Shell Canada Products
Heritage Hills NTI
471 Terry Fox Drive
Kanata, Ontario

DRAWING LIST - RE-ISSUED FOR SPA

GENERAL DRAWINGS - DP

SHEET No.	SHEET TITLE	REVISED
GENERAL - SPA		
G000.0	COVER SHEET	
G001.0	CODE STUDY	

CIVIL DRAWINGS - DP

SHEET No.	SHEET TITLE	REVISED
CIVIL		
C001.0	GENERAL NOTES	
C100.0	SITE EROSION AND SEDIMENT CONTROL PLAN	
C101.0	SITE PLAN	
C102.0	SITE GRADING PLAN	
C103.0	SITE SERVINCING PLAN	
C104.0	STORMWATER MANAGEMENT PLAN	
C105-0	FUEL PIPING PLAN	
C106.0	TANK LAYOUT PLAN	
C107.0	SIGNAGE PLAN	
C108-0	SITE BVR	
C109.0	FIRE TRUCK ROUTE PLAN	
C110.0	GARBAGE TRUCK ROUTE PLAN	
C501.0	DETAILS	
C502.0	SITE DETAILS	
C503.0	DECAL DETAILS	
C504.0	DETAILS	

LANDSCAPE DRAWING - DP

SHEET No.	SHEET TITLE	REVISED
LANDSCAPE DP		
L101.0	LANDSCAPE PLAN	
L501.0	PLANTING LIST	
L502.0	LANDSCAPE DETAILS	

ARCHITECTURAL DRAWINGS - DP

SHEET No.	SHEET TITLE	REVISED
C-STORE DP		
A101.1	MAIN FLOOR LAYOUT, BUILDING SECTIONS	
A201.1	EXTERIOR ELEVATIONS	
A301.1	BUILDING SECTIONS	
CANOPY DP		
A101.2	FUEL PUMP PLAN, ROOF PLAN	
A201.2	FUEL PUMP ELEVATIONS	
CARWASH DP		
A101.3	MAIN FLOOR PLAN, BUILDING SECTIONS	
A201.3	EXTERIOR ELEVATIONS	

ELECTRICAL DRAWINGS - DP

SHEET No.	SHEET TITLE	REVISED
C-STORE DP		
E101.0	SITE PHOTOMETRIC PLAN	

GENERAL NOTES

1. DO NOT SCALE DRAWINGS
2. ALL UNITS IN MILLIMETRES UNLESS OTHERWISE NOTED.
3. ALL INTERIOR STEEL STUD PARTITIONS TO BE SECURED TO CONCRETE FLOOR SLAB WITH STUB NAILS OR POWER-FASTENERS (OR APPROVED EQUAL).
4. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ALBERTA BUILDING CODE (LATEST EDITION) AND THE NATIONAL ENERGY CODE (2014) AND ALL APPLICABLE PROVINCIAL, LOCAL AND MUNICIPAL REQUIREMENTS.
5. PROVIDE SOLID BLOCKING AS REQUIRED FOR GRAB BARS, CHANGING TABLE AND FIXTURES IN WASHROOM. PROVIDE BLOCKING AS REQUIRED FOR FIRE EXTINGUISHERS.
6. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATIONS.
7. PROVIDE BLOCKING, STRAPPING, NAILING STRIPS, WOOD FRAMING, ETC. AS INDICATED ON DRAWINGS OR AS REQUIRED.
8. ARCHITECTURAL DRAWINGS ARE TO BE PRINTED IN COLOUR FOR CLARITY.
9. ALL SLABS, IN ALL BUILDINGS, INCLUDING SCREED, TO CONTAIN VAPOR LOK ADDITIVE, PER SPECIFICATIONS.

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REGISTRATION

ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 22/2019
ISAAC J. HAYES
LICENCE
8615

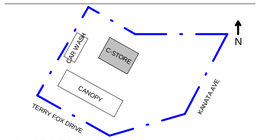
ISSUE/REVISION

I/R	DATE	DESCRIPTION
D	2019.05.02	RE-ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2019.11.16	ISSUED FOR REVIEW
A	2018.07.04	ISSUED FOR REVIEW

DRAWN BY

JAK

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

C-STORE
COVER SHEET

AECOM FILE NAME

G000.1-COV-HH

SHEET NUMBER

G000.1

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C-STORE CODE STUDY

MUNICIPAL ADDRESS

471 TERRY FOX DRIVE
KANATA, ONTARIO

LEGAL ADDRESS

BLOCK 170
PLAN 4M-1413

FLOOR AREA & BUILDING HEIGHT

FLOOR AREA =	211 m^2
BUILDING HEIGHT (MAIN FLOOR TO UNDERSIDE OF ROOF)=	3810 mm
BUILDING HEIGHT (MAIN FLOOR TO TOP OF PARAPET) =	5290 mm
HEIGHT OF ROOF =	1480 mm

APPLICABLE BUILDING CODE

ONTARIO BUILDING CODE 2012
DIV. A 1.1.2.4 - PART 9 APPLIES FOR GROUP E

OCCUPANCY CLASSIFICATION

TABLE 9.10.2.1 GROUP E (MERCANTILE)

FIRE SEPARATIONS

9.10.10.3 1 HR FIRE SEPARATION REQUIRED AT SERVICE ROOMS

9.10.10.6 45 MINUTE FIRE SEPARATION REQUIRED AT STORAGE ROOMS

OCCUPANT LOAD

9.9.1.3 CONFORMING TO TABLE 3.1.17.1

SALES AREA = 80.14m^2 @ 3.7m^2/PERSON =	22 PERSONS
OPERATIONS AREA = 8.99m^2 @ 9.30m^2/PERSON =	1 PERSONS
DELI BY SHELL = 20.54m^2 @ 9.30m^2 / PERSON =	3 PERSONS
OFFICE = 5.26m^2 @ 9.30m^2/PERSON =	1 PERSON
ELECTRICAL & MECHANICAL = 15.43m^2 @ 46.00m^2/PERSON =	1 PERSON
STORAGE, COOLER, FREEZER = 43.52m^2 @ 46.00m^2/PERSON =	1 PERSON
TOTAL OCCUPANT LOAD =	29 PERSONS

STAFF NUMBER = 6 PERSONS

LIMITING DISTANCE

PENDING SITE PLAN APPROVAL

9.10.14.4 CONFORMS TO TABLE 9.10.14.4 AND 9.10.14.5
FACING TWO STREETS

FRONT WALL
WALL AREA = 69.78 m^2
AREA OF OPENINGS = 21.39 m^2
% OF OPENINGS = 30.65%
TYPE OF CONSTRUCTION = COMBUSTIBLE OR NON-COMBUSTIBLE
TYPE OF CLADDING = NON-COMBUSTIBLE
LIMITING DISTANCE = 10.0 m
ACTUAL DISTANCE = X.XX (TO PROPERTY LINE)
FRR REQUIRED = 1 HR

RIGHT WALL
WALL AREA = 44.79 m^2
AREA OF OPENINGS = 2.00 m^2
% OF OPENINGS = 4.47%
TYPE OF CONSTRUCTION = NON-COMBUSTIBLE
TYPE OF CLADDING = NON-COMBUSTIBLE
LIMITING DISTANCE = 2.0m
ACTUAL DISTANCE = XX.X (TO PROPERTY LINE)
FRR REQUIRED = 2 HR

BACK WALL
WALL AREA = 69.78 m^2
AREA OF OPENINGS = 0.00 m^2
% OF OPENINGS = 0.00
TYPE OF CONSTRUCTION = NON-COMBUSTIBLE
TYPE OF CLADDING = NON-COMBUSTIBLE
LIMITING DISTANCE = 1.2m
ACTUAL DISTANCE = XX.X (TO FACE OF CANOPY)
FRR REQUIRED = 2 HR

LEFT WALL
WALL AREA = 44.79 m^2
AREA OF OPENINGS = 4.0 m^2
% OF OPENINGS = 8.93%
TYPE OF CONSTRUCTION = COMBUSTIBLE OR NON-COMBUSTIBLE
TYPE OF CLADDING = NON-COMBUSTIBLE
LIMITING DISTANCE = 4.0m
ACTUAL DISTANCE = XX.X (TO CARWASH)
FRR REQUIRED = 2 HR

ACCESS TO EXITS

9.9.3.2.(1) MIN. EXIT WIDTH = 900mm

9.9.3.3.(1) MIN. CORRIDOR EXIT WIDTH = 1100mm

9.9.3.4.(1) MINIMUM CLEAR HEIGHT IN EXITS AND ACCESS TO EXITS SHALL BE 2100mm

9.9.8.2.(1) TWO EXITS REQUIRED.
MAX TRAVEL DISTANCE TO NEAREST EXIT = 30.0 m

PLUMBING FIXTURES

9.31.1.(2) CONFORMING TO SECTION 3.7.4

3.7.4.8.(3)(b) NOT MORE THAN ONE WATER CLOET TO SERVE BOTH SEXES NEED BE PROVIDED IN A GROUP E OCCUPANCY WHERE THE TOTAL AREA OF THE OCCUPANCY IS NOT MORE THAN 300m^2.

ONE WATER CLOSET TO SERVE BOTH SEXES (TWO WATER CLOSETS PROVIDED).

SPRINKLER AND FIRE ALARM SYSTEM REQUIRED

9.10.18.2 NOT REQUIRED

FIRE DEPARTMENT ACCESS TO BUILDING

FACING TWO STREETS

9.10.20.3 ACCESS BY MEANS OF A STREET OR PRIVATE ROADWAY OR YARD

9.10.20.4 EXTINGUISHERS INSTALLED IN CONFORMANCE WITH PROVISIONS OF THE NATIONAL FIRE CODE

3.2.5.16 THE DISTANCE FROM THE FIRE DEPARTMENT CONNECTION TO A HYDRANT IS NOT MORE THAN 45m AND IS UNOBSTRUCTED.

CURRENT FIRE HYDRANT LOCATION FROM BUILDING = 39.2m

BARRIER-FREE DESIGN

BUILDING SERVICE AREAS REQUIRE ABLE BODY ACTIVITY AND WHERE APPLICABLE ARE NOT DESIGNED TO BE ACCESSIBLE.

9.5.2.1.(1) CONFORMING TO SECTION 3.8

3.8.1.2.(1) ONE BARRIER-FREE ENTRANCE IN CONFORMANCE WITH SECTION 3.8.3.3.

3.8.1.3.(1) UNOBSTRUCTED WIDTH OF A BARRIER-FREE PATH OF TRAVEL SHALL NOT BE LESS THAN 1100mm

3.8.3.3 EVERY DOORWAY THAT IS IN A BARRIER-FREE PATH OF TRAVEL SHALL HAVE A CLEAR WIDTH NOT LESS THAN 860mm

3.8.1.3.(4) EVERY BARRIER-FREE PATH OF TRAVEL SHALL HAVE 1800mm x 1800mm UNOBSTRUCTED SPACE NOT MORE THAN 30m APART

3.8.2.3 A BARRIER-FREE PATH OF TRAVEL SHALL BE PROVIDED TO A BARRIER-FREE WASHROOM DESIGNED IN CONFORMANCE WITH SECTION 3.8.3.8 TO 3.8.3.12.

3.8.3.1.(1) ACCESSIBILITY SIGNS INCORPORATING THE INTERNATIONAL SYMBOL SHALL BE INSTALLED TO INDICATE THE LOCATION OF THE ENTRANCE AND LOCATION OF RAMPS SERVING THE ENTRANCE.

3.8.3.1.(2) WASHROOMS TO ACCOMMODATE DISABLED PERSONS SHALL BE IDENTIFIED BY A SIGN CONSISTING OF THE INTERNATIONAL SYMBOL.

3.8.3.2.(1) EXTERIOR WALKS SHALL HAVE A CONTINUOUS PLANE, HAVE A PERMANENT, FIRM, SLIP-RESISTANT SURFACE WITH AN UNINTERRUPTED WIDTH OF NOT LESS THAN 1100mm AND A GRADIENT NOT EXCEEDING 1 IN 20.

3.8.2.2.(b) A CURB RAMP SHALL BE PROVIDED

3.8.3.4.(a) A CURB RAMP SHALL BE PROVIDED AND SHALL HAVE A SLOPE NOT MORE THAN 1 IN 12 WITH A WIDTH OF NOT LESS THAN 900mm BETWEEN HANDRAILS.

3.8.3.12 UNIVERSAL TOILET ROOM IS IN CONFORMANCE WITH THIS SECTION.

BUILDING ENVELOPE

9.36.1.3 (NBC 2015) - MERCHANTILE OCCUPANCY WITHOUT A HEAT-RECOVERY VENTIALTOR - ZONE 6 (4000-4999 HDDs)

TABLE 9.36.2.6.A WALLS	RSI 3.08 (R 17.49) INSULATION PROVIDED: RSI 6.30 (R 35.80)
TABLE 9.36.2.6.A ROOF	RSI 4.67 (R 26.52) INSULATION PROVIDED: RSI 8.81 - 5.28 (R 50.00 - R 30.00) TAPERED
TABLE 9.36.2.8.A FLOOR	RSI 1.96 (R 11.13) INSULATION PROVIDED: RSI 2.64 (R 15.00)
TABLE 9.36.2.8.A FOUNDATION	RSI 2.98 (R 16.92) INSULATION PROVIDED: RSI 2.64 (R 15.00)
TABLE 9.36.2.7.A WINDOWS	U 1.6
TABLE 9.36.2.7.A DOORS	U 1.6

9.27.4 SEALANTS TO MEET REQUIREMENTS

CARWASH CODE STUDY

MUNICIPAL ADDRESS

471 TERRY FOX DRIVE
KANATA, ONTARIO

LEGAL ADDRESS

BLOCK 170
PLAN 4M-1413

FLOOR AREA & BUILDING HEIGHT

FLOOR AREA =	96 m^2
BUILDING HEIGHT (MAIN FLOOR TO UNDERSIDE OF ROOF)=	4400 mm
BUILDING HEIGHT (MAIN FLOOR TO TOP OF PARAPET) =	6000 mm
TOTAL HEIGHT OF ROOF =	1600 mm

APPLICABLE BUILDING CODE

ONTARIO BUILDING CODE - LATEST EDITION
DIV. A 1.3.3.3 & DIV A 1.1.2.4. - PART 9 APPLIES FOR GROUP F3

OCCUPANCY CLASSIFICATION

TABLE 9.10.2.1 GROUP F3 (LOW HAZARD INDUSTRIAL)

OCCUPANT LOAD

9.9.1.3 NON-OCCUPIED SPACE BASED ON OBC DIV. A.1.4.1.2 OCCUPANCY MEANS THE USE OR INTENDED USE OF A BUILDING OR PART OF A BUILDING FOR THE SHELTER OR SUPPORT OF PERSONS, ANIMALS OR PROPERTY. (CAR WASH BUILDING)

OPENINGS IN EXPOSING BUILDING FACES

9.10.14.4 CONFORMS TO TABLE 9.10.14.4 & TABLE 3.2.3.1
FACING TWO STREETS

FRONT WALL
WALL AREA = 30.43m^2
AREA OF OPENINGS = 11.06m^2
% OF OPENINGS = 36.35%
LENGTH = 7.0m
HEIGHT = 4.4m
L/H = 1.60 : 1
TYPE OF CONSTRUCTION = COMBUSTIBLE OR NON-COMBUSTIBLE
TYPE OF CLADDING = COMBUSTIBLE OR NON-COMBUSTIBLE
LIMITING DISTANCE = 6.0m
MIN. F.R.R. REQUIRED = 45 MIN

LEFT WALL
WALL AREA = 65.96m^2
AREA OF OPENINGS = 26.48m^2
% OF OPENINGS = 40.15%
LENGTH = 14.99m
HEIGHT = 4.4m
L/H = 3.41 : 1
TYPE OF CONSTRUCTION = COMBUSTIBLE OR NON-COMBUSTIBLE
TYPE OF CLADDING = COMBUSTIBLE OR NON-COMBUSTIBLE
LIMITING DISTANCE = 8.0 m
MIN. F.R.R. REQUIRED = 45 MIN

BACK WALL
WALL AREA = 30.43m^2
AREA OF OPENINGS = 11.57m^2
% OF OPENINGS = 38.02%
LENGTH = 7.0m
HEIGHT = 4.4m
L/H = 1.60 : 1
TYPE OF CONSTRUCTION = COMBUSTIBLE OR NON-COMBUSTIBLE
TYPE OF CLADDING = COMBUSTIBLE OR NON-COMBUSTIBLE
LIMITING DISTANCE = 6.0m
MIN. F.R.R. REQUIRED = 45 MIN

RIGHT WALL
WALL AREA = 63.77m^2
AREA OF OPENING = 0.58m^2
% OF OPENINGS = 0.91%
LENGTH = 14.99m
HEIGHT = 4.4m
L/H = 3.41 : 1
TYPE OF CONSTRUCTION = NON-COMBUSTIBLE
TYPE OF CLADDING = NON-COMBUSTIBLE
LIMITING DISTANCE = 1.2m
MIN. F.R.R. REQUIRED = 1 HR

ACCESS TO EXITS

9.9.3.2.(1) MIN. EXIT WIDTH = 900mm

9.9.3.3.(1) MIN. CORRIDOR EXIT WIDTH = 1100mm

9.9.3.4.(1) MINIMUM CLEAR HEIGHT IN EXITS AND ACCESS TO EXITS SHALL BE 2100mm

9.9.7.4 TWO EGRESS DOORS REQUIRED WHERE:
-GROUP F3 MAX AREA EXCEEDS 200m^2
OR;
-GROUP F3 MAX DISTANCE TO SINGLE EGRESS DOOR EXCEEDS 25m

-GROSS FLOOR AREA = 96m^2

9.9.8.2.(2) 2 MAN DOORS PROVIDED (2 OVERHEAD DOORS PROVIDED FOR VEHICULAR ACCESS)

SPRINKLER AND FIRE ALARM SYSTEM REQUIRED

9.10.18.2 NOT REQUIRED

FIRE DEPARTMENT ACCESS TO BUILDING

FACING TWO STREETS

9.10.20.3 ACCESS BY MEANS OF A STREET OR PRIVATE ROADWAY OR YARD

9.10.20.4 EXTINGUISHERS INSTALLED IN CONFORMANCE WITH PROVISIONS OF THE NATIONAL FIRE CODE

CURRENT FIRE HYDRANT LOCATION FROM BUILDING = 17.4m

BARRIER-FREE DESIGN

9.5.2.1.(1) CONFORMING TO SECTION 3.8

3.8.2.1.(1)(c) BUILDING IS NOT INTENDED TO BE OCCUPIED ON A DAILY OR FULL TIME BASIS

BUILDING ENVELOPE

9.36.1.3 - WITHOUT A HEAT-RECOVERY VENTIALTOR - ZONE 6 (4000-4999 HDDs)

TABLE 9.36.2.6.A WALLS	RSI 3.08 (R 17.49) INSULATION PROVIDED: RSI 5.28 (R 30.00)	
TABLE 9.36.2.6.A ROOF	RSI 4.67 (R 26.53) INSULATION PROVIDED: RSI 8.81 - 5.28 (R 50.00 - R 30.00) TAPERED	
TABLE 9.36.2.8.A FLOOR	RSI 2.32 (R 13.18) INSULATION PROVIDED: RSI 2.64 (R 15.00) + IN-FLOOR HEATING	
TABLE 9.36.2.8.A FOUNDATION	RSI 2.98 (R 16.93) INSULATION PROVIDED: RSI 3.52 (R 20.00)	
TABLE 9.36.2.7.A WINDOWS	U 1.6	
TABLE 9.36.2.7.A DOORS	U 1.6	DOORS PER CAR WASH EQUIPMENT SUPPLIER

9.27.4 SEALANTS TO MEET REQUIREMENTS

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REGISTRATION

ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 29/2019
ISAAC J. HAYES
LICENCE
8615

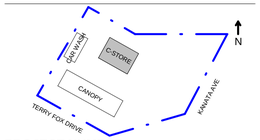
ISSUE/REVISION

I/R	DATE	DESCRIPTION
D	2019.05.02	RE-ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2019.11.16	ISSUED FOR REVIEW
A	2018.07.04	ISSUED FOR REVIEW

DRAWN BY

JAK

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

C-STORE
CODE STUDY

AECOM FILE NAME

G001.1-COD-HH

SHEET NUMBER

G001.1

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Designer: Designer Checked: Checker Approved: Approver ANSI D 22"x34"
Project Management Initials:
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Filename: BIM 360://Shell Canada - Heritage Hills NTI/CORRECT LAYOUT - Shell A18 - C-Store - 211m2.rvt

Notes - Building Code Analysis (Carwash) DP

Recycled Content Paper

Scale: 1 : 1

GENERAL NOTES

1. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
2. THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT RAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
3. ALL WORKS SHALL BE COMPLETED IN ACCORDANCE WITH THE CURRENT OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE CONSTRUCTOR AS DEFINED IN THE ACT.
4. THE CONTRACTOR AND SUB CONTRACTORS ARE RESPONSIBLE TO ENSURE THAT THEIR CONSTRUCTION MATERIALS AND PRACTICES CONFORM TO THE LATEST CITY/ REGION STANDARDS, SPECIFICATIONS AND DESIGN CRITERIA. IN THE ABSENCE OF CITY/REGIONAL SPECIFICATIONS, THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS) SHALL APPLY.
5. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND IMPLEMENTING TEMPORARY TRAFFIC MANAGEMENT PLANS FOR CONSTRUCTION WITHIN THE CITY RIGHT OF WAY, ALL PLANS ARE TO FOLLOW THE REQUIREMENTS OF THE CITY AND PROVINCIAL STANDARDS (OTM BOOK 7).
7. BEFORE COMMENCING CONSTRUCTION OBTAIN AND PROVIDE PROOF OF COMPREHENSIVE, ALL RISK AND OPERATIONAL LIABILITY INSURANCE FOR $5,000,000.00. INSURANCE POLICY TO NAME OWNERS, ENGINEERS AND ARCHITECTS AS CO-INSURED.
8. THE CONTRACTOR, AT THEIR EXPENSE AND TO THE SATISFACTION OF THE CITY OF OTTAWA AND THE ENGINEER, SHALL BE RESPONSIBLE FOR THE RESTORATION AND THE REPAIR OF ALL AREAS DISTURBED DURING CONSTRUCTION ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND EXISTING UTILITIES TO EXISTING CONDITIONS OR BETTER.
9. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
10. THE SUPPORT OF ALL UTILITIES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
11. ALL BACKFILL FOR SEWERS, WATERMAINS AND UTILITIES ON THE ROAD ALLOWANCE MUST BE MECHANICALLY COMPACTED.
12. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND CITY SERVICES (WATER, SANITARY & STORM) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE REPORTED TO AECOM LTD.
13. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.
14. ALL ELEVATIONS ARE GEODETIC.
15. REFER TO GEOTECHNICAL REPORT (PROJECT: 63993.58 DATED JUNE 12, 2018), PREPARED BY GEMTEC FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
16. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARD SURFACE AREAS AND DIMENSIONS.
17. REFER TO STORMWATER MANAGEMENT REPORT PREPARED BY AECOM, DATED JANUARY __ 2019
18. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.
19. A UTILITY CLEARANCE RADIUS OF 1.2M BETWEEN THE PROPOSED DRIVEWAY ENTRANCE CURB RETURN AND ALL ABOVE GROUND UTILITIES MUST BE MAINTAINED.
20. THE OWNER SHALL INDICATE IN THE AGREEMENT, IN WORDS SATISFACTORY TO BELL CANADA, THAT IT WILL GRANT TO BELL CANADA ANY EASEMENTS THAT MAY BE REQUIRED, WHICH MAY INCLUDE A BLANKET EASEMENT, FOR COMMUNICATION/TELECOMMUNICATION INFRASTRUCTURE. IN THE EVENT OF ANY CONFLICT WITH EXISTING BELL CANADA FACILITIES OR EASEMENTS, THE OWNER SHALL BE RESPONSIBLE FOR THE RELOCATION OF SUCH FACILITIES OR EASEMENTS.

GRADING NOTES

1. ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL COMPLY WITH THE STANDARD DRAWINGS AND SPECIFICATIONS OF THE CITY OF OTTAWA, THE ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS (O.P.S.S.) AND THE ONTARIO BUILDING CODE (O.B.C.)
2. ALL SURFACE DRAINAGE SHALL BE CONTAINED AT SITE, COLLECTED AND DISCHARGED AT A LOCATION TO BE APPROVED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. DRAINAGE OF ABUTTING PROPERTIES SHALL NOT BE ADVERSELY AFFECTED. UNLESS NOTED OTHERWISE.
3. ALL TOPSOIL, ORGANIC OR DELETERIOUS MATERIAL MUST BE ENTIRELY REMOVED FROM BENEATH THE PROPOSED PAVED AREAS AS DIRECTED BY THE SITE ENGINEER OR GEOTECHNICAL ENGINEER.
4. THE SUBGRADE SHALL BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
5. EXPOSED SUBGRADES IN PROPOSED PAVED AREAS SHOULD BE PROOF ROLLED WITH A LARGE STEEL DRUM ROLLER AND INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO THE PLACEMENT OF GRANULARS.
6. ANY SOFT AREAS EVIDENT FROM THE PROOF ROLLING SHOULD BE SUB-EXCAVATED AND REPLACED WITH SUITABLE MATERIAL THAT IS FROST RESISTANT AND COMPATIBLE WITH THE EXISTING SOILS AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
7. MINIMUM OF 2% GRADE FOR ALL GRASS AREAS UNLESS OTHERWISE NOTED.
8. MAXIMUM TERRACING GRADE TO BE 3:1 UNLESS OTHERWISE NOTED.
9. ALL GRADES BY CURBS ARE EDGE OF PAVEMENT GRADES UNLESS OTHERWISE INDICATED.
10. REFER TO LANDSCAPE PLAN FOR PLANTING AND OTHER LANDSCAPE FEATURE DETAILS.
11. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GRADING PLAN INDICATING AS-BUILT ELEVATIONS OF ALL DESIGN GRADES SHOWN ON THIS PLAN.

SANITARY AND STORM SEWER NOTES

1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT STANDARDS AND SPECIFICATIONS OF CITY OF OTTAWA AND ONTARIO PROVINCIAL STANDARDS.
2. MAIN LINE PVC PIPE SHALL BE DR 35 AND SERVICE CONNECTION PVC PIPE SHALL BE DR 28.
3. SERVICES ARE TO BE CONSTRUCTED TO 1.0M FROM FACE OF BUILDING AT A MINIMUM SLOPE OF 1.0%.
4. BEDDING FOR FLEXIBLE PIPE SHALL BE AS PER OPSD 802.010, 802.013 OR 802.014.
5. PIPE BEDDING, COVER AND BACKFILL ARE TO BE COMPACTED TO MINIMUM 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE USE OF CLEAR CRUSHED STONE AS A BEDDING LAYER SHALL NOT BE PERMITTED.
6. MAINTENANCE HOLES AS PER OPSD 701.010 (1200MM), 701.011 (1500MM) AND 701.012 (1800MM).
7. FRAME AND COVER AS PER OPSD 401.010 TYPE A CLOSED (SANITARY) AND 400.070 (STORM)
8. SANITARY MAINTENANCE HOLE SHALL HAVE WATERTIGHT FRAME AND COVER IN PONDING AREAS AS PER OPSD 401.030.
9. BENCHING SHALL BE AS PER OPSD 701.021.
10. TRENCH WIDTH (SEPARATE TRENCH) AT TOP OF THE PIPE SHALL BE TO CITY OF OTTAWA STANDARD S6. CONTRACTOR IS RESPONSIBLE FOR SUPPLYING ADDITIONAL BEDDING AND/OR STRONGER PIPE IF ACTUAL TRENCH WIDTHS EXCEED DESIGN WIDTHS.
11. ALL SEWERS CONSTRUCTED WITH GRADES 0.50% OR LESS, SHALL BE INSTALLED WITH LASER LEVEL AND CHECKED PRIOR TO BACKFILL AT THE CONTRACTOR'S EXPENSE.
12. ALL STORM AND SANITARY SERVICE LATERALS SHALL BE EQUIPPED WITH BACKFLOW PREVENTION DEVICES AS PER THE CITY OF OTTAWA STANDARD DETAILS S14 AND S14.1 OR S14.2.
13. INSULATE ALL PIPES THAT HAVE LESS THAN 1.5M COVER WITH HI-40 INSULATION PER INSULATION DETAIL FOR SHALLOW SEWERS. PROVIDE 150MM CLEARANCE BETWEEN PIPE AND INSULATION.
14. SERVICE CONNECTIONS AND UTILITY CUTS TO BE BACKFILLED WITH UNSHRINKABLE FILL.
15. STORM PIPE LENGTHS ARE TO BARREL OF MANHOLE AND DO NOT INCLUDE BENCHING.
16. FLEXIBLE CONNECTIONS ARE REQUIRED FOR CONNECTING PIPES TO MANHOLES (FOR EXAMPLE KOR-N-SEAL, PSX: POSITIVE SEAL AND DURASEAL). THE CONCRETE CRADLE FOR THE PIPE CAN BE ELIMINATED.
17. ALL STORM MANHOLES AND CATCHBASIN MANHOLES ARE TO HAVE 300MM SUMPS UNLESS OTHERWISE INDICATED. ALL CATCHBASINS ARE TO HAVE 600MM SUMPS UNLESS OTHERWISE INDICATED.
18. ALL CATCHBASINS, MANHOLES AND/OR CATCHBASIN MANHOLES THAT ARE TO HAVE ICD'S INSTALLED WITHIN THEM ARE TO HAVE 600MM SUMPS.
19. THE OWNER SHALL REQUIRE THAT THE SITE SERVICING CONTRACTOR PERFORM FIELD TESTS FOR QUALITY CONTROL OF ALL SANITARY SEWERS. LEAKAGE TESTING SHALL BE COMPLETED IN ACCORDANCE WITH OPSS 410.07.16, 410.07.16.04 AND 407.07.24. DYE TESTING IS TO BE COMPLETED ON ALL SANITARY SERVICES TO CONFIRM PROPER CONNECTION TO THE SANITARY SEWER MAIN. THE FIELD TESTS SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED PROFESSIONAL ENGINEER WHO SHALL SUBMIT A CERTIFIED COPY OF THE TEST RESULTS.
20. CONTRACTOR TO TELEVISE (CCTV) ALL PROPOSED SEWERS, 200MMØ OR GREATER PRIOR TO BASE COURSE ASPHALT. UPON COMPLETION OF CONTRACT, THE CONTRACTOR IS RESPONSIBLE TO FLUSH AND CLEAN ALL SEWERS & APPURTENANCES.

WATERMAIN NOTES

1. SUPPLY AND CONSTRUCT ALL WATERMAINS AND APPURTENANCES IN ACCORDANCE WITH THE CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. CONNECTIONS AND SHUT-OFFS AT THE MAIN AND CHLORINATION OF THE WATER SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE CITY OF OTTAWA REPRESENTATIVES.
3. PVC WATERMAINS SHALL BE MINIMUM DR 18 CLASS 235 (AWWA) C900-07
4. WATER SERVICE CONNECTIONS TO C-STORE SHALL BE 50MM Ø TYPE "K" SOFT COPPER AS PER OPSD 1104.01.AND CONFORM TO ASTM B88-03 (ASTM B88M-05 FOR METRIC SIZES) .
5. BEDDING SHALL BE AS PER CITY OF ATTAWA STANDARD DRAWING W17.
6. THERMAL INSULATION IN SHALLOW TRENCHES AND ADJACENT TO OPEN STRUCTURES SHALL BE AS PER CITY OF ATTAWA STANDARD DRAWING W22 AND W23.
7. MINIMUM COVER ON WATERMAINS SHALLBE 2.4 METRES.
8. PROVISIONS FOR FLUSHING THE WATER LINE PRIOR TO TESTING AND SO FORTH MUST BE PROVIDED WITH AT LEAST A 50 MM OUTLET ON 100 MM AND LARGER LINES AS PER OPSD1104.03-1. COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE. ON FIRE LINES, FLUSHING OUTLET TO BE 100 MM DIAMETER MINIMUM OR A HYDRANT.
9. ALL TEES, PLUGS, HORIZONTAL, VERTICAL BENDS, REDUCERS AND HYDRANTS TO HAVE CONCRETE THRUST BLOCKS AS PER OPSD 1103.01 AND 1103.021.
10. PROPOSED WATER SERVICES ARE TO BE CONSTRUCTED TO WITHIN 1.0M OF FOUNDATION WALL AND CAPPED, UNLESS OTHERWISE INDICATED.
11. WATERMAINS MUST FOLLOW THE MINISTRY OF THE ENVIRONMENT PROCEDURES THAT GOVERN THE SEPARATION OF SEWERS AND WATERMAINS F-6-1. A MINIMUM VERTICAL CLEARANCE OF 0.30 METER OVER, 0.5 METER UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING. MUST ALSO MAINTAIN 2.5 METRES HORIZONTAL SEPARATION WITH SEWERS.
12. ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM THE EXISTING SYSTEM. FLUSHING, SWABBING AND TESTING OF WATERMAIN AS PER ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS (OPSS), AS WELL AS CITY OF OTTAWA SPECIFICATION.
13. AFTER PASSING THE HYDROSTATIC PRESSURE TEST AND LEAKAGE TEST, CHLORINATION CAN PROCEED. SAMPLING OF THE NEW MAINS IS TO BE DONE AT THE REQUIRED LOCATIONS PRIOR TO CONNECTING TO THE CITY WATERMAIN SYSTEM. THE TEE FITTING IS TO BE CUT INTO THE EXISTING WATERMAIN TO MAKE THE CONNECTION. TO MAINTAIN THE PRESSURE IN THE NEW MAIN DURING INSTALLATION OF SERVICE, A 50MM BY-PASS WITH AN APPROVED PRESSURE DIFFERENTIAL BACKFLOW PREVENTER, MOUNTED ABOVE GROUND LEVEL IS TO BE INSTALLED AROUND THE CLOSED ISOLATING VALVE.
14. CITY IN-SERVICE WATER VALVES CAN ONLY BE OPERATED BY CITY OF OTTAWA WATER STAFF.
15. WATERMAINS TO BE INSTALLED TO GRADE AS SHOWN ON APPROVED PLANS, COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHEN REQUESTED BY INSPECTOR.
16. VALVE IN BOXES SHALL BE INSTALLED AS PER CITY OF OTTAWA STD. MAINLINE VALVES TO BE RESTRAINED AS PER CITY OF OTTAWA STD.
17. THE CONTRACTOR SHALL COMPLETE THE NECESSARY WATER TESTING (I.E. PRESSURE TEST, FLUSHING, CHLORINATE, SAMPLING, ETC.)

CURB, SIDEWALK, AND PAVEMENT NOTES

1. ALL CURBS SHALL BE BARRIER CURB (150MM) UNLESS OTHERWISE NOTED AND CONSTRUCTED AS PER CITY OF OTTAWA STANDARDS (SC1.1). MOUNTABLE CURBS ARE TO BE PER CITY OF OTTAWA STANDARD (SC1.3).
2. THE GRANULAR SUB-BASE AND BASE SHALL BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE. ANY ADDITIONAL GRANULAR FILL USED BELOW THE PROPOSED PAVEMENT SHOULD BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY VALUE.
3. AT ALL ENTRANCES TO THE SITE THE ROAD CURB AND SIDEWALK WILL BE CONTINUOUS THROUGH THE DRIVEWAY, THE DRIVEWAY GRADE WILL BE COMPATIBLE WITH THE EXISTING SIDEWALK AND CURB DEPRESSION WILL BE PROVIDED FOR EACH ENTRANCE. ACCESS CONSTRUCTION AS PER O.P.S.D. 350.010.
4. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10). WHERE THE NEW PAVEMENT WILL ABUT EXISTING PAVEMENT, THE DEPTHS OF THE GRANULAR MATERIALS SHOULD TAPER UP OR DOWN AT 5 HORIZONTAL TO 1 VERTICAL, OR FLATTER TO MATCH THE DEPTHS OF THE GRANULAR MATERIAL(S) EXPOSED IN THE EXISTING PAVEMENT.
5. THE PORTION OF THE DRIVEWAY WITHIN THE CITY BOULEVARD MUST BE PAVED TO THE LATEST CITY OF OTTAWA STANDARDS.
6. PROVIDE LINE/PARKING PAINTING.
7. PAVEMENT STRUCTURE FOR PARKING LOT AND ACCESS ROADWAYS;

   100 MILLIMETRES ASPHALTIC CONCRETE, OVER
   150 MILLIMETRES OF OPSS GRANULAR A BASE, OVER
   450 MILLIMETRES OF OPSS GRANULAR B TYPE II SUBBASE

   THE 100 MILLIMETRES ASPHALTIC CONCRETE SURFACE SHOULD CONSIST OF 40 MILLIMETRES OF SUPERPAVE 12.5

   (TRAFFIC LEVEL B) OVER 60 MILLIMETRES OF SUPERPAVE 19.0 (TRAFFIC LEVEL B).

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100515409
May 22, 2019
PROVINCE OF ONTARIO

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

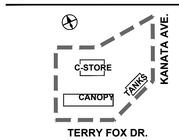
ISSUE/REVISION

I/R	DATE	DESCRIPTION
B	2019.05.22	RE-ISSUED FOR SPA
A	2019.02.01	ISSUED FOR SPA

DRAWN BY

JR

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

GENERAL NOTES

AECOM FILE NAME

C001.0-GEN-HEH

SHEET NUMBER

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Last saved by: REIDJ2(2019-05-22) Last Plotted: 2019-05-22
Filename: P:\60526484\400-TECHNICAL\6) PIPELINE\HERITAGE HILLS, KANATA, ON\02 FRONT END DEVELOPMENT\2.2 DESIGN DEVELOPMENT PLANS AND SPECS\910-CAD\20-SHEETS\C\C001.0-GEN-HEH.DWG

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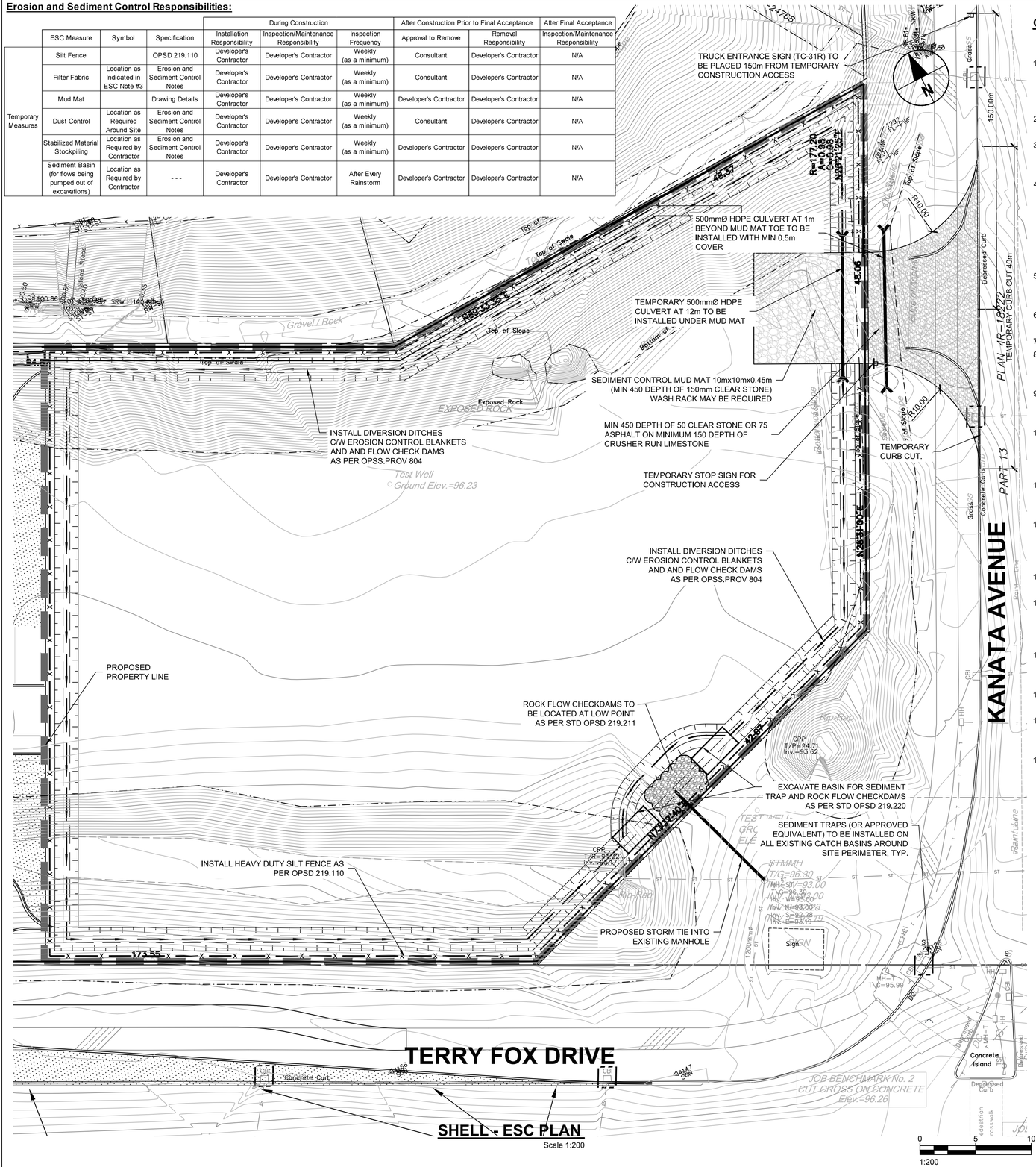
Erosion and Sediment Control Responsibilities:

	ESC Measure	Symbol	Specification	During Construction: Installation Responsibility	During Construction: Inspection/Maintenance Responsibility	During Construction: Inspection Frequency	After Construction Prior to Final Acceptance: Approval to Remove	After Construction Prior to Final Acceptance: Removal Responsibility	After Final Acceptance: Inspection/Maintenance Responsibility
Temporary Measures	Silt Fence		OPSD 219.110	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Filter Fabric	Location as Indicated in ESC Note #3	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Mud Mat		Drawing Details	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
	Dust Control	Location as Required Around Site	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Consultant	Developer's Contractor	N/A
	Stabilized Material Stockpiling	Location as Required by Contractor	Erosion and Sediment Control Notes	Developer's Contractor	Developer's Contractor	Weekly (as a minimum)	Developer's Contractor	Developer's Contractor	N/A
	Sediment Basin (for flows being pumped out of excavations)	Location as Required by Contractor	- - -	Developer's Contractor	Developer's Contractor	After Every Rainstorm	Developer's Contractor	Developer's Contractor	N/A



SHELL - ESC PLAN
Scale 1:200

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.
2. ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MAY BE REQUIRED AND SHALL BE DETERMINED BY THE ENGINEER.
3. SILT CONTROL FENCING SHALL BE INSTALLED ACCORDING TO THIS DRAWING AND MAINTAINED UNTIL COMPLETION OF THE LANDSCAPING AND SITE STABILIZATION.
4. NO CONSTRUCTION ACTIVITY OR MACHINERY SHALL INTRUDE BEYOND THE SILT/SNOW FENCE OR LIMIT OF DEVELOPMENT. ALL CONSTRUCTION VEHICLES SHALL LEAVE THE SITE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS. ALL MATERIALS AND EQUIPMENT SHALL BE STORED ON SITE IN A DESIGNATED AREA. NO MATERIAL OR EQUIPMENT SHALL BE STORED ON THE MUNICIPAL RIGHT OF WAY. NO CONSTRUCTION VEHICLES WILL PARK ON THE MUNICIPAL ROADS.
5. STOCKPILES SHALL BE SET BACK FROM ANY WATERCOURSE AND STABILIZED AGAINST EROSION AS SOON AS POSSIBLE. A SETBACK OF AT LEAST 15m FROM ANY TOP OF BANK OR WATERCOURSE IS REQUIRED.
6. ALL EXPOSED SOILS SHALL BE IMMEDIATELY STABILIZED WITH A SEED AND MULCH APPLICATION AS DIRECTED BY THE ENGINEER.
7. SERVICING OF CONSTRUCTION EQUIPMENT ON-SITE IS PROHIBITED.
8. CLEANING OF EXISTING ROAD(S) AT SITE ACCESS POINTS SHALL BE DONE DAILY DURING CONSTRUCTION OR AS NECESSARY THROUGH REGULAR INSPECTION OR AS DIRECTED BY THE ENGINEER.
9. DUST CONTROL TO BE REVIEWED DAILY. WATER TRUCK TO BE PROVIDED ON-SITE AND ALL HAUL ROAD / WORKING AREAS TO BE SPRAYED WITH WATER AS REQUIRED TO ENSURE DUST IS CONTROLLED ON-SITE.
10. ALL RE-GRADED AREAS WITHIN THE SITE WHICH ARE NOT OCCUPIED BY BUILDINGS, ROADWAYS, SIDEWALKS OR DRIVEWAYS SHALL BE TOP-SOILED AND SODDED / SEEDED IMMEDIATELY AFTER COMPLETION OF FINAL GRADING OPERATIONS OR AS DIRECTED BY THE ENGINEER.
11. SEDIMENT TRAPS (OR APPROVED EQUIVALENT) ARE TO BE INSTALLED AT ALL CATCHBASINS AND CATCHBASIN MANHOLE LOCATIONS UPON COMPLETION OF SERVICING.
12. THE ESC STRATEGIES ON THESE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED / AMENDED AS SITE CONDITION CHANGES TO PREVENT SEDIMENT RELEASE TO THE NATURAL ENVIRONMENT. FAILED ESC MEASURE MUST BE REPAIRED IMMEDIATELY.
13. MATERIALS TO REPAIR DAMAGED EROSION AND SEDIMENT CONTROL MEASURES MUST BE KEPT ON-SITE AT ALL TIMES.
14. INSPECTION OF THE PROPOSED EROSION AND SEDIMENT CONTROL MEASURES WILL OCCUR ON A WEEKLY BASIS, AFTER SIGNIFICANT RAINFALL OR SNOW MELT EVENTS AND DAILY DURING EXTENDED RAIN OR SNOW MELT PERIODS.
15. SEDIMENT / SILT SHALL BE REMOVED FROM THE SEDIMENT CONTROL DEVICE AND THE CATCHBASIN BUFFERS AFTER STORM EVENTS AND DISPOSED OF IN AREAS AS APPROVED BY THE ENGINEER.
16. ALL LITTER AND DEBRIS SHALL BE MONITORED AND DISPOSED OF DAILY OR AS NECESSARY THROUGH REGULAR INSPECTION.
17. ROCK CHECK DAMS ARE TO BE CLEANED OF ALL ACCUMULATED SEDIMENT AS SOON AS SEDIMENT HAS ACCUMULATED TO DEPTH GREATER THAN 50% OF THE UPSTREAM CHECK DAM.
18. THE SILT FENCE MUST BE INSPECTED WEEKLY AND IMMEDIATELY AFTER RAINFALL OR SIGNIFICANT SNOW MELT EVENTS FOR RIPS AND TEARS, BROKEN STAKES, BLOW OUTS (STRUCTURAL FAILURE) AND ACCUMULATION OF SEDIMENT. THE SILT FENCE MUST BE FIXED AND / OR REPLACED IMMEDIATELY WHEN DAMAGED. ACCUMULATED SEDIMENT MUST BE REMOVED FROM THE SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.

SEDIMENT CONTROL CONSTRUCTION SCHEDULE:

1. INSTALL PERIMETER ENVIRONMENTAL FENCE AND CONSTRUCTION VEHICLE ACCESS.
2. EXCAVATE PERIMETER SWALES AND INSTALL CHECK DAMS.
3. STRIP SITE OF TOPSOIL AND REMOVE OFF SITE.
4. INSTALL MINOR STORM SEWER SYSTEM ALONG WITH OTHER SERVICES.
5. INSTALL CATCHBASIN FILTRATION ON ALL CATCHBASINS AND CATCHBASIN MANHOLES.
6. SEDIMENT CONTROL MEASURES ARE TO BE MAINTAINED UNTIL ALL AREAS OF THE SITE HAVE BEEN STABILIZED WITH SOD OR ASPHALT.

MUD MAT:

STONE SIZE - USE CLEAR CRUSHED 100mm STONE.

THICKNESS - NOT LESS THAN 300mm

LENGTH - AS REQUIRED

WIDTH - 10m MINIMUM, BUT NOT LESS THAN THE WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

FILTER CLOTH - NON-WOVEN GEOTEXTILE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/ OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENTS. ALL SEDIMENTS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.

TIRE WASH STAITON - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED IT SHALL BE DONE ON A DESIGNATED AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

INSPECTION AND MAINTENANCE - INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED PERIODICALLY AND AFTER SIGNIFICANT RAINFALL AND SNOWMELT.

LEGEND:

- HEAVY DUTY SILT FENCE
- MUD MAT CLEAR STONE
- MUD MAT LIMESTONE
- ULTIMATE PROPERTY LIME

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May 22, 2019
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REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

ISSUE/REVISION

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JR

KEY PLAN

PROJECT NUMBER

60546152

SHEET TITLE

SITE EROSION AND SEDIMENT CONTROL PLAN

AECOM FILE NAME

C100.0-SDC-HEH

SHEET NUMBER

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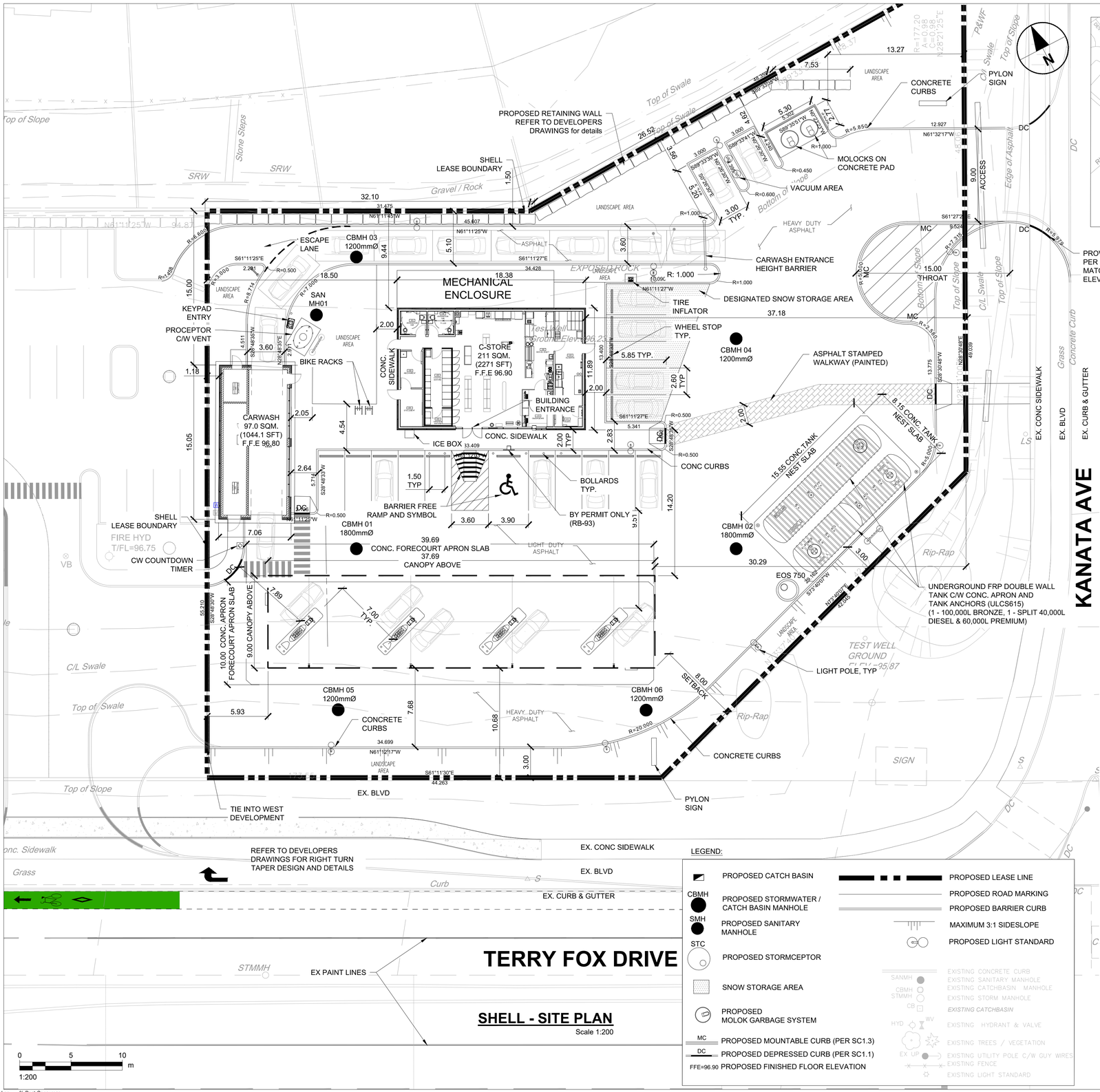

SHELL - SITE PLAN

Scale 1:200

KEY PLAN

Scale NTS

PROVIDE NEW ENTRANCE AND CURB PER CITY OF OTTAWA STD. DETAILS SC.7 MATCH EXISTING CURB AND PAVEMENT ELEVATIONS

NOTE
1. TACTILE STRIPS TO BE ADDED ON ALL PEDESTRIAN RAMPS AS PER AODA GUIDELINES
2. REFER TO L101.0 FOR BICYCLE RACK DETAILS

LEGEND:

- PROPOSED CATCH BASIN
- CBMH — PROPOSED STORMWATER / CATCH BASIN MANHOLE
- SMH — PROPOSED SANITARY MANHOLE
- STC — PROPOSED STORMCEPTOR
- SNOW STORAGE AREA
- PROPOSED MOLOK GARBAGE SYSTEM
- MC — PROPOSED MOUNTABLE CURB (PER SC1.3)
- DC — PROPOSED DEPRESSED CURB (PER SC1.1)
- FFE=96.90 PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED LEASE LINE
- PROPOSED ROAD MARKING
- PROPOSED BARRIER CURB
- MAXIMUM 3:1 SIDESLOPE
- PROPOSED LIGHT STANDARD
- SANMH — EXISTING CONCRETE CURB / EXISTING SANITARY MANHOLE
- CBMH — EXISTING CATCHBASIN MANHOLE
- STMMH — EXISTING STORM MANHOLE
- CB — EXISTING CATCHBASIN
- HYD — EXISTING HYDRANT & VALVE
- EXISTING TREES / VEGETATION
- EX UP — EXISTING UTILITY POLE C/W GUY WIRES
- EXISTING FENCE
- EXISTING LIGHT STANDARD

SITE STATISTICS

DATA		REQUIRED	PROVIDED
ZONING		Local Commercial Zone, Subzone 7 with a special exception 411 (LC7[411])	
TOTAL C-STORE AREA (sq.m)		300.00m² max	211.00m² - (GLA = 84m²)
TOTAL CARWASH AREA (sq.m)			97.00m² - (GLA = 54m²)
TOTAL CANOPY AREA (sq.m)		N/A	339.21 sq.m
SETBACKS	FRONT YARD (TERRY FOX DRIVE)	10m	10.68m
	SIDE YARD (KATANA AVENUE)	11.5m	30.29m
	INTERIOR SIDE YARD (WEST PROPERTY LINE)	NA	1.0m
	REAR YARD (NORTH PROPERTY LINE)	5.0m	9.44m
	CORNER SETBACK (SOUTH PROPERTY LINE)	8.0m	8.0m
LANDSCAPE BUFFERS		3m ABUTTING A STREET	3m
TOTAL LANDSCAPE AREA (SECTION 110)		15 % OF SITE AREA	21.5%
TOTAL LANDSCAPE AREA (sq.m)		620.64 sq.m	889.00 sq.m
TOTAL HARDSCAPE AREA (sq.m)		N/A	2794.20 sq.m
NET LOT AREA (sq.m)		4000 sq.m MIN.	4137.61 sq.m
BUILDING HEIGHTS	C-STORE	12.5m MAX	5.265m
	CANOPY		4.500m
	CARWASH		6.000m
CARWASH STACKING		10	10
LOADING SPACES	Spaces	N/A	N/A
	Size	N/A	N/A
PARKING		REQUIRED	PROVIDED
Barrier- Free Access Parking	Spaces	0	1
	Stall Length	SAME AS OTHER SPACES	5.85m
	Stall Width	3.66m	3.9m
Standard Parking (3.4 spaces per 100m³ of GFA)	Spaces	7	15
	Stall Length	5.2m	5.85m
	Stall Width	2.6m	2.6m
Overall Number of Spaces		7	16
Aisle Width		6.7m	9.0m
Bicycle Parking (Add 1 per 250m³ of GFA)		1	6

Land Use Bylaw Summary:

Lands to North: Parks and Open Space Zone 1 with special exception 1616 (O1[1616])

Lands to South: Parks and Open Space Zone 1 (O1)

Lands to East: Local Commercial Zone with a special exception 1706, and a maximum height limit of 11m (LC[1706] H (11))

Lands to West: Local Commercial Zone, Subzone 7 with a special exception 411 (LC7[411])

AECOM

PROJECT

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LICENSED PROFESSIONAL ENGINEER
O. SHAFI
100515409
May 22, 2019
PROVINCE OF ONTARIO

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

ISSUE/REVISION

I/R	DATE	DESCRIPTION
E	2019.05.22	RE-ISSUED FOR SPA
D	2019.01.11	ISSUED FOR SPA
C	2018.10.29	ISSUED FOR REVIEW
B	2018.08.21	ISSUED FOR REVIEW
A	2018.08.14	ISSUED FOR REVIEW

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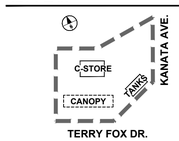
KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

SITE PLAN

AECOM FILE NAME

C101.0-SIP-HEH

SHEET NUMBER

C101.0

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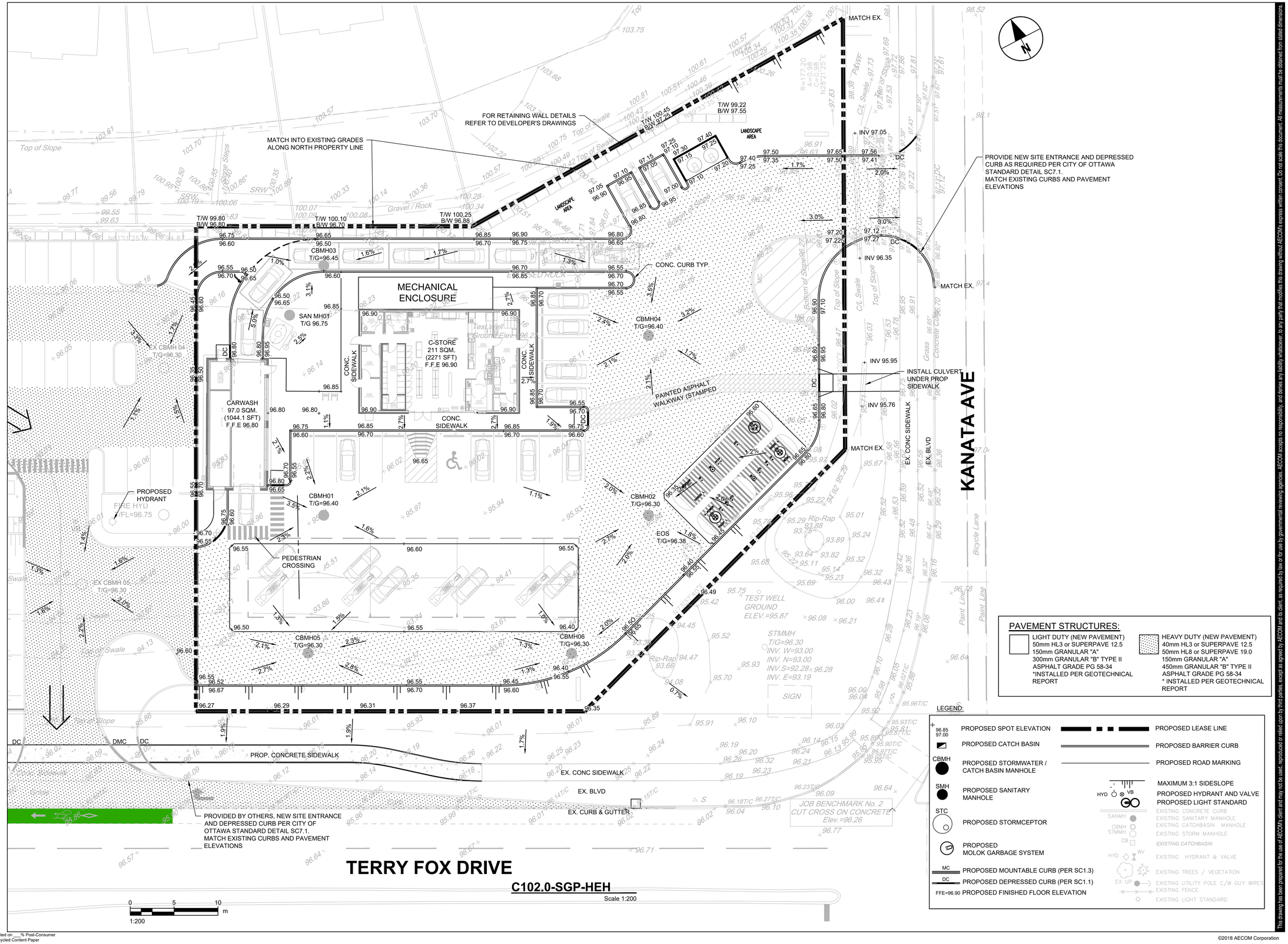

PAVEMENT STRUCTURES:

LIGHT DUTY (NEW PAVEMENT)
50mm HL3 or SUPERPAVE 12.5
150mm GRANULAR "A"
300mm GRANULAR "B" TYPE II
ASPHALT GRADE PG 58-34
*INSTALLED PER GEOTECHNICAL REPORT

HEAVY DUTY (NEW PAVEMENT)
40mm HL3 or SUPERPAVE 12.5
50mm HL8 or SUPERPAVE 19.0
150mm GRANULAR "A"
450mm GRANULAR "B" TYPE II
ASPHALT GRADE PG 58-34
* INSTALLED PER GEOTECHNICAL REPORT

LEGEND:

- 96.85 / 97.00 — PROPOSED SPOT ELEVATION
- PROPOSED CATCH BASIN
- CBMH — PROPOSED STORMWATER / CATCH BASIN MANHOLE
- SMH — PROPOSED SANITARY MANHOLE
- STC — PROPOSED STORMCEPTOR
- PROPOSED MOLOK GARBAGE SYSTEM
- MC — PROPOSED MOUNTABLE CURB (PER SC1.3)
- DC — PROPOSED DEPRESSED CURB (PER SC1.1)
- FFE=96.90 — PROPOSED FINISHED FLOOR ELEVATION
- PROPOSED LEASE LINE
- PROPOSED BARRIER CURB
- PROPOSED ROAD MARKING
- MAXIMUM 3:1 SIDESLOPE
- HYD — PROPOSED HYDRANT AND VALVE
- VB — PROPOSED LIGHT STANDARD
- SANMH — EXISTING CONCRETE CURB
- EXISTING SANITARY MANHOLE
- CBMH — EXISTING CATCHBASIN MANHOLE
- STMMH — EXISTING STORM MANHOLE
- CB — EXISTING CATCHBASIN
- HYD — WV — EXISTING HYDRANT & VALVE
- EXISTING TREES / VEGETATION
- EX UP — EXISTING UTILITY POLE C/W GUY WIRES
- EXISTING FENCE
- EXISTING LIGHT STANDARD

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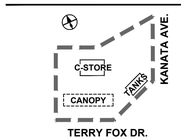

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SHEET TITLE

SITE GRADING PLAN

AECOM FILE NAME

C102.0-SGP-HEH

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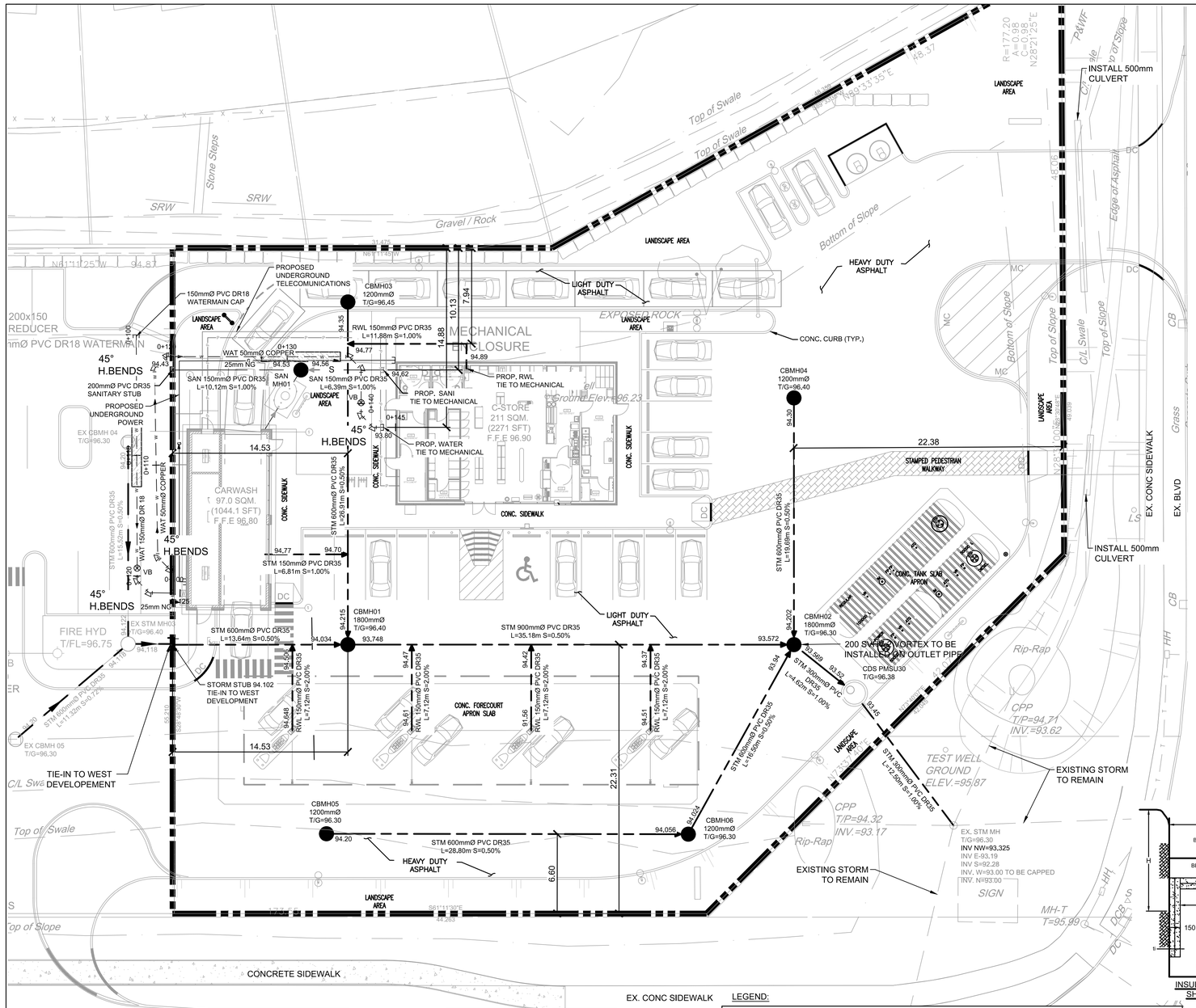


SHELL - C103.0-SSP-HEH

SEWER NOTES:

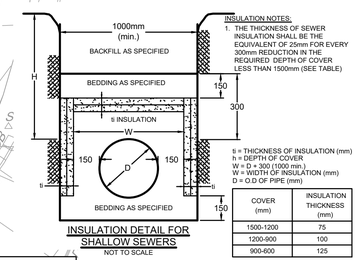
1. SUPPLY AND CONSTRUCT ALL SEWERS AND APPURTENANCES IN ACCORDANCE WITH THE MOST CURRENT CITY OF OTTAWA STANDARDS AND SPECIFICATIONS.
2. SPECIFICATIONS:

ITEM	SPEC. No.	REFERENCE
CATCHBASIN (600x600mm)	705.010	OPSD
STORM / SANITARY MANHOLE (1200mmØ)	701.010	OPSD
CB, FRAME & COVER	400.020	OPSD
STORM / SANITARY MH FRAME & COVER	401.010	OPSD
WATERTIGHT MH FRAME AND COVER	401.030	OPSD
SEWER TRENCH	S6	CITY OF OTTAWA

STORM SEWER	PVC DR 35
SANITARY SEWER	PVC DR 35
CATCHBASIN LEAD	PVC DR 35

GENERAL NOTES

1. THE POSITION OF EXISTING POLE LINES, CONDUITS, WATERMAINS SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES, STRUCTURES AND APPURTENANCES IS NOT NECESSARILY SHOWN ON THE DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES, STRUCTURES AND APPURTENANCES IS TO BE CONFIRMED. THE CONTRACTOR SHALL DETERMINE AT THE TIME OF CONSTRUCTION THE POSSIBILITIES OF UTILIZING ALL SUCH UTILITIES, STRUCTURES AND APPURTENANCES. THE CONTRACTOR SHALL INFORM AND SATISFY HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES, STRUCTURES AND APPURTENANCES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM DURING CONSTRUCTION.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND MUNICIPAL SERVICES (WATER, SANITARY & STORM) DURING CONSTRUCTION. ALL EXISTING INVERTS AND ELEVATIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE REPORTED TO AECOM LTD.
3. COORDINATE AND SCHEDULE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
4. DETERMINE THE EXACT LOCATION, SIZE, MATERIAL AND ELEVATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. PROTECT AND ASSUME RESPONSIBILITY FOR ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THIS DRAWING.
5. OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY OF OTTAWA BEFORE COMMENCING CONSTRUCTION.
6. RESTORE ALL DISTURBED AREAS ON-SITE AND OFF-SITE, INCLUDING TRENCHES AND SURFACES ON PUBLIC ROAD ALLOWANCES TO EXISTING CONDITIONS OR BETTER TO THE SATISFACTION OF THE CITY OF OTTAWA AND ENGINEER.
7. REMOVE FROM SITE ALL EXCESS EXCAVATED MATERIAL, ORGANIC MATERIAL AND DEBRIS UNLESS OTHERWISE INSTRUCTED BY ENGINEER. EXCAVATE AND REMOVE FROM SITE ANY CONTAMINATED MATERIAL. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF AT A LICENSED LANDFILL FACILITY.
8. ALL ELEVATIONS ARE GEODETIC.
9. REFER TO GEOTECHNICAL REPORT (NO. PG4564-1_REVISION 3, DATED MAY 6, 2019), PREPARED BY PATERSON GROUP INC., FOR SUBSURFACE CONDITIONS, CONSTRUCTION RECOMMENDATIONS, AND GEOTECHNICAL INSPECTION REQUIREMENTS. THE GEOTECHNICAL CONSULTANT IS TO REVIEW ON-SITE CONDITIONS AFTER EXCAVATION PRIOR TO PLACEMENT OF THE GRANULAR MATERIAL.
10. REFER TO ARCHITECT'S AND LANDSCAPE ARCHITECT'S DRAWINGS FOR BUILDING AND HARDSURFACE AREAS AND DIMENSIONS.
11. REFER TO STORMWATER MANAGEMENT REPORT (SHELL HERITAGE HILL) PREPARED AECOM LTD.
12. SAW CUT AND KEY GRIND ASPHALT AT ALL ROAD CUTS AND ASPHALT TIE IN POINTS AS PER CITY OF OTTAWA STANDARDS (R10).
13. PROVIDE LINE/PARKING PAINTING.
14. CONTRACTOR TO PROVIDE THE CONSULTANT WITH A GENERAL PLAN OF SERVICES INDICATING ALL SERVICING AS-BUILT INFORMATION SHOWN ON THIS PLAN. AS-BUILT INFORMATION MUST INCLUDE: PIPE MATERIAL, SIZES, LENGTHS, SLOPES, INVERT AND T/G ELEVATIONS, STRUCTURE LOCATIONS, VALVE AND HYDRANT LOCATIONS, T/WM ELEVATIONS AND ANY ALIGNMENT CHANGES, ETC.



INSULATION NOTES:
1. THE THICKNESS OF SEWER INSULATION SHALL BE THE EQUIVALENT OF 25mm FOR EVERY 300mm REDUCTION IN THE REQUIRED DEPTH OF COVER LESS THAN 1500mm (SEE TABLE)

COVER (mm)	INSULATION THICKNESS (mm)
1500-1200	75
1200-900	100
900-600	125

INSULATION DETAIL FOR SHALLOW SEWERS
NOT TO SCALE

LEGEND:

- PROPOSED SPOT ELEVATION (96.85 / 97.00)
- PROPOSED CATCH BASIN
- PROPOSED STORMWATER / CATCH BASIN MANHOLE (CBMH / SMH)
- PROPOSED SANITARY MANHOLE (STC)
- PROPOSED STORMCEPTOR
- PROPOSED MOLOK GARBAGE SYSTEM
- PROPOSED BEND AND THRUSTBLOCK (BEND) 11.25°, 22.5°, 45° OR TEE
- PROPOSED MOUNTABLE CURB (PER SC1.3) (MC)
- PROPOSED DEPRESSED CURB (PER SC1.1) (DC)
- PROPOSED FINISHED FLOOR ELEVATION (FFE=96.90)
- THERMAL INSULATION FOR SHALLOW SERVICES
- PROPOSED LEASE LINE
- PROPOSED BARRIER CURB
- PROPOSED ROAD MARKING
- PROPOSED PROPERTY LINE
- PROPOSED STORMWATER (D)
- PROPOSED WATER MAIN (W)
- PROPOSED SANITARY (S)
- MAXIMUM 3:1 SIDESLOPE
- PROPOSED HYDRANT AND VALVE (HYD, VB)
- PROPOSED LIGHT STANDARD
- EXISTING CONCRETE CURB
- EXISTING SANITARY MANHOLE (SANMH)
- EXISTING CATCHBASIN MANHOLE (CBMH)
- EXISTING STORM MANHOLE (STMMH)
- EXISTING CATCHBASIN (CB)
- EXISTING HYDRANT & VALVE (HYD, WV)
- EXISTING TREES / VEGETATION
- EXISTING UTILITY POLE C/W GUY WIRES (EX. UP)
- EXISTING FENCE
- EXISTING LIGHT STANDARD

**TOTAL WATER FLOW REQUIRED IS 110gpm FOR THE 150mm WATER METER

SHELL/ HERITAGE HILLS/ OTTAWA

SANITARY DRAINAGE FOR C-STORE

FIXTURES	LOAD
WATER CLOSET	2X6 = 12
LAVATORY	2X1 = 2
MOP SINK	1X3 = 3
TRIPLE SINK	1X3 = 3
HAND SINK	2X2 = 4
DISHWASHER	1X3 = 3
FLOOR DRAIN	4X3 = 12
HUB DRAIN	6X1.5 = 9

48 F.U. = ±50GPM

-4"Ø PIPE @ 1% SLOPE GOOD FOR 180 F.U.
-USE 6"Ø PIPE LEAVING BUILDING

PROPOSED 150mmØ WATERMAIN TABLE

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+100	96.45	94.01	150 X 150 X150 TEE
0+103.0	96.41	93.91	CROSS BELOW SAN (±0.5m CLEARANCE)
0+106 - 0+112	96.30	94.05 **	INSULATE IN PROXIMITY TO CB04
0+119.35	96.48	94.05	150mmØ VALVE AND VALVE BOX
0+120.38	96.50	94.10	45° HORIZONTAL BEND
0+122.38	96.51	94.10	45° HORIZONTAL BEND
0+124.32	96.53	94.10	CAP 1.0m FROM BUILDING FACE

** PROVIDE THERMAL INSULATION AS PER CITY OF OTTAWA DETAIL W23 AND DETAIL W22 WHERE COVER IS LESS THAN 2.4m AND/OR ADJACENT TO OPEN STRUCTURES.

PROPOSED 50mmØ WATERMAIN TABLE

STATION	SURFACE ELEVATION	T/WM ELEVATION	COMMENTS
0+100	96.64	94.05	CAP 1.0m FROM BUILDING FACE
0+100.37	96.49	94.05	45° HORIZONTAL BEND
0+102.37	96.48	94.05	45° HORIZONTAL BEND
0+118.00	96.42	94.05	45° HORIZONTAL BEND
0+120.00	96.43	94.05	45° HORIZONTAL BEND
0+122.95	96.67	94.05	CROSS BELOW TEL (±1.55m CLEARANCE)
0+123.39	96.67	94.05	CROSS BELOW POWER (±1.35m CLEARANCE)
0+128 - 0+134	96.71	94.05 **	INSULATE IN PROXIMITY TO SAN MH01
0+135.13	96.72	94.10	45° HORIZONTAL BEND
0+135.41	96.72	94.10	CROSS BELOW GAS (±1.40m CLEARANCE)
0+137.13	96.72	94.10	45° HORIZONTAL BEND
0+137.24	96.72	94.10	CROSS BELOW SAN (±0.5m CLEARANCE)
0+139.94	96.76	94.30	50mmØ VALVE AND VALVE BOX
0+140.97	96.78	94.30	45° HORIZONTAL BEND
0+142.97	96.80	94.30	45° HORIZONTAL BEND
0+143.83	96.87	94.30	CAP 1.0m FROM BUILDING FACE

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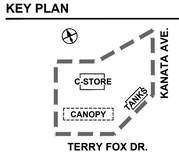

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SHEET TITLE

SITE SERVICING PLAN

AECOM FILE NAME

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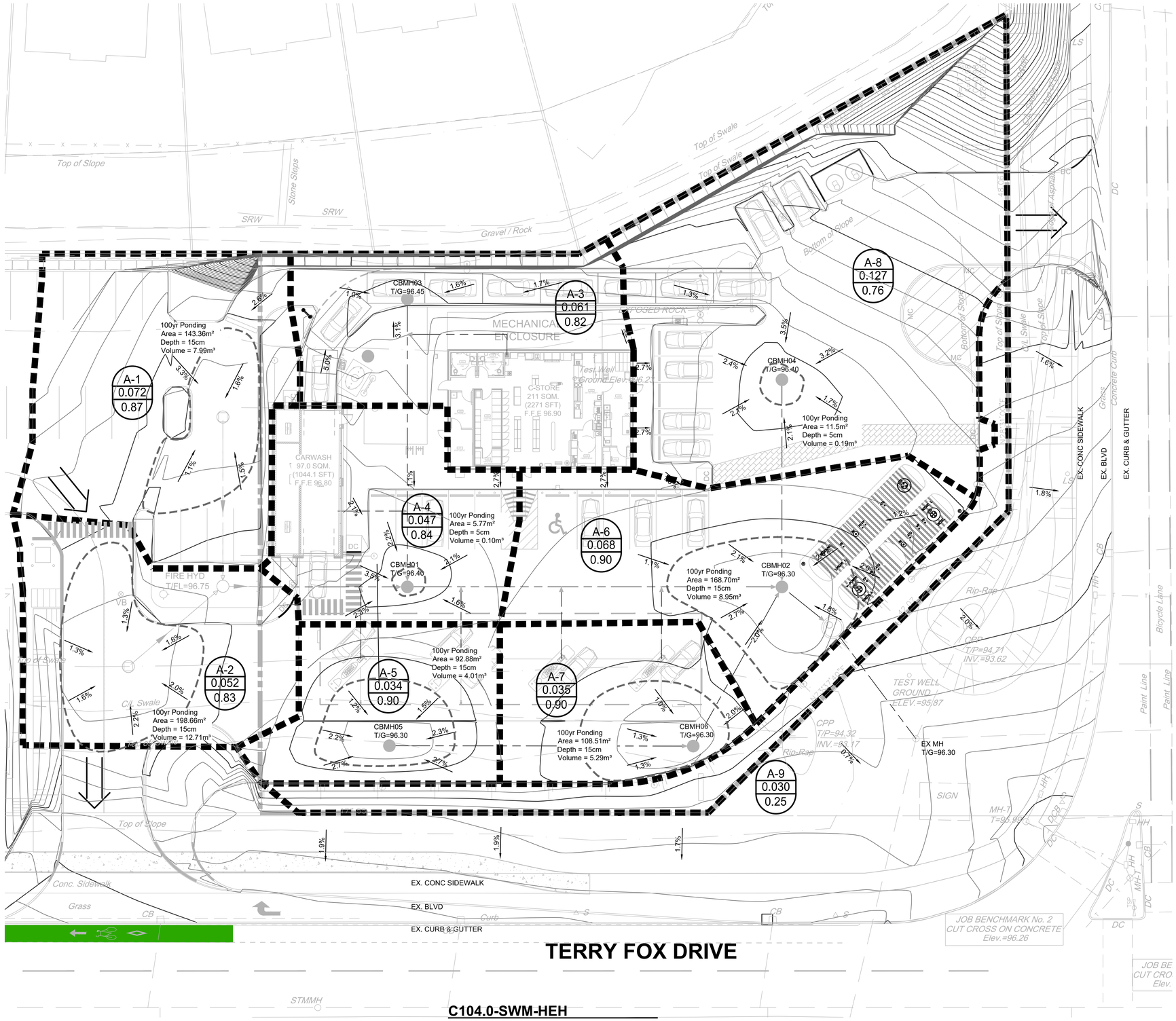

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Scale 1:200

LEGEND

- 100 YEAR PONDING LIMITS
- PROPOSED BARRIER CURB
- DC — PROPOSED DEPRESSED CURB
- MC — PROPOSED MOUNTABLE CURB
- DRAINAGE AREA LIMITS
- A-2 / 0.170 / 0.82 — POST-DEVELOPMENT AREA ID; POST-DEVELOPMENT DRAINAGE AREA (ha); 1:5 YEAR WEIGHTED RUNOFF COEFICIENT
- STM MH — PROPOSED STORM MANHOLE
- CBMH — PROPOSED CATCHBASIN MANHOLE
- CB — PROPOSED CATCHBASIN
- PROPOSED STORM SEWER AND FLOW DIRECTION
- EMERGENCY OVERLAND FLOW ROUTE
- STM MH — EXISTING STORM MH & SEWER
- CB — EXISTING CATCHBASIN C/W CATCHBASIN LEAD
- MAXIMUM 3:1 SIDESLOPE

STORM WATER MANAGEMENT ANALYSIS SUMMARY

SITE COMPOSITION

SITE CATCHMENT AREA (HA):	0.526
CONTROLLED AREA (HA):	0.496
UNCONTROLLED AREA (HA):	0.030

STORM FLOWS

PREDEVELOPMENT SITE RELEASE RATE 5 YEAR STORM(L/SEC):	68.2
POST DEVELOPMENT PEAK FLOW 100 Year: (L/SEC)	
CONTROLLED AREA:	246.0
UNCONTROLLED AREA:	4.6
ALLOWABLE SITE RELEASE RATE IN 100 YEAR STORM(L/SEC):	63.6

