

D01) GENERAL

D01-1 GENERAL INFORMATION

1. THE INFORMATION PRESENTED ON THESE DRAWINGS HAS BEEN DESIGNED AND ANALYZED IN ACCORDANCE WITH THE 2012 ONTARIO BUILDING CODE & 2015 NATIONAL BUILDING CODE OF CANADA. CONSTRUCTION IS TO BE PERFORMED IN ACCORDANCE WITH THIS AND ALL OTHER APPLICABLE CODES.
 - 1.1 CONCRETE STRUCTURE DESIGNED IN ACCORDANCE WITH CSA A23.3-14
2. CONTRACTOR IS TO VERIFY/COORDINATE ALL DIMENSIONS/PENETRATIONS WITH ARCHITECTURAL/MECHANICAL/ELECTRICAL DRAWINGS PRIOR TO CONSTRUCTION. REPORT INCONSISTENCIES BEFORE PROCEEDING WITH WORK. ANY OPENINGS NOT INDICATED ON STRUCTURAL DRAWINGS ARE TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION.
3. SEISMIC RESTRAINT OF ARCH/MECH/ELECT ELEMENTS NOT NOTED ON THE DRAWINGS ARE THE RESPONSIBILITY OF THE CONTRACTOR'S ENGINEER. RESTRAINT DETAILS ARE TO BE DEVELOPED IN ACCORDANCE WITH THE 2012 OBC/2015 NBC. CONTRACTOR'S ENGINEER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF SEISMIC RESTRAINTS AND ISOLATIONS AS REQUIRED BY SPECIFICATIONS INCLUDING THE VERIFICATION THAT THE EXISTING/NEW STRUCTURE IS CAPABLE OF SAFELY SUPPORTING THE IMPOSED LOADS IN ACCORDANCE WITH THE 2012 OBC/2015 NBC. NO ELEMENTS MAY BE CONSTRUCTED WITHOUT WRITTEN CONFIRMATION OF THESE CONDITIONS BY CONTRACTOR'S ENGINEER.
4. CONTRACTOR TO PROVIDE PRE-ENGINEERED SHORING AS REQUIRED TO ACCOMMODATE THE CONTRACTOR'S CONSTRUCTION ACTIVITIES AND TO PREVENT DAMAGE TO ANY ADJACENT PROPERTY. ALL CONSTRUCTION ACTIVITIES TO BE LIMITED TO THE LIMITS OF THE CONSTRUCTION SITE AND ALL DAMAGE TO EXISTING PROPERTIES MUST BE REINSTATED.
5. CONTRACTOR TO PERFORM PRE-CONSTRUCTION SURVEY OF EXISTING BUILDING AND SERVICES IN AREA OF CONSTRUCTION PRIOR TO START OF CONSTRUCTION.

D01-2 DEFINITIONS

THE FOLLOWING ABBREVIATIONS HAVE BEEN USED IN THESE NOTES AND DRAWINGS:

Ø	AT (SPACING c/c)	mm	MILLIMETRES
Af	FACTORED AXIAL FORCE	MAX.	MAXIMUM
ARCH.	ARCHITECTURAL	MECH	MECHANICAL
B	BOTTOM	Mf	FACTORED MOMENT
BL	BOTTOM LOWER LAYER	MIN.	MINIMUM
BUL	BOTTOM UPPER LAYER	NF	NEAR FACE
c/c	CENTRE TO CENTRE	NTS	NOT TO SCALE
C	CENTRE LINE	OF	OUTSIDE FACE
Cf	FACTORED COMPRESSION FORCE	PCO	PILE CUT-OFF
CONT.	CONTINUOUS	t	PLATE
EA	EACH	T	TOP
EE	EACH END	Tf	FACTORED TENSILE FORCE
EF	EACH FACE	TLL	TOP LOWER LAYER
EL	ELEVATION	TUL	TOP UPPER LAYER
ES	EACH SIDE	TOPC	TOP OF PILE CAP
EW	EACH WAY	TRP	TYPICAL
FF	FAR FACE	U/N	UNLESS OTHERWISE NOTED
H	HORIZONTAL	UL	UPPER LAYER
I	INSIDE FACE	U/S	UNDERSIDE
LL	LOWER LAYER	V	VERTICAL
m	METRES		

D01-3 SHOP DRAWINGS

1. SUBMIT SHOP DRAWINGS FOR ALL STRUCTURAL WORK AND ANY WORK AFFECTING THE STRUCTURE TO THE DEPARTMENTAL REPRESENTATIVE. OBTAIN DEPARTMENTAL REPRESENTATIVE APPROVAL 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 (PLUS OTHER DRAWINGS AS NOTED).
 - a) DRAWINGS FOR ANY TEMPORARY WORK.
 - b) DRAWINGS FOR ANY STRUCTURAL PARTS DESIGNED BY THE CONTRACTOR'S FORCES.
 - c) FORMWORK
 - d) CONCRETE REINFORCING
3. SHOP DRAWINGS MUST BE REVIEWED AND STAMPED REVIEWED BY THE CONTRACTOR BEFORE ISSUING TO THE DEPARTMENTAL REPRESENTATIVE. SHOP DRAWINGS NOT STAMPED BY THE CONTRACTOR WILL BE REJECTED. ANY DELAYS IN THE CONSTRUCTION SCHEDