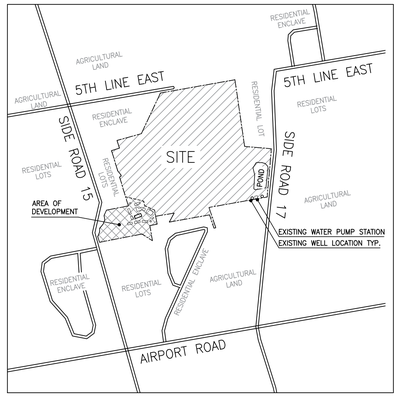
CONTEXT PLAN



MANSFIELD SKI CLUB

628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

PROJECT TEAM

CLIENT
Mansfield Ski Club
628213 Side Road 15
Mulmur, ON L9V 0T9

ARCHITECT
+VG Architects
72 Stafford Street, Suite 200
Toronto, ON M6J 2R9

LANDSCAPE ARCHITECT
Fleisher Ridout Partnership Inc.
1877 Davenport Road
Toronto, ON M6N 1B9

CIVIL ENGINEER
WMI & Associates Limited
119 Collier Street
Barrie, ON L4M 1H5

ELECTRICAL ENGINEER
Runge Engineering
864 Hurontario Street
Collingwood, ON L9Y 3Z7

INDEX OF SHEETS

LEGEND

FLEISHER RIDOUT PARTNERSHIP INC.
l.a.n.d.s.c.a.p.e a.r.c.h.i.t.e.c.t.s
1877 Davenport Road
Toronto, Ontario, M6N 1B9
T: (416) 533-4990

ISSUE	DATE	REMARKS
2	AUGUST 14, 2020	ISSUED FOR 2ND SITE PLAN APPROVAL
1	FEBRUARY 4, 2020	ISSUED FOR SITE PLAN APPROVAL

ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO
B.J. FLEISHER
OALA MEMBER

N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
COVER SHEET

Drawn:	Design:	Date:
JC	BF	JANUARY 2020
Checked:	Apprvd:	Scale:
BF	BF	NTS

CADD File:
151352

Dwg. No.:
SP.0

LEGEND

—··—··—	PROPERTY LINE
- - - -	PROPOSED FIRE TRUCK ACCESS ROUTE
◂	ENTRANCE
⊙⊙	EXISTING TREE TO REMAIN
⊛	EXISTING TREE GROUPING TO REMAIN
······	TREE HOARDING

GENERAL NOTES:

1. ALL CONSTRUCTION HOARDING AND TREE PROTECTION TO BE INSTALLED PRIOR TO START OF OPERATIONS.
2. EXISTING CONDITIONS PLAN OF SURVEY BY RODNEY GEYER, O.L.S. INC. DATED FEBRUARY 16, 2016.
3. CONTRACTOR TO VERIFY ALL SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT IMMEDIATELY.
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5. CONTRACTOR RESPONSIBLE FOR ANY AND ALL UNDERGROUND UTILITIES.
6. CONTRACTOR TO LAY OUT ALL SITE FURNISHINGS FOR CONSULTANT / OWNER REVIEW AND FINAL FIELD ADJUSTMENT PRIOR TO CONTRACTOR AFFIXING SITE FURNISHINGS TO HARD SURFACES.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL STRUCTURES.
8. CONTRACTOR TO MAKE GOOD ALL DAMAGE TO ANY EXISTING OR ADJACENT CONDITIONS/ STRUCTURES DURING CONSTRUCTION TO THE SATISFACTION AND ACCEPTANCE OF THE CONSULTANT.

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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
B. J. FLEISHER
OALA
MEMBER

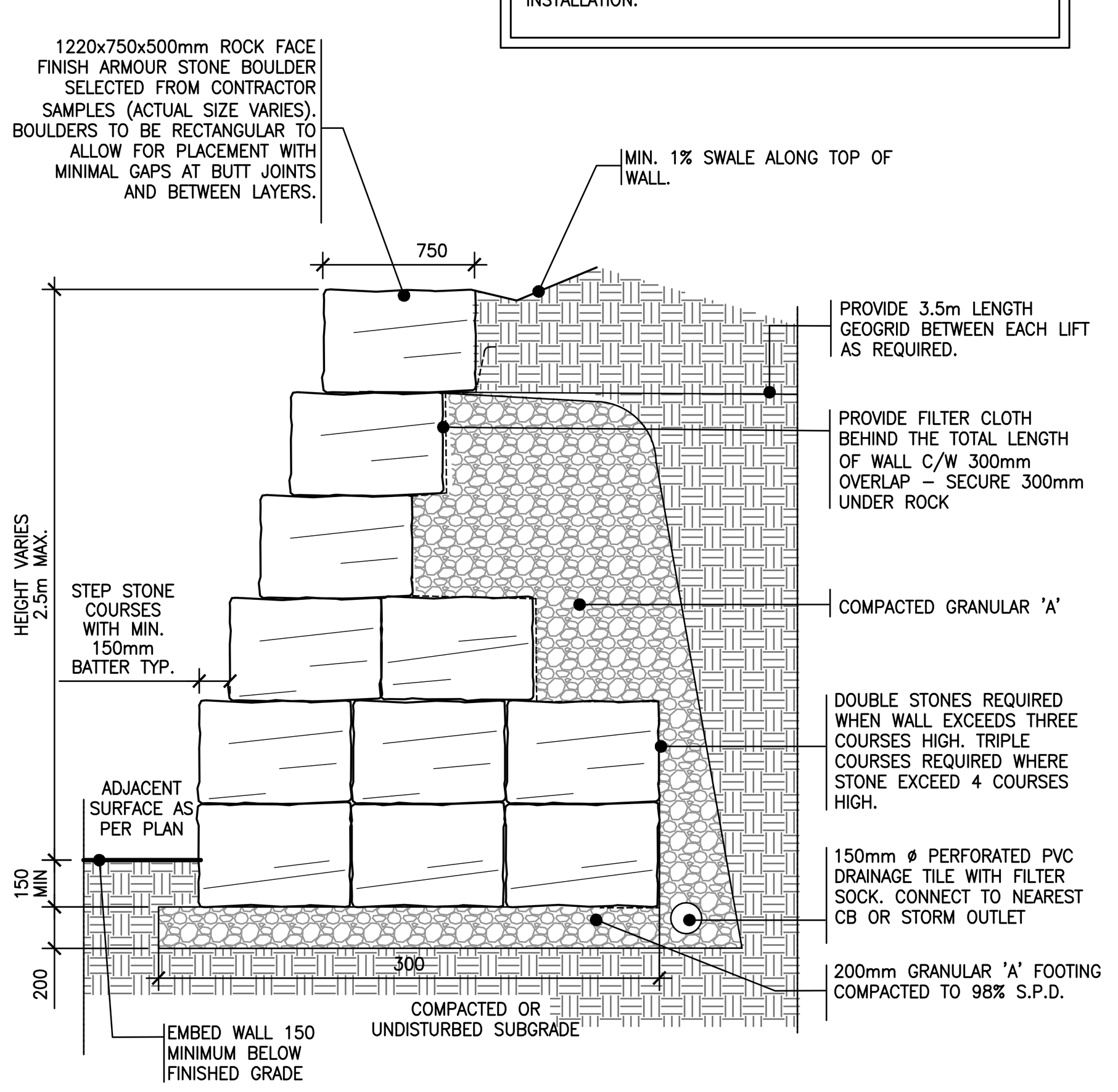
N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
OVERALL SITE PLAN

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: NTS
CADD File: 151352		Dwg. No.: SP.1

NOTE:
RETAINING WALL DETAIL IS SCHEMATIC TO SHOW DESIGN INTENT FOR TENDER PRICING PURPOSES ONLY. THE AWARDED CONTRACTOR IS TO PROVIDE DETAILED AND COMPLETE SHOP DRAWINGS DESIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO FOR CONSULTANT REVIEW AND APPROVAL PRIOR TO INSTALLATION.



ARMOUR STONE WALL TO 2500mm 1:60

NOTE:
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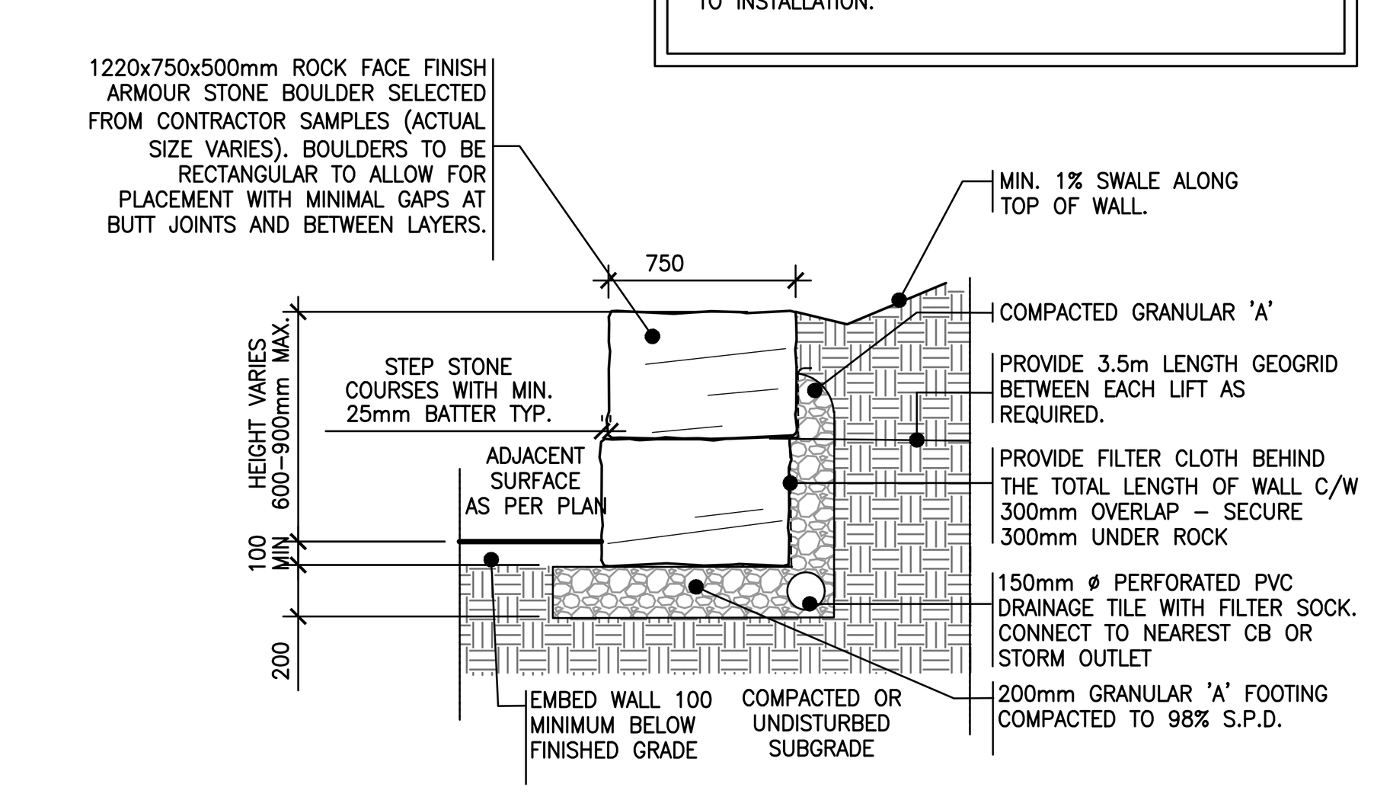
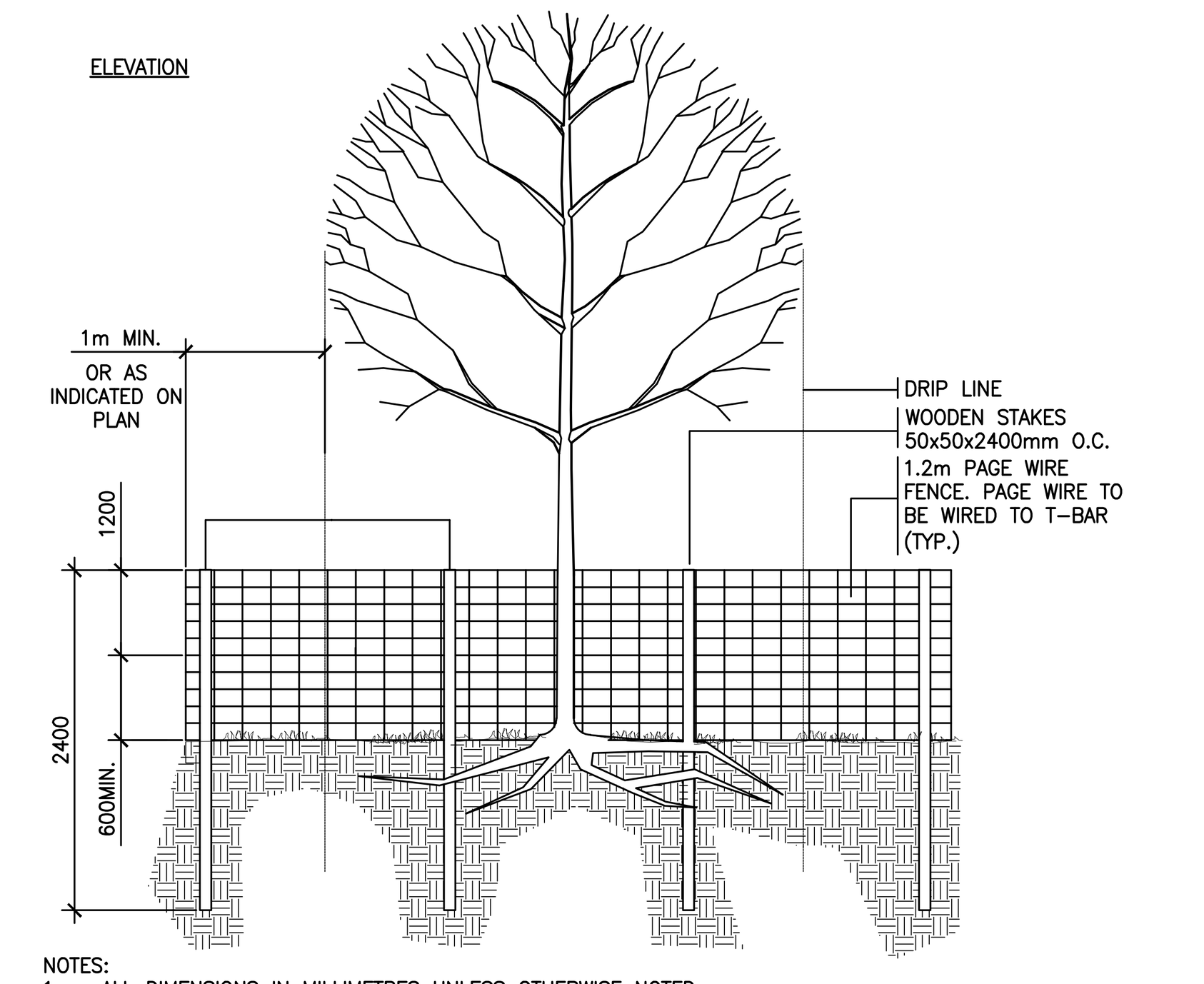
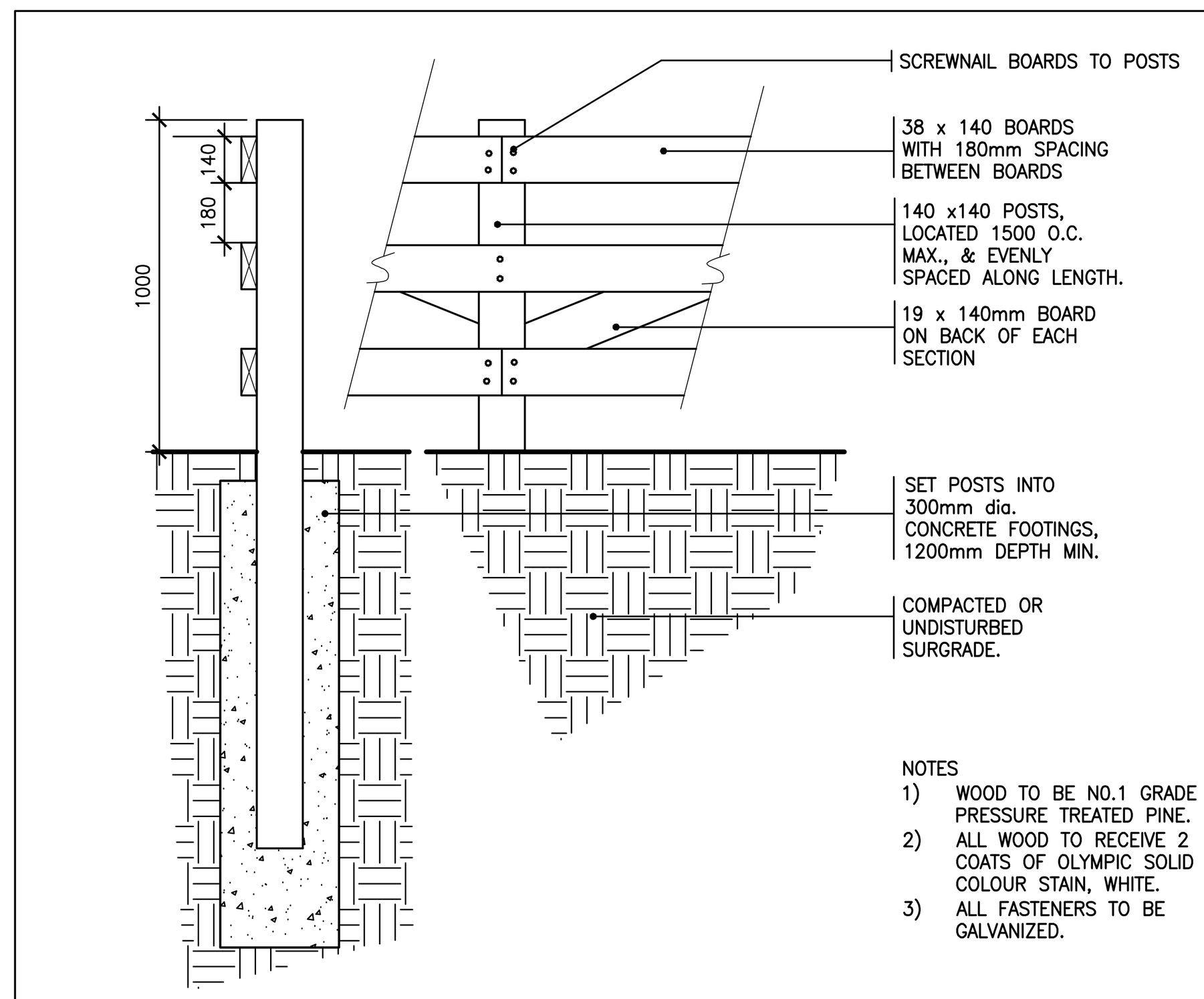


ARMOUR STONE WALL TO 900mm 1:30



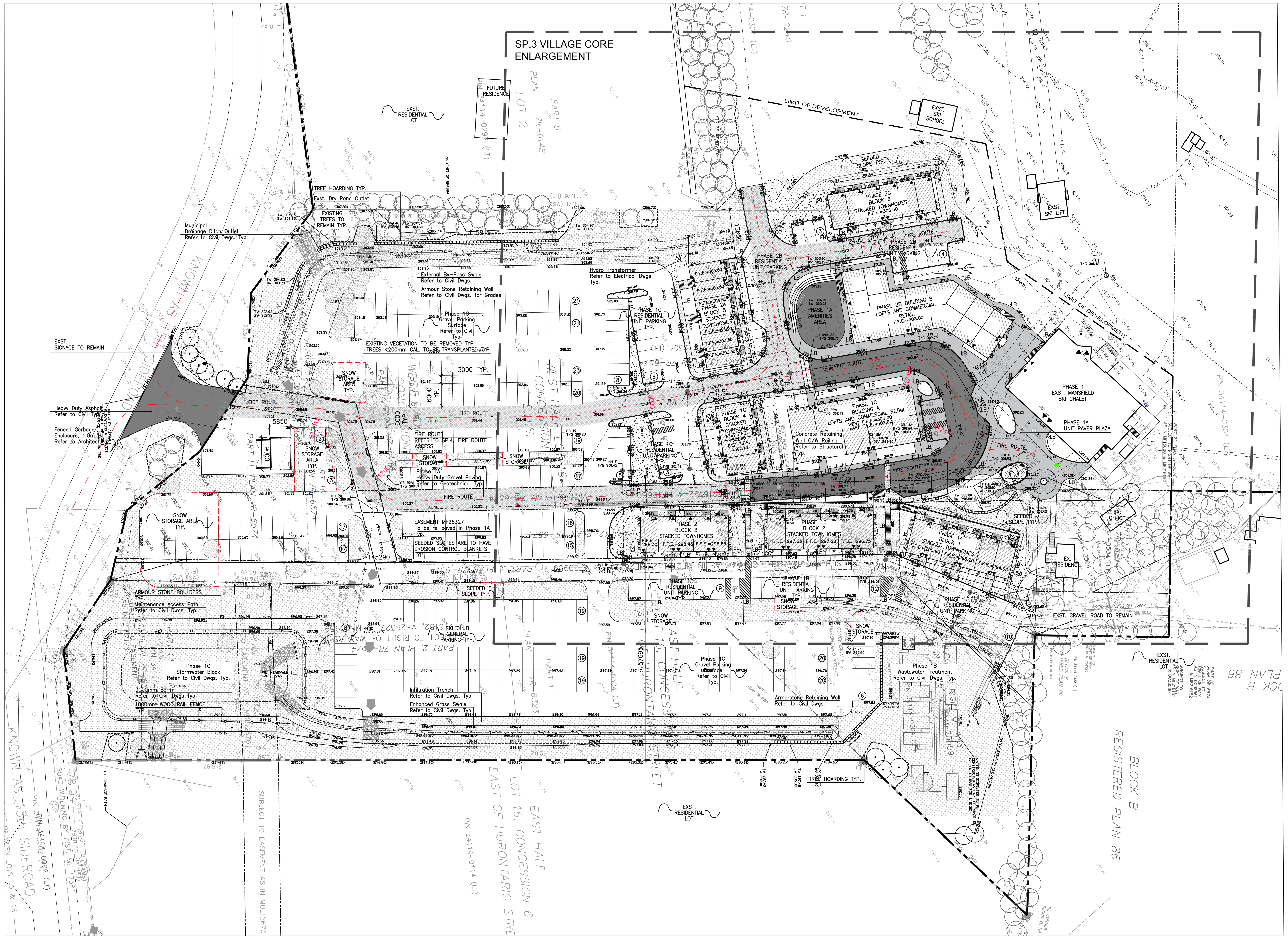
NOTES:
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN LOCATES OF ALL EXISITNG UTILITIES AND SERVICING PRIOR TO INSTALLING HOARDING.
3. DO NOT DAMAGE VISIBLE TREE ROOTS WHEN INSTALLING T-BARS.
4. HOARDING MUST BE MAINTAINED IN SOUND CONDITION THROUGH ALL PHASES OF CONSTRUCTION UNTIL APPROVAL TO REMOVE HOARDING IS OBTAINED FROM THE LANDSCAPE ARCHITECT.
5. ATTACHMENT OF FENCE TO TREES TO BE PRESERVED IS NOT ALLOWED.
6. ENSURE FENCE IS LOCATED BEYOND THE DRIPLINE OF TREES TO BE PRESERVED.
7. FENCING TO BE INSTALLED PRIOR TO START OF CONSTRUCTION.

TREE PROTECTION HOARDING 1:50



NOTES
1) WOOD TO BE NO.1 GRADE PRESSURE TREATED PINE.
2) ALL WOOD TO RECEIVE 2 COATS OF OLYMPIC SOLID COLOUR STAIN, WHITE.
3) ALL FASTENERS TO BE GALVANIZED.

1000mm WOOD RAIL FENCE 1:20



LEGEND

- PROPERTY LINE
- FIRE ROUTE — PROPOSED FIRE TRUCK ACCESS ROUTE
- WATER SERVICE LINE
- SANITARY SEWER LINE
- OVERLAND FLOW
- ENTRANCE
- 1M HT. FENCE
- ACCESSIBLE PARKING
- PAINTED LINES
- UNIT PAVING
- CONCRETE SIDEWALK
- HEAVY DUTY ASPHALT
- SOD
- SEEDED AREA
- NEW LIGHT STANDARD
- NEW FIRE HYDRANT
- BOULDER
- BOLLARD
- CD CURB DEPRESSION
- CC CURB CUT
- NEW HYDRO TRANSFORMER
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE TRANSPLANTED ON SITE
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- EXISTING TREE GROUPING TO BE REMOVED
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GENERAL NOTES:

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	BUILDING AREA	# OF RESIDENTIAL UNITS	RESIDENTIAL AREA	RETAIL AREA	DEVELOPMENT PHASE
BUILDING 'A'	630.0m^2	10	1,260.0m^2	882.0m^2	1
BUILDING 'B'	780.0m^2	15	1,560.0m^2	780.0m^2	2
BLOCK-1	345.0m^2	12	1,170.0m^2		1
BLOCK-2	345.0m^2	12	1,170.0m^2		1
BLOCK-3	290.0m^2	10	972.0m^2		2
BLOCK-4	230.0m^2	8	780.0m^2		1
BLOCK-5	345.0m^2	12	1,170.0m^2		2
BLOCK-6	345.0m^2	12	1,170.0m^2		2
TOTAL	3,310.0m^2	91	8,952.0m^2	1,662.0m^2	

*NOTE: ALL BUILDING STATISTICS TO GROSS ALL AREAS UP BY 20% TO ACCOUNT FOR SERVICE AREAS

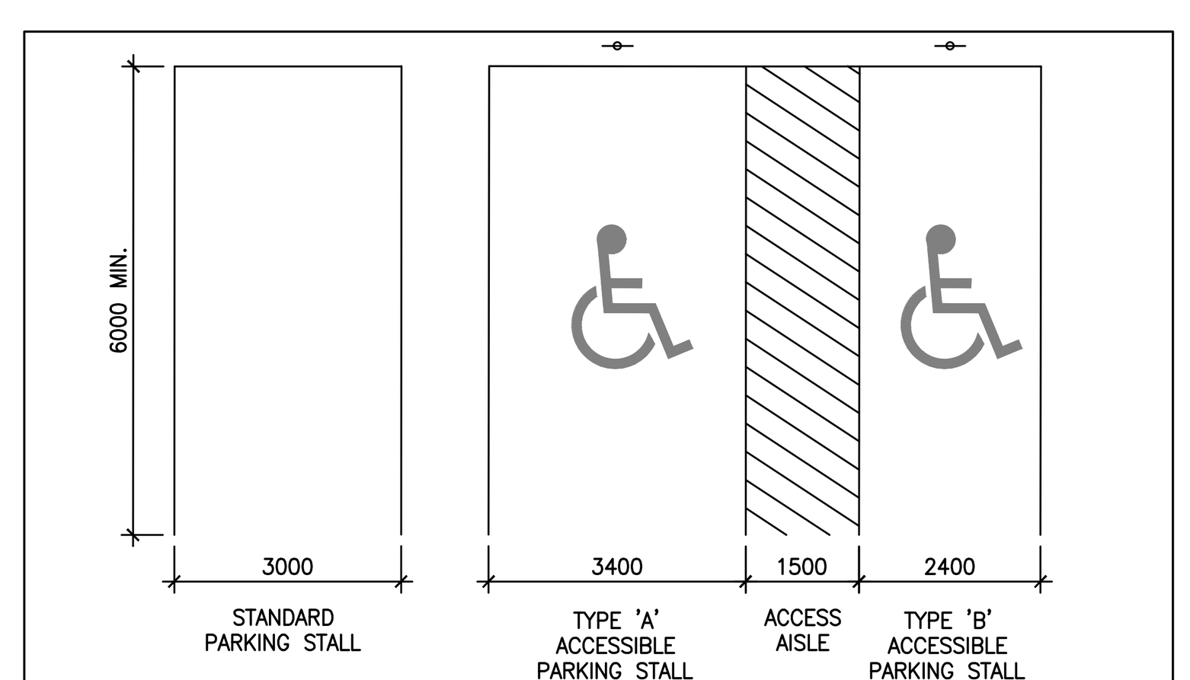
PARKING STATISTICS

TOTAL PROPOSED PARKING STALLS	371
TOTAL PROPOSED ACCESSIBLE PARKING STALLS	9

*NOTE: AISLES AND LANEWAYS ON-SITE ARE TO BE A MINIMUM OF 3m AND A MAXIMUM OF 9m IN WIDTH.

FIRE ROUTES ARE TO BE A MINIMUM OF 6m IN WIDTH. CENTRELINE RADIUS TO BE 12m MINIMUM.

PARKING STALL STANDARD DIMENSIONS



NOTE: IN PAVED AREAS, ACCESSIBLE STALLS ARE TO BE MARKED WITH HIGH-CONTRAST PAINTED LINES AND SIGNAGE. SIGNAGE IS TO BE PROVIDED IN GRAVEL PARKING AREAS.

SIGNAGE FOR TYPE 'A' STALLS MUST IDENTIFY THE STALL AS 'VAN ACCESSIBLE.'

FLEISHER RIDOUT PARTNERSHIP INC.
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ISSUE	DATE	REMARKS
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1	FEBRUARY 4, 2020	ISSUED FOR SITE PLAN APPROVAL

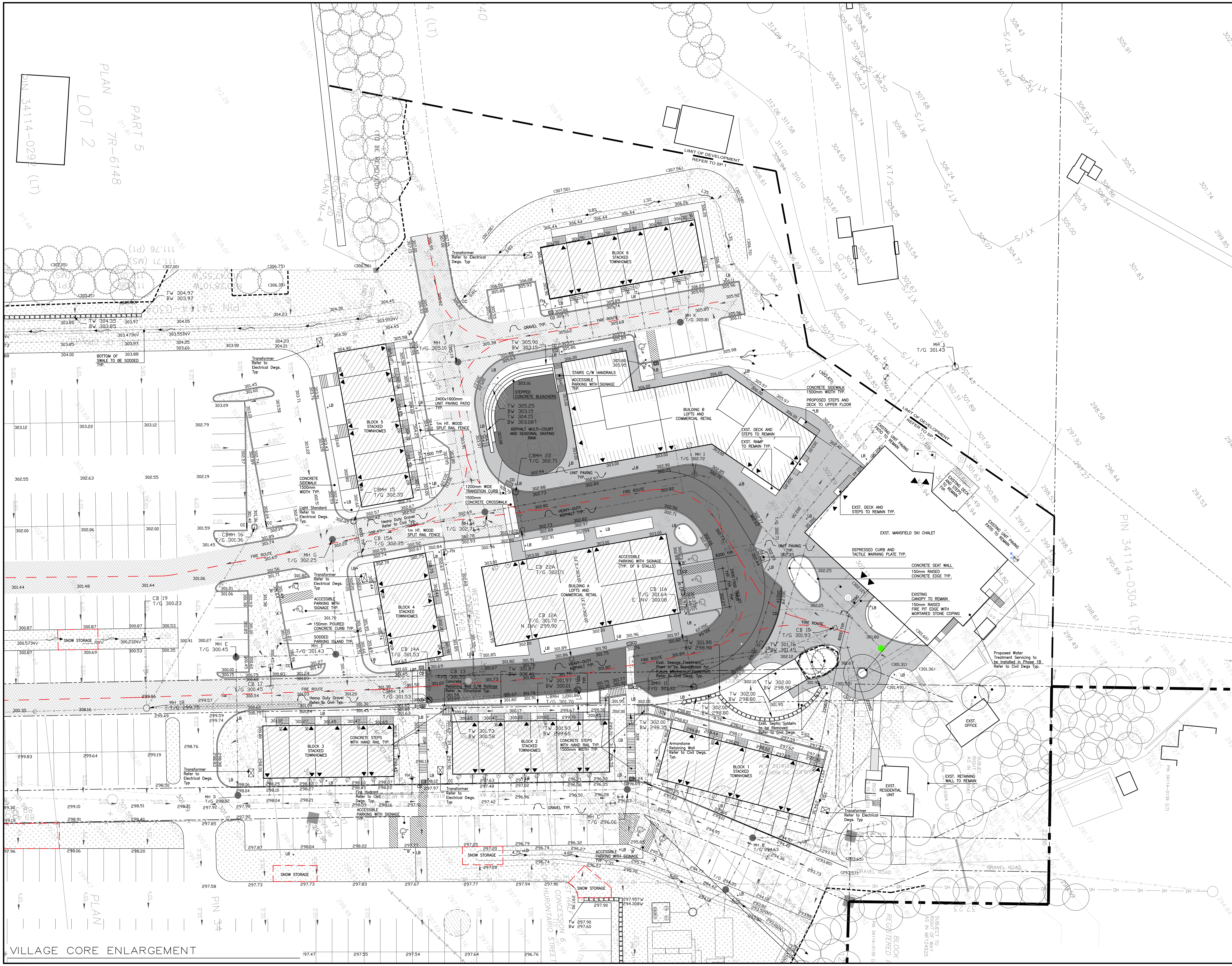
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — B. J. FLEISHER — OALA — MEMBER

N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
SITE PLAN

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: 1:500
CADD File: 151352		Dwg. No.: SP.2



LEGEND

- PROPERTY LINE
- FIRE ROUTE — PROPOSED FIRE TRUCK ACCESS ROUTE
- WATER SERVICE LINE
- SANITARY SEWER LINE
- ENTRANCE
- 1M HT. WOOD SPLIT RAIL FENCE
- ACCESSIBLE PARKING
- PAINTED LINES
- UNIT PAVING
- CONCRETE SIDEWALK
- HEAVY DUTY ASPHALT
- SOD
- SEEDED AREA
- PROPOSED LIGHT STANDARD
- PROPOSED FIRE HYDRANT
- BOULDER
- LB — LIGHT BOLLARD
- CD — CURB DEPRESSION
- CC — CURB CUT
- PROPOSED HYDRO TRANSFORMER Refer to Electrical
- EXISTING TREE TO REMAIN
- EXISTING TREE GROUPING TO REMAIN
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FLEISHER RIDOUT PARTNERSHIP INC.
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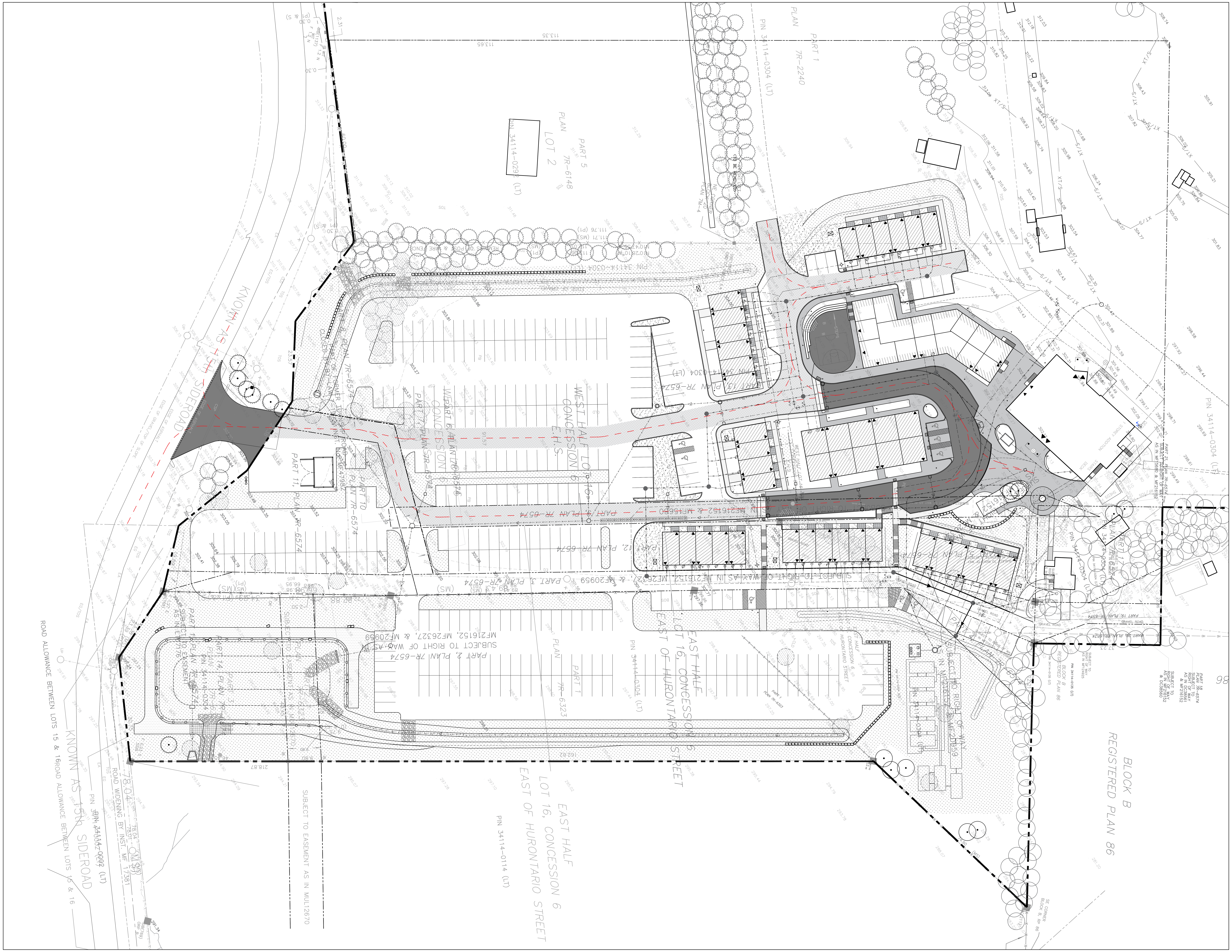
N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
VILLAGE CORE SITE PLAN

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: 1:250
CADD File: 151352		Dwg. No.: SP.3



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- WATER SERVICE LINE
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- OVERLAND FLOW
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ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — B.J. FLEISHER — OALA — MEMBER

N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
FIRE ROUTE ACCESS

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: 1:500
CADD File: 151352		Dwg. No.: SP.4

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TWELVE-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 1		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 345.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 345.0M^2 GROUND FLOOR: 345.0M^2 SECOND FLOOR: 240.0M^2 THIRD FLOOR: 240.5M^2 TOTAL: 1,170.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: 1	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	ONE STREET	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	GROUND FLOOR: 12 PERSONS FIRST FLOOR: 12 PERSONS SECOND FLOOR: 12 PERSONS THIRD FLOOR: 12 PERSONS TOTAL: 48 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	58.8 sq.m	4.2	LESS THAN 3:1	22	20	1HR	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	4.5	LESS THAN 3:1	29	25	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	4.3	LESS THAN 3:1	35	30	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	12.8	LESS THAN 3:1	100	80	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 1

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TWELVE-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 2		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 345.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 345.0M^2 GROUND FLOOR: 345.0M^2 SECOND FLOOR: 240.0M^2 THIRD FLOOR: 240.0M^2 TOTAL: 1,170.0M^2	1.4.1.2
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NUMBER OF STREETS / ACCESS ROUTES:	ONE STREET	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	BASEMENT FLOOR: 12 PERSONS GROUND FLOOR: 12 PERSONS SECOND FLOOR: 12 PERSONS THIRD FLOOR: 12 PERSONS TOTAL: 48 PERSONS	9.9.1.3 & 3.1.17
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FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
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CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
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NORTH	58.8 sq.m	4.5	LESS THAN 3:1	29	25	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	5.5	LESS THAN 3:1	41	40	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	4.8	LESS THAN 3:1	58	55	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	6	LESS THAN 3:1	83	80	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 2

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TEN-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 3		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 290.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 290.0M^2 GROUND FLOOR: 290.0M^2 SECOND FLOOR: 196.0M^2 THIRD FLOOR: 196.0M^2 TOTAL: 972.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: 1	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	TWO STREET	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	BASEMENT FLOOR: 10 PERSONS GROUND FLOOR: 10 PERSONS SECOND FLOOR: 10 PERSONS THIRD FLOOR: 10 PERSONS TOTAL: 40 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	58.8 sq.m	5	LESS THAN 3:1	32	30	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	6.5	LESS THAN 3:1	57.6	50	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	4.6	LESS THAN 3:1	51.5	45	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	5.5	LESS THAN 3:1	76	70	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 3

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, EIGHT-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 4		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 230.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 230.0M^2 GROUND FLOOR: 230.0M^2 SECOND FLOOR: 160.0M^2 THIRD FLOOR: 160.0M^2 TOTAL: 780.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: 1	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	THREE STREETS	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	BASEMENT FLOOR: 8 PERSONS GROUND FLOOR: 8 PERSONS SECOND FLOOR: 8 PERSONS THIRD FLOOR: 8 PERSONS TOTAL: 32 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	58.8 sq.m	5	LESS THAN 3:1	32	30	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	8.6	LESS THAN 3:1	100	80	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	4.8	LESS THAN 3:1	53.8	50	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	5	LESS THAN 3:1	56	50	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 4

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TWELVE-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 5		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 345.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 345.0M^2 GROUND FLOOR: 345.0M^2 SECOND FLOOR: 240.0M^2 THIRD FLOOR: 240.0M^2 TOTAL: 1,170.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: 1	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	THREE STREETS	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	BASEMENT FLOOR: 12 PERSONS GROUND FLOOR: 12 PERSONS SECOND FLOOR: 12 PERSONS THIRD FLOOR: 12 PERSONS TOTAL: 48 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	58.8 sq.m	11	LESS THAN 3:1	100	80	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	8.4	LESS THAN 3:1	85	80	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	5	LESS THAN 3:1	56	50	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	13.8	LESS THAN 3:1	100	80	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 5

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TWELVE-PLEX, DWELLING UNITS		O.B.C. REFERENCE:
BLOCK 6		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C	9.10.2.1 & 3.2.2.47
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 345.0M^2	1.4.1.2
GROSS AREA (M^2):	BASEMENT FLOOR: 345.0M^2 GROUND FLOOR: 345.0M^2 SECOND FLOOR: 240.0M^2 THIRD FLOOR: 240.0M^2 TOTAL: 1,170.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: 1	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	THREE STREETS	3.2.2.47
BUILDING CLASSIFICATION:	RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.47
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	N/A	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	BASEMENT FLOOR: 12 PERSONS GROUND FLOOR: 12 PERSONS SECOND FLOOR: 12 PERSONS THIRD FLOOR: 12 PERSONS TOTAL: 48 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	58.8 sq.m	6.7	LESS THAN 3:1	60	65	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	58.8 sq.m	20	LESS THAN 3:1	100	80	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	29.4 sq.m	6	LESS THAN 3:1	83	80	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	29.4 sq.m	13.5	LESS THAN 3:1	100	80	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE:	45 MIN NOT REQUIRED N/A	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	N/A	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BLOCK 6

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, TEN-PLEX, DWELLING UNITS & RETAIL UNITS		O.B.C. REFERENCE:
BUILDING A		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C MERCANTILE – GROUP E	9.10.2.1 & 3.2.2.59
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 630.0M^2	1.4.1.2
GROSS AREA (M^2):	GROUND FLOOR (RETAIL): 630.0M^2 MEZZANINE FLOOR (RETAIL): 252.0M^2 SECOND FLOOR (RESIDENTIAL): 630.0M^2 THIRD FLOOR (RESIDENTIAL): 630.0M^2 TOTAL: 2,142.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: N/A	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	THREE STREETS	3.2.2.59
BUILDING CLASSIFICATION:	MERCANTILE, GROUP E, UP TO 3 STOREYS RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.59 9.10.2.1
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE OR NON COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	YES	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	GROUND FLOOR (RETAIL): 153 PERSONS MEZZANINE FLOOR (RETAIL): 62 PERSONS SECOND FLOOR (RESIDENTIAL): 20 PERSONS THIRD FLOOR (RESIDENTIAL): 20 PERSONS TOTAL: 255 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	45 sq.m	10	LESS THAN 3:1	76	70	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	45 sq.m	5	LESS THAN 3:1	18	15	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	42 sq.m	8	LESS THAN 3:1	59	55	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	42 sq.m	9.3	LESS THAN 3:1	76	70	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE: SEPARATION OF MAJOR OCCUPANCIES:	45 MIN 45 MIN 45 MIN 2 HRS	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3 (2hr) Assembly F1(b) O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	45 MIN	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BUILDING A

FIRM NAME:
+VG ARCHITECTS
72 STAFFORD STREET, SUITE 200, TORONTO, ONTARIO, M6J 3L1
T:416-588-6370
F: 416-588-6327
CERTIFICATE OF PRACTICE NUMBER:
3356
Name of Project:
MANSFIELD SKI CLUB
Location: MULMUR TOWNSHIP – DUFFERIN COUNTY

PROJECT DESCRIPTION: NEW 3-STOREY, FIFTEEN-PLEX, DWELLING UNITS & RETAIL UNITS		O.B.C. REFERENCE:
BUILDING B		PART 9 / PART 3
MAJOR OCCUPANCY(s):	RESIDENTIAL – GROUP C MERCANTILE – GROUP E	9.10.2.1 & 3.2.2.59
BUILDING AREA (M^2) (FOOTPRINT):	GROUND FLOOR: TOTAL 780.0M^2	1.4.1.2
GROSS AREA (M^2):	GROUND FLOOR (RETAIL): 780.0M^2 MEZZANINE FLOOR (RETAIL): N/A SECOND FLOOR (RESIDENTIAL): 780.0M^2 THIRD FLOOR (RESIDENTIAL): 780.0M^2 TOTAL: 2,340.0M^2	1.4.1.2
NUMBER OF STOREYS	ABOVE GRADE: 3 BELOW GRADE: N/A	1.4.1.2
HEIGHT OF BUILDING (M^2)	14M	1.4.1.2
NUMBER OF STREETS / ACCESS ROUTES:	TWO STREETS	3.2.2.59
BUILDING CLASSIFICATION:	MERCANTILE, GROUP E, UP TO 3 STOREYS RESIDENTIAL, GROUP C, UP TO 3 STOREYS	3.2.2.59 9.10.2.1
SPRINKLER SYSTEM:	NOT REQUIRED	3.2.2.47
STANDPIPE:	NOT REQUIRED	3.2.9
FIRE ALARM:	NOT REQUIRED	9.10.18.2(2) & 3.2.4.1
WATER SERVICE / SUPPLY IS ADEQUATE:	YES	9.31.3 & 3.7.4
HIGH BUILDING	NO	3.2.6
CONSTRUCTION:	COMBUSTIBLE OR NON COMBUSTIBLE	3.2.2.47
MEZZANINE(S):	NO	9.10.4.1 & 3.2.8
TOTAL OCCUPANCY LOAD:	GROUND FLOOR (RETAIL): 211 PERSONS MEZZANINE FLOOR (RETAIL): N/A SECOND FLOOR (RESIDENTIAL): 30 PERSONS THIRD FLOOR (RESIDENTIAL): 30 PERSONS TOTAL: 261 PERSONS	9.9.1.3 & 3.1.17
PLUMBING FACILITIES:	YES	9.31.4 & 3.7.4
BARRIER-FREE DESIGN:	YES	9.5.2.1(2) & 3.8.1.1
HAZARDOUS MATERIALS:	NO	9.10.1.3(4) & 3.3.1.2
TRAVEL DISTANCE:	EGRESS FROM DWELLING UNITS	9.9.9.1, 9.9.8.6 & 3.3.4.4
FIRE EXTINGUISHERS:	NOT REQUIRED	9.10.20.4 & 3.2.5.17
SMOKE ALARMS:	REQUIRED	9.10.19 & 3.2.4.22
CARBON MONOXIDE ALARMS:	REQUIRED	9.33.4
SPATIAL SEPARATION – CONSTRUCTION OF EXTERIOR WALLS		9.10.14 & 3.2.3.1

WALL	E.B.F. (LARGEST FIRE COMP.)	L.D (m)	L/H OR H/L	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	F.R.R. (HOURS)	TYPE OF CONST.	TYPE OF CLADDING
NORTH	36 sq.m	8.8	LESS THAN 3:1	74.3	70	45MIN	COMBUST. OR NONCOMBUST.	NONCOMBUST.
SOUTH	48 sq.m	20	LESS THAN 3:1	100	90	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
EAST	62.4 sq.m	6.45	LESS THAN 3:1	28.6	25	45MIN.	COMBUST. OR NONCOMBUST.	NONCOMBUST.
WEST	36 sq.m	6	LESS THAN 3:1	32	30	45MIN.	COMBUST. OR NONCOMBUST.	COMBUST. OR NONCOMBUST.

REQUIRED FIRE RESISTANCE RATING FOR STRUCTURAL MEMBERS AND ASSEMBLIES (FRR):		9.10.8, 9.10.9 & 3.2.2.47
HORIZONTAL ASSEMBLIES FRR (HOURS): FLOORS: ROOF: MEZZANINE: SEPARATION OF MAJOR OCCUPANCIES:	45 MIN 45 MIN 45 MIN 2 HRS	(1Hr) ASSEMBLY No.F6h, O.B.C. SB-3 (2hr) Assembly F1(b) O.B.C. SB-3
VERTICAL ASSEMBLIES FRR (HOURS): TYPICAL DEMISING WALLS: DEMISING WALLS AT STAIRS:	45 MIN 45 MIN	(1Hr) ASSEMBLY No.W9b, O.B.C. SB-3 (1Hr) ASSEMBLY No.W9b, O.B.C. SB-3
CORRIDOR FRR (HOURS):	45 MIN	3.3.1.4
SUITE SEPARATION FRR (HOURS):	1 HR	3.3.4.2

BUILDING B

LEGEND

GENERAL NOTES:

1. MATRICES PREPARED BY +VG ARCHITECTS LTD. AND CORRESPOND WITH ARCHITECTURAL PLANS PREPARED BY +VG ARCHITECTS LTD.

FLEISHER RIDOUT PARTNERSHIP INC.
l.a.n.d.s.c.a.p.e a.r.c.h.i.t.e.c.t.s
1877 Davenport Road
Toronto, Ontario, M6N 1B9
T: (416) 533-4990

ISSUE	DATE	REMARKS
2	AUGUST 14, 2020	ISSUED FOR 2ND SITE PLAN APPROVAL
1	FEBRUARY 4, 2020	ISSUED FOR SITE PLAN APPROVAL

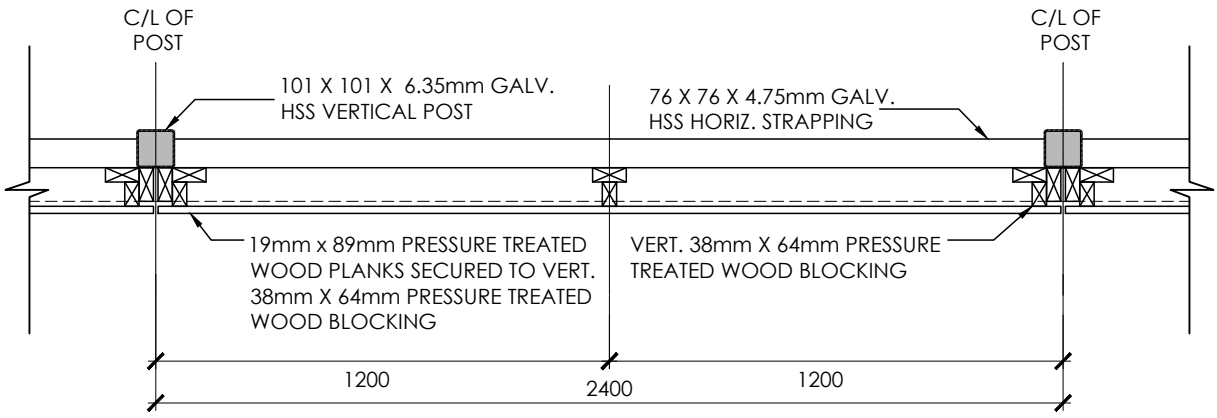
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
B. J. FLEISHER
OALA
MEMBER

N

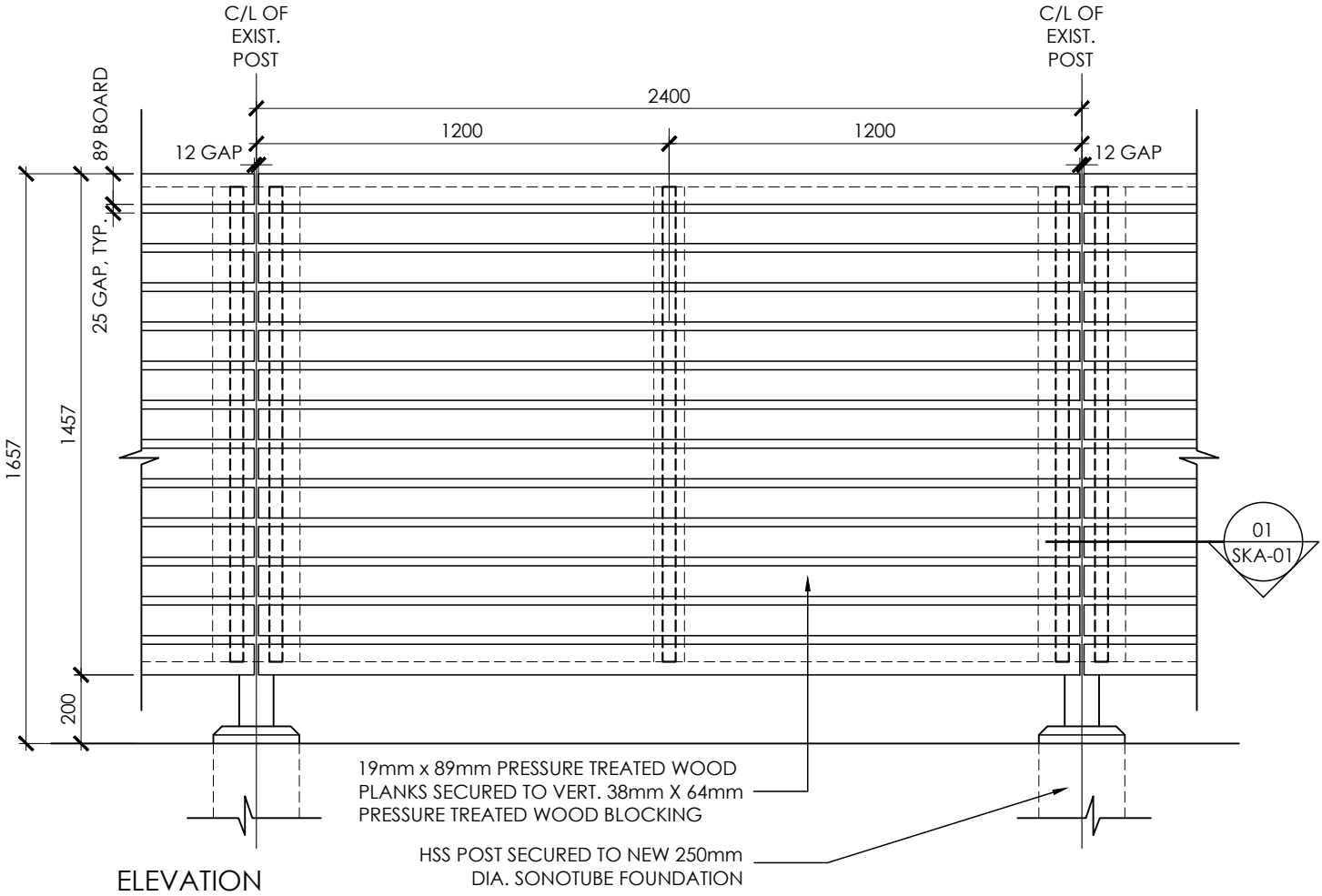
Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
ONTARIO BUILDING CODE MATRICES

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: NTS
CADD File: 151352		Dwg. No.: SP.5



PLAN VIEW
1/SKA-01



ELEVATION
2/SKA-01

Plot Date: Apr 08, 2020 - 3:23pm By: pfren

Filename: C:\Users\pfren\Desktop\MANSFIELD\Fence Detail\21945 - SKA_01.dwg

+VG ARCHITECTS
THE VENTIN GROUP LTD

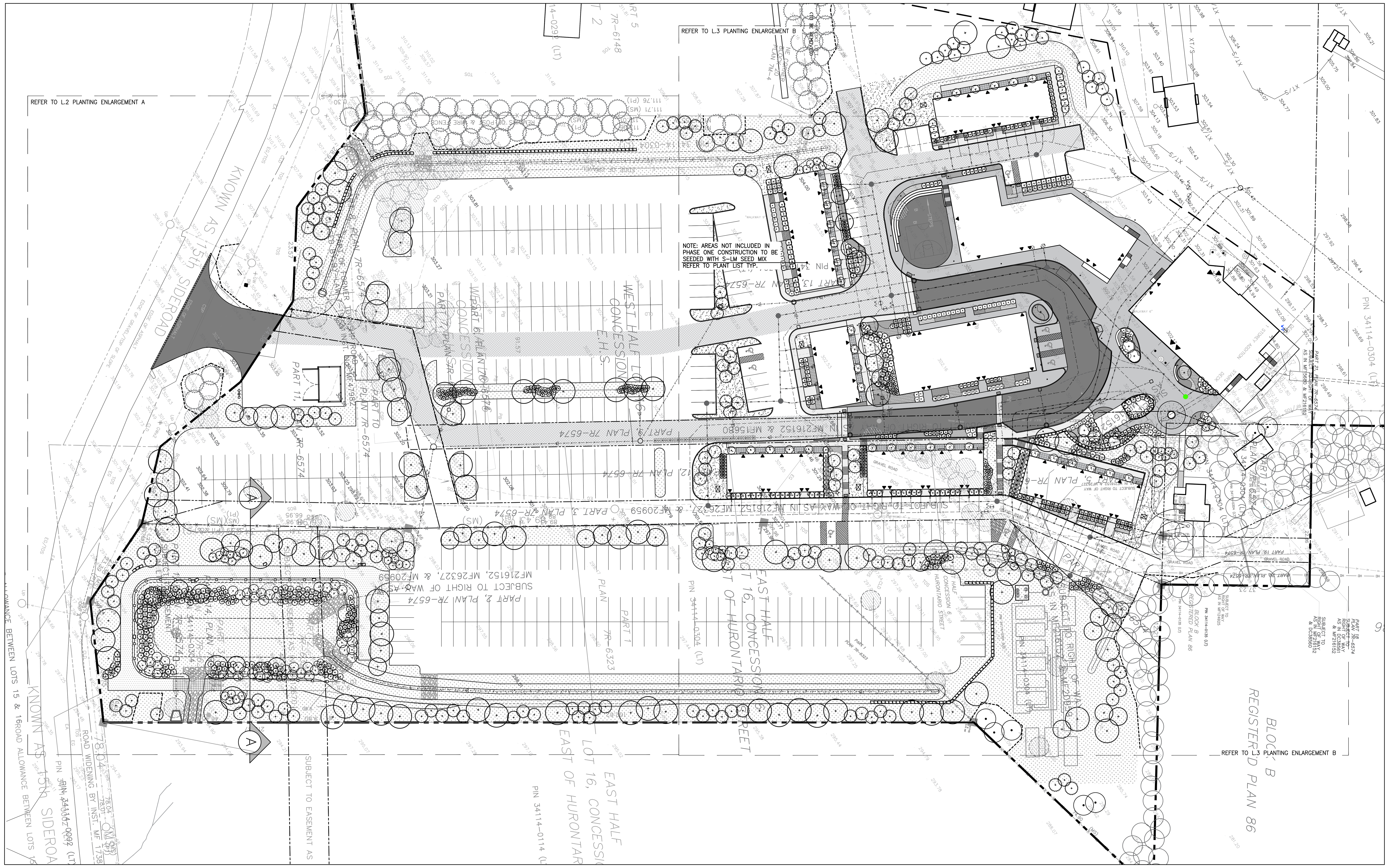
DESCRIPTION:
ENCLOSURE FOR OUTDOOR GARBAGE AREA
PART ELEVATION, PLAN & DETAIL

DATE:	2020.04.06	**SCALE:**	NTS
DWG. REF. NO.:	N/A	**ISSUED FOR:**	SITE PLAN
PROJECT NO:	21945		

MANSFIELD SKI CLUB - VILLAGE CENTRE

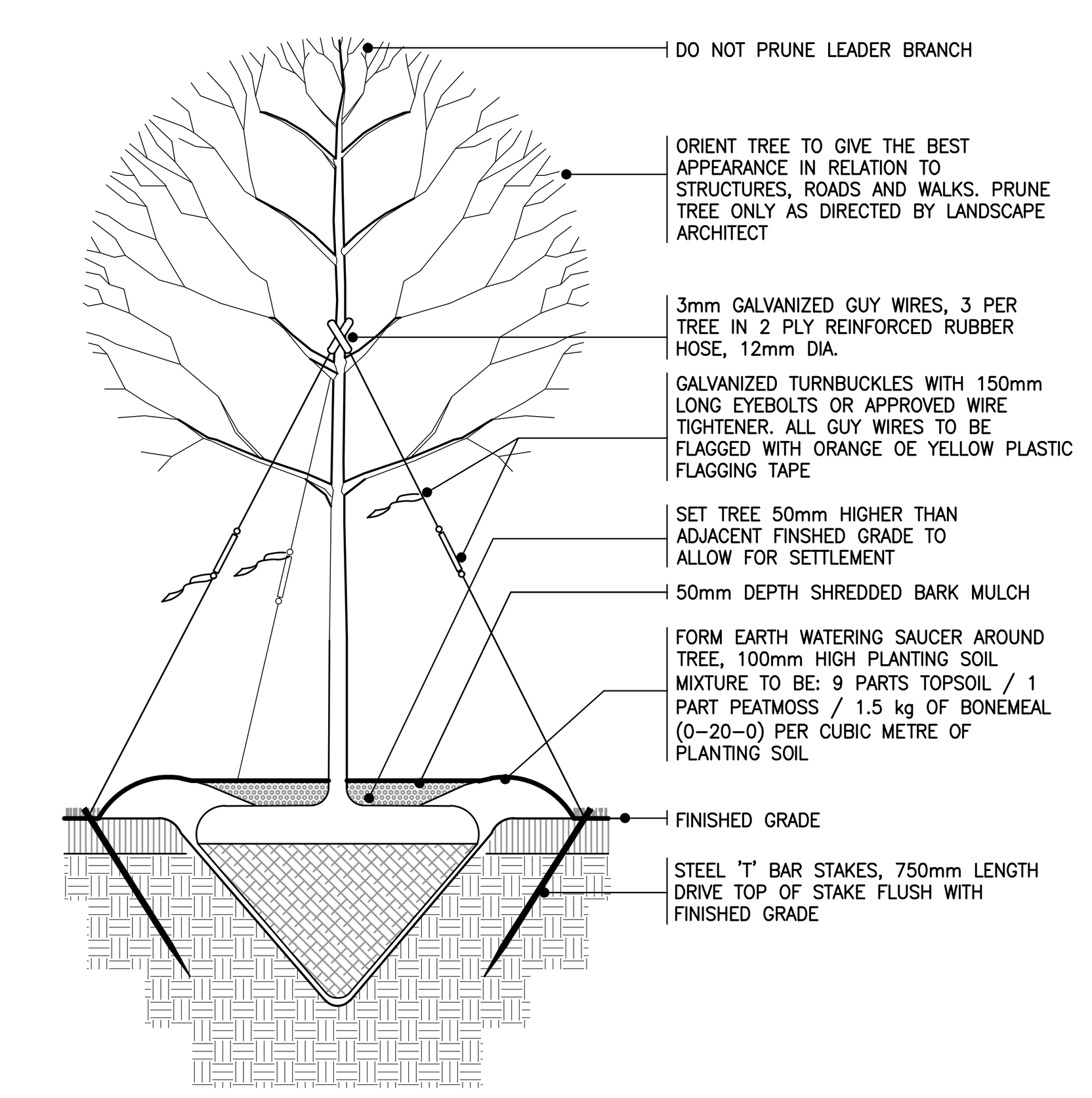
DRAWN BY: PF CHECKED BY: PB

SKA-01



PLANTING NOTES:

1. ALL PLANT MATERIAL IS TO MEET THE STANDARDS AS OUTLINED IN THE CANADIAN STANDARDS FOR NURSERY STOCK, CURRENT EDITION.
2. FOR ALL CONTRACTOR PURCHASED MATERIALS PLANT SIZES WILL BE AS MEASURED ON SITE. NURSERY WAYBILLS WILL NOT BE ACCEPTABLE FOR DETERMINATION OF PLANT SIZES.
3. PROTECT PLANT MATERIAL FROM FROST, EXCESSIVE HEAT, WIND AND SUN DURING TRANSPORTATION. ALL WILTED OR WIND DAMAGED PLANT MATERIAL WILL BE REJECTED.
4. CONTRACTOR TO LAYOUT ALL PLANT MATERIAL AS PER PLANTING PLANS PRIOR TO INSTALLATION FOR LANDSCAPE ARCHITECT REVIEW AND APPROVAL.
5. WARRANTY PERIOD FOR ALL PLANTING IS ONE YEAR FROM SUBSTANTIAL COMPLETION. WARRANTY REPLACEMENTS OF ALL PLANT MATERIAL WILL BE UNDERTAKEN BY THE CONTRACTOR AS REQUESTED BY THE LANDSCAPE ARCHITECT AT ANY TIME DURING THE WARRANTY PERIOD.
6. FOR BURLAPPED ROOT BALLS, CUT AWAY TOP ONE THIRD OF WRAPPING AND WIRE BASKET WITHOUT DAMAGING ROOT BALL. DO NOT PULL BURLAP OR ROPE FROM UNDER ROOT BALL. FOR POTTED PLANTS REMOVE ENTIRE CONTAINER.
7. BACKFILL SOIL IN 150mm LIFTS. TAMP EACH LIFT TO ELIMINATE AIR POCKETS. WHEN TWO THIRDS OF DEPTH OF PLANTING PIT HAS BEEN BACKFILLED, FILL REMAINING SPACE WITH WATER. AFTER WATER HAS PENETRATED INTO SOIL, BACKFILL TO FINISH GRADE.
8. PLANTS SHOWN IN GROUPS ARE TO BE PLANTED IN CONTINUOUS PLANT BEDS AS SHOWN ON PLANTING DETAIL.
9. PLANT MATERIAL INSTALLED FOLLOWING LEAF DROP IN THE FALL WILL BE ACCEPTED AFTER THE START OF THE NEXT GROWING SEASON PROVIDED THAT ACCEPTANCE CONDITIONS ARE FULFILLED.
10. ANY PLANTING OR LANDSCAPING WORK THAT IS REJECTED AT THE FINAL INSPECTION WILL BE CORRECTED IN A TIMELY MANNER AT CONTRACTOR'S EXPENSE.
10. REJECTED PLANT MATERIAL MUST BE REMOVED FROM THE SITE WITHIN ONE WORKING DAY.
11. WATER TREES ONCE A WEEK FOR FIRST 4 WEEKS AND THEN SUFFICIENTLY THERE AFTER TO MAINTAIN OPTIMUM GROWING WITHIN THE FIRST 2 YEARS AFTER PLANTING. APPLY SUFFICIENT WATER PER APPLICATION TO OBTAIN MOISTURE PENETRATION OF 75–100MM. ENSURE ADEQUATE MOISTURE IN ROOT ZONE AT FREEZE-UP.
12. ALL TOPSOIL TO BE NEW. TOPSOIL TO BE FRIABLE, SOIL TEXTURE TO CONSIST OF 45% SAND, 35% SILT, AND 20% CLAY AND CONTAIN A MAXIMUM OF 5% ORGANIC MATTER. TOPSOIL MUST BE FREE FROM SUBSOIL, ROOTS, GRASS, WEEDS, TOXIC MATERIALS, STONES, FOREIGN OBJECTS AND WITH AN ACIDITY RANGE (PH) OF 5.5 TO 7.5.
13. SOIL MIXTURE FOR PLANTING TO BE 50% SANDY TOPSOIL, 25% PEATMOSS, 25% WELL ROTTED MANURE, AND 500G BONEMEAL PER CUBIC METRE OF PLANTING SOIL.
14. ALL SEEDED SLOPES 4:1 AND OVER TO UTILIZE EROSION MATS.
15. CONTRACTOR TO CHECK QUANTITIES AND REPORT ANY DISCREPANCIES TO THE THE LANDSCAPE ARCHITECT IMMEDIATELY. PLANT QUANTITIES INDICATED ON THE PLAN SUPERCEDE THE TOTALS IN THE PLANT LIST.
16. ALL AREAS LIMITED TO PHASE TWO CONSTRUCTION TO BE SEEDED. REFER TO PLANTING PLAN AND SEED MIX SCHEDULE.



NOTES:

1. USE MECHANICAL TREE SPADE FOR ALL TRANSPLANTING. SIZE TO BE APPROVED BY LANDSCAPE ARCHITECT.
2. WHERE SUBGRADE IS IMPERMEABLE INSTALL DRAINAGE TILE CONNECTED TO STORM DRAIN

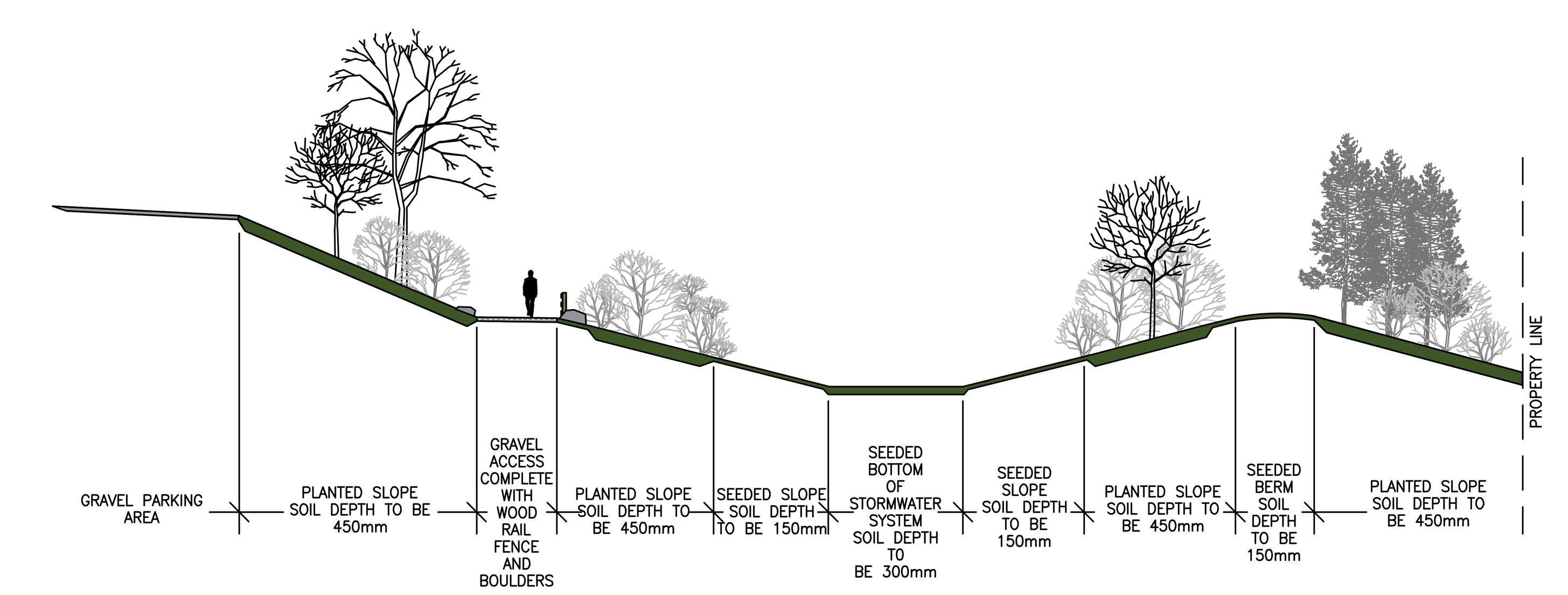
TREE TRANSPLANTING NTS

LEGEND

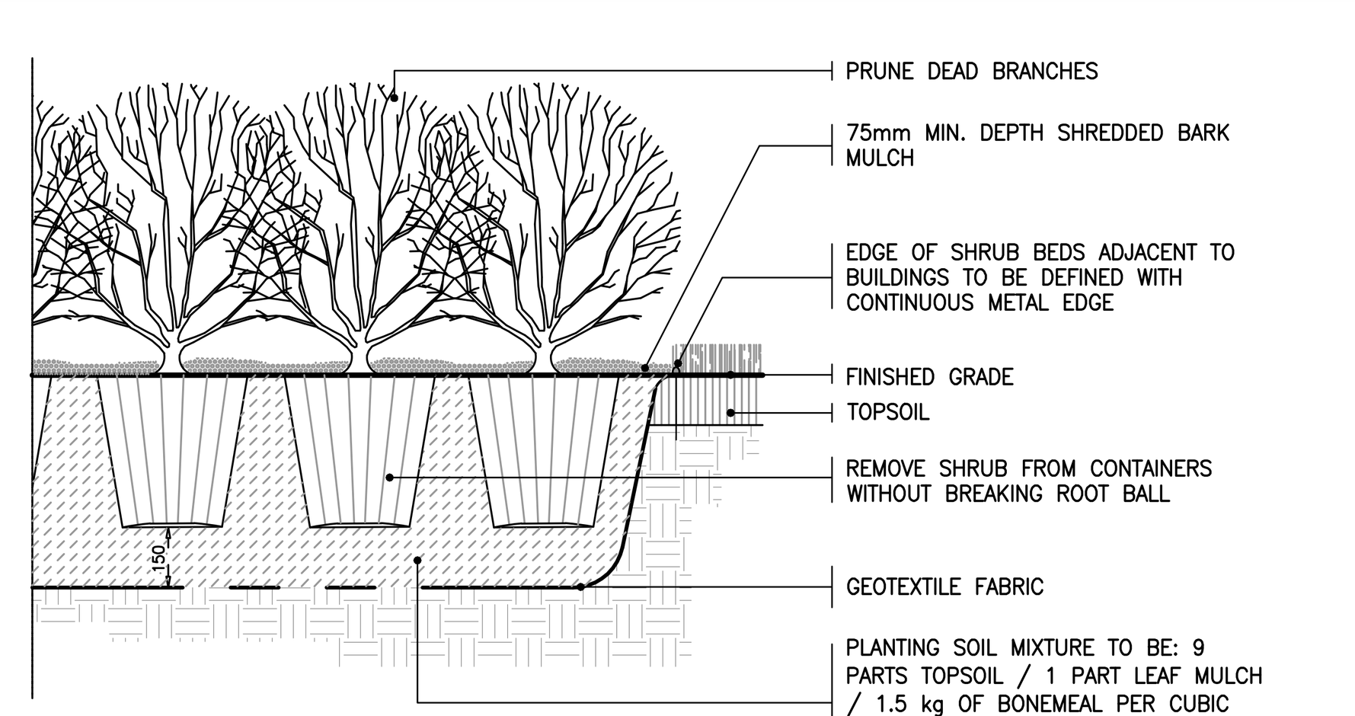
	PROPERTY LINE
FIRE ROUTE	PROPOSED FIRE TRUCK ACCESS ROUTE
	WATER SERVICE LINE
	SANITARY SEWER LINE
	ENTRANCE
	1M HT. WOOD SPLIT RAIL FENCE
	UNIT PAVING
	CONCRETE SIDEWALK
	HEAVY DUTY ASPHALT
	SOD
	SEEDED AREA
	PROPOSED FIRE HYDRANT
	BOULDER
	PROPOSED HYDRO TRANSFORMER Refer to Electrical
	EXISTING TREE TO REMAIN
	EXISTING TREE GROUPING TO REMAIN
	TREE HOARDING
	PROPOSED DECIDUOUS TREE
	PROPOSED CONIFEROUS TREE
	SHRUB BED

GENERAL NOTES:

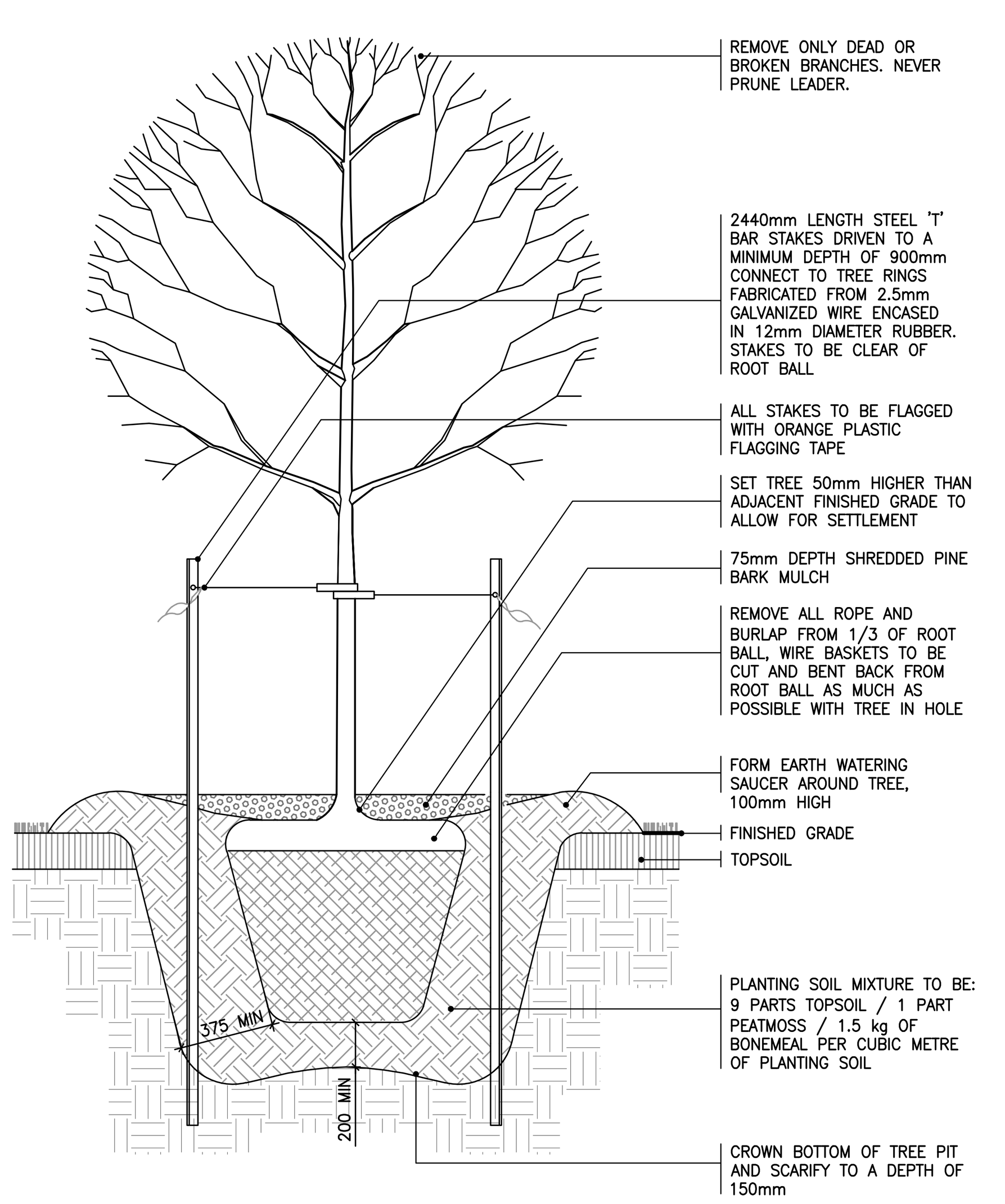
1. ALL CONSTRUCTION HOARDING AND TREE PROTECTION TO BE INSTALLED PRIOR TO START OF OPERATIONS.
2. EXISTING CONDITIONS PLAN OF SURVEY BY RODNEY GEYER, O.L.S. INC. DATED FEBRUARY 16, 2016.
3. CONTRACTOR TO VERIFY ALL SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT IMMEDIATELY.
4. LAYOUT ALL WORK FOR INSPECTION AND APPROVAL BY CONSULTANT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. CONTRACTOR RESPONSIBLE FOR ANY AND ALL UNDERGROUND UTILITIES.
6. CONTRACTOR TO LAY OUT ALL SITE FURNISHINGS FOR CONSULTANT / OWNER REVIEW AND FINAL FIELD ADJUSTMENT PRIOR TO CONTRACTOR AFFIXING SITE FURNISHINGS TO HARD SURFACES.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL STRUCTURES.
8. CONTRACTOR TO MAKE GOOD ALL DAMAGE TO ANY EXISTING OR ADJACENT CONDITIONS/ STRUCTURES DURING CONSTRUCTION TO THE SATISFACTION AND ACCEPTANCE OF THE CONSULTANT.



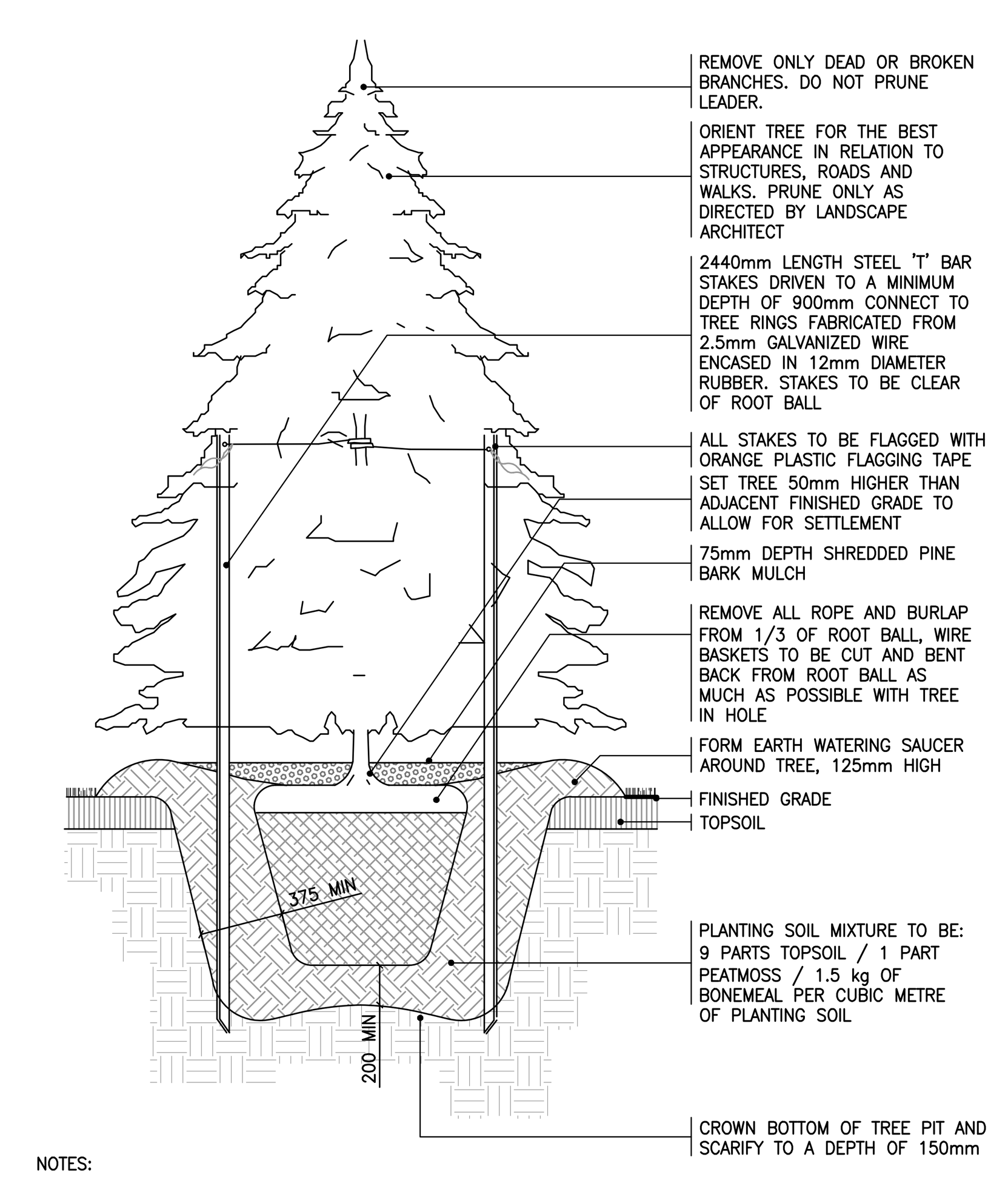
SECTION A – STORMWATER SYSTEM PLANTING SCHEMATIC 1:200



SHRUB AND PERENNIAL PLANTING NTS



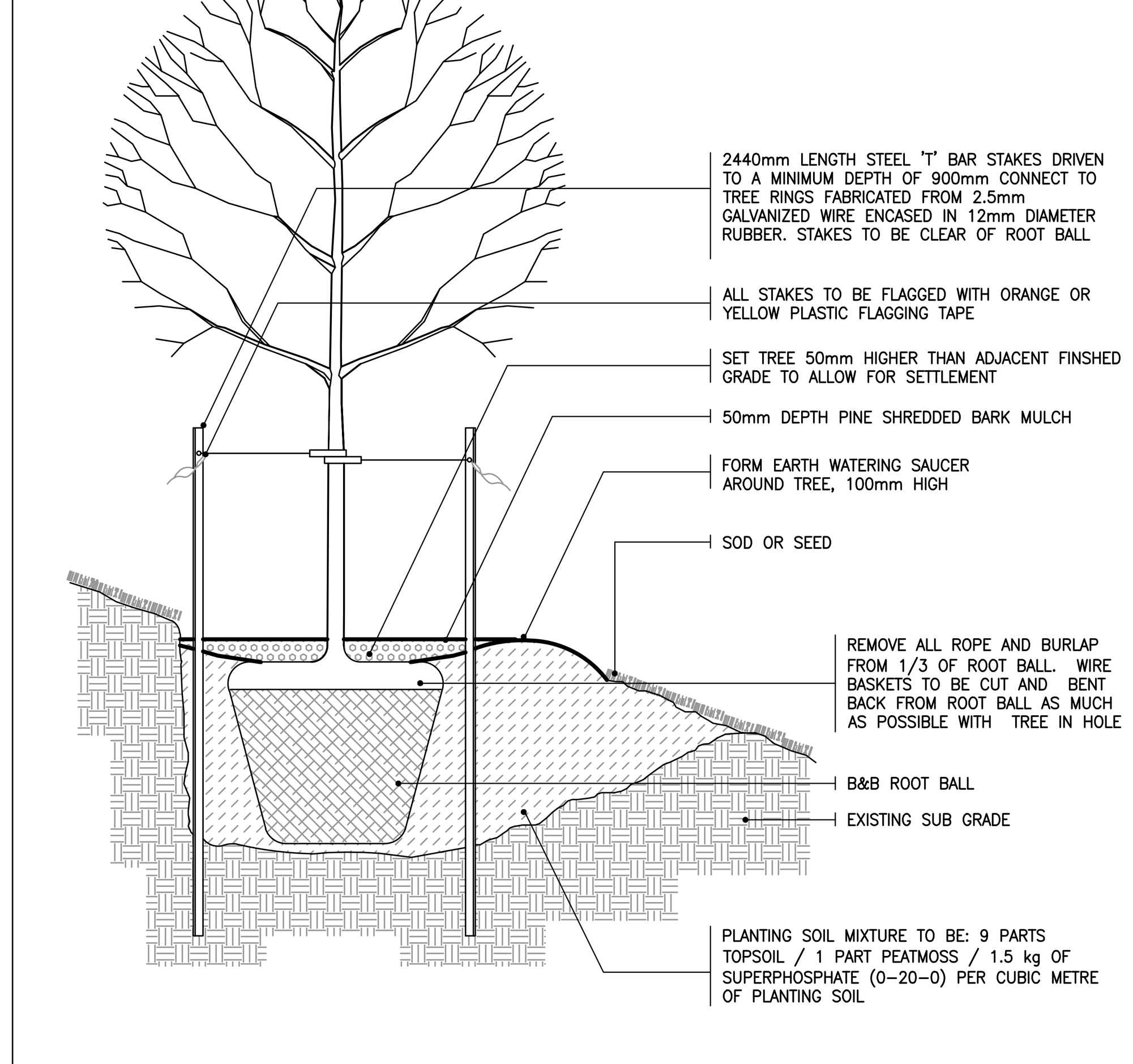
DECIDUOUS TREE PLANTING NTS



NOTES:

1. THE ABOVE DETAIL DOES NOT REPRESENT ANY PARTICULAR SPECIES.
2. SOIL MIXTURE SHOULD BE FIRMLY COMPACTED AND WASHED INTO SPACES AROUND ROOTBALL TO ELIMINATE AIR POCKETS AND PREVENT SETTLEMENT.

CONIFEROUS TREE PLANTING NTS



TREE PLANTING ON SLOPE NTS

FLEISHER RIDOUT PARTNERSHIP INC.
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1877 Davenport Road
Toronto, Ontario, M6N 1B9
T: (416) 533-4990

ISSUE	DATE	REMARKS
2	AUGUST 14, 2020	ISSUED FOR 2ND SITE PLAN APPROVAL
1	FEBRUARY 4, 2020	ISSUED FOR SITE PLAN APPROVAL

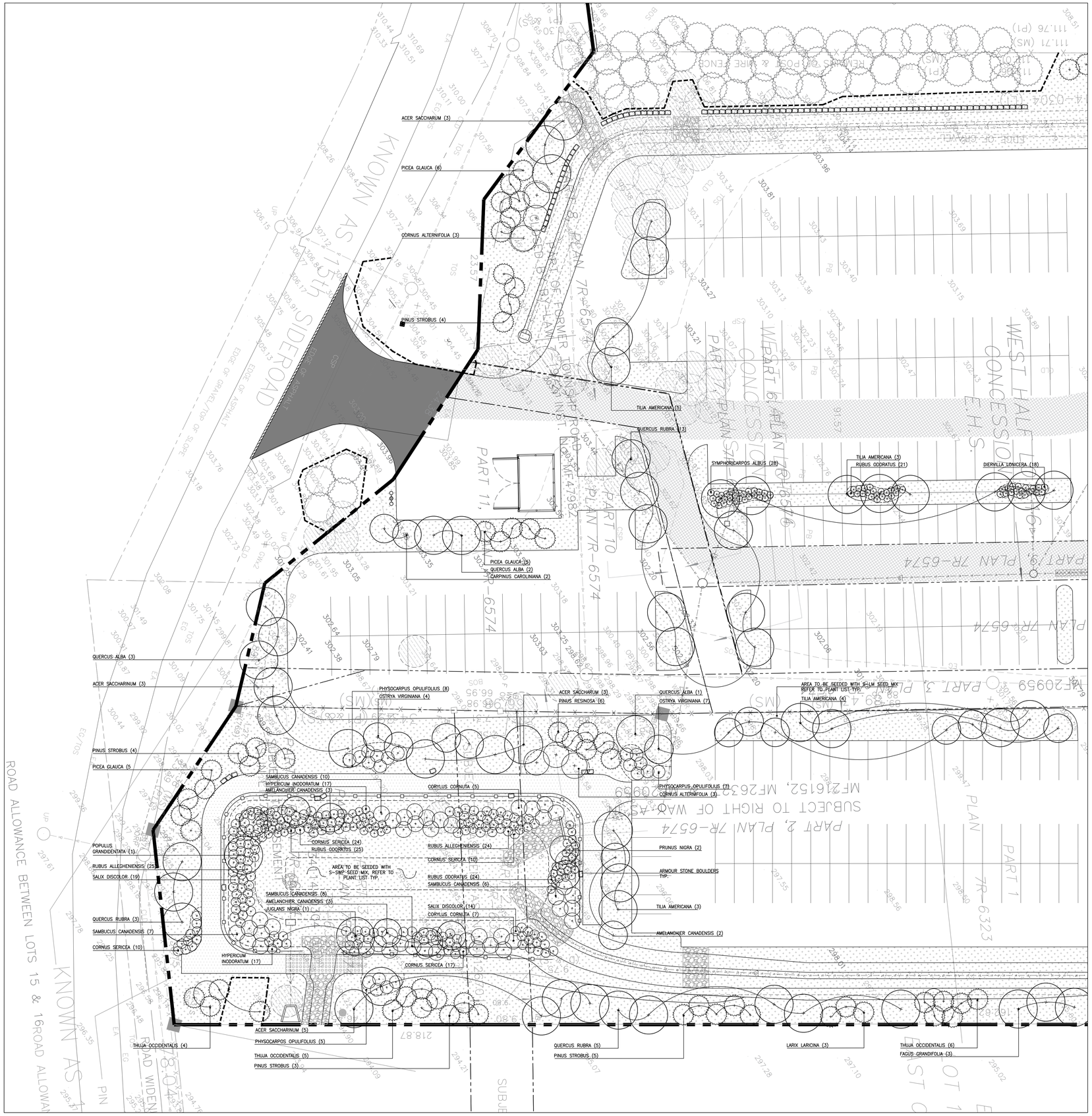
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS – B.J. FLEISHER – MEMBER

N

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
OVERALL PLANTING PLAN

Drawn: JC	Design: BF	Date: JANUARY 2020
Checked: BF	Apprvd: BF	Scale: 1:500
CADD File: 151352		Dwg. No.: L.1



PLANT LIST

BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	CONDITION	COMMENTS
TREES					
Acer saccharinum	Silver Maple	16	70 mm	B.B.	
Acer saccharum	Sugar Maple	7	70 mm	B.B.	
Amelanchier canadensis	Canadian Serviceberry	24	70 mm	B.B.	Multistem
Carpinus caroliniana	Blue Beech	10	45 mm	B.B.	
Fagus grandifolia	American Beech	6	70 mm	B.B.	
Larix laricena	Tamarack	20	1.8 m	W.B.	
Juglans nigra	Black Walnut	4	70 mm	B.B.	
Ostrya virginiana	Ironwood	15	70 mm	B.B.	
Picea glauca	White Spruce	48	1.8 m	W.B.	
Pinus resinosa	Red Pine	27	1.8 m	W.B.	
Pinus strobus	White Pine	42	1.8 m	W.B.	
Populus grandidentata	Large-tooth Aspen	1	70 mm	B.B.	
Prunus nigra	Black Cherry	2	45 mm	B.B.	
Quercus alba	White Oak	12	70 mm	B.B.	
Quercus rubra	Red Oak	23	70 mm	B.B.	
Thuja occidentalis	White Cedar	37	70 mm	B.B.	
Tilia americana	Basswood	21	70 mm	B.B.	
Tsuga canadensis	Hemlock	13	1.8 m	W.B.	
SHRUBS					
Amelanchier alnifolia	Saskatoon Berry	33	7 gal.	potted	Multistem
Aronia melanocarpa	Black Chokeberry	94	3 gal.	potted	
Ceanothus americanus	New Jersey Tea	35	3 gal.	potted	
Cornus alternifolia	Pagoda Dogwood	12	15 gal.	B.B.	
Cornus sericea	Red Osier Dogwood	268	3 gal.	potted	
Corylus cornuta	Beaked Hazel	20	3 gal.	potted	
Diervilla lonicera	Bush Honeysuckle	105	3 gal.	potted	
Hypericum inodorum	St. John's Wort	50	3 gal.	potted	
Juniperus horizontalis	Spreading Juniper	213	3 gal.	potted	
Physocarpus opulifolius	Common Ninebark	80	3 gal.	potted	
Salix discolor	Pussy Willow	70	3 gal.	potted	
Sambucus canadensis	Elderberry	63	3 gal.	potted	
Symphoricarpos albus	Snowberry	59	3 gal.	potted	
Rubus allegheniensis	Alleghany Blackberry	81	3 gal.	potted	
Rubus odoratus	Flowering Raspberry	128	3 gal.	potted	
PERENNIALS					
Achillia millefolium	Common Yarrow	165	1 gal.	potted	
Agastache foeniculum	Anise Hyssop	200	1 gal.	potted	
Asclepias tuberosa	Butterflyweed	250	1 gal.	potted	
Echinacea purpurea	Purple Coneflower	945	1 gal.	potted	
Rudbeckia hirta	Black-eyed Susan	280	1 gal.	potted	
GRASSES					
Andropogen gerardii	Big Blue Stem	50	1 gal.	potted	
Panicum virgatum	Switch Grass	245	1 gal.	potted	
Schizachyrium scoparium	Little Bluestem	360	1 gal.	potted	

SEED MIX

S-SWP — Stormwater Pond Mix
Contains: Fox Sedge, Virginia Wild Rye, Canada Bluegrass, Indian Grass, Black Eyed Susan, New England Aster, Grass

S-FACW — Wetland Mixture
Contains: Bebb's Sedge, Blue Lobelia, Blue Vervain, Blunt Broom Sedge, Boneset, Fox Sedge, Green Bulrush, Heath

S-LM — No Maintenance Eco-Lawn Mix
Contains: Creeping Red Fescue, Ecostar Hard Fescue, Chewings Fescue and Perennial Rye.

LEGEND

- PROPERTY LINE
- FIRE ROUTE — PROPOSED FIRE TRUCK ACCESS ROUTE
- WATER SERVICE LINE
- SANITARY SEWER LINE
- ENTRANCE
- 1M HT. WOOD SPLIT RAIL FENCE
- UNIT PAVING
- CONCRETE SIDEWALK
- HEAVY DUTY ASPHALT
- SOD
- SEEDED AREA
- PROPOSED FIRE HYDRANT
- BOULDER
- PROPOSED HYDRO TRANSFORMER Refer to Electrical
- EXISTING TREE TO REMAIN
- EXISTING TREE GROUPING TO REMAIN
- TREE HOARDING

GENERAL NOTES:

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ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — B.J. FLEISHER — OALA — MEMBER

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
PLANTING ENLARGEMENT A

Drawn:	Design:	Date:
JC	BF	JANUARY 2020
Checked:	Apprvd:	Scale:
BF	BF	1:250
CADD File: 151352		Dwg. No.: L.2

PINUS STROBUS (8)
QUERCUS ALBA (2)
PINUS RESINOSA (6)
PICEA GLAUCA (6)
AMELANCHIER ALNIFOLIA (6)
ACER SACCHARINUM (3)
TSUGA CANADENSIS (7)
PINUS STROBUS (5)
CORNUS ALTERNIFOLIA (3)
PICEA GLAUCA (5)
PHYSOCARPUS OPULIFOLIUS (3)
PHYSOCARPUS OPULIFOLIUS (7)
SYMPHORICARPOS ALBUS (12)
DIERVILLA LONICERA (24)
ECHINACEA PURPUREA (375)
CARPINUS CAROLINIANA (4)
PHYSOCARPUS OPULIFOLIUS (6)
ARONIA MELANOCARPA (22)
AMELANCHIER ALNIFOLIA (6)
SCHIZACHYRIUM SCOPARIUM (60)
RUDBECKIA HIRTA (30)
DIERVILLA LONICERA (6)
DIERVILLA LONICERA (6)
SCHIZACHYRIUM SCOPARIUM (80)
CORNUS SERICEA (20)
RUDBECKIA HIRTA (70)
PICEA GLAUCA (2)
QUERCUS RUBRA (2)
CORNUS SERICEA (24)
JUNIPERUS HORIZONTALIS (17)
ECHINACEA PURPUREA (250)
PINUS RESINOSA (8)
AMELANCHIER ALNIFOLIA (4)
SCHIZACHYRIUM SCOPARIUM (75)
RUDBECKIA HIRTA (90)
PHYSOCARPUS OPULIFOLIUS (14)
AMELANCHIER CANADENSIS (3)
TILIA AMERICANA (2)
AGASTACHE FOENICULUM (35)
RUDBECKIA HIRTA (40)
JUNIPERUS HORIZONTALIS (19)
ACHILLIA MILLEFOLIUM (25)
CARPINUS CAROLINIANA (1)
SCHIZACHYRIUM SCOPARIUM (45)
CEANOTHUS AMERICANUS (11)
PANICUM VIRGATUM (80)
ACHILLEA MILLEFOLIUM (35)
ASCLEPIAS TUBEROSA (50)
PANICUM VIRGATUM (50)
CEANOTHUS AMERICANUS (9)
ARONIA MELANOCARPA (19)
CORNUS SERICEA (30)
CEANOTHUS AMERICANUS (15)
ECHINACEA PURPUREA (50)
PANICUM VIRGATUM (30)
ECHINACEA PURPUREA (20)
PICEA GLAUCA (15)
JUNIPERUS HORIZONTALIS (6)
SYMPHORICARPOS ALBUS (7)
SCHIZACHYRIUM SCOPARIUM (15)
ACHILLIA MILLEFOLIUM (20)
PINUS RESINOSA (2)
ASCLEPIAS TUBEROSA (80)
AMELANCHIER CANADENSIS (1)
PINUS STROBUS (7)
JUNIPERUS HORIZONTALIS (7)
PANICUM VIRGATUM (40)
ASCLEPIAS TUBEROSA (40)
CORNUS SERICEA (6)
SYMPHORICARPOS ALBUS (21)
CORNUS SERICEA (8)
PANICUM VIRGATUM (30)
RUDBECKIA HIRTA (50)
ACHILLIA MILLEFOLIUM (40)
JUNIPERUS HORIZONTALIS (20)
AGASTACHE FOENICULUM (65)
AGASTACHE FOENICULUM (25)
ANDROPOGON GERARDII (15)
QUERCUS RUBRA (2)
PHYSOCARPUS OPULIFOLIUS (6)
TSUGA CANADENSIS (6)
PHYSOCARPUS OPULIFOLIUS (6)
ANDROPOGON GERARDII (20)
ACHILLIA MILLEFOLIUM (20)
AMELANCHIER ALNIFOLIA (5)
JUNIPERUS HORIZONTALIS (4)
ANDROPOGON GERARDII (15)
PANICUM VIRGATUM (55)
AGASTACHE FOENICULUM (75)
SYMPHORICARPOS ALBUS (15)
AMELANCHIER ALNIFOLIA (6)
ACHILLIA MILLEFOLIUM (25)
SCHIZACHYRIUM SCOPARIUM (85)
ARONIA MELANOCARPA (20)
CORNUS SERICEA (18)
RUBUS ODORATUS (16)
CORNUS SERICEA (28)
CORNUS SERICEA (53)
RUBUS ODORATUS (7)
AMELANCHIER ALNIFOLIA (6)
ARONIA MELANOCARPA (20)
PINUS STROBUS (3)
DIERVILLA LONICERA (40)
ECHINACEA PURPUREA (250)
SYMPHORICARPOS ALBUS (13)
PINUS RESINOSA (6)
PHYSOCARPUS OPULIFOLIUS (6)
LARIX LARICINA (6)
RUBUS ODORATUS (8)
DIERVILLA LONICERA (16)
QUERCUS ALBA (4)
PHYSOCARPUS OPULIFOLIUS (6)
THUJA OCCIDENTALIS (11)
OSTRYA VIRGINIANA (2)
ACER SACCHARINUM (5)
ARONIA MELANOCARPA (13)
LARIX LARICINA (5)
CORNUS ALTERNIFOLIA (3)
CARPINUS CAROLINIANA (3)
FAGUS GRANDIFOLIA (3)
THUJA OCCIDENTALIS (5)
OSTRYA VIRGINIANA (3)
LARIX LARICINA (6)
TILIA AMERICANA (5)
THUJA OCCIDENTALIS (6)
ACER SACCHARUM (4)

PLANTING ENLARGEMENT B

HYPERICUM INODORATUM (16)
SAMBUCUS CANADENSIS (17)
AMELANCHIER CANADENSIS (5)
AREA TO BE SEEDED WITH S-FACW SEED MIX - REFER TO PLANT LIST TYP.
SALIX DISCOLOR (17)
CORNUS SERICEA (17)
SAMBUCUS CANADENSIS (21)
AMELANCHIER CANADENSIS (7)
RUBUS ODORATUS (27)
SALIX DISCOLOR (20)
CORNUS SERICEA (15)

SNOWMAKING POND BUFFER PLANTING

LEGEND

- PROPERTY LINE
- FIRE ROUTE — PROPOSED FIRE TRUCK ACCESS ROUTE
- WATER SERVICE LINE
- SANITARY SEWER LINE
- ENTRANCE
- 1M HT. WOOD SPLIT RAIL FENCE
- UNIT PAVING
- CONCRETE SIDEWALK
- HEAVY DUTY ASPHALT
- SOD
- SEEDED AREA
- PROPOSED FIRE HYDRANT
- BOULDER
- PROPOSED HYDRO TRANSFORMER Refer to Electrical
- EXISTING TREE TO REMAIN
- EXISTING TREE GROUPING TO REMAIN
- TREE HOARDING
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE
- SHRUB BED

GENERAL NOTES:

1. ALL CONSTRUCTION HOARDING AND TREE PROTECTION TO BE INSTALLED PRIOR TO START OF OPERATIONS.
2. EXISTING CONDITIONS PLAN OF SURVEY BY RODNEY GEYER, O.L.S. INC. DATED FEBRUARY 16, 2016.
3. CONTRACTOR TO VERIFY ALL SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE CONSULTANT IMMEDIATELY.
4. LAYOUT ALL WORK FOR INSPECTION AND APPROVAL BY CONSULTANT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. CONTRACTOR RESPONSIBLE FOR ANY AND ALL UNDERGROUND UTILITIES.
6. CONTRACTOR TO LAY OUT ALL SITE FURNISHINGS FOR CONSULTANT / OWNER REVIEW AND FINAL FIELD ADJUSTMENT PRIOR TO CONTRACTOR ATTIXING SITE FURNISHINGS TO HARD SURFACES.
7. CONTRACTOR TO ENSURE POSITIVE DRAINAGE FROM ALL STRUCTURES.
8. CONTRACTOR TO MAKE GOOD ALL DAMAGE TO ANY EXISTING OR ADJACENT CONDITIONS/ STRUCTURES DURING CONSTRUCTION TO THE SATISFACTION AND ACCEPTANCE OF THE CONSULTANT.

