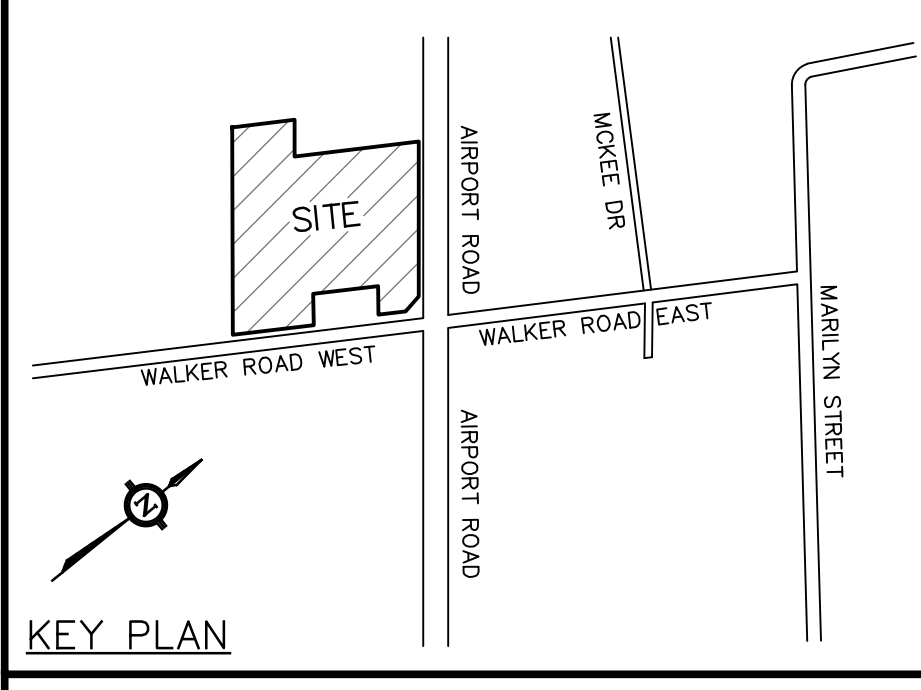
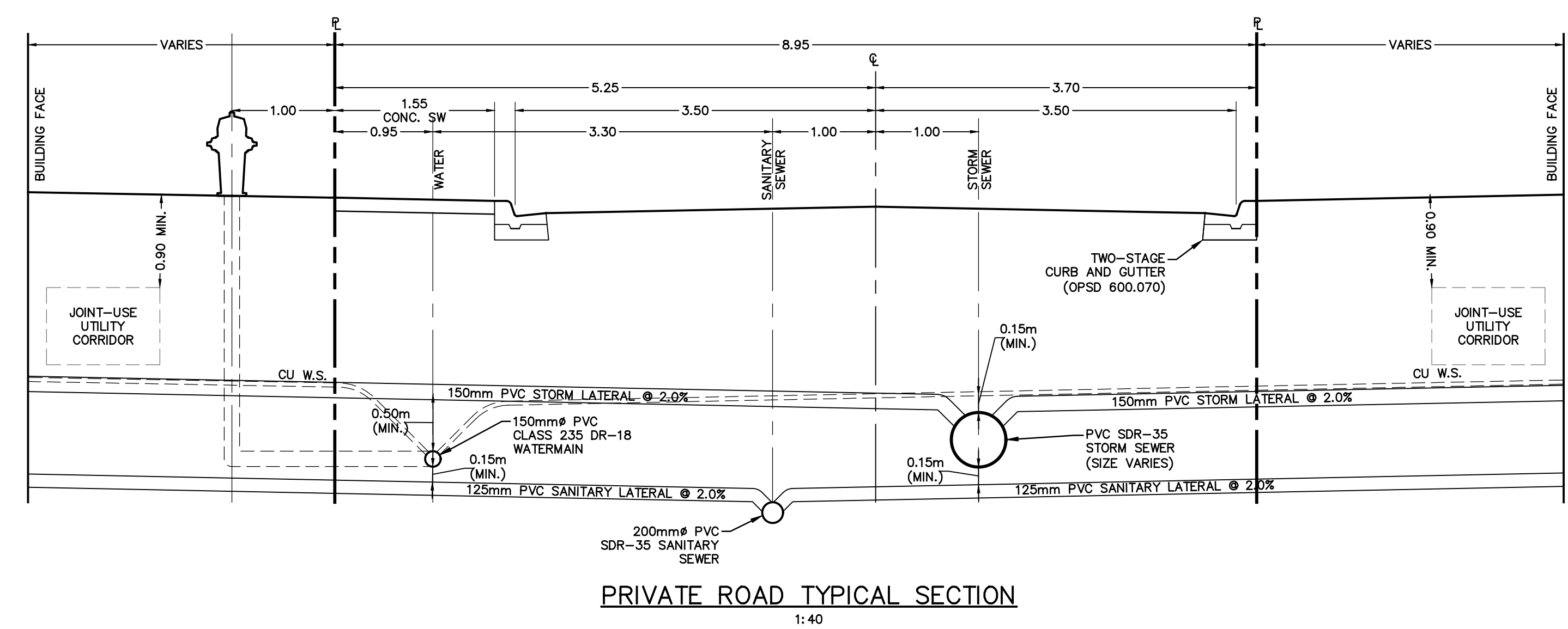


SANITARY SEWER DESIGN TABLE												
MH	N	NE	E	SE	S	SW	W	NW	TOP	DIA	QPSD	COMMENTS
RESIDENTIAL DEVELOPMENT												
1A	288.40		288.23			288.25			1200	701.010	401.010	
2A	288.69			288.66		288.25			1200	701.010	401.010	REPLACE EX. CB
3A	289.05				289.15				292.82	1200	701.010	401.010
4A	289.41		289.31						293.14	1200	701.010	401.010
5A	289.69			289.66					284.37	1200	701.010	401.010
6A	290.69				290.59				284.22	1200	701.010	401.010
7A		290.89				290.79			284.31	1200	701.010	401.010
8A					291.31				284.61	1200	701.010	401.010
COMMERCIAL DEVELOPMENT												
8A	290.33				290.31				292.66	1200	701.010	401.010
10A			290.71				290.81	293.06	1200	701.010	401.010	
11A	290.15			290.13			290.52		292.25	1200	701.010	401.010
12A					290.80			292.69	1200	701.010	401.010	

STORM SEWER DESIGN TABLE													
MH	N	NE	E	SE	S	SW	W	NW	TOP	DIA	QPSD	COVER	COMMENTS
RESIDENTIAL DEVELOPMENT													
1						290.44	291.44	1200	701.010	400.010			
2						290.56	290.66	1200	701.010	401.010			
3				290.74			290.79	1200	701.010	401.010			
4	290.88			290.83					292.45	1200	701.010	401.010	
5	291.08				291.03				292.67	1200	701.010	401.010	
6	290.86				291.16				292.66	1200	701.010	401.010	
7					291.25				293.81	1500	701.010	401.010	STC 2000
8	291.41				291.31				293.47	1500	701.010	401.010	
9					291.79				293.29	1200	701.010	401.010	
10		291.85			291.83				294.16	1200	701.010	401.010	
11	292.30			292.17		292.00			294.25	1500	701.011	401.010	
12					292.27		292.22		294.31	1200	701.010	401.010	
13	292.62					292.49		294.43	1200	701.010	401.010		
COMMERCIAL DEVELOPMENT													
14						290.56	290.61	1200	701.010	401.010			
15	290.74					290.69			292.52	1200	701.010	400.020	
16	290.78			290.76					292.54	1200	701.010	401.010	
17	290.91				290.83		290.91		292.65	1200	701.010	401.010	
18	291.04			290.94					292.59	1200	701.010	401.010	
19					291.01				292.63	1200	701.010	401.010	
20	291.30				291.17				292.67	1200	701.010	401.010	

CATCH BASIN TABLE						
CB	INV	TOP	QPSD	COVER	COMMENTS	
RESIDENTIAL DEVELOPMENT						
1	292.10	293.47	705.010	STD.503	BEEHIVE STYLE TOP	
2	291.80	293.25	705.010	STD.503	BEEHIVE STYLE TOP	
3	292.20	293.65	705.010	STD.503	BEEHIVE STYLE TOP	
4	292.60	294.05	705.010	STD.503	BEEHIVE STYLE TOP	
5	292.65	294.10	705.010	STD.503	BEEHIVE STYLE TOP	
6	292.89	294.44	705.010	STD.503	BEEHIVE STYLE TOP	
7	292.93	293.98	705.010	STD.503	BEEHIVE STYLE TOP	
8	292.87	294.32	705.010	400.010		
9	292.60	294.38	705.010	400.010		
10	292.60	294.05	705.010	400.010		
11	292.60	294.05	705.010	400.010		
12	292.20	293.65	705.010	400.010		
13	292.16	293.61	705.010	400.010		
14	291.84	293.29	705.010	400.010		
15	291.81	293.26	705.010	400.010		
16	291.55	293.00	705.010	400.010		
17	291.58	293.03	705.010	400.010		
COMMERCIAL DEVELOPMENT						
18	291.34	292.36	705.010	400.010		
19	291.66	292.56	705.010	400.010		
20	291.67	292.57	705.010	400.010		
21	291.55	292.85	705.010	STD.503	BEEHIVE STYLE TOP	



- LEGEND**
- PROPOSED CATCHBASIN
  - PROPOSED DOUBLE CATCHBASIN
  - PROPOSED CATCHBASIN MANHOLE
  - PROPOSED STORM MANHOLE
  - PROPOSED SANITARY MANHOLE
  - PROPERTY LINE
  - PROPOSED STORM SEWER
  - PROPOSED SANITARY SEWER
  - PROPOSED FIRE HYDRANT
  - PROPOSED VALVE & BOX
  - PROPOSED CHECK VALVE IN CHAMBER
  - PROPOSED WATERMAIN
  - PROPOSED PLUG
  - EXISTING CATCHBASIN
  - EXISTING DOUBLE CATCHBASIN
  - EXISTING STORM MANHOLE
  - EXISTING SANITARY MANHOLE

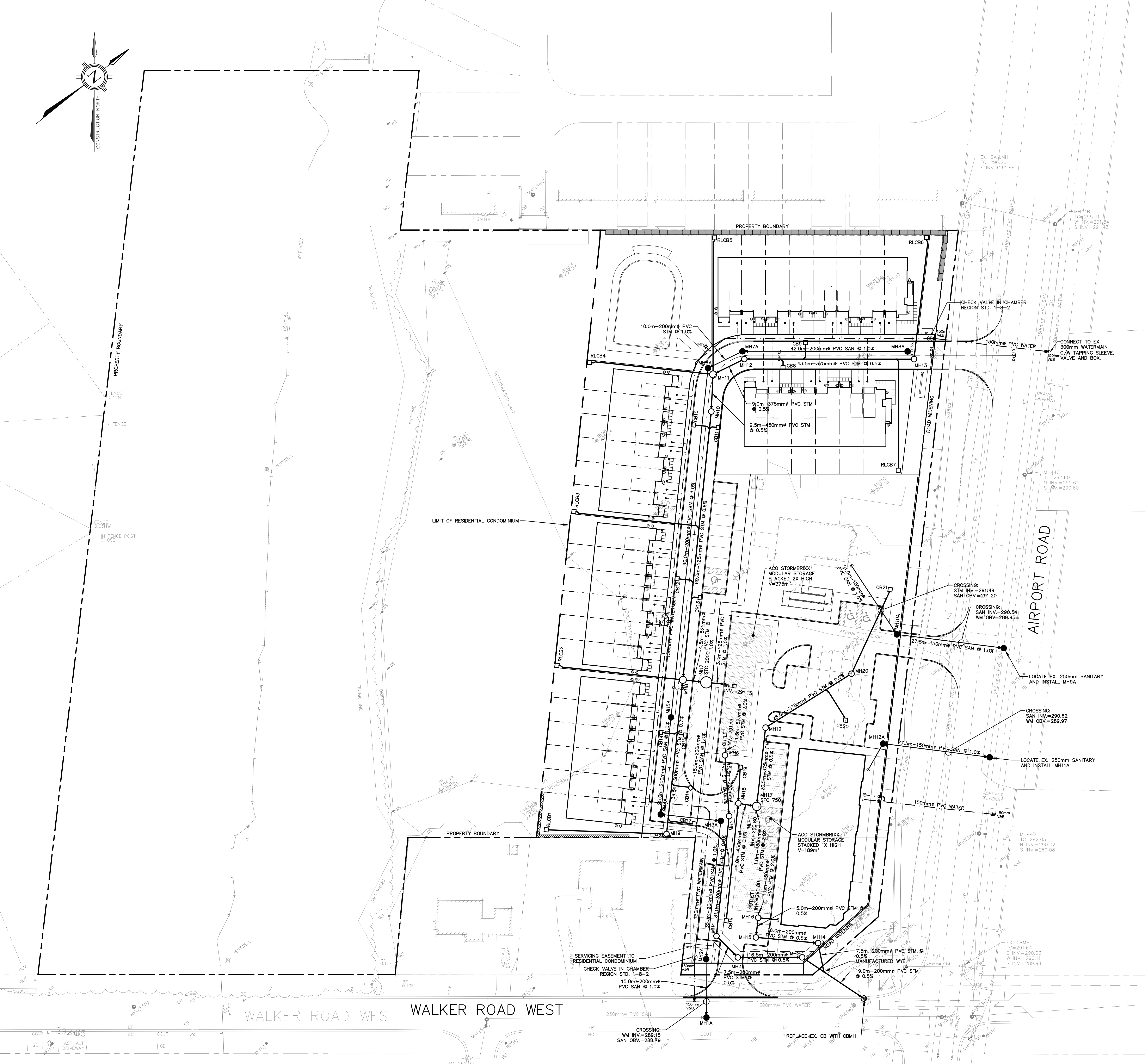
- GENERAL NOTES**
- CONSTRUCTION FOR THIS PROJECT TO COMPLY WITH THE MOST CURRENT VERSION OF THE DEVELOPMENT STANDARDS, POLICIES AND GUIDELINES, PREPARED BY THE TOWN OF CALEDON INFRASTRUCTURE DEPARTMENT AND THE ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.
  - ALL PROPOSED CONSTRUCTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
  - A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING CONSTRUCTION WITHIN THE MUNICIPAL RIGHT OF WAY THE CONTRACTOR MUST CONTACT THE FOLLOWING: THE TOWN OF CALEDON PUBLIC WORKS AND ENGINEERING DEPARTMENT 905-584-2272, THE REGION OF PEELE, ENBRIDGE CONSUMERS GAS, HYDRO ONE, BELL CANADA, ROGERS CABLE, FIRE AND EMERGENCY SERVICES.
  - ALL DRAINAGE TO BE SELF-CONTAINED AND DISCHARGED TO A LOCATION APPROVED BY THE PUBLIC WORKS AND ENGINEERING DEPARTMENT AND CONSENTATION AUTHORITY PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
  - SEDIMENT CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO ANY CONSTRUCTION ON THE SITE AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD TO THE SATISFACTION OF THE TOWN AND THE APPLICABLE CONSERVATION AUTHORITY.
  - A MINIMUM OF 1.2M CLEARANCE IS TO BE PROVIDED FROM THE LIMITS OF ALL SIDEWALKS AND DRIVEWAYS TO EXISTING UTILITY STRUCTURES WITHIN THE MUNICIPAL RIGHT OF WAY. IF THIS CLEARANCE IS NOT MAINTAINED THEY SHALL BE RELOCATED AT THE APPLICANT'S EXPENSE.
  - STREET CURBS ARE TO BE CONTINUOUS THROUGH THE PROPOSED ENTRANCE.
  - MUNICIPAL SIDEWALKS SHALL BE CONTINUOUS THROUGH ALL ENTRANCES TO THE SITE AND THE CURB SHALL BE TYPED BACK 600MM. SIDEWALKS SHALL BE COMPLETELY REMOVED AND REPLACED WITH A 180MM MINIMUM CONCRETE THICKNESS, 30MPA AND 5 TO 7% AIR ENTRAINMENT AT ALL PROPOSED INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL ENTRANCES.
  - ANY CHANGES TO GRADES OR SERVICING FROM THE ORIGINAL APPROVED SITE PLAN MUST BE SUBMITTED BY THE ENGINEER TO THE TOWN FOR APPROVAL PRIOR TO CONSTRUCTION.
  - ALL BOULEVARDS TO BE RESTORED WITH 150MM MINIMUM OF TOPSOIL AND SOD TO THE SATISFACTION OF THE TOWN OF CALEDON PUBLIC WORKS AND ENGINEERING DEPARTMENT.
  - THE MINIMUM PAVEMENT DESIGN FOR THE ASPHALT DRIVEWAY APRON WITHIN THE MUNICIPAL ROAD ALLOWANCE SHALL BE AS FOLLOWS: 40MM 1.5 ASPHALT 50MM 1.5 ASPHALT 150MM GRANULAR 'A' 300MM GRANULAR 'B' THE CONSULTANT SHOULD REVIEW THE ABOVE WITH RESPECT TO THE EXPECTED USAGE.
  - ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES FOUND PRIOR TO OR DURING CONSTRUCTION SHALL BE CLARIFIED WITH THE ENGINEER.
  - THE LOCATION OF ALL EXISTING UTILITIES AND SERVICES TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
  - THIS PLAN SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANT'S PLANS. ANY DISCREPANCIES SHALL BE CLARIFIED PRIOR TO CONSTRUCTION. INFORMATION RELATED TO DIMENSIONS FOR PRIVATE ROAD, PARKING AND SETBACKS SHALL BE TAKEN FROM THE SITE PLAN PREPARED BY THE ARCHITECT.
  - ALL SERVICES AND APPURTENANCE MATERIAL AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE LATEST TOWN OF CALEDON, REGIONAL MUNICIPALITY OF PEELE, ONTARIO PLUMBING CODE AND ONTARIO PROVINCIAL STANDARDS AND SPECIFICATIONS.
  - O.P.S.D. REFERS TO ONTARIO PROVINCIAL STANDARD DRAWING.
  - ALL REMOVED OR DAMAGED CURBS, SIDEWALK AND SOD RESULTING FROM SERVICE INSTALLATION SHALL BE REINSTATED BY SERVICING CONTRACTOR TO THE TOWN OF CALEDON STANDARDS.
  - ALL SEWER TRENCH BACKFILL WITHIN SITE SHALL BE NATIVE MATERIAL FREE OF ORGANIC MATERIAL AND COMPACTED TO 95% SPMD OR AS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.

- WATERMANS**
- ALL MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT PEELE PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
  - WATERMAIN AND / OR WATER SERVICE MATERIALS 100mm (4") AND LARGER MUST BE AWMA C-900-16 POLYVINYL CHLORIDE (PVC) DR18 INSTALLED WITH A 12 GAUGE TMS SOLID COPPER LIGHT COLOURED PLASTIC COATED TRACER WIRE BROUGHT TO THE SURFACE AT EACH VALVE BOX, SIZE 50mm (2") AND SMALLER MUST BE COPPER TYPE "K" SAST COPPER TUBING.
  - WATERMANS AND / OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.7m (5'6") WITH A MINIMUM HORIZONTAL SPACING OF 1.2m (4") FROM THEMSELVES AND ALL OTHER UTILITIES.
  - PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED WITH AT LEAST A 50mm (2") OUTLET ON 100mm (4") AND LARGER LINES. COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END. THE SAME SIZE AS THE LINE. THEY MUST ALSO BE HOSED OR PIPED TO ALLOW THE WATER TO DRAIN ONTO A PARKING LOT OR DOWN A DRAIN. ON FIRE LINES, FLUSHING OUTLET TO BE 100mm (4") DIAMETER MINIMUM ON A HYDRANT.
  - ALL CURB STOPS TO BE 3.0m (10') OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED.
  - HYDRANT AND VALVE SET TO REGION STANDARD 1-8-1. DIMENSION A AND B, 0.7m (2') AND 0.9m (3') AND TO HAVE PUMPER NOZZLE.
  - WATERMANS TO BE INSTALLED TO GRADES AS SHOWN ON THE APPROVED SITE PLAN. COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHERE REQUESTED BY INSPECTOR.
  - WATERMANS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.30m (12") OVER / 0.50m (20") UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
  - ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM EXISTING SYSTEMS.
  - ALL LIVE TAPPING AND OPERATION OF REGION OF WATER VALVES SHALL BE ARRANGED THROUGH THE REGIONAL INSPECTOR ASSIGNED OR BY CONTACTING THE OPERATIONS AND MAINTENANCE DIVISION.
  - ALL PROPOSED WATER PIPING MUST BE ISOLATED THROUGH A TEMPORARY CONNECTION THAT SHALL INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE, CONSISTENT WITH THE DEGREE OF HAZARD, FOR BACKFLOW PREVENTION OF THE ACTIVE DISTRIBUTION SYSTEM, CONFORMING TO REGION OF PEELE STANDARDS 1-7-7 OR 1-7-8.

- SANITARY SEWERS**
- ALL SANITARY SEWER BEDDING AS PER STD. 2-3-1.
  - MANLINE SANITARY SEWER PIPE SIZE SHALL BE MINIMUM 250mm IN DIAMETER INSTALLED AT THE APPROVED DESIGN GRADE. PIPE CLASS AND APPURTENANCES AS PER REGION'S SPECIFICATIONS.
  - ALL SEWERS CONSTRUCTED WITH GRADES 0.5% OR LESS SHALL BE APPROVED BY THE ENGINEER AND THE AGENCY PROJECT MANAGER OR DESIGNATE AND BE INSTALLED WITH LASER AND CHECKED PRIOR TO BACKFILL.
  - MINIMUM SANITARY SEWER PIPE SLOPE FOR LAST LEG SHALL BE 1% AND DESIRABLE SLOPE 2%.
  - ALL MANHOLES SHALL BE AS PER REGION STD. DWG. 2-5-1, 2-5-2, AND 2-5-3, WITH BENCHING AS PER STD. 2-5-20. SEE NOTE 9.c. FOR IN-FLOW AND INFILTRATION.
  - FRAME AND COVERS SHALL BE AS PER REGION STD. DWG. 2-6-1.
  - MANHOLE STEPS SHALL BE AS PER REGION STD. DWG. 2-6-1-1.
  - MANHOLES DEEPER THAN 5.0m MUST BE EQUIPPED WITH SAFETY PLATFORMS, AS PER STD. 2-6-1-3, 2-6-1-4, AND 2-6-1-5.
  - SANITARY SERVICE LATERALS SHALL BE MINIMUM 150mm DIAMETER.
    - SANITARY SERVICE SHALL BE LOWER THAN AND TO THE RIGHT OF THE STORM SERVICE AT THE PROPERTY LINE. WHEN FACING THE LOT FROM THE STREET.
    - CONNECTIONS TO SEWERS SHALL BE MADE WITH MANUFACTURED TEES OR WYES WHERE APPLICABLE AND SHALL BE COLOUR CODED AS NON-WHITE, AS PER STD. DWG. 2-4-1, 2-4-2, AND 2-4-3.
    - ANY SANITARY CONNECTION OR STRUCTURE LEADING TO IN-FLOW AND INFILTRATION WILL HAVE TO BE ADDRESSED AND WILL BE ENFORCED IN THE FIELD BY A REGION OF PEELE INSPECTOR.

- STORM SEWERS**
- ALL STORM SEWERS 400mm DIAMETER AND LESS SHALL BE PVC OR SR-35 SEWER PIPE & FITTINGS IN ACCORDANCE WITH CSA B182.2 WITH BEDDING PER O.P.S.D. 802.010. STORM SEWER 525mm DIA. AND LARGER SHALL BE REINFORCED CONCRETE PIPE 85-0, CSA A257.2 COMPLETE WITH BEDDING PER O.P.S.D. 802.030 (UNLESS OTHERWISE NOTED).
  - SINGLE CATCHBASINS SHALL BE IN ACCORDANCE WITH O.P.S.D. 705.01 WITH 250mm DIAMETER (UNLESS OTHERWISE SHOWN) PVC LEAD AT 1.0% MIN. DOUBLE CATCHBASIN SHALL BE IN ACCORDANCE WITH O.P.S.D. 705.02 WITH 300mm DIAMETER (UNLESS OTHERWISE SHOWN) PVC LEAD AT 1.0% MIN. FRAME AND COVER PER O.P.S.D. 400.02 (UNLESS OTHERWISE SHOWN). ALL CB LEADS TO HAVE A MINIMUM COVER OF 1.2m AND A MAXIMUM COVER OF 1.8m BELOW TOP OF COVER (UNLESS OTHERWISE SHOWN) SINGLE CATCHBASIN SPECIFIED TO HAVE NO "SUMP" SHALL BE IN ACCORDANCE WITH CITY OF MISSISSAUGA STD. 2114.01.
  - STORM CONNECTIONS SHALL BE 150mm DIAMETER, WHITE COLOUR ONLY PVC PIPE SR-28 AT A MIN. GRADE OF 2.0% PER CITY STD. 2115.05.
  - MINIMUM CLEARANCE SHALL BE 150mm OR AS REQUIRED FOR BEDDING WHOEVER IS GREATER.
  - CATCHBASIN AT ROAD SIDES SHALL HAVE 270 R GEOTEXTILE MATERIAL PLACED BETWEEN FRAME AND COVER TO CONTROL SEDIMENT. MAINTENANCE OF THE GEOTEXTILE SHALL BE ROUTINELY DONE TO ENSURE ADEQUATE DRAINAGE.
  - STORM PIPE WITH LESS THAN 1.2m COVER TO BE PROVIDED WITH INSULATION IN ACCORDANCE WITH OBC SECTION 7.3.5.4. APPENDIX A.

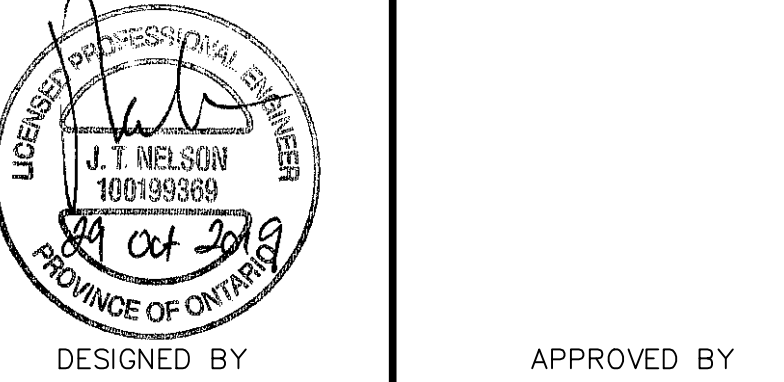
- ADDITIONAL NOTES**
- LOCATION OF ALL EXISTING UTILITIES IN THE FIELD TO BE ESTABLISHED BY THE CONTRACTOR.
  - THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, SUPPORTING AND PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF THEIR WORK, WHETHER SHOWN ON THE PLAN OR NOT, AND FOR ALL REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO SAME.
  - THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE TO GIVE 72 HOURS WRITTEN NOTICE TO THE UTILITIES PRIOR TO CROSSING SUCH UTILITIES, FOR THE PURPOSE OF INSPECTION BY THE CONCERNED UTILITY. THIS NOTICE WILL BE FOR THE DURATION OF THE CONSTRUCTION, WITH THE CONTRACTOR RESPONSIBLE FOR ALL COSTS ARISING FROM SUCH INSPECTION.



NO.	DATE	BY/REVISION	REVISIONS
1	15/02/2019	AV/23	ISSUED FOR REZONING APPLICATION
2	20/10/2019	JN	RE-ISSUED FOR REZONING APPLICATION

**BENCHMARK**  
ELEVATIONS ARE REFERRED TO THE TOWN OF CALEDON BENCHMARK No. 25 HAVING AN ELEVATION OF 310.64 METRES

**SURVEY CREDIT**  
TOPOGRAPHIC INFORMATION SHOWN HEREON IS OBTAINED FROM THE TOPOGRAPHIC SURVEY (104-S-16-DWG) PREPARED BY DAVID B. SEARLES SURVEYING LTD. DATED 22 SEPTEMBER 2016.

DESIGNED BY:  APPROVED BY: \_\_\_\_\_

**TRAFALGAR ENGINEERING**  
PROJECT TITLE: RESIDENTIAL CONDOMINIUM AND RETAIL DEVELOPMENT SHACCA CALEDON HOLDINGS  
LOCATION: 16114 AIRPORT ROAD TOWN OF CALEDON

**PRELIMINARY SERVICING PLAN**

SCALE	1:400	DESIGN BY	JN	PROJECT NO.	1599
DRAWN BY	JN	CHECKED BY	JN	PLAN NO.	S1
DATE	2019/09/04	SHEET	1 OF 1		