CONSTRUCTION REVIEW

1. CONTRACTOR ASSUMES COMPLETE RESPONSIBILITY FOR FULL SUPERVISION OF CONSTRUCTION WORK.

2. SITE VISITS AND REVIEWS BY THE DESIGN ENGINEER OR REPRESENTATIVE ARE INTENDED FOR THE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE DESIGN CONCEPT. THE SITE REVIEWS DO NOT MEAN THAT THE DESIGN ENGINEER HAS SEEN ALL OF THE CONSTRUCTION OR CONSTRUCTION PROCEDURES.

3. REVIEW OF CONSTRUCTION BY THE DESIGN ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.

4. NOTIFY THE DESIGN ENGINEER 24 HOURS IN ADVANCE OF ANY REQUIRED SITE VISITS.

5. THIRD PARTY INSPECTIONS ARE TO BE CARRIED OUT AS PER PROJECT SPECIFICATIONS.

6. CONTRACTOR IS RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE REMOVAL OF FINISHES REQUIRED FOR INSPECTIONS OR TESTING THAT IS COVERED BEFORE INSPECTIONS ARE COMPLETED.

7. OBTAIN A PROFESSIONAL GEOTECHNICAL ENGINEER APPROVAL OF THE FOLLOWING ITEMS:
   A) ALL EXCAVATIONS, PRIOR TO CASTING CONCRETE FOR FOUNDATIONS.
   B) ALL ENGINEERED (COMPACTED) BACKFILL AS WORK PROGRESSES
   C)ALL EARTH SUPPORT SYSTEMS (SHORING/EXCAVATIONS)
   D)ALL EARTH BANKS
   E)DEWATERING FOR LOWERING WATER TABLE
   F)ANY WORK INVOLVING SOIL/ROCK/WATER/GASES ETC., IN SOIL

8. PRIOR TO CASTING CONCRETE OBTAIN ENGINEERS APPROVAL OF PLACEMENT OF REINFORCEMENT STEEL.

9. AT LEAST 75% OF REINFORCEMENT STEEL IN ANY STRUCTURAL MEMBER IS TO BE COMPLETED BEFORE INSPECTION CAN BE COMPLETED.

SHOP DRAWINGS NOTES

1. SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL WORK AND ANY WORK AFFECTING THE STRUCTURE TO THE ARCHITECT. OBTAIN ARCHITECTS AND ENGINEER'S CONSENT BEFORE PROCEEDING WITH THE FABRICATION.

2. EACH OF THE FOLLOWING SHOP DRAWINGS MUST BEAR THE SIGNATURE AND STAMP OF A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE.
   a) PRECAST CONCRETE DRAWINGS
   b) DRAWINGS FOR ANY TEMPORARY WORK
   c) DRAWINGS FOR ANY STRUCTURAL PARTS DESIGNED BY THE CONTRACTOR'S FORCES, INCLUDING EXTERIOR BUILDING ENVELOPE.

3. SHOP DRAWINGS MUST BE REVIEWED AND STAMPED REVIEWED BY THE GENERAL CONTRACTOR BEFORE ISSUING TO THE ARCHITECT. SHOP DRAWINGS NOT STAMPED BY THE GENERAL CONTRACTOR WILL BE REJECTED. ANY DELAYS IN THE CONSTRUCTION SCHEDULE DUE TO NON-COMPLIANCE WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

4. SUBMIT STRUCTURAL STEEL, STEEL JOIST AND STEEL DECK SHOP DRAWINGS FOR STRUCTURAL ENGINEERS REVIEW BEFORE FABRICATION. ALL SHOP DRAWINGS SHALL BEAR THE SEAL OF A REGISTERED PROFESSIONAL ENGINEER UNDER JURISDICTION.

5. GENERAL CONTRACTOR AND SUBTRADES SHALL INCLUDE TIME IN THEIR SCHEDULE FOR PROPER SHOP DRAWING REVIEW BY CONSULTANTS. CONTRACTORS SHALL ALLOW 3 BUSINESS DAYS TIME FOR REVIEW BY THE STRUCTURAL CONSULTANT, IN ADDITION TO TIME REQUIRED BY OTHER PARTIES.

