GENERAL NOTES

- 1. STANDARD DRAWINGS OF THE CITY OF VAUGHAN, THE REGIONAL MUNICIPALITY OF YORK AND THE MTO CONSTITUTE PART OF THE
- 2. INFORMATION REGARDING ANY EXISTING SERVICES AND/OR UTILITIES SHOWN ON THIS SET OF PLANS IS FURNISHED AS THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL INTERPRET THIS INFORMATION AS HE SEES FIT WITH THE UNDERSTANDING THAT THE OWNER AND CITY OF VAUGHAN DISCLAIM ALL RESPONSIBILITY FOR ITS ACCURACY AND/OR SUFFICIENCY.
- 3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION AND HE SHALL REPORT ANY DESCREPANCIES IMMEDIATELY TO THE ENGINEER. DETAILS ARE NOT TO BE SCALED FROM THE DRAWINGS.
- 4. THE NOTES ON THIS SHEET APPLY TO ALL WORKS UNDER THIS CONTRACT UNLESS OTHERWISE NOTED ON PLAN/PROFILE AND/OR
- 5. ALL AREAS DISTURBED BY THE CONTRACTOR DURING THE CONSTRUCTION OF WORKS SHOWN HEREON SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER. ALL GRASS AND VEGETATION COVERED AREAS SHALL BE RESTORED BY PLACING 150mm OF APPROVED TOP SOIL AND SOD TO ESTABLISH A GRASS COVER TO THE SATISFACTION OF THE CITY OF VAUGHAN AND THE REGIONAL
- 6. WHERE THE STABILITY, SAFETY OR FUNCTION OF THE EXISTING ROADWAY OR UNDERGROUND FACILITIES MAY BE IMPAIRED DUE TO THE CONTRACTOR'S METHOD OF OPERATIONS, THE CONTRACTOR SHALL PROVIDE SUCH PROTECTION AS MAY BE REQUIRED INCLUDING SHEATING, SHORING AND DRIVING OF PILES WHERE NECESSARY, TO PREVENT DAMAGE TO SUCH WORKS OR PROPOSED WORKS. CONSTRUCTION FOR SHORING, BRACING AND PROTECTION SCHEMES SHALL CONFORM TO THE SPECIFICATIONS O.P.S.S. 538, O.P.S.S. 539,
- 7. ALL CONSTRUCTION SIGNAGE MUST CONFORM TO M.T.O. MANUAL "UNIFORM TRAFFIC CONTROL DEVICES" LATEST EDITION.
- 8. ALL CONSTRUCTION WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- 9. REFERENCE TO STANDARD DRAWINGS SHALL MEAN THE STANDARD DRAWINGS OF THE CORPORATION OF THE CITY OF VAUGHAN UNLESS NOTED OTHERWISE AND THESE SHALL BE THE REVISION IN EFFECT AS OF THE DATE OF THE CITY'S APPROVAL OF THE
- 10. STREETLIGHTS TO BE POSITIONED AS PER APPROVED LOCATIONS, INCLUDING INTERSECTIONS WITH REGIONAL ROAD, PROVINCIAL
- 11. THE MAXIMUM TRENCH WIDTH AS PROVIDED BY O.P.S.D.-802.010 AND O.P.S.D.-802.030.

STRUCTURAL

- 1. ALL CAST-IN-PLACE CONCRETE FOR MANHOLES, CHAMBERS, SUPPORT OF SERVICES AND APPURTENANCES FOR SEWAGE WORKS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa. AT 28 DAYS UNLESS OTHERWISE NOTED, AND A SLUMP LIMIT OF 50 +/- 13mm. ALL CAST-IN-PLACE CONCRETE FOR ROAD IMPROVEMENTS, APPURTENANCES AND STRUCTURES SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa. AT 28 DAYS AND A SLUMP LIMIT OF 50 +/- 13mm. ALL CONCRETE SHALL BE AIR ENTRAINED WITH
- 2. CONCRETE REINFORCEMENT SHALL BE HIGH BOND DEFORMED BARS, INTERMEDIATE OF HARD GRADE UNLESS OTHERWISE NOTED AND SHALL CONFORM TO C.S.A. G30. 12M, 400 MPa. MINIMUM COVER FOR REINFORCEMENT FOR SURFACES EXPOSED TO WEATHER AND IN CONTACT WITH THE GROUND SHALL BE 50mm AND 75mm RESPECTIVELY.
- 3. SPECIFICATIONS, STANDARD DRAWINGS AND RELATED NOTES OF THE CITY OF VAUGHAN APPLY TO THE DETAILS OF THE PROPOSED WORKS SHOWN HEREON AND SUCH STANDARD DRAWINGS ARE PART OF THE CONTRACT DOCUMENTS AND INCLUDED ON DRAWINGS.