SITE FLOW CONTROL

LOCATION:	CBMH02
Vortex (Hydovex)	200 SVHV-2
INVERT ELEVATION: (m)	93.569
DETENTION STORAGE TWL: (m)	96.450
DESIGN HEAD: (m)	2.881
MAXIMUM RELEASE RATE 100 Year (L/SEC):	63.6

DETENTION STORAGE VOLUME CALCULATIONS

100-YR REQUIRED DETENTION STORAGE VOLUME (CU.M):	110.7
MAXIMUM SITE DETENTION STORAGE AVAILABLE (CU.M):	132.71
DESIGN T.W.L:	96.450
SURFACE PONDING:	39.24
PIPE STORAGE:	61.31
MH/CB STORAGE	32.16

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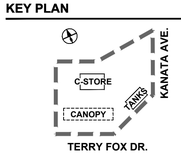

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SHEET TITLE

STORMWATER MANAGEMENT PLAN

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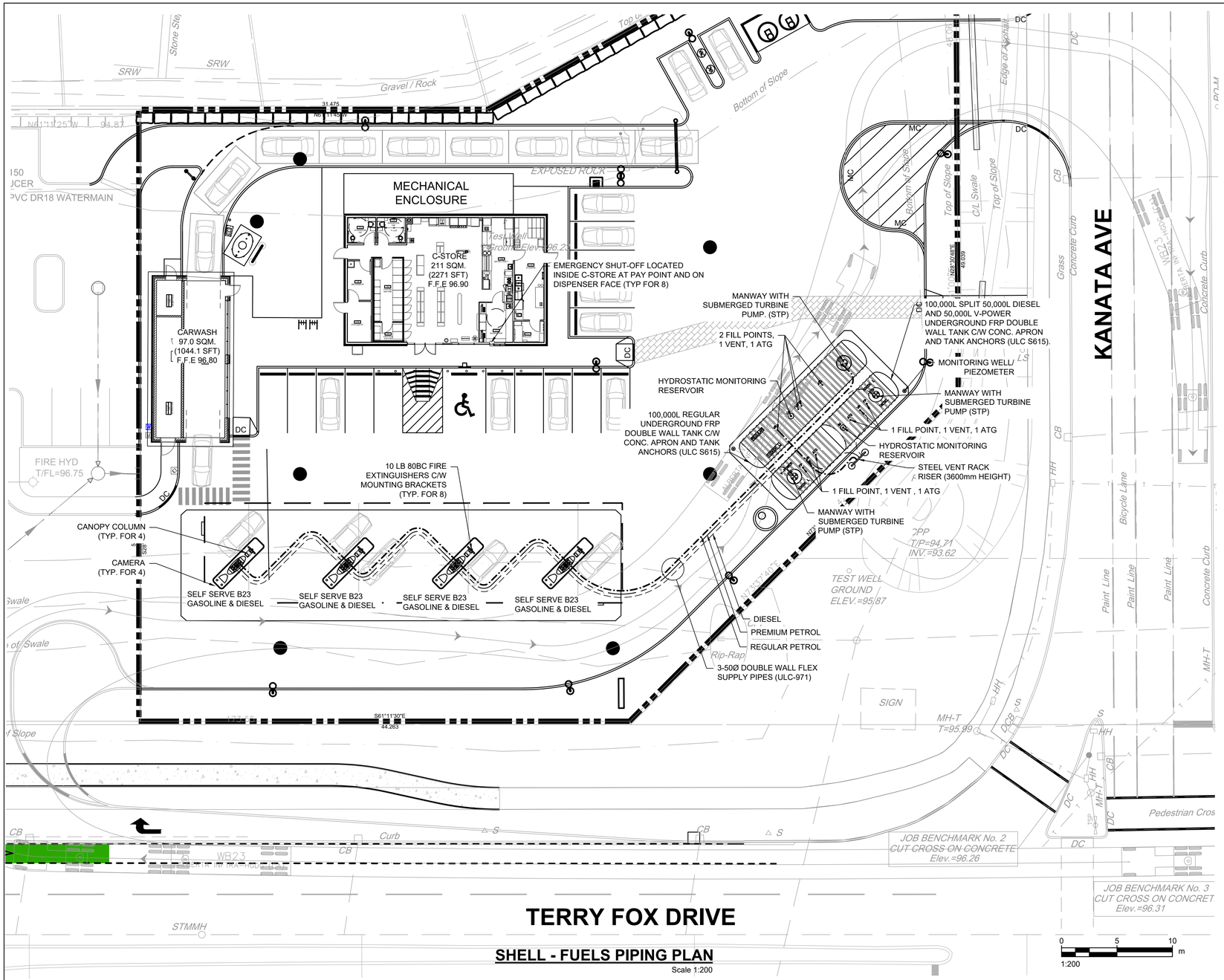
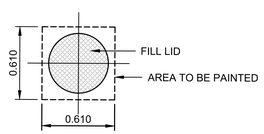


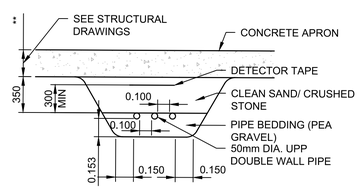
SHELL - FUELS PIPING PLAN

Scale 1:200

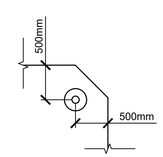
NOTE:
THE TANK LIDS ARE TO BE PAINTED IN ACCORDANCE WITH THE FOLLOWING SHELL STANDARDS; REGULAR/ BRONZE = WHITE, PREMIUM/ V-POWER = RED AND DIESEL = YELLOW



TYPICAL FILL LID PAINT IDENTIFICATION DETAIL
SCALE 1:25



TYPICAL PIPING SECTION
SCALE 1:25



TYPICAL MONITORING WELL/ PIEZOMETER SET OUT
SCALE NTS

NOTES:

1. TANKS MANUFACTURED BY ZCL COMPOSITES INC. FOR TYPICAL TANK DETAILS REFER TO ZCL SHOP DRAWINGS (ULC S615-98). TANKS MUST COMPLY WITH MANUFACTURER'S INSTALLATION MANUAL. INSTALLER TO PROVIDE COMPLETED TANK INSTALLATION CHECKLIST.
2. DOUBLE WALLED FRP (FIBERGLASS REINFORCED PLASTIC) TANKS C/W STP SUMPS AND CONCRETE ANCHORS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GENERAL CONTRACTOR (REFER TO SHELL STANDARD PETROLEUM DRAWINGS FOR ALL INSTALLATION DETAILS).
3. GASOLINE PIPING, SUBMERSIBLE PUMPS, SPILL CONTAINMENT SUMPS, OVERFILL VALVES, SHEAR VALVES AND ALL ASSOCIATED FITTINGS TO BE SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR (REFER TO SHELL STANDARD PETROLEUM DRAWINGS FOR ALL INSTALLATION DETAILS). CONTAINMENT AND DISPENSER SUMPS TO CONFORM TO ULC/ORD-C107.21 AND ULC/ORD-C58.19.
4. GASOLINE AND DIESEL SPILL CONTAINMENT SUMPS ARE TO BE FITTED WITH A BRASS METAL TAG SHOWING TANKS CAPACITY IN LITRES AND A PLASTIC TAG INDICATING PRODUCT. THESE TAGS ARE TO BE ATTACHED TO FILL PIPE, BELOW THE SNAP CAP USING A PLASTIC TIE. COLLAR WRAP AND PRODUCT ID SIGNS PROVIDED BY TANK SUPPLIER AND INSTALLED BY GC. FSS DETECTOR TAPE TO BE SUPPLIED AND INSTALLED BY GC. REFER TO PETROLEUM T560 DRAWINGS FOR SCHEMATIC.
5. CUSTOMER SERVICE UNITS (CSU) TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY CONTRACTOR ON DISPENSER ISLANDS, EXACT LOCATIONS TO BE DETERMINED ON SITE. - TRUCK DIRECTION SIGNS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GC (IN ACCORDANCE WITH LOCAL CODES.) - "NO SMOKING" & "TURN OFF IGNITION" SIGNS TO BE SUPPLIED BY AECOM L2 AND INSTALLED BY GC (IN ACCORDANCE WITH LOCAL CODES.).
6. FILL, PRODUCT INVENTORY SENSOR & RISER PIPES TO BE SUPPLIED AND INSTALLED BY CONTRACTOR. RISERS SHALL BE WRAPPED WITH DENSO TAPE FOR CORROSION PROTECTION.
7. PLASTIC TO STEEL -TRANSITION FOR UPP VENT TO OCCUR AT GRADE, BY GC.
8. PICTURES ARE REQUIRED FOR ALL PIPING RUNS, FOR TANK AND ANCHOR INSTALLATIONS ALONG WITH SUMPS. FUEL LINES, AND VENTS. PHOTOS WILL ALSO INCLUDE EXCAVATION AND BACKFILL OF THE TANK NEST AT ALL HOLD POINTS.
9. UNION AT PIPING CONNECTION TO DISPENSERS SHALL BE 3000 LBS FORGED STEEL.
10. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING NATIONAL AND PROVINCIAL FIRE CODE AND ANY PROVINCIAL AUTHORITY (TSSA, PTMAA). GC IS RESPONSIBLE FOR THE APPLICATION AND REGISTRATION OF THE TANKS AND FUEL SYSTEM PERMIT FROM PTMAA AND IS RESPONSIBLE TO DELIVER THIS PERMIT TO AECOM/SHELL.
11. CAMERAS TO BE INSTALLED AT EACH DISPENSER LOCATION AS PER A.F.C. AECOM L2 TO SUPPLY CCTV EQUIPMENT. GC TO COMPLETE ALL WORK TO ROUGH-IN (I.E. CONDUIT INSTALLATION). CAMACC INSTALLS CABLES AND COMMISSIONS SYSTEMS.
12. NEW VIDEO LOSS SYSTEM INCLUDES:
    • VIDEO LOSS RELAYS, MONITORS AND ASSOCIATED EQUIPMENT INSTALLED IN BACK ROOM, VICINITY OF GAS BAR ELECTRICAL
    • VIDEO LOSS BOARD FOR THE VEEDER-ROOT
13. FIRE EXTINGUISHERS TYPE 80BC, 10 LBS. COMPLETE WITH MOUNTING BRACKETS TO BE SUPPLIED AND INSTALLED BY GC (TYP. 4 LOCATIONS - ONE PER DISPENSER ISLAND).
14. WAYNE INTERCOMS IN DISPENSERS - GC TO SUPPLY AND INSTALL MASTER IN C-STORE AND CONNECT TO INTERCOM AT PASS-THROUGH BOX AND ON WAYNE DISPENSERS. (TWO-WAY TYP. FOR 8 LOCATIONS ON EACH SIDE OF DISPENSER.
15. FOR ALL OTHER DETAILS REFER TO SHELL STANDARD PETROLEUM DRAWINGS
16. TANK NISI EXCAVATION TO BE COMPLETED IN ACCORDANCE WITH LOCAL LAWS AND WORKSAFE REGULATIONS. IN THE EVENT THAT STEEPER SLOPES OR SLOUGHING IS OBSERVED, A GEOTECHNICAL ENGINEER IS TO BE ENGAGED TO REVIEW SIGN-OFF SLOPES AND/OR REMEDIAL MEASURES.
17. PRIOR TO TANK INSTALLATION, A LIFTING PROTOCOL SHALL BE COMPLETED AND AS A MINIMUM PERSONNEL CRANE. AND TANK STARTING POSITIONS AND LIFTING/PUBLIC/OVERHEAD RISKS AND MITIGATION SHALL BE IDENTIFIED AND SUBMITTED TO AECOM L2 AS HOLD POINT.
18. CONTRACTOR TO PROVIDE MATERIALS LIST PRIOR TO COMMENCEMENT OF WORK FOR REVIEW AND APPROVAL BY AECOM.
19. PLACE DEADMEN AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. TANKS WILL BE STRAPPED TO THESE ANCHORS AND THE STRAPS MAY ONLY BE CLIPPED TO THE TANKS BY HAND OR WITH THE GENTLE USE OF A RUBBER MALLET. METALLIC HAMMERING IS NOT PERMITTED.
20. ALL UPP INSTALLATION EQUIPMENT AND INSTALLATION PERSONNEL MUST BE CALIBRATED, VALID, AND CERTIFIED WITH UPP. ALL UPP INSTALLATION PERSONNEL MUST BE TRAINED BY FRANKLIN FUELING IN CORRECT AND CURRENT METHODS OF INSTALLATION. AND LEAD INSTALLATION PERSONNEL MUST PROVIDE A CURRENT COPY OF CERTIFICATION.
21. ALL METALLIC CONNECTIONS TO PIPING AND TANKS SHALL BE BONDED AND GROUNDED.
22. TANK NEST APRON CONCRETE: 35MPa @ 28 DAYS, MAXIMUM SLUMP 75 mm, 5-7% AIR ENTRAINMENT, BROOM FINISH REINFORCEMENT: 10M @ 450mm IN CENTER OF SLAB EACH WAY (SUPPORT REINF. ON PRECAST CHAIRS).
23. PIPING INSTALLER TO REFER TO AECOM L2 TESTING REQUIREMENTS FOR UPP PIPING.
24. PRECISION LEAK TEST TO BE PERFORMED BY A QUALIFIED TESTING AGENCY.
25. GC IS RESPONSIBLE FOR THE COMMISSIONING OF ALL FUEL SYSTEM EQUIPMENT INCLUDING THE WAYNE DISPENSERS AND THE VEEDER ROOT MONITORING SYSTEM. THE CONTRACTOR MUST PROVIDE THE COMMISSIONING DOCUMENTATION TO WAYNE AND ACCUFLO WITH COPIES TO AECOM/SHELL BEFORE THE SITE IS HANDED OVER.
26. PIPING SYSTEM TESTING IS TO BE CONDUCTED IN ACCORDANCE WITH THE SHELL RETAIL SITE PETROLEUM TESTING PROTOCOL.

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100515409
May 22, 2019
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REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

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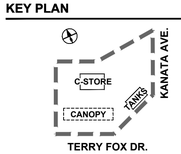

PROJECT NUMBER

60546152

SHEET TITLE

FUEL PIPING PLAN

AECOM FILE NAME

C105.0-FPP-HEH

SHEET NUMBER

C105.0

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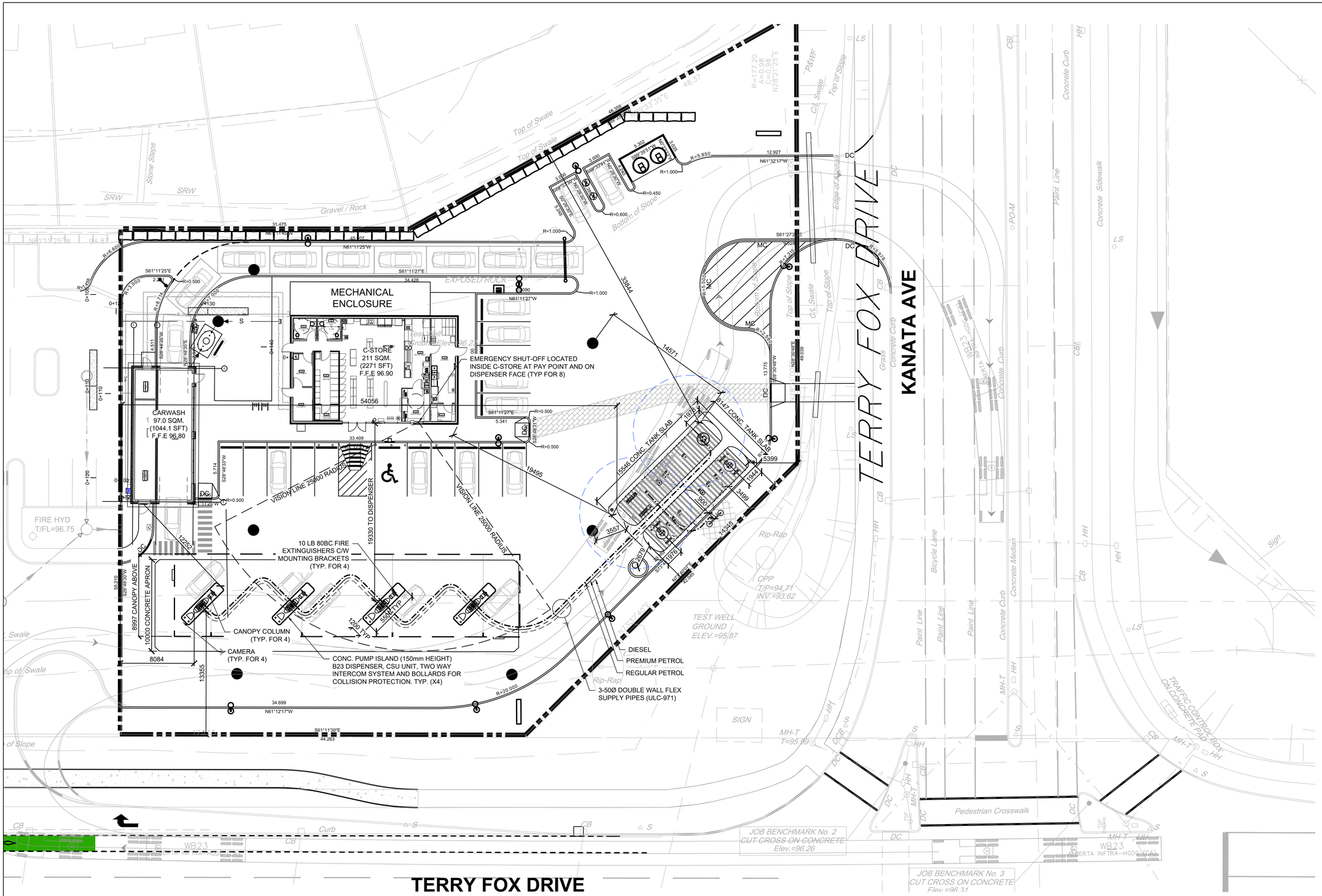

TERRY FOX DRIVE

SHELL - TANK LAYOUT PLAN

Scale 1:200

0 5 10 m
1:200

HAZARDOUS ZONE 0
HAZARDOUS ZONE 1
HAZARDOUS ZONE 2

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A	2018.08.14	ISSUED FOR REVIEW

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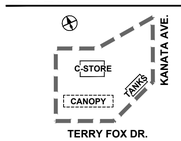

PROJECT NUMBER

60546152

SHEET TITLE

TANK LAYOUT PLAN

AECOM FILE NAME

C106.0-TLP-HEH

SHEET NUMBER

C106.0

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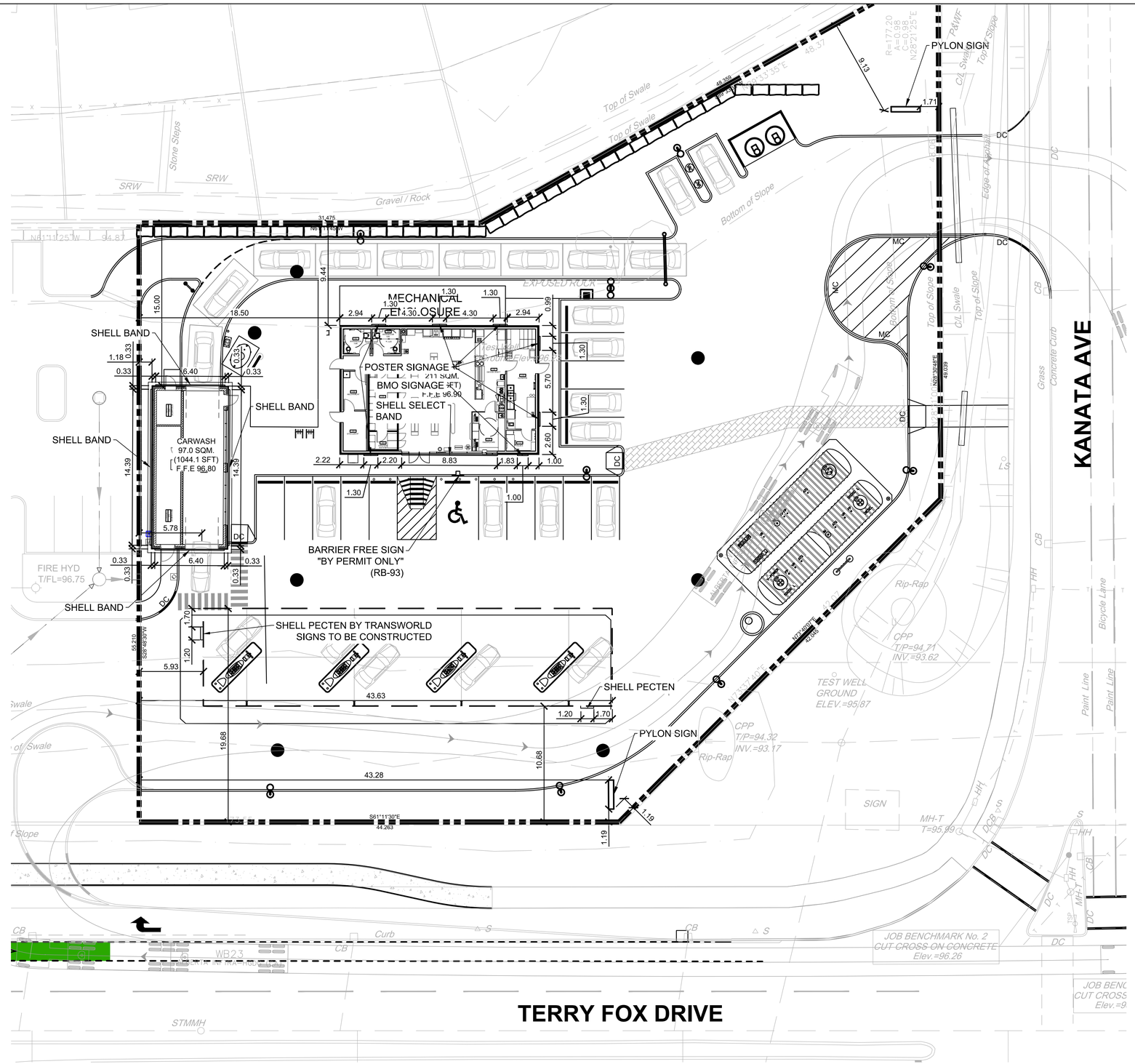
NOTES:

1. ALL DIMENSIONS IN METERS, UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF SHELLS REPRESENTATIVE.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILED LAYOUT.
4. SEE SIGN MANUFACTURERS DRAWINGS FOR EXACT SIZE, COLOUR, FONT STYLE AND CONNECTION DETAILS OF ALL SIGNAGE. SIGNAGE TO BE SUPPLIED AND INSTALLED BY MANUFACTURER AND TO BE COORDINATED WITH CONTRACTOR.
5. ALL PECTENS TO BE ILLUMINATED, REFER TO ELECTRICAL.
6. DIMENSIONS FROM PYLONS AND TOWER ARE FROM NEAREST POINT ON SIGN TO NEAREST PROPERTY LINES.



SHELL - SIGNAGE PLAN

Scale 1:200

0 6.25 12.5 m
1:250

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JR

KEY PLAN

C-STORE
CANOPY
TANKS
KANATA AVE.
TERRY FOX DR.

PROJECT NUMBER

60546152

SHEET TITLE

SIGNAGE PLAN

AECOM FILE NAME

C107.0-SIG-HEH

SHEET NUMBER

C107.0

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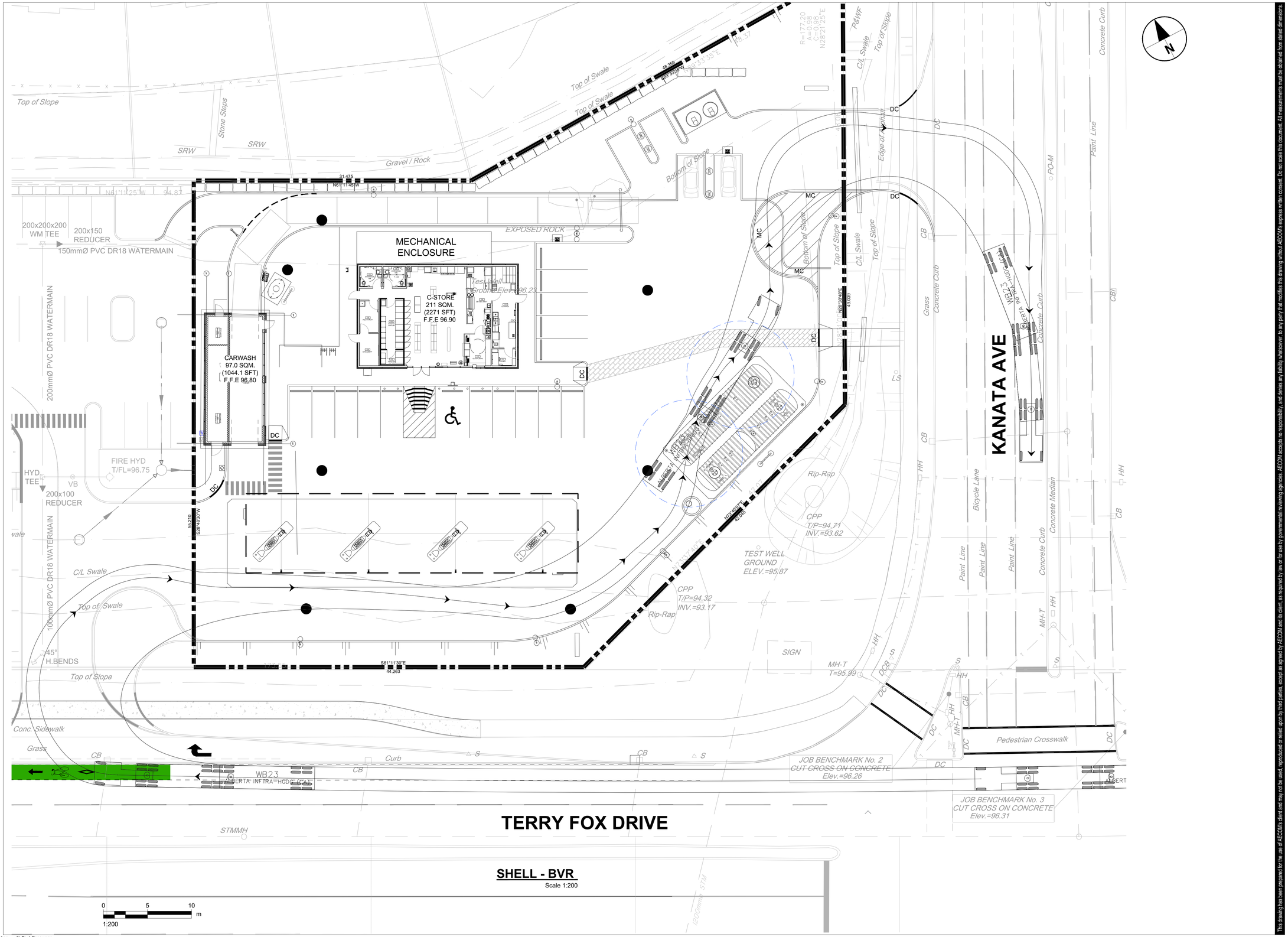

SHELL - BVR

Scale 1:200

TERRY FOX DRIVE

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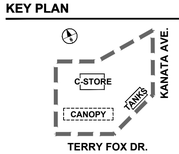