6. SHOP DRAWINGS MUST BE ORIGINAL, AND PRODUCED BY THE RESPECTIVE SUBTRADES. ANY DRAWINGS SUBMITTED FOR REVIEW WHICH CONTAIN DRAWINGS OR PARTS OF DRAWINGS PRODUCED BY GRAVITY ENGINEERING INC., WILL BE REJECTED, AND THE CONTRACTOR RESPONSIBLE FOR PRODUCING THE SHOP DRAWINGS SHALL TAKE RESPONSIBILITY FOR ANY RESULTING DELAYS IN CONSTRUCTION.

7. THE SHOP DRAWING REVIEW IS NOT AN APPROVAL PROCESS. GRAVITY ENGINEERING INC., WILL REVIEW SHOP DRAWINGS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE DESIGN CONCEPT SHOWN ON THE STRUCTURAL DRAWINGS. REVIEW OF SHOP DRAWINGS SHALL NOT MEAN THAT GRAVITY ENGINEERING INC., APPROVES THE DETAIL DESIGN INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR SUBMITTING SAME. REVIEW BY GRAVITY ENGINEERING INC.,SHALL NOT RELIEVE THE CONTRACTOR OF ITS RESPONSIBILITY FOR ERRORS OR OMISSIONS IN THE SHOP DRAWINGS OR OF ITS RESPONSIBILITY FOR MEETING ALL REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND CORRELATED AT THE JOB SITE, FOR INFORMATION THAT PERTAINS SOLELY TO FABRICATION PROCESSES AND TO TECHNIQUES OF CONSTRUCTION AND INSTALLATION AND FOR CO-ORDINATION OF THE WORK OF ALL SUB-TRADES.

CONSTRUCTION PLANNING & SAFETY

1. REQUIREMENTS FOR MECH. EQUIPMENT, AND ANY TRADES OR SERVICES AFFECTING THE STRUCTURE, SHALL BE ESTABLISHED IN CONSULTATION WITH CORRESPONDING MANUFACTURERS OR SUPPLIERS AND THE ARCHITECT.

2. LOCATION OF CONSTRUCTION JOINTS SHALL BE PLANNED IN ADVANCE

3. GRAVITY ENGINEERING INC., SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION SAFETY, MEANS, TECHNIQUES AND CONSTRUCTION PROCEDURES OR TEMPORARY WORK AS REQUIRED BY THE CONSTRUCTOR TO BUILD AND COMPLETE THE STRUCTURE IN CONFORMITY WITH CONTRACT DOCUMENTS. CONTRACTOR TO RETAIN AN INDEPENDENT STRUCTURAL ENGINEER TO CARRY OUT THE NECESSARY TECHNIQUES TO BE USED TO BUILD AND COMPLETE THE STRUCTURE ACCORDING TO THE CONTRACT DOCUMENTS AND SAFETY GUIDELINES FROM LOCAL CODES/AUTHORITIES. CONTRACTOR SHALL SUPPLY DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER.

4. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION STRESSES AND FOR SUFFICIENT TEMPORARY BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF THE WORK, UNTIL COMPLETION (INCLUDING MASONRY WALLS, FLOOR AND ROOF DECKS, ETC.). ANY BRACING MEMBERS SHOWN ON PLANS ARE THOSE REQUIRED FOR THE FINISHED STRUCTURE, AND MAY NOT BE SUFFICIENT FOR ERECTION PURPOSES.

5. ALL CONSTRUCTION WORK FOR TEMPORARY SHORING AND BRACING OF EXISTING STRUCTURE SHALL BE DONE ONLY AFTER PERMISSION HAS BEEN GRANTED BY THE CONSTRUCTION HEALTH AND SAFETY BRANCH OF THE GOVERNING MINISTRY OF LABOUR.

6. PROTECT EXISTING BUILDINGS, TREES, FENCING, UTILITIES POLES, CABLES, ACTIVE UNDERGROUND SERVICES AND PAVING ON THE SITE OR ANY ADJOINING PROPERTIES FROM DAMAGE. DAMAGE RESULTING FROM THIS CONSTRUCTION WORK SHALL BE MADE GOOD TO THE APPROVAL OF THE ARCHITECT NO COST TO THE OWNER.

7. TRUCKS, CRANES, HOISTS, OR ANY HEAVY EQUIPMENT OR MATERIALS ARE NOT ALLOWED TO ENTER ANY STRUCTURAL FLOOR OR ROOF AREA UNLESS SPECIFICALLY DESIGNED AND DESIGNATED FOR THESE PURPOSES. INSTALL TEMPORARY BARRIERS TO PREVENT ACCIDENTAL OVERLOADING DURING CONSTRUCTION. DESIGN, INSTALL AND MAINTAIN ADEQUATE SHORING SYSTEM AS REQUIRED TO CARRY ANY SUCH TEMPORARY LOADING FROM CONSTRUCTION MATERIALS AND/OR EQUIPMENT.

8. NOTIFY ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY CONSTRUCTION ERROR, OMISSION, DEFECTIVE WORK, ETC., SO THAT THE MOST ECONOMICAL REMEDIAL MEASURES MAY BE DESIGNED AT THE EARLIEST POSSIBLE TIME.

9. GENERAL CONTRACTOR SHALL NOTIFY MECHANICAL/ELECTRICAL CONTRACTORS THAT SUPPORT AND THE DESIGN OF SUCH SUPPORTS TO CARRY MECHANICAL/ELECTRICAL EQUIPMENT SHALL BE BY THE MECHANICAL/ELECTRICAL CONTRACTORS. OBTAIN STRUCTURAL ENGINEERS APPROVAL TO CONNECT TO EXISTING/NEW MAIN BUILDING STRUCTURE. DESIGN OF SUPPORTS SHALL BE STAMPED BY A QUALIFIED STRUCTURAL ENGINEER RETAINED BY THE MECHANICAL/ELECTRICAL CONTRACTOR.

CONCRETE & REINFORCEMENT

1. CONCRETE MATERIALS, CONSTRUCTION, AND TESTING SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA A-23.1 AND CAN/CSA A23.2 LATEST EDITIONS.

2. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS TO BE AS FOLLOWS:

FOUNDATIONS	25 MPa
FOUNDATION WALLS	25 MPa CLASS F2
INTERIOR SLAB ON GRADE	25 MPa CLASS N-CF
INTERIOR PIERS, WALLS, COLUMNS	25 MPa
RETAINING WALLS	35 MPa CLASS C1
EXTERIOR REINFORCED CONCRETE	35 MPa CLASS C1
EXTERIOR UNREINFORCED CONCRETE	32 MPa CLASS C2

3. CALCIUM CHLORIDE ADMIXTURES SHALL NOT BE USED

4. YIELD STRENGTH OF REINFORCEMENT BARS TO BE CSA G30.18-M92 LATEST EDITION GRADE 400 MPa

5. DETAIL, FABRICATE AND PLACE ALL REINFORCEMENT BARS IN CONFORMITY TO CURRENT MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315 CAN/CSA A23.3 LATEST EDITION AND THE REINFORCING STEEL MANUAL OF STANDARD PRACTICE BY RSIO

6. TENSION LAP SPLICES ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF CAN/CSAA23.3 LATEST EDITION. ALL OTHER LAPS AND EMBEDMENT OF DOWELS SHALL BE 24 x BAR DIAMETER AND NOT LESS THAN 450mm IF NOT SPECIFIED.

7. REINFORCEMENT AROUND OPENINGS IS TO BE PROVIDED IN ACCORDANCE WITH TYPICAL DETAILS.

8. DOWELS TO MATCH REINFORCEMENT UNLESS NOTED OTHERWISE

SLAB ON GRADE

1. SLAB POURS ARE TO BE BONDED BY A VERTICAL BULKHEAD OR ABUTTING CONSTRUCTION JOINT AS PER TYPICAL DETAILS.

2. SLAB POURS SHOULD NOT EXCEED 950 m^2

3. PROVIDE A SEPARATE CONCRETE POUR AROUND COLUMNS AND SAW CUTS ARE PROVIDED AS PER TYPICAL DETAILS.

4. CAULK SAW CUT LINES WITH APPROVED FLEXIBLE CAULKING MATERIAL. ENSURE PROPER SPACED SYSTEM OF SAW CUTS IS USED TO MITIGATE SLAB SHRINKAGE CRACKING

5. REFER TO GEOTECHNICAL REPORT RECOMMENDATIONS FOR GRANULAR MATERIALS AND COMPACTION UNDER SLAB ON GRADE. GEOTECHNICAL REPORT AND SPECIFICATIONS SHALL GOVERN WHEN SPECIFICATIONS CONFLICT.

6. TRENCHES, HOLES ETC., DUG AFTER THE GRADE COMPACTION IS TO BE FILLED WITH A MIN. GRANULAR 'B' MATERIAL AND COMPACTED AS PER THE GEOTECHNICAL RECOMMENDATIONS.