SPECIAL NOTES

- PRIOR TO START OF ANY CONSTRUCTION THE CONTRACTOR TO VERIFY THE ELEVATION OF ALL EXISTING SEWERS AND ROADS TO WHICH CONNECTIONS WILL BE MADE. ANY DEVIATIONS FROM WHAT SHOWN ON THESE DRAWINGS TO BE REPORTED TO THE
- 2. ALL PVC SEWERS (STORM, SANITARY, CWC AND FDC) TO BE TESTED SUCCESSFULLY FOR MANDREL DEFLECTION. THE COST OF THIS TESTING IS DEEMED TO BE INCLUDED IN THE UNIT PRICES.
- 3. CONSTRUCTION ACCESS SHALL BE OFF MARC SANTI BULEVARD AND CRIMSON FOREST DRIVE, AS SHOWN ON DRAWING No. SC-1, PART OF EROSION AND SEDIMENT CONTROL PLAN.
- 4. ENSURE THAT THE SAME TYPE OF FIRE HYDRANT IS USED IN THE ENTIRE SUBDIVISION

SANITARY SEWERS

- POLYVINYL CHLORIDE (PVC) CAN BE USED FOR EITHER RESIDENTIAL OR INDUSTRIAL USE CONFORMING TO CSA STANDARD B182.1. ASTM D3034 FOR PIPE SIZE 100mm TO 150mm DIAMETER, CSA STANDARD B182.2, ASTM D3034 FOR PIPE SIZE 200mm TO 375mm DIAMETER AND CSA STANDARD B182.4 ASTM F-794 FOR PIPE SIZES IN EXCESS OF 375mm DIAMETER OR CURRENT EDITION.
- CONCRETE PIPE CAN BE USED FOR EITHER RESIDENTIAL OR INDUSTRIAL USE CONFORMING TO CSA STANDARD A257.2 AND A257.3, ASTM C76 OR CURRENT EDITION ONLY AT THE APPROVAL OF THE CITY OF VAUGHAN.
- JOINTS ALL SANITARY SEWERS SHALL HAVE WATERTIGHT JOINTS.
- MINIMUM BEDDING REQUIREMENTS FOR ALL SANITARY SEWER MAINS AND RELATED CONNECTIONS SHALL BE CLASS "B" GRANULAR BEDDING PER O.P.S.D.-802.01 UNLESS OTHERWISE NOTED ON PROFILE DRAWINGS.
- SANITARY SEWER MANHOLES SHALL BE IN ACCORDANCE WITH CITY OF VAUGHAN STANDARD DRAWINGS M-1 UNLESS OTHERWISE ON PROFILE DRAWINGS AND FRAME AND COVER SHALL BE O.P.S.D.-401.010 TYPE A.
- CURVILINEAR ALIGNMENT OF SANITARY PVC SEWERS UP TO 375mm IN DIAMETER SHALL BE ACCOMPLISHED BY BENDING THE SEWER PIPE WITHIN THE LIMITS SPECIFIED BY THE PIPE MANUFACTURER. MECHANICAL MEANS SHALL NOT BE USED TO ACCOMPLISH THE RADIAL DEFLECTIONS AND THE DEFLECTION SHALL BE DONE MANUALLY BY THE WORKERS IN THE TRENCH. THE CURVE MUST BE ACCOMPLISHED BY BENDING THE PIPE AND NOT BE DEFLECTING THE JOINTS. RADIUS AS PER CURVILINEAR PIPE DATA CHARTS
- ALL DOMESTIC CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF VAUGHAN STANDARD DRAWINGS I-1, I-2, I-3, I.4 AND ALL APPLICABLE O.P.S.D. DETAILS, ALL CONNECTIONS TO BE EXTENDED MIN, 1.5m IN THE PRIVATE PROPERTY.
- ALL PVC SANITARY LATERAL PIPES SHALL BE ANY COLOR BUT WHITE.
- SERVICE CONNECTION MARKERS TO BE COLOR CODED: - STORM CONNECTION: WHITE
 - SANITARY CONNECTION: ANYTHING BUT WHITE
- CURVILINEAR ALIGNMENT OF SANITARY CONCRETE SEWERS 450mm IN DIAMETER AND LARGER SHALL BE ACCOMPLISHED BY DEFLECTION OF THE PIPE JOINTS WITHIN THE LIMITS SPECIFIED BY THE PIPE MANUFACTURER