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SHEET TITLE

SITE BVR

AECOM FILE NAME

C108.0-BVR-HEH

SHEET NUMBER

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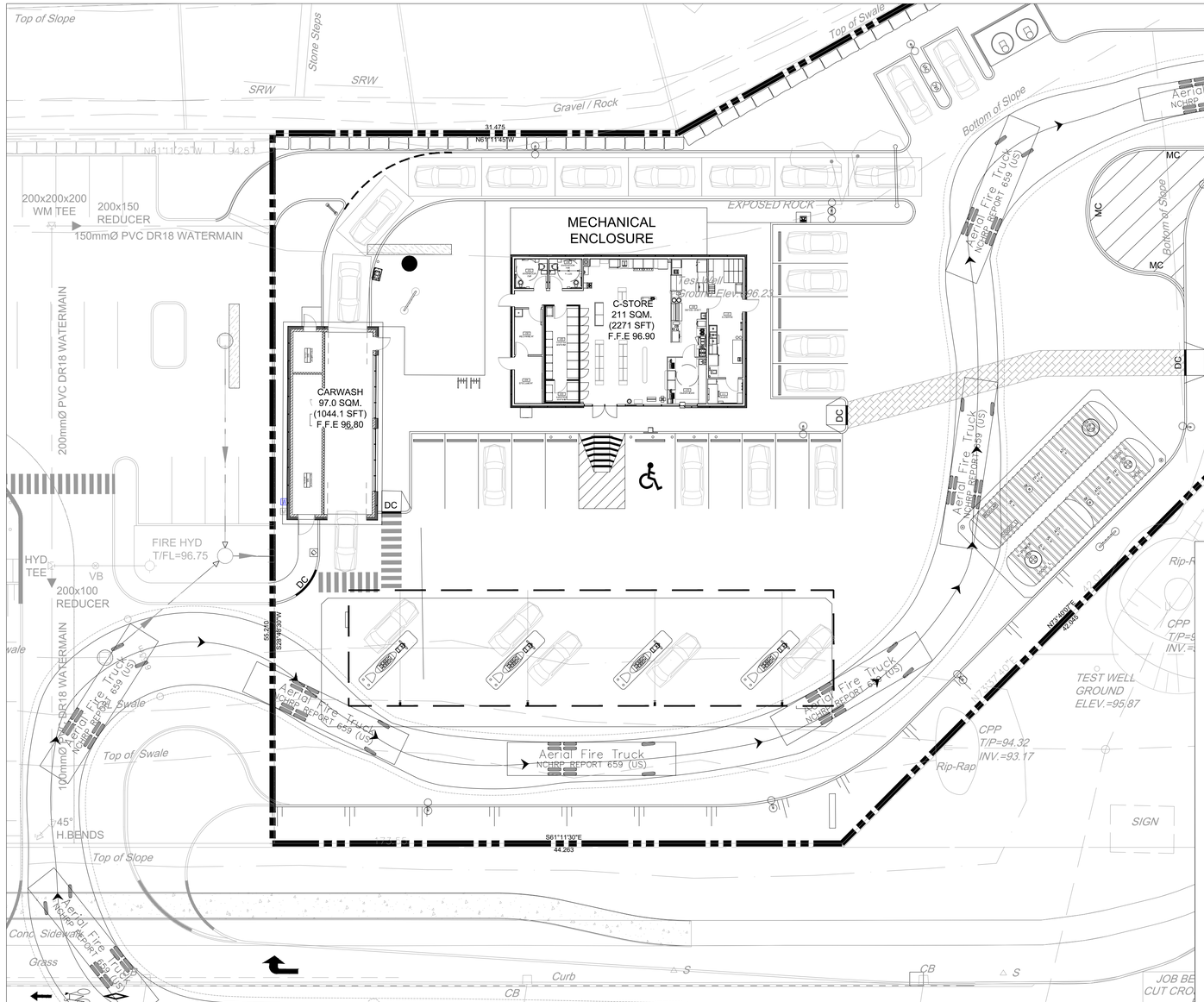
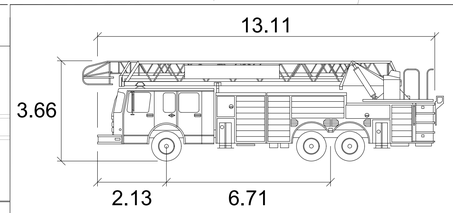


TERRY FOX DRIVE

SHELL - SITE PLAN

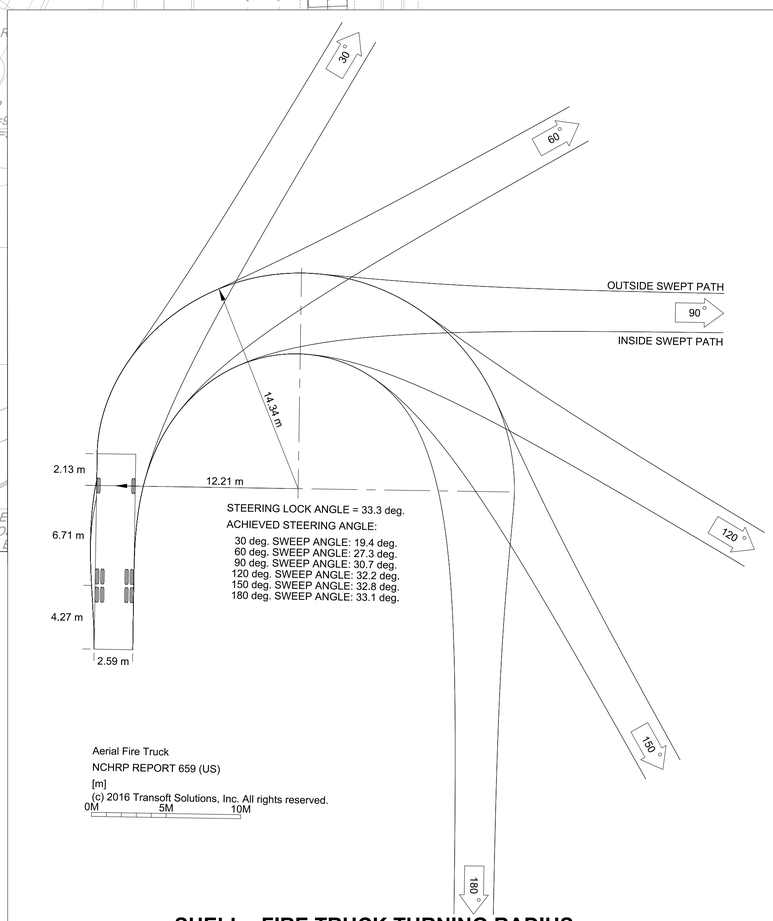
Scale 1:200



Aerial Fire Truck	meters
Width	: 2.59
Track	: 2.59
Lock to Lock Time	: 6.0
Steering Angle	: 33.3

SHELL - FIRE TRUCK PROFILE

Scale 1:100



SHELL - FIRE TRUCK TURNING RADIUS

Scale 1:200

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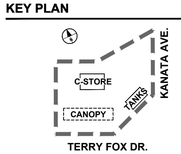

PROJECT NUMBER

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SHEET TITLE

FIRE TRUCK ROUTE

AECOM FILE NAME

C109.0-TRA-HEH

SHEET NUMBER

C109.0

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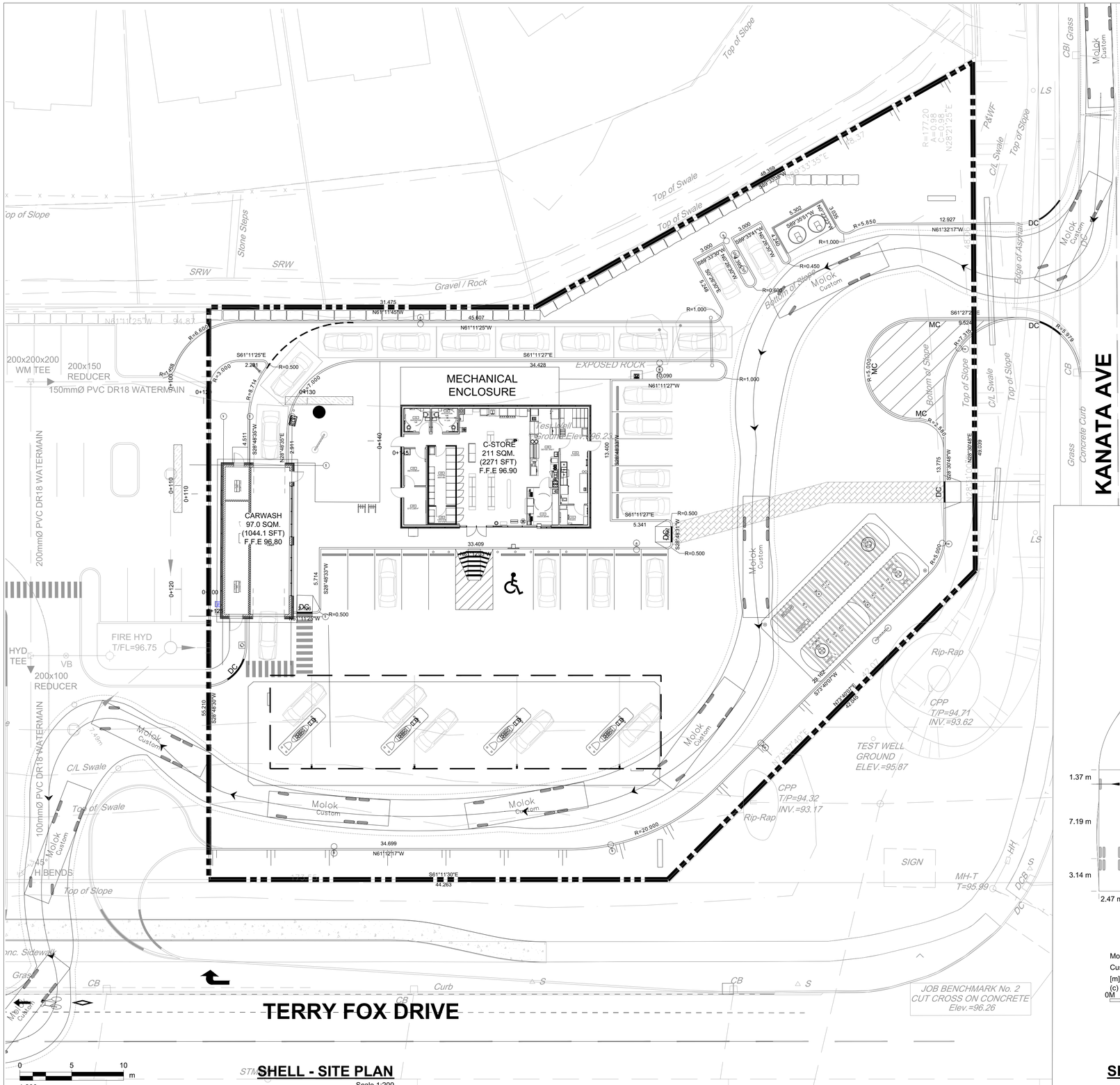
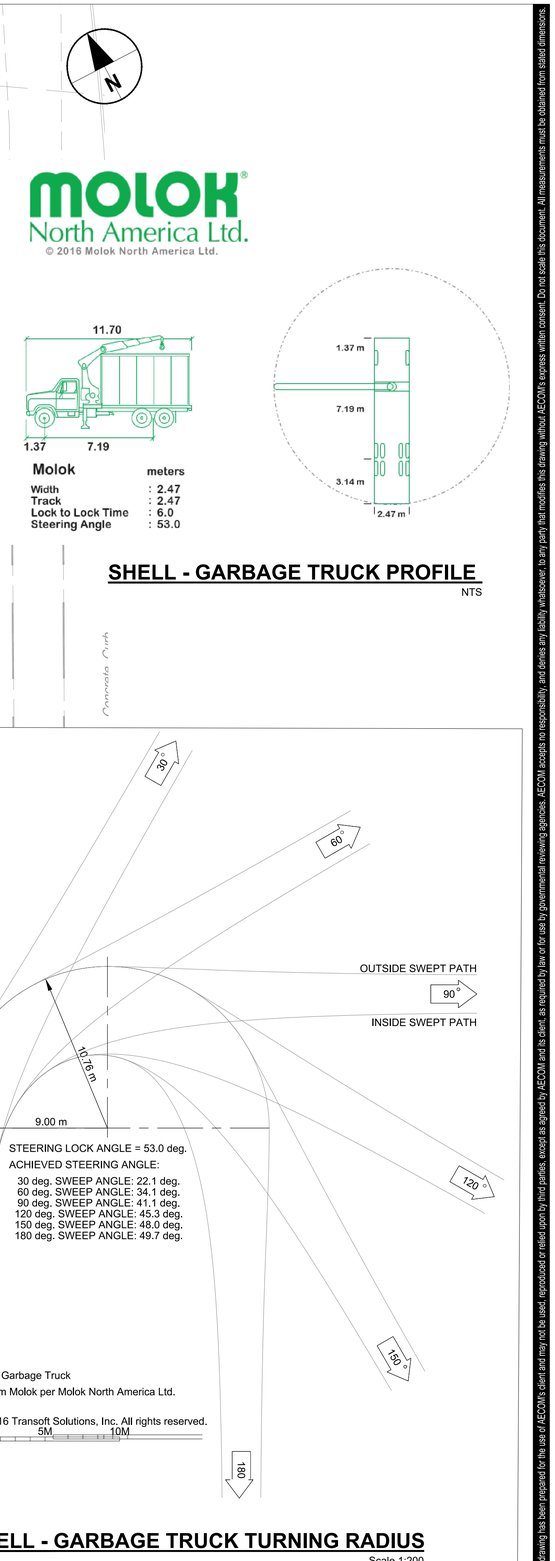


SHELL - SITE PLAN

Scale 1:200



SHELL - GARBAGE TRUCK TURNING RADIUS

Scale 1:200

SHELL - GARBAGE TRUCK PROFILE

NTS

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Kanata (NTI)

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LICENSED PROFESSIONAL ENGINEER
O. SHAFI
100515409
PROVINCE OF ONTARIO
May 22, 2019

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

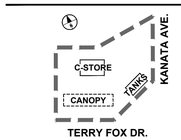
ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	2019.05.22	ISSUED FOR SPA

DRAWN BY

JR

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

GARBAGE TRUCK ROUTE

AECOM FILE NAME

C110.0-TRA-HEH

SHEET NUMBER

C110.0

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Filename: P:\60526484\400-TECHNICAL\6) PIPELINE\HERITAGE HILLS, KANATA, ON\02 FRONT END DEVELOPMENT\2.2 DESIGN DEVELOPMENT PLANS AND SPECS\910-CAD\20-SHEETS\C\C110.0-TRA-HEH.DWG

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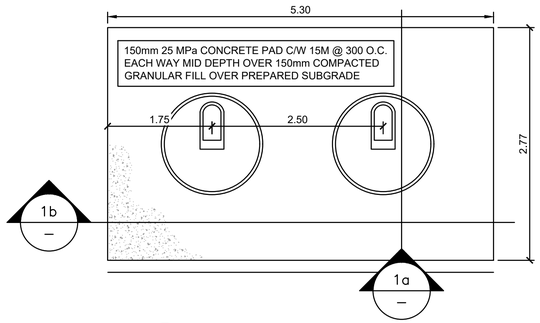
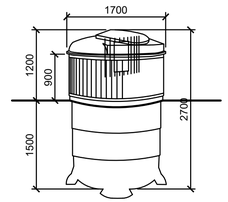
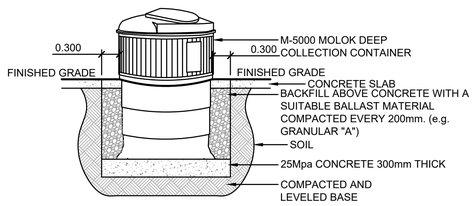


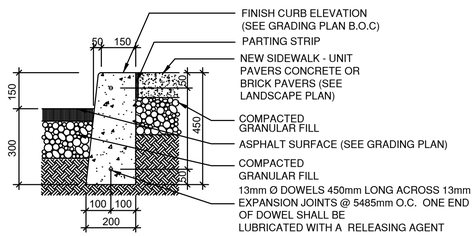
1 / - MOLOK M-5000 - PLAN VIEW
Scale: N.T.S



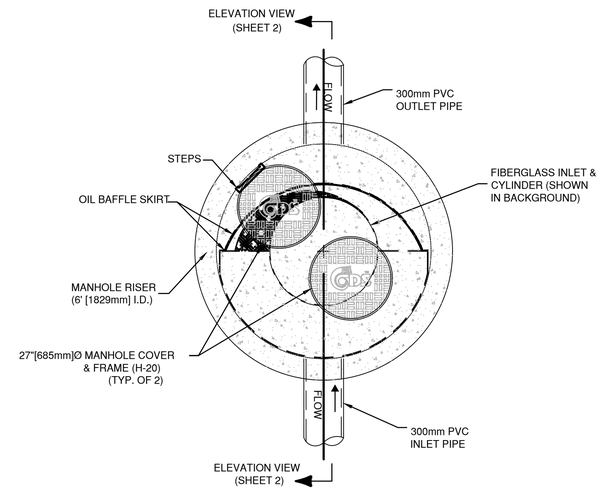
1a / - MOLOK M-5000 - ELEVATION VIEW
Scale: N.T.S



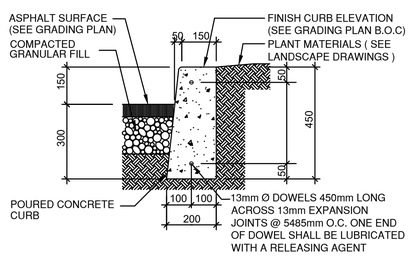
1b / - MOLOK M-5000 - SECTION VIEW
Scale: N.T.S



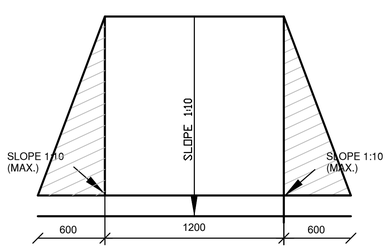
2 / C101 CONC. CURB/SIDEWALK DETAIL
Scale: 1:20



5a / C103 CDS MODEL PMSU30_20 SEC A-A
Scale: NTS



3 / C-101 CONCRETE CURB DETAIL
Scale: 1:20



4 / C101 BARRIER FREE RAMP - PLAN VIEW
Scale: N.T.S

CDS Average Annual Efficiency For TSS Removal & Total Annual Volume Treated

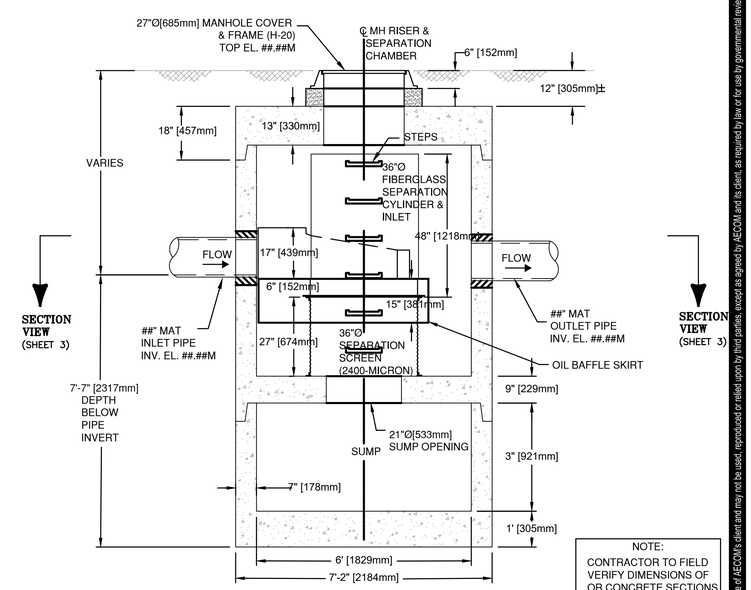
Project:	Terry Fox Dr. & Kanata Rd.			
Location:	Ottawa, ON			
Date:	1/22/2019			
By:	GM	Upstream Storage:	92.6	m3
PSD:	FINE	Area:	0.496	ha
CDS Model:	PMSU30_20_6	Impervious Area:	90	%
CDS Design Flow:	57 l/s	IDF Data:	Ottawa, ON	

Return Period		Peak Flow	TSS Percentage Captured	Treated Flow Volume	Total Flow Volume	Annual Exceedance Probability	System Flow	CDS Flow	By-Pass Flow	Volume Percentage Treated
month / yr	Yr	l/s	%	litres	litres	%	l/s	l/s	l/s	%
1-M	0.08	4.68	97.27	9524	9524	**100.00**	4.68	4.68	0.00	100.00
2-M	0.17	6.68	96.61	13448	13448	**99.75**	6.68	6.68	0.00	100.00
3-M	0.25	6.95	96.52	13973	13973	**98.17**	6.95	6.95	0.00	100.00
4-M	0.33	9.01	95.83	18064	18064	**95.04**	9.01	9.01	0.00	100.00
5-M	0.42	9.82	95.56	19688	19688	**90.91**	9.82	9.82	0.00	100.00
6-M	0.50	10.64	95.29	21312	21312	**86.47**	10.64	10.64	0.00	100.00
7-M	0.58	11.26	95.08	22571	22571	**82.01**	11.26	11.26	0.00	100.00
8-M	0.67	11.88	94.87	23829	23829	**77.67**	11.88	11.88	0.00	100.00
9-M	0.75	12.50	94.65	25088	25088	**73.64**	12.50	12.50	0.00	100.00
10-M	0.83	14.74	93.89	29752	29752	**69.90**	14.74	14.74	0.00	100.00
11-M	0.92	16.98	93.12	34415	34415	**66.40**	16.98	16.98	0.00	100.00
1-Yr	1	19.22	92.36	39078	39078	**63.21**	19.22	19.22	0.00	100.00
2-Yr	2	22.61	91.18	46434	46434	**39.35**	22.61	22.61	0.00	100.00
5-Yr	5	32.67	87.65	69613	69613	**18.13**	32.67	32.67	0.00	100.00
10-Yr	10	41.83	84.37	92904	92904	**9.52**	41.83	41.83	0.00	100.00
25-Yr	25	52.06	80.59	122487	122487	**3.92**	52.06	52.06	0.00	100.00
50-Yr	50	62.03	75.88	153272	156620	**1.98**	62.03	56.63	5.40	97.86
100-Yr	100	68.54	71.84	171802	183156	**1.00**	68.54	56.63	11.91	93.80

Average Annual TSS Removal Efficiency [%]: **92.5** Ave. Ann. T. Volume [%]: **99.97%**

ECHELON ENVIRONMENTAL

CDS TECHNOLOGIES



NOTE:
CONTRACTOR TO FIELD VERIFY DIMENSIONS OF OR CONCRETE SECTIONS

5b / C103 CDS MODEL PMSU30_20 DETAIL
Scale: NTS

0 6.25 12.5 m
1:250

AECOM

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100515409
January 22, 2019
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A	2018.08.14	ISSUED FOR REVIEW

DRAWN BY

JR

KEY PLAN

PROJECT NUMBER

60546152

SHEET TITLE

DETAILS

AECOM FILE NAME

C501.0-DET-HEH

SHEET NUMBER

C501.0

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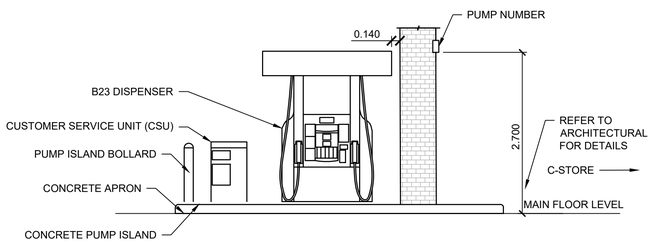
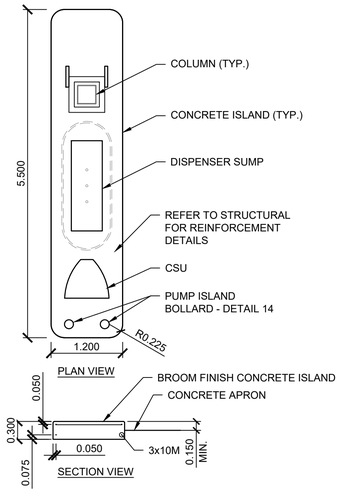
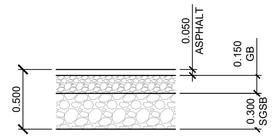


6 - ELEVATION AT DISPENSER
Scale: 1:50

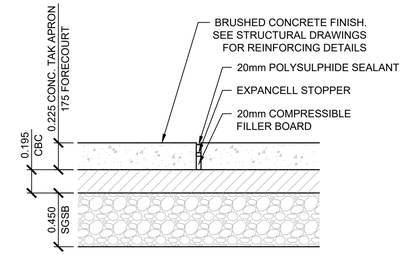


7 - PUMP ISLAND DETAIL
Scale: 1:50



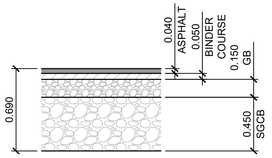
NOTES:
- 50mm HL3 or SUPERPAVE 12.5
- 150mm GRANULAR "A"
- 300mm GRANULAR "B" TYPE II ASPHALT GRADE PG-58-34

8 - TYPICAL LIGHT DUTY PAVEMENT
Scale: 1:25



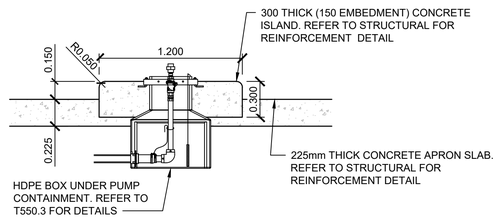
- REFER TO STRUCTURAL DWGS FOR JOINT DETAILS
- FINAL TANK AND FORECOURT SLAB THICKNESS TO BE AS PER STRUCTURE DRAWINGS

9 - LEAK-TIGHT PAVEMENT AND JOINT DETAIL
Scale: 1:25

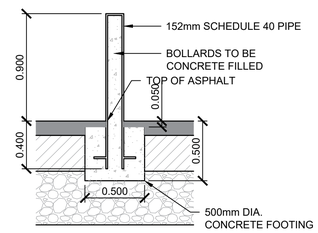


NOTES:
- 40mm HL3 or SUPERPAVE 12.5
- 50mm HL8 or SUPERPAVE 19.0
- 150mm GRANULAR "A"
- 450mm GRANULAR "B" TYPE II ASPHALT GRADE PG 58-34

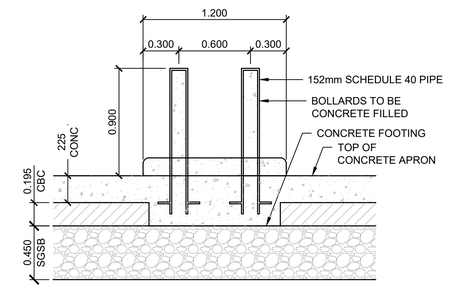
10 - HEAVY DUTY PAVEMENT
Scale: 1:25



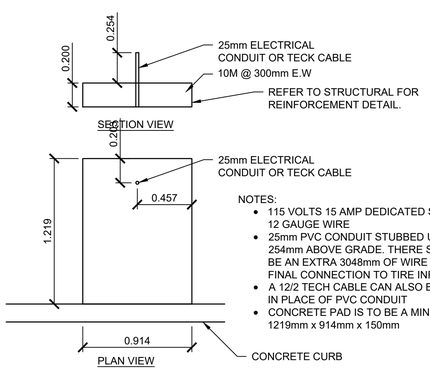
11 - TYPICAL CONCRETE ISLAND
Scale: 1:25



12 - BOLLARD DETAIL
C-001
Scale: 1:25



14 - PUMP ISLAND BOLLARD DETAIL
C-001
Scale: 1:25



NOTES:
- 115 VOLTS 15 AMP DEDICATED SOURCE 12 GAUGE WIRE
- 25mm PVC CONDUIT STUBBED UP 254mm ABOVE GRADE. THERE SHOULD BE AN EXTRA 3048mm OF WIRE FOR FINAL CONNECTION TO TIRE INFLATOR
- A 12/2 TECH CABLE CAN ALSO BE USED IN PLACE OF PVC CONDUIT
- CONCRETE PAD IS TO BE A MINIMUM 1219mm x 914mm x 150mm

