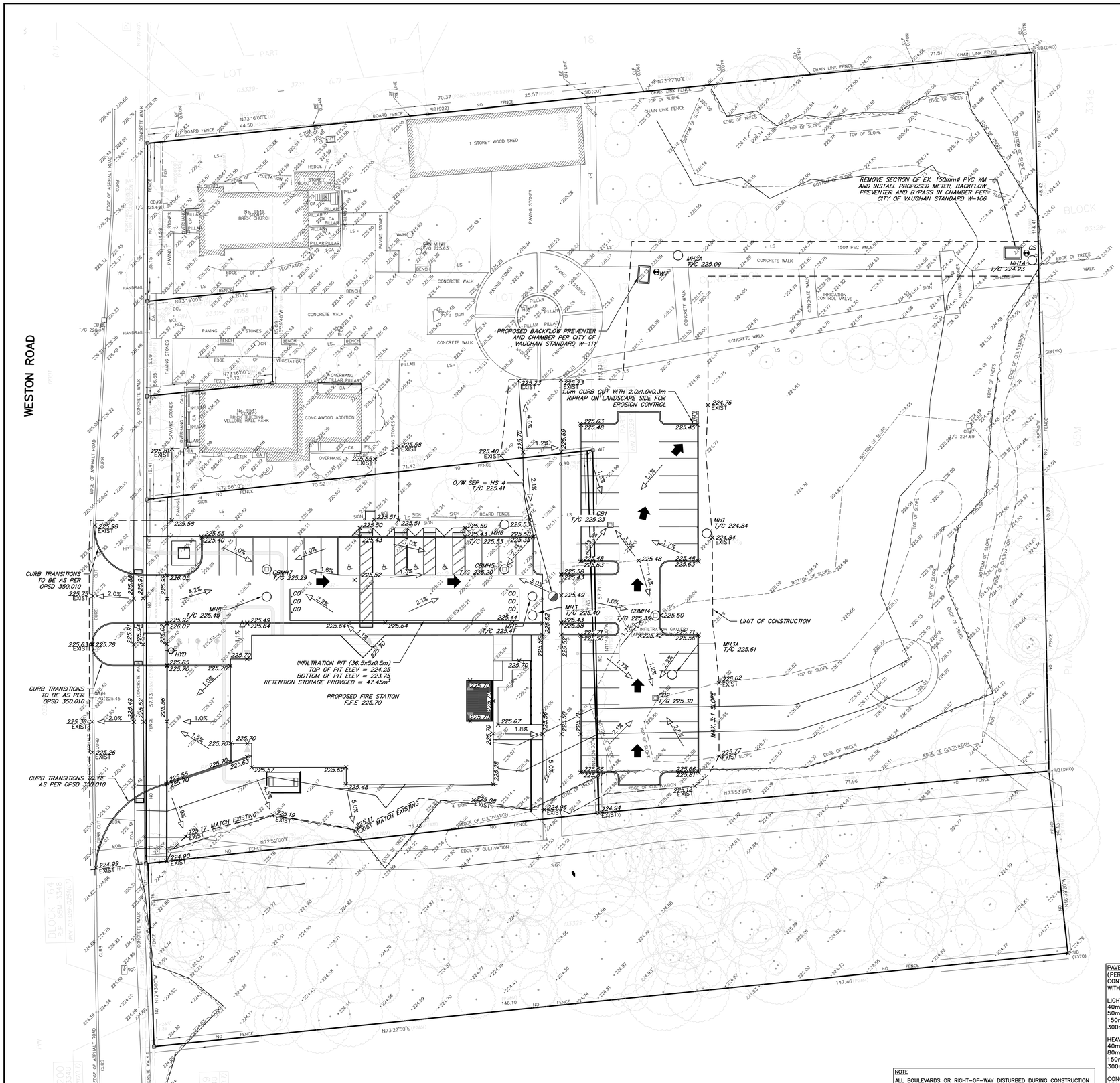


BENCHMARK:
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF VAUGHAN BENCHMARK No. 32-3, HAVING A PUBLISHED ELEVATION OF 225.764 METRES (CGVD28:78). EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PROVIDED BY J.D.BARNES, REFERENCE No. 21-21-719-00, DATED DECEMBER 21, 2021.