7. CONTRACTOR IS RESPONSIBLE TO OBTAIN THE MOST RECENT INFORMATION FOR MECHANICAL BASES, PITS, SUMPS, TRENCHES ETC., NOT SHOWN ON STRUCTURAL DRAWINGS.

8. DO NOT USE FROZEN MATERIALS (ICE OR SNOW) AND DO NOT PLACE CONCRETE ON FROZEN SUBGRADE OR ON SUBGRADE CONTAINING FROZEN MATERIALS. FORMWORK REINFORCEMENT STEEL AND ADJACENT CONCRETE SURFACES MUST BE ENTIRELY FREE OF FROST, SNOW AND ICE PRIOR TO CONCRETING.

9. ENSURE THAT MATERIALS IN CONTACT WITH CONCRETE ARE ABOVE FREEZING TEMPERATURE.

10. PERMISSION TO POUR CONCRETE SLAB ON GRADE SHALL BE GRANTED SUBJECT TO THE FOLLOWING CONDITIONS:
    A) THAT THE GRADE IS COMPACTED TO A MIN. 98% STANDARD PROCTOR MAX. DRY DENSITY OR AS RECOMMENDED BY THE SOIL ENGINEER.
    B) THAT ANY TRENCHES, HOLES ETC., WHICH ARE DUG AFTER THE COMPACTION AS STATED IN A) ABOVE, ARE FINISHED, ARE FILLED WITH NEW GRANULAR 'B' MATERIAL AND COMPACTED TO A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY.
    C) THAT A PROPERLY SPACED SYSTEM IF SAW CUTS IS USED TO TAKE CARE OF SHRINKAGE OF THE SLAB ON GRADE.
    D) THAT THE OPERATIONS MENTIONED UNDER ITEMS A TO C INCLUSIVE ARE CARRIED OUT UNDER APPROVED SUPERVISION.

GENERAL NOTES

1. STUDY THE GEOTECHNICAL REPORT, BOREHOLES AND WATER CONDITION BEFORE SUBMITTING THE TENDER PRICE.

2. VISIT THE SITE AND EXAMINE IT FOR ALL CHARACTERISTIC FEATURES AFFECTING NEW CONSTRUCTION.

3. COMPARE THE ACTUAL ORIGINAL ELEVATIONS WITH THOSE SHOWN ON PLAN.

4. CHECK ALL DIMENSIONS, LEVELS AND DETAILS SHOWN ON STRUCTURAL DRAWINGS AGAINST ARCHITECTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE, AND OTHER RELEVANT DRAWINGS. REPORT ANY DISCREPANCIES TO ARCHITECT BEFORE SUBMITTING PRICE.

5. REPORT ANY DISCREPANCY TO THE ARCHITECT BEFORE COMMENCEMENT OF WORK.

6. OBTAIN ALL DETAILS AND DIMENSIONS OF EXISTING WORK IN FIELD AND INCORPORATE SAME INTO NEW CONSTRUCTION. IF DETAILS VARY FROM WHAT IS ASSUMED IN DRAWINGS CONTACT ENGINEER IMMEDIATELY.

7. WHERE TWO OR MORE INTERPRETATIONS CAN BE MADE FROM THE INFORMATION PROVIDED IN THE CONTRACT DOCUMENTS RELATION TO THE STRUCTURAL ITEMS, THE MOST EXPENSIVE INTERPRETATION SHALL BE ASSUMED FOR PRICING.

8. NO ALLOWANCE WILL BE MADE FOR DIFFICULTIES ENCOUNTERED OR EXPENSES INCURRED RESULTING FROM CONDITIONS CONSIDERED KNOWN AT THE TIME THE TENDERS ARE OPEN.

