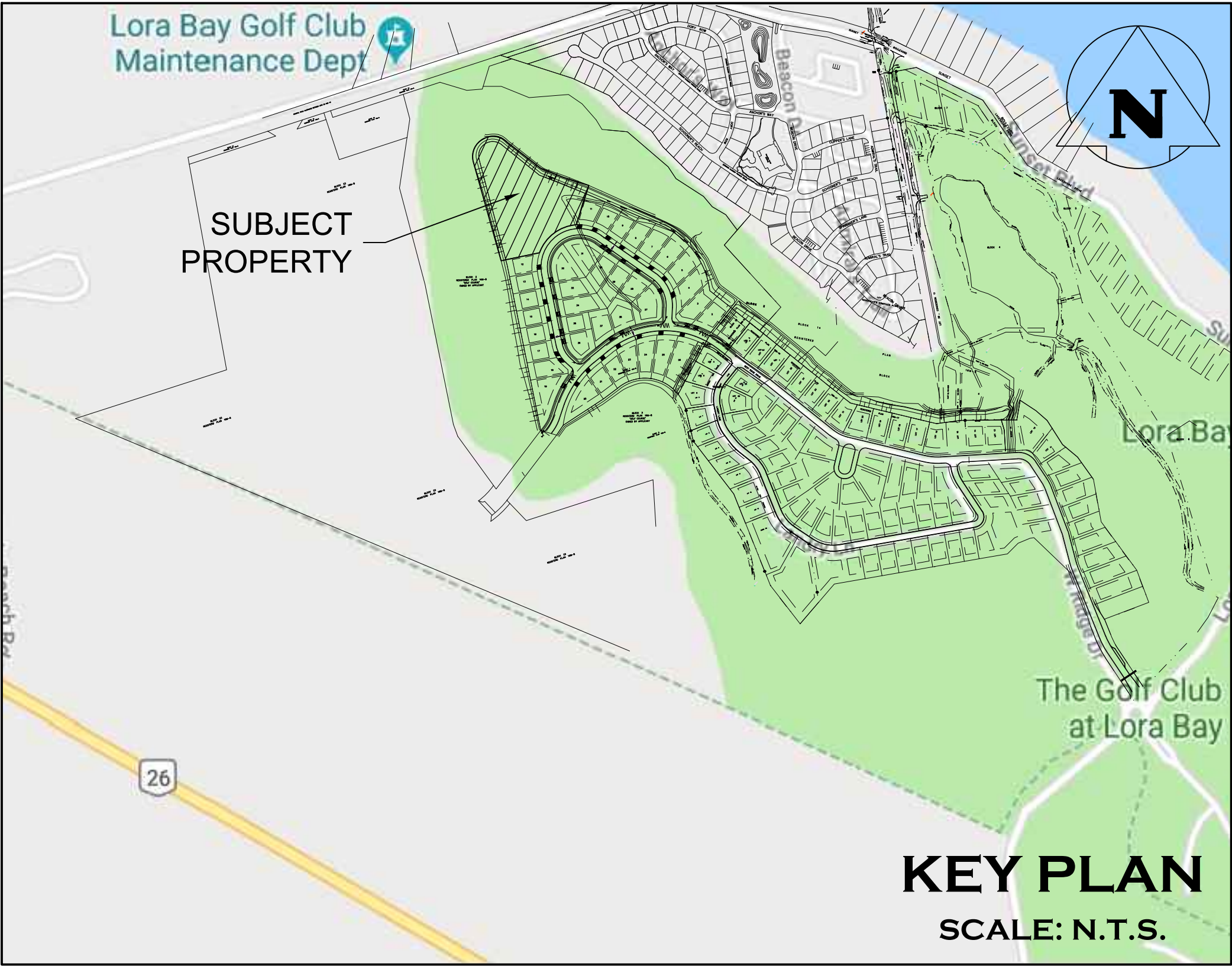


LORA BAY PHASE 4

BLOCK 39

TOWN OF THE
BLUE MOUNTAINS

COUNTY OF GREY



MUNICIPALITY

TOWN OF THE BLUE MOUNTAINS
32 MILL STREET
THORNBURY, ONTARIO, N0H 2P0

DEVELOPER

1382491 ONTARIO LTD. & BLEVINS DEVELOPMENTS (COVE) LTD.
6783 WELLINGTON ROAD #34, RR#22
CAMBRIDGE, ON N3C2V4

DEVELOPER'S ENGINEER AND LANDSCAPE ARCHITECT



THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

MASTER LEGEND

EXISTING FEATURES (EX.)

XXX.X	EX. CONTOUR
+XXX.XX	EX. GRADE
---	EX. TREELINE
---	EX. WATERCOURSE
---	EX. DITCH
---	EX. WATERMAIN
---	EX. WATER SERVICE
---	EX. FIRE HYDRANT & VALVE
---	EX. SANITARY SEWER & MANHOLE
---	EX. SANITARY FORCEMAIN
---	EX. SANITARY SERVICE
---	EX. STORM SEWER & MANHOLE
---	EX. STORM CATCHBASIN
---	EX. STORM DOUBLE CATCHBASIN
---	EX. STORM CATCHBASIN MANHOLE
---	EX. STORM DOUBLE CATCHBASIN MANHOLE
---	EX. GAS MAIN
---	EX. BELL LINE
---	EX. BELL PEDESTAL
---	EX. CABLE TELEVISION PEDESTAL
---	EX. HYDRO POLE
---	EX. LIGHT STANDARD
---	EX. SIGN
---	EX. BUILDING
BM#	EX. BENCHMARK NUMBER & LOCATION
BH#	EX. BOREHOLE NUMBER & LOCATION

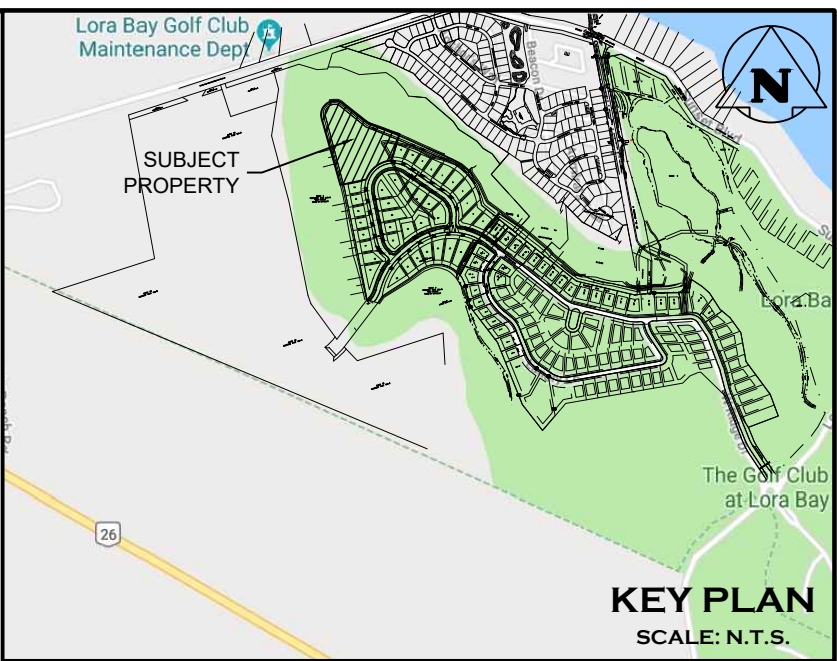
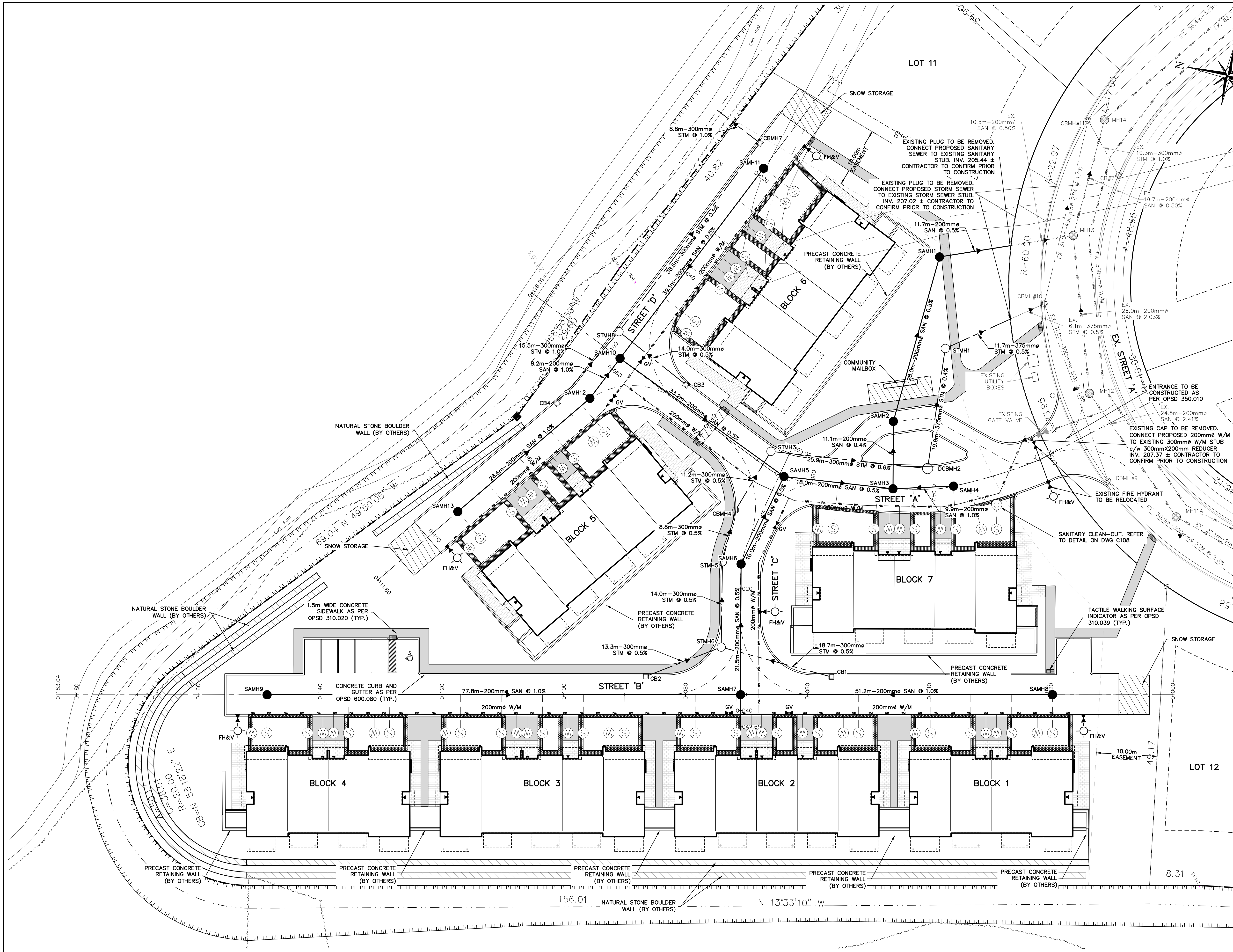
PROPOSED FEATURES (PR.)

---	PR. PROPERTY LIMITS
+XXX.XX	PR. ELEVATION
+XXX.XX	PR. ELEVATION (MATCH EX. ELEVATION)
---	PR. SWALE & SLOPE
---	PR. DITCH DRAINAGE
---	PR. WATERMAIN & VALVE
---	PR. WATER SERVICE
---	PR. FIRE HYDRANT & VALVE
---	PR. WATER VALVE CHAMBER
---	PR. WATER QUALITY TESTING STATION
---	PR. SANITARY SEWER & MANHOLE
---	PR. SANITARY FORCEMAIN
---	PR. SANITARY SERVICE
---	PR. SANITARY CATCHMENT
11	CATCHMENT AREA ID
0.14	AREA (ha)
11	POPULATION (2.3 p.p.u.)
---	PR. STORM SEWER & MANHOLE
---	PR. CATCHBASIN
---	PR. DOUBLE CATCHBASIN
---	PR. CATCHBASIN MANHOLE
---	PR. DOUBLE CATCHBASIN MANHOLE
---	PR. STORM CATCHMENT
102	CATCHMENT AREA ID
0.23 0.75	RUNOFF COEFFICIENT
---	DRAINAGE AREA (ha)
---	PR. CURB CUT
---	PR. CANADA POST COMMUNITY MAIL BOX
---	PR. TRANSFORMER
---	PR. STOP SIGN
---	PR. NAME SIGN
---	PR. NO PARKING SIGN
---	PR. FENCE
---	PR. BUILDING ENVELOPE
---	PR. LIGHT DUTY SILT FENCE
---	PR. HEAVY DUTY SILT FENCE
---	PR. STRAW BALE CHECK FLOW
---	PR. ROCK CHECK DAM
---	PR. SLOPE (3:1 MAX.)
---	PR. TREE PRESERVATION AREA
---	PR. TOPSOIL STOCKPILE LOCATION

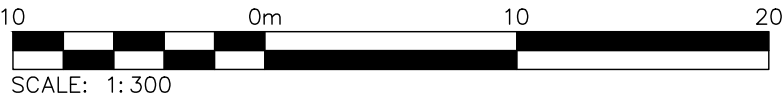
DRAWING

C101	GENERAL SITE SERVICING PLAN
C102	OVERALL SITE GRADING PLAN
C103.A	PLAN & PROFILE STREET 'A' (STA. 0+000 - 0+115.24)
C103.B	PLAN & PROFILE STREET 'B' (STA. 0+000 - 0+183.04)
C103.C	PLAN & PROFILE STREET 'C' (STA. 0+000 - 0+042.65)
	STREET 'D' (STA 0+000 - 0+111.80)
C104	SANITARY DRAINAGE PLAN
C105	STORM DRAINAGE PLAN
C106	WATER DISTRIBUTION PLAN
C107	EROSION AND SEDIMENT CONTROL PLAN
C108	CONSTRUCTION NOTES & STANDARD DETAILS
C109	COMPOSITE UTILITY PLAN

PROJECT No.: 183-5908
1ST SUBMISSION



NOTE:
ALL WATER SERVICES LOCATION WITHIN
A DRIVEWAY ARE TO BE INSTALLED
c/w A SERVICE PROTECTION BOX.
REFER TO DETAIL ON DWG. C108.



