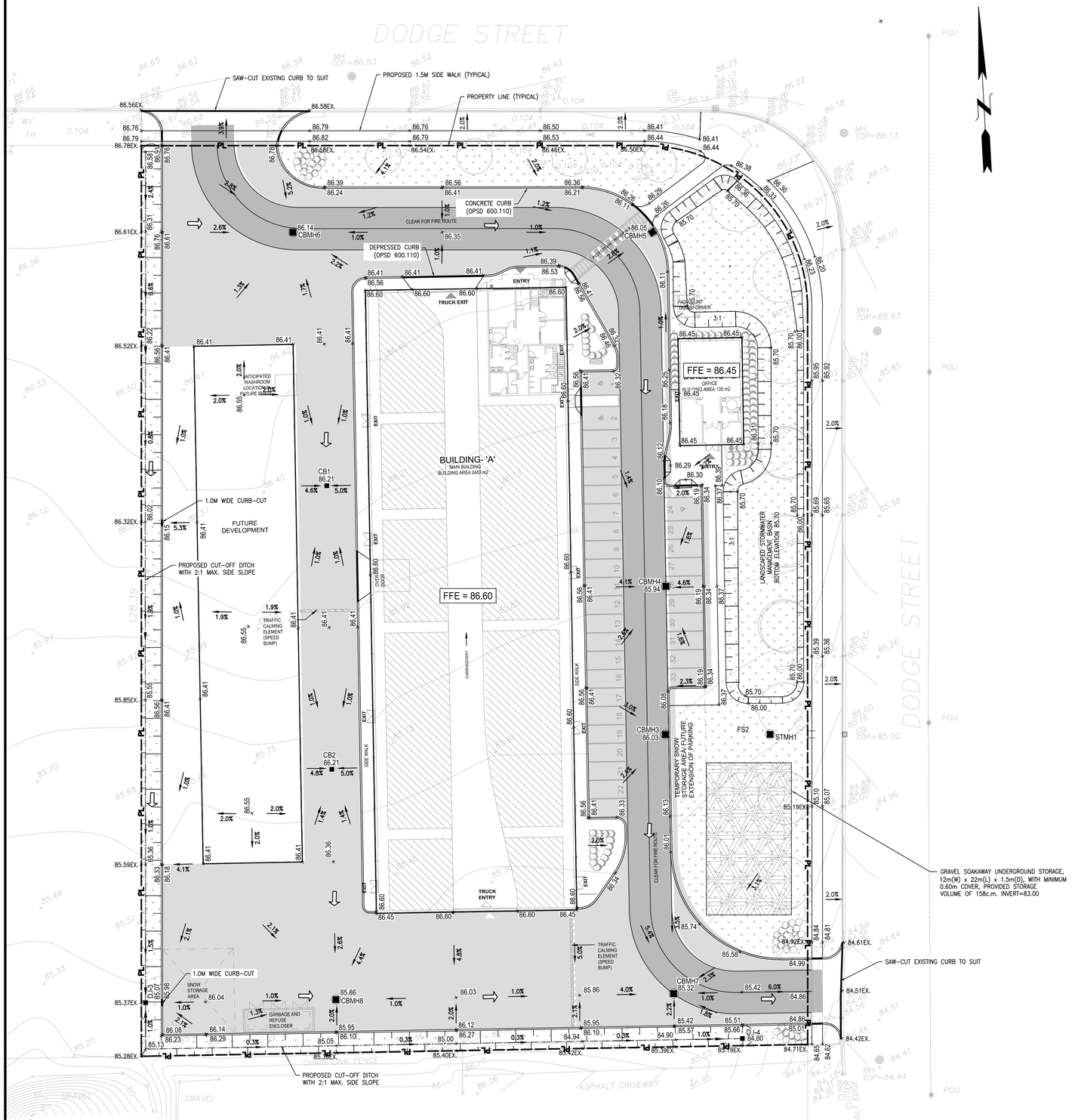
|---|---|---|---|
| DESIGNED BY: | MG | SCALE: | CONTRACT No. |
| CHECKED BY: | FS | HORIZONTAL: 1:300 | SHEET No 3 OF 6 |
| DRAWN BY: | MG | VERTICAL: | C03 DRAWING No. |
| DATE: | 2022/08/15 | | |