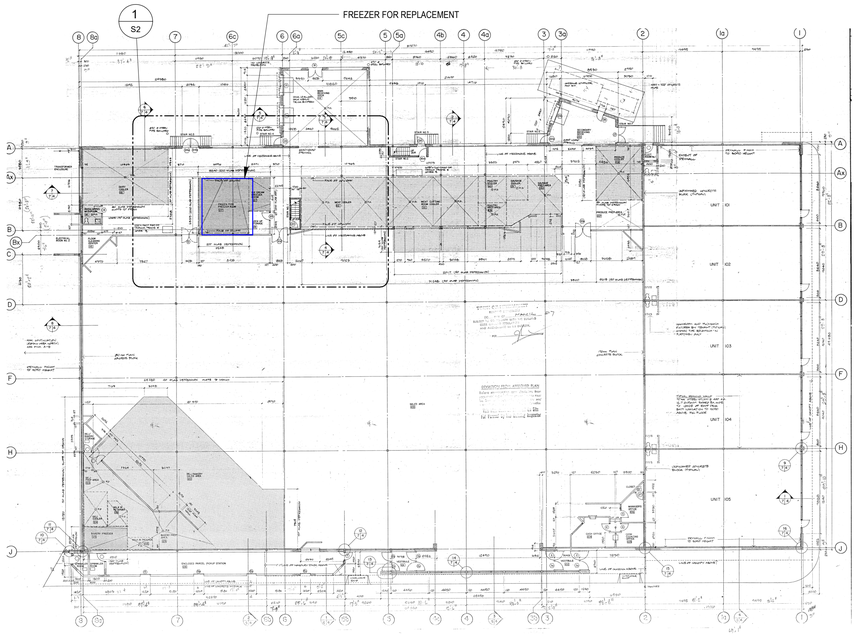
9. COMPLY WITH THE PROVINCIAL BUILDING CODE, NATIONAL BUILDING CODE, CANADIAN CONSTRUCTION CODE, LOCAL BY-LAWS AND ALL REGULATIONS SET BY AUTHORITIES HAVING JURISDICTION. THE MORE STRINGENT REQUIREMENTS SHALL APPLY IN CASE OF DISCREPANCIES OR CONFLICTS.

10. SHOULD DEMOLITION ON ARCHITECTURAL DRAWINGS INTERFERE WITH THE INTENT OF THE STRUCTURAL DRAWINGS, DO NOT PROCEED WITH WORK UNTIL ISSUES HAVE BEEN RESOLVED WITH ALL CONSULTANTS.

11. DRAINAGE SHALL BE WORKED IN CONFORMITY TO RELEVANT DETAILS.

12. MAXIMUM SPACING BETWEEN VERTICAL CONSTRUCTION JOINTS SHALL BE 9000mm. ENGINEER'S APPROVAL SHALL BE OBTAINED FOR, LOCATION AND DETAILS OF CONSTRUCTION JOINTS, IF REQUIRED OTHERWISE BY SITE CONDITION.

13. DO NOT PROCEED WITH ANY REPAIR WORK UNTIL INSPECTION AND WRITTEN INSTRUCTIONS ARE OBTAINED FROM THE ARCHITECT AND THE ENGINEER.



1 KEY PLAN
NTS

CONFIRM ALL GRIDS, DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. CONTACT GRAVITY ENGINEERING FOR ANY DISCREPANCIES.

No.	Description	Date
1	ISSUED FOR CLIENT REVIEW	2025-07-13

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO GRAVITY ENGINEERING BEFORE PROCEEDING WITH THE WORK.