GENERAL CITY OF VAUGHAN NOTES:

- STANDARD DRAWINGS OF THE CITY OF VAUGHAN CONSTITUTE PART OF THESE DRAWING(S).
- ALL CONSTRUCTION WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- THE OWNER SHALL RETAIN THE SERVICES OF HIS CONSULTANTS TO ENSURE REQUIRED INSPECTION REPORTS AND OR CERTIFICATION REQUIREMENTS ARE SUBMITTED TO THE DEVELOPMENT ENGINEERING DEPARTMENT AND OTHER AFFECTED CITY DEPARTMENTS.
- THE OWNER AND/OR HIS REPRESENTATIVE SHALL RECTIFY ALL DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE CITY.
- THE LOCATION OF ALL UNDER/ABOVE GROUND UTILITIES AND STRUCTURES IS APPROXIMATE ONLY AND WHERE SHOWN ON THE DRAWING(S) THE ACCURACY OF THE LOCATION OF SUCH UTILITIES IS NOT GUARANTEED. THE OWNER AND/OR HIS REPRESENTATIVE SHALL DETERMINE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES BY CONSULTING THE APPROPRIATE AUTHORITIES OR UTILITY COMPANIES CONCERNED. THE OWNER SHALL PROVE THE LOCATION OF SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION OR ADJUSTMENT FOR THE SAME.
- ANY CONFLICTS WITH EXISTING SERVICES SHALL BE RECTIFIED AT THE OWNER'S EXPENSE.
- APPROPRIATE CONSTRUCTION DETAILS SHOULD BE PROVIDED FOR RETAINING WALLS HIGHER THAN 1.0 M. DETAILS SHALL BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER UPON APPROVAL. HANDRAIL/GUARD/FENCE IS REQUIRED WHEN HEIGHT EXCEEDS 0.60 M (AS PER CITY STANDARD DRAWING FRW-105 OR APPROVED EQUAL). UPON COMPLETION, RETAINING WALLS GREATER THAN 1.0 M TO BE CERTIFIED BY A STRUCTURAL AND GEOTECHNICAL ENGINEERS. LANDSCAPING WORK SHALL NOT ENCROACH ON BOULEVARD NOR SHALL BOULEVARD GRADES BE ALTERED.
- SLOPES IN LANDSCAPED AREAS AND ON BERMS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.
- GRASSED DRAINAGE SWALE GRADES: MIN. 2%; MAX 5%.
- OUTSIDE LIGHTING SHALL BE DIRECTED DOWNWARD AND INWARD AND DESIGNED TO MAINTAIN ZERO CUT-OFF LIGHT LEVEL DISTRIBUTION AT THE PROPERTY LINE.
- SILT FENCE(S) AND OTHER EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED TO PREVENT SILT FLOWING ONTO ADJACENT LANDS UNTIL THE COMPLETION OF SODDING ACTIVITIES.
- CONSTRUCTION ACCESS SHALL BE CONSTRUCTED WITH A MINIMUM DEPTH OF 450 MM CRUSHED STONE BASE FROM THE MUNICIPAL CURB OR EDGE OF PAVEMENT TO THE PROPERTY LINE, TO THE SATISFACTION OF THE CITY.
- ALL PROPOSED BARRIER-FREE PARKING SPACES TO INCLUDE "RB-93 BY PERMIT ONLY" TRAFFIC SIGN AND BARRIER-FREE PAVEMENT SYMBOL MARKING.