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4. DO NOT SCALE THE DRAWINGS.
5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

TEMPORARY BENCHMARKS		
TBM#1 -		
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No.	ISSUE	DATE: MM/DD/YYYY
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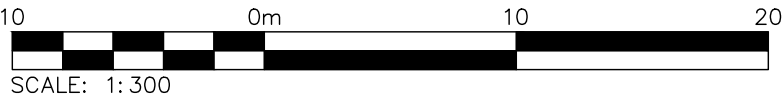
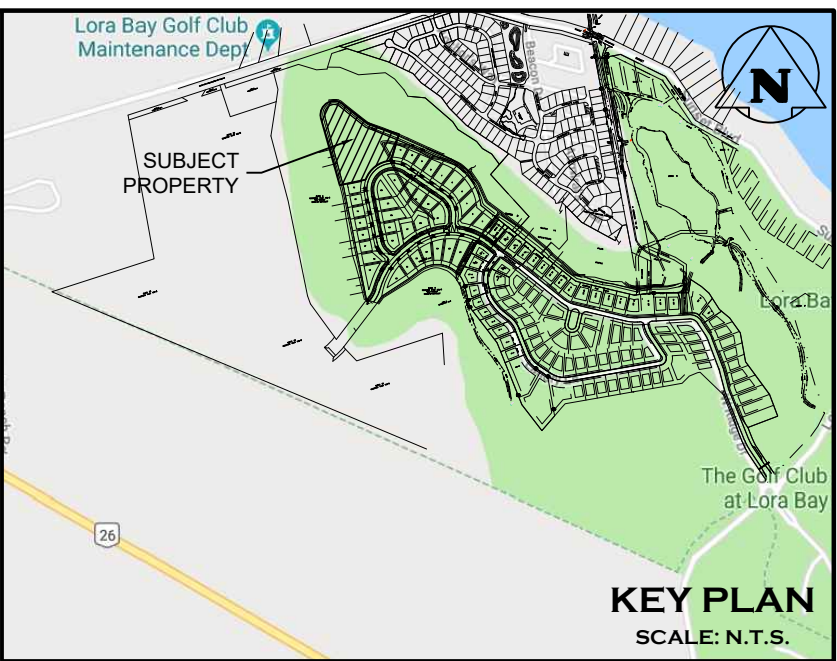
LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

GENERAL SITE SERVICING PLAN



THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
INFO@CFRCROZIER.CA

Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale	1:300
				Drawing	C101



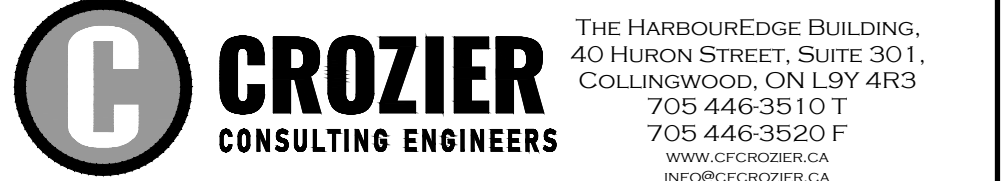
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TBM#2 -		
TBM#3 -		
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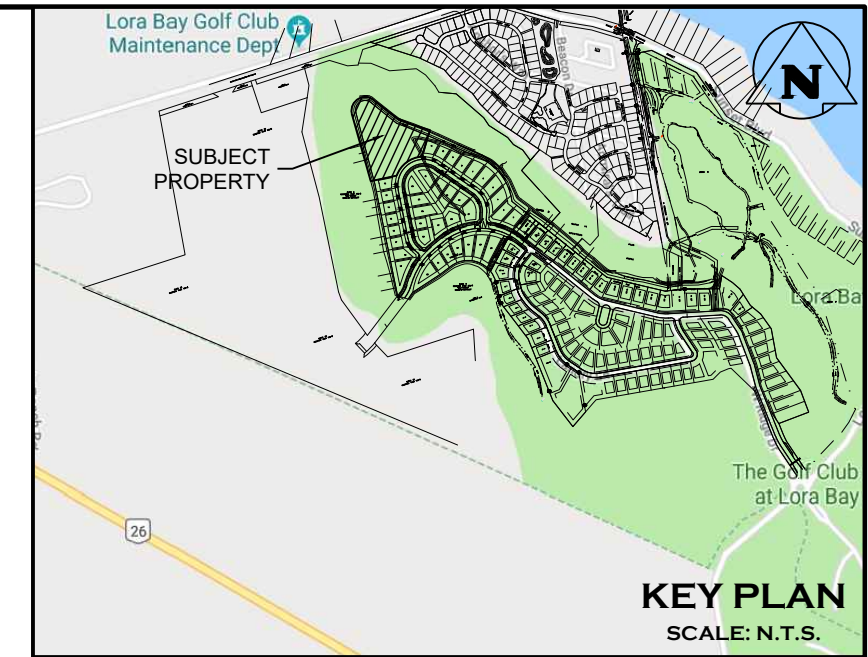
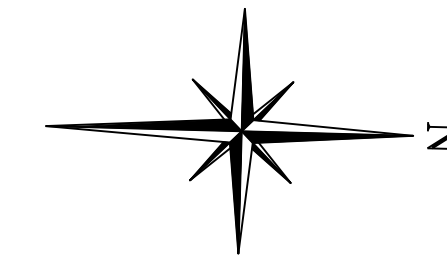
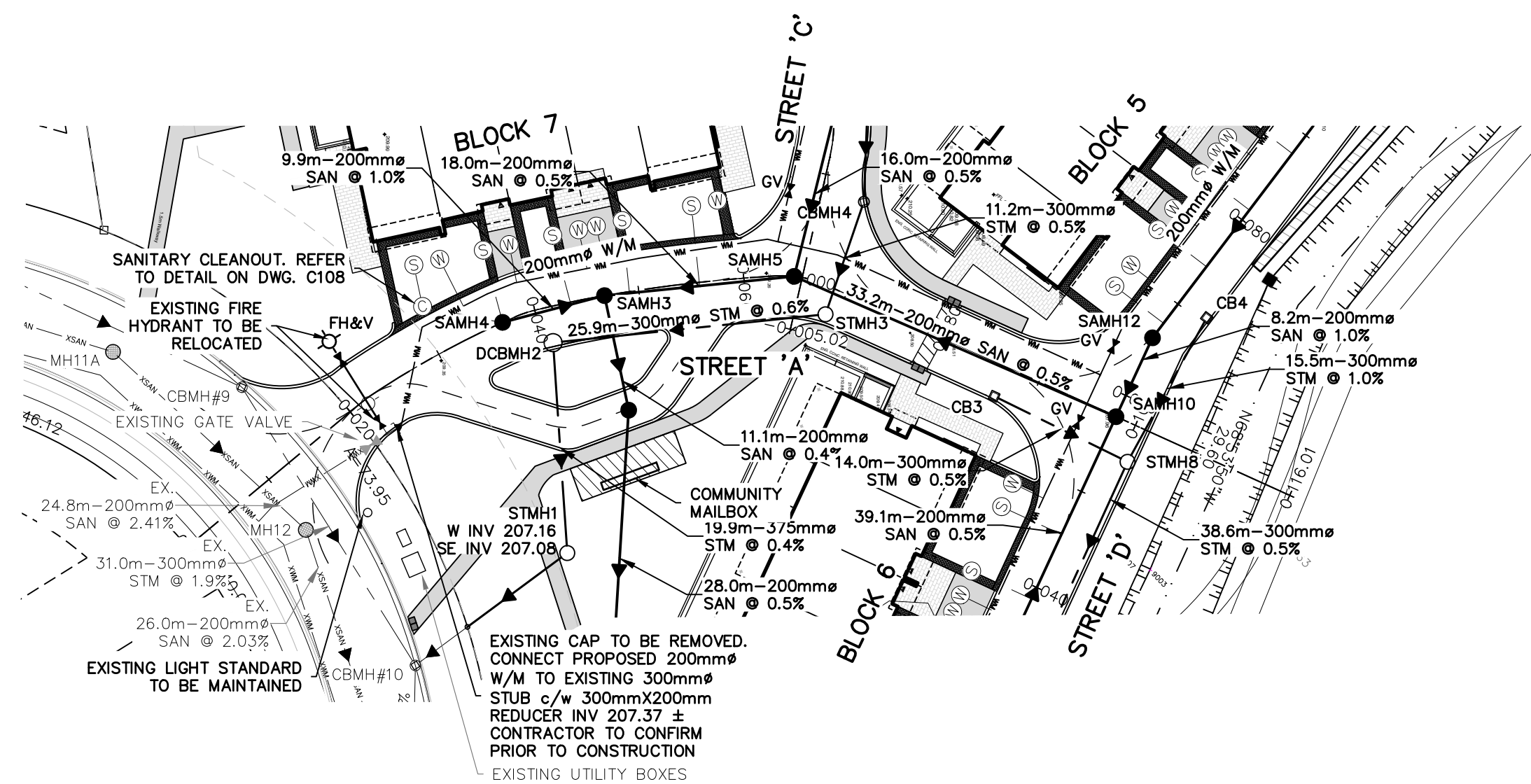
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LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