STORM SEWERS

- 1. CONCRETE PIPE SPECIFICATIONS COMPLYING WITH CSA STANDARD A257.1 (CONCRETE SEWER, STORM DRAIN AND CULVERT PIPE), CS STANDARD A257.2 (REINFORCED CONCRETE CULVERT STORM DRAIN AND SEWER PIPE), AND CSA STANDARD A257.3 (JOINTS FOR CONCRETE SEWER AND CULVERT PIPE USING FLEXIBLE WATER TIGHT RUBBER GASKETS), ASTM C14, C76, C655.
- PRECAST REINFORCED CONCRETE BOX UNITS COMPLYING WITH O.P.S.S. 1821 FOR DESIGN EARTH COVERS 0.6m - 3.6m AND CHBDC CAN / CSA S6-00 FOR DESIGN EARTH COVERS LESS THAN 0.6m OR GREATER THAN 3.6m.
- POLYVINYL CHLORIDE (P.V.C.) CAN BE USED FOR EITHER RESIDENTIAL OR INDUSTRIAL USE CONFORMING TO TANDARD B182.1 ASTM D3034 FOR PIPE SIZE 100mm TO 150mm DIAMETER, CSA STANDARD B182.2, ASTM D3034 FOR PIPE SIZE 20 and TO 3 cmm DIAMETER AND CSA STANDARD B182.4, ASTM F-794 FOR PIPE SIZES GREATER THAN 450mm DIAMETER OR CURRENT ED AON ONLY AS APPROVED
- MINIMUM BEDDING REQUIREMENTS FOR ALL STORM SEWER MAINS AND ALL RELATED CONNECT INSIGN LIBERTAGES "BE RANULAR BEDDING PER O.P.S.D.-802.010 AND O.P.S.D.-802.030, UNLESS OTHERWISE NOTED ON PROFILE. GRAND R BE VNG MATERY SHALL BE
- 3. PROPOSED CATCHBASINS SHALL BE IN ACCORDANCE WITH CITY OF VAUGHAN STANDAL DRA. WITH FRAME AND GRADE CANRON DD-713B OR EQUAL. ALL SINGLE AND DOUBLE CATCHBASIN CONNECTIONS SHALL BE 2 CONCRETE PIPE RESPECTIVELY A.S.T.M. C-14 SPECIFICATION.
- STORM SEWER MANHOLES SHALL BE IN ACCORDANCE WITH CITY OF VAUGH, STAN, RD DR. VING M-1, UNLESS NOTED ON PROFILE FRAME AND COVER O.P.S.D.-401.010.
- ALL DOMESTIC CONNECTIONS SHALL BE CONSTRUCTED IN CORD, CE WILL Y OF VAUGHAN STANDARD DRAWING I-1 AND ALL APPLICABLE O.P.S.D. DETAILS. ALL CONNECTIONS TO BE MIN. TIN E PRIVAL ROPERTY.
- 6. CURVILINEAR ALIGNMENT OF STORM SEWERS S. AL. ACCOMPL. BY DEFLECTION OF PIPE JOINTS WITHIN LIMITS SPECIFIED ON THE PROFILE DRAWINGS, AND NOTED IN THE RAL AL PL
- REAR LOT CATCHBASINS SHALL POLICY OF VOICE AN STANDARD DWG. K-5 C/W GRATING PER CITY OF VAUGHAN STANDARD DWG. K-3 ASTMC-14 LEAD, AND LES AS TED, L. L. S SHALL HAVE CLASS A-A CONCRETE ENCASEMENT BEDDING PER O.P.S.D.-802.010. LEADS TO BE 250mm DIAME (ULTRA R) PVC PIP. N ACCORDANCE WITH THE LATEST REVISIONS OF A.S.T.M. C-14 SPECIFICATION. FOR REAR LOT CATCHBASIN ID LEAD OCATION SEE DETAILS REFER TO DRAWING NO. D-4.
- 8. ALL REAR LOT (
- 9. CATCHBAS SHALL BE LO ATED THE EXTENSION OF THE SIDE LOT LINES AND SHALL NOT BE LOCATED WITHIN THE DRIVEWAY CURB CUT A
- 10. ALL PVC STORM ATERAL PT S SHALL BE WHITE IN COLOUR.