METRIC

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

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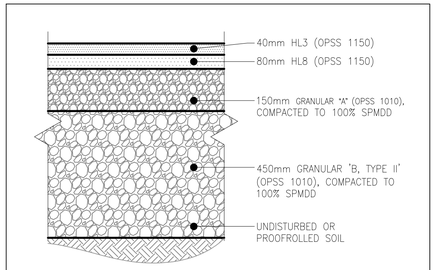
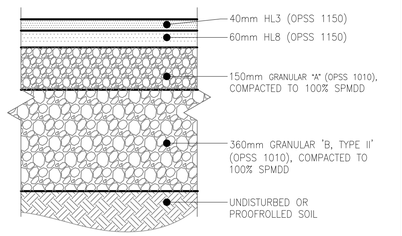


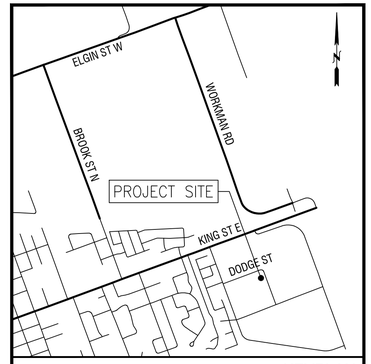

**Driveways/Drive-Thru/Truck**

SCALE: 1:10




**PARKING LOT ASPHALT DETAIL**

SCALE: 1:10

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| | STORM SEWER | | |
| | SANITARY SEWER | | |
| | WATERMAIN | | |
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| | CONCRETE TOE WALL (OPSD 3120.100) | | |