OVERALL GRADING PLAN



Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale	1:300
				Drawing	C102

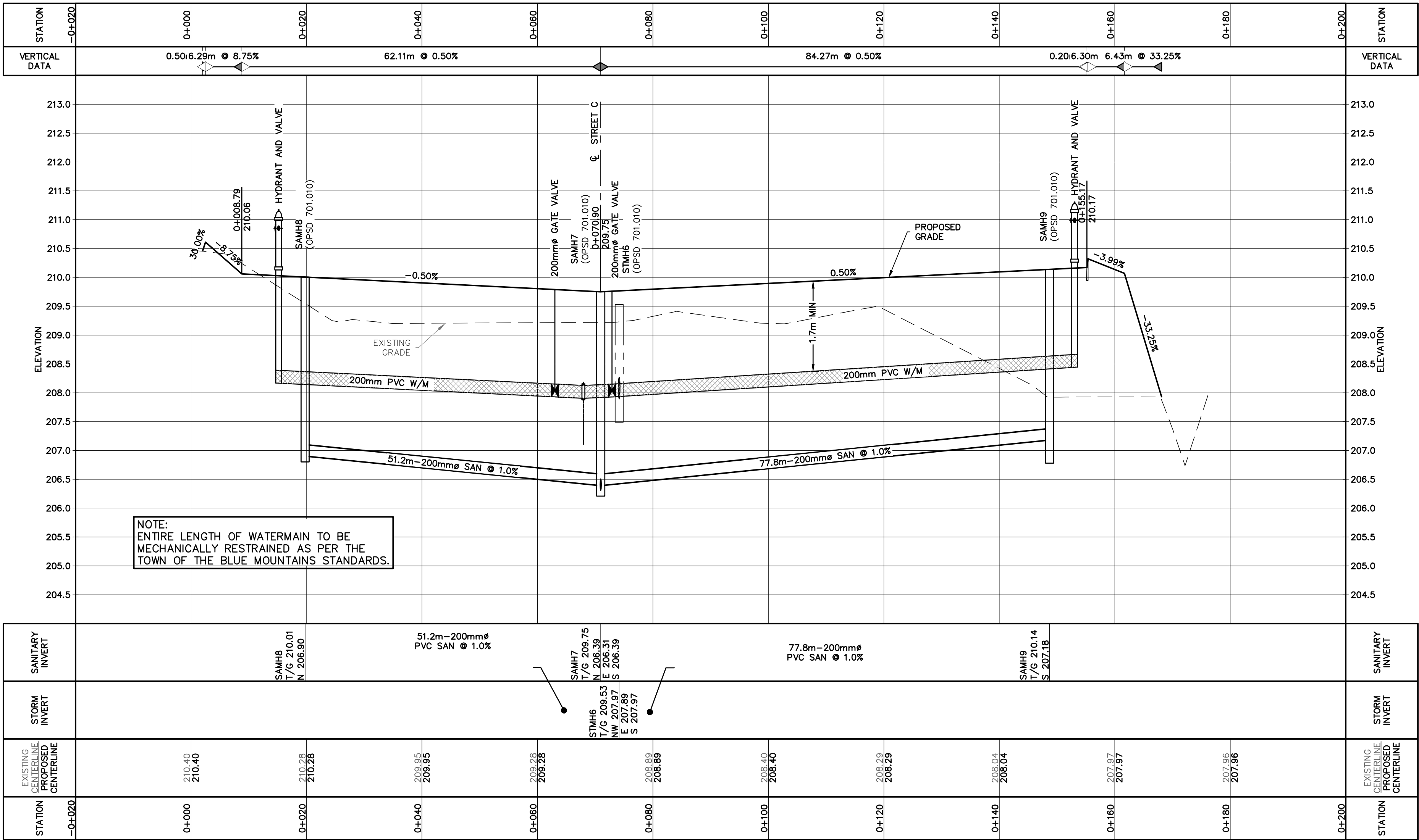
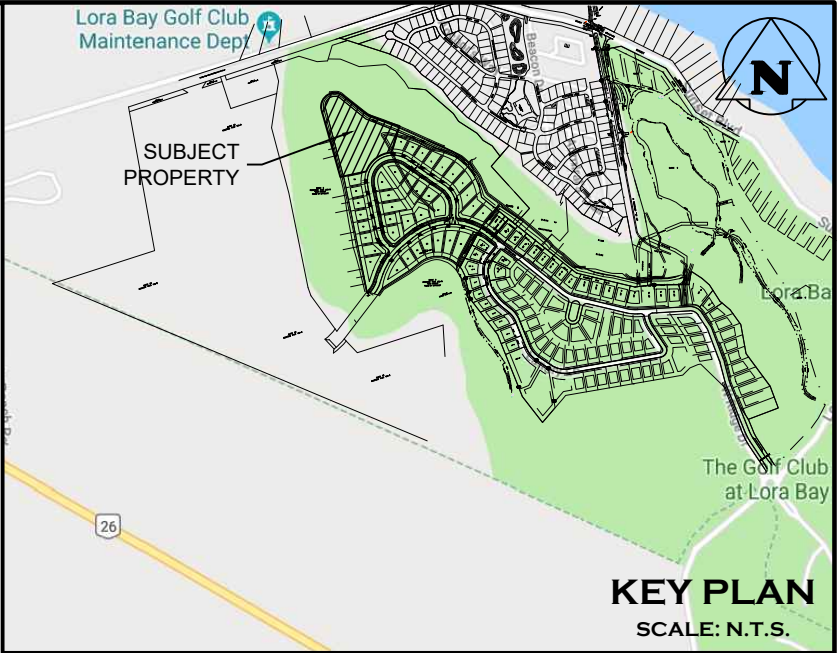
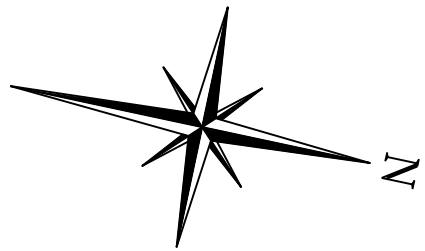
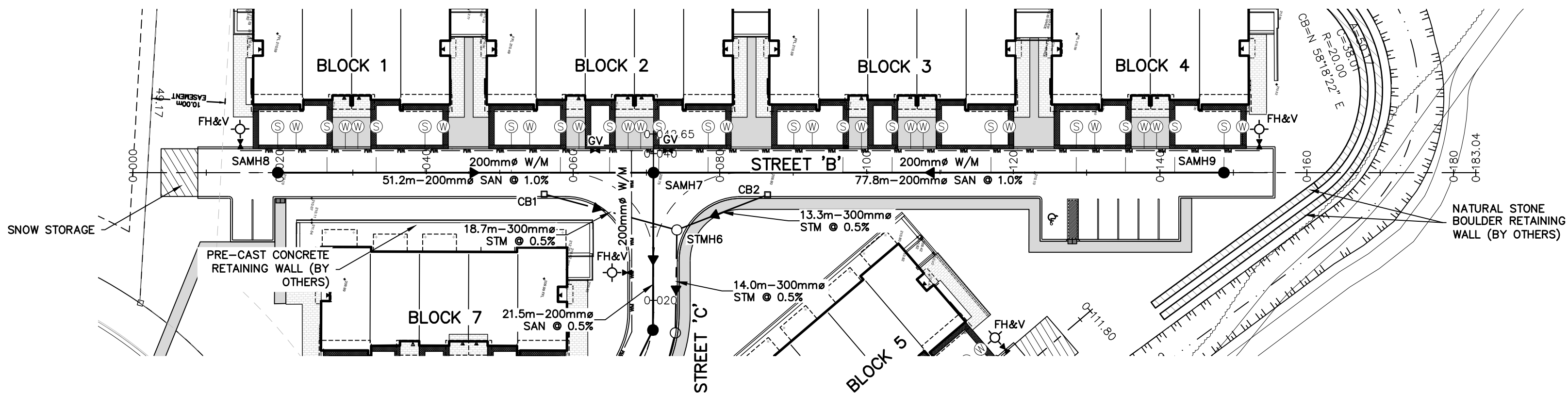
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 **CROZIER**
CONSULTING ENGINEERS

THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 F
705 446-3520 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale H=1:500 V=1:50	Drawing C103.A



NOTE:
ENTIRE LENGTH OF WATERMAIN TO BE
MECHANICALLY RESTRAINED AS PER THE
TOWN OF THE BLUE MOUNTAINS STANDARDS.



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TEMPORARY BENCHMARKS

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TBM#3 -

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No.	ISSUE	DATE: MM/DD/YYYY
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Project

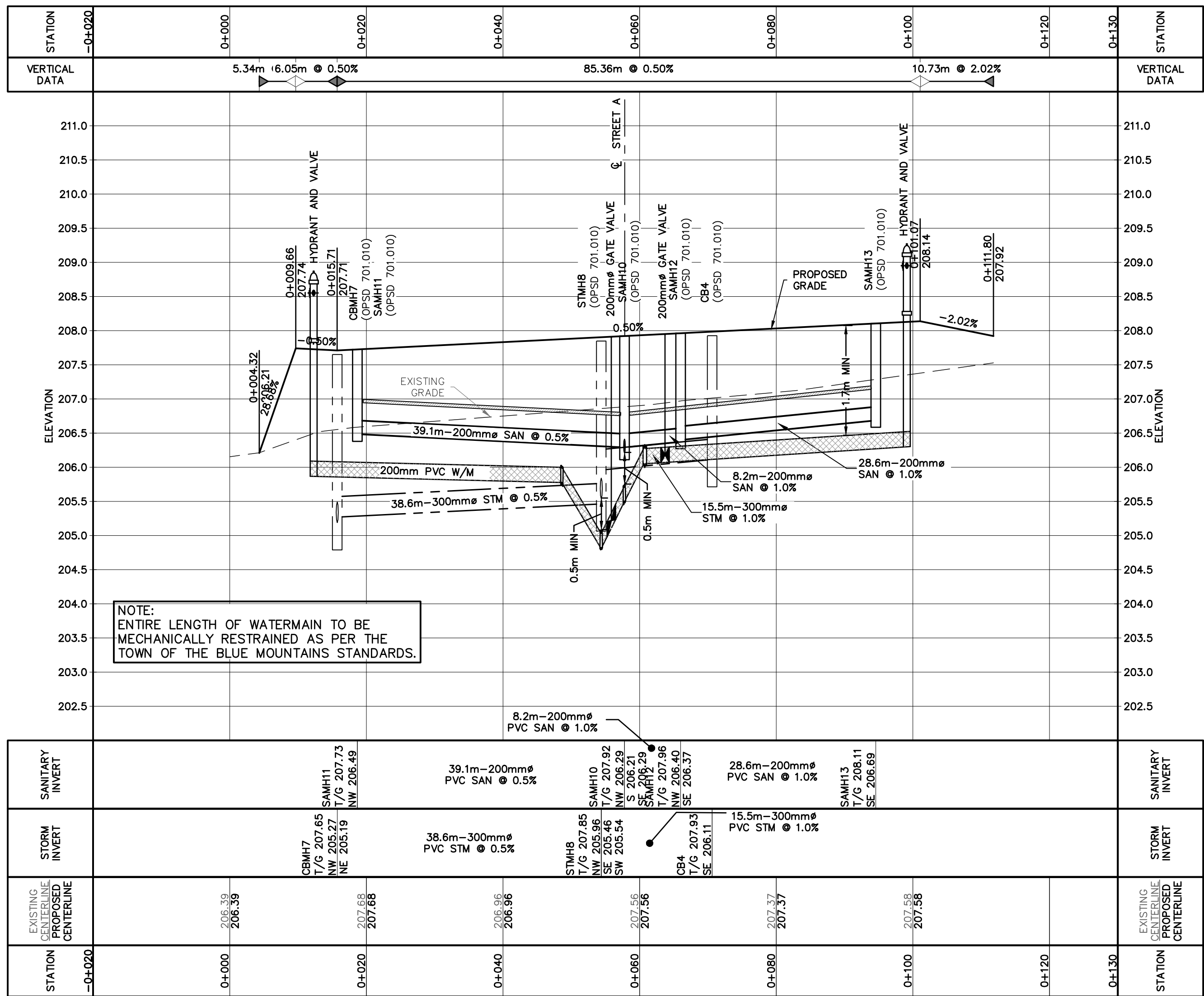
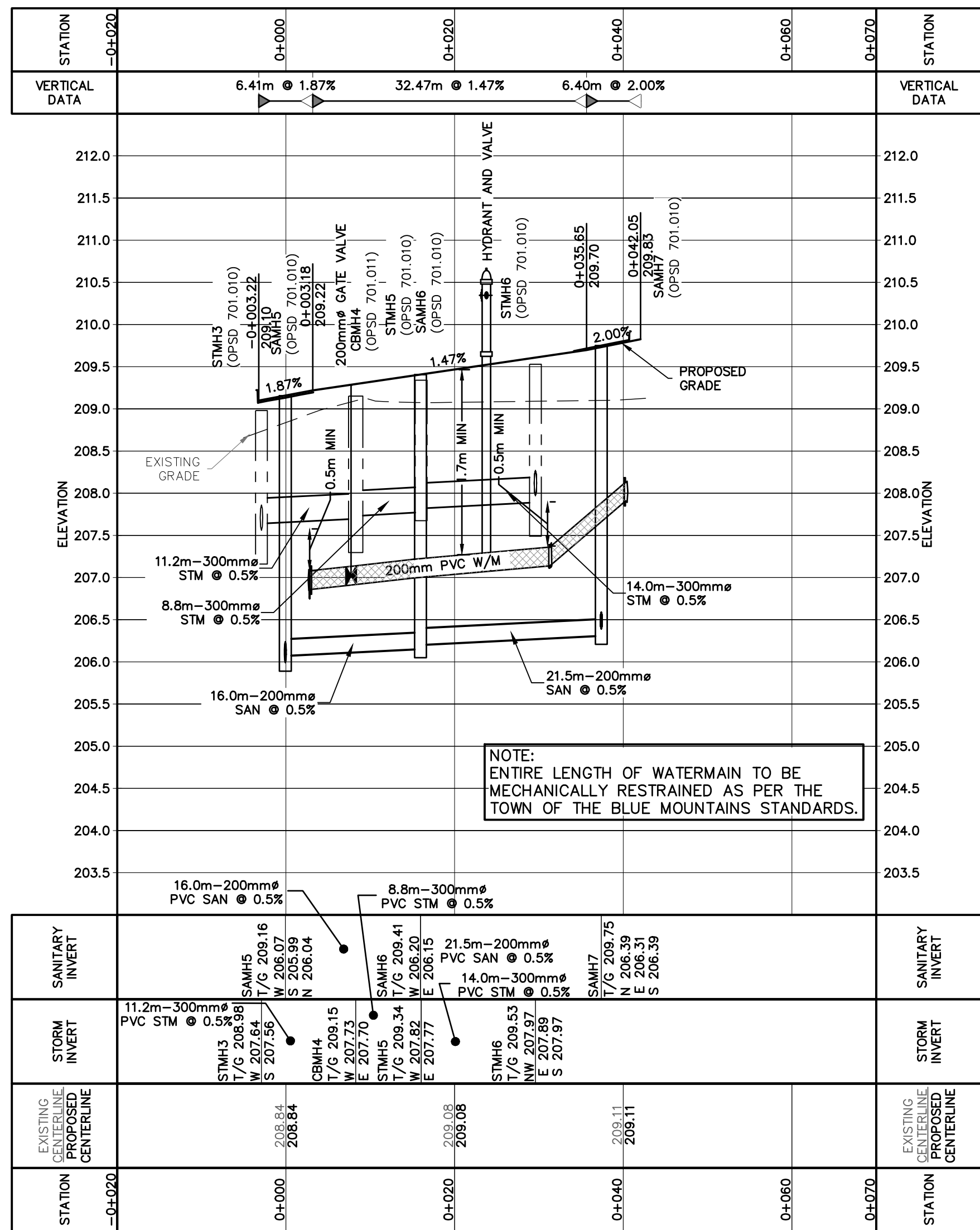
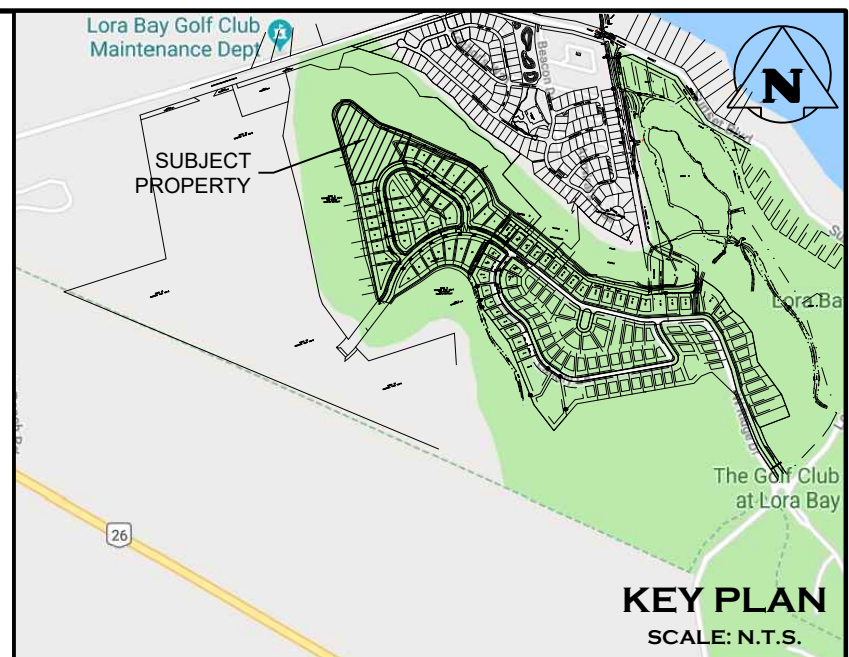
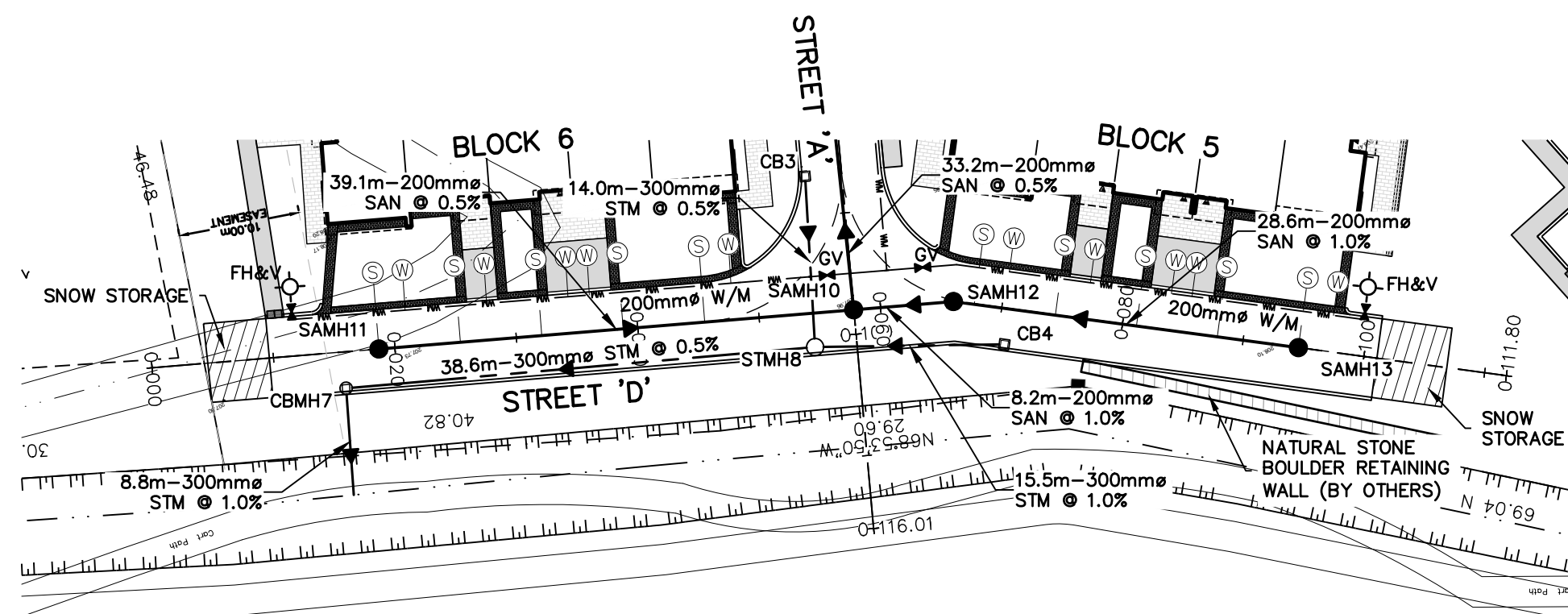
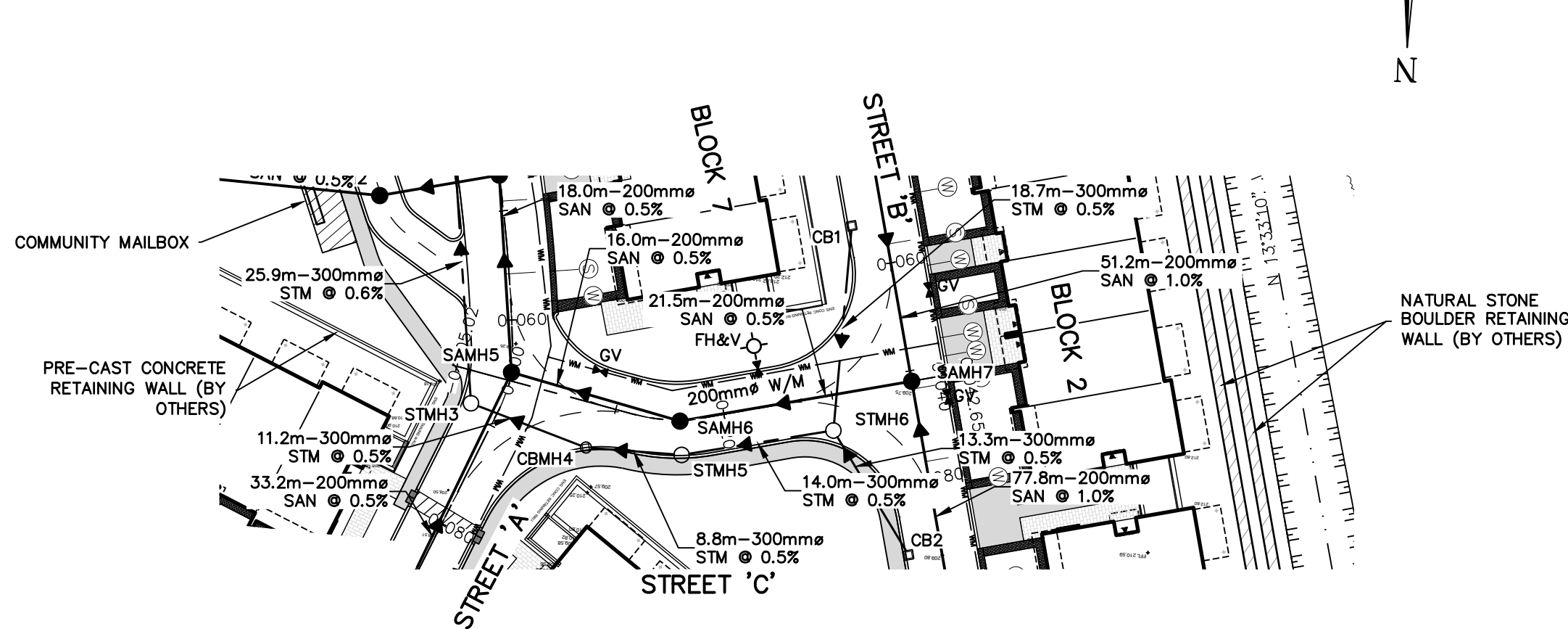
LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

Drawing

PLAN & PROFILE
STREET 'B' (STA 0+000 - 0+183.04)

THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		ScaleH=1:500 V=1:50	Drawing C103.B



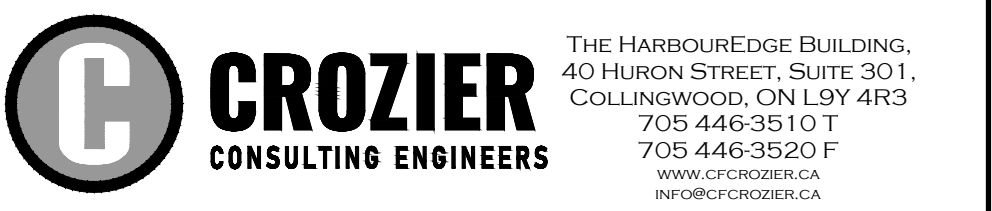
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TEMPORARY BENCHMARKS		
TBM#1 -		
TBM#2 -		
TBM#3 -		
***ADD REFERENCE TO SURVEY/SOURCE		
No.	ISSUE	DATE: MM/DD/YYYY
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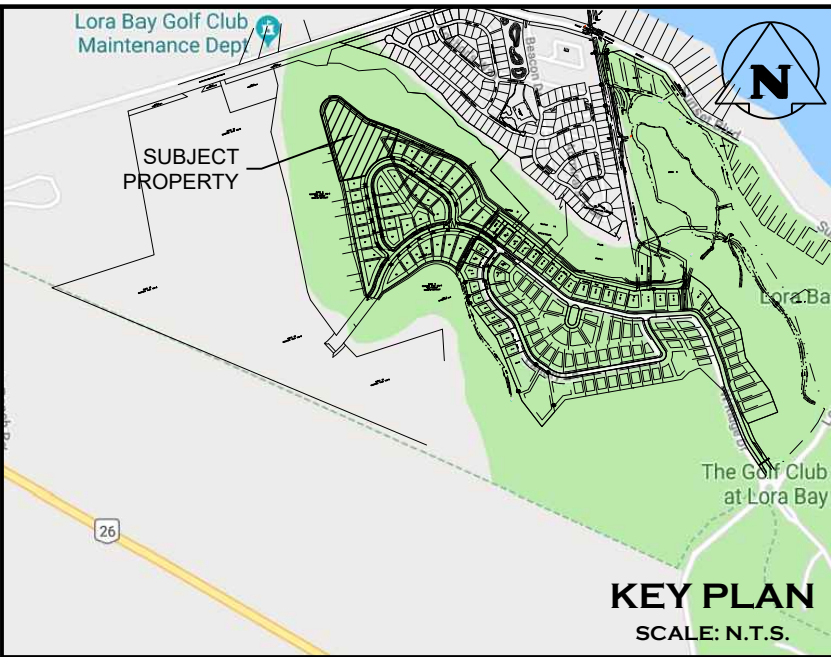
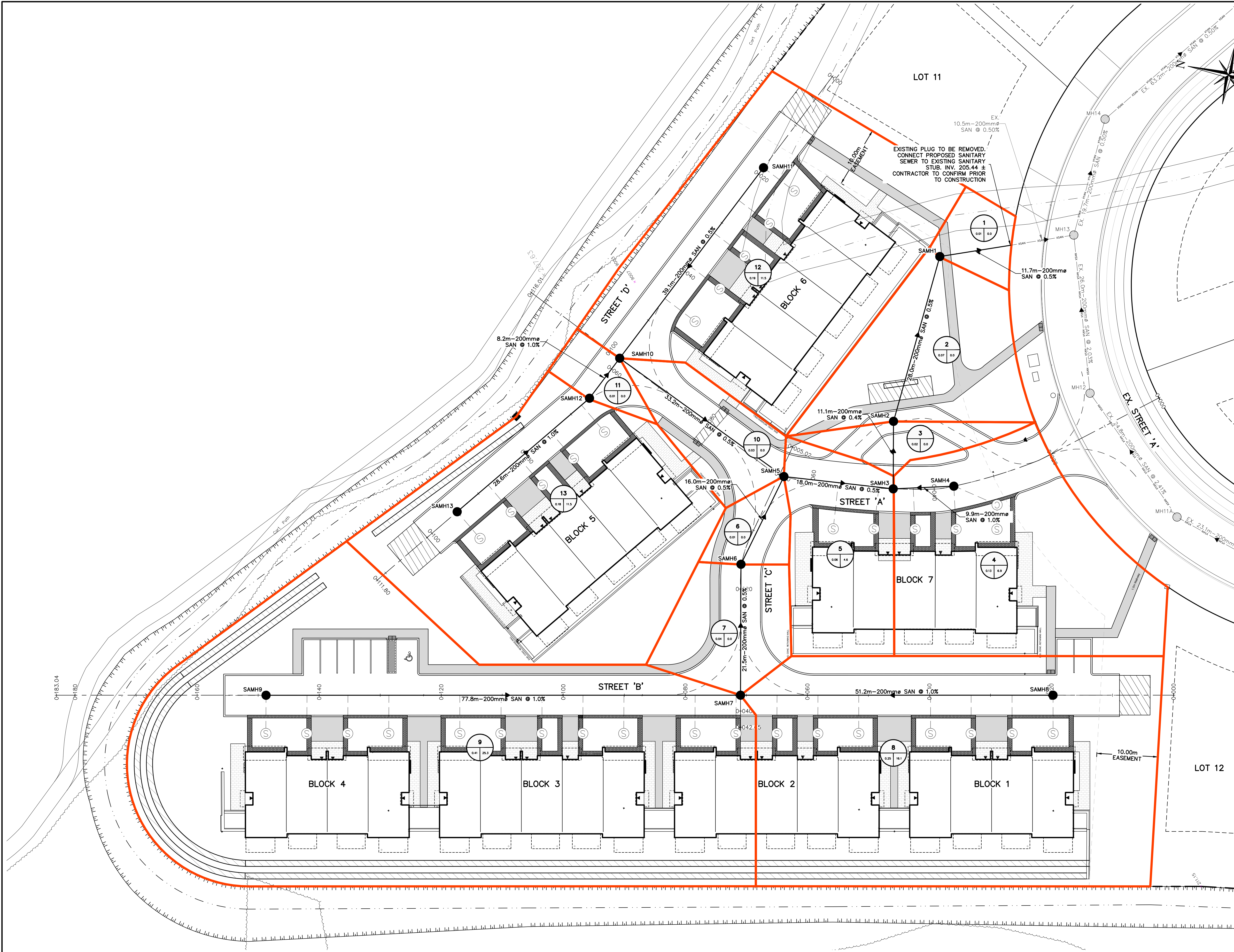
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

PLAN & PROFILE
STREET 'C' (STA 0+000 - 0+042.65)
STREET 'D' (STA 0+000 - 0+111.80)



Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale H=1:500 V=1:50	Drawing C103.C



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TEMPORARY BENCHMARKS		
TBM#1 -		
TBM#2 -		
TBM#3 -		
***ADD REFERENCE TO SURVEY/SOURCE		
No.	ISSUE	DATE: MM/DD/YYYY
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Project

LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

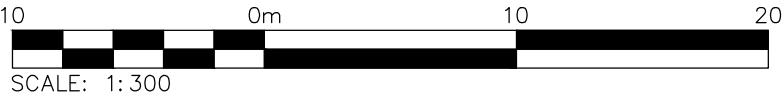
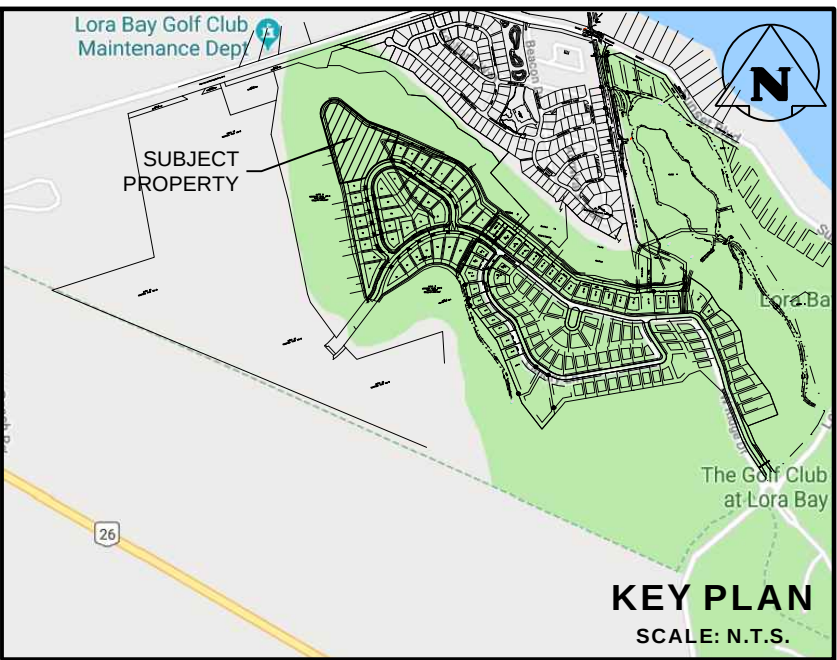
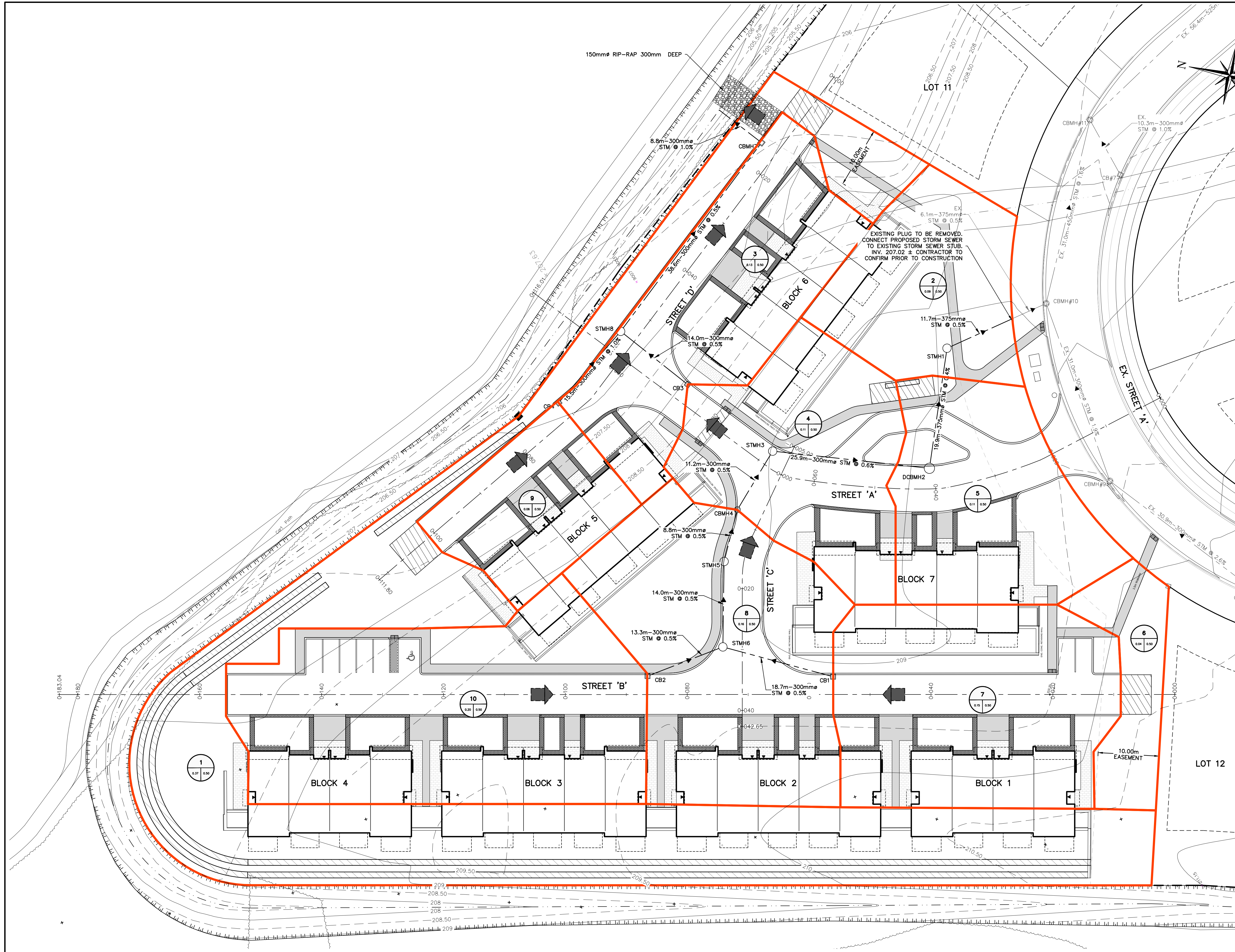
Drawing

SANITARY DRAINAGE AREA PLAN

THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
INFO@CF-CROZIER.CA
WWW.CF-CROZIER.CA

Drawn By: L.W. Design By: L.W. Project: 183-5908

Check By: A.S. Check By: Scale: 1:300 Drawing: C104



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TEMPORARY BENCHMARKS

TBM#1-
TBM#2-
TBM#3-

***ADD REFERENCE TO SURVEY/SOURCE

No.	ISSUE	DATE: MM/DD/YYYY
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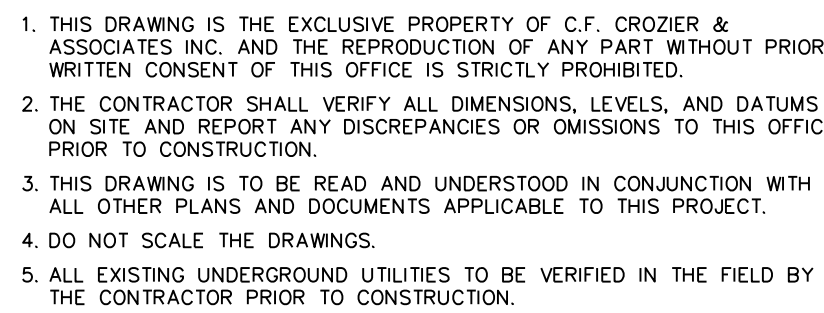
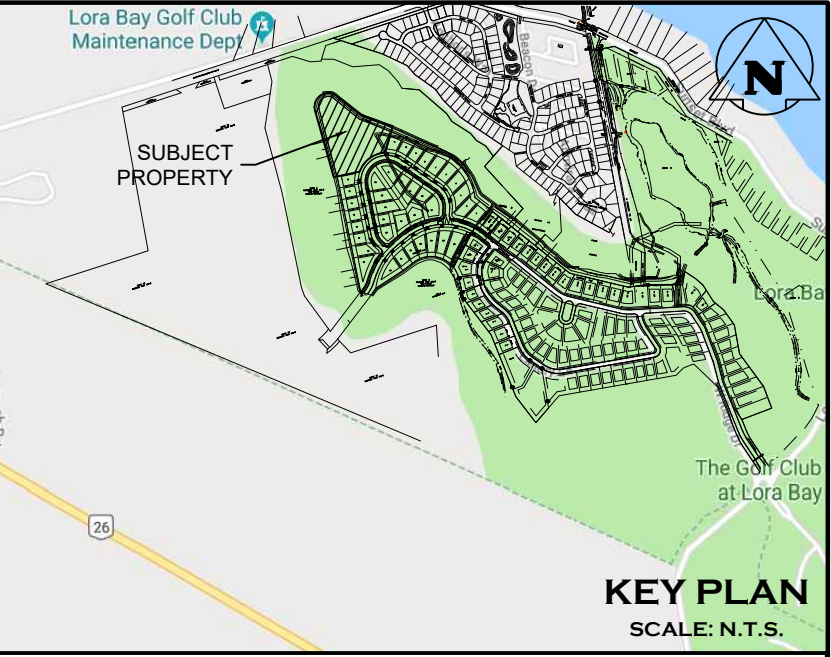
LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

STORM DRAINAGE AREA PLAN



The HarbourEdge Building,
40 Huron Street, Suite 301,
Collingwood, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
www.cfcrozier.ca
info@cfcrozier.ca

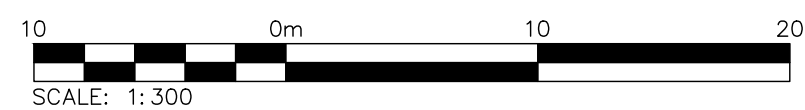
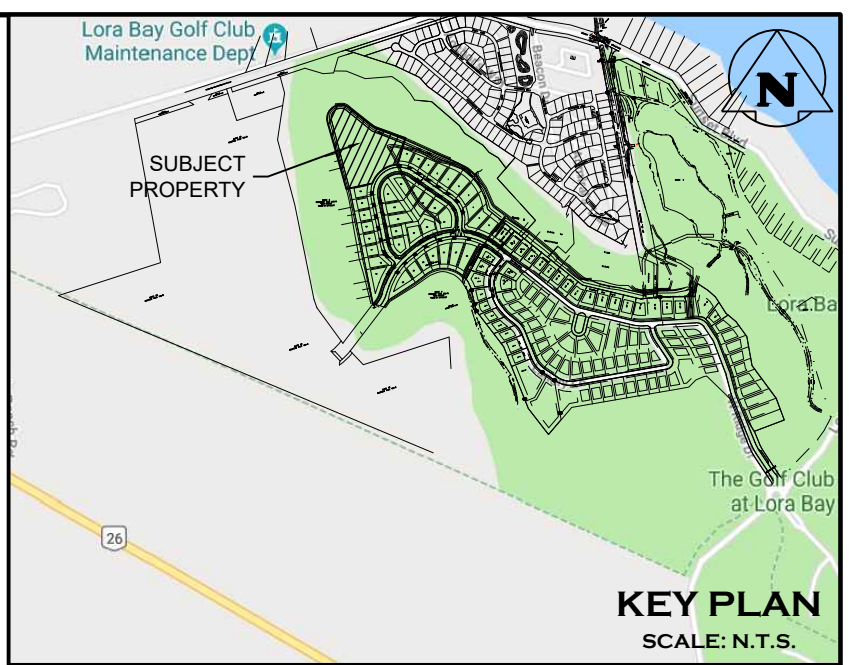
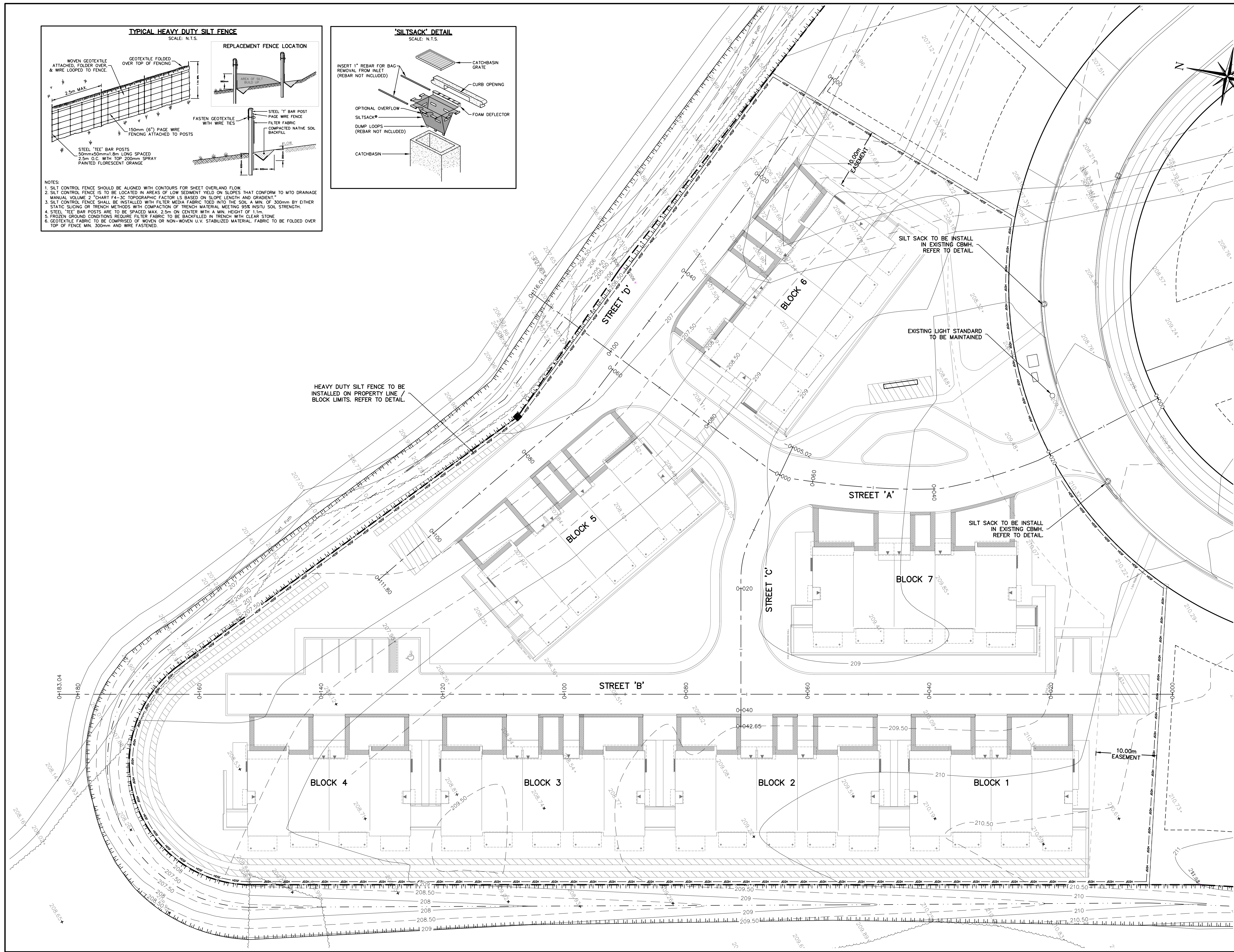
Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale	1:300
				Drawing	C105



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THE HARBOUREDGE BUILDING
10 HURON STREET, SUITE 301
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	L.W.	Design By	L.W.	Project	183-5908
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				Drawing	C106



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TEMPORARY BENCHMARKS		
TBM#1 -		
TBM#2 -		
TBM#3 -		
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PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

EROSION AND SEDIMENT
CONTROL PLAN



THE HARBOUREDGE BUILDING,
40 HURON STREET, SUITE 301,
COLLINGWOOD, ON L9Y 4R3
705 446-3510 T
705 446-3520 F
INFO@CF-CROZIER.CA

Drawn By	L.W.	Design By	L.W.	Project	183-5908
Check By	A.S.	Check By		Scale	1:400
				Drawing	C107

CONSTRUCTION NOTES

GENERAL

1. ALL EXISTING UNDERGROUND UTILITIES AND SERVICES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. ANY SITE ILLUMINATION TO BE DIRECTED DOWNWARD AND INTERNAL TO SITE ONLY.
3. DETAILS ON PROPOSED PLANTING, LANDSCAPE FEATURES, SITE TREATMENTS ARE PREPARED BY LANDSCAPE ARCHITECT.
4. ROAD OCCUPANCY PERMIT IS REQUIRED FROM THE TOWN PRIOR TO ANY WORKS COMPLETED WITHIN THE MUNICIPAL RIGHT OF WAY (ROW). CONTRACTOR IS RESPONSIBLE TO RETAIN PERMIT.
5. ALL BOULEVARDS & DISTURBED AREAS ARE TO BE RESTORED TO EXISTING CONDITIONS OR BETTER, 200mm TOPSOIL & SEED UNLESS OTHERWISE NOTED.
6. CLEAR STONE WRAPPED IN FILTER CLOTH CAN BE SUBSTITUTED FOR BEDDING MATERIAL IF APPROVED BY THE GEOTECHNICAL ENGINEER.
7. ALL PROPERTY BARS TO BE PROTECTED DURING CONSTRUCTION. BARS ARE TO BE PLACED BY O.L.S. AT CONTRACTOR'S EXPENSE IF DAMAGED OR REMOVED.
8. DEWATERING TO BE CARRIED OUT IN ACCORDANCE WITH OPSS-517 & 518 TO MAINTAIN ALL TRENCHES IN A DRY CONDITION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING M.E.C.P. PERMIT IF REQUIRED.
9. ALL RIP-RAP/GABION MATTRESSES TO BE PLACED UPON FILTER CLOTH.
10. SIGNAGE TO BE INSTALLED PER TOWN STANDARDS. STREET SIGNS AND STOP SIGNS TO BE INSTALLED ON SEPARATE POSTS.

ROADS

1. ALL EXCAVATION SHALL CONFORM TO THE CURRENT ONTARIO PROVINCIAL SPECIFICATION FOR GRADING OPSS 206.
2. THE DEVELOPER SHALL RETAIN A QUALIFIED SOILS CONSULTANT TO CARRY OUT COMPACTION TESTS ON THE COMPLETED SUBGRADE AND SUBSEQUENT LIFTS OF GRANULAR BASE MATERIAL BEFORE PLACEMENT OF NEXT GRANULAR OR ASPHALT LIFT.
3. ALL VEGETATION, BOULDERS OVER 150mmØ, TOPSOIL AND ORGANIC OR FROST-SUSCEPTIBLE MATERIALS, SHALL BE REMOVED FROM THE ROAD BASE TO A DEPTH OF AT LEAST 1.20m BELOW FINISHED GRADE AND REPLACED WITH SUITABLE MATERIAL.
4. ALL UNSUITABLE EXCAVATED MATERIAL SHALL BE REMOVED FROM THE ENTIRE ROAD CORRIDOR AND DEPOSITED OFF THE SITE TO A DISPOSAL AREA APPROVED BY THE CONTRACT QUALIFIED PERSON.
5. THE SUB-GRADE SHALL BE SHAPED TO CONFORM TO THE REQUIRED LONGITUDINAL GRADE AND CROSS-SECTION AND SHALL HAVE A CROSSFALL OF 3% FROM THE CENTRELINE OF ROADWAY TO 0.5m FROM BACK OF CURB.
6. NATIVE SUB-GRADE TO BE GRADED, COMPACTED AND PROOF-ROLLED PRIOR TO PLACEMENT OF GRANULARS. COMPACTION TO BE MINIMUM 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD). ALL IDENTIFIED SOFT AND WEAK SPOTS SHALL BE EXCAVATED AND BACKFILLED WITH A SUITABLE GRANULAR BASE MATERIAL. PROOF-ROLL TO BE OBSERVED AND ACCEPTED BY THE MUNICIPALITY AND GEOTECHNICAL ENGINEER PRIOR TO FIRST LIFT OF GRANULAR MATERIAL. MUNICIPALITY TO BE NOTIFIED OF GRANULAR 'B' PROOF ROLL AND GIVEN THE OPTION TO ATTEND.
7. THE GRANULAR BASE SHALL BE LAID ON DRY, SMOOTH, PROPERLY GRADED SUB-GRADE, AND SHALL BE SPREAD FOR THE REQUIRED WIDTH TO MEET THE EDGE OF SUB-GRADE. THE GRANULAR ROAD BASE SHALL CONSIST OF A BOTTOM COURSE OF 450mm MIN. CONSOLIDATED GRANULAR 'B' MATERIAL FULL WIDTH ACROSS THE ROADWAY AND A TOP COURSE OF 150mm CONSOLIDATED GRANULAR 'A' MATERIAL FULL WIDTH ACROSS THE ROADWAY AND CONFORMING IN ALL RESPECTS TO THE MINISTRY OF TRANSPORTATION ONTARIO PROVINCIAL STANDARD SPECIFICATIONS 1010. GRANULAR 'B' MATERIAL SHALL BE 450mm MINIMUM DEPTH FOR THE SUPERELEVATED SIDE OF THE INTERNAL ROADWAYS.
8. THE GRANULAR MATERIAL SHALL BE SPREAD IN LAYERS OF 150mm MAXIMUM COMPACTED DEPTHS, AND EACH LAYER SHALL BE THOROUGHLY COMPACTED TO 100% SPMDD.
9. NO GRANULAR BASE SHALL BE PLACED UNTIL THE GRADE ON WHICH IT IS TO BE LAID HAS BEEN INSPECTED AND APPROVED BY THE GEOTECHNICAL CONSULTANT AND CONTRACT ADMINISTRATOR.
10. ALL GRANULAR CONSTRUCTION SHALL CONFORM IN ALL RESPECTS TO ONTARIO PROVINCIAL STANDARD SPECIFICATION OPSS 314.
11. AS SOON AS THE GRANULAR BASE HAS BEEN COMPLETED IT SHALL BE THOROUGHLY COMPACTED AND SHAPED AND THE BASE COURSE ASPHALT PLACED. THE BASE COURSE SHALL CONSIST OF 50mm MIN. THICKNESS OF HL4 BASE COURSE ASPHALT. THE SURFACE COURSE SHALL CONSIST OF 40mm MIN. THICKNESS OF HL3 SURFACE COURSE ASPHALT. ASPHALT WORK SHALL CONFORM IN ALL RESPECTS TO ONTARIO PROVINCIAL STANDARD SPECIFICATIONS 310.
12. THE ASPHALT COMPONENTS SHOULD BE COMPACTED TO 92% MAXIMUM RELATIVE DENSITY, AS PER OPSS 310.
13. JOINTS WITH EXISTING ASPHALT TO BE SAW CUT STRAIGHT PRIOR TO PLACING NEW ASPHALT AND TACK COAT APPLIED TO EXISTING ASPHALT AND CURB SURFACES.
14. ALL SERVICES, MANHOLES, VALVES, ETC. ARE TO BE INSTALLED TO MATCH GRADE OF BASE COURSE OF ASPHALT AND/OR FINISHED GRADE OF LANDSCAPING. UPON PLACEMENT OF SURFACE COURSE OF ASPHALT ALL APPURTENANCES LOCATED IN ROADWAY SHALL BE RAISED TO MATCH FINISHED GRADE.
15. SUBDRAINS TO BE LOCATED AS PER TYPICAL ROAD SECTION ON DWG. C108 AND O.P.S.D. 207.030. GRANULAR A EMBEDMENT MATERIAL OR APPROVED EQUIVALENT TO BE USED. WHERE LOCATION OF SUBDRAINS ARE NOT IN WELL DRAINED NATIVE SAND OR WELL DRAINED IMPORTED GRANULAR, THE SUBDRAIN SHALL HAVE GEOTEXTILE WRAP AND BE SURROUNDED ON ALL SIDES WITH 150MM OF 19MM CLEAR STONE AND CLEAR STONE TO BE COMPLETELY WRAPPED IN FABRIC.

STORM SEWER

1. MAIN SEWERS SHALL BE PVC PIPE (OPSS 410), MIN. PIPE STIFFNESS SHALL BE 320kPa OR CONCRETE A257.2 – CLASS – 650 (MIN.). ALL PIPE TO BE JOINED WITH A GASKETED BELL & SPIGOT SYSTEM.
2. MINIMUM PIPE SIZE, INCLUDING CATCHBASIN LEADS, SHALL BE 300mmØ.
3. STORM SEWER EMBEDMENT SHALL CONFORM WITH OPSS 802.010 USING GRANULAR 'A'.
4. PRECAST STORM MANHOLES SHALL BE PER OPSS 701.010 (1200mmØ) OR 701.011 (1500mmØ) WITH FRAME AND GRATE PER OPSS 401.010 TYPE 'A' AND HOLLOW RECTANGULAR LADDER RUNGS PER OPSS 405.010. BENCHING SHALL BE PROVIDED IN ALL MANHOLES.
5. PRECAST CATCHBASINS ARE TO BE OPSS 705.010 (SINGLE) OR 705.020 (DOUBLE) WITH FRAME AND GRATE OPSS 400.020. ALL CATCHBASINS AND CATCHBASIN MANHOLES SHALL HAVE SUMPS.
6. FROST STRAPS REQUIRED ON ALL MANHOLES AS PER OPSS 701.100.
7. CULVERTS TO HAVE MIN. 300mm COVER WHERE POSSIBLE. CULVERT MATERIAL TO BE PER TOWN STANDARD OR APPROVAL EQUIVALENT.
8. MINIMUM COVER ON STORM SEWER & CATHBASINS LEADS TO BE PER TOWN STANDARD. CONTRACTOR TO APPLY INSULATION AS PER DETAIL ON DWG C107 WHERE MINIMUM COVER IS NOT OBTAINED.
9. STORM PIPE 450mm IN DIAMETER AND GREATER SHALL BE CONCRETE PIPE. ALL PIPE SMALLER THAN 450mm IN DIAMETER SHALL BE P.V.C.