FLEISHER RIDOUT PARTNERSHIP INC.
l.a.n.d.s.c.a.p.e a.r.c.h.i.t.e.c.t.s
1877 Davenport Road
Toronto, Ontario, M6N 1B9
T: (416) 533-4990

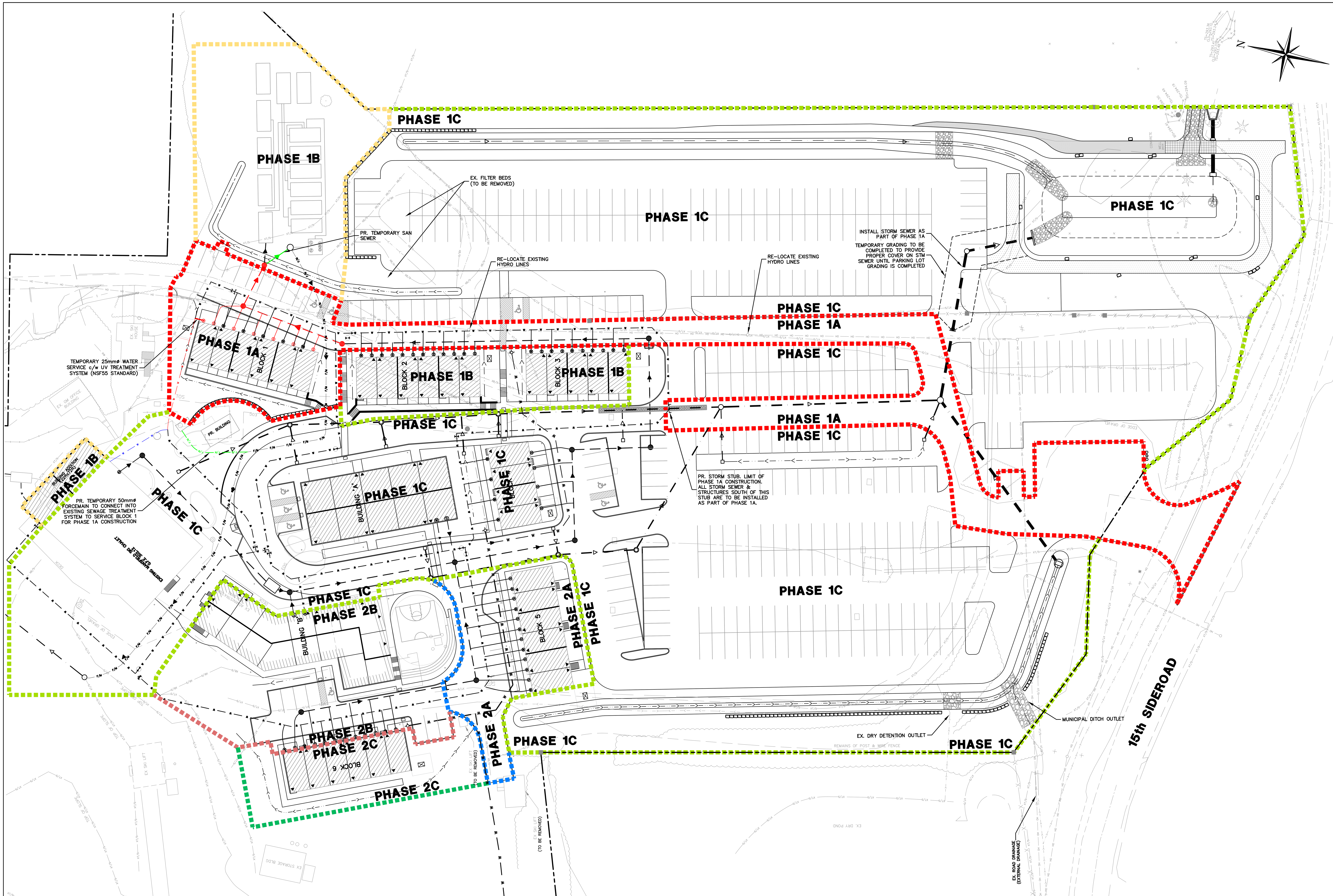
ISSUE	DATE	REMARKS
2	AUGUST 14, 2020	ISSUED FOR 2ND SITE PLAN APPROVAL
1	FEBRUARY 4, 2020	ISSUED FOR SITE PLAN APPROVAL

ASSOCIATION OF LANDSCAPE ARCHITECTS ONTARIO — B.J. FLEISHER — OALA — MEMBER

Project Name:
MANSFIELD SKI CLUB
628213 SIDE ROAD 15
Mulmur, ON L9V 0T9

Drawing Title:
PLANTING ENLARGEMENT B

Drawn:	Design:	Date:
JC	BF	JANUARY 2020
Checked:	Apprvd:	Scale:
BF	BF	1:250
CADD File: 151352		Dwg. No.: L.3



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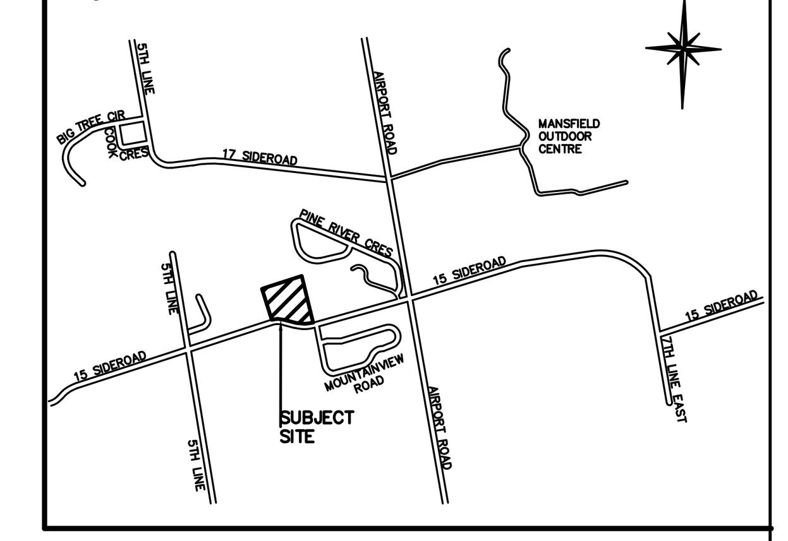

Legend:

EXISTING FEATURES (EX)

- EX SIB — EX STD IRON BAR
- EX IB — EX IRON BAR
- EX UP — EX UTILITY POLE
- EX BELL PED
- EX WS — EX WATER SERVICE
- EX HYD — EX FIRE HYD.
- NS — EX ST NAME SIGN
- SS — EX STOP SIGN
- x123.45 — EX ELEVATION
- EX FENCE
- GAS — EX U/G GASMAIN
- XB — EX U/G BELL
- XH — EX HYDRO
- XB/S — EX BOTTOM OF SLOPE
- XT/S — EX TOP OF SLOPE
- EX WV — EX WATERMAIN & VALVE
- EX SAN @ 0.0% — EX SAN SEWER & MH
- EX STM @ 0.0% — EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS — PR STREET NAME SIGN
- SS — PR STOP SIGN
- SF — PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M — PR WATERMAIN
- 00mmø W/M — PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M — PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m–00mmø SAN @ 0.0% — PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- F/M — PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K — PR SANITARY MANHOLE
- 0m–00mmø STM @ 0.0% — PR STM SEWER
- MH 4 — PR CATCHBASIN MANHOLE
- MH 4 — PR MANHOLE
- PR CATCHBASIN
- x000.00 — PROPOSED ELEVATION
- x(000.00) — PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E — UPPER FLOOR ELEVATION
- G.F.E — GROUND FLOOR ELEVATION

Phasing Legend:

- PHASE 1A
- PHASE 1B
- PHASE 1C
- PHASE 2A
- PHASE 2B
- PHASE 2C

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

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Benchmark: 463.937m

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

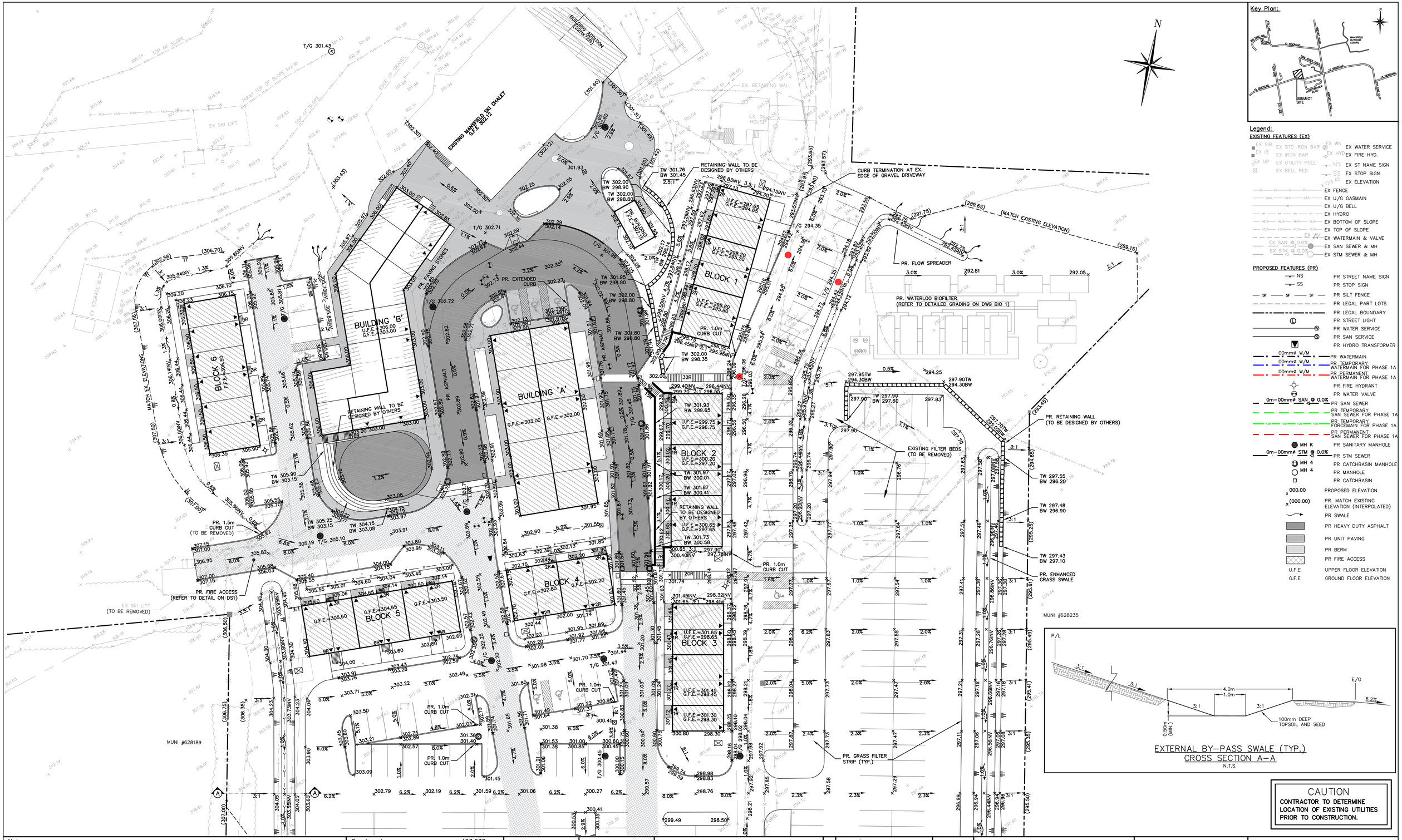
PHASING PLAN

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	Checked By	Drawing No.
AW	JWL	PHA
Scale 1:400	Project No. 15–319	

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_No1\200810_Baseplan_15-319.dwg, PHASING, 1:1



Legend:

EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP / EX BELL PED
- EX STD IRON BAR @ / EX IRON BAR / EX UTILITY POLE
- EX WS / EX HYD
- EX WATER SERVICE
- EX FIRE HYD.
- NS EX ST NAME SIGN
- SS EX STOP SIGN
- 123.45 EX ELEVATION
- EX FENCE
- GAS EX U/G GASMAIN
- UB EX U/G BELL
- HY EX HYDRO
- EX BOTTOM OF SLOPE
- EX TOP OF SLOPE
- EX WV EX WATERMAIN & VALVE
- EX SAN @ 0.0% EX SAN SEWER & MH
- EX STM @ 0.0% EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS PR STREET NAME SIGN
- SS PR STOP SIGN
- SF PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M PR WATERMAIN
- 00mmø W/M PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m-00mmø SAN @ 0.0% PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- 1.0%-1.0%-1.0%-1.0% PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K PR SANITARY MANHOLE
- 0m-00mmø STM @ 0.0% PR STM SEWER
- MH 4 PR CATCHBASIN MANHOLE
- MH 4 PR MANHOLE
- PR CATCHBASIN
- 000.00 PROPOSED ELEVATION
- (000.00) PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E UPPER FLOOR ELEVATION
- G.F.E GROUND FLOOR ELEVATION

EXTERNAL BY-PASS SWALE (TYP.)
CROSS SECTION A-A
N.T.S.

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Benchmark: 463.937m

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REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

SITE GRADING PLAN NORTH

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
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www.wmiengineering.ca

Drawn By	AW	Checked By	JWL	Drawing No.
Scale	1:300	Project No.	15-319	SGRN

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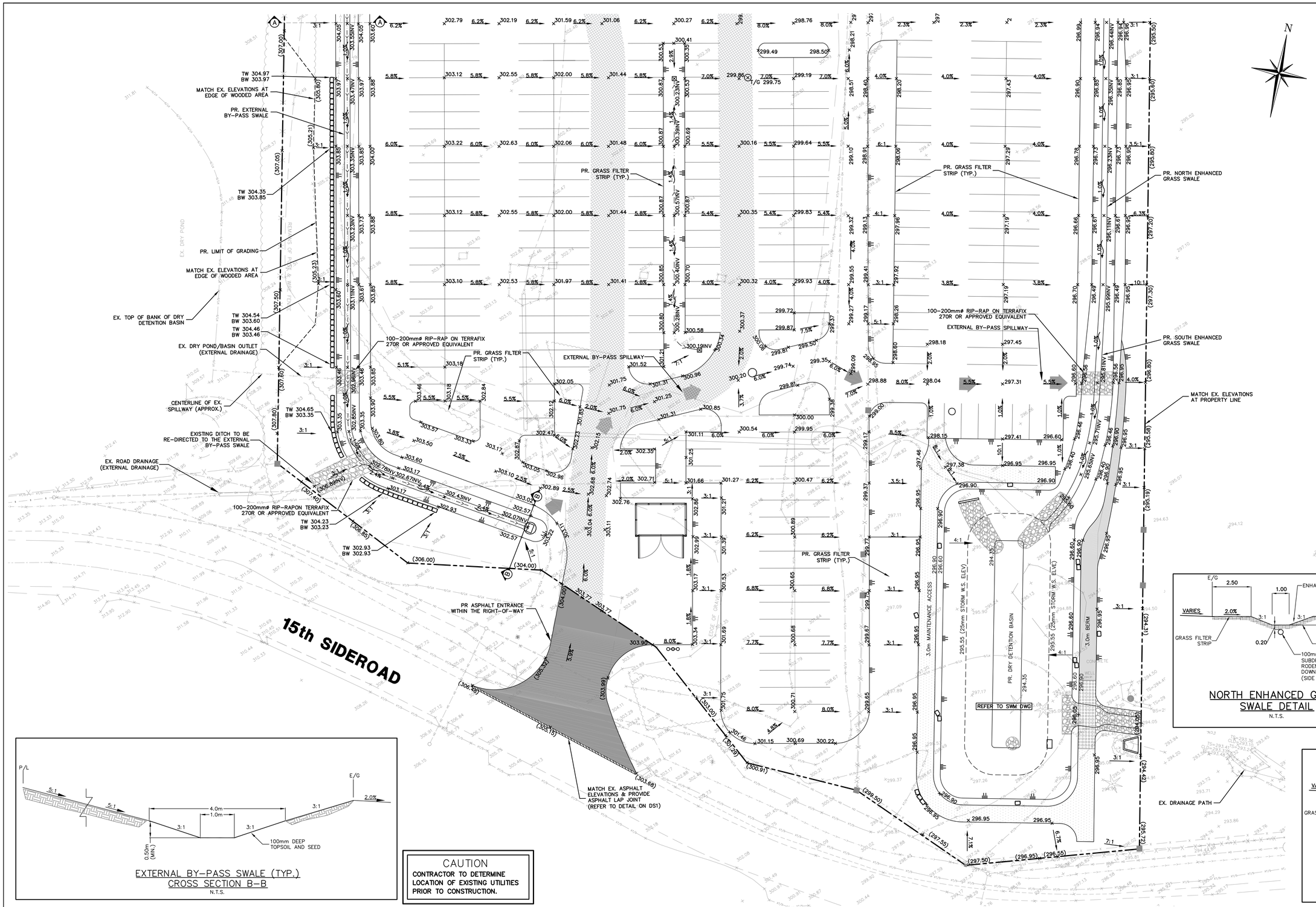
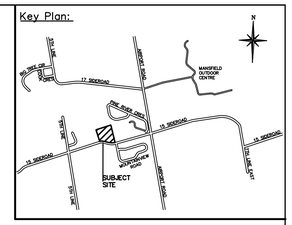




Legend:

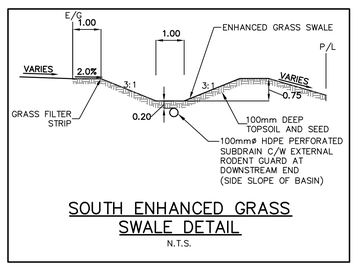
EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP / EX BELL PED
- EX STD IRON BAR @ / EX IRON BAR / EX UTILITY POLE
- EX WS / EX HYD
- EX WATER SERVICE
- EX FIRE HYD.
- NS EX ST NAME SIGN
- SS EX STOP SIGN
- EX ELEVATION
- EX FENCE
- EX U/G GASMAIN
- EX U/G BELL
- EX HYDRO
- EX BOTTOM OF SLOPE
- EX TOP OF SLOPE
- EX WV EX WATERMAIN & VALVE
- EX SAN @ 0.0% EX SAN SEWER & MH
- EX STM @ 0.0% EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS PR STREET NAME SIGN
- SS PR STOP SIGN
- SF PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M PR WATERMAIN
- 00mmø W/M PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m-00mmø SAN @ 0.0% PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K PR SANITARY MANHOLE
- 0m-00mmø STM @ 0.0% PR STM SEWER
- MH 4 PR CATCHBASIN MANHOLE
- MH 4 PR MANHOLE
- PR CATCHBASIN
- 000.00 PROPOSED ELEVATION
- (000.00) PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E UPPER FLOOR ELEVATION
- G.F.E GROUND FLOOR ELEVATION
- EXTERNAL BY-PASS SPILLWAY

NORTH ENHANCED GRASS SWALE DETAIL
N.T.S.



SOUTH ENHANCED GRASS SWALE DETAIL
N.T.S.

EXTERNAL BY-PASS SWALE (TYP.) CROSS SECTION B-B
N.T.S.

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

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Benchmark: 463.937m

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REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

SITE GRADING PLAN SOUTH

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	Checked By	Drawing No.
AW	JWL	SGRS
Scale 1:300	Project No. 15-319	

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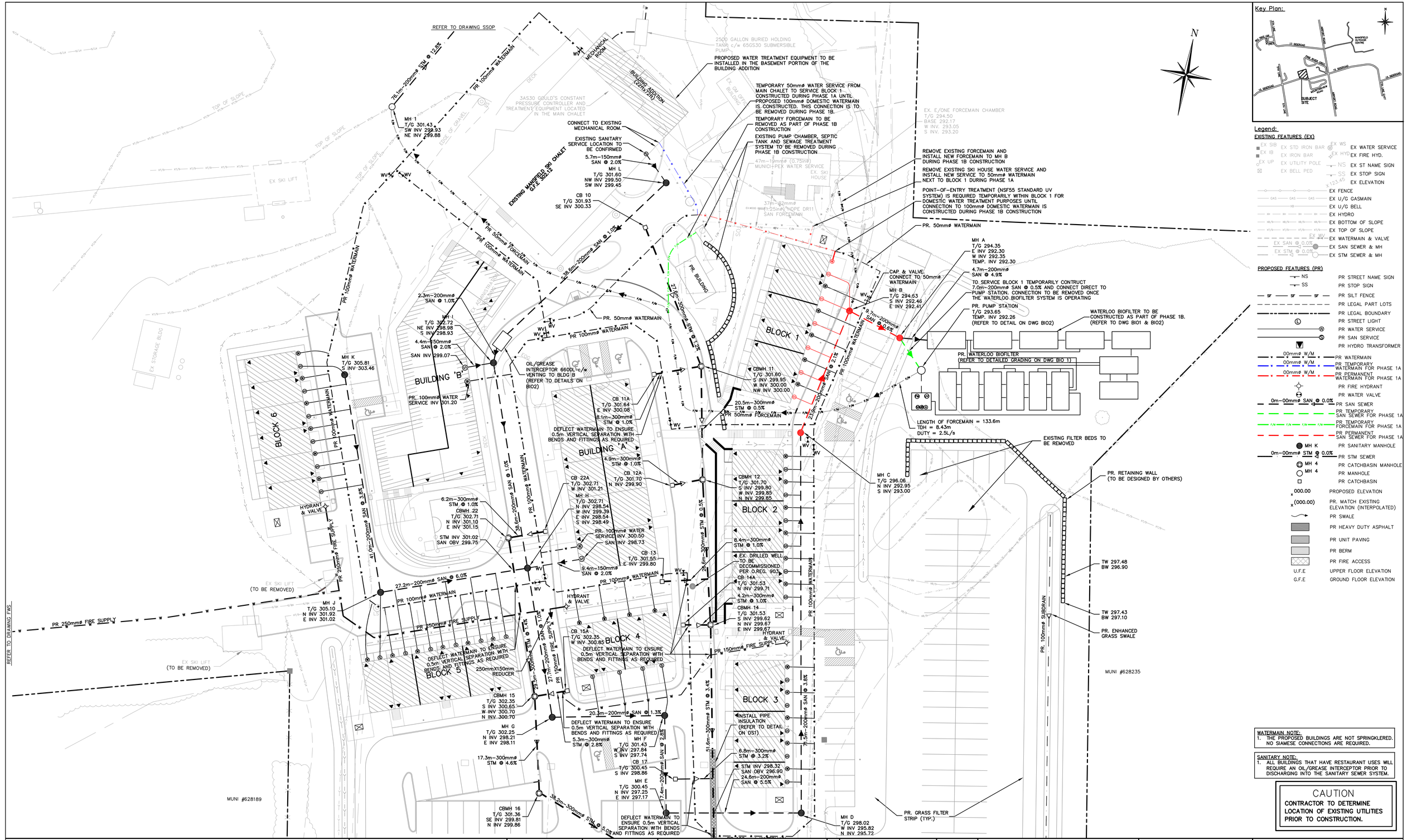

Key Plan:

Legend:

EXISTING FEATURES (EX)

- EX SIB
- EX IB
- EX UP
- EX BELL PED
- EX STD IRON BAR
- EX IRON BAR
- EX UTILITY POLE
- EX WATER SERVICE
- EX FIRE HYD.
- EX ST NAME SIGN
- EX STOP SIGN
- EX ELEVATION
- EX FENCE
- EX U/G GASMAIN
- EX U/G BELL
- EX HYDRO
- EX BOTTOM OF SLOPE
- EX TOP OF SLOPE
- EX WATERMAIN & VALVE
- EX SAN SEWER & MH
- EX STM SEWER & MH

PROPOSED FEATURES (PR)

- PR STREET NAME SIGN
- PR STOP SIGN
- PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- PR WATERMAIN
- PR TEMPORARY WATERMAIN FOR PHASE 1A
- PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- PR SANITARY MANHOLE
- PR STM SEWER
- PR CATCHBASIN MANHOLE
- PR MANHOLE
- PR CATCHBASIN
- PROPOSED ELEVATION
- PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E UPPER FLOOR ELEVATION
- G.F.E GROUND FLOOR ELEVATION

WATERMAIN NOTE:
1. THE PROPOSED BUILDINGS ARE NOT SPRINGKLERED. NO SIAMESE CONNECTIONS ARE REQUIRED.

SANITARY NOTE:
1. ALL BUILDINGS THAT HAVE RESTAURANT USES WILL REQUIRE AN OIL/GREASE INTERCEPTOR PRIOR TO DISCHARGING INTO THE SANITARY SEWER SYSTEM.

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Mansfield Ski Club

GENERAL SERVICING PLAN NORTH

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PO Box 75 RPO Mansfield,
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L9V 3M6

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L4M 1H5
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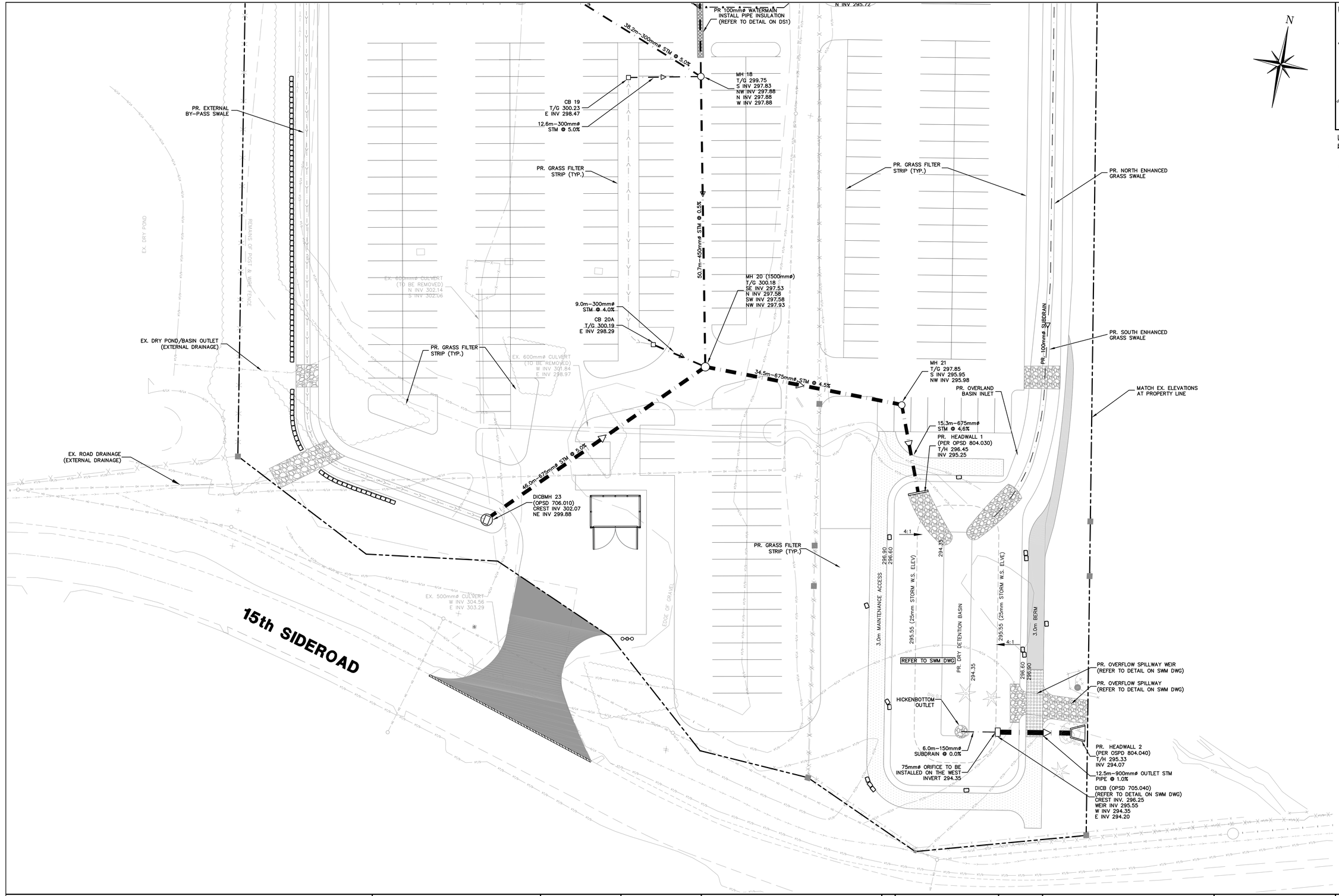
Drawn By	Checked By	Drawing No.
AW	JWL	GENN
Scale 1:300	Project No. 15-319	

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_No1\200810_Baseplan_15-319.dwg, GENN, 1:1



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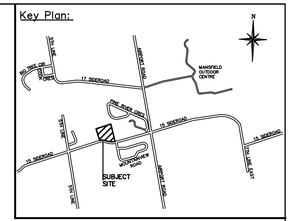
Key Plan:



Legend:

EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP — EX STD IRON BAR / EX IRON BAR / EX UTILITY POLE
- EX BELL PED
- EX WS — EX WATER SERVICE
- EX HYD — EX FIRE HYD.
- NS — EX ST NAME SIGN
- SS — EX STOP SIGN
- X123.45 — EX ELEVATION
- EX FENCE
- GAS — EX U/G GASMAIN
- XB — EX U/G BELL
- HX — EX HYDRO
- XS/S — EX BOTTOM OF SLOPE
- XT/S — EX TOP OF SLOPE
- EX WV — EX WATERMAIN & VALVE
- EX SAN @ 0.0% — EX SAN SEWER & MH
- EX STM @ 0.0% — EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS — PR STREET NAME SIGN
- SS — PR STOP SIGN
- SF — PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- L — PR STREET LIGHT
- W — PR WATER SERVICE
- S — PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M — PR WATERMAIN
- 00mmø W/M — PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M — PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m-00mmø SAN @ 0.0% — PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- T/N — PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K — PR SANITARY MANHOLE
- 0m-00mmø STM @ 0.0% — PR STM SEWER
- MH 4 — PR CATCHBASIN MANHOLE
- MH 4 — PR MANHOLE
- PR CATCHBASIN
- 000.00 — PROPOSED ELEVATION
- (000.00) — PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
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- PR UNIT PAVING
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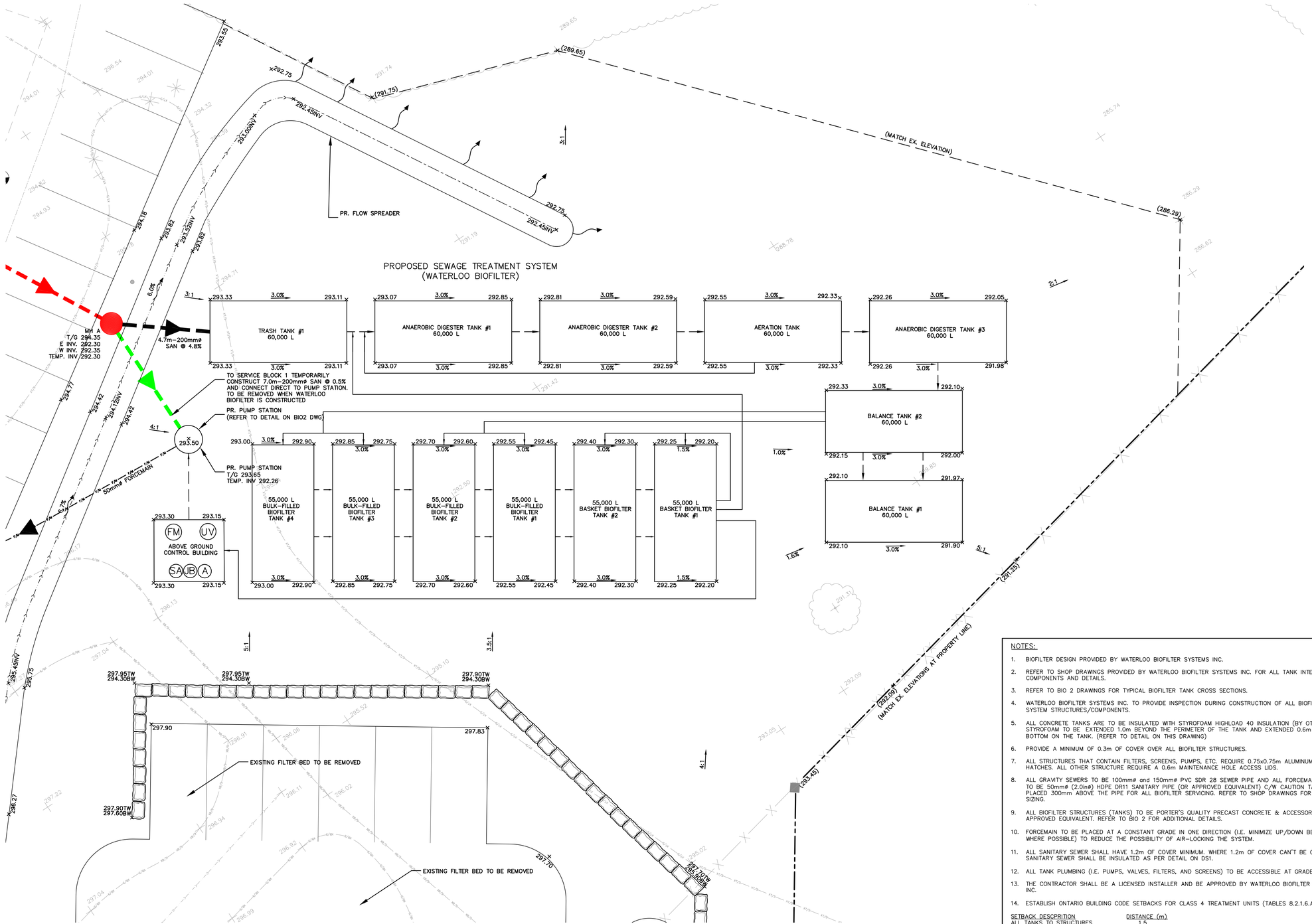
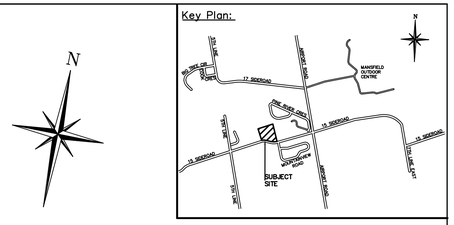
Scale 1:300	Project No. 15-319	

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_No1\200810_Baseplan_15-319.dwg, GENS, 1:1





Legend:

- PR. FORCEMAIN
- PR. GRAVITY SEWER
- 104.90 PR. ELEVATION
- (104.90) MATCH EXISTING ELEVATIONS

BIOFILTER TANK	GROUND ELEV.	TOP OF STRUCTURE ELEV.	INLET ELEV.	OUTLET ELEV.
TRASH TANK	293.33	292.42	292.07	292.02
ANAEROBIC DIGESTER TANK #1	293.07	292.19	291.84	291.79
ANAEROBIC DIGESTER TANK #2	292.81	291.96	291.61	291.56
AERATION TANK	292.55	291.73	291.38	291.33
ANAEROBIC DIGESTER TANK #3	292.26	291.48	291.13	291.08
BALANCE TANK #2	292.00	291.38	291.03 (G)	287.82 (G) 290.68 (F)
BALANCE TANK #1	291.90	291.32	287.82 (G)	287.82 (G)
BULK-FILLED BIOFILTER TANK #4	293.00	292.08	292.70 (M)	290.10 (G)
BULK-FILLED BIOFILTER TANK #3	292.85	292.08	292.55 (M) 290.10 (G)	290.10 (G)
BULK-FILLED BIOFILTER TANK #2	292.70	291.93	292.40 (M) 289.95 (G)	289.95 (G)
BULK-FILLED BIOFILTER TANK #1	292.55	291.93	292.25 (M) 289.95 (G)	289.95 (G)
BASKET BIOFILTER TANK #2	292.40	291.78	292.10 (M) 289.80 (G)	289.80 (G)
BASKET BIOFILTER TANK #1	292.25	291.78	291.95 (M) 289.80 (G)	289.80 (F)
ABOVE GROUND CONTROL BUILDING	292.15	N/A	N/A	N/A
PUMP STATION	293.50	293.65	292.30	292.30

NOTES:

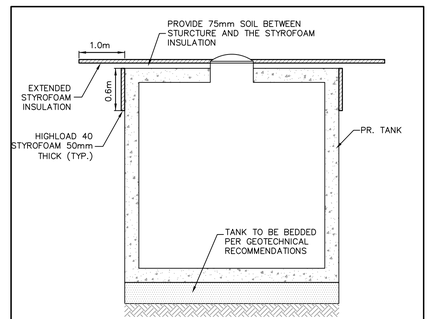
IF TANK HAS MULTIPLE INLETS AND/OR OUTLETS, ASSUME ALL INLETS ARE AT THE SAME ELEVATION AND ALL OUTLETS ARE AT THE SAME ELEVATION UNLESS OTHERWISE INDICATED.

(G) = GRAVITY SEWER
(F) = FORCEMAIN
(M) = 50mm FORCEMAIN SPRAY MANIFOLD THROUGH POLYLOK RISER

NOTES:

1. BIOFILTER DESIGN PROVIDED BY WATERLOO BIOFILTER SYSTEMS INC.
2. REFER TO SHOP DRAWINGS PROVIDED BY WATERLOO BIOFILTER SYSTEMS INC. FOR ALL TANK INTERIOR COMPONENTS AND DETAILS.
3. REFER TO BIO 2 DRAWINGS FOR TYPICAL BIOFILTER TANK CROSS SECTIONS.
4. WATERLOO BIOFILTER SYSTEMS INC. TO PROVIDE INSPECTION DURING CONSTRUCTION OF ALL BIOFILTER SYSTEM STRUCTURES/COMPONENTS.
5. ALL CONCRETE TANKS ARE TO BE INSULATED WITH STYROFOAM HIGHLOAD 40 INSULATION (BY OTHERS). STYROFOAM TO BE EXTENDED 1.0m BEYOND THE PERIMETER OF THE TANK AND EXTENDED 0.6m BELOW BOTTOM ON THE TANK. (REFER TO DETAIL ON THIS DRAWING)
6. PROVIDE A MINIMUM OF 0.3m OF COVER OVER ALL BIOFILTER STRUCTURES.
7. ALL STRUCTURES THAT CONTAIN FILTERS, SCREENS, PUMPS, ETC. REQUIRE 0.75x0.75m ALUMINUM ACCESS HATCHES. ALL OTHER STRUCTURE REQUIRE A 0.6m MAINTENANCE HOLE ACCESS LIDS.
8. ALL GRAVITY SEWERS TO BE 100mmø and 150mmø PVC SDR 28 SEWER PIPE AND ALL FORCEMAIN TO BE 50mmø (2.0inø) HDPE DR11 SANITARY PIPE (OR APPROVED EQUIVALENT) C/W CAUTION TAPE PLACED 300mm ABOVE THE PIPE FOR ALL BIOFILTER SERVICING. REFER TO SHOP DRAWINGS FOR PIPE SIZING.
9. ALL BIOFILTER STRUCTURES (TANKS) TO BE PORTER'S QUALITY PRECAST CONCRETE & ACCESSORIES OR APPROVED EQUIVALENT. REFER TO BIO 2 FOR ADDITIONAL DETAILS.
10. FORCEMAIN TO BE PLACED AT A CONSTANT GRADE IN ONE DIRECTION (I.E. MINIMIZE UP/DOWN BENDS WHERE POSSIBLE) TO REDUCE THE POSSIBILITY OF AIR-LOCKING THE SYSTEM.
11. ALL SANITARY SEWER SHALL HAVE 1.2m OF COVER MINIMUM. WHERE 1.2m OF COVER CAN'T BE OBTAINED, SANITARY SEWER SHALL BE INSULATED AS PER DETAIL ON DS1.
12. ALL TANK PLUMBING (I.E. PUMPS, VALVES, FILTERS, AND SCREENS) TO BE ACCESSIBLE AT GRADE.
13. THE CONTRACTOR SHALL BE A LICENSED INSTALLER AND BE APPROVED BY WATERLOO BIOFILTER SYSTEMS INC.
14. ESTABLISH ONTARIO BUILDING CODE SETBACKS FOR CLASS 4 TREATMENT UNITS (TABLES 8.2.1.6.A.)

SETBACK DESCPRITION	DISTANCE (m)
ALL TANKS TO STRUCTURES	1.5
ALL TANKS TO LAKE, POND, SPRING	15
ALL TANKS TO ANY WELL	15
ALL TANKS TO PROPERTY LINE	3



STYROFOAM INSULATION DETAIL
N.T.S.

NOTE: CONTRACTOR TO ARRANGE WITH HYDRO RE: METERING REQUIREMENTS, METERING CABINET, MOUNTING & FINAL CONNECTION AT CONTROL PANEL. CONTRACTOR TO COORDINATE BELL CONNECTION FOR ALARM FOR PROPOSED SEWAGE PUMPING STATION

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

Notes:

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Benchmark: 463.937m

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

BIOFILTER PLAN 1

Client:
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628213 15th Sideroad
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L9V 3M6

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119 Collier Street
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Drawn By	Checked By	Drawing No.
AW	JWL	BIO1
Scale 1:100	Project No. 15-319	

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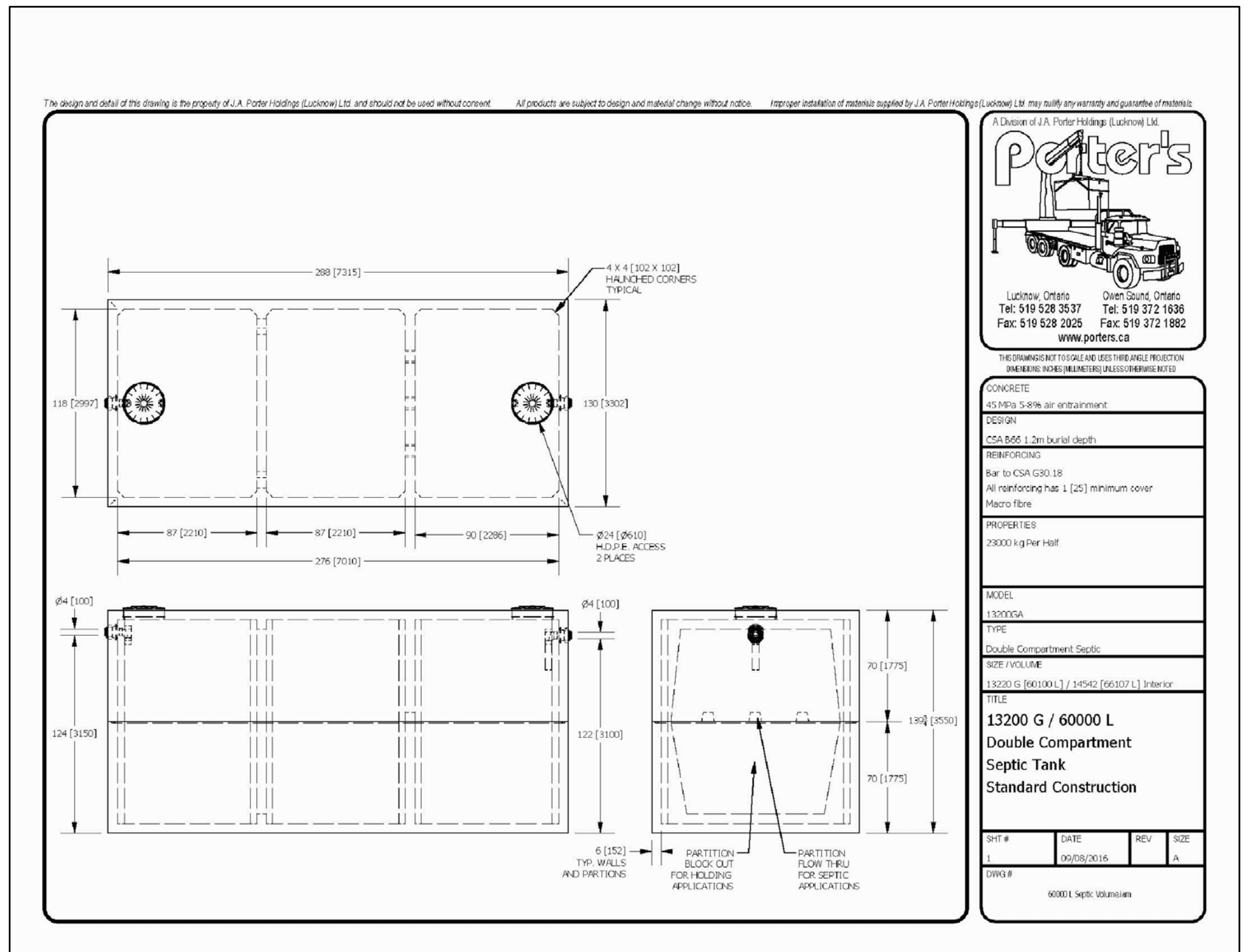

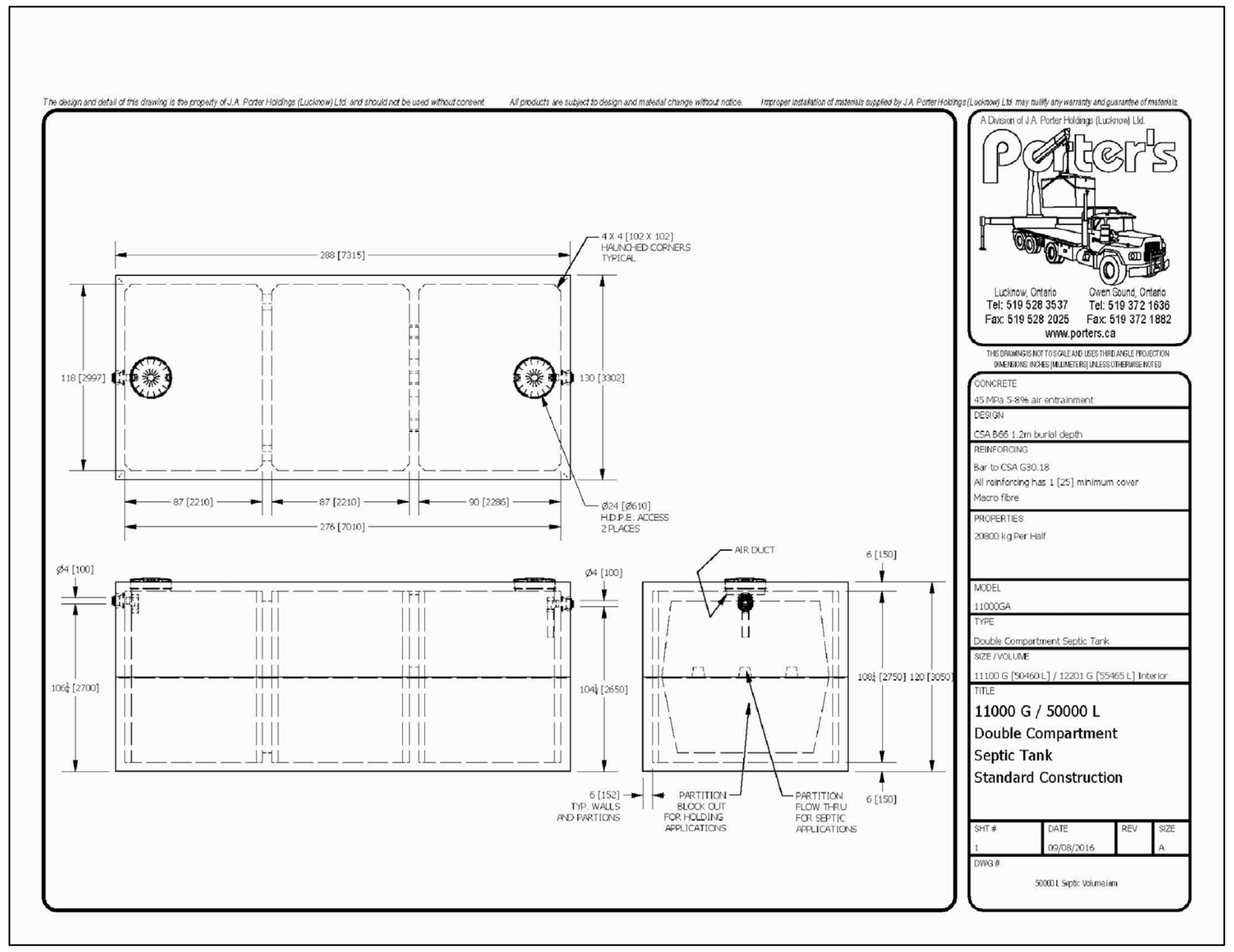

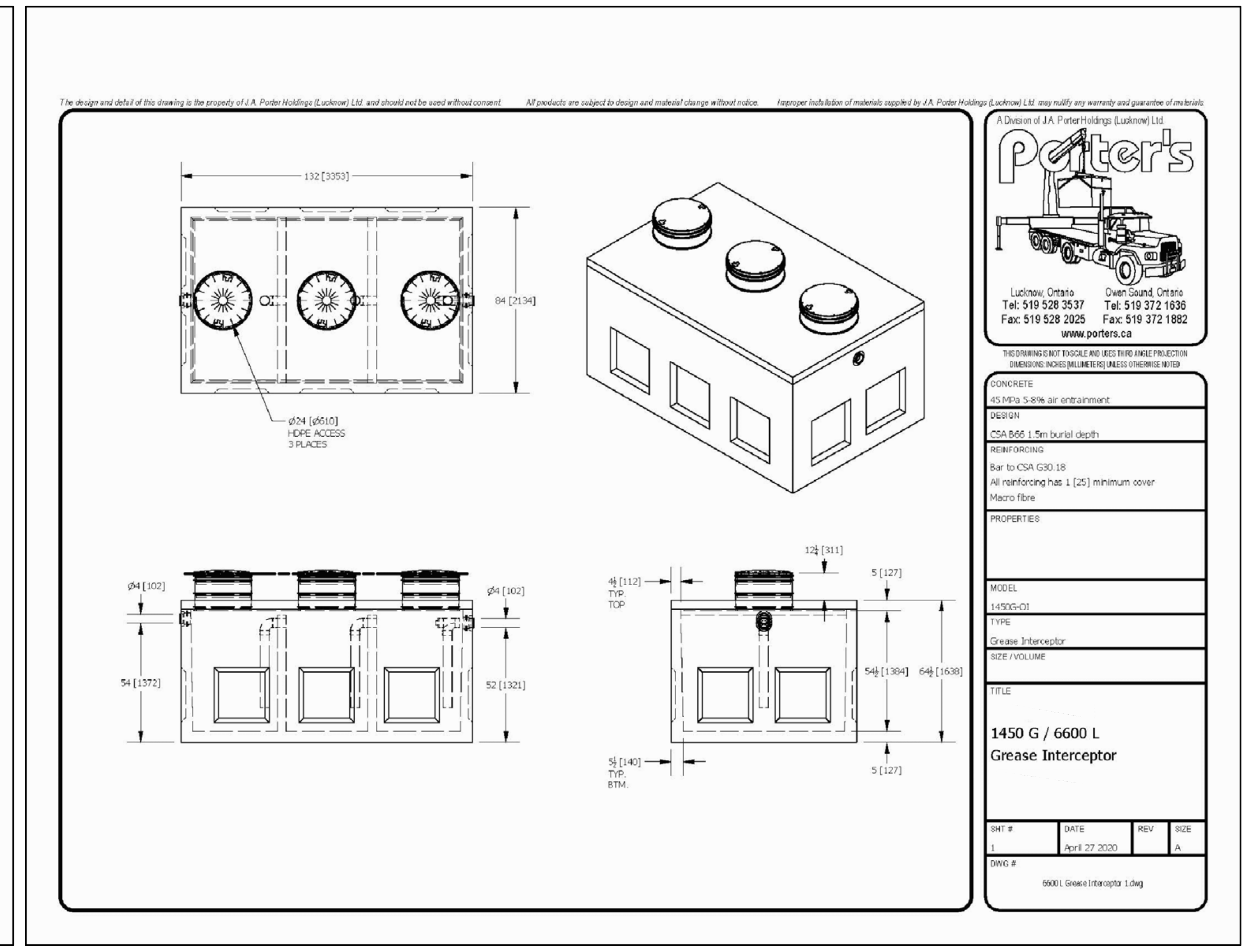

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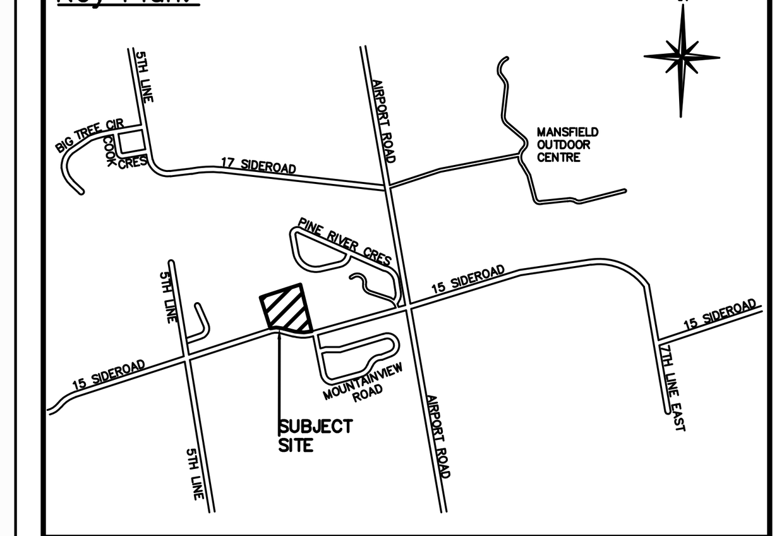

CAUTION
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BIOFILTER SYSTEM NOTES PROVIDED BY WATERLOO BIOFILTER SYSTEMS INC.:

1. THIS IS A PRELIMINARY PROCESS DESCRIPTION FOR A WATERLOO BIOFILTER SEWAGE TREATMENT SYSTEM.

2. THE PEAK DESIGN SANITARY SEWAGE FLOW FOR THIS FACILITY IS 126,503 L/day. PEAK FLOWS ARE EXPECTED TO OCCUR INFREQUENTLY WITH AVERAGE FLOWS BEING AROUND HALF OF THE PEAK.

3. THE RAW SEWAGE IS EXPECTED TO HAVE THE FOLLOWING TYPICAL CONCENTRATIONS:

BOD = 250 mg/L
TSS = 210 mg/L
TP = 7 mg/L
TKN = 60 mg/L

4. WASTEWATER FROM THE MAIN CHALET (RESTAURANT) KITCHEN SINKS FLOWS BY GRAVITY INTO A 6,600 L OIL/GREASE INTERCEPTOR. THE INTERCEPTOR IS VENTED AS PER MANUFACTURER'S RECOMMENDATIONS.

5. THE INTERCEPTOR EFFLUENT AND ALL SANITARY SEWAGE FROM THE FACILITY FLOWS BY GRAVITY INTO A 60,000 L SINGLE COMPARTMENT TRASH TANK. THE INLET AND OUTLET OF THE TANK ARE EQUIPPED WITH BAFFLES.

6. THE TRASH TANK EFFLUENT FLOWS BY GRAVITY THROUGH TWO (2) 60,000 L SINGLE COMPARTMENT ANAEROBIC DIGESTER TANKS (#1 & #2) ARRANGED IN SERIES. THE INLET OF EACH TANK IS EQUIPPED WITH AN INNERTUBE AND THE OUTLET IS EQUIPPED WITH A BAFFLE.

7. ANAEROBIC DIGESTER TANK #2 EFFLUENT FLOWS BY GRAVITY INTO A 60,000 L DOUBLE COMPARTMENT AERATION TANK. THE INLET OF THE TANK IS EQUIPPED WITH A BAFFLE. THE AERATION TANK HOUSES TWO (2) AERATORS. THE OUTLET OF THE TANK IS EQUIPPED WITH A BAFFLE.

8. THE AERATION TANK EFFLUENT FLOWS BY GRAVITY INTO A 60,000 L SINGLE COMPARTMENT ANAEROBIC DIGESTER TANK (#3). THE INLET OF THE TANK IS EQUIPPED WITH AN INNERTUBE. A SUBMERSIBLE PUMP RECIRCULATES A PORTION OF THE EFFLUENT TO THE INLET OF THE TRASH TANK. THE OUTLET OF THE TANK IS EQUIPPED WITH SIX (6) EFFLUENT FILTERS.

9. THE ANAEROBIC DIGESTER TANK #3 EFFLUENT FLOWS BY GRAVITY INTO A 60,000 L SINGLE COMPARTMENT BALANCING TANK #2 WHICH IS CONNECTED BY BOTTOM DRAINS WITH A 60,000 L SINGLE COMPARTMENT BALANCING TANK #1. BALANCING TANK #2 IS EQUIPPED WITH TWO (2) PAIRS OF SUBMERSIBLE PUMPS, WITH EACH PAIR OPERATING ON AN ALTERNATING TIMER.

10. EACH PAIR OF PUMPS IN BALANCING TANK #2 DOSES TWO (2) 55,000 L SINGLE COMPARTMENT BULK–FILLED BIOFILTER TANKS EACH FILLED WITH 55 m^3 OF BIOFILTER MEDIUM (220 m^3 TOTAL). THE SEWAGE IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM AND TREATED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. SMALL, LOW VOLTAGE AIR FANS AND PASSIVE VENTING PROMOTE AEROBIC CONDITIONS. THE BULK–FILLED BIOFILTER TANKS ARE CONNECTED BY BOTTOM DRAINS.

11. BULK–FILLED BIOFILTER TANK #1 IS CONNECTED BY BOTTOM DRAINS TO A 55,000 L SINGLE COMPARTMENT BASKET BIOFILTER TANK #2 WHICH IN TURN IS CONNECTED BY BOTTOM DRAINS TO A 55,000 L BASKET BIOFILTER TANK #1. BASKET BIOFILTER TANK #1 IS EQUIPPED WITH TWO (2) SUBMERSIBLE PUMPS OPERATING ON SEPARATE TIMERS AND TWO (2) SUBMERSIBLE PUMPS OPERATING ON ALTERNATING DEMAND.

12. THE FIRST SIMPLEX PUMP IN BASKET BIOFILTER TANK #1 PUMPS A MAXIMUM OF 43,000 L/day TO THREE (3) BASKETS LOCATED IN EACH OF BASKET BIOFILTER TANK #1 & #2. EACH BASKET IS FILLED WITH 10 m^3 OF BIOFILTER MEDIUM (60 m^3 TOTAL). THE SEWAGE IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM AND TREATED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. SMALL, LOW VOLTAGE AIR FANS AND PASSIVE VENTING PROMOTE AEROBIC CONDITIONS. THE EFFLUENT FROM THE BASKETS MIXES WITH THE EFFLUENT FROM THE BULK–FILLED BIOFILTER TANKS.

13. THE SECOND SIMPLEX PUMP IN BASKET BIOFILTER TANK #1 RECIRCULATES A PORTION OF THE EFFLUENT TO THE INLET OF THE TRASH TANK.

14. THE PAIR OF PUMPS IN BASKET BIOFILTER TANK #1 PUMP THE EFFLUENT THROUGH A FLOW METER AND FOUR (4) UV DISINFECTION UNITS LOCATED IN AN ABOVE GROUND CONTROL BUILDING.

15. THE CONTROL BUILDING ALSO HOUSES THREE (3) METERING PUMPS. THE FIRST TO DOSE SODIUM ALUMINATE INTO THE TRASH TANK, THE SECOND TO DOSE AN ALKALINITY CHEMICAL INTO ANAEROBIC DIGESTER TANK #3, AND THE THIRD TO DOSE BENEFICIAL BACTERIA TO THE INLET OF BALANCING TANK #1.

16. THE UV EFFLUENT CONTINUES TO A DUTY POINT PUMP STATION SUPPLIED BY JOHN BROOKS COMPANY LIMITED.

17. ALL PUMPS ARE RUN BY A WATERLOO SMART PANEL(S). THE WATERLOO SMART PANEL PROVIDES REMOTE MONITORING, CONTROL, AND DATA LOGGING OVER A STABLE WIRELESS CELLULAR NETWORK. THIS FUNCTIONALITY ALLOWS FOR REAL TIME OPERATIONAL ADJUSTMENTS TO OPTIMIZE SYSTEM PERFORMANCE. THE WATERLOO SMART PANEL ALSO IMMEDIATELY NOTIFIES THE SERVICE PROVIDER OF A PUMP FAILURE OR HIGH LEVEL ALARM, PROVIDING THEM WITH VITAL INFORMATION TO LIMIT SITE VISITS WHILE KEEPING THE SYSTEM OPERATING PROPERLY.

18. ADHERENCE TO BEST MANAGEMENT PRACTICES (PROVIDING THE APPROPRIATE STRENGTH SEWAGE, PERFORMING ROUTINE MAINTENANCE, LIMITING TOXINS ENTERING THE SYSTEM, ETC.) IS NECESSARY FOR OPTIMAL PERFORMANCE OF THE WATERLOO BIOFILTER TREATMENT SYSTEM OUTLINED IN THIS SCHEMATIC, WHICH IS DESIGNED FOR THE FOLLOWING EFFLUENT OBJECTIVES (LIMITS) (LOADING LIMITS):

cBOD= 10.0 mg/L (15.0 mg/L) (1.8 kg/day)
TSS = 10.0 mg/L (15.0 mg/L) (1.8 kg/day)
TP = 0.5 mg/L (1.0 mg/L) (0.12 kg/day)
TAN = 3.0 mg/L (5.0 mg/L) (0.6 kg/day)
E.Coli = 100 cfu/100 mL (200 cfu/100 mL)
pH = 6.5 to 8.5 (6.0 to 9.0)

PUMP STATION NOTES:

1. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO PREVENT UPLIFT DURING CONSTRUCTION.

2. ELECTRICAL CONDUITS SHALL BE BURIED 0.9m MIN. BELOW FINISHED GRADE C/W TRACING WIRE.

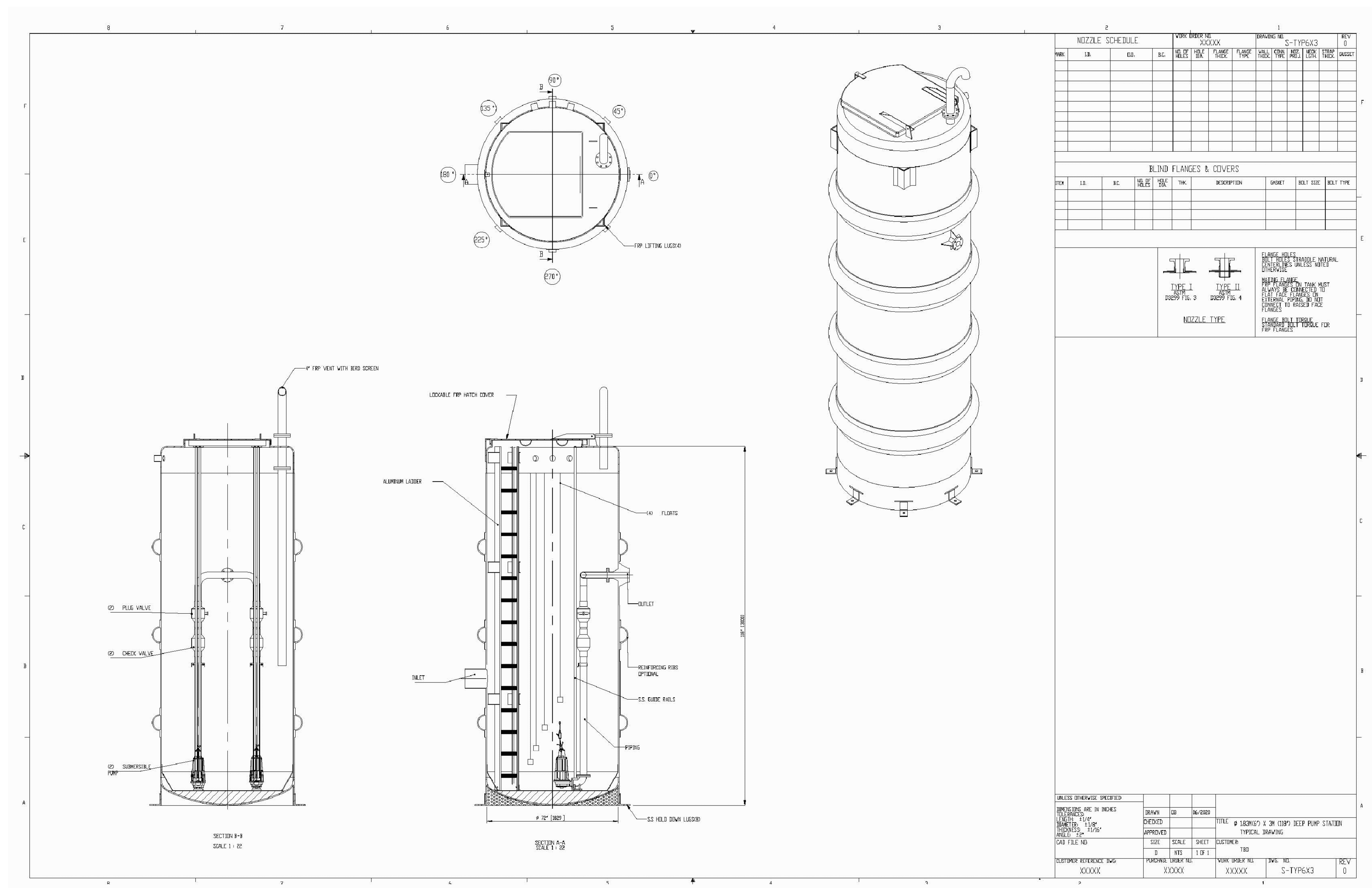
3. DUTY POINT: 2.5 L/S @ 8.43m TDH

ONE (1) JOHN BROOKS DUPLEX SUBMERSIBLE PUMP STATION WITH THE FOLLOWING COMPONENTS:

- (2) TWO SUBMERSIBLE SEWAGE GRINDER PUMP
- (2) TWO 10FT GALV LIFTING CHAIN PACKAGES
- (1) ONE STAINLESS STEEL LEVEL CONTROL BRACKET #10–0253
- (1) ONE NEMA 4X DUPLEX CONTROL PANEL WITH HWA & AUX CONTACT (#10–1044).
- (4) FOUR #10–0744 LEVEL CONTROLS ONE
- (4) FOUR FLOATATION WEIGHTS
- (2) JUNCTION BOX (WIRING BY OTHERS)
- (1) ONE FIBERGLASS BASIN (1800mmø X 3.0m DEEP) WITH QUICK DISCONNECTS, PVC DISCHARGE PIPING, GUIDE RAILS, FIBERGLASS COVER AND HATCHES
- (2) TWO 2x2 EZ–OUT ASSEMBLY WITH UPPER GUIDE BRACKET #39–0083
- (2) TWO #30–0152 2" CAST IRON FULL FLOW CHECK VALVE
- (2) TWO SHUT OFF VALVES
- (2) TWO VENTS
- UNLOADING AND INSTALLATION TO BE COMPLETED BY THE CONTRACTOR
- **ANTI–FLOAT CONCRETE BLOCK REQUIRED
  (PUMP STATION BALLAST TO BE DONE BY OTHERS)
- SUITABLE CONDUIT SEALS ARE TO BE SUPPLIED AND INSTALLED BETWEEN THE JUNCTION BOX AND THE PANEL AS REQUIRED BY THE CANADIAN ELECTRICAL CODE, THE ENGINEER OR THE AUTHORITY HAVING JURISDICTION

4. VENT PIPE ASSEMBLY AS PER DETAIL ON BROOKS DRAWING

5. ELECTRICAL WORK AND EQUIPMENT IN WET WELL TO COMPLY WITH THE CURRENT ONTARIO ELECTRICAL CODE



NOTE: THIS DRAWING IS FOR SCHEMATIC PURPOSES ONLY AND FINAL SHOP DRAWINGS ARE TO BE PROVIDED BY JOHN BROOKS COMPANY PRIOR TO CONSTRUCTION.