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ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER
F. SHI
100065802
2022-08-17
PROVINCE OF ONTARIO

CONSULTANT'S NAME

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# GRADING PLAN

## COBA STEEL INDUSTRIAL DEVELOPMENT

XX DODGE STREET, COBOURG, ONTARIO

| | | | |
|---|---|---|---|
| DESIGNED BY: | MG | SCALE: | CONTRACT No. |
| CHECKED BY: | FS | HORIZONTAL: 1:300 | SHEET No 4 OF 6 |
| DRAWN BY: | MG | VERTICAL: | C04 |
| DATE: | 2022/08/15 | | DRAWING No. |

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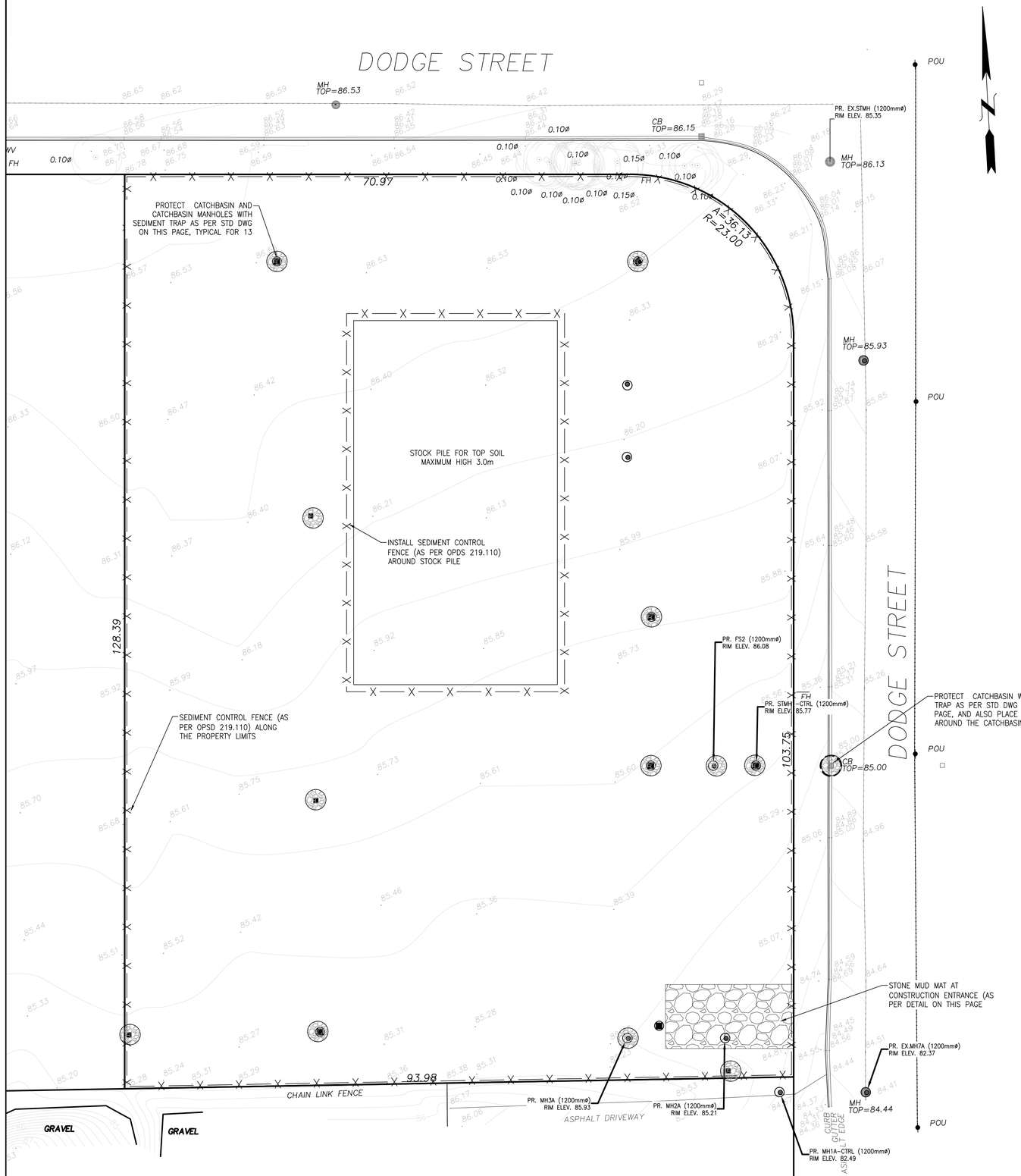
DATE PLOTTED: 8/18/2022 3:53:31 AM