WATERMAIN

A) PIPING

1. ALL CONSTRUCTION TO CONFORM TO AWWA C605-94 AND AWWA C600-99 STANDARDS. MATERIALS TO MEET NSF 60, 61 & 372.
2. WATERMAIN PIPE SHALL BE PVC DR18 (SIZES UP TO AND INCLUDING 300mmØ), CONFORMING TO AWWA C900. A DIFFERENT PIPE STRENGTH OR TYPE MAY BE REQUIRED BY THE MUNICIPALITY FOR SPECIAL CONDITIONS.
3. WATERMAIN DEFLECTION NOT TO EXCEED MANUFACTURER'S RECOMMENDATIONS. WHERE DEFLECTION CAN NOT MEET MANUFACTURER'S RECOMMENDATIONS, CONTRACTOR TO INSTALL THE REQUIRED MANUFACTURED BEND AS NECESSARY.
4. WATERMAIN SHALL BE BEDDED IN ACCORDANCE WITH OPSS 802.010 WITH GRANULAR 'A'.
5. WATERMAIN TO BE TESTED AND APPROVED PER THE TOWN OF THE BLUE MOUNTAINS – WATERMAIN COMMISSIONING PROTOCOL STANDARD (MAY 2021). CONTRACTOR TO SUBMIT WATERMAIN COMMISSIONING PLAN TO CONTRACT ADMINISTRATOR AND MUNICIPALITY 2 WEEKS BEFORE WATERMAIN INSTALLATION BEGINS. TESTING SHALL NOT COMMENCE UNTIL WATERMAIN COMMISSIONING PLAN IS APPROVED BY CONTRACT ADMINISTRATOR & MUNICIPALITY.
6. ALL TESTING REQUIRES NOTIFICATION IN WRITING, 72 HOURS PRIOR TO ALL TESTING.
7. ALL CONNECTIONS TO EXISTING MUNICIPAL SUPPLY MAINS MUST BE WITNESSED BY THE MUNICIPALITY OR REPRESENTATIVE AND GIVING 72 HOURS NOTICE PRIOR TO CONNECTION AND BACKFILLING OPERATIONS.
8. THE PVC PIPE INSTALLATION SHALL INCLUDE TRACER WIRE. TRACER WIRE TO BE 10 GAUGE, MULTI-STRAND SHALL BE PLACED ON TOP & ATTACHED ON EACH LENGTH OF PVC WATERMAIN. ALL CONNECTIONS SHALL BE MADE WITH "DRYCONN WATERPROOF CONNECTORS" OR APPROVED EQUAL. MUNICIPALITY MUST BE ON SITE DURING ANY TRACER WIRE CONTINUITY TESTING.
9. THE MINIMUM COVER ON WATERMAINS SHALL BE 1.7m. WHEN COVER IS LESS THAN 1.7m, CONTRACTOR TO PROVIDE INSULATION PER DETAIL ON DWG C108.
10. CATHODIC PROTECTION REQUIRED ON ALL METALLIC FITTINGS AND PIPE AS PER OPSS 702 & TOWN STANDARD.
11. THRUST BLOCKS OR JOINT RESTRAINTS SHALL BE REQUIRED AT ALL CHANGES IN PIPE DIRECTION, TERMINATIONS AND ANY LOCATION WHERE THRUST PRESSURES MAY OCCUR. WHERE SOIL CONDITIONS ARE SUSPECT, SUCH AS IN DISTURBED SOILS OR SOILS WITH BEARING CAPACITY OF LESS THAN 200kPa, PIPE RESTRAINTS SHALL BE USED. SEE TOWN STANDARDS OF APPROPRIATE PRODUCT REQUIREMENTS. THE USE OF THREADED RODS IN JOINT RESTRAINT IS NOT PERMISSIBLE.
12. FIRE HYDRANTS SHALL BE CANADA VALVE, OPEN LEFT. PAINTED CHROME YELLOW COMPLETE WITH FLEX STAKE

HYDRANT MARKER, MODEL FHV802, 1.5m TALL, WITH A 0.3m X 0.3m REFLECTIVE SIGN WITH A HYDRANT SYMBOL.

B) SERVICES

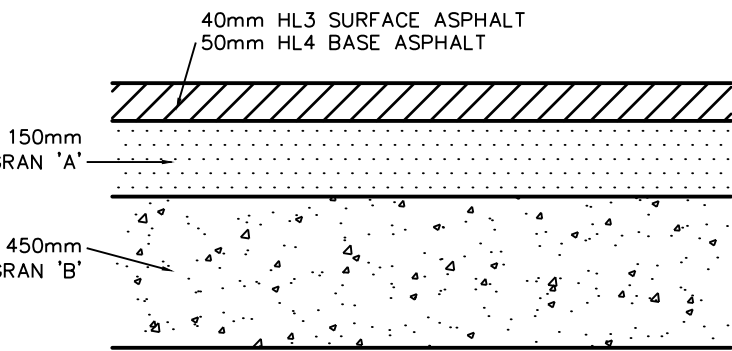
1. EACH HOUSING UNIT SHALL HAVE A SEPARATE 20mmØ MIN. TYPE 'K' COPPER OR 25mmØ POLY WATER SERVICE. A CURB STOP AND EXTENSION SERVICE BOX AND MAIN STOP MUST BE INSTALLED ON EACH SERVICE USING COMPRESSION JOINT FITTINGS.
2. WATER SERVICE FITTINGS SHALL BE AS FOLLOWS:
 - MAIN STOPS ARE TO BE CAMBRIDGE BRASS 301NL SERIES.
 - CURB STOPS ARE TO BE SELF DRAINING, CAMBRIDGE BRASS 202NL SERIES.
 - SERVICE BOXES ARE TO BE OF ALL IRON/STEEL CONSTRUCTION AND SUPPLIED WITH STAINLESS STEEL SADDLES, CAMBRIDGE BRASS 8403 SERIES.
 - IF CURB STOP IS LOCATED IN DRIVEWAY, A VB-5009 4 ¼" ADJUSTABLE PLOW VALVE BOX SHALL BE INSTALLED PER TOWN STANDARDS.
3. CURB STOPS SHALL BE LOCATED AT SERVICE CORRIDOR LIMITS & SUPPLIED WITH A 89mm X 38mm MARKER FROM THE INVERT OF THE SERVICE TO 600mm ABOVE GRADE PAINTED BLUE. A VB-5009 4 ¼" ADJUSTABLE PLOW VALVE BOX SHALL BE INSTALLED PER TOWN STANDARDS IF INSTALLED WITHIN DRIVEWAY.
4. SERVICE CONNECTIONS TO WATERMAINS SHALL BE MADE BY DIRECT TAPPING OR WITH BROAD BAND STAINLESS STEEL SADDLES. SERVICE SADDLES TO BE STAINLESS STEEL 8403 SERIES DOUBLE STRAP & TAPPING SADDLE TO BE CAMBRIDGE BRASS 8403 STAINLESS.
5. SERVICE CONNECTIONS SHALL BE LEFT WITH A TAIL 1m ABOVE FINAL GRADE & CAPPED OR CRIMPED.
6. SERVICE CONNECTIONS WITH RESIDUAL PRESSURES EXCEEDING 550 kPa (80psi) MUST BE EQUIPPED WITH PRESSURE REDUCING DEVICES UPSTREAM OF WATER METER IN FUTURE HOMES.
7. SERVICES TO BE INSTALLED WITH TRACER WIRE TERMINATING UP CURB STOP VALVE. TRACER WIRE TO BE 10 GAUGE, MULTISTRAND AND PLACED PARALLEL WITH SERVICE. MUNICIPALITY TO CONFIRM TRACER WIRE INSTALLATION AND FUNCTIONALITY VIA CONTINUITY TESTING POST-INSTALLATION.

SANITARY SEWERS

1. MAIN SEWERS SHALL BE PVC SDR 35 WITH RUBBER GASKET CONNECTIONS AND MIN. SIZE OF 200mmØ. ALL SANITARY SEWER PIPES SHALL CONFORM TO THE REQUIREMENTS OF CSA AND OPSS.
2. SANITARY SEWER EMBEDMENT SHALL CONFORM WITH OPSS 802.010 USING GRANULAR 'A'.
3. PRECAST SANITARY MANHOLES SHALL CONFORM WITH OPSS 701.010 (1200mmØ) WITH HOLLOW RECTANGULAR LADDER RUNGS PER OPSS 405.010. BENCHING SHALL BE PROVIDED IN ALL MANHOLES.
4. MANHOLE COVERS SHALL BE CAMRON D5579 (OR APPROVED EQUAL) AND INSTALLED AS PER MUNICIPAL STANDARD.
5. HOUSE SERVICE CONNECTIONS SHALL BE PVC SDR 28 WITH RUBBER GASKET CONNECTIONS AND SHALL BE 125mmØ MIN. SERVICE CONNECTIONS TO HAVE A MINIMUM 2.0% SLOPE.
6. SHOP MANUFACTURED, "TEE" CONNECTIONS SHALL BE USED FOR HOUSE SERVICE CONNECTIONS ON 200mm SEWERS.
7. CONNECTION TO MANHOLES SHALL ENTER THE MANHOLE NO HIGHER THAN 600MM ABOVE THE LOWEST INVERT EXCEPT AS OTHERWISE APPROVED BY THE TOWN.
8. FROST STRAPS REQUIRED ON ALL MANHOLES AS PER OPSS 701.100.

TYPICAL PAVEMENT STRUCTURE DETAIL 'A'

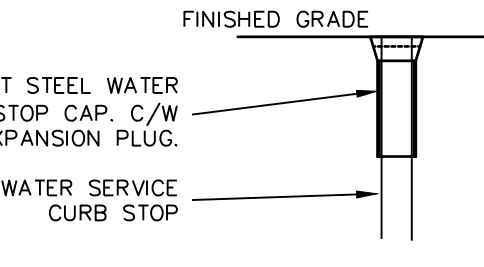
SCALE N.T.S.



NOTE: REFER TO ROADWAY CONSTRUCTION NOTES FOR CONSTRUCTION DETAILS.

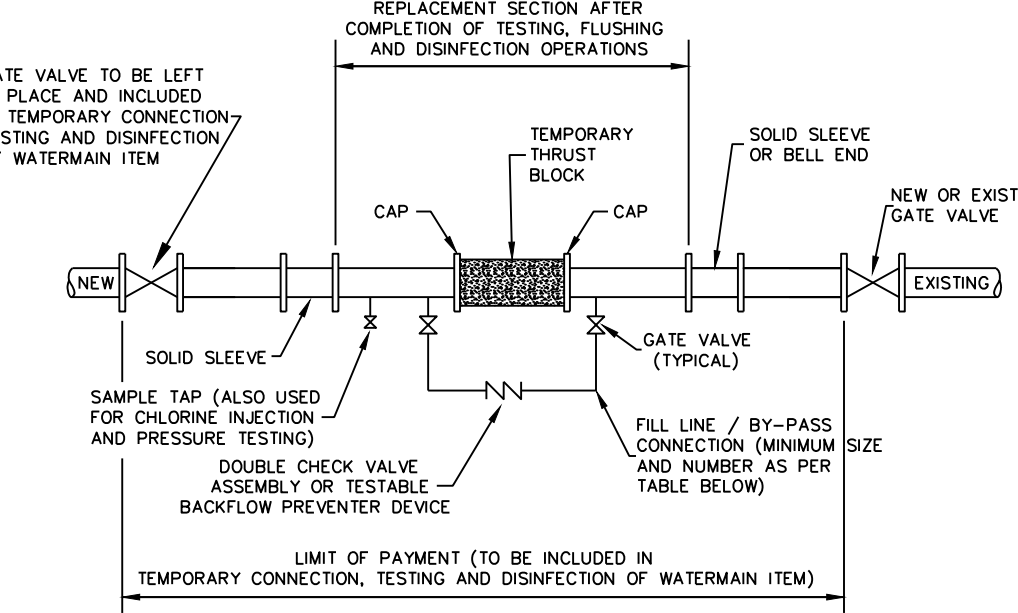
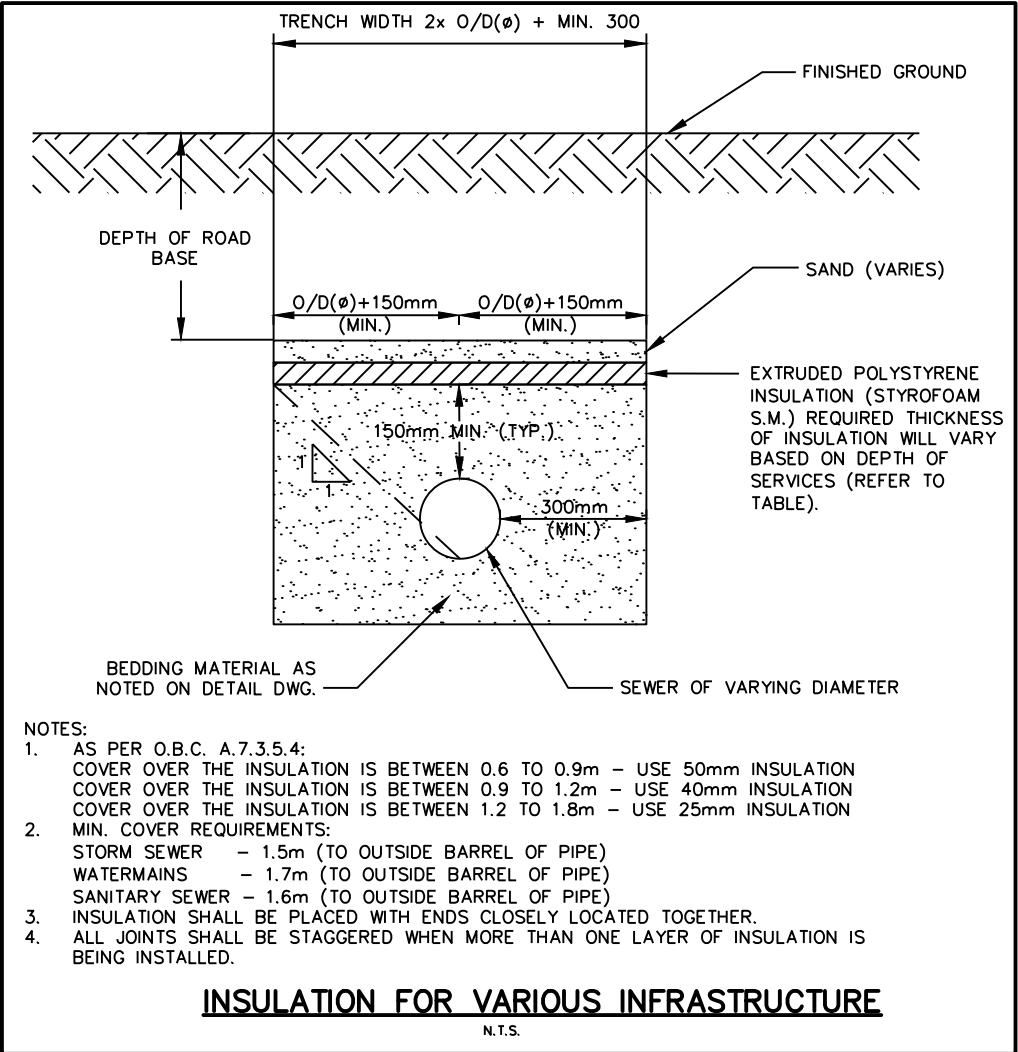
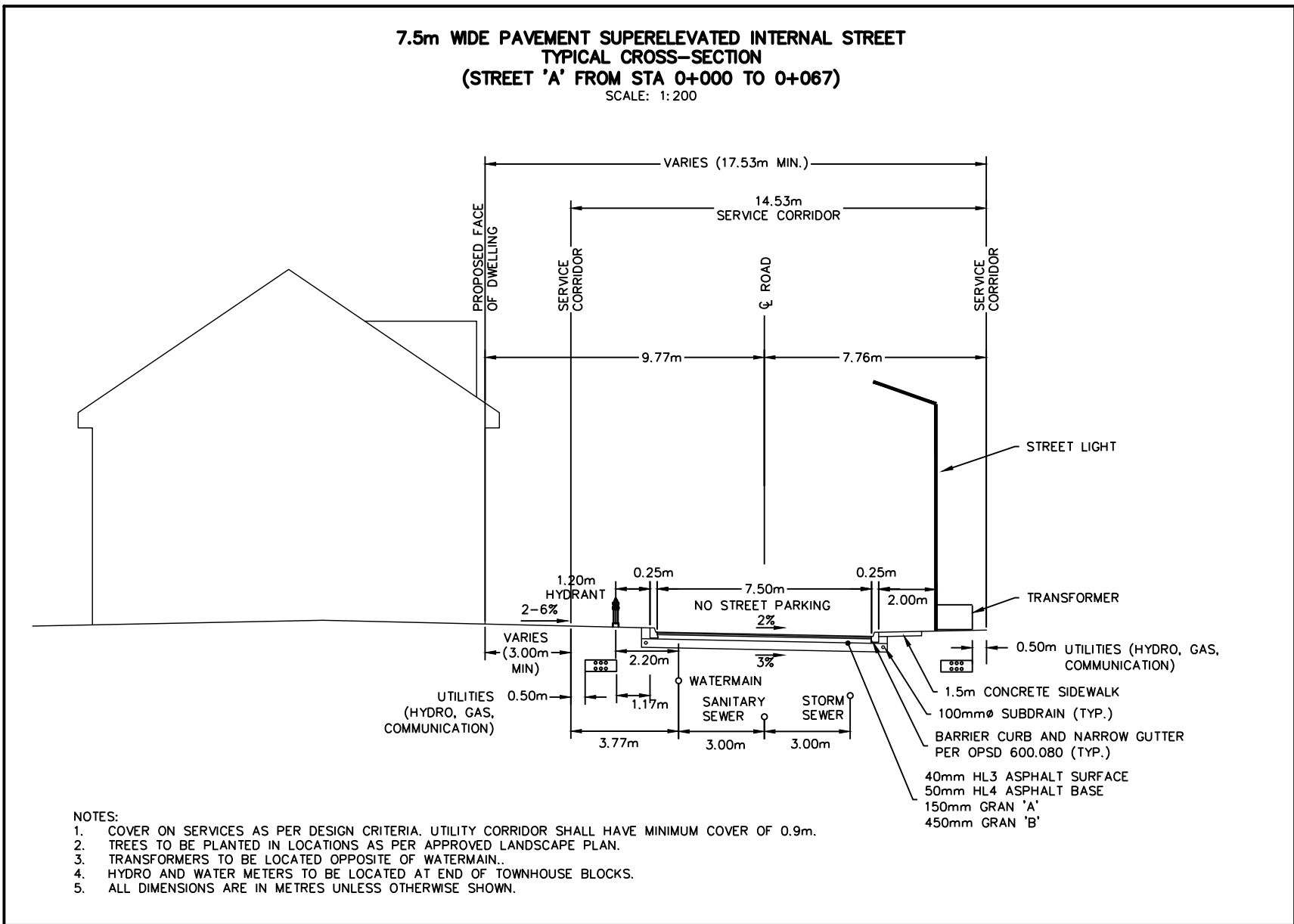
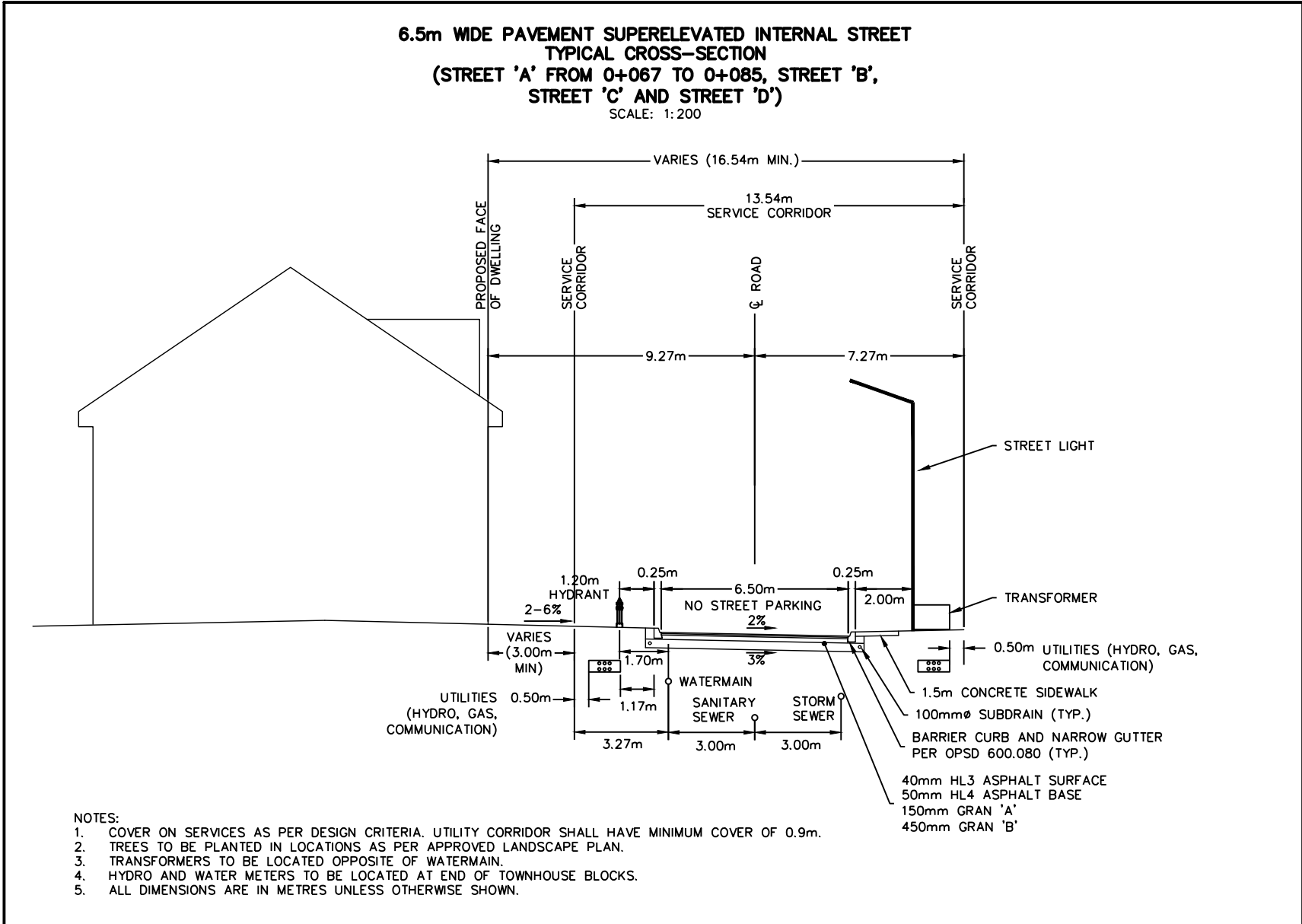
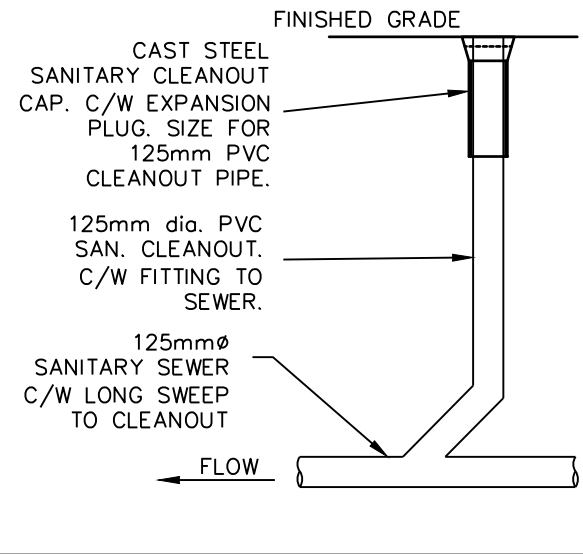
SERVICE PROTECTION BOX

SCALE: N.T.S.



SANITARY CLEANOUT DETAIL

SCALE: N.T.S.



PIPE DIAMETER	FLOW REQUIRED TO PRODUCE 0.76m/s (APPROX) VELOCITY IN MAIN	SIZE OF TAP (mm)			NUMBER OF OPEN 84mm HYDRANT OUTLETS
		25	38	51	
mm	l/s	NUMBER OF TAPS ON PIPE			
100	6.3	1	-	-	1
150	12.6	-	1	-	1
200	25.2	-	2	1	1
250	37.9	-	3	2	1
300	56.8	-	-	2	2
400	109.9	-	-	4	2

REQUIRED FLOW AND OPENINGS TO FLUSH PIPELINES (276 kPa/40 PSI RESIDUAL PRESSURE IN WATERMAIN)

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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. DO NOT SCALE THE DRAWINGS.
5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

TEMPORARY BENCHMARKS

TBM#1 –
TBM#2 –
TBM#3 –

***ADD REFERENCE TO SURVEY/SOURCE

No.	ISSUE	DATE: MM/DD/YYYY
0	ISSUED FOR 1st SUBMISSION	06/28/2021

PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

LORA BAY PHASE 4 BLOCK 39
TOWN OF THE BLUE MOUNTAINS

CONSTRUCTION NOTES AND
STANDARD DETAILS



THE HARBOUREDGE BUILDING,
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