



LEGEND

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| | PROPERTY LINE |
| | EXISTING MAJOR CONTOUR |
| | EXISTING MINOR CONTOUR |
| | PROPOSED DRAINAGE DIRECTION |
| | PROPOSED STORM MANHOLE |
| | PROPOSED DOUBLE CATCHBASIN |
| | PROPOSED SINGLE CATCHBASIN |
| | PROPOSED SANITARY MANHOLE |
| | PROPOSED DRILLED WELL WITH 50mm TYPE K COPPER WS |
| | PROPOSED HYDRANT LOCATION |
| | PROPOSED GATE VALVE |

REGION OF PEEL WATERMAIN NOTES

- ALL MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT PEEL PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
- WATERMAIN AND/OR WATER SERVICE MATERIALS 100mm (4") AND LARGER MUST BE DR18 PVC PIPE MANUFACTURED TO AWWA SPEC. C900-16 SPEC COMPLETE WITH TRACER WIRE. SIZE 50mm (2") AND SMALLER MUST BE TYPE 'K' SOFT COPPER PIPE PER ASTM B88-49 SPECIFICATION.
- 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 INTO 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 146-1 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 0.3m (12") OVER 1.0m (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 WATER VALVES SHALL BE ARRANGED THROUGH THE REGIONAL INSPECTOR ASSIGNED OR BY CONTACTING THE OPERATIONS AND MAINTENANCE DIVISION.
- 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 ALL UNDERGROUND AND

GENERAL NOTES - STORM SEWERS

- STORM SEWER CONSTRUCTION TO COMPLY WITH TOWN OF CALEDON STANDARD 101. REFER TO GENERAL NOTES 2 TO 11.
- STORM SEWER TO BE PROVIDED ON ALL ROADS WITH CURB AND GUTTER.
- PLACE ALL CATCH BASIN LATERALS AT 2% GRADE UNLESS OTHERWISE NOTED. PIPE SIZE MINIMUM 250mm DIA. SINGLE. 300mm DIA DOUBLE.
- STORM SEWERS SHALL BE CONSTRUCTED WITH BEDDING AS PER OPSD 802.020 FOR RIGID PIPE OR OPSD 802.010 WITH GRANULAR 'A' FOR FLEXIBLE PIPE UNLESS APPROVED OTHERWISE BY THE DIRECTOR OF PUBLIC WORKS AND ENGINEERING.
- MAINTENANCE HOLE TOPS (FRAMES) AND CATCHBASIN (FRAMES) ARE TO BE SET TO BASE COURSE ASPHALT AND THEN ADJUSTED TO FINAL GRADE WHEN THE TOP LIFT OF ASPHALT IS PLACED.
- STORM SEWER TO BE LOCATED OFFSET 1.5m SOUTH OR WEST OF CENTRELINE UNLESS OTHERWISE SPECIFIED.
- ALL CONNECTIONS TO THE STORM MAIN SHALL BE MADE WITH A STORM MANHOLE OR APPROVED FACTORY TEE CONNECTIONS AS PER OPSD 708.01 OR 708.03.
- PIPE MATERIAL TO BE REINFORCED CONCRETE WITH A STRENGTH OF 50 N/mm² (PREVIOUSLY C.S.A. STANDARD A27.2-1974 CLASS II) OR PVC CERTIFIED TO C.S.A. STANDARD A27.3 (PREVIOUSLY C.S.A. STANDARD A27.2-1974 CLASS III) OR PVC CERTIFIED TO C.S.A. STANDARD 182.2 AND 182.4 MAX. PVC PIPE DIA. IS 800mm B/G 8055 2000 POLYETHYLENE PIPE WITH GASKETED BELL WITH SPROUT JOINTS CERTIFIED C.S.A. 8192.6 FOR STORM SEWERS UP TO 900mm DIA. WHERE ONLY CONNECTION STD CATCHBASINS ARE CONSIDERED.
- STORM SEWER TO BE MINIMUM 300mm DIA. WITH JOINTS CONFORMING TO C.S.A. STANDARD A 257.3.
- ALL PIPE BEDDING MUST CONFORM TO OPSD MAXIMUM COVER TABLE. NO FLEXIBLE PIPE SEWERS WILL BE INSTALLED WITH A DEPTH COVER GREATER THAN 6m UNLESS SPECIFICALLY APPROVED BY THE DIRECTOR OF PUBLIC WORKS AND ENGINEERING.
- ALL PIPE HANDLING INSTRUCTIONS MUST BE IN STRICT COMPLIANCE WITH MANUFACTURERS INSTALLATION GUIDES AND THE OCPA OR UNIBELL GUIDELINES.
- STORM SEWER MANHOLES SHALL BE BENCHMARKED TO THE OVERT OF THE OUTLET PIPE.
- ALL CATCHBASINS SHALL HAVE 0.3m SUMPS EXCEPT CATCHBASIN MANHOLES WHICH SHALL BE PROVIDED WITH BENCHINGS.
- FROST PROTECTION TO BE PROVIDED WHERE 1.5m OF COVER CAN NOT BE ACHIEVED.

SANITARY SEWER NOTES

- ALL MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT REGION OF PEEL PUBLIC WORKS STANDARDS AND SPECIFICATIONS.
- ALL CONCRETE AND PVC PIPE SHALL HAVE RUBBER GASKET JOINTS.
- ALL PVC SEWERS SHALL BE CONSTRUCTED WITH BEDDING IN ACCORDANCE WITH OPSD 802.010 CLASS 'B' UNLESS OTHERWISE NOTED.
- PROPOSED SANITARY LATERAL TO BE PVC SDR 28.
- ALL SANITARY SEWER BEDDING AS PER ROP STANDARD 2-3-1.
- SANITARY LATERALS TO BE AT MINIMUM 2% SLOPE.
- ALL MANHOLES SHALL BE AS PER ROP STANDARD 2-5-2 AND 2-5-3 WITH BENCHING PER STANDARD 2-5-20.
- MANHOLE FRAME AND COVER SHALL BE PER ROP STANDARD 2-5-4.
- MANHOLE STEPS PER ROP STANDARD 2-5-11.
- MANHOLES DEEPER THAN 5.0m MUST BE EQUIPPED WITH SAFETY PLATFORMS PER ROP STANDARD 2-5-14.
- ALL FLUGS TO BE MARKED WITH 2" x 4" x 6" STUDS
- SANITARY SEWERS AND MANHOLES MUST BE MODIFIED IN THE FIELD TO PREVENT ISI (INFLOW AND INFILTRATION)

ROOF DRAIN NOTES

- CONTROL FLOW ROOF DRAINS TO BE PROVIDED TO RESTRICT PEAK FLOW FROM BUILDING ROOFS TO 42 LITRES PER SECOND PER HECTARE.

OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF THEIR WORK WHETHER SHOWN ON THE PLANS OR NOT AND FOR ALL REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO SAME.

13. THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE TO GIVE 72 HOURS WRITTEN NOTICE TO THE UTILITIES PRIOR TO CROSSING SUCH UTILITIES, FOR THE PURPOSED OF INSPECTION BY THE CONCERNED UTILITY. THIS INSPECTION WILL BE FOR THE DURATION OF THE CONSTRUCTION, WITH THE CONTRACTOR RESPONSIBLE FOR ALL COSTS ARISING FROM SUCH INSPECTION.

14. 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 PEEL STANDARDS 1-7 AND 1-7-8.

ALL UNDERGROUND SERVICE MATERIALS AND INSTALLATIONS TO BE IN GENERAL CONFORMANCE WITH MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS GUIDELINES. A MINIMUM HORIZONTAL SEPARATION OF 2.5m MUST BE MAINTAINED BETWEEN WATERMANS AND SANITARY OR STORM SEWERS, INCLUDING SERVICE LATERALS.

TOWN OF CALEDON
PLANNING
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AIRPORT KING INC.

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13846 & 13940 AIRPORT ROAD
TOWN OF CALEDON

Title Name: **GENERAL UNDERGROUND PLAN**
1 OF 2

Drawing N°: **19-216-03** Sheet N°: **1 OF 2** Rev. N°: **0**
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