METRIC

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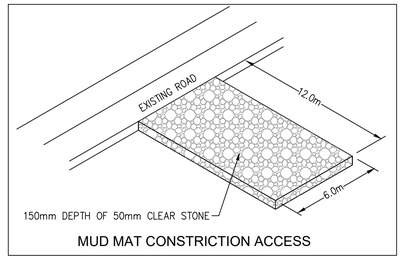
1:300

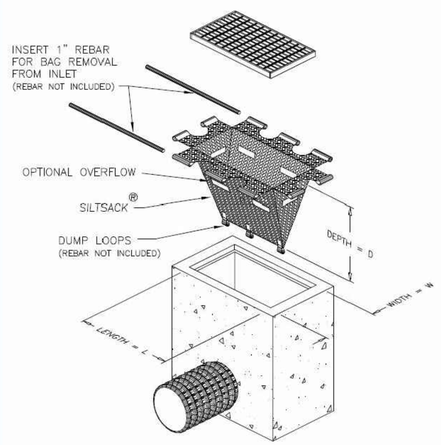
## GENERAL NOTES (FOR SITE ALTERATION)

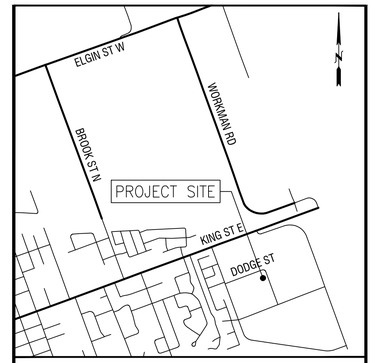
1. PRIOR TO COMMENCEMENT OF ANY ON-SITE WORK/SOIL STRIPPING, EROSION & SEDIMENT CONTROL (ESC) MEASURES, AS PER ACCEPTED SITE ALTERATION PLANS. MUST BE INSTALLED AND APPROVED BY THE DIRECTOR OF ENGINEERING. ADDITIONAL ESC MEASURES, IF REQUIRED, SHALL BE INSTALLED AS DIRECTED BY THE DIRECTOR OF ENGINEERING. THE ESC MEASURES SHALL REMAIN IN PLACE UNTIL DIRECTED BY THE DIRECTOR OF ENGINEERING FOR THEIR REMOVAL.
2. NO CONSTRUCTION ACTIVITIES OR MACHINERY SHALL BE ALLOWED BEYOND THE SILT FENCE OR LIMITS OF THE PROPERTY.
3. THE CONTRACTOR IS RESPONSIBLE TO IMPLEMENT DUST CONTROL MEASURES AND CONSTRUCTION PRACTICE GUIDELINES AS APPROVED BY THE CITY.
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ESC MEASURES IN WORKING CONDITIONS AT ALL TIMES TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING. THE CONTRACTOR SHALL ROUTINELY INSPECT ALL ESC MEASURES AT A MINIMUM OF ONCE A WEEK AND AFTER EACH RAINFALL EVENT GREATER THAN 10 MM TO ENSURE THAT ESC MEASURES ARE IN PROPER WORKING CONDITIONS. ANY DAMAGES MUST BE REPAIRED WITHIN 24 HOURS.
5. ALL CONSTRUCTION VEHICLES MUST ENTER AND EXIT THE SITE ONLY FROM THE APPROVED ACCESS ROUTE(S) AS SHOWN ON THE ACCEPTED EROSION & SEDIMENT CONTROL PLANS.
6. ALL DISTURBED GROUND LEFT INACTIVE FOR OVER 30 DAYS SHALL BE VEGETATED, SUBJECT TO WEATHER CONDITIONS, BY SEEDING OR APPROVED EQUIVALENT TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING.
7. STREET SWEEPING/CATCHBASIN CLEANING PROGRAM SHALL BE IMPLEMENTED UPON COMPLETION OF BASE ASPHALT TO THE SATISFACTION OF THE DIRECTOR OF ENGINEERING.
8. THE CONTRACTOR SHALL ENDEAVOUR TO PREVENT MUD TRUCKING ONTO EXISTING RIGHT-OF-WAY AND SHALL PROVIDE CLEAN UP AT HIS/HER OWN EXPENSE AS DIRECTED BY THE DIRECTOR OF ENGINEERING.




MUD MAT CONSTRICTION ACCESS

## Typical Siltsack® Construction - Type B




KEYPLAN

## LEGENDS

| | | | |
|---|---|---|---|
| FFE | FIRST FLOOR ELEVATION | | SWALE DRAINAGE |
| TFE | TOP OF FOUNDATION ELEVATION | | SHEET DRAINAGE |
| BFE | BASEMENT FLOOR ELEVATION | | ROOF LEADER |
| UFE | UNDERSIDE OF FOOTING ELEVATION | MH | MAINTENANCE HOLE |
| 123.45 | EXISTING SPOT ELEVATION | CB | CATCH BASIN |
| x100.00 | PROPOSED ELEVATION | POU | UTILITY POLE |
| TB | TERMINAL BOX | WV | WATER VALVE |
| | DECIDUOUS TREE W/TRUNK DIAMETER | FH | FIRE HYDRANT |
| | | ø | ROUND |
| | | -OH- | OVERHEAD UTILITY WIRES |

PROPERTY LINE
STORM SEWER
SANITARY SEWER
WATERMAIN
SILT FENCE
TEMP. CATCHBASIN SEDIMENT CONTROL DEVICE (STD DWG MP5)
TEMP. ROADWAY CATCHBASIN SEDIMENT CONTROL DEVICE (STD DWG MP5) WITH SILT SOAK
TEMP. CONSTRUCTION ACCESS MUD MAT (SEE DETAIL ON THIS PAGE)

| REV. | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 6 | | | |
| 5 | | | |
| 4 | | | |
| 3 | | | |
| 2 | | | |
| 1 | | | |
| 0 | 2022/08/15 | FOR SITE PLAN APPROVAL | FS |