WATERMAIN

RATED WORKING PRESSURE.

- 1. SPECIFICATIONS 150mm AND LARGER DIAMETER WATERMAINS, FITTINGS AND CONNECTIONS SHALL BE MANUFACTURED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN WATER WORKS ASSOCIATION (AWWA), THE CANADIAN STANDARDS ASSOCIATION OR THE CANADIAN GOVERNMENT SPECIFICATION BOARD FOR 1000 KPa RATED WORKING PRESSURE AS
- a) POLYVINYL CHLORIDE (P.V.C.) PIPE CONFORMING TO CSA B137.6, AWWA C900-75, AND AWWA C901-78, SHALL BE USED FOR DISTRIBUTION WATERMAINS, DIAMETER 150mm TO 400mm, INCLUDING APPROVED FITTINGS COMPATIBLE WITH DUCTILE IRON PIPE AND INCLUDING TRACER WIRE BETWEEN HYDRANTS, VALVES OR OTHER CONDUCTION APPURTENANCES.
- b) REINFORCED CONCRETE PIPE (R.C.P.) CONFORMING TO AWWA A301 AND C303 SHALL BE USED FOR TRUNK WATER SUPPLY WATERMAINS, 450mm DIAMETER AND LARGER, INCLUDING FACTORY INSTALLED OUTLETS AND CONNECTIONS, AND APPROVED FITTINGS COMPATIBLE WITH DUCTILE IRON PIPE FITTINGS INCLUDING TRACER WIRE.
- JOINTS ALL WATERMAIN JOINTS TO BE APPROVED PUSH-ON, MECHANICAL OR FLANGE TYPE JOINTS AS REQUIRED FOR A 1000 KPa
- 2. WATERMAIN BEDDING SHALL CONFORM TO O.P.S.D.-802.010, CLASS B WHERE APPLICABLE AND CONCRETE THRUST BLOCKS SHALL CONFORM TO O.P.S.D.-1103.010 AND O.P.S.D.-1103.020.
- 3. ALL VALVE CHAMBERS SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH CITY OF VAUGHAN STANDARD DRAWINGS H-1 AND H-2 AS REOUIRED. VALVES UP TO AND INCLUDING 300mm DIAMETER SHALL BE MECHANICAL JOINT GATE VALVES IN ACCORDANCE WITH AWWA C-500 SPEC. AND SHALL OPEN BY TURNING OPERATION IN A CLOCKWISE DIRECTION.
- 4. ALL 50mm DIAMETER WATERMAINS SHALL BE TYPE "K" COPPER TUBING.
- 5. ALL HYDRAN'S SHALL MEET THE REQUIREMENTS OF AWWA C-502 SPECIFICATION AND SHALL BE IN ACCORDANCE WITH CITY OF
- 6. ALL DOMESTIC CONNECTIONS SHALL BE TYPE 'K' COPPER WITH MINIMUM SIZE 25mm (1") DIAMETER AND SIZE 32mm (1 1/4") DIAMETER FOR LOTS GREATER THAN 15.3m FRONTAGE, UNLESS OTHERWISE NOTED.
- 7. ALL DUCTILE IRON FITTINGS TO BE INSTALLED WITH ANODE PROTECTION (SIZE, TYPE AND NUMBER TO BE DETERMINED ON THE FIELD BY SOIL CONSULTANTS DURING CONSTRUCTION).
- 8. CURB STOPS TO BE LOCATED IN GRASSED PORTION OF FRONT YARDS