15 - AIR-SERV TIRE INFLATOR PAD PLAN & DETAILS
C-001
Scale: 1:25

AECOM

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May 22, 2019
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LEGAL DESCRIPTION
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DRAWN BY

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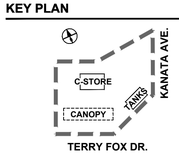

PROJECT NUMBER

60546152

SHEET TITLE

SITE DETAILS

AECOM FILE NAME

C502.0-DET-HEH

SHEET NUMBER

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Project Management Initials: Designer: Checked: Approved:
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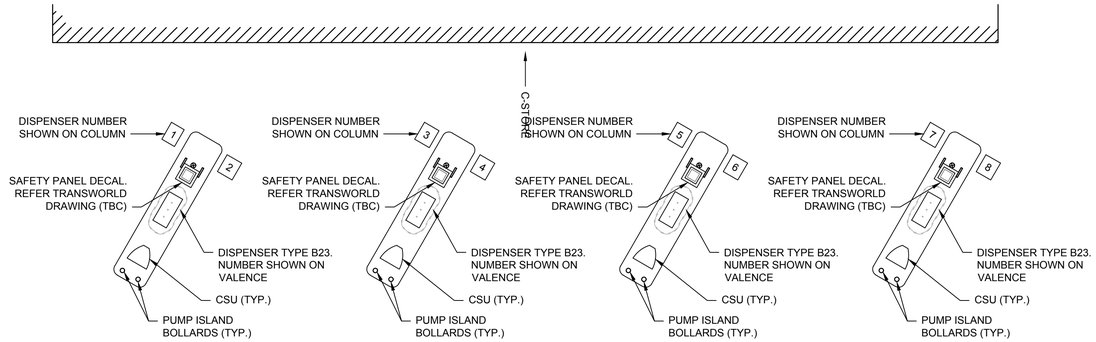
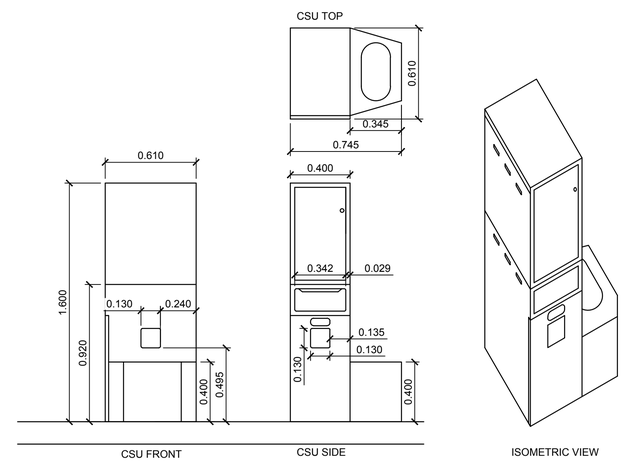


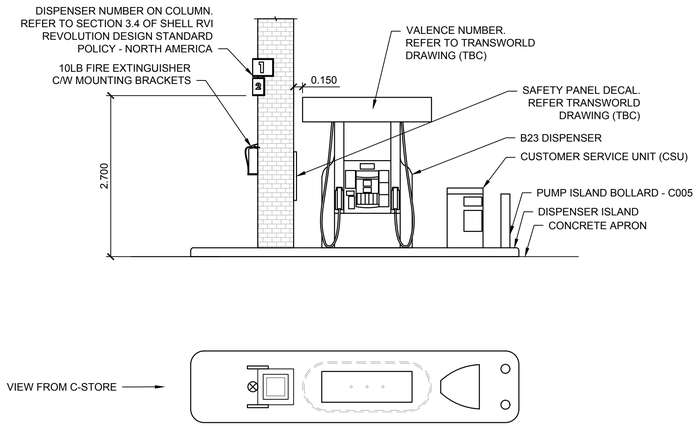
DISPENSER AND COLUMN NUMBER PLACEMENT - PLAN VIEW

SCALE 1:100



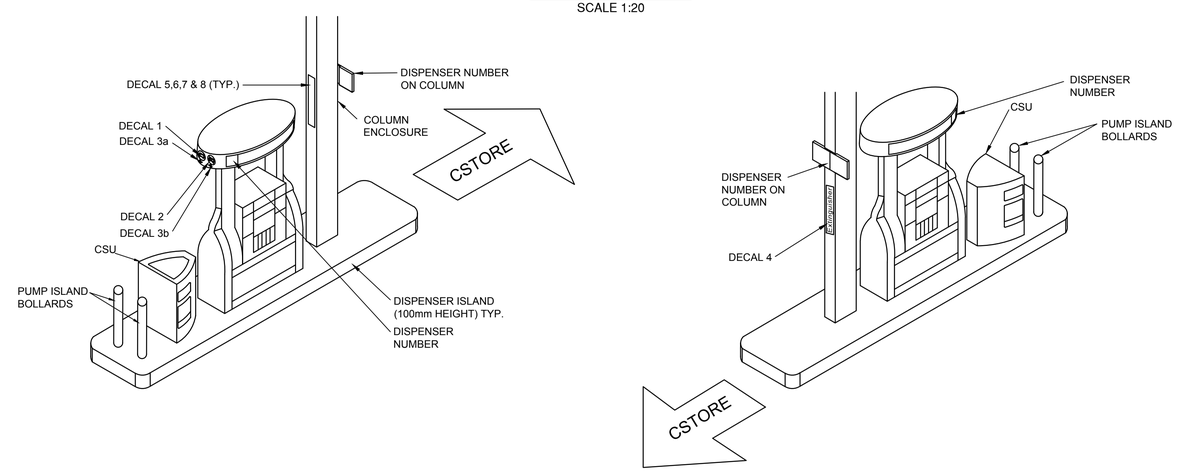
ALTERNATIVE CUSTOMER SERVICE UNIT (CSU) - DETAILS

SCALE 1:20



SAFETY DECAL DISPENSER NUMBER PLACEMENT - PLAN AND ELEVATION VIEW

SCALE 1:50



SAFETY DECAL PLACEMENT - ISOMETRIC VIEW

SCALE 1:50

0 2.5 5 m
1:100

AECOM

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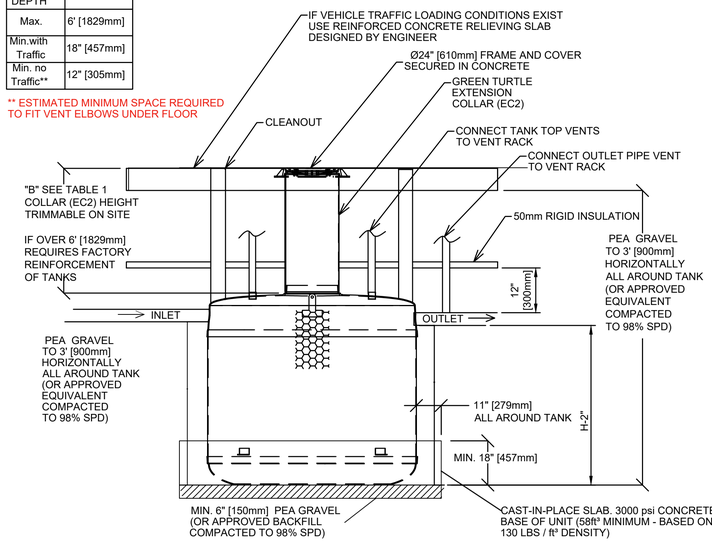
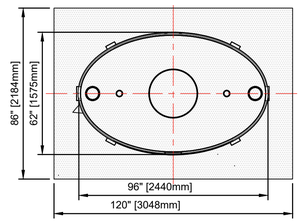
TABLE 1

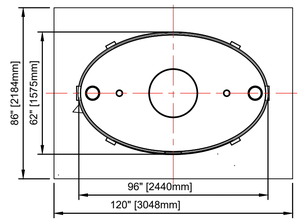
BURIAL DEPTH	B
Max.	6' [1829mm]
Min.with Traffic	18" [457mm]
Min. no Traffic**	12" [305mm]

** ESTIMATED MINIMUM SPACE REQUIRED TO FIT VENT ELBOWS UNDER FLOOR



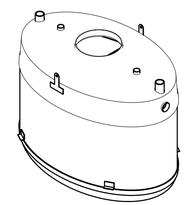


RIGID INSULATION DIMENSIONS

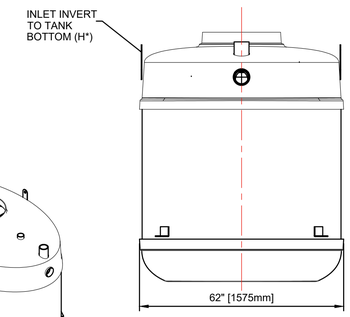


ANTI-BUOYANCY SLAB DIMENSIONS

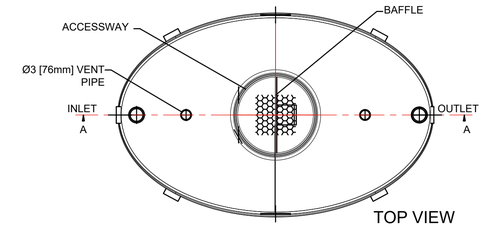
16 / C103-0 PROCEPTOR DETAIL - ELEVATION VIEW
Scale: NTS



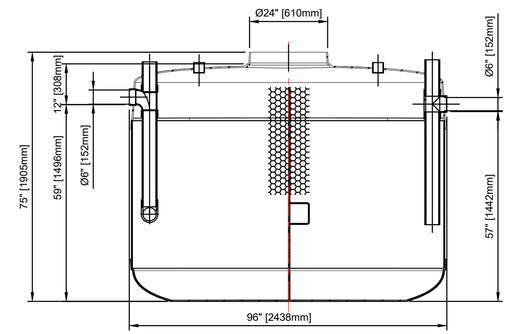
ISOMETRIC VIEW



SIDE VIEW



TOP VIEW



SECTION A-A

17 / C103-0 PROCEPTOR DETAIL - SECTION A-A
Scale: NTS

PROCEPTOR NOTES:

1. INSTALL OMC 1000 PROCEPTOR SUPPLIED BY GREEN TURTLE TECHNOLOGIES LTD. THE PROCEPTOR INCLUDES ACCESSWAYS, CELLS, OR BAFFLES, AND PIPING OR OPENINGS TO RETAIN HYDROCARBONS AND SOLIDS, AND TO PERMIT WASTEWATER FLOW.
2. FACTORY INSTALLED SCHEDULE 40 PVC CEMENT WELDED TYPE SOCKET PORTS, OR STRAIGHT PIPE, FITTED INTO INTERCEPTOR WALLS FOR EACH PIPE CONNECTION.
3. ACCESSWAY EXTENSION COLLAR: 609.6mm FIBERGLASS RISERS (EC2)
4. ACCESS FRAMEWAYS AND COVERS: ROUND WITH NON SLIP COVER FINISH, GASKETED AND NON VENTED TOP DESIGN WITH "PROCEPTOR" LETTERING CAST INTO COVER. 609.6mm DIAMETER CAST IRON WITH 6.35mm GASKET. AASHTO M306 TRAFFIC LOAD RATED. TWO CLOSED PICK HOLES. BOLTED OPTION. ASTM A48 CL35B.
5. WATERTIGHT FLEXIBLE CAULKING: SIKAFLEX 255 OR SIKAFLEX 221 OR APPROVED ALTERNATE TO PROVIDE WATERTIGHT SEAL AT EXTENSION COLLAR JOINTS.
6. CAPACITIES AND CHARACTERISTICS:
   - NUMBER OF COMPARTMENTS: 1 CELL
   - INLET AND OUTLET PIPE SIZE: 152mm
   - VENT PIPE SIZE: 76.2mm
   - UNDERGROUND INSTALLMENT WITH ACCESSWAY COLLAR RISER TO GRADE
   - ALARM FOR HIGH OIL ACCUMULATION. INCLUDES ALARM PROBE TO BE INSTALLED IN TOP OF TANK
   - ACCESSWAY AND ALARM PANEL
7. FIBERGLASS ACCESSWAY EXTENSIONS: FIBERGLASS WOUND PIPE.
   - LENGTH - FROM TOP OF UNDERGROUND TANK TO UNDERSIDE OF ACCESS FRAME AT GRADE
   - EXTENSIONS SECTIONS: 6.35mm MINIMUM THICKNESS AND 609.6mm DIAMETER AS A SINGLE CONTINUOUS PIECE, WITHOUT JOINTS UNLESS APPROVED BY THE MANUFACTURER
   - SEALANT: WATERTIGHT FLEXIBLE CAULKING, SIKAFLEX 255 OR SIKAFLEX 221 OR APPROVED ALTERNATE TO PROVIDE WATERTIGHT SEAL AT EXTENSION COLLAR JOINING TO TANK ON BOTTOM AND ACCESS FRAME ON TOP
8. A CLEAN OUT SHALL BE PROVIDED DOWNSTREAM (NO MORE THAN 1.0m) FROM THE PROCEPTOR TO PERMIT THE CLEANING OF THE PIPING.
9. VENTING:
   - VENT PIPE TO DISCHARGE NOT LESS THAN 2.0m ABOVE ADJACENT GROUND LEVEL, AND NOT LESS THAN 1.5m FROM ANY BUILDING OPENING.
   - TWO VENT PIPES ARE TO BE CONNECTED TO THE PROCEPTOR AT OPPOSITE ENDS, EXTEND INDEPENDENTLY TO OUTSIDE AIR, AND TERMINATE AT ELEVATIONS NOT DIFFERING BY LESS THAN 300mm.
   - ONE VENT PIPE TO BE CONNECTED TO THE OUTLET PIPE.
10. ALL PROCEPTOR UNITS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTION.
11. PROCEPTOR SEPARATORS MUST BE INSTALLED IN ACCORDANCE WITH ALL RELEVANT FEDERAL, PROVINCIAL, AND LOCAL CODES INCLUDING LOCAL PLUMBING CODE.
12. PROCEPTOR TO BE INSULATED. CONTRACTOR TO SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.

AECOM

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Ottawa, Ontario

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LICENSED PROFESSIONAL ENGINEER
O. SHAFI
100515409
May 22, 2019
PROVINCE OF ONTARIO

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

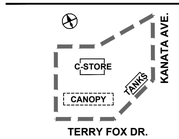
ISSUE/REVISION

I/R	DATE	DESCRIPTION
A	2019.05.22	ISSUED FOR SPA

DRAWN BY

JR

KEY PLAN



PROJECT NUMBER

60526484

SHEET TITLE

SITE DETAILS

AECOM FILE NAME

C504.0-DET-HEH

SHEET NUMBER

C504.0

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Project Management Initials: Designer: J.R. Checked: Q.S. Approved: A.L. ANSI D 864mm x 559mm

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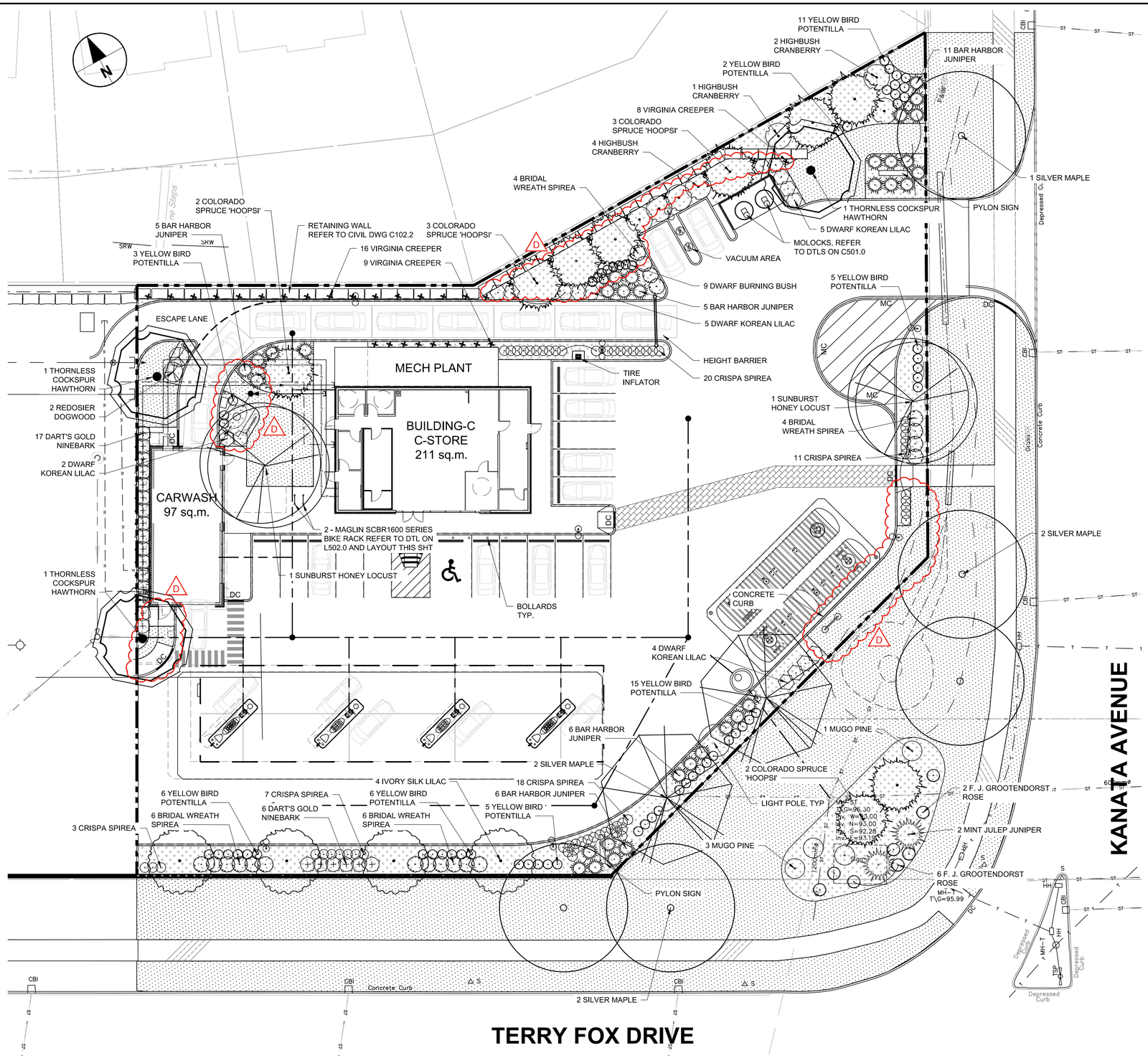


SHELL - SITE PLAN

0 5 10 m
1:200

Scale 1:200

NOTES:

GENERAL

1. REFER TO CIVIL AND ELECTRICAL ENGINEERING DRAWINGS FOR SIZES AND LOCATIONS OF ALL SANITARY, STORM, WATER, GAS CABLE AND ELECTRICAL UNDERGROUND SERVICING, KIOSKS, AND RIGHT-OF-WAY'S.
2. ANY AMBIGUITIES IN THIS DRAWING OR ACCOMPANYING DETAILS ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR DIRECTION. THE CONTRACTOR IS NOT TO PROCEED IN UNCERTAINTY.
3. LIMITS OF THE WORK ARE TO BE CLEARLY UNDERSTOOD BY THE CONTRACTOR PRIOR TO ANY WORK TAKING PLACE ON SITE. CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION IF REQUIRED.
4. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE.
5. ON-SITE LAYOUT SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO START OF CONSTRUCTION.
6. ALL MEASUREMENTS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE SPECIFIED.
7. OWNER'S REPRESENTATIVE MAY REQUEST RANDOM SOIL TESTS FOR ANY AND/OR ALL SOIL TYPES AND MIXES INSTALLED WITHIN THE PROJECT. SUCH TESTS MAY BE REQUESTED AT ANY TIME DURING THE PROJECT UNTIL CONSTRUCTION COMPLETION CERTIFICATE IS RECEIVED FROM THE APPROVING AUTHORITY. SOIL SAMPLE LOCATIONS WILL BE SELECTED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL REPLACE OR AMEND DEFICIENT SOILS/SOIL MIXES TO MEET SPECIFICATIONS IF TEST RESULTS INDICATE DEFICIENCIES. OWNER'S REPRESENTATIVE WILL SELECT SOIL SAMPLE LOCATIONS AFTER REPLACEMENT/ AMENDMENTS OCCUR AND CONTRACTOR SHALL PROVIDE ADDITIONAL SOIL TESTING TO CONFIRM SPECIFICATIONS HAVE BEEN MET. ALL SOIL TESTING COSTS SHALL BE BORNE BY THE CONTRACTOR.

SITE WORK

1. CONTRACTOR SHALL CALL ONTARIO ONE CALL AT 1-800-400-2255, AND OTHER UTILITIES, AS REQUIRED, TO HAVE EXISTING UTILITIES LOCATED PRIOR TO START OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO UTILITIES.
2. CONTRACTOR IS ADVISED TO VISIT THE SITE TO CONFIRM ALL SITE CONDITIONS PRIOR TO SUBMITTING BIDS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE HOARDING OF ALL TREES WITHIN OR ADJACENT TO CONSTRUCTION AREAS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
4. CONTRACTOR SHALL HAUL ALL EXCESS MATERIALS OFF THE SITE TO A LOCATION APPROVED BY THE OWNER'S REPRESENTATIVE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL SITE CLEANUP.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO LANDSCAPED AREAS AND SHALL MAKE ALL NECESSARY RESTORATIONS AND REPAIRS, TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.

PERMITS AND STANDARDS

1. CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY OWNER CONCERNING THE MOVEMENT OF ANY MATERIAL AND/OR EQUIPMENT NEAR ANY UTILITY EASEMENTS OR RIGHT-OF-WAYS.
2. ALL ANCILLARY WORK NORMALLY ASSOCIATED WITH THIS TYPE OF CONSTRUCTION SHALL BE DEEMED TO BE PART OF THE CONTRACT.

MATERIALS

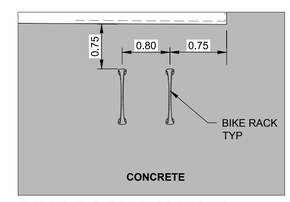
1. CONTRACTOR SHALL SUPPLY ALL MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS. ANY DISCREPANCIES IN QUANTITIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE FOR DIRECTION.
2. NO SUBSTITUTION OF MATERIALS, PRODUCTS OR QUANTITIES SHALL BE PERMITTED WITHOUT PRIOR CONSENT OF THE OWNER'S REPRESENTATIVE.

PLANTING

1. ALL LANDSCAPE CONSTRUCTION SHALL CONFORM TO CITY OF OTTAWA URBAN DESIGN GUIDELINES FOR GAS STATIONS.
2. PRIOR TO INSTALLATION, ALL LOCAL NURSERY STOCK MAY BE INSPECTED BY OWNER'S REPRESENTATIVE TO ENSURE STOCK ACCEPTABILITY. OWNER'S REPRESENTATIVE WILL COORDINATE THIS OPTIONAL INSPECTION AND ADVISE THE CONTRACTOR ACCORDINGLY.
3. ALL EXCAVATIONS SHALL MAINTAIN THE MINIMUM DEFINED SETBACKS FROM UTILITIES.
4. IF EXCAVATIONS ARE REQUIRED CLOSER THAN 1.0 m TO UNDERGROUND POWER, TELEPHONE AND GAS ALIGNMENTS, HAND DIGGING UNDER THE SUPERVISION OF THE AFFECTED UTILITY WILL BE REQUIRED. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY TO APPROVE, REVIEW AND/OR DEFINE SAFE PROCEDURES FOR THESE EXCAVATIONS.
5. ALL PLANT MATERIAL SHALL BE TRUE TO TYPE, SIZE, QUALITY, AND CONDITION AS SPECIFIED. ALL TREES MUST BE HIGH HEADED WITH FULL AND UNIFORM CROWNS AND SINGLE, WELL DEVELOPED LEADERS. TREES WITH BROKEN LEADERS WILL NOT BE ACCEPTED.
6. CONTRACTOR SHALL VERIFY ALL QUANTITIES AND NOTIFY THE OWNER'S REPRESENTATIVE OF ANY OMISSIONS.
7. TREE LOCATIONS TO BE ADJUSTED ON SITE WITH REGARD TO MINIMUM TREE SETBACKS FOR ABOVE AND BELOW GROUND UTILITIES.
8. ALL PLANTINGS IN BEDS TO HAVE MINIMUM 450 mm DEPTH PLANTING SOIL AND 50 mm DECIDUOUS SHREDDED WOOD CHIP MULCH.