ROADWORKS

- ENTRANCE DRIVEWAYS SHALL BE CONSTRUCTED WITH HEAVY DUTY ASPHALT FROM THE BACK OF THE MUNICIPAL CURB OR EDGE OF PAVEMENT TO THE PROPERTY LINE (AREA HIGHLIGHTED ON DRAWING(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
  - 50 MM COMPACTED DEPTH OF HL3 ASPHALT – TOP COURSE
  - 75 MM COMPACTED DEPTH OF HL8 ASPHALT – BINDER COURSE
  - 150 MM COMPACTED DEPTH OF 20 MM CRUSHER-RUN LIMESTONE – GRANULAR BASE
  - 300 MM COMPACTED DEPTH OF 50 MM CRUSHER-RUN LIMESTONE – GRANULAR SUB-BASE
- THE SURFACE OF ALL LOADING SPACES AND RELATED DRIVEWAYS, PARKING SPACES, AND MANEUVERING AREAS WITHIN THE SITE SHALL BE PAVED WITH A HARD SURFACE. THE MINIMUM DEPTH REQUIREMENTS ARE AS FOLLOWS, OR AS SPECIFIED BY GEOTECHNICAL ENGINEER:
  - 40 MM COMPACTED DEPTH HL3 ASPHALT – TOP COURSE
  - 50 MM COMPACTED DEPTH HL8 ASPHALT – BINDER COURSE
  - 150 MM COMPACTED DEPTH 20 MM CRUSHER-RUN LIMESTONE – GRANULAR BASE
  - 200 MM COMPACTED DEPTH 50 MM CRUSHER-RUN LIMESTONE – GRANULAR SUB-BASE
- FOR CONDOMINIUM UNIT DRIVEWAYS, THE MINIMUM DEPTH REQUIREMENTS ARE AS FOLLOWS, OR AS SPECIFIED BY GEOTECHNICAL ENGINEER:
  - 25 MM COMPACTED DEPTH HL3 ASPHALT TOP COURSE (TOP COURSE ASPHALT SHALL NOT BE PLACED UNTIL THE BASE COURSE ASPHALT HAS BEEN IN PLACE FOR ONE WINTER SEASON. OTHER HARD SURFACES MAY BE INSTALLED AS APPROVED BY THE CITY.)
  - 50 MM COMPACTED DEPTH HL8 ASPHALT BASE COURSE
  - 200 MM COMPACTED DEPTH 20 MM CRUSHER-RUN LIMESTONE BASE
- ALL CONCRETE CURB FROM EXISTING ROAD CURB TO STREET LINE SHALL BE BARRIER CURB OPSD 600.110. ALL CONCRETE CURB HEIGHTS SHALL BE 150 MM UNLESS OTHERWISE NOTED. ENTRANCE DRIVEWAY CURB TO BE DISCONTINUOUS AT SIDEWALK AND TAPERED BACK 600 MM MINIMUM.
- ALL REQUIRED CURB CUTTING AT ENTRANCE DRIVEWAY AND CURB DEPRESSIONS AT SIDEWALK CROSSINGS SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY.
- EXISTING ROADWAY CURB AND GUTTER TO BE CONTINUOUS THROUGH THE PROPOSED NEW DRIVEWAY ENTRANCE(S) ALONG WITH THE MUNICIPAL SIDEWALK.
- SIDEWALK TO BE 200 MM THICK THROUGH DRIVEWAY ENTRANCE PER CITY STANDARD R-128 AND TO INCLUDE TACTILE INDICATORS IN ACCORDANCE WITH YORK REGION STANDARD.
- ENTRANCE DRIVEWAYS SHALL BE SETBACK A MINIMUM CLEARANCE OF 1.0 M FROM ALL ABOVEGROUND SERVICES OR OTHER OBSTRUCTIONS. PAVEMENT GRADES: MIN. 0.5%; MAX 5%.

LEGEND

194.40	–EXISTING ELEVATIONS
CB44 T/C 225.45	–EXISTING CATCHBASIN
MH43 T/C 224.24	–EXISTING MAINTENANCE HOLE
199.75	–PROPOSED GRADE ELEVATION
193.67 EXISTS	–MATCH EXISTING GRADE
5.0%	–PROPOSED SLOPE
	–PROPOSED MAJOR OVERLAND FLOW
CB1 T/C 225.23	–PROPOSED CATCHBASIN
CBMH6 T/C 225.29	–PROPOSED CATCHBASIN MAINTENACE HOLE
MH7 T/C 225.45	–PROPOSED MAINTENACE HOLE
O/W SEP T/C 225.41	–PROPOSED OIL/GRIT SEPARATOR
WV	–PROPOSED WATER VALVE
CS	–PROPOSED CURB STOP