ROADWORKS

- 1. APPROVED FILL MATERIAL TO BE COMPACTED TO A DRY DENSITY NOT LESS THAN 95% (INCREASING TO 98% OF ITS MAXIMUM STANDARD PROCTOR DRY DENSITY IN THE TOP 30cm). AFTER COMPACTION SOIL DENSITY TESTS SHALL BE CONDUCTED BY THE GEOTECHNICAL CONSULTANT TO ENSURE ADEQUATE COMPACTION AND STABILITY OF THE FILL AND TEST RESULTS. SUBMITTED TO THE CITY ENGINEER.
- 2. ROAD CROSS SECTION SHALL CONFORM TO STANDARD DRAWINGS OF THE CITY OF VAUGHAN, AND ON DETAIL 1.
- 3. ALL PROPOSED CURB AND GUTTER SHALL BE CAST IN PLACE, CONCRETE BARRIER CURB AND GUTTE ACCORDA WITH CITY VAUGHAN STANDARD DRAWING F-1 & F-2, O.P.S.D.-600.070.
- 4. CONSTRUCTION OF CONCRETE SIDEWALK SHALL CONFORM WITH CITY OF VAUGHAN STANDARD. AWP
- 5. ERECTION OF STREET NAMES AND TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH A OF VAUGHA. TANDARD
- 6. ALL INTERSECTION LAYOUT AND HORIZONTAL ALIGNMENT LAYOUT SHALL ONFO. TO F A OF VAUGUE STANDARDS D-1 TO D-7 AND AS PER DETAIL DRAWING. D-7 AND D-8
- 7. PAVEMENT DESIGN (INTERNAL RESIDENTIAL)
- 50mm COMPACTED DEPTH OF HL3 ASPHALT TOP COURSE (CO CTED CO LAB DENSITY)
 75mm COMPACTED DEPTH OF HL8 ASPHALT BINDER COURSE (CO ACTE O 97% LAB MINISTRY)
 150mm COMPACTED 20mm \$\phi\$ CRUSHER-RUN LIMESTON COMPACT TO 10 STAND PROCTOR DENSITY)
 450mm COMPACTED 50mm \$\phi\$ CRUSHER-RUN LIMESTON (COMPACT D TO 100). TO ARD PROCTOR DENSITY)
- 40mm COMPACTED DEPTH OF HL3 ASPHALT TOP COURS 77 PACTS 97% LAB DENSITY)
- 50mm COMPACTED DEPTH OF HL8 ASPHALT BINDER COU. (COMPACTED TO 97% LAB DENSITY)
 150mm COMPACTED 20mm & CRUSHEP IMESTONE (CO. ACTED TO 100% STANDARD PROCTOR DENSITY)
 350mm COMPACTED 50mm & CRUS R-RUN MESTONE (CO. CTED TO 100% STANDARD PROCTOR DENSITY)
- 8. ALL TOPSOIL AND ORGANIC NOTERIAL YOR HIN ROAD ALLOWANCE SHALL BE STRIPPED PRIOR TO THE COMMENCEMENT OF
- 9. SUBDRAINS SI LL BE 100mm, AME R PERFORATED POLYETHYLENE PIPE PER M.T.C. FORM 405, PRE-WRAPPED BY MANUFACTURER WITH GEOTEY LEE FILTER FALSE CAN NSTALLED PER CITY OF VAUGHAN STANDARD F-2. SUB-DRAINS SHALL BE INSTALLED ALONG THE F'L LET TH OF CURB.
- KEET LIGHTS VALL BE LOCATED AT THE END OF PROPOSED WALKWAYS.
- NTIAL DRIVEWAY (ASPHALT PAVED)
- 5i. HL3A ASPHALT TOP COURSE (COMPACTED) 50mn HL8 ASPHALT BASE (COMPACTED) 200mm Omm o CRUSHER-RUN LIMESTONE (COMPACTED)
- THE ASPHALT IS TO BE PLACED WITH A MINIMUM OF ONE WINTER BETWEEN LIFTS. DRIVEWAYS SHALL BE PAVED FROM THE CURB TO THE GARAGE DOOR OF THE HOUSE.
- 12. THE MAXIMUM ASPHALT CEMENT CONTENT BY MASS IN AN ASPHALT MIXTURE FOR DRIVEWAY SHALL BE 7.0%.
- 13. APPROVED GRANULAR MATERIAL SHALL BE COMPACTED TO A DRY DENSITY NOT LESS THAN 98% OF THE STANDARD PROCTOR DENSITY. AFTER COMPACTION, SOIL DENSITY TESTS SHALL BE CONDUCTED TO ENSURE ADEQUATE COMPACTION.