LEGEND:

- MAGLIN SCBR1600 SERIES BIKE RACK REFER TO DETAIL ON L502.0 QUANTITY: 2
- SHELL LEASE LINE
- SOD OVER 150 mm DEPTH TOPSOIL
- DECIDUOUS SHREDDED WOOD CHIP MULCH - MIN 75 mm DEPTH OVER LANDSCAPE FABRIC AND 450 mm DEPTH TOPSOIL



BIKE RACK LAYOUT

NTS

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Heritage Hills NTI

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REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
DONALD K. HESTER
OALA
May 2/19
MEMBER

ISSUE/REVISION

I/R	DATE	DESCRIPTION
D	2019.05.02	RE-ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2018.11.16	ISSUED FOR REVIEW
A	2018.10.05	ISSUED FOR REVIEW

DRAWN BY

LJV/JG

KEY PLAN

PROJECT NUMBER

60546152

SHEET TITLE

LANDSCAPE PLAN

AECOM FILE NAME

L101-0-LNP-HEH

SHEET NUMBER

L101.0

FILE # D07-12-19-0017
PLAN # 17868

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SCHEDULE A - Shell Site

Sym	Qty	Unit	Botanical Name	Common Name	Size/Remarks
Coniferous Trees					
	7	EACH	*Picea pungens* 'Hoopsi'	COLORADO SPRUCE 'HOOPSI'	1800 mm HEIGHT, SPACED AT 4.5 m O.C.
Coniferous Shrubs					
	32 D	EACH	*Juniperus horizontalis* 'Bar Harbor'	BAR HARBOR JUNIPER	SPREAD 600 mm, SPACED AT 1.5 m O.C.
Deciduous Trees					
	2	EACH	*Acer saccharinum*	SILVER MAPLE	70 mm CALIPER, SINGLE STEM, SPACED AT 15 m O.C.
	3	EACH	*Crataegus crusgalli* 'Inermis'	THORNLESS COCKSPUR HAWTHORN	60 mm CAL SINGLE STEM
	2	EACH	*Gleditsia triacanthos* 'Sunburst'	SUNBURST HONEY LOCUST	70 mm CALIPER, SINGLE STEM
	4	EACH	*Syringa reticulata* 'Ivory Silk'	IVORY SILK LILAC	60 mm CALIPER, SINGLE STEM, SPACED AT 10 m O.C.
Deciduous Shrubs					
	2	EACH	*Cornus stolonifera*	REDOSIER DOGWOOD	600 mm HEIGHT, SPACED AT 1.5 m O.C.
	9	EACH	*Euonymous nanus* 'Turkestanicus'	DWARF TURKESTAN BURNING BUSH	600 mm HEIGHT, SPACED AT 0.6 m O.C.
	22	EACH	*Physocarpus opulifolius* 'Darts Gold'	DART'S GOLD NINEBARK	600 mm HEIGHT, SPACED AT 1.2 m O.C.
	53	EACH	*Potentilla fruticosa* 'Yellowbird'	YELLOWBIRD POTENTILLA	600 mm HEIGHT, SPACED AT 0.75 m O.C.
	59	EACH	*Spiraea japonica 'crispa'*	CRISPA SPIREA	600 mm HEIGHT, SPACED AT 0.75 m O.C.
	20	EACH	*Spiraea prunifolia*	BRIDAL WREATH SPIREA	600 mm HEIGHT, SPACED AT 1.5 m O.C.
	18	EACH	*Syringa meyeri*	DWARF KOREAN LILAC	600 mm HEIGHT, SPACED AT 1.25 m O.C.
	7	EACH	*Viburnum trilobum* 'Andrews'	HIGHBUSH CRANBERRY ANDREWS	750 mm HEIGHT, SPACED AT 2.0 m O.C.
Vines and Perennials					
	33	EACH	*Parthenocissus virginiana*	VIRGINIA CREEPER	#1 CONTAINER, 600mm HT. - MIN 4 CANES
Miscellaneous Materials					
	205	m^2	SOD OVER 150 mm DEPTH TOPSOIL		TOPSOIL TO BE IMPORTED AND AMEND AS REQUIRED TO CITY OF OTTAWA STANDARDS
	600 D	m^2	DECIDUOUS SHREDDED WOOD CHIP MULCH - 75 mm DEPTH		

SCHEDULE B - Boulevard Plantings

Sym	Qty	Unit	Botanical Name	Common Name	Size/Remarks
Coniferous Trees					
	2	EACH	*Picea pungens* 'Hoopsi'	COLORADO SPRUCE 'HOOPSI'	1800 mm HEIGHT, SPACED AT 4.5 m O.C.
Coniferous Shrubs					
	2	EACH	*Juniperus x Pfitzeriana* 'Mint Julep'	MINT JULEPJUNIPER	600 mm HEIGHT
	4	EACH	*Pinus mugo pumilio*	MUGO PINE	600 mm HEIGHT
Deciduous Trees					
	5	EACH	*Acer saccharinum*	SILVER MAPLE	70 mm CALIPER, SINGLE STEM, SPACED AT 10 m O.C.
Deciduous Shrubs					
	8	EACH	*Rosa rugosa* 'F. J. Grootendorst'	F. J. GROOTENDORST ROSE	
Miscellaneous Materials					
	1395	m^2	SOD OVER 150 mm DEPTH TOPSOIL		TOPSOIL TO BE IMPORTED AND AMEND AS REQUIRED TO CITY OF OTTAWA STANDARDS
	135	m^2	DECIDUOUS SHREDDED WOOD CHIP MULCH - 75 mm DEPTH		

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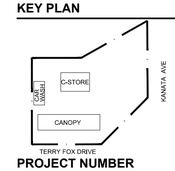
B	2018.11.16	ISSUED FOR REVIEW
A	2018.09.07	ISSUED FOR REVIEW

DRAWN BY

LJV/JG

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

PLANTING LIST

AECOM FILE NAME

L501-0-LND-HEH

SHEET NUMBER

L501.0

FILE # D07-12-19-0017
PLAN # 17868

Project Management Initials: Designer: Checked: Approved: ANSI D 864mm x 559mm
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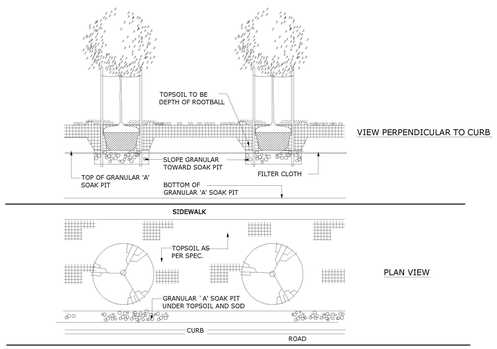
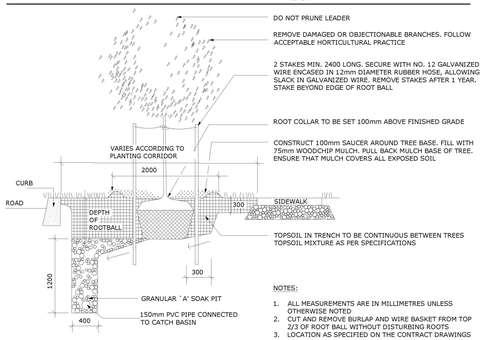
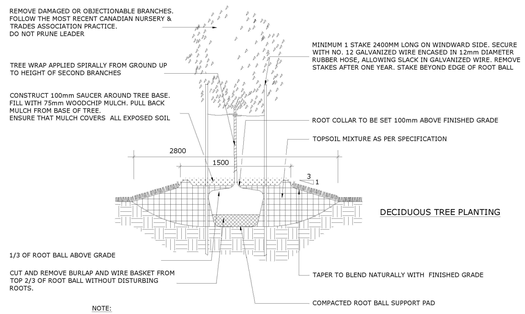




NOTES:

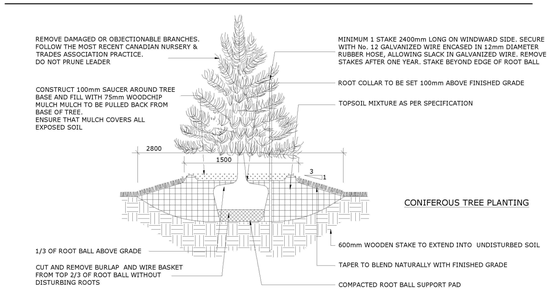
1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. CUT AND REMOVE BURLAP AND WIRE BASKET FROM TOP 2/3 OF ROOT BALL WITHOUT DISTURBING ROOTS
3. LOCATION AS SPECIFIED ON THE CONTRACT DRAWINGS

TITLE:		
Ottawa	CONTINUOUS PLANTING BED	DATE: MAY 2001
		REV: JAN 2015
		DWG No: L5



NOTE:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. USE TREE SPECIES TOLERANT TO POORLY DRAINED SOIL CONDITIONS
3. LOCATION AS SPECIFIED ON THE CONTRACT DRAWINGS



NOTE:

1. ALL MEASUREMENTS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. USE TREE SPECIES TOLERANT TO POORLY DRAINED SOIL CONDITIONS
3. LOCATION AS SPECIFIED ON THE CONTRACT DRAWINGS

TITLE:		
Ottawa	PLANTING PIT POORLY DRAINED SOILS	DATE: MAY 2001
		REV: FEB 2017
		DWG No: L6

BIKE RACKS

MAGLIN™

T 800-716-5506
F 877-260-9393
WWW.MAGLIN.COM
SALES@MAGLIN.COM

SCBR I 600 Series

MATERIALS: The Bike Rack is made from solid cast aluminum.

FINISH: The Maglin Powdercoat System provides a durable finish on all metal surfaces.

INSTALLATION: The bike rack is delivered pre-assembled. It is available with either a surface mount or direct burial installation option.

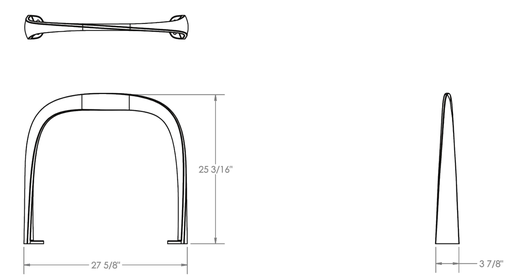
TO SPECIFY: Select SCBR1600 Series
Choose:
- Base Type
  - Direct Burial (SCBR1600-DB)
  - Surface Mount (SCBR1600-S)
- Powdercoat Color
  COLOUR TO BE MATTE GUNMETAL

COMPLEMENTARY PRODUCTS:
- SCTB1600
- SCB1600B
- SCRC1603

*SCBR1600-S surface mount model shown.

DIMENSIONS:

Length:	27.62" (70.17 cm)
Height:	25.19" (63.98 cm)
Width:	3.375" (8.57 cm)
Weight:	18.3lbs (8.3kg.)



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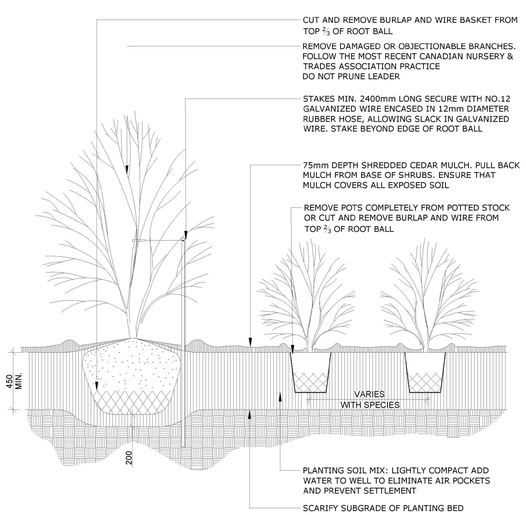
* MAGLIN is a registered trade mark of Maglin Site Furniture Inc.



NOTES:

1. PLANTING SOIL MIXTURE AS PER SPECIFICATION.
2. SHRUBS SPECIFIED BARE ROOTS (B.R.) TO BE PLANTED SO THAT ROOTS ARE FULLY EXTENDED IN PLANTING HOLE WITH SOIL MIX BACKFILLED CAREFULLY TO PREVENT ROOT DAMAGE
3. PROVIDE 100 HIGH EARTH SAUCER AROUND SHRUB BED
4. STAKES TO BE REMOVED AT COMPLETION OF TWO YEAR WARRANTY PERIOD

TITLE:		
Ottawa	CONTINUOUS SHRUB BED PLANTING	DATE: FEB 2013
		REV: FEB 2014
		DWG No: L17

AECOM

PROJECT

Shell Canada Projects
Heritage Hills NTI

471 Terry Fox Drive
Kanata, Ontario

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www.aecom.com

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
DONALD K. HESTER
OALA
May 2/19
MEMBER

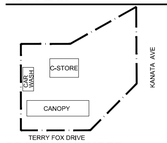
ISSUE/REVISION

I/R	DATE	DESCRIPTION
D	2019.05.02	RE-ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2018.11.16	ISSUED FOR REVIEW
A	2018.10.05	ISSUED FOR REVIEW

DRAWN BY

JG / LJV

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

LANDSCAPE DETAILS

AECOM FILE NAME

L502-0-LND-HEH

SHEET NUMBER

L502.0

FILE # D07-12-19-0017
PLAN # 17868

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Last saved by: VIBERGJ(2019-05-02) Last Plotted: 2019-05-02
Filename: \\CABNY1FP001\PROD\PROJECTS\60526484\400-TECHNICAL\6) PIPELINE\HERITAGE HILLS, KANATA, ON\02 FRONT END DEVELOPMENT\2.2 DESIGN DEVELOPMENT PLANS AND SPECS\910-CAD\20-SHEETS\LL502-0-LND-HEH.DWG
Project Management Initials: Designer: Checked: Approved: ANSI D 864mm x 559mm

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DEPARTMENT LEGEND

- BUILDING SERVICES
- EMPLOYEE
- PUBLIC

1 MAIN FLOOR PLAN

Scale: 1 : 50

Project Management Initials:
Designer: Designer Checked: Checker Approved: Approver ANSI D 22"x34"
Last Plotted: 5/3/2019 9:02:08 AM
Filename: BIM 360://Shell Canada - Heritage Hills NTI/CORRECT LAYOUT - Shell A18 - C-Store - 211m2.rvt

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AECOM

Canada Architects LTD.

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REGISTRATION

ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 29 2019
ISAAC J. HAYES
LICENCE 8815

ISSUE/REVISION

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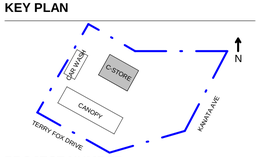
D	2019.05.02	RE-ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2019.11.16	ISSUED FOR REVIEW
A	2018.07.04	ISSUED FOR REVIEW

DRAWN BY

TF

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

C-STORE

MAIN FLOOR LAYOUT, BUILDING SECTIONS

AECOM FILE NAME

A101.1-MFP-TEM

SHEET NUMBER

A101.1

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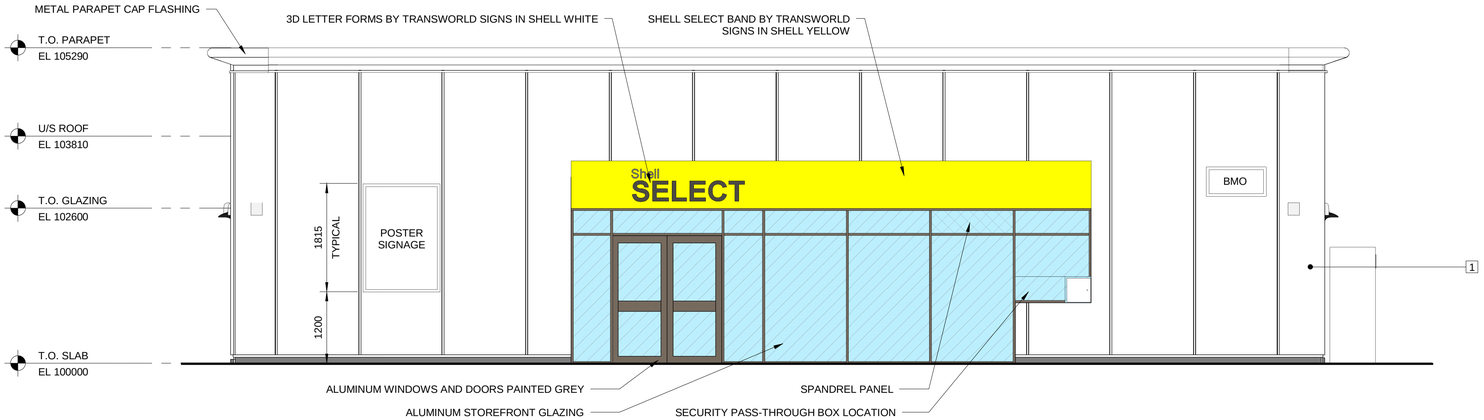
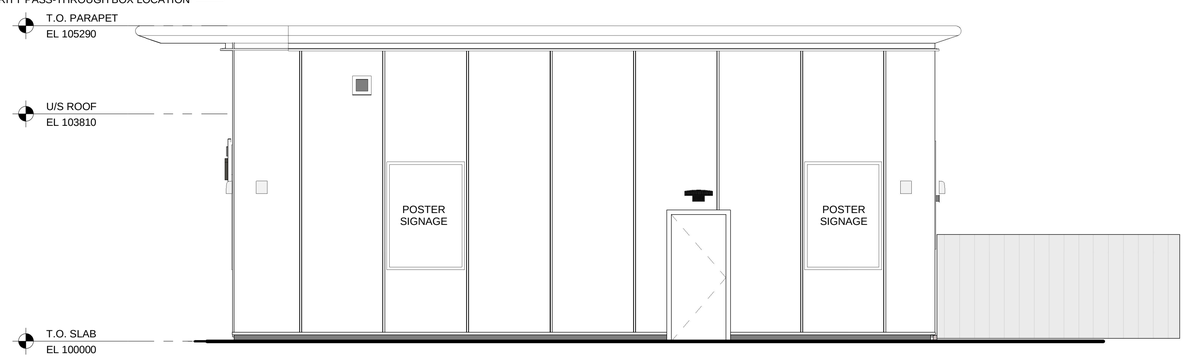


1 A101.1 **FRONT ELEVATION**
Scale: 1 : 50

WALL FINISH SCHEDULE

TAG	DESCRIPTION
1	SHELL ACM PANELS - SHELL WHITE
2	



2 A101.1 **RIGHT ELEVATION**
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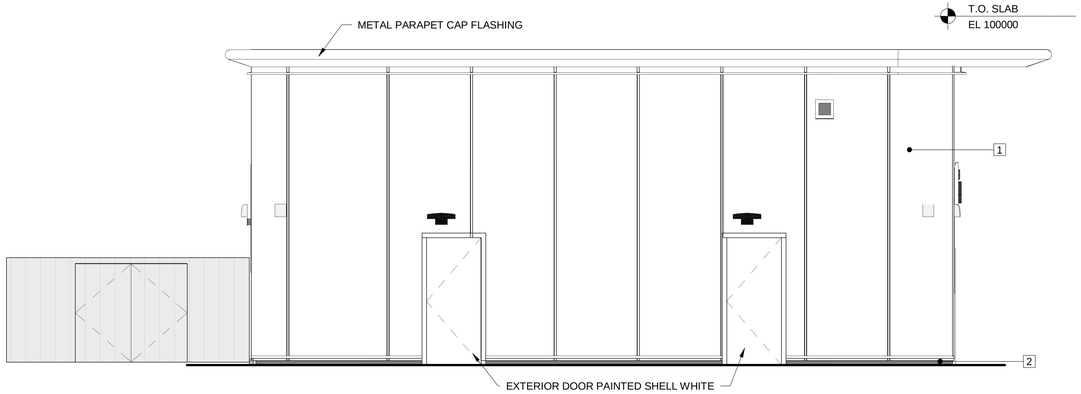
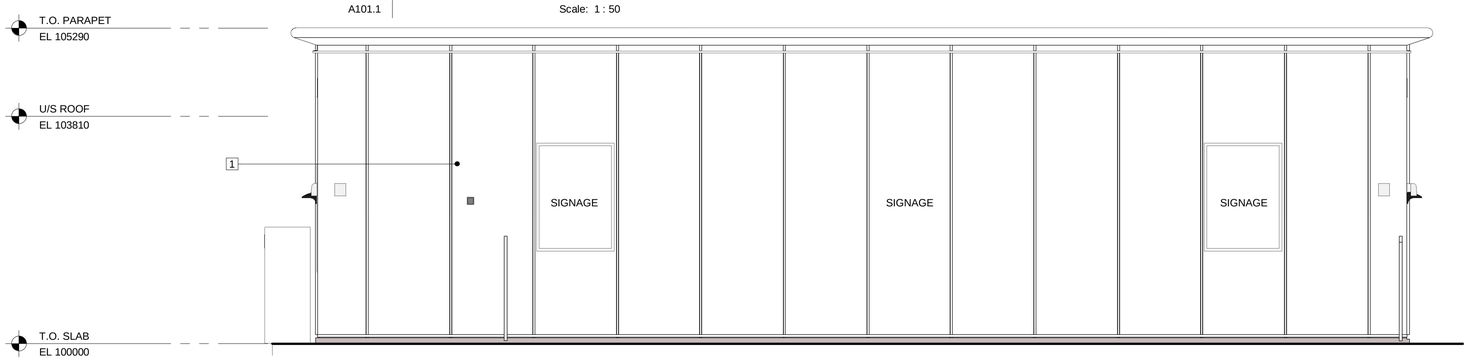


3 A101.1 **LEFT ELEVATION**
Scale: 1 : 50



4 A101.1 **BACK ELEVATION**
Scale: 1 : 50

AECOM

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Author

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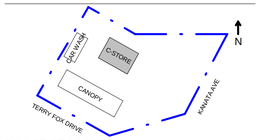

PROJECT NUMBER

60546152

SHEET TITLE

C-STORE
EXTERIOR ELEVATIONS

AECOM FILE NAME

A201.1-EXE-TEM

SHEET NUMBER

A201.1

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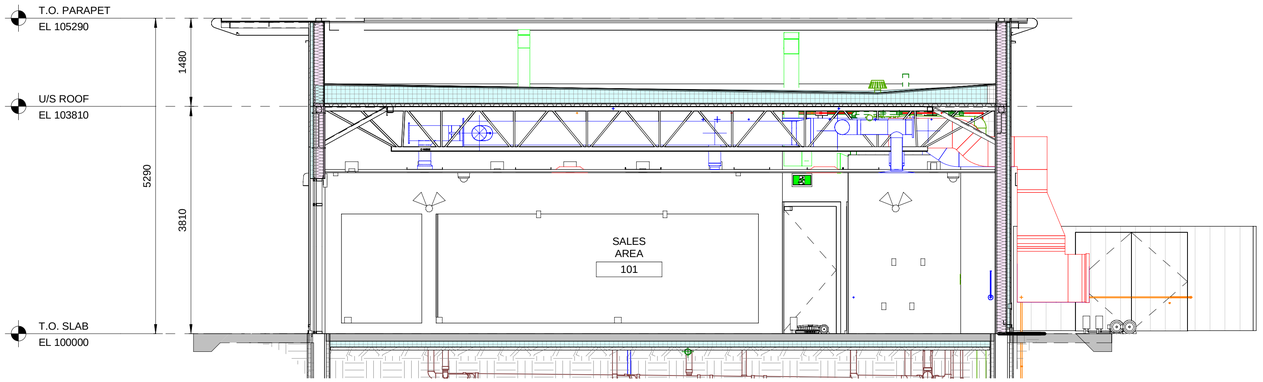
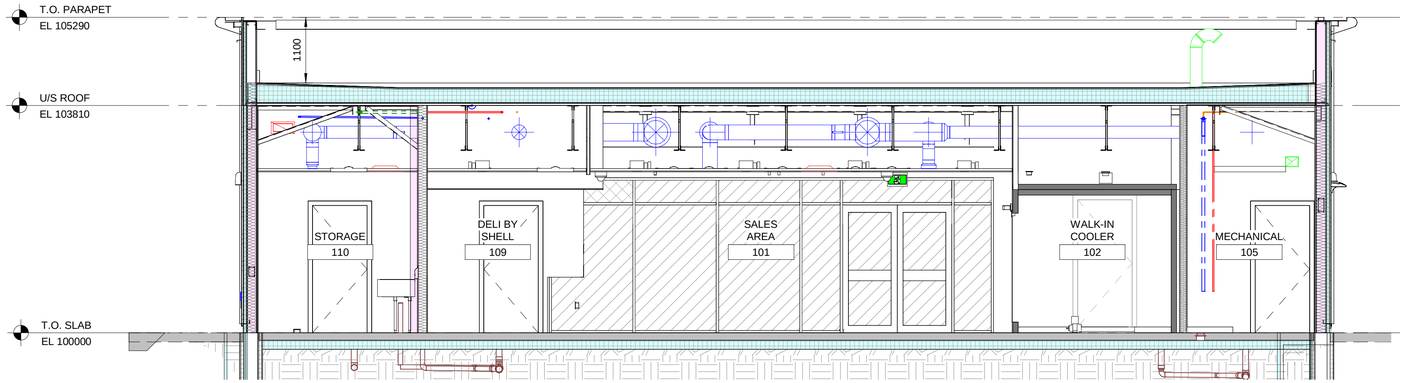


1 **BUILDING SECTION**
A101.1 Scale: 1 : 50



2 **BUILDING SECTION**
A101.1 Scale: 1 : 50

AECOM

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LICENCE
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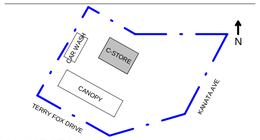

PROJECT NUMBER

60546152

SHEET TITLE

C-STORE
BUILDING SECTIONS

AECOM FILE NAME

A301.1-SEC-TEM

SHEET NUMBER

A301.1

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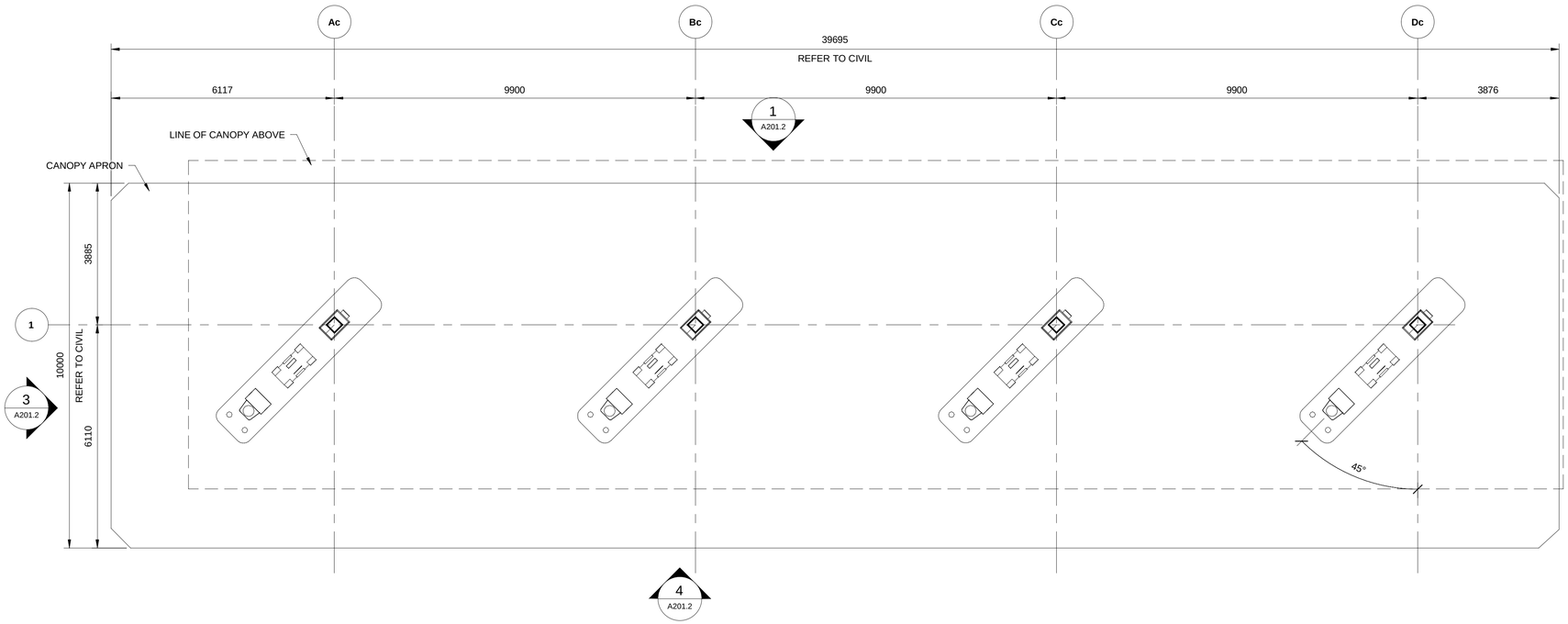
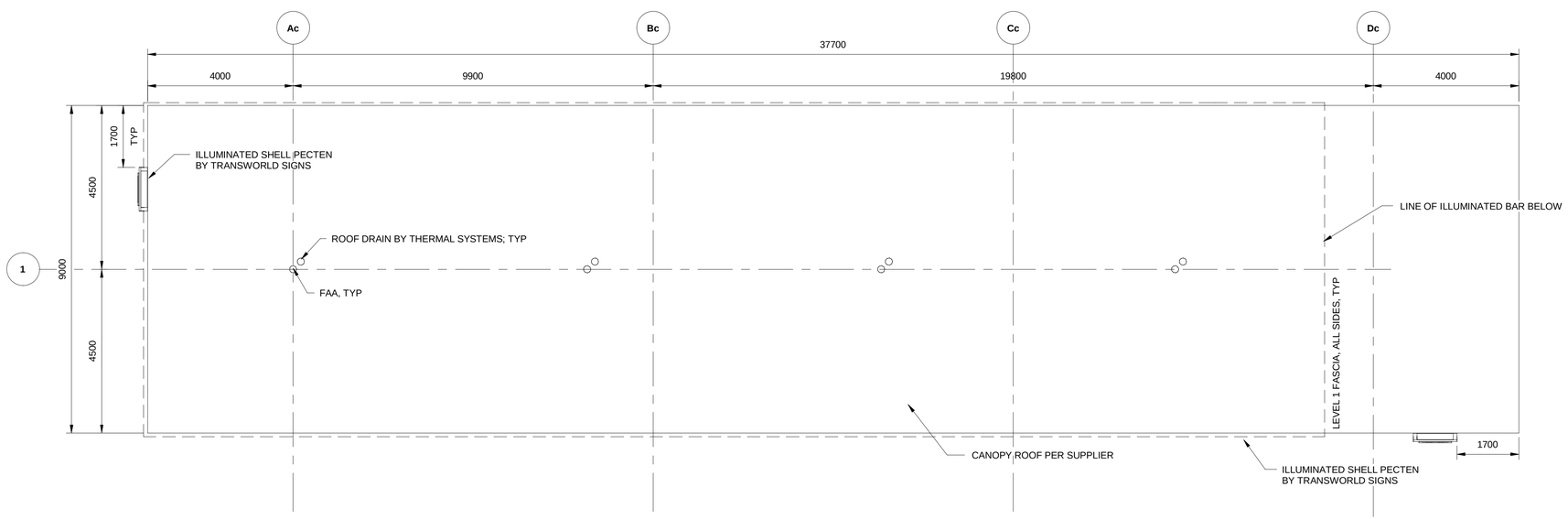