TRCA STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING THE CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. (ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
2. DISTURBED AREAS WILL BE MINIMIZED TO THE EXTENT POSSIBLE, AND TEMPORARILY OR PERMANENTLY STABILIZED OR RESTORED AS THE WORK PROGRESSES.
3. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREAS. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT ARE NOT EFFECTIVE AT PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, INCLUDING SEDIMENT, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS. TRCA ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.
4. ALL GRADES WITHIN THE REGULATORY FLOOD PLAIN WILL BE MAINTAINED OR MATCHED.
5. THE PROPONENT/CONTRACTOR SHALL MONITOR THE WEATHER SEVERAL DAYS IN ADVANCE OF THE ONSET OF THE PROJECT TO ENSURE THAT THE WORKS WILL BE CONDUCTED DURING FAVOURABLE WEATHER CONDITIONS. SHOULD ANY UNEXPECTED STORM ARISE, THE CONTRACTOR WILL REMOVE ALL UNFIXED ITEMS FROM THE REGIONAL STORM FLOOD PLAIN THAT WOULD HAVE THE POTENTIAL TO CAUSE A SPILL OR AN OBSTRUCTION TO FLOW, E.G. FUEL TANKS, PORTA-POTTIES, MACHINERY, EQUIPMENT, CONSTRUCTION MATERIALS, ETC.
6. ALL DEWATERING/UNWATERING SHALL BE TREATED AND RELEASED TO THE ENVIRONMENT AT LEAST 30 METRES FROM A WATERCOURSE OR WETLAND AND ALLOWED TO DRAIN THROUGH A WELL-VEGETATED AREA. NO DEWATERING EFFLUENT SHALL BE SENT DIRECTLY TO ANY WATERCOURSE, WETLAND OR FOREST, OR ALLOWED TO DRAIN ONTO DISTURBED SOILS WITHIN THE WORK AREA. THESE CONTROL MEASURES SHALL BE MONITORED FOR EFFECTIVENESS AND MAINTAINED OR REVISED TO MEET THE OBJECTIVE OF PREVENTING THE RELEASE OF SEDIMENT LADEN WATER.
7. PRIOR TO SITE DISTURBANCE THE CONTRACTOR/PROPONENT SHOULD ENSURE THAT THE WORKS ARE IN CONFORMANCE WITH THE MIGRATORY BIRDS CONVENTION ACT. PLEASE NOTE THAT THE GENERAL BREEDING BIRD TIMING WINDOW FOR THIS AREA IS APRIL 1ST TO AUGUST 31ST, HOWEVER, BREEDING ACTIVITIES MIGHT INITIATE PRIOR TO AND CONTINUE PAST THIS PERIOD.
8. FISH AND WILDLIFE STRANDED WITHIN THE WORK AREA SHALL BE CAPTURED AND RELEASED LIVE IN SUITABLE HABITAT UPSTREAM OF THE WORK AREA AND UNDER THE SUPERVISION OF QUALIFIED AQUATIC TECHNICAL STAFF. THE PROPONENT/CONTRACTOR SHOULD CONFIRM REQUIREMENTS DIRECTLY WITH THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.
9. AN ENVIRONMENTAL MONITOR WILL BE ON SITE, AND PROVIDE ADVICE, TO ENSURE THAT ACTIVITIES THAT COULD HAVE A NEGATIVE IMPACT TO THE NATURAL ENVIRONMENT ARE EFFECTIVELY MITIGATED AS CONSTRUCTION PROCEEDS. THE ENVIRONMENTAL MONITOR SHALL NOTIFY THE TRCA ENFORCEMENT OFFICER AND PROJECT MANAGER IF ISSUES ARISE.