ENGINEER'S STAMP

LICENSED PROFESSIONAL ENGINEER F.SHI 100065002 2022-08-15 PROVINCE OF ONTARIO

CONSULTANT'S NAME

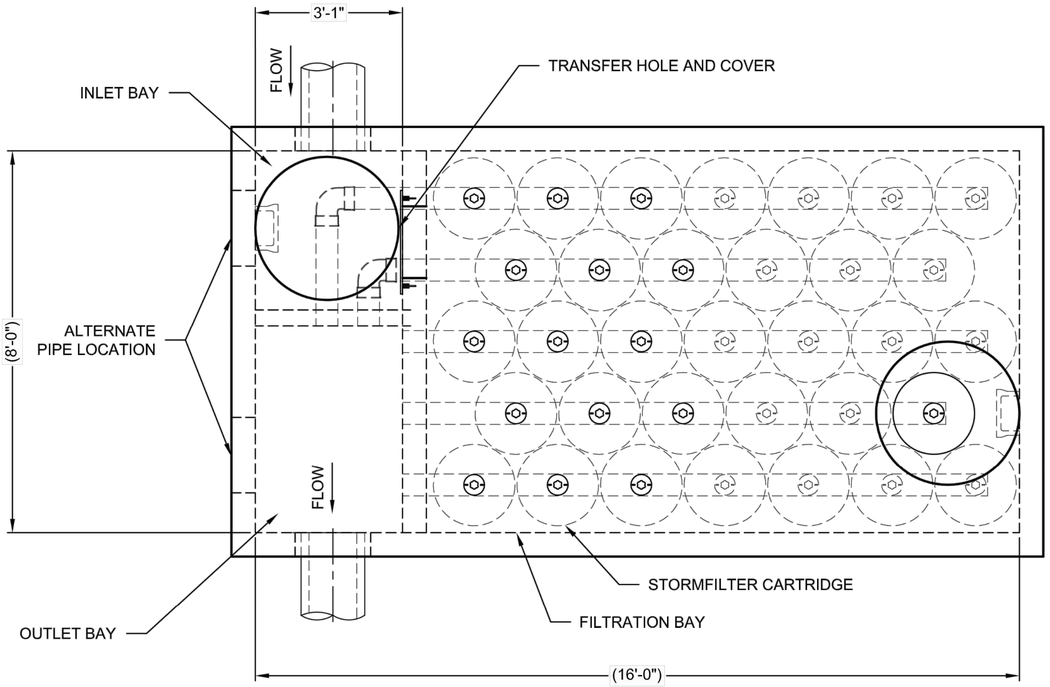
LUBAN
7373 LIONSHEAD AVENUE, NIAGARA FALLS, ONTARIO, L2G7S4
TEL. 226-688-7928, EMAIL: FENG.SHI@LUBAN.CA

# EROSION & SEDIMENT CONTROL

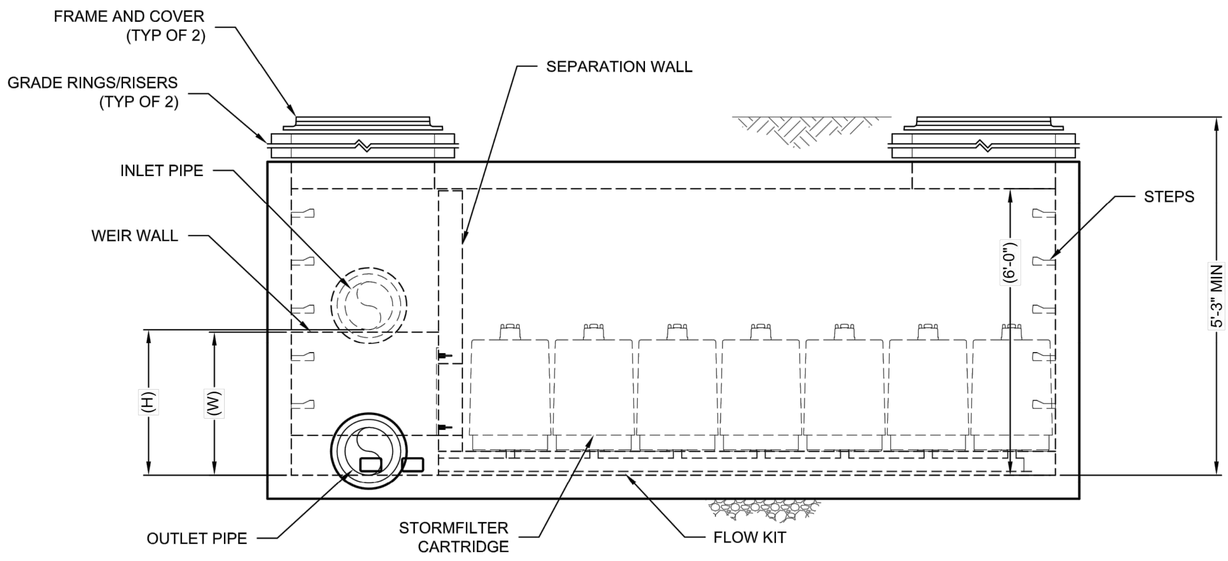
## COBA STEEL INDUSTRIAL DEVELOPMENT

XX DODGE STREET, COBOURG, ONTARIO

| | | | |
|---|---|---|---|
| DESIGNED BY: | MG | SCALE: | CONTRACT No. |
| CHECKED BY: | FS | HORIZONTAL: 1:300 | SHEET No 5 OF 6 |
| DRAWN BY: | MG | VERTICAL: | C05 |
| DATE: | 2022/08/15 | | DRAWING No. |