1 **FUEL PUMP PLAN**

Scale: 1 : 75



2 **ROOF PLAN**

Scale: 1 : 75

AECOM

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PROJECT

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ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 29/ 2019
ISAAC J. HAYES
LICENCE
8815

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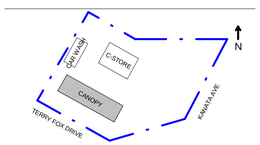
KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

CANOPY

FUEL PUMP PLAN, ROOF PLAN

AECOM FILE NAME

A101.2-FPP-HEH

SHEET NUMBER

A101.2

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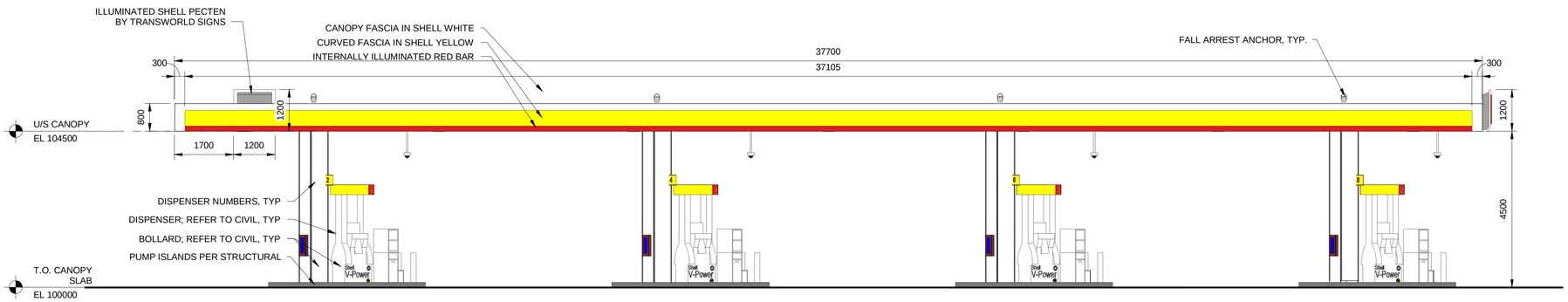
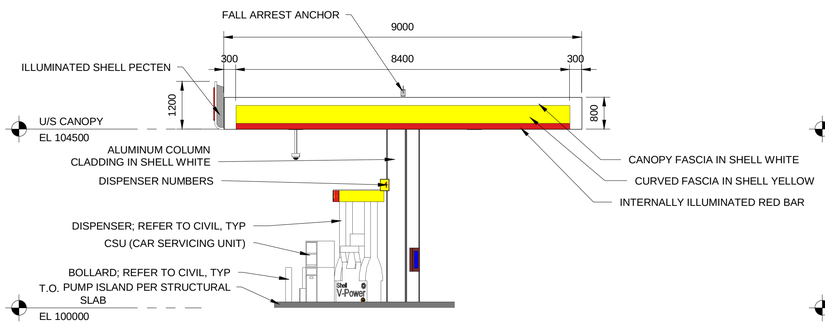


1 **NORTH ELEVATION**
A101.2 Scale: 1 : 75



2 **EAST ELEVATION**
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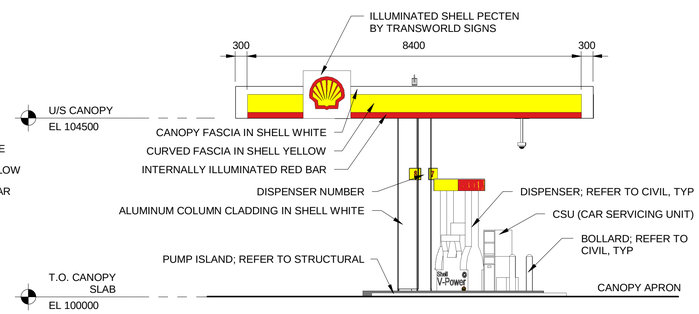
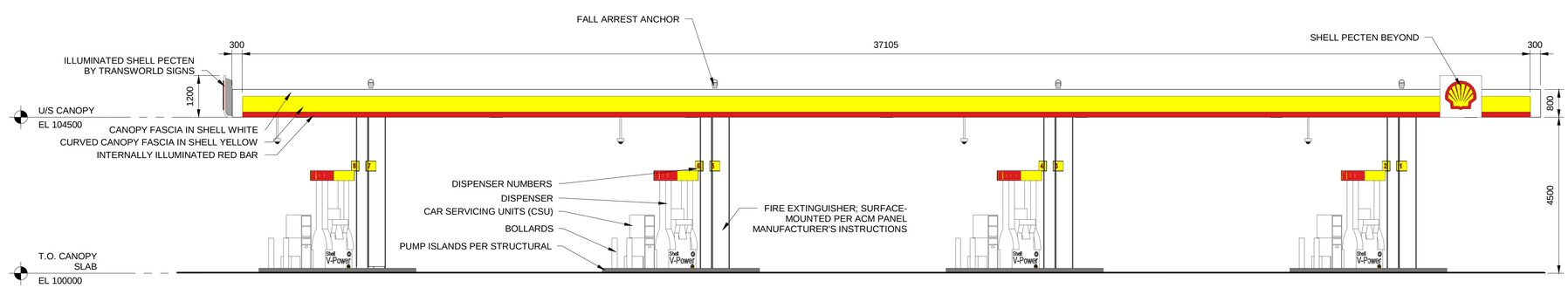


3 **WEST ELEVATION**
A101.2 Scale: 1 : 75



4 **SOUTH ELEVATION**
A101.2 Scale: 1 : 75

AECOM

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PROJECT

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REGISTRATION

ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 22/ 2019
ISAAC J. HAYES
LICENCE
8815

ISSUE/REVISION

I/R	DATE	DESCRIPTION
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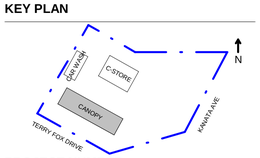
D	2019.02.01	ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2018.11.16	ISSUED FOR REVIEW
A	2018.07.12	ISSUED FOR REVIEW

DRAWN BY

TF

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

CANOPY

FUEL PUMP ELEVATIONS

AECOM FILE NAME

A201.2-EXE-HEH

SHEET NUMBER

A201.2

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Project Management Initials: Designer: Designer Checked: Checker Approved: Approver ANSI D 22"x34"

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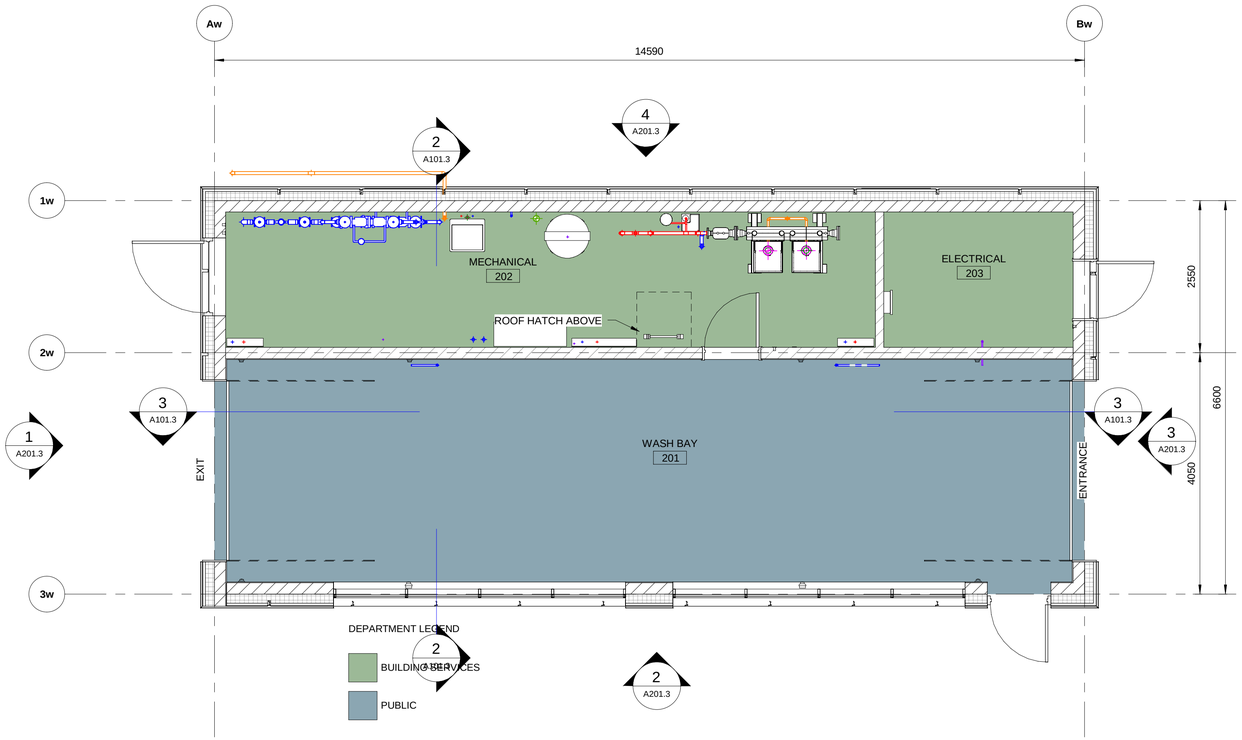
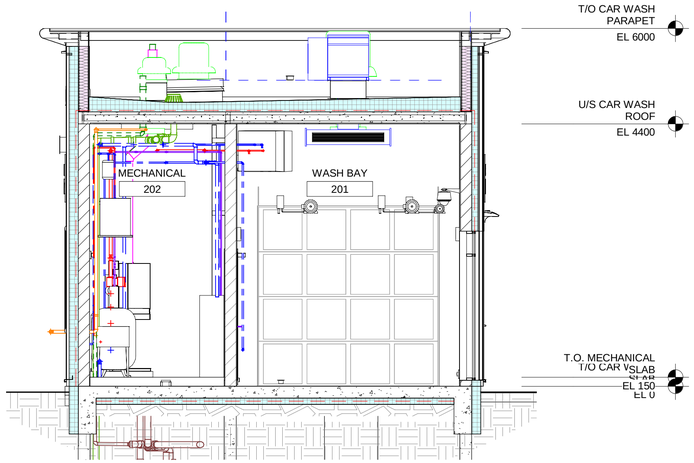
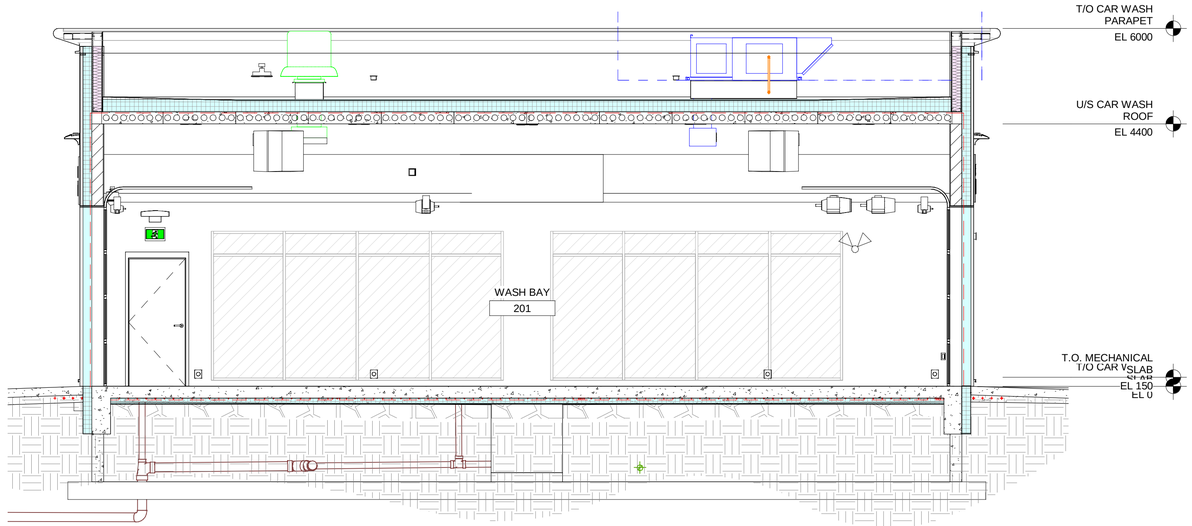


1 MAIN FLOOR PLAN
Scale: 1 : 50



2 BUILDING SECTION
A101.3 Scale: 1 : 50



3 BUILDING SECTION
A101.3 Scale: 1 : 50

AECOM
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PROJECT

Shell Canada Products Heritage Hills NTI

471 Terry Fox Drive
Kanata, Ontario

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REGISTRATION

ONTARIO ASSOCIATION OF ARCHITECTS
Mar. 29 2019
Isaac Hayes
ISAAC J. HAYES
LICENCE
8815

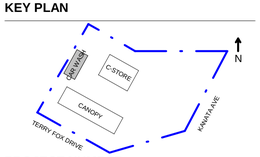
ISSUE/REVISION

I/R	DATE	DESCRIPTION
F	2019.05.02	RE-ISSUED FOR SPA
E	2019.02.01	ISSUED FOR SPA
C	2019.02.01	ISSUED FOR SPA
B	2018.11.16	ISSUED FOR REVIEW
A	2018.07.04	ISSUED FOR REVIEW

DRAWN BY

TF

KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

CAR WASH
MAIN FLOOR PLAN, BUILDING SECTIONS

AECOM FILE NAME

A101.3-EQP-HEH

SHEET NUMBER

A101.3

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Designer: Designer Checked: Checker Approved: Approver ANSI D 22"x34"

Last Plotted: 5/3/2019 9:11:20 AM
Filename: BIM 360://Shell Canada - Heritage Hills NTI/Shell A18 - Heritage Hills - Carwash - 97m2.rvt

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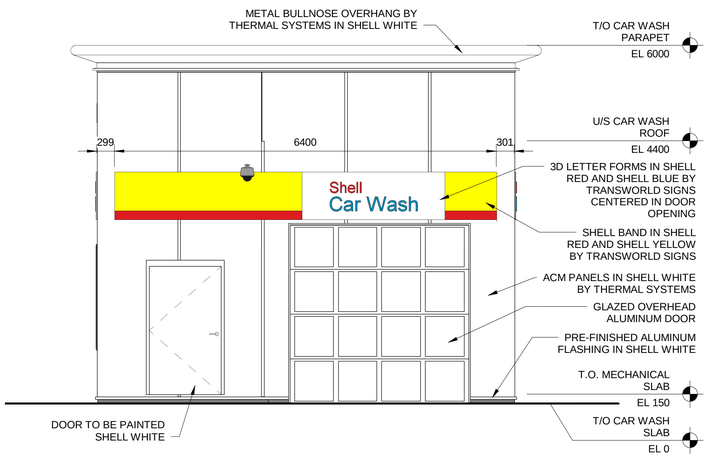
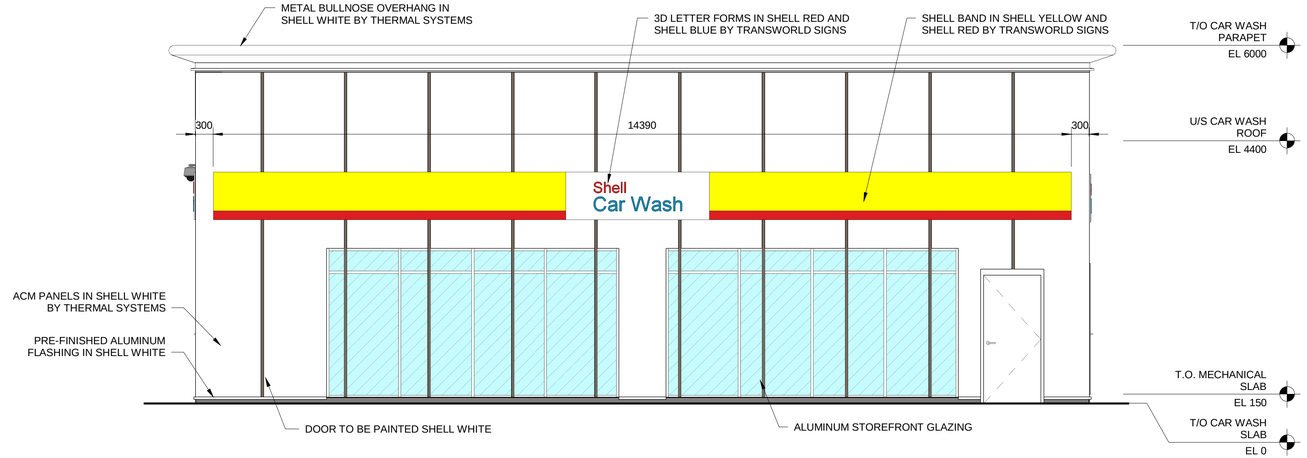


1 **NORTH ELEVATION**
A101.3 Scale: 1 : 50



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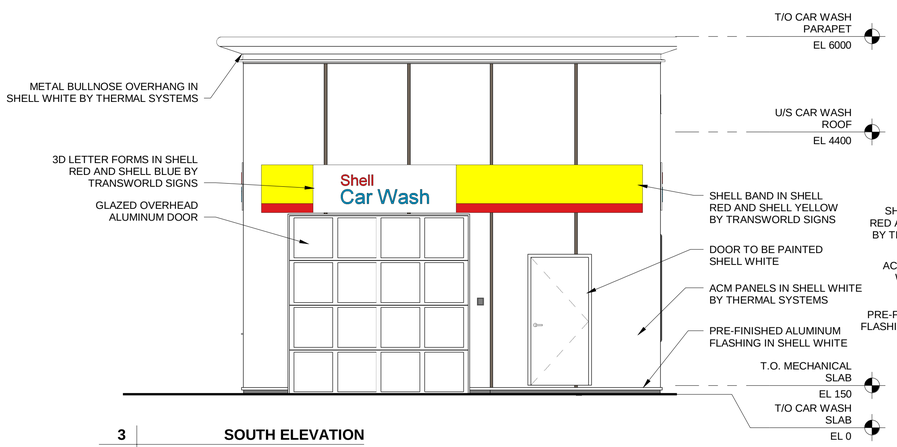
A101.3 Scale: 1 : 50



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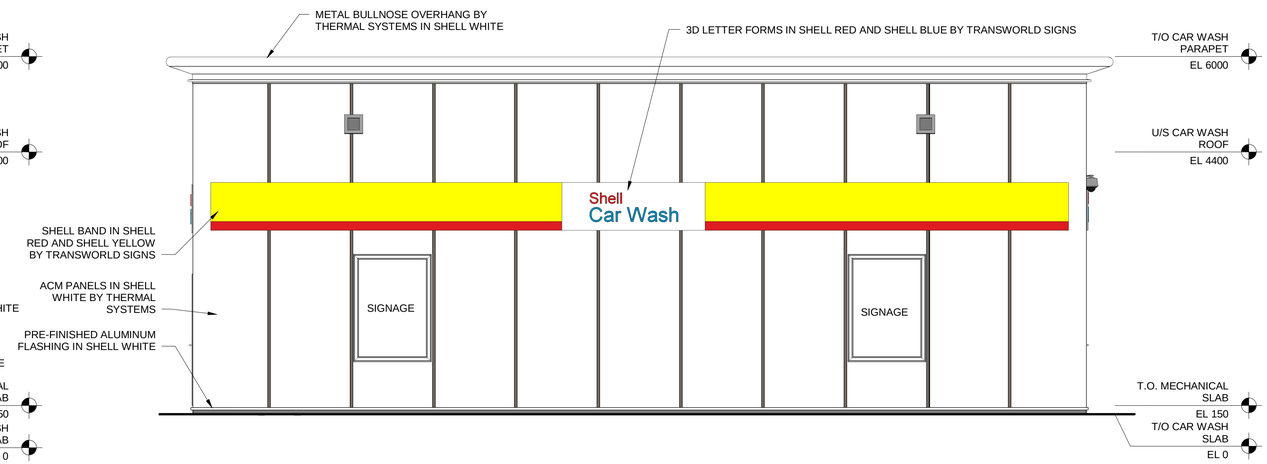

4 **WEST ELEVATION**
A101.3 Scale: 1 : 50

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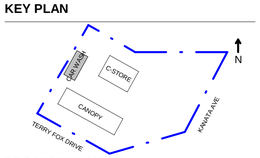
KEY PLAN



PROJECT NUMBER

60546152

SHEET TITLE

CAR WASH
EXTERIOR ELEVATIONS

AECOM FILE NAME

A201.3-EXE-HEH

SHEET NUMBER

A201.3

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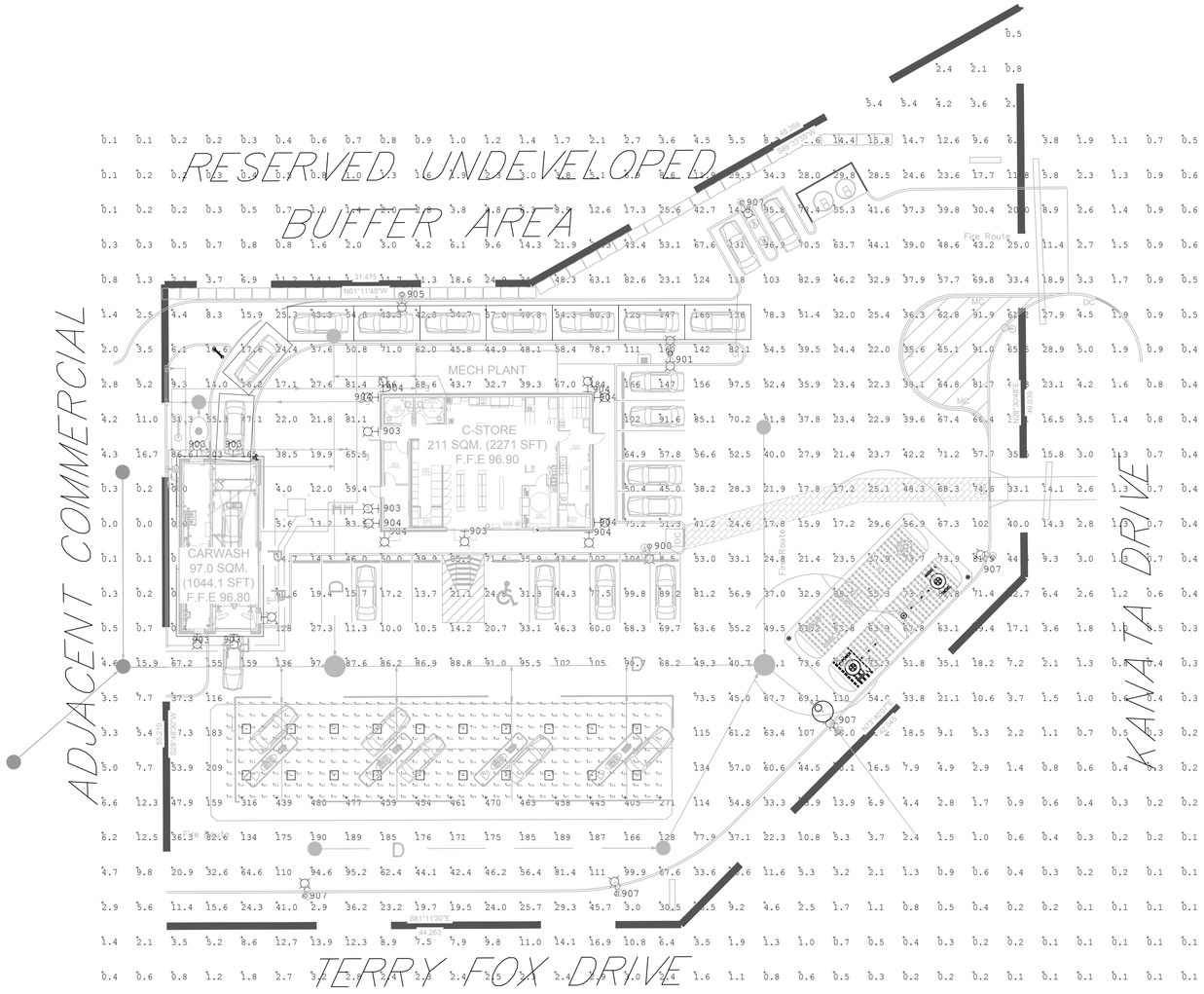
Project Management Initials:
Designer: Designer Checked: Checker Approved: Approver ANSI D 22"x34"



SCALE – 1:250

Luminaire Schedule							
Symbol	Tag	Qty	Height	Manufacturer	Catalogue #	Arrangement	Description
	905	1	6400	CREE, INC.	ARE-EDG-2MB-DA-10-E-UL-WH-525(C/W BACKSHIELD)	SINGLE	POLE MOUNTED W/ BLSLF
	900	1	6400	Cree Inc	OSQ-A-NM-3ME-T-57K-UL-WH	SINGLE	POLE MOUNTED
	901	1	6400	Cree Inc	OSQ-A-NM-3ME-T-57K-UL-WH (DUAL HEAD)	BACK TO BACK	POLE MOUNTED
	907	6	6400	Cree Inc	OSQ-A-NM-3ME-T-57K-UL-WH (C/W BACKSHIELD)	SINGLE	POLE MOUNTED W/ BLSLF
	903	8	2600	GE LIGHTING SOLUTIONS	GE-EWLS01040AF750N1FMWHTE	SINGLE	WALL MOUNTED 300mm ABOVE DOOR
	904	8	2400	GE LIGHTING SOLUTIONS	GE-EWLS01015AF750N1FMWHTE	SINGLE	WALL MOUNTED 2400mm AFF
	800	20	4750	CREE, INC.	CAN-304-SL-RS-06-E-UL-WH-700-PML	SINGLE	CANOPY RECESSED LIGHTING

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Canopy Calculation	Illuminance	Lux	533.46	717	223	2.39	3.21
parkinglot2_Top	Illuminance	Lux	2.98	5.4	0.5	5.96	10.80
Site Calculation	Illuminance	Lux	32.53	480	0.0	N.A.	N.A.
C-store-Canopy Link	Illuminance	Lux	57.06	136	10.0	5.71	13.60
Entrance	Illuminance	Lux	238.90	467	11.4	20.96	40.96
Exit	Illuminance	Lux	45.50	91.9	20.0	2.28	4.60
Tank Nest	Illuminance	Lux	63.13	81.8	37.9	1.67	2.16

AECOM

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LICENSED PROFESSIONAL ENGINEER
M. S. PERVEZ
100039446
PROVINCE OF ONTARIO
2019.05.24

REGISTRATION

LEGAL DESCRIPTION
BLOCK 170, PLAN 4M-1413

ISSUE/REVISION

I/R	DATE	DESCRIPTION
D	2019.05.24	RE-ISSUED FOR SPA
C	2019.05.02	RE-ISSUED FOR SPA
B	2019.02.01	ISSUED FOR SPA
A	2018.11.16	ISSUED FOR REVIEW

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KEY PLAN

PROJECT NUMBER

60546152

SHEET TITLE

SITE PHOTOMETRIC PLAN

AECOM FILE NAME

E101.0-SPP-HEH

SHEET NUMBER

E101.0

Last saved by: ADAM.DEKUYPER(2019-05-24) Last Plotted: 2019-05-24
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Project Management Initials: Designer: Checked: Approved:
ANSI D 864mm x 559mm
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