Scale: As indicated

METRO 798 FREEZER SLAB REPLACEMENT

1111 Davis Dr, Newmarket, ON L3Y 9E5

GENERAL NOTES & KEY PLAN

GRAVITY ENGINEERING
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TORONTO, ONTARIO, M6K 3E4
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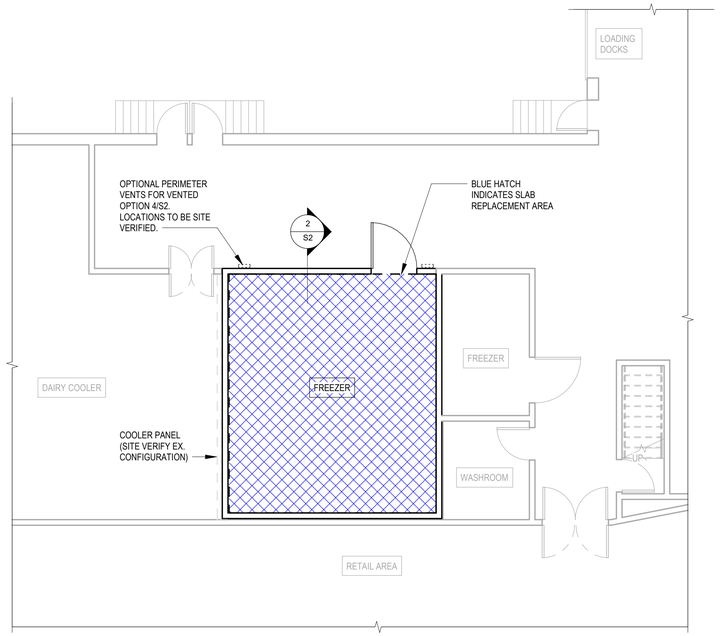
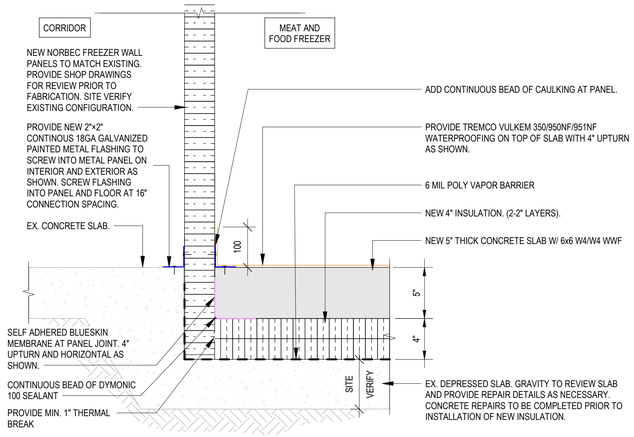
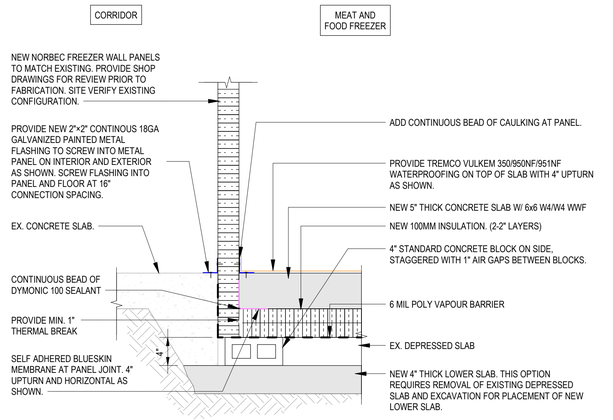
JOB No.	2025-158	DRAWING	S1
DATE:	2025-06-13		



1 ENLARGED FLOOR PLAN
NTS

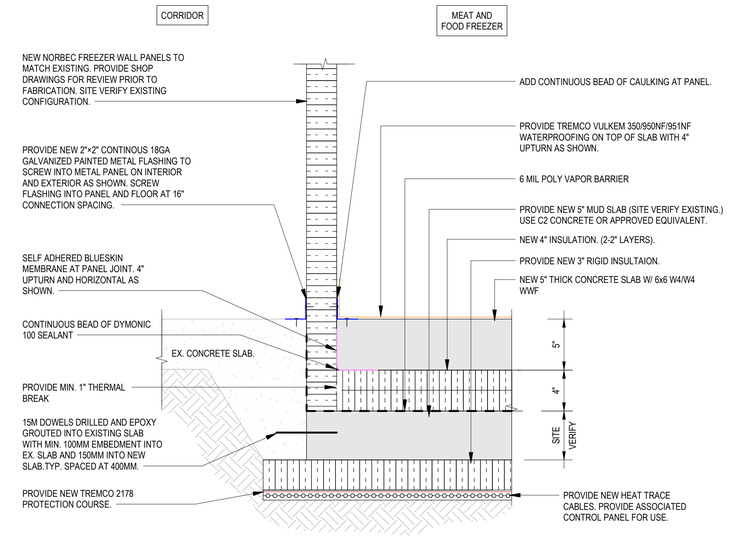


2 NEW FREEZER SLAB SECTION TYP.
NTS



3 OPTION 2 - VENTED BLOCKS DETAIL TYP.
NTS

4 OPTION 2 - VENTED BLOCKS DETAIL AT PERIMETER VENT
NTS



5 OPTION 3 - HEAT TRACE FREEZER SECTION TYP.
NTS

CONFIRM ALL GRIDS, DIMENSIONS AND ELEVATIONS WITH ARCHITECTURAL DRAWINGS. CONTACT GRAVITY ENGINEERING FOR ANY DISCREPANCIES.

No.	Description	Date
1	ISSUED FOR CLIENT REVIEW	2025-07-13

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO GRAVITY ENGINEERING BEFORE PROCEEDING WITH THE WORK.

Scale: As indicated

METRO 798 FREEZER SLAB REPLACEMENT

1111 Davis Dr, Newmarket, ON L3Y 9E5

DETAILS

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JOB No.	2025-158	DRAWING No.	S2
DATE:	2025-06-13		