PAVEMENT DESIGN
(PER ENGLOBE DRAFT GOTECH REPORT DATED MARCH 30, 2022. CONTACTOR TO ENSURE PAVEMENT STRUCTURE IS CONSISTENT WITH LATEST GEOTECHNICAL REPORT)

LIGHT DUTY PAVEMENT STRUCTURE:
40mm DEPTH OF HL3 ASPHALT
50mm DEPTH OF HL8 ASPHALT
150mm DEPTH OF GRANULAR 'A'
300mm DEPTH OF GRANULAR 'B'

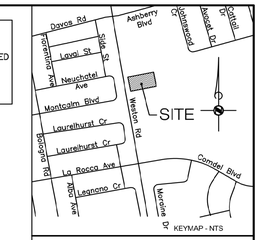
HEAVY DUTY PAVEMENT STRUCTURE:
40mm DEPTH OF HL3 ASPHALT
80mm DEPTH OF HL8 ASPHALT
150mm DEPTH OF GRANULAR 'A'
300mm DEPTH OF GRANULAR 'B'

CONCRETE PAVEMENT:
250mm DEPTH OF 32MPa CONCRETE
100mm DEPTH OF OGDL (OPEN GRADED DRAINAGE LAYER)
200mm DEPTH OF GRANULAR 'A'

NOTE
ALL BOULEVARDS OR RIGHT-OF-WAY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITIONS WITH A MINIMUM 100mm TOPSOIL PLUS SOD.

NOTE:
CONTRACTOR TO INVITE REGION'S CONSTRUCTION INSPECTION STAFF FROM (ENVassestapprovals@york.ca) TO PRE-CONSTRUCTION MEETING FOR ANY WORKS WITH 2 WEEKS NOTICE. CONTRACTOR TO CONTACT MGM CONSULTING INC. IMMEDIATELY SHOULD THERE BE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROPOSED GRADING AND/OR SERVICING DESIGN, OR CONFLICTS IN CONSTRUCTING THE WORK AS PER THE INTENT OF THE APPROVED DESIGN PRIOR TO CONSTRUCTION.

NOTE:
1. ALL WORK TO CONFORM TO THE LATEST MUNICIPAL STANDARDS AND SPECIFICATIONS AS WELL AS THE LATEST ADOPTED ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
2. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER TO SATISFACTION OF THE MUNICIPALITY AND MGM CONSULTING INC.
3. CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING SERVICES AND UTILITIES PRIOR TO AND DURING CONSTRUCTION
4. CONTRACTOR TO LOCATE AND CONFIRM ALL EXISTING UTILITIES AND SERVICE INFORMATION PRIOR CONSTRUCTION
5. CONTRACTOR TO ENSURE ADEQUATE CLEARANCE FROM ALL EXISTING SERVICES AND UTILITIES
6. CONTRACTOR TO CONFIRM ALL EXISTING INVERTS PRIOR TO INTERNAL SERVICING.



The Contractor shall verify all dimensions prior to commencement of the work.
All print and specifications are the property of the Architect and must be returned upon completion of the work.

ISSUE OR REVISION

No.	Description	Date
1	ISSUED FOR COORDINATION	03/21/22
2	ISSUED FOR COORDINATION	03/31/22
3	ISSUED FOR SPA	05/27/22
4	ISSUED FOR SPA RESUBMISSION	06/12/23

PROJECT :
VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD
WOODBRIDGE, ONTARIO

MGM CONSULTING INC
Consulting Engineering & Project Management
555 Industrial Drive, Suite 201, Milton, Ontario L9T 5E1
Tel: (905) 567-8678
Fax: (905) 875-1339
Email: mgm@mgm.on.ca
www.mgm.on.ca

PROFESSIONAL SEAL :
REGISTERED PROFESSIONAL ENGINEER
KEVIN LEWIS
100150100
JUNE 12, 2023
PROVINCE OF ONTARIO

DWG TITLE :
GRADING PLAN

THOMASBROWN ARCHITECTS
394 King Street East, Toronto, Ontario M5A 1K9
Tel: 416.364.5710
Fax: 416.364.4662
info@thomasbrownarch.ca

FILE No. DA.22.035

DATE :	MAR 2022
SCALE :	1 : 300
DRAWN BY:	AB
CHECKED BY :	KL
DESIGNED BY:	AB
DWG STATUS :	ISSUED FOR SPA
PROJECT No. :	2022-007
DRAWING No. :	CV-3
REVISION	4

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