EXCEPTIONS

Carville Woods Circle and Avlin Crescent.

• Elbow bends not as per City Standard C-4, in order to maintain consistency with the existing Block 11 design.

 The 15.0m right-of-way configuration City of Vaughan Standard B-13 (R-105 draft 2013) has been modified with 16.0m right-of-way and 8.0m pavement width to maintain consistency with Carville Woods Circle pavement width. The modified road section is detailed on drawing D-1.

Laneway V70, V71, V72, V73 and V74.

- The 8.0m R.O.W. Laneway configuration City of Vaughan Standard B-14 has been modified with 11.0m and 8.5m R.O.W. to accommodate servicing and utilities.
- 11.0m R.O.W: Laneway V72 and V73 have sanitary sewer, storm sewer and water main. 8.5m R.O.W: Laneway V70, V71 and V74.

Aylin Crescent.

Maximum centreline grade is 5.5%.

Block 24 outside elbow unit.

Driveway is not perpendicular to curb.

GRADING

- GR-2, Buffer block 50 has 2.5:1 slope.
- Half of the Town houses Block 16 to 20 and Block 21 to 25 will drain towards Park and will be picked up by the park drainage system

WATER MAIN

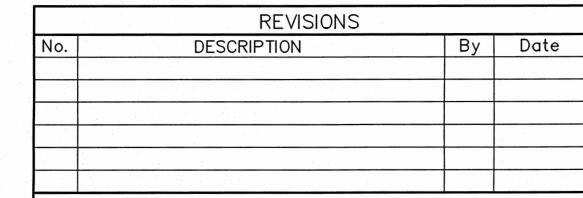
Laneway V72 and V73.

 PP-5, Block 21 to 25, Water boxes are located within the driveway. PP-6, Block 16 to 20, Water boxes are located within the driveway

SANITARY SEWER SYSTEM

Carville Woods Circle.

PP-3, Sanitary sewer from MH.10A to MH.11A is 103.m in length



BENCH MARK No. 17-5

GREEN PARK BUILDING LOCATED AT WEST SIDE OF DUFFERIN STREET AND SOUTH SIDE OF CONFEDERATION PARKWAY, SOUTH-WEST CORNER OF THE BUILDING 0.200m EAST OF SOUTH-WEST CORNER, 0.100m ABOVE GROUND ON SOUTHFACE. 8700 DUFFERIN STREET. ELEVATION: 211.750



APPROVED AS TO FORM IN RELIANCE, UPON THE PROFESSIONAL SKILL AND ABILITY OF SCHAEFFERS CONSULTING ENGINEERS AS TO DESIGN AND SPECIFICATION

NINE-TEN WEST LIMITED CARRVILLE DISTRICT CENTER - PHASE BLOCK 11



SCHAEFFERS CONSULTING ENGINEERS

Tel: (905) 738-6100 Fax: (905) 738-6875 E-mail: design@schaeffers.com

Ontario L4K 4R3

6 Ronrose Drive, Concord

PROJECT No. 2014 - 4025 | DRAWING No.

SCHAEFFER & ASSOCIATES LT

V	AU	GH_{λ}	AN

GENERAL NOTES AND EXCEPTIONS

CITY FILE No. 19T-12V009

DATE: SEPTEMBER 2014 | CHECKED BY: H.T DESIGNED BY: T.A. DRAWN BY: APPROVED BY: H.T 1.V. DWG. No. SCALE: GN - 1