**PLAN**




**ELEVATION**

The Stormwater Management StormFilter®



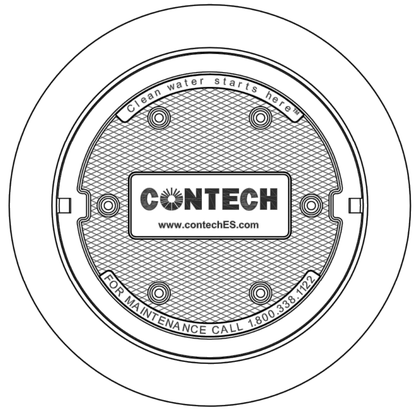
## STORMFILTER DESIGN NOTES

- THE 8' x 16' PEAK DIVERSION STORMFILTER TREATMENT CAPACITY VARIES BY CARTRIDGE COUNT AND LOCALLY APPROVED SURFACE AREA SPECIFIC FLOW RATE. PEAK CONVEYANCE CAPACITY TO BE DETERMINED BY ENGINEER OF RECORD.
- THE PEAK DIVERSION STORMFILTER IS AVAILABLE IN A LEFT INLET (AS SHOWN) OR RIGHT INLET CONFIGURATION.
- ALL PARTS AND INTERNAL ASSEMBLY PROVIDED BY CONTECH UNLESS OTHERWISE NOTED.

CARTRIDGE SELECTION

| CARTRIDGE HEIGHT | 27" | | | 18" | | | LOW DROP | | |
|---|---|---|---|---|---|---|---|---|---|
| RECOMMENDED HYDRAULIC DROP (H) | 3.05' | | | 2.3' | | | 1.8' | | |
| HEIGHT OF WEIR (W) | 3.00' | | | 2.25' | | | 1.75' | | |
| SPECIFIC FLOW RATE (gpm/sf) | 2 gpm/sf | 1.67* gpm/sf | 1 gpm/sf | 2 gpm/sf | 1.67* gpm/sf | 1 gpm/sf | 2 gpm/sf | 1.67* gpm/sf | 1 gpm/sf |
| CARTRIDGE FLOW RATE (gpm) | 22.5 | 18.79 | 11.25 | 15 | 12.53 | 7.5 | 10 | 8.35 | 5 |

* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB ® (PSORB) MEDIA ONLY




**FRAME AND COVER**
(DIAMETER VARIES)
N.T.S.

**SITE SPECIFIC DATA REQUIREMENTS**

| | |
|---|---|
| STRUCTURE ID | * |
| WATER QUALITY FLOW RATE (cfs) | * |
| PEAK FLOW RATE (cfs) | * |
| RETURN PERIOD OF PEAK FLOW (yrs) | * |
| CARTRIDGE HEIGHT (27", 18", LOW DROP(LD)) | * |
| NUMBER OF CARTRIDGES REQUIRED | * |
| CARTRIDGE FLOW RATE | * |
| MEDIA TYPE (PERLITE, ZPG, PSORB) | * |

| PIPE DATA: | I.E. | MATERIAL | DIAMETER |
|---|---|---|---|
| INLET PIPE | * | * | * |
| OUTLET PIPE | * | * | * |

| | |
|---|---|
| UPSTREAM RIM ELEVATION | * |
| DOWNSTREAM RIM ELEVATION | * |

| ANTI-FLOTATION BALLAST | WIDTH | HEIGHT |
|---|---|---|
| | * | * |

NOTES/SPECIAL REQUIREMENTS:

* PER ENGINEER OF RECORD

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. **RADIAL MEDIA DEPTH SHALL BE 7-INCHES**. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST **38 SECONDS**. SPECIFIC FLOW RATE SHALL BE 2 **GPM/SF (MAXIMUM)**. SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE **6 GPM/CF OF MEDIA (MAXIMUM).**

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.contechES.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.
F. CONTRACTOR TO REMOVE THE TRANSFER HOLE COVER WHEN THE SYSTEM IS BROUGHT ONLINE.

CONTECH® ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

# THE STORMWATER MANAGEMENT STORMFILTER 8' x 16' PEAK DIVERSION STORMFILTER STANDARD DETAIL

C06