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| 50mm SUPERPAVE 12.5 ASPHALTIC CONCRETE | 50mm HL-3 OR SUPERPAVE 12.5 ASPHALTIC CONCRETE |
| 150mm OPSS GRAN. "A" CRUSHED STONE (BASE) | 150mm OPSS GRAN. "A" CRUSHED STONE (BASE) |
| 300mm OPSS GRAN. "B" - TYPE II (SUB-BASE) (90mm OR 100mm MINUS CRUSHED STONE) | 450mm OPSS GRAN. "B" - TYPE II (SUB-BASE) |
| NATIVE SILTY CLAY SUBGRADE | (IF SUBGRADE SURFACE CONSIST OF FILL MATERIALS) |

TYPICAL PAVEMENT STRUCTURE SUBJECT TO CARS AND LIGHT TRUCKS
 X-SECTIONAL DETAIL
 NOT TO SCALE

NOTE:
 - PAVEMENT STRUCTURE SHOWN ON THIS PLAN SHALL BE VERIFIED BY THE OWNER'S SOILS ENGINEER PRIOR TO AND AFTER SUBGRADE EXCAVATION.
 - ASPHALTIC CONCRETE SHALL BE PERFORMANCE GRADE (PG. 58-34)
 - GEOTEXTILE MATERIAL SHALL BE AS PER OWNER'S GEOTECHNICAL RECOMMENDATIONS.
 - REFER TO SITE GEOTECHNICAL INVESTIGATION REPORT (PROJECT No. 200083) DATED FEBRUARY 2020.

LEGEND

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| | PROPOSED ELEVATION |
| | EXISTING ELEVATION |
| | F.F. |
| | U.S.F. |
| | PROPOSED UNDERSIDE OF CONCRETE FOOTING ELEVATION |
| | PROPOSED DRIVEWAY |
| | EXISTING SANITARY SEWER |
| | EXISTING STORM SEWER |
| | EXISTING WATERMAIN |
| | PROPOSED 125mm PVC SANITARY LATERAL SERVICE @ 1% (MIN.) SLOPE |
| | PROPOSED 100mm PVC STORM LATERAL SERVICE @ 1% (MIN.) SLOPE |
| | PROPOSED 19mm WATER SERVICE (COPPER TYPE "K") |
| | EXISTING SANITARY MANHOLE |
| | EXISTING STORM MANHOLE |
| | EXISTING CATCH BASIN |
| | EXISTING WATER VALVE |
| | EXISTING FIRE HYDRANT |
| | EXISTING UTILITY POLE |
| | EXISTING OVERHEAD WIRES |
| | PROPOSED VALVE AND VALVE BOX (V&VB) |
| | PROPOSED GENERAL DIRECTION OF LOT GRADING AND SURFACE FLOW |
| | PROPOSED HIGH RIDGE LINE |
| | PROPOSED OVERLAND FLOW ROUTE |
| | PROPOSED RETAINING WALL |
| | PROPOSED TOP OF RETAINING WALL ELEVATION |
| | PROPOSED BOTTOM OF RETAINING WALL ELEVATION |
| | PROPOSED CATCHBASIN |
| | PROPOSED STORM MANHOLE |
| | PROPOSED SANITARY MANHOLE |
| | PROPOSED CATCHBASIN MANHOLE |
| | PROPOSED STORMCEPTOR UNIT (MODEL No. EF-4) |
| | PROPOSED OVERLAND FLOW ROUTE |
| | 100 YR HIGH WATER LEVEL (HWL) = 58.95m |
| | 5 YR HIGH WATER LEVEL (HWL) = 58.85m |

- NOTES**
- EXISTING SERVICES AND UTILITIES SHOWN ON THIS DRAWING WERE TAKEN FROM THE BEST AVAILABLE RECORDS BUT ARE NOT COMPLETE. CONTRACTOR IS REQUESTED TO CHECK IN THE FIELD FOR LOCATION AND ELEVATION OF PIPES AND CHECK WITH AUTHORITIES AND UTILITIES TO HIS SATISFACTION BEFORE DIGGING.
 - CONTRACTOR IS ADVISED TO COLLECT INFORMATION ON SOIL CONDITIONS AS DEEMED NECESSARY. REFER TO THE SITE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY THE OWNER'S SOILS ENGINEER KOLLARD ASSOCIATES ENTITLED "GEOTECHNICAL INVESTIGATION" (PROJ. No. 200083) DATED FEBRUARY 2020.
 - EXISTING BUILDING AND STRUCTURE LOCATION, TOPOGRAPHICAL INFORMATION ON THIS DRAWING, GEODETIC SITE BENCHMARK, SEWER, WATERMAIN, AND MANHOLE LOCATIONS, ETC. SHOWN ON THIS PLAN WERE PROVIDED BY DUTRISAC SURVEYING INC. FILE NO. OTT-182-12-11 DATED NOVEMBER 15, 2019. SANITARY AND STORM SEWER INFORMATION ALONG MARENGER STREET WERE TAKEN FROM CITY OF OTTAWA'S PLAN AND PROFILE DRAWING ENTITLED MARENGER STREET - STA. 0+00 TO STA. 6+00 (DWG. No. 3221-107 REV. 2 DATED FEBRUARY 1979) PREPARED FOR TOWNSHIP OF CLOUDESTER. CONTRACTOR SHALL FIELD SURVEY AND VERIFY THIS INFORMATION TO HIS OR HER SATISFACTION BEFORE CONSTRUCTION. T.L. MAK ENGINEERING CONSULTANTS LTD. DOES NOT TAKE ANY RESPONSIBILITY FOR THE SURVEY INFORMATION SHOWN HERE. CONTRACTOR IS ADVISED TO OBTAIN AND REVIEW TO HIS OR HER SATISFACTION THIS SURVEY/TOPOGRAPHICAL PLAN BEFORE CONSTRUCTION.
 - SITE LAYOUT AND DETAILS FOR GRADING AND SWM DESIGN WERE PROVIDED BY THE OWNER'S ARCHITECT PROJECT 1 STUDIO INC. AS DETAIL ON THEIR SITE PLAN (DWG. No. SP-01 REV. No. 1 DATED FEBRUARY 16, 2020) PROJECT No. 1829 RECEIVED ON FEBRUARY 26, 2020. BUILDING SECTION PLAN (DWG. No. 1001 DATED RECEIVED FROM THE ARCHITECT ON WAS USED TO ESTABLISH THE FINISHED FLOOR, TOP OF FOUNDATION, TOP OF BASEMENT SLAB AND U.S.F. ELEVATIONS.
 - ALL GRADES SHOWN ARE GEODETIC AND METRIC (SEE DUTRISAC SURVEYING INC.'S TOPOGRAPHICAL PLAN).
 - PIPE SIZES SHOWN ON THIS PLAN ARE METRIC.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO ALL CIVIL WORKS REQUIRED FOR THIS SITE AND BY THE CITY OF OTTAWA TO CONNECT INTO EXISTING WATERMAIN.
 - ALL GRADING SHALL BE TO THE SATISFACTION OF THE CITY OF OTTAWA. EXISTING GRADES ALONG AN EXISTING ADJUTING PROPERTY LIMITS EXCEEDED THE PROPOSED GRADES ON THIS PROPERTY BY A HEIGHT DIFFERENTIAL THAT EXCEEDS TERRACING OF 3H TO 1V, THEN INSTALL A RETAINING WALL AS PER OWNER'S REQUIREMENTS.
 - CONNECTION OF THE 50mm WATER PIPE AND 150mm PVC HYDRANT LEAD TO THE EXISTING 150mm WATERMAIN AT MARENGER STREET RESPECTIVELY SHALL BE THE RESPONSIBILITY OF THE CITY OF OTTAWA AND EXCAVATION BACKFILL SHALL BE CARRIED OUT BY THE CONTRACTOR. ALL WATERWORKS TO BE CONSTRUCTED TO CITY OF OTTAWA WATERMAIN ENGINEERING STANDARDS AND SPECIFICATIONS.
 - CONTRACT ALL WATERMANS, WATER SERVICES, SANITARY AND STORM SEWER SYSTEMS IN ACCORDANCE WITH CITY OF OTTAWA'S LATEST REVISED STANDARD OTHERWISE AS PER OPS & OPS REQUIREMENT AND DONE TO THE SATISFACTION OF THE CITY.
 - BEDDING AND HAUNCHING MATERIAL FOR SEWER INSTALLATIONS TO BE GRANULAR "A" INSTALLED AND COMPACTED AS PER CITY STANDARD DETAIL DWG. No. 58 AND 57.
 - STORM AND SANITARY LATERALS (100mm and 125mm) AS WELL AS THE 200mm STORM AND SANITARY PIPE SHALL BE PVC DR-35 OR EQUIVALENT. STORM PIPE SIZE (200mm) SHALL BE PVC DR-35. PROPOSED SANITARY AND STORM SERVICE LATERALS SHALL BE PVC DR-28 OR EQUIVALENT. CONNECTION TO EXISTING SEWER SHALL BE AS PER CITY OF OTTAWA DWG. 513. ALL WORKS SHALL BE CARRIED OUT TO SATISFACTION OF CITY OF OTTAWA.
 - ALL WATER SERVICES/MANS SHALL HAVE 2.4m COVER (MIN.). THE 50mm WATER SERVICE SHALL BE COPPER TYPE "K". WATER SERVICE AND WATERMAIN TRENCH DETAILS AS PER CITY OF OTTAWA W17 AND W18. TRENCH FLOOR DETAILS AS PER CITY DETAIL W23 DATED MAY 2001. FITTINGS SHALL CONFORM TO APPROVED AWMA AND/OR CSA STANDARDS. CATHODIC PROTECTION FOR NEW WATERMAIN AND WATERMANS SHALL BE AS PER CITY DETAIL W40 REV. DATE MARCH 2008. THE CONTRACTOR SHALL CONSTRUCT AND ENSURE THAT THE 150mm DIAMETER HYDRANT LEAD SHALL HAVE A MINIMUM OF 2.4m OF GROUND COVER. THE PROPOSED HYDRANT LEAD PIPE MATERIAL SHALL BE PVC CL-150 DR-18 AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST CITY OF OTTAWA STANDARDS.
 - IF WATER SERVICE IS LESS THAN 1.0m FROM SEWER, MANHOLE OR CATCHBASIN, CONTRACTOR IS REQUESTED TO INSULATE BETWEEN THEM WITH 5/8" RIGID INSULATION (SEE CITY DETAIL DRAWING No. W23).
 - SANITARY MANHOLES SHALL BE PRE-CAST TYPE (1200mm) AS PER CITY OF OTTAWA LATEST REVISED ENGINEERING STANDARDS C/W FRAMING INCLUDING ADJUSTMENT RINGS. AS PER CITY OF OTTAWA DWG. No. W18 AND W19 DETAILS. PRECAST TYPE PER OPS 705.010 C/W FRAME AND COVER PER OPS 400.020 INCLUDING ADJUSTMENT RINGS.
 - STORMWATER MANAGEMENT NOTES:
- REFER TO SITE GRADING PLAN DWG. No. 819-98-01 FOR DETAILS.
- INSTALL THE SPECIFIED ICD (INLET CONTROL DEVICE) HYDROVEE MODEL No. 125-WH-2 OR EQUAL AT THE OUTLET END OF THE 200mm STORM PIPE IN CB/MH#1 AS DETAIL ON THIS DRAWING. THE ICD INSTALLED SHALL BE CITY OF OTTAWA APPROVED TYPE.
 - ALL PROPOSED BUILDING SANITARY, STORM AND WATER SERVICES SHALL TERMINATE ±1.0m OUTSIDE THE FOUNDATION WALL AND CONNECTION TO EXISTING SANITARY AND WATERMANS SHALL BE AS PER CITY OF OTTAWA DWG. No. W18 AND W19 DETAILS. THE HYDRANT LEAD SHALL BE CONSTRUCTED PER CITY STANDARDS AND INSPECTOR'S REQUIREMENTS. HYDRANT LEAD CONNECTION BY CITY OF OTTAWA.
 - PRIOR TO CONCRETE FOOTING AND FOUNDATION POURING, THE OWNERS AND/OR CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SUBGRADE ON THIS LOT IS SUFFICIENT TO SUPPORT THE PROPOSED CONSTRUCTION.
 - FOR DEVELOPMENT OF THIS LOT, THE CONTRACTOR MUST FIRST CONSTRUCT THE UNDERGROUND SANITARY, STORM AND WATER SERVICES FROM THE MARENGER STREET SEWER-MAN AND WATERMAIN TO SERVICE THE ENTIRE PROPERTY. PRIOR TO CONCRETE FOUNDATION POURING, THE CONTRACTOR SHALL VERIFY SEWER BASINS TO ENSURE THAT SEWER LATERALS CAN ACHIEVE A SLOPE OF 1% (MIN.) AND STILL BE BELOW PROPOSED UNDERSIDE OF CONCRETE FOOTING. IF NOT POSSIBLE, THE CONTRACTOR SHALL CONTACT THE OWNER TO REPORT THE FINDING IN ORDER TO ADJUST THE BUILDING FOUNDATION GRADES PRIOR TO CONCRETE POURING.
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY EQUIPMENT, LABOUR AND MATERIALS RELATING TO THE CIVIL WORKS REQUIRED FOR INSTALLATION OF NEW SITE SERVICES. PROVINCIAL HEALTH AND SAFETY REGULATIONS MUST BE FOLLOWED DURING CONSTRUCTION.
 - IT IS THE RESPONSIBILITY OF THE SITE SERVICES CONTRACTOR TO OBTAIN AND CONSTRUCT THE WORKS TO MEET THE LATEST REVISIONS IN CURRENT CIRCULATION OF THE CITY OF OTTAWA'S ENGINEERING STANDARDS, OPS & OPS STANDARDS, AND ONTARIO BUILDING/PLUMBING CODES, WHERE THE LATEST REVISION OFFERS FORM THE REQUIREMENTS SET OUT IN THIS PLAN. THE CONTRACTOR SHALL PRICE THE WORKS TO MEET LATEST REVISED STANDARDS IN HIS PRICE BID FOR THIS PROJECT. THE CONTRACTOR SHALL INFORM THE ENGINEERS OF ANY CHANGES PRIOR TO COMMENCEMENT OF THE WORKS.
 - KEEPING THE DRAINAGE FOR THE (2) STACKED TOWNHOUSE BUILDINGS SHALL BE CONNECTED AND OUTLETED TO A DESIGNATED SEPARATE 200mm PVC STORM PIPE SYSTEM SHOWN LOCATED AT THE FRONT OF THE BUILDINGS AND NOT BE INTERCONNECTED WITH THE PARKING LOT STORM PIPE SYSTEM UPSTREAM OF CB/MH#1. A BACKWATER VALVE IS RECOMMENDED IN THE BUILDING FOR STORM LATERALS ALSO AS PER THE LATEST REVISIONS OF THE PLUMBING CODE. SEE MECHANICAL ENGINEER'S PLANS FOR DETAILS.
 - THE RETAINING WALLS TO BE CONSTRUCTED AND MATERIAL TYPE SHALL BE SPECIFIED BY THE OWNER'S ARCHITECT AND/OR HIS STRUCTURAL ENGINEER. ANY RETAINING WALLS BUILT ON THIS LOT EXCEEDING 1.0m IN HEIGHT FROM PROPOSED FINISHED GROUND ELEVATION WILL BE REQUIRED TO BE PREPARED AND CERTIFIED BY THE OWNER'S STRUCTURAL ENGINEER AND APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
 - NO EXCESS DRAINAGE, DURING AND AFTER CONSTRUCTION, WILL BE DIRECTED TOWARDS THE NEIGHBORS' PROPERTIES.
 - ALL TREES ON THE RIGHT-OF-WAY ARE TO BE MAINTAINED BEFORE AND AFTER CONSTRUCTION AND ALL TREES WITHIN THE PROPERTY SHALL BE PROTECTED AS PER THE "MUNICIPAL TREES AND NATURAL AREAS PROTECTION BY-LAWS" AND THE "URBAN TREES CONSERVATION BY-LAW" AS AMENDED FROM TIME TO TIME.
 - THERE WILL BE NO ALTERATION TO THE EXISTING GRADE AND DRAINAGE PATTERN ON THE PROPERTY LINES.
 - REFER TO EROSION AND SEDIMENT CONTROL PLAN DWG. #819-98 ESC-1 FOR DETAILS OF IMPLEMENTING BEST MANAGEMENT PRACTICES.
 - SEE PROPOSED SITE SERVICING PLAN DWG. #819-98 S-1 FOR SERVICING DETAILS.
 - THE RETAINING WALL TO BE CONSTRUCTED AND MATERIAL TYPE SHALL BE SPECIFIED BY THE OWNER'S ARCHITECT AND/OR HIS STRUCTURAL ENGINEER. ANY RETAINING WALLS BUILT ON THIS LOT EXCEEDING 1.0m IN HEIGHT FROM PROPOSED FINISHED GROUND ELEVATION WILL BE REQUIRED TO BE PREPARED AND CERTIFIED BY THE OWNER'S STRUCTURAL ENGINEER AND APPROVED BY THE CITY OF OTTAWA BEFORE CONSTRUCTION.

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| | | <p>SCALE</p> <p>0 1.25m 3.75m 6.25m</p> <p>1:125 HORIZONTAL</p> <p>VERTICAL</p> | <p>DESIGN T.L.M.</p> <p>CHECKED T.L.M.</p> <p>DRAWN BY P.M.</p> <p>CHECKED T.L.M.</p> <p>APPROVED T.L.M.</p> | <p>PROJECT</p> <p>1258 MARENGER STREET PART OF PARK LOT 12 REGISTERED PLAN 162 CITY OF OTTAWA</p> <p>DRAWING TITLE</p> <p>PROPOSED SITE GRADING PLAN</p> | <p>PROJECT No. 819-98</p> <p>DATE MARCH 2020</p> <p>DRAWING No. G-1</p> |
| <p>1 STORM SEWER DESIGN AND PROPOSED BUILDING ELEVATION REVISIONS 07/09/20 TLM</p> | | | | | |
| No. | REVISION | DATE | BY | | |