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Benchmark: 463.937m

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REGISTERED PROFESSIONAL ENGINEER
[illegible]
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

BIOFILTER PLAN 2

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
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Ph 705-797-2027
www.wmiengineering.ca

Drawn By AW	Checked By JWL	Drawing No.
Scale 1:100	Project No. 15–319	BIO2

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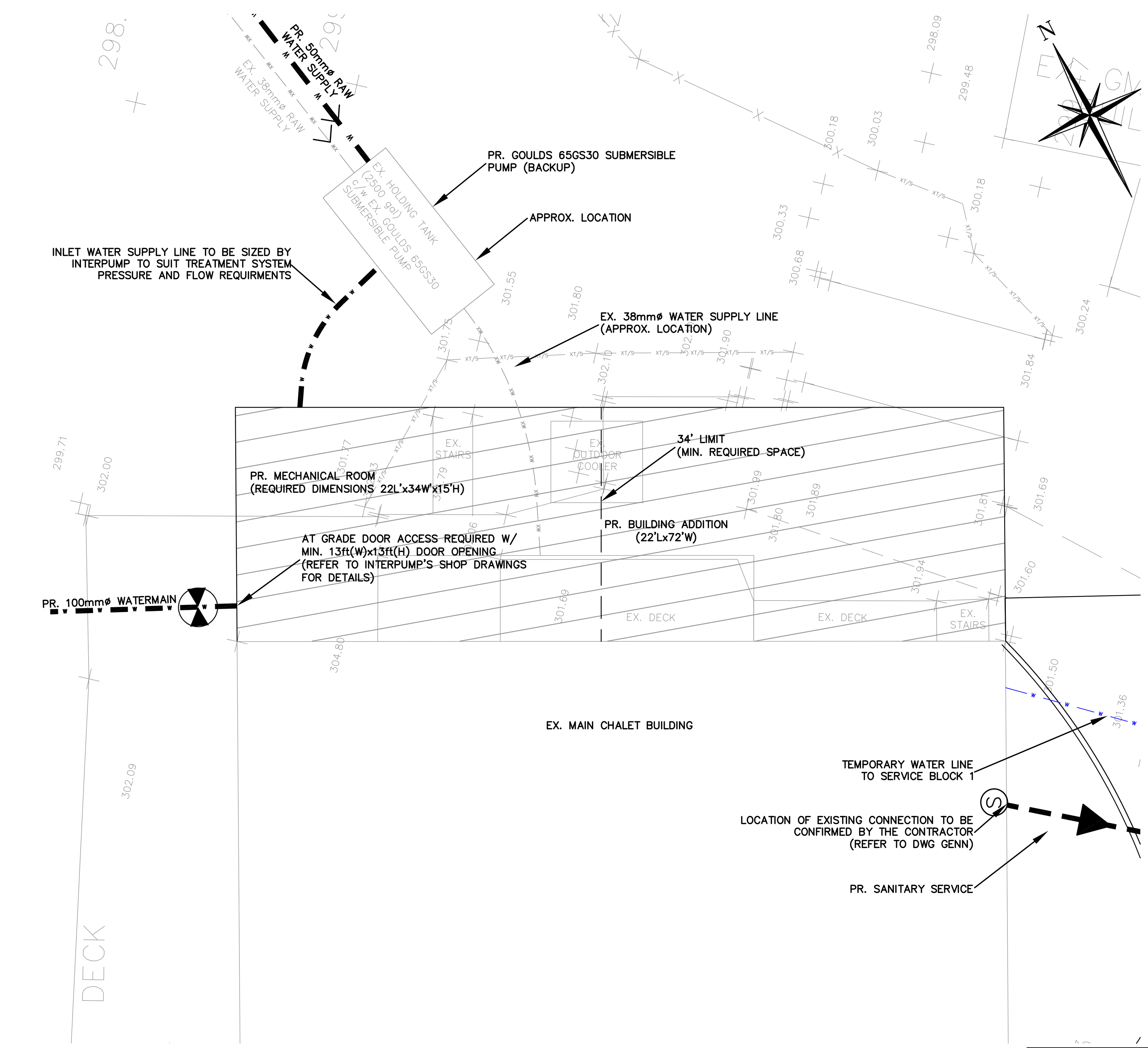

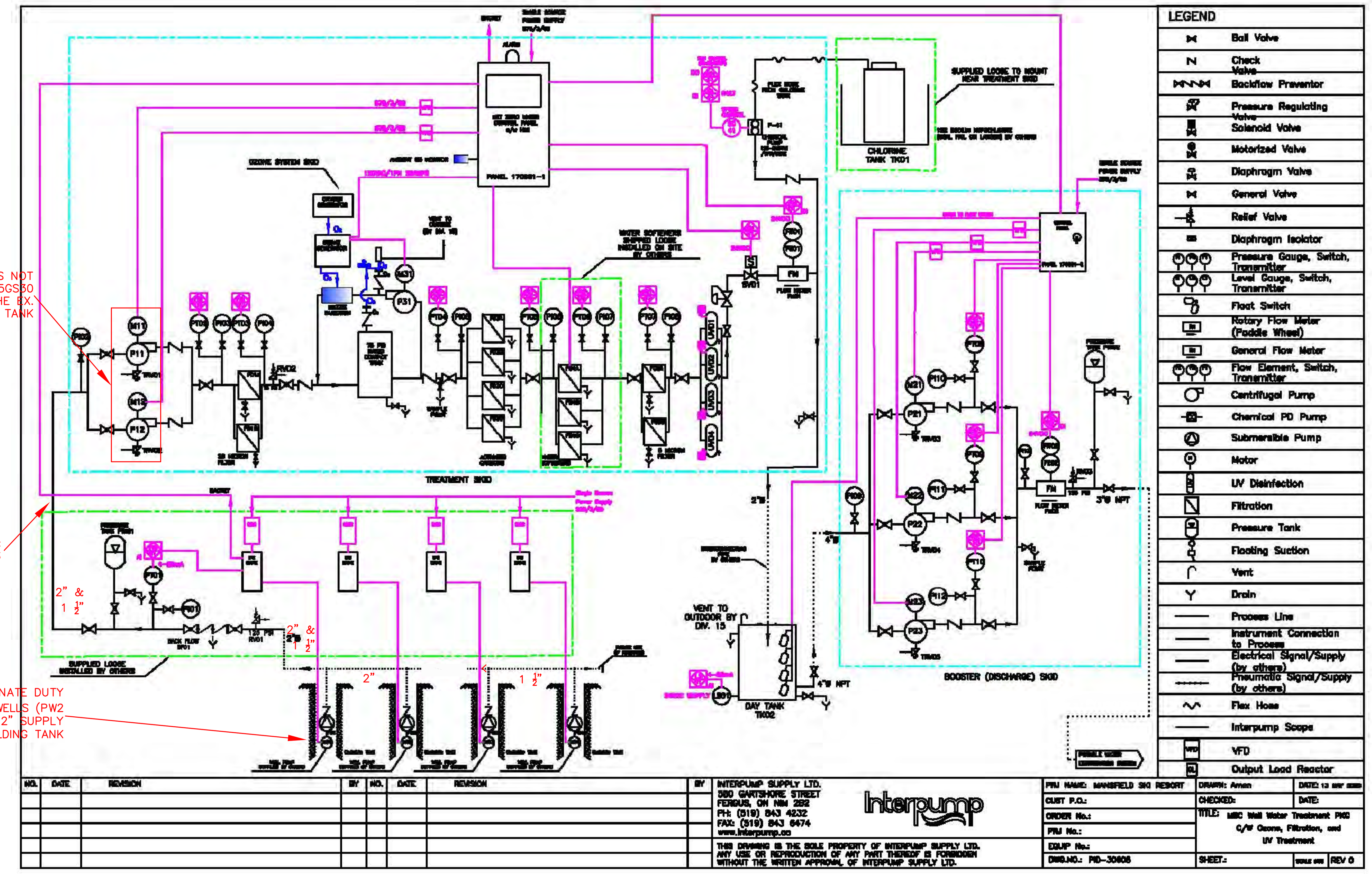

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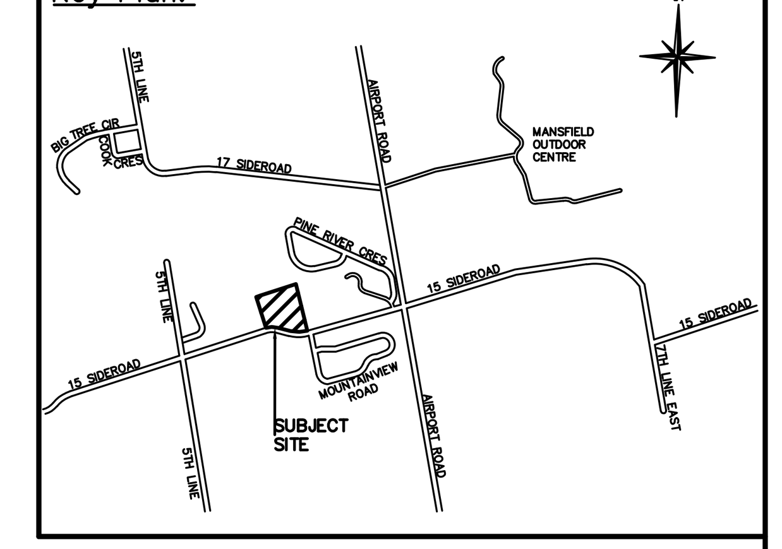

CAUTION

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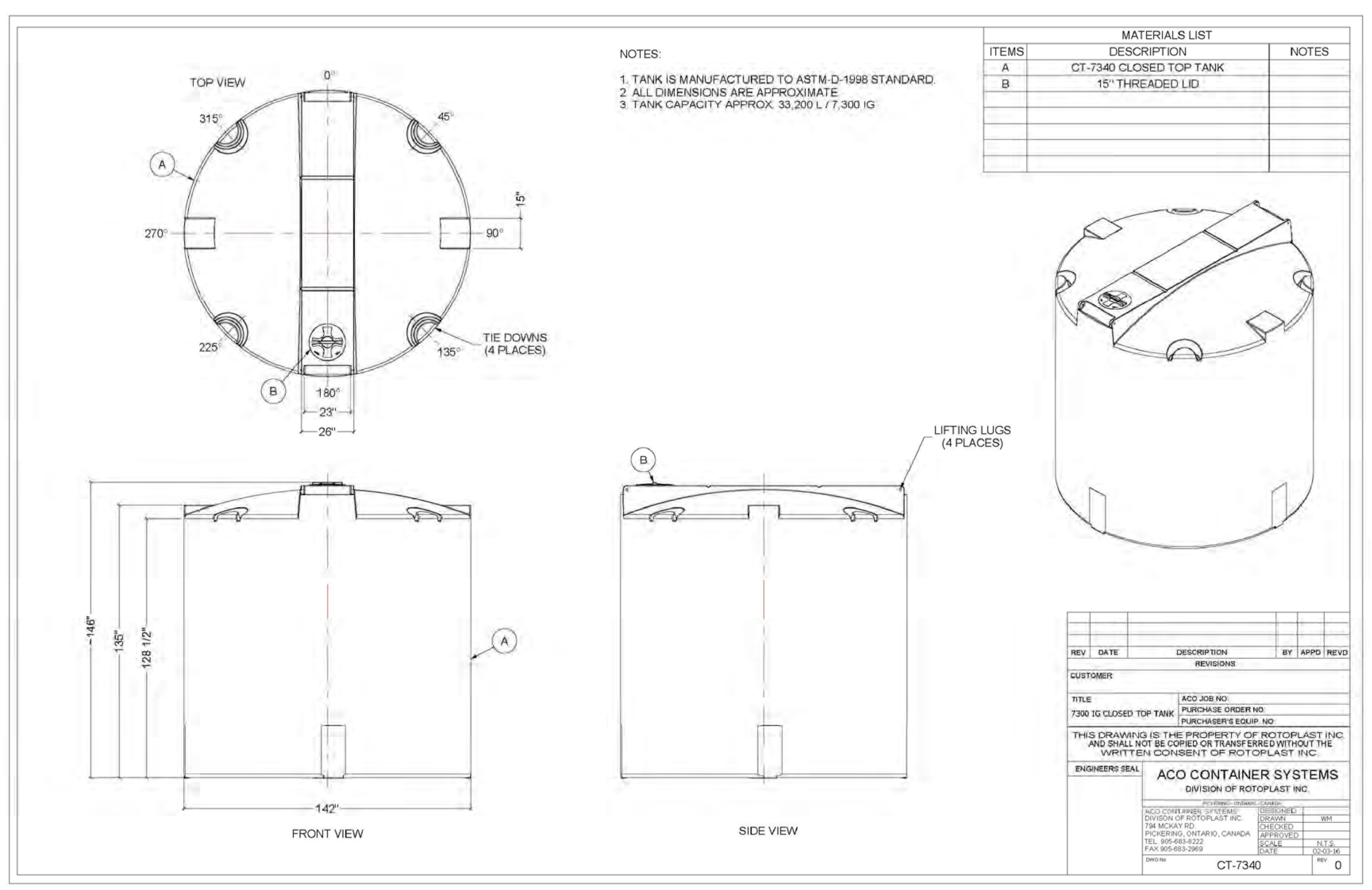
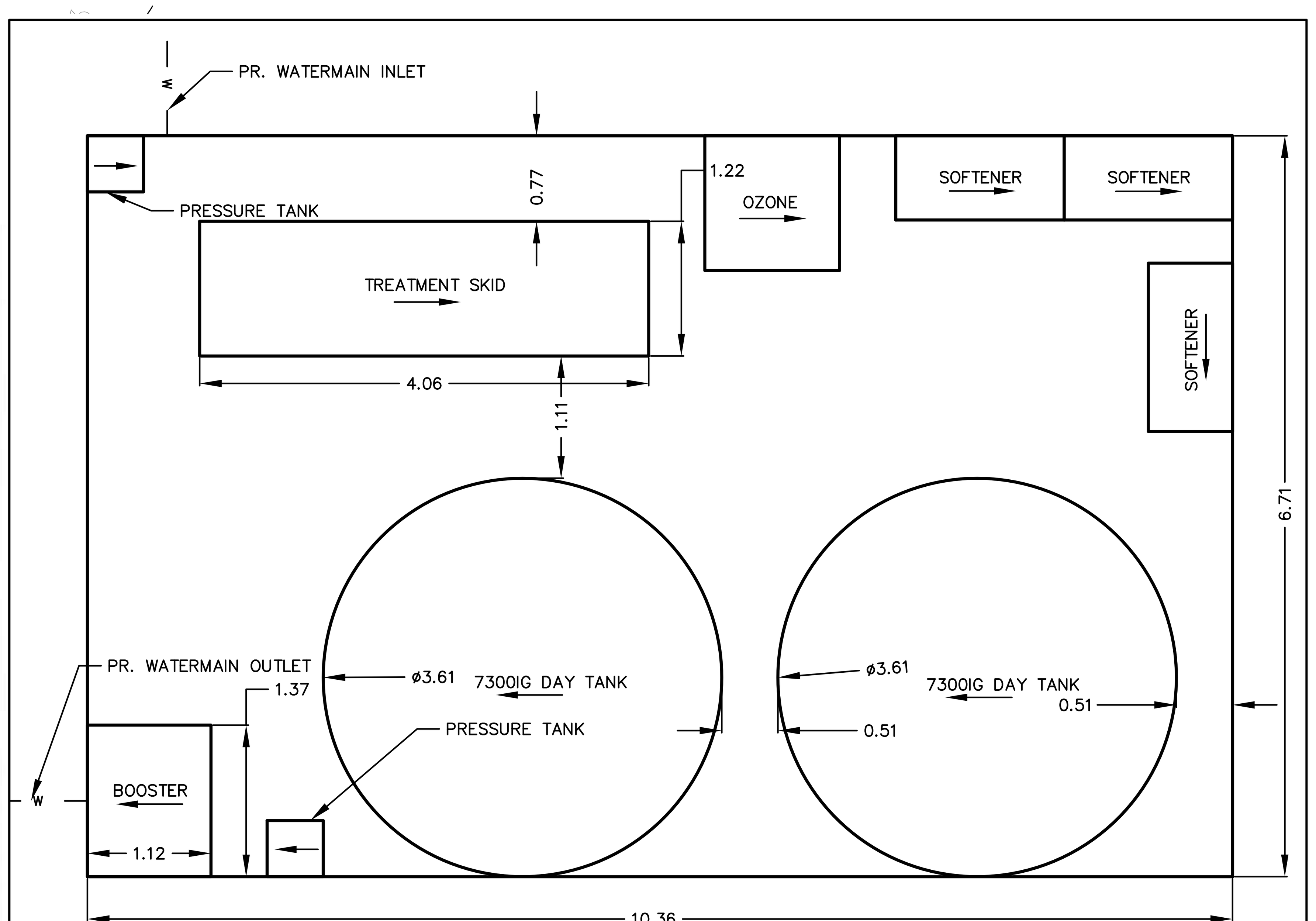
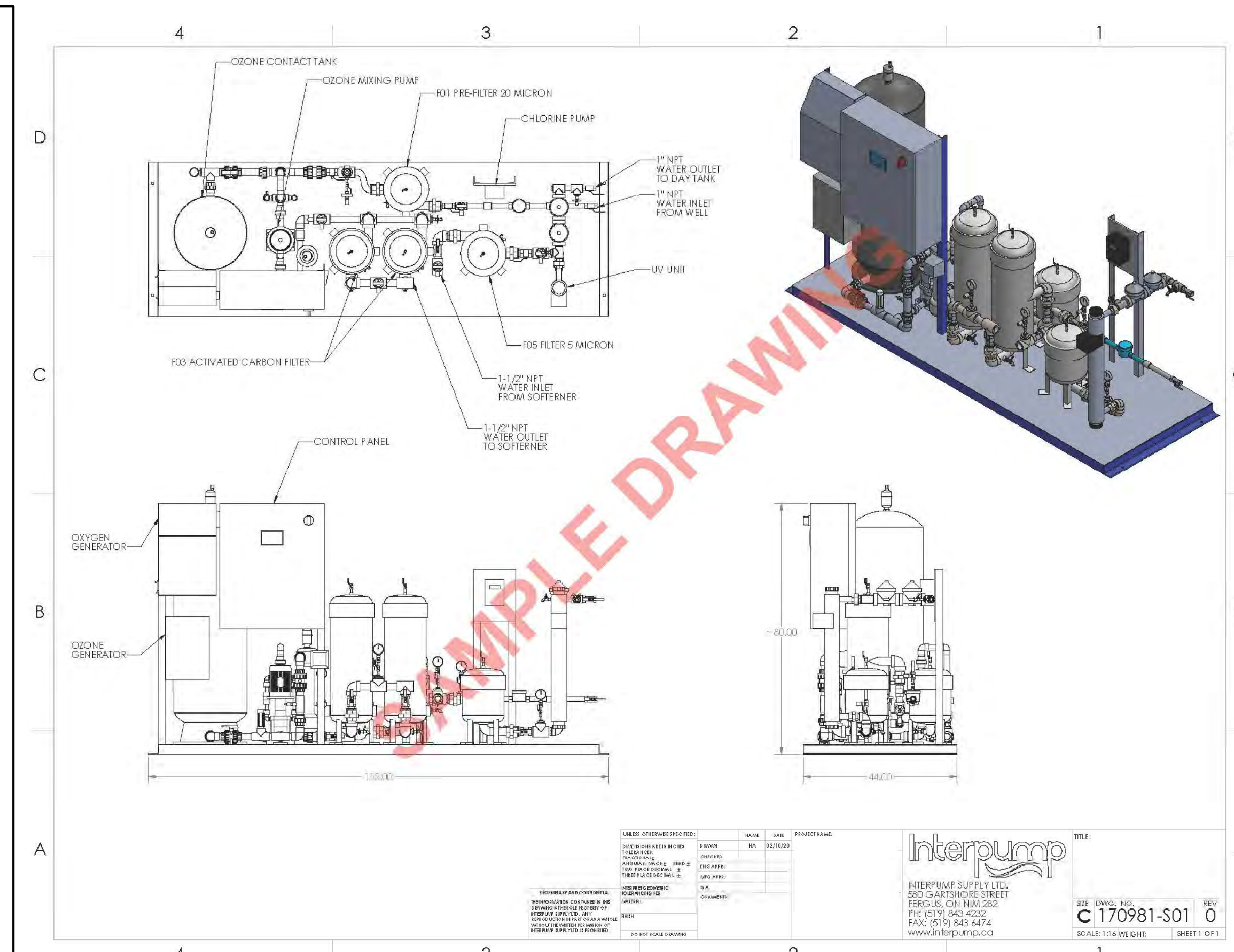




MECHANICAL ROOM – WATER TREATMENT SYSTEM LAYOUT
SCALE N.T.S.



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REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

WATER TREATMENT FACILITY

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

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119 Collier Street
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L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	Checked By	Drawing No.
AW	JWL	WF
Scale 1:100	Project No. 15–319	

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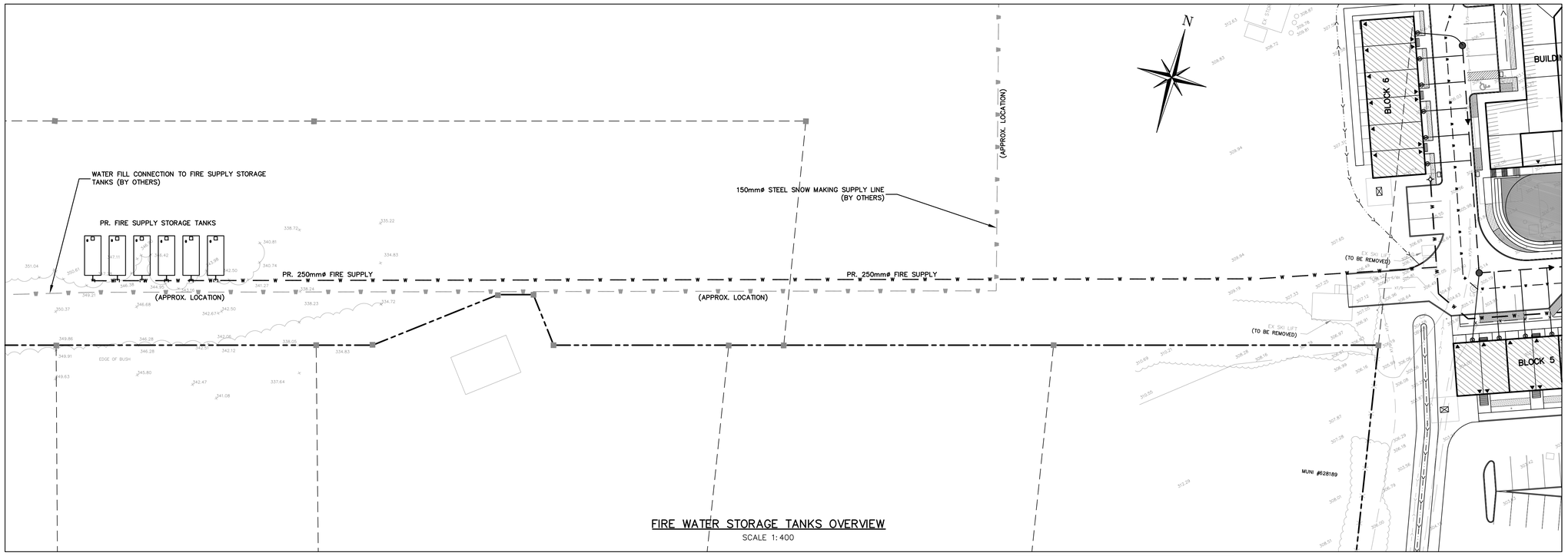
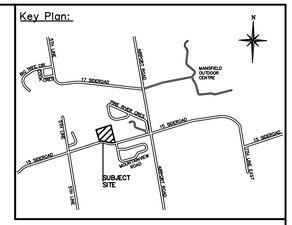


FIRE WATER STORAGE TANKS OVERVIEW

SCALE 1:400

Key Plan:



CAUTION

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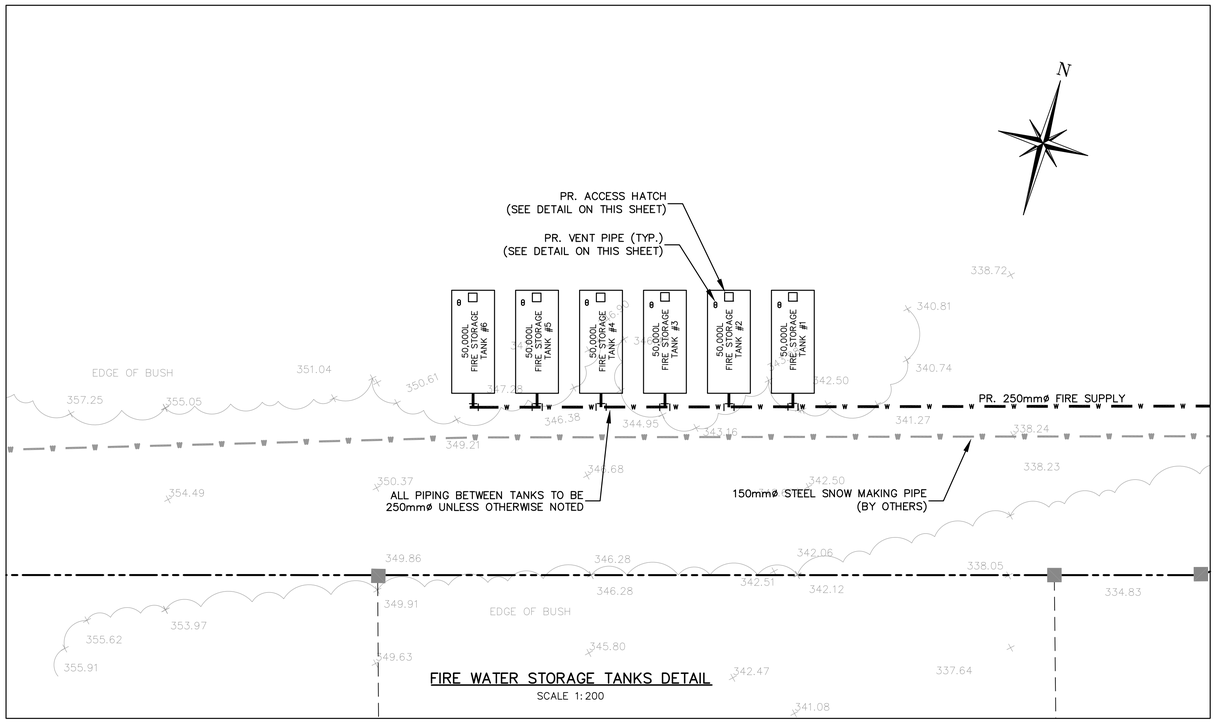


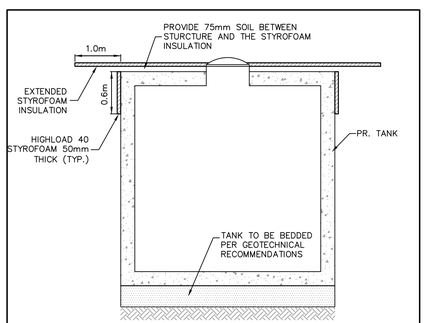
FIRE WATER STORAGE TANKS DETAIL

SCALE 1:200

WATER TANK	GROUND ELEV.	TOP OF STRUCTURE ELEV.	OUTLET ELEV.
FIRE STORAGE TANK #1	343.50	342.15	339.45
FIRE STORAGE TANK #2	344.00	342.65	339.95
FIRE STORAGE TANK #3	345.50	344.15	341.45
FIRE STORAGE TANK #4	346.90	345.55	342.85
FIRE STORAGE TANK #5	347.11	345.76	343.06
FIRE STORAGE TANK #6	349.00	347.65	344.95

NOTES:

1. TANK ACCESS MUST BE PROVIDED VIA LOCKED WATER CHUTE ACCESS HATCH COMPLETE WITH LADDER RUNGS.
2. ALL CONNECTIONS TO THE STORAGE TANKS ARE TO BE WATER TIGHT.
3. TANK IS TO BE BEDDED AS PER GEOTECHNICAL RECOMMENDATIONS.
4. REFER TO DRAWING ON THIS SHEET FOR 50,000L TANK CROSS SECTION DETAILS.
5. ALL CONCRETE TANKS ARE TO HAVE 1.2m COVER (MIN.) OR TO BE INSULATED (REFER TO DETAIL ON THIS SHEET)
6. ALL STRUCTURES (TANKS) TO BE NEWMARKET PRE-CAST CONCRETE PRODUCTS OR APPROVED EQUIVALENT. REFER TO THIS DRAWING FOR TANK DETAILS.



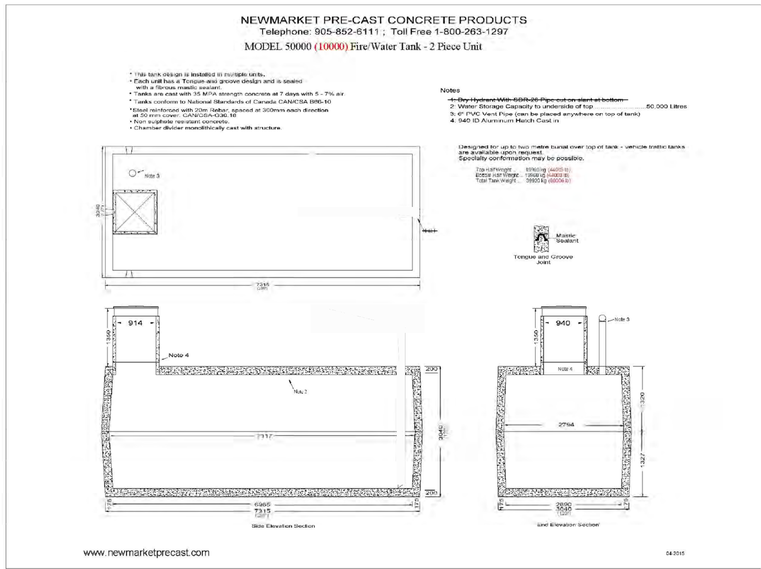
STYROFOAM INSULATION DETAIL

N.T.S.

NEWMARKET PRE-CAST CONCRETE PRODUCTS

Telephone: 905-852-8111 ; Toll Free 1-800-263-1297

MODEL 50000 (10000) Fire/Water Tank - 2 Piece Unit



www.newmarketprecast.com

Notes:

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Benchmark: 463.937m

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER J.W.LIGHTHEART 100140403 AUG. 17, 2020 PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

FIRE WATER STORAGE

Client:

Mansfield Ski Club

628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	Checked By	Drawing No.
AW	JWL	FWS
Scale: AS SHOWN	Project No.: 15-319	

MH 1
T/G 301.43
SW INV 299.93
NE INV 299.88

76.1m–200mmø STM @ 13.9%

MH 2
T/G 290.80
SW INV 289.30
S INV 288.40

50.1m–200mmø STM @ 16.3%

MH 3
T/G 281.75
SE INV 280.25
N INV 279.35

100.5m–200mmø STM @ 13.2%

MH 4
T/G 267.55
S INV 266.05
N INV 265.15

84.0m–200mmø STM @ 2.4%

MH 5
T/G 264.55
S INV 263.10
E INV 263.05

49.2m–200mmø STM @ 5.8%

MH 6
T/G 262.65
W INV 261.15
E INV 261.10

55.9m–200mmø STM @ 0.8%

MH 7
T/G 261.30
W INV 260.62
E INV 260.58

50.1m–200mmø STM @ 0.8%

MH 8
T/G 260.86
W INV 260.33
E INV 260.30

34.5m–200mmø STM @ 0.8%

MH 9
T/G 261.05
W INV 260.11
E INV 260.08

5.1m–200mmø STM @ 0.8%
INV. 260.04

100–200mmø RIP RAP ON TERRAFIX 270R (OR APPROVED EQUIVALENT)

EX. HOLDING TANK

EX. 38mmø WATER SUPPLY FROM PW2 (APPROX. LOCATION)

PR 50mmø RAW WATER SUPPLY FROM PW1

EX. GROUND ELEVATION AT EACH MANHOLE TO BE CONFIRMED WITH THE ENGINEER PRIOR TO CONSTRUCTION. TOP OF GRATE AND INVERT ELEVATIONS MAY NEED TO BE ADJUSTED BASED ON THE EX. GROUND ELEVATION

250mmø HDPE WATER TRANSFER LINE TO NEW PUMP STATION (BY OTHERS) (APPROX. LOCATION)

EX. PRESSURE TANK LOCATION

200mmø LOW PRESSURE WATERMAIN FROM RIVER PUMPHOUSE TO SNOW MAKING POND (BY OTHERS) (APPROX. LOCATION)

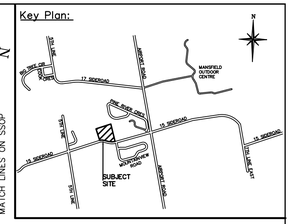
SILT FENCE PER OPSD 219.130 TO BE INSTALLED ON PROPERTY LINE PRIOR TO CONSTRUCTION (SEE DETAIL ON DWG ESC)

MUNI #39
MUNI #37
MUNI #35
MUNI #33
MUNI #31

REFER TO DRAWING GENN

MATCH LINES ON SSOP

Key Plan:



Legend:

EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP / EX BELL PED
- EX STD IRON BAR @ / EX IRON BAR / EX UTILITY POLE
- EX WS / EX HYD / NS / SS / X123.45
- EX WATER SERVICE
- EX FIRE HYD.
- EX ST NAME SIGN
- EX STOP SIGN
- EX ELEVATION
- EX FENCE
- EX U/G GASMAIN
- EX U/G BELL
- EX HYDRO
- EX BOTTOM OF SLOPE
- EX TOP OF SLOPE
- EX WATERMAIN & VALVE
- EX SAN @ 0.0% — EX SAN SEWER & MH
- EX STM @ 0.0% — EX STM SEWER & MH

PROPOSED FEATURES (PR)

- PR STREET NAME SIGN
- PR STOP SIGN
- PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M — PR WATERMAIN
- 00mmø W/M — PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M — PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m–00mmø SAN @ 0.0% — PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- T/N — T/N — T/N — T/N — PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K — PR SANITARY MANHOLE
- 0m–00mmø STM @ 0.0% — PR STM SEWER
- MH 4 — PR CATCHBASIN MANHOLE
- MH 4 — PR MANHOLE
- PR CATCHBASIN
- 000.00 — PROPOSED ELEVATION
- (000.00) — PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E — UPPER FLOOR ELEVATION
- G.F.E — GROUND FLOOR ELEVATION
- WATERMAIN BY OTHERS

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

Notes:

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Benchmark: 463.937m

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

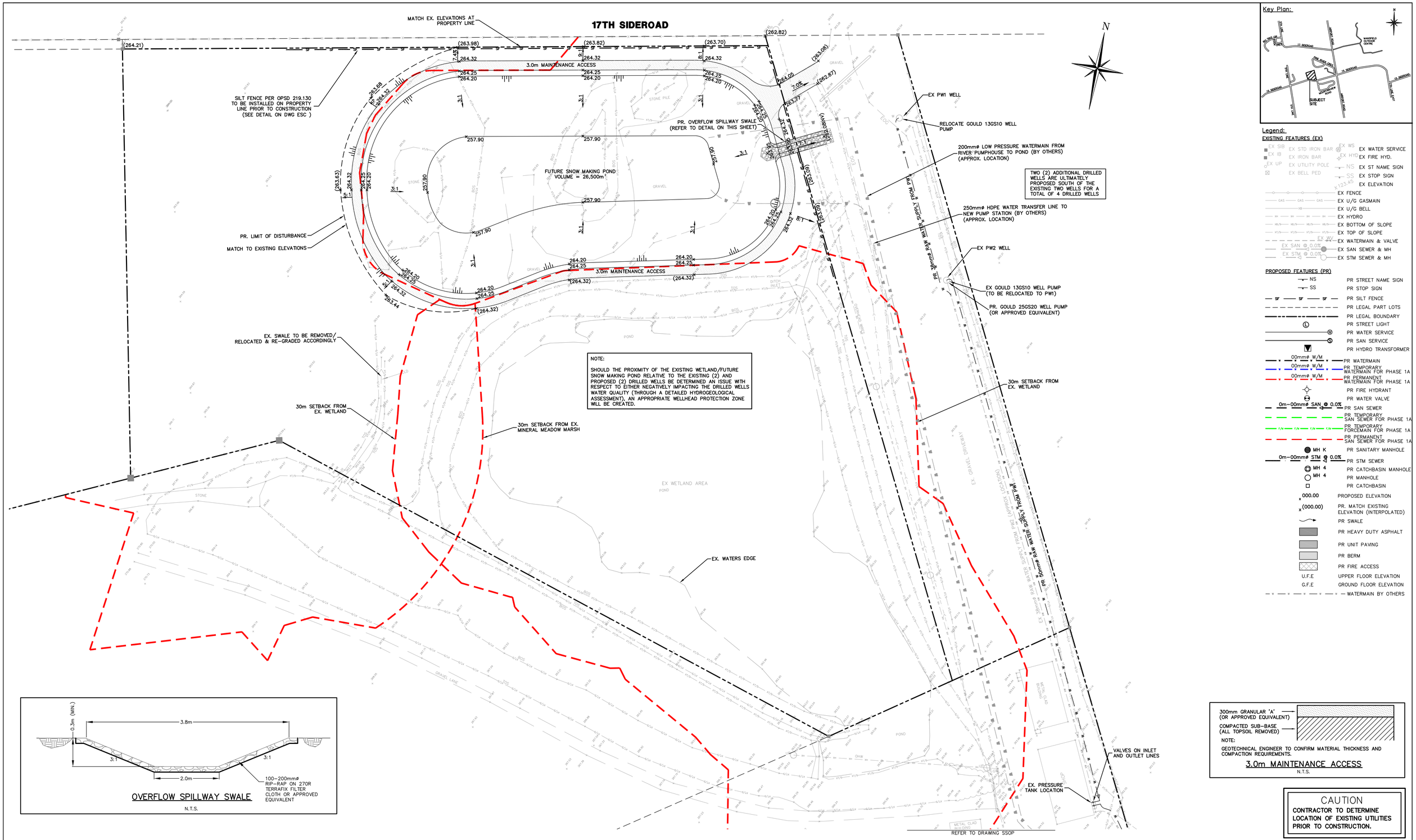
SITE SERVICING OUTLET PLAN

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	Checked By	Drawing No.
AW	JWL	SSOP
Scale 1:500	Project No. 15-319	

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_No1\200810_Baseplan_15-319.dwg, SSOP, 1:1



OVERFLOW SPILLWAY SWALE

N.T.S.

NOTE:
GEOTECHNICAL ENGINEER TO CONFIRM MATERIAL THICKNESS AND COMPACTION REQUIREMENTS.

3.0m MAINTENANCE ACCESS

N.T.S.

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

Key Plan:

Legend:

EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP / EX BELL PED — EX STD IRON BAR @ / EX IRON BAR / EX UTILITY POLE
- EX WS — EX WATER SERVICE
- EX HYD — EX FIRE HYD.
- NS — EX ST NAME SIGN
- SS — EX STOP SIGN
- X123.45 — EX ELEVATION
- EX FENCE
- GAS — EX U/G GASMAIN
- XB — EX U/G BELL
- HX — EX HYDRO
- 68.5 — EX BOTTOM OF SLOPE
- 67.5 — EX TOP OF SLOPE
- EX WV — EX WATERMAIN & VALVE
- EX SAN @ 0.0% — EX SAN SEWER & MH
- EX STM @ 0.0% — EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS — PR STREET NAME SIGN
- SS — PR STOP SIGN
- SF — PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- L — PR STREET LIGHT
- W — PR WATER SERVICE
- S — PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M — PR WATERMAIN
- 00mmø W/M — PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M — PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m-00mmø SAN @ 0.0% — PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- T/N T/N T/N T/N — PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K — PR SANITARY MANHOLE
- 0m-00mmø STM @ 0.0% — PR STM SEWER
- MH 4 — PR CATCHBASIN MANHOLE
- MH 4 — PR MANHOLE
- PR CATCHBASIN
- x 000.00 — PROPOSED ELEVATION
- x (000.00) — PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E — UPPER FLOOR ELEVATION
- G.F.E — GROUND FLOOR ELEVATION
- WATERMAIN BY OTHERS

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Benchmark: 463.937m

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REGISTERED PROFESSIONAL ENGINEER — J.W.LIGHTHEART 100140403 — AUG. 17, 2020 — PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

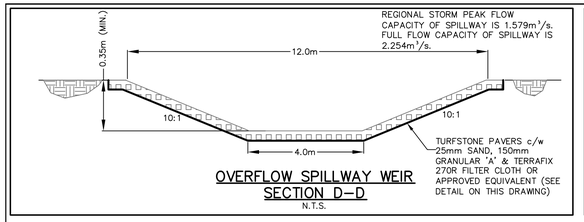
PROPOSED SNOW MAKING POND & WELL LOCATION PLAN

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

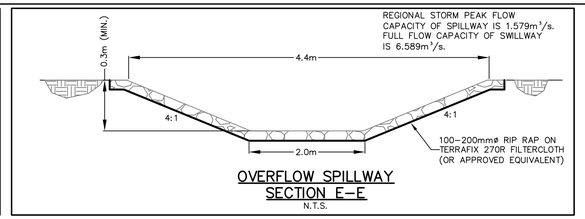
WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	AW	Checked By	JWL	Drawing No.
Scale	1:500	Project No.	15-319	SMPLP

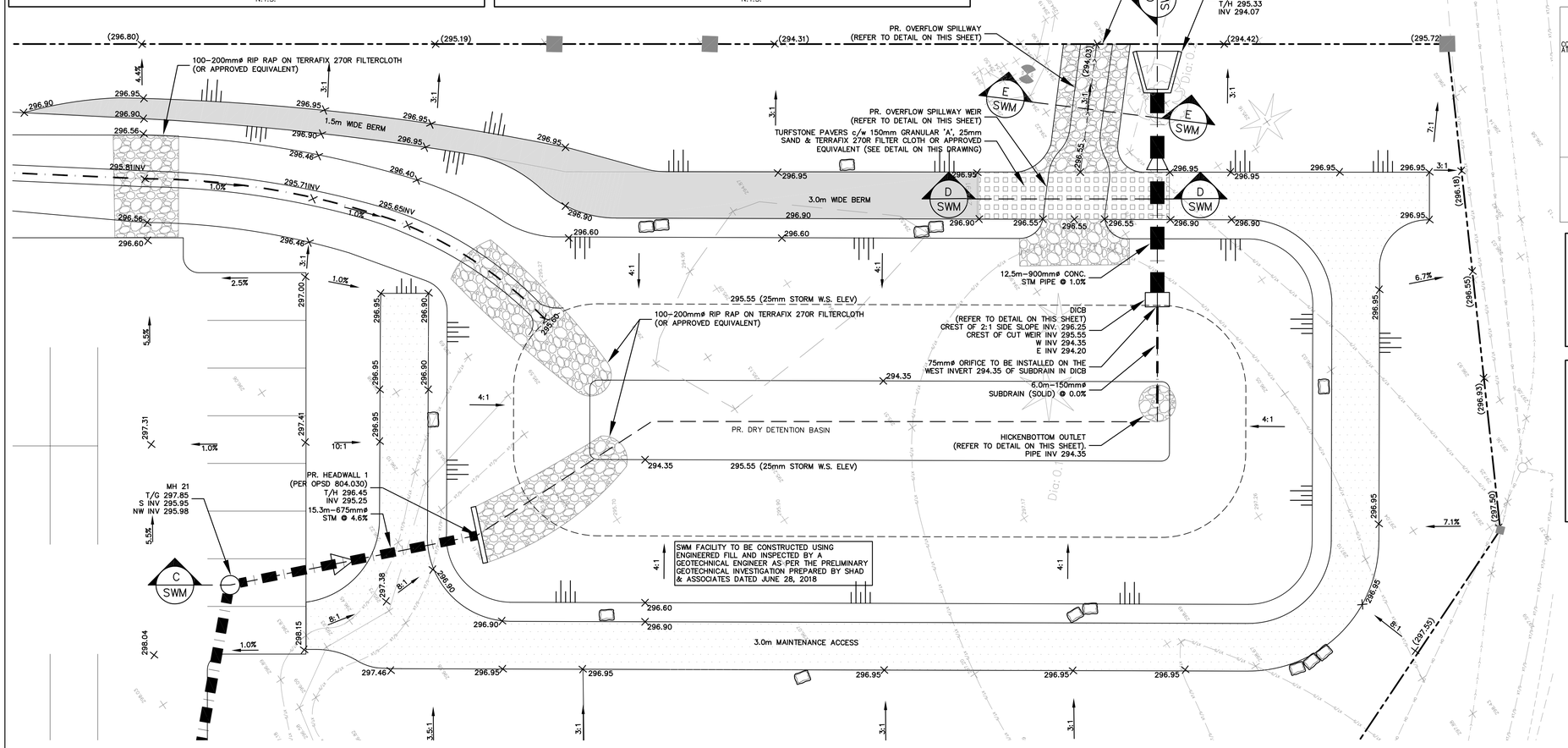
\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_15\200810_Baseplan_15-319.dwg, SMPLP, 1:1



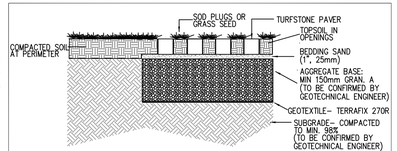
OVERFLOW SPILLWAY WEIR
SECTION D–D
N.T.S.



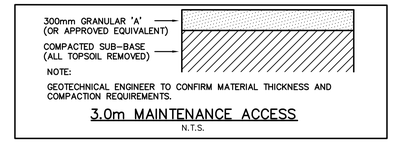
OVERFLOW SPILLWAY
SECTION E–E
N.T.S.



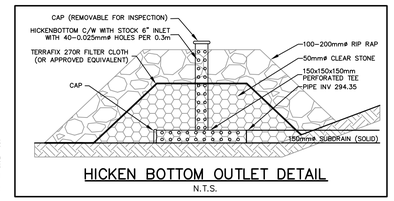
FEATURE	ELEVATION	VOLUME
BASE OF BASIN	294.35m	0.0m³
(ACTIVE STORAGE VOLUMES)		
25mm HWL	295.55	493m³
2 YR HWL	296.02	863m³
5 YR HWL	296.20	1037m³
25 YR HWL	296.42	1279m³
100 YR HWL	296.57	1463m³
TOP OF BASIN	296.90	1905m³



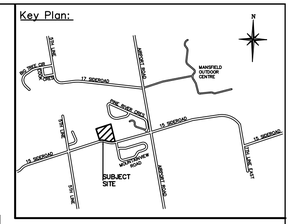
OVERFLOW SPILLWAY WEIR Turfstone Paver	UNILOCK® Designed to be a step ahead 1•800•UNILOCK www.unilock.com	PAVER DETAIL Cross Section SWM.DWG



3.0m MAINTENANCE ACCESS
N.T.S.



HICKEN BOTTOM OUTLET DETAIL
N.T.S.



Legend:

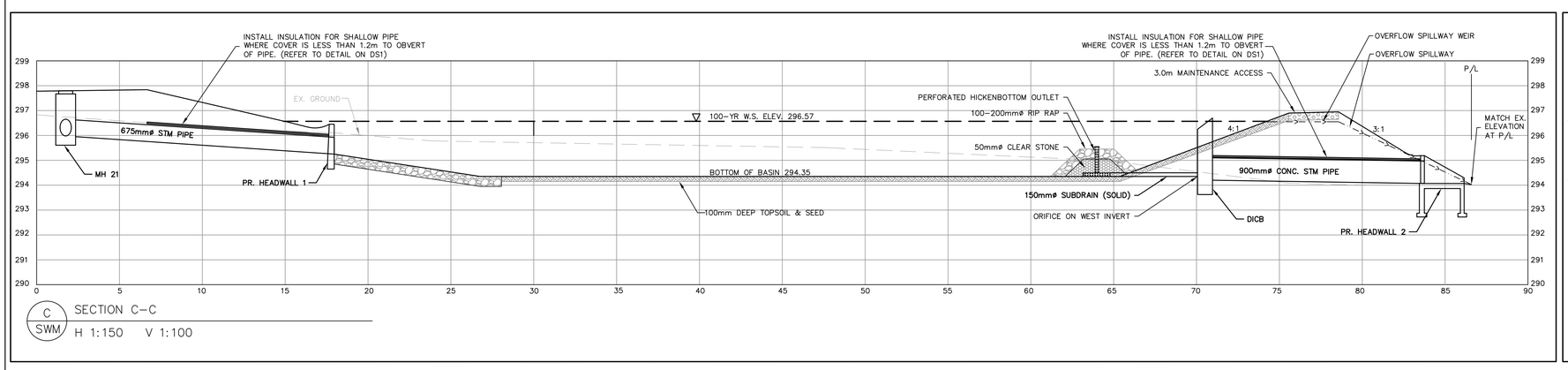
EXISTING FEATURES (EX)

- EX SIB / EX IB / EX UP / EX BELL PED
- EX STD IRON BAR @ / EX IRON BAR / EX UTILITY POLE
- EX WS / EX HYD / NS / SS / 123.45
- EX WATER SERVICE
- EX FIRE HYD.
- EX ST NAME SIGN
- EX STOP SIGN
- EX ELEVATION
- EX FENCE
- EX U/G GASMAIN
- EX U/G BELL
- EX HYDRO
- EX BOTTOM OF SLOPE
- EX TOP OF SLOPE
- EX WATERMAIN & VALVE
- EX SAN @ 0.0% / EX STM @ 0.0%
- EX SAN SEWER & MH
- EX STM SEWER & MH

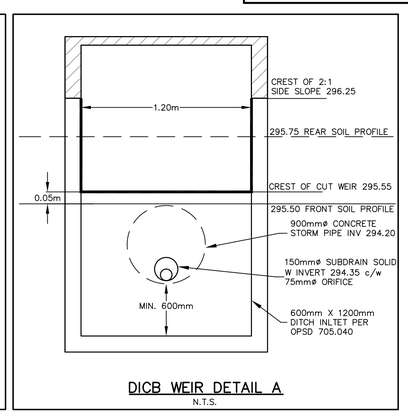
PROPOSED FEATURES (PR)

- NS / SS
- PR STREET NAME SIGN
- PR STOP SIGN
- SF
- PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- PR STREET LIGHT
- PR WATER SERVICE
- PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M
- PR WATERMAIN
- PR TEMPORARY WATERMAIN FOR PHASE 1A
- PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m–00mmø SAN @ 0.0%
- PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K
- PR SANITARY MANHOLE
- 0m–00mmø STM @ 0.0%
- PR STM SEWER
- MH 4
- PR CATCHBASIN MANHOLE
- MH 4
- PR MANHOLE
- PR CATCHBASIN
- 000.00
- PROPOSED ELEVATION
- (000.00)
- PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E
- UPPER FLOOR ELEVATION
- G.F.E
- GROUND FLOOR ELEVATION

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.



C SWM SECTION C–C
H 1:150 V 1:100



DICB WEIR DETAIL A
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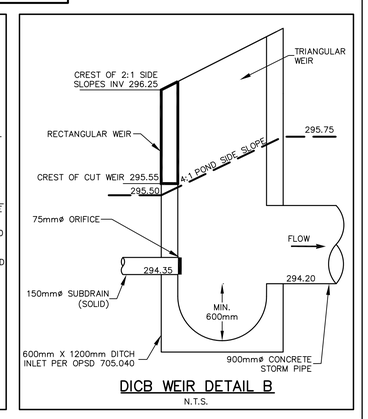

DICB WEIR DETAIL B
N.T.S.

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Benchmark: 463.937m
ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

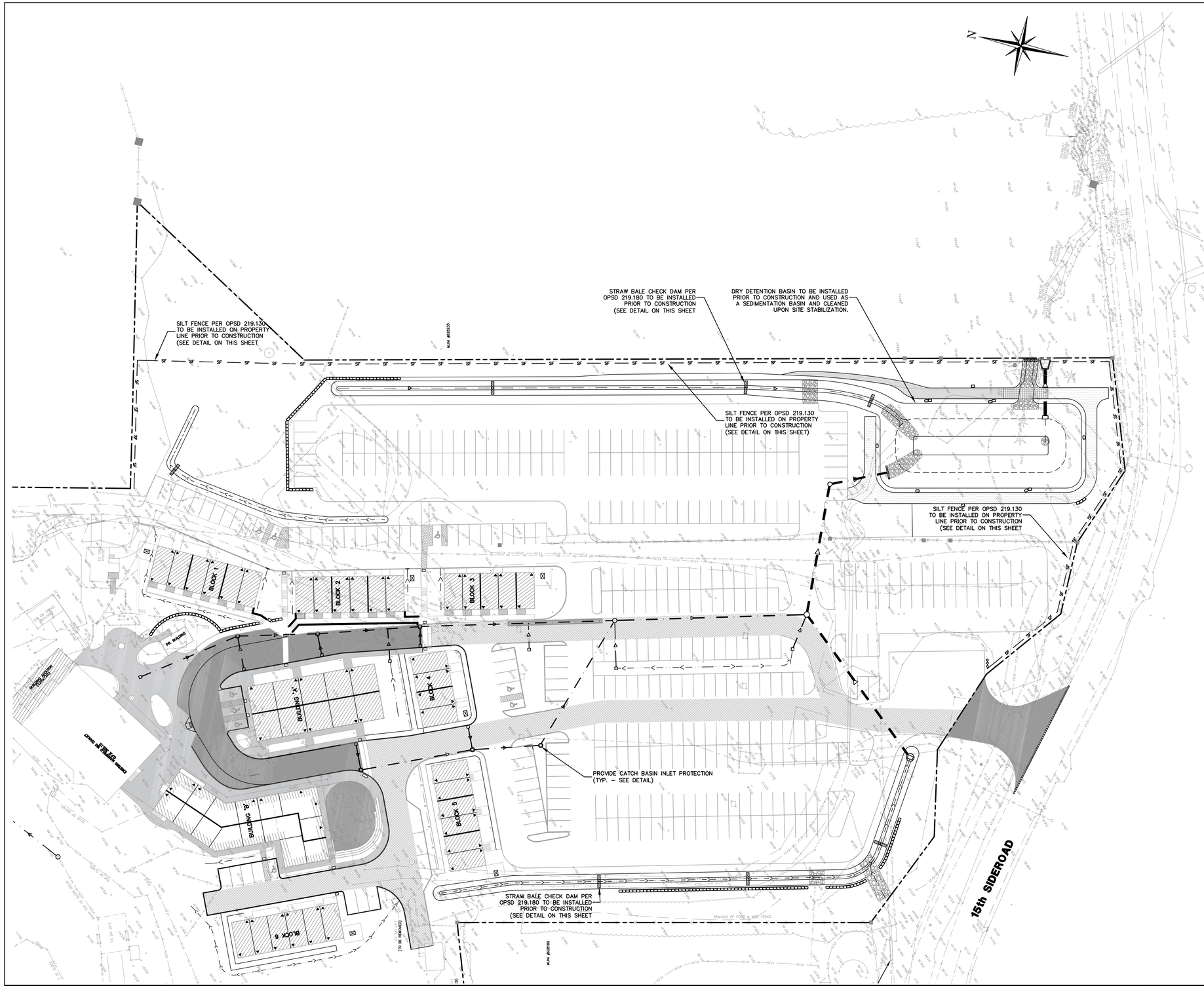
STORMWATER MANAGEMENT FACILITY PLAN

Client:
Mansfield Ski Club
628213 15th Sideroad
PO Box 75 RPO Mansfield,
Mulmur, Ontario
L9V 3M6

WMI & Associates Limited
119 Collier Street
Barrie, Ontario
L4M 1H5
Ph 705-797-2027
www.wmiengineering.ca

Drawn By	AW	Checked By	JWL	Drawing No.
Scale	1:150	Project No.	15–319	SWM

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\C AD\WMI\Issue_to\200810_Baseplan_15-319.dwg, SWM, 1:1



NOTES

EROSION CONTROL WORKS TO BE INSPECTED REGULARLY AFTER EVERY RAINFALL AND REPAIRED/REPLACED AS REQUIRED BY THE MUNICIPALITY OR DEVELOPER'S ENGINEER.

ALL DISTURBED AREAS TO BE RESTORED USING TOPSOIL AND SEED IMMEDIATELY UPON ESTABLISHING FINAL GRADES.

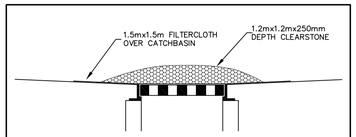
EROSION CONTROL WORKS TO BE MAINTAINED UNTIL THE SITE HAS STABILIZED AND REMOVAL IS DIRECTED BY THE MUNICIPALITY OR DEVELOPER'S ENGINEER.

SILT FENCE TO BE MAINTAINED ON THE DOWNSTREAM SIDE OF ALL STOCK PILES.

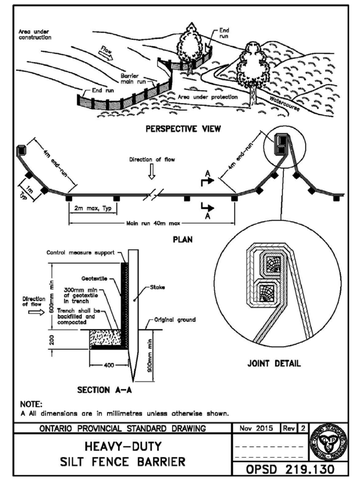
SILT FENCE IS TO BE CONSTRUCTED/INSTALLED AS INDICATED PRIOR TO CONSTRUCTION COMMENCEMENT.

ALL SWALES c/w STRAW BALE CHECK DAMS (REFER TO DETAIL ON ON THIS SHHET) TO BE POSITIONED AND INSTALLED BY THE CONTRACTOR PRIOR TO ANY SITE DISTURBANCE.

STORM OUTLET STRUCTURES, DITCHES/SWALES, CULVERTS AND THE DRY DETENTION BASIN ARE TO BE CLEANED UPON COMPLETION OF THE SITE GRADING AND SITE STABILIZATION WORKS.

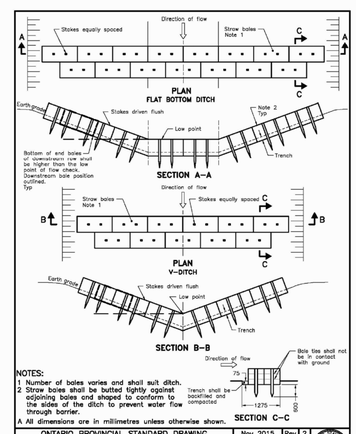


CATCHBASIN INLET PROTECTION
N.T.S.



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

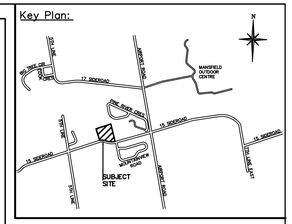
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
HEAVY–DUTY SILT FENCE BARRIER		OPSD 219.130



NOTES:
1 Number of bales varies and shall suit ditch.
2 Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
STRAW BALE FLOW CHECK DAM		OPSD 219.180

Key Plan:



Legend:

EXISTING FEATURES (EX)

- EX SIB — EX STD IRON BAR
- EX IB — EX IRON BAR
- EX UP — EX UTILITY POLE
- EX BELL PED
- EX WS — EX WATER SERVICE
- EX HYD — EX FIRE HYD.
- NS — EX ST NAME SIGN
- SS — EX STOP SIGN
- X 123.45 — EX ELEVATION
- EX FENCE
- GAS — EX U/G GASMAIN
- XB — EX U/G BELL
- HX — EX HYDRO
- 48.5 — EX BOTTOM OF SLOPE
- 47.5 — EX TOP OF SLOPE
- EX WV — EX WATERMAIN & VALVE
- EX SAN @ 0.0% — EX SAN SEWER & MH
- EX STM @ 0.0% — EX STM SEWER & MH

PROPOSED FEATURES (PR)

- NS — PR STREET NAME SIGN
- SS — PR STOP SIGN
- SF — PR SILT FENCE
- PR LEGAL PART LOTS
- PR LEGAL BOUNDARY
- L — PR STREET LIGHT
- W — PR WATER SERVICE
- S — PR SAN SERVICE
- PR HYDRO TRANSFORMER
- 00mmø W/M — PR WATERMAIN
- 00mmø W/M — PR TEMPORARY WATERMAIN FOR PHASE 1A
- 00mmø W/M — PR PERMANENT WATERMAIN FOR PHASE 1A
- PR FIRE HYDRANT
- PR WATER VALVE
- 0m–00mmø SAN @ 0.0% — PR SAN SEWER
- PR TEMPORARY SAN SEWER FOR PHASE 1A
- F/M — PR TEMPORARY FORCEMAIN FOR PHASE 1A
- PR PERMANENT SAN SEWER FOR PHASE 1A
- MH K — PR SANITARY MANHOLE
- 0m–00mmø STM @ 0.0% — PR STM SEWER
- MH 4 — PR CATCHBASIN MANHOLE
- MH 4 — PR MANHOLE
- PR CATCHBASIN
- x 000.00 — PROPOSED ELEVATION
- x (000.00) — PR. MATCH EXISTING ELEVATION (INTERPOLATED)
- PR SWALE
- PR HEAVY DUTY ASPHALT
- PR UNIT PAVING
- PR BERM
- PR FIRE ACCESS
- U.F.E — UPPER FLOOR ELEVATION
- G.F.E — GROUND FLOOR ELEVATION
- PR STRAW BALE CHECK DAM

CAUTION
CONTRACTOR TO DETERMINE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

Notes:

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Benchmark: 463.937m

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM CANNET NETWORK BASE STATION ORVL HAVING A PUBLISHED ELEVATION OF 463.937m

REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

EROSION & SEDIMENT CONTROL PLAN

Client:
Mansfield Ski Club
628213 15th Sideroad
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Drawn By	Checked By	Drawing No.
AW	JWL	ESC
Scale 1:500	Project No. 15–319	

\\WMI-SERVER\wmi-server\Data\Projects\2015\15-319\CAD\WMI\Issue_No1\200810_Baseplan_15-319.dwg, ESC, 1:1

GENERAL – CONSTRUCTION

1. ALL MEASUREMENTS ARE IN METRES, PIPE SIZES IN MILLIMETRES, UNLESS OTHERWISE NOTED.
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT MUNICIPAL STANDARDS AND THE MOST CURRENT ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS (IN THAT ORDER UNLESS NOTED OTHERWISE). IF A DISCREPANCY ARISES THE MUNICIPAL STANDARDS ARE TO GOVERN.
3. LOCATIONS OF EXISTING SERVICES ARE NOT GUARANTEED. CONTRACTOR TO CONFIRM EXISTING UTILITY LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO NOTIFY THE VARIOUS UTILITY COMPANIES 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK.
4. THE CONTRACTOR SHALL INFORM THE MUNICIPALITY AND ENGINEER A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCING ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSPECTION FOR ALL CIVIL WORKS WITH THE ENGINEER IN ORDER TO PROVIDE SUFFICIENT CERTIFICATION AS REQUIRED BY THE MUNICIPALITY.
5. ALL DIMENSIONS AND ELEVATIONS ARE TO BE CHECKED AND VERIFIED BY THE CONTRACTOR. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER.
6. TRAFFIC CONTROLS TO CONFORM TO THE LATEST REVISION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ONTARIO TRAFFIC MANUAL TEMPORARY CONDITIONS (BOOK 7).
7. STREET AND TRAFFIC SIGNS – M.T.O. STANDARDS
8. FILTER FABRIC – TERRAFIX 270R OR APPROVED EQUAL.
9. DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS-517 AND 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION, CONTRACTOR IS RESPONSIBLE FOR OBTAINING NECESSARY PERMITS FOR DEWATERING.
10. ALL DISTURBED AREAS WITHIN EXISTING RIGHT-OF-WAYS ARE TO BE REINSTATED TO THEIR ORIGINAL CONDITION OR BETTER AS DETERMINED BY THE MUNICIPALITY (MIN 300mm TOPSOIL AND NURSERY SOD).
11. ALL SEWER SYSTEMS INCLUDING SERVICE CONNECTIONS TO THE SEWER MAINS AS WELL AS CATCHBASINS AND MANHOLES SHALL BE THOROUGHLY FLUSHED AND/OR CLEANED OF DEBRIS AND ALL PIPES SHALL BE TESTED IN ACCORDANCE WITH OPS AND SHALL BE INSPECTED BY AN APPROVED VIDEO CAMERA TESTING COMPANY AND THE ENGINEER SHALL BE PROVIDED A COPY OF APPROPRIATE DATA UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL APPROVAL. ANY SECTIONS OF SEWER OR SERVICE CONNECTIONS THAT FAIL TO MEET THE REQUIREMENTS SHALL BE REPAIRED OR REPLACED AT THE DIRECTION OF THE ENGINEER. ONLY CHEMICAL PRESSURE GROUTING REPAIR TECHNIQUES WILL BE CONSIDERED ACCEPTABLE.
12. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE LATEST VERSION OF THE GEOTECHNICAL INVESTIGATION. GEOTECHNICAL INSPECTION & MATERIALS TESTING TO BE PROVIDED DURING ALL SERVICING, PARKING LOT SUB-GRADE, PARKING LOT BASE, PAVEMENT, SWM POND, BERMING AND CONCRETE WORKS.
13. FOR SPECIFIC DIMENSIONS AND BUILDING INFORMATION REFER TO SITE PLAN/ARCHITECTURAL DRAWINGS.
14. PIPE DEFLECTION SHOULD BE USED WHEREVER POSSIBLE TO MINIMIZE THE USE OF BENDS, WHEREVER IT IS NECESSARY TO DEFLECT FROM A STRAIGHT LINE, EITHER IN THE VERTICAL OR HORIZONTAL PLANE. THE AMOUNT OF DEFLECTION SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS.

ABOVE GROUND WORKS:

1. SUB-GRADE PREPARATION TO BE COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATIONS RECOMMENDATIONS.
2. ASPHALT SURFACES TO BE CONSTRUCTED AS SHOWN ON THE PAVEMENT CROSS-SECTIONS DETAIL.
3. ENTRANCE CONNECTIONS TO CONSIST OF GRINDING EXISTING ASPHALT AND PROVIDE 0.3m WIDE OVERLAP JOINT AS SHOWN ON THE PAVEMENT LAP JOINT DETAIL.
4. CONCRETE CURB ON THE PROPERTY TO BE AS PER OPSD-600.110 BARRIER CURB. .
5. SIDEWALKS TO BE CONSTRUCTED AS PER OPSD 310.010, 310.020, & 310.030.
6. CONCRETE STRENGTH FOR CURB AND SIDEWALK IS TO BE 30MPa AT 28 DAYS.
7. A ROAD OCCUPANCY PERMIT IS REQUIRED PRIOR TO COMMENCEMENT OF WORK IN ANY MUNICIPAL RIGHT-OF-WAY.
8. A SITE ALTERATION PERMIT MAY BE REQUIRED FROM THE MUNICIPALITY PRIOR TO THE COMMENCEMENT OF EARTHWORKS.

SANITARY SEWER:

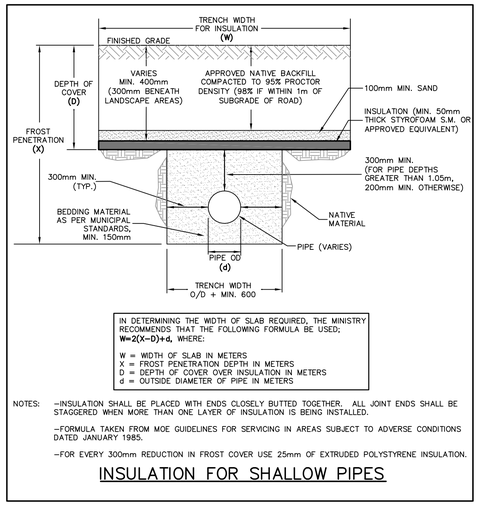
1. SANITARY MANHOLES TO BE 1200mmø AS PER OPSD 701.010 WITH BENCHING ACCORDING TO OPSD-701.021.
2. ALL SANITARY SEWERS TO BE PVC SDR-35 (OR APPROVED EQUIVALENT). ALL SANITARY SERVICES TO BE PVC SDR-28. BEDDING TO BE IN ACCORDANCE WITH OPSD 1006.020 AND 802.010.
3. PROVIDE SANITARY SEWER CLEANOUTS AS REQUIRED BY THE ONTARIO BUILDING CODE.
4. ALL SANITARY MANHOLES SHALL BE COMPLETED WITH FROST STRAPS PER OPSD 701.100.
5. MODULAR ADJUSTMENT UNITS FOR MANHOLES TO BE PROVIDED IN ACCORDANCE WITH OPSD 704.010. MAXIMUM THICKNESS OF ADJUSTMENTS UNITS IS 300mm.
6. WATER TIGHT COVERS TO BE PROVIDED FOR SANITARY MANHOLES LOCATED IN PONDING AREAS.
7. TESTING INCLUDING BUT NOT LIMITED TO DEFLECTION AND CCTV ARE TO BE COMPLETED AS PER MUNICIPAL STANDARDS AND OPSS.

STORM SEWER:

1. ALL SITE DRAINAGE POSSIBLE, INCLUDING ALL ROOF AND ASPHALT DRAINAGE, IS TO BE DIRECTED TO THE STORMWATER MANAGEMENT SYSTEM.
2. STORM SEWER 450mmø OR LESS: PVC CERTIFIED TO C.S.A. STANDARDS 182.2 AND 182.4.
   STORM SEWER GREATER THAN 450mmø: REINFORCED CONCRETE WITH A MINIMUM STRENGTH OF 50 N/m/mm CERTIFIED TO C.S.A. STANDARD A257.2, CLASS 50-D
3. STORM SEWER TO BE MINIMUM 300mm DIAMETER WITH JOINTS CONFORMING TO C.S.A. STANDARD A257.3.
4. MODULAR ADJUSTMENT UNITS FOR MANHOLES TO BE PROVIDED IN ACCORDANCE WITH OPSD 704.010. MAXIMUM THICKNESS OF ADJUSTMENTS UNITS IS 300mm.
5. STORM SEWER BEDDING AS PER OPSD 802.010 (FLEXIBLE PIPE) OR 802.030 (RIGID PIPE).
6. MANHOLES AND CATCHBASINS ARE TO BE IN ACCORDANCE WITH OPSD STANDARDS. CATCHBASIN MANHOLES ARE TO HAVE SUMPS.
7. CATCHBASIN LEADS – 300mmø. DOUBLE CATCHBASIN LEADS – 300mmø UNLESS OTHERWISE NOTED.
8. STORM SEWER COVER LESS THAN 1.2m TO PIPE OBVERT WILL REQUIRE FROST PROTECTION INSULATION, SEE INSULATION FOR SHALLOW PIPE DETAIL.
9. ALL STORM MANHOLES SHALL BE COMPLETED WITH FROST STRAPS AS PER OPSD 701.100.
10. TESTING INCLUDING BUT NOT LIMITED TO DEFLECTION AND CCTV ARE TO BE COMPLETED AS PER MUNICIPAL STANDARDS AND OPSS.

WATERMAINS:

1. WATERMAIN PIPES, FITTINGS, HYDRANTS, SERVICE PIPE TYPES & MANUFACTURERS ARE TO BE IN ACCORDANCE WITH MUNICIPAL STANDARDS.
2. WATERMAINS SHALL BE MINIMUM 100mmø, DR18. FIRE SUPPLY (250mmø) SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 235 (DR18) OR APPROVED EQUIVALENT. TRACER WIRE (#12 STRANDED COPPER WIRE WITH OUTER PLASTIC COATING) SHALL BE INSTALLED ALONG THE ENTIRE LENGTH OF PVC WATERMAIN, SECURED TO FITTINGS AT INTERVALS NOT EXCEEDING 3m, AND BROUGHT UP AND LOOPED AT EACH VALVE BOX, CHAMBER AND HYDRANT SUCH THAT CONTINUITY IS MAINTAINED. TAPE IS TO BE USED TO AFFIX THE WIRE TO THE PIPE.
3. 50mmø WATER SUPPLY LINE FROM WELL PW1 IS TO BE 50mmø MUNICIPLEX (OR APPROVED EQUIVALENT).
4. WATERMAIN BEDDING AS PER OPSD 802.010 (FLEXIBLE PIPE) OR 802.030 (RIGID PIPE) AND AS PER TOWN STANDARDS.
5. HYDRANT INSTALLATION AS PER MUNICIPAL STANDARD.
6. THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE WATERMAIN / WATER SERVICES AND THE SANITARY / STORM SEWER IS TO BE 2.5m.
7. A MINIMUM OF 0.5m VERTICAL CLEARANCE BETWEEN THE WATERMAIN / WATER SERVICES AND ALL UTILITIES SHALL BE MAINTAINED, WHILE MAINTAINING A MINIMUM DEPTH OF COVER AT ALL TIMES. WATERMAIN & WATER SERVICE TO BE INSULATED WITH HI-40 INSULATION AND/OR CONCRETE ENCASED AT THE ENGINEER'S DISCRETION WHERE 0.5m SEPARATION CANNOT BE MAINTAINED.
8. WATERMAIN / WATER SERVICE COVER LESS THAN 1.7m BELOW FINISHED GROUND SURFACE OR 1.9m BELOW ROAD CENTRELINE, WHICHEVER IS GREATER TO PIPE OBVERT WILL REQUIRE FROST PROTECTION, SEE INSULATION FOR SHALLOW PIPE DETAIL.
9. VALVE, VALVE BOXES AND CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH OPSD STANDARDS.
10. CONTRACTOR IS RESPONSIBLE FOR ALL TIE-INS INCLUDING MATERIALS, EXCAVATION AND BACKFILL AS REQUIRED TO FACILITATE THE SWABBING AND TESTING OF THE NEW WATERMAINS UNDER THE SUPERVISION OF THE ENGINEER.
11. FIRE HYDRANTS AND VALVES SHALL ONLY BE OPERATED BY MUNICIPAL WATER DEPARTMENT STAFF.
12. MECHANICAL JOINT RESTRAINTS ARE TO BE INSTALLED AT ALL TEES, HORIZONTAL BENDS, VERTICAL BENDS, HYDRANTS, END OF MAINS AND VALVES. CONCRETE THRUST BLOCKS ARE NOT PERMITTED UNLESS APPROVED BY THE ENGINEER. ALL MECHANICAL RESTRAINT SYSTEMS SHALL BE INSTALLED WITH CATHODIC PROTECTION AS PER THE TOWN STANDARD AND TREATED WITH DENSO TAPE.
13. THE CONTRACTOR SHALL SWAB, PRESSURE TEST, CHLORINATE AND FLUSH THE NEW WATERMAINS. ANY SWABBING, PRESSURE TESTING, CHLORINATING AND FLUSHING BEYOND THE INITIAL PROCEDURE WILL BE THE CONTRACTORS' RESPONSIBILITY. TESTING PROCEDURES TO BE IN ACCORDANCE WITH MUNICIPALITY STANDARDS.
14. ALL EXISTING WELLS LOCATED ON THE PROPOSED DEVELOPMENT LANDS ARE TO BE ABANDONED AND DECOMMISSIONED IN ACCORDANCE WITH ONTARIO REGULATION 903 UPON FINAL TESTING AND APPROVAL BY THE HYDROGEOLOGIST.



IN DETERMINING THE WIDTH OF SLAB REQUIRED, THE MINISTRY RECOMMENDS THAT THE FOLLOWING FORMULA BE USED;
W=2(X-D)+d, WHERE:

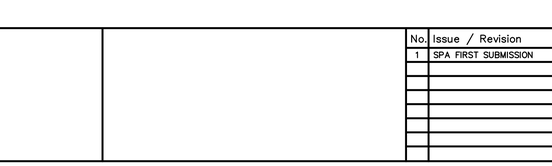
W = WIDTH OF SLAB IN METERS
X = FROST PENETRATION DEPTH IN METERS
D = DEPTH OF COVER OVER INSULATION IN METERS
d = OUTSIDE DIAMETER OF PIPE IN METERS

NOTES: –INSULATION SHALL BE PLACED WITH ENDS CLOSELY BUTTED TOGETHER. ALL JOINT ENDS SHALL BE STAGGERED WHEN MORE THAN ONE LAYER OF INSULATION IS BEING INSTALLED.

–FORMULA TAKEN FROM MOE GUIDELINES FOR SERVICING IN AREAS SUBJECT TO ADVERSE CONDITIONS DATED JANUARY 1985.

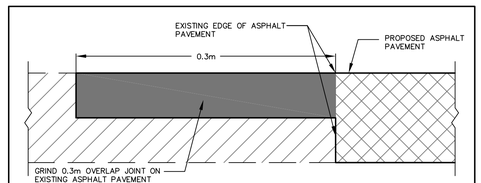
–FOR EVERY 300mm REDUCTION IN FROST COVER USE 25mm OF EXTRUDED POLYSTYRENE INSULATION.

INSULATION FOR SHALLOW PIPES

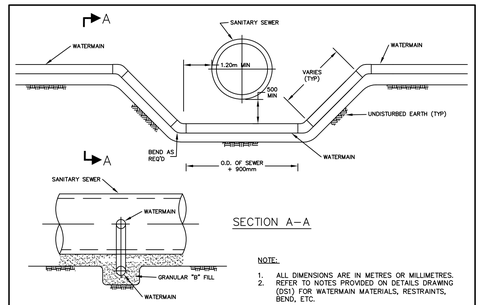


NOTE: – REFER TO THE ADDENDUM GEOTECHNICAL REPORT PREPARED BY SHAD & ASSOCIATES INC. DATED APRIL 22, 2020 FOR FURTHER PAVEMENT DETAILS. ALSO REFER TO THE RECOMMENDED GRAVEL FIRE ROUTE PAVEMENT THICKNESS PREPARED BY SHAD & ASSOCIATES DATED MARCH 20, 2020.

PAVEMENT CROSS-SECTIONS
N.T.S.

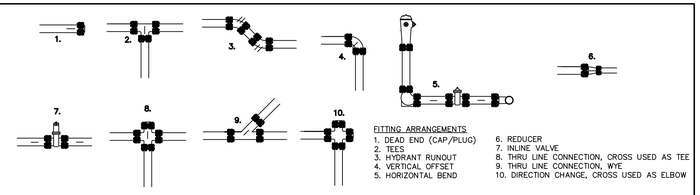


PAVEMENT LAP JOINT
N.T.S.



NOTE:
1. ALL DIMENSIONS ARE IN METRES OR MILLIMETRES.
2. REFER TO NOTES PROVIDED ON DETAILS DRAWING (DS1) FOR WATERMAIN MATERIALS, RESTRAINTS, BEND, ETC.

TYPICAL WATERMAIN DEFLECTION DETAIL
N.T.S.

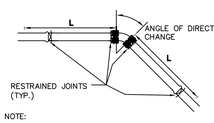


FITTING ARRANGEMENTS
1. DEAD END (CAP/PLUG)
2. TEES
3. HYDRANT RUNOUT
4. VERTICAL OFFSET
5. HORIZONTAL BEND
6. REDUCER
7. INLINE VALVE
8. THRU LINE CONNECTION, CROSS USED AS TEE
9. THRU LINE CONNECTION, WYE
10. DIRECTION CHANGE, CROSS USED AS ELBOW

TABLE 1.0

PIPE DIA.	L – MIN. LENGTH TO BE RESTRAINED ON EACH SIDE OF FITTING ARRANGEMENTS (M)						
	ELBOWS (DEG.) FITTING ARRANGEMENT No. 3 & 4				INLINE VALVES, 'Y's & TEES, FITTING ARRANGEMENTS No. 2, 7 & 9	DEADENDS FITTING ARRANGEMENTS No. 1, 5, 8 & 10	REDUCER FITTING ARRANGEMENTS No. 6
	11 1/4	22 1/2	45	90			
mm							
100	8.0	8.0	8.0	8.0	8.0	12.4	8.0
150	8.0	8.0	8.0	8.0	8.0	17.8	9.2
200	8.0	8.0	8.0	8.0	8.7	23.1	9.5
250	8.0	8.0	8.0	8.7	13.6	28.3	9.7
300	8.0	8.0	8.0	10.2	18.0	33.5	9.8
350	8.0	8.0	8.0	11.7	23.7	38.7	9.9
400	8.0	8.0	8.0	13.3	28.6	43.6	10

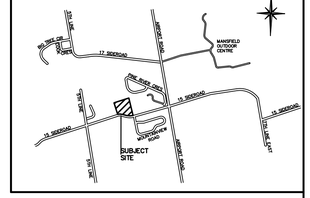
* NOTE THE MINIMUM LENGTH OF PIPE ALLOWED ON EACH SIDE OF THE FITTING (BEFORE NEXT FITTING) TO BE 1.5m



NOTE:
- ALL JOINTS MUST BE RESTRAINED IN ALL APPLICATIONS. TABLE 1 SHOWS RESTRAINED JOINTS REQUIRED ON BOTH SIDE OF THE RESTRAINED FITTINGS
- WHERE CONNECTING TO EXISTING WATERMAIN, EXCAVATE AND INSTALL RESTRAINTS ON EXISTING WATERMAIN FOR LENGTHS IDENTIFIED IN TABLE 1.0
- LENGTHS TO BE RESTRAINED SHOWN IN TABLE 1.0 ARE MINIMUMS. CONTRACTOR TO CONFIRM WITH RESTRAINT AND/OR PIPE SUPPLIER THE NEED FOR ADDITIONAL RESTRAINT. MINIMUM FACTOR OF SAFETY TO BE USED IS 2.5 FOR A TEST PRESSURE OF 1034kPa (150 psi)

RESTRAINED JOINTS DETAIL
N.T.S.

Key Plan:



Notes:

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Benchmark: 463.937m

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REGISTERED PROFESSIONAL ENGINEER
J.W.LIGHTHEART
100140403
AUG. 17, 2020
PROVINCE OF ONTARIO

No.	Issue / Revision	Date
1	SPA FIRST SUBMISSION	AUG. 17, 2020

Mansfield Ski Club

DETAIL SHEET 1

Client:
Mansfield Ski Club
628213 15th Sideroad
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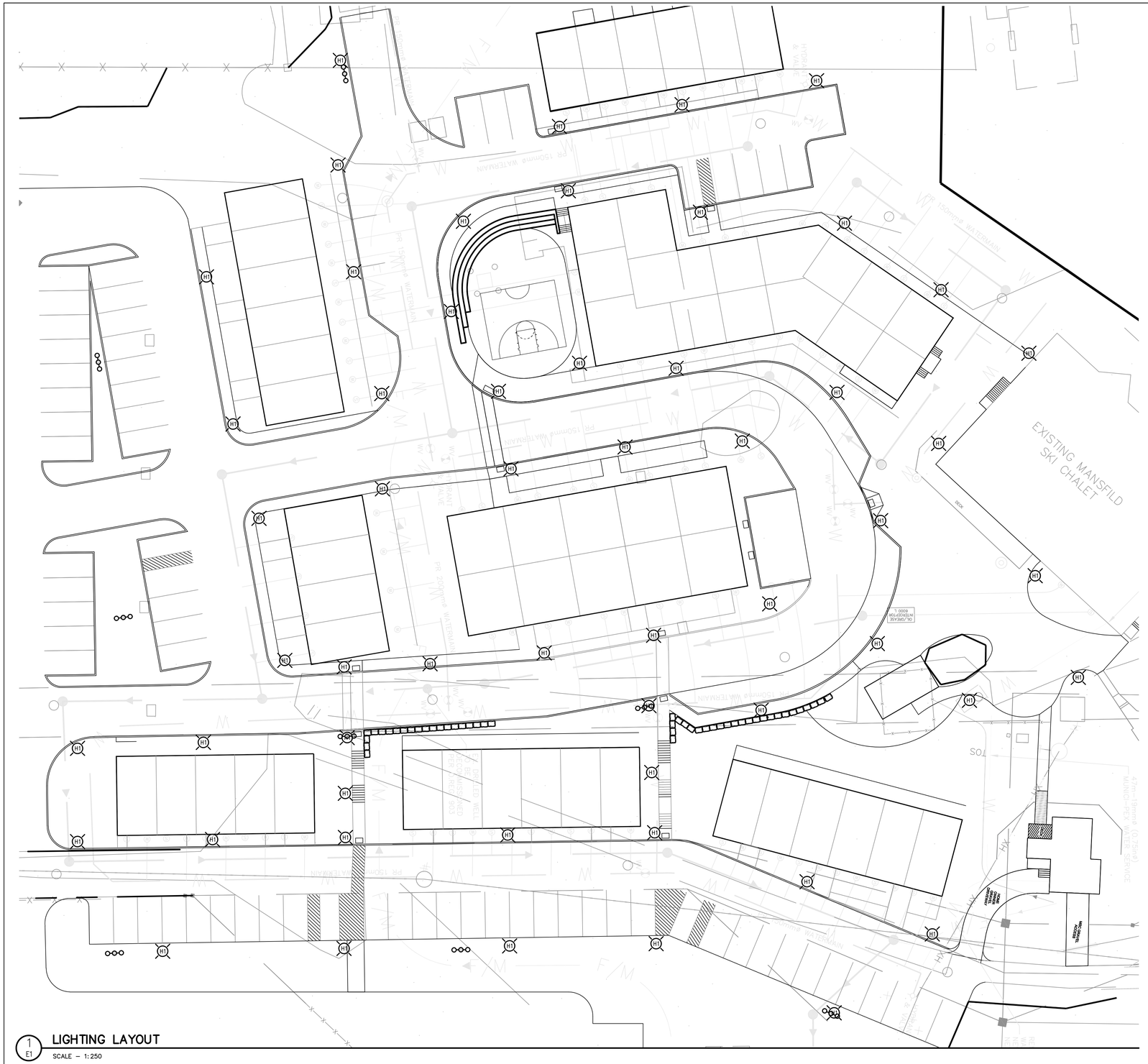
Drawn By	Checked By	Drawing No.
AW	JWL	DS1
Scale: N.T.S.	Project No. 15-319	

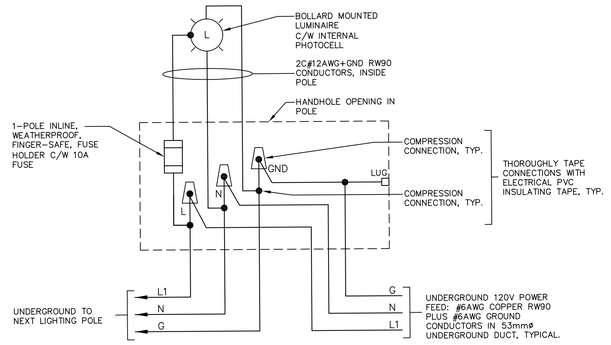


1 LIGHTING LAYOUT
E1

SCALE – 1:250

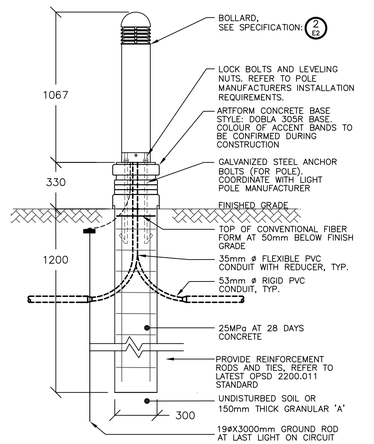
LEGEND:

H1 — PROPOSED BOLLARD LIGHT. SEE DETAIL 3/E1 AND 2/E2



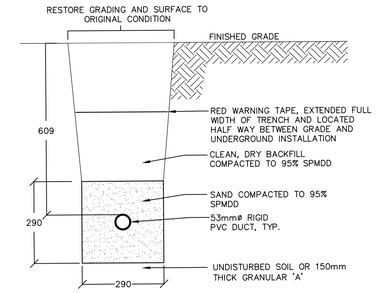
4 LIGHTING WIRING DIAGRAM
E1

– NTS



3 BOLLARD LIGHTING TYPICAL INSTALLATION
E1

– NTS
– FOR INSTALLATION DETAILS REFER TO OPSD 2200.041



2 TYPICAL LIGHTING DUCTBANK DETAIL
E1

NTS

LICENSED PROFESSIONAL ENGINEER — A.DIXON — 100223176 — 31JAN'20 — PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER — G. G. RUNGE — 31JAN'20 — PROVINCE OF ONTARIO

No.	ISSUE OR REVISION	DATE DD/MM/YY	ISSUER
1	ISSUED FOR CLIENT APPROVAL	30/01/20	AD
2	ISSUED FOR TOWN APPROVAL	31/01/20	AD

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Client
MASNFIELD SKI CLUB

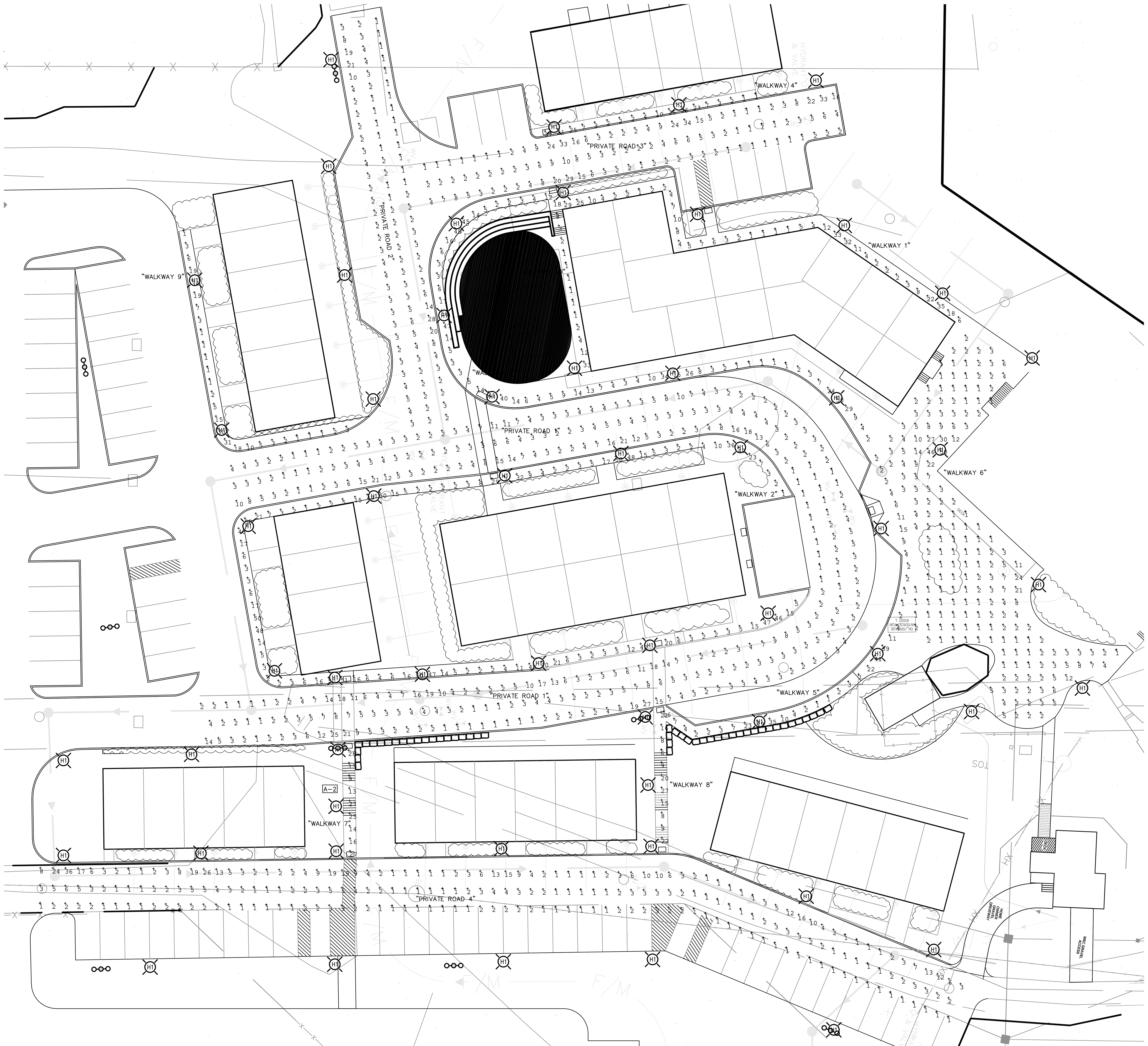
628213 SIDE ROAD 15
MULMUR, ONTARIO
L9V 0T9

Project Name
MANSFIELD SKI CLUB VILLAGE

Drawing Title
LIGHTING LAYOUT

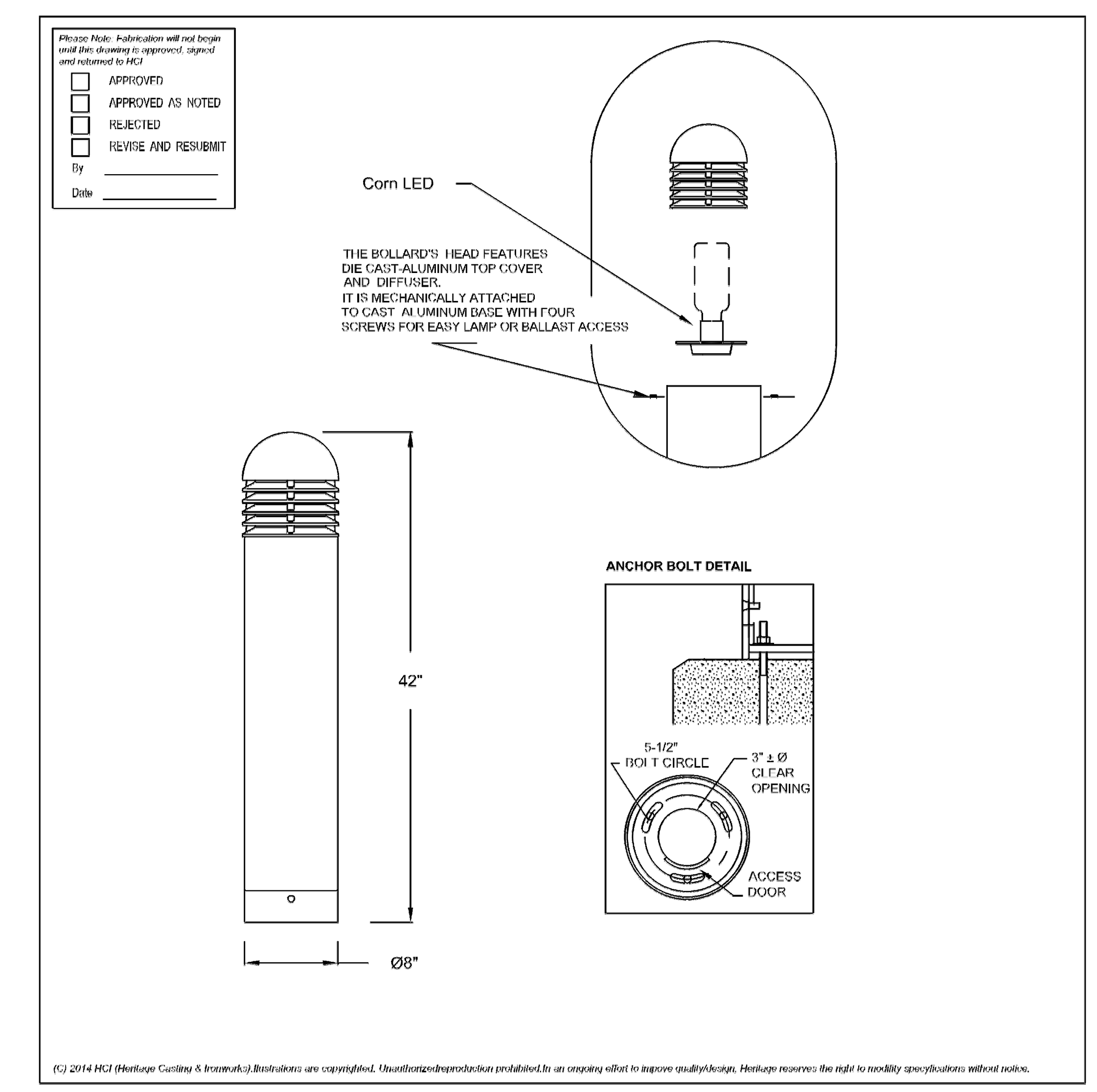
Drawn By	Checked By	Drawing No.
AD	GGR	E1
Scale	Project No. 19179P	

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Private Road 1	Illuminance	Lux	4.26	27	1	4.26
Private Road 2	Illuminance	Lux	3.52	28	1	3.52
Private Road 3	Illuminance	Lux	5.46	34	1	5.46
Private Road 4	Illuminance	Lux	3.25	36	1	3.25
Walkway 1	Illuminance	Lux	8.54	35	1	8.54
Walkway 10	Illuminance	Lux	6.29	33	1	6.29
Walkway 2	Illuminance	Lux	14.68	51	1	14.68
Walkway 3	Illuminance	Lux	12.70	50	1	12.70
Walkway 4	Illuminance	Lux	12.33	37	1	12.33
Walkway 5	Illuminance	Lux	9.68	49	1	9.68
Walkway 6	Illuminance	Lux	3.61	50	1	3.61
Walkway 7	Illuminance	Lux	19.11	28	9	2.12
Walkway 8	Illuminance	Lux	14.64	27	6	2.44
Walkway 9	Illuminance	Lux	8.07	34	1	8.07



1 E2 PHOTOMETRICS

SCALE – 1:250



Approval Drawing

B804-42-18WLED-CORNLAMP-

Diffuser Type: Clear

Diffuser Material: Acrylic

Hardware: Stainless Steel

Top: Die Cast /Extrusion Aluminum

Optical System: External Louver IES V

Driver: LED power factor, mounted on a removable plate.

Wattage : 18W (LED)
Voltage : 120V~277V
CCT : 3000K

Anchor Bolts: Wedge/Through Anchor bolt 5" L. Anchor bolts and template supplied by HCI.

Bolt Circle Diameter: Ø5-1/2"

Finish: Electrostatically applied thermoset Polyester powder-coat finish.

Colour: RAL9011, Black.

Sales: KIM Designer: ARSALAN
Date: JAN-29-2020 Drawing No:15465-V15
Model: B804-CAC-18WLED-CORNLAMP-3000K-120V~277V-IES5-RAL9011-BLACK
Project :MANSFIELD SKI CLUB (QTY01)
REP : STL LIGHTING, ON (CANADA)

Please Note: Fabrication will not begin until this drawing is approved, signed and returned to HCI

HCI Heritage Casting & Ironworks
1280 Fewster Drive, Mississauga, Ontario, Canada L4W 1A4
Tel: (905) 238-2648 Fax: (905) 238-9060
Toll Free Canada & USA 1-800-267-3175
E: sales@hcilighting.com WEB: www.hcilighting.com

POLE ASSEMBLY DESCRIPTION AND CATALOG NUMBERS

TYPE H1 BOLLARD ASSEMBLY

BOLLARD: HCI LIGHTING
MODEL B805 SERIES
CATALOGUE NUMBER:
- 120VAC
- 18 WATTS
- 3000 DEG. CCT
- COLOUR BLACK
- FUSE
- 10kV SPD

LAMP: CORN BULB

FOR MODEL NUMBER INFORMATION REFER TO SPECIFICATIONS ON THIS DRAWING

2 E2 LIGHTING SPECIFICATIONS

– NTS

2. The contractor shall verify all dimensions, levels, and datums on site and report any discrepancies or omissions to this office prior to construction.

3. This drawing is to be read and understood in conjunction with all other plans and documents applicable to this project.

4. Drawing revision must be note "Issued For Construction" before any work commences.

5. Architectural dimensions are approximate. Location of items shown or specified that are not fixed by dimensions are approximate only. The exact locations necessary to secure the best conditions and results must be determined on site. Review all revisions with the consultant.

LICENSED PROFESSIONAL ENGINEER A.DIXON 100223176 31JAN'20 PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER G. G. RUNGE 31JAN'20 PROVINCE OF ONTARIO

No.	ISSUE OR REVISION	DATE DD/MM/YY	ISSUER
1	ISSUED FOR CLIENT APPROVAL	30/01/20	AD
2	ISSUED FOR TOWN APPROVAL	31/01/20	AD

RUNGE ENGINEERING
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Client
MASNFIELD SKI CLUB
628213 SIDE ROAD 15
MULMUR, ONTARIO
L9V 0T9

Project Name
MANSFIELD SKI CLUB VILLAGE

Drawing Title
PHOTOMETRICS

Drawn By	Checked By	Drawing No.
AD	GGR	E2
Scale	Project No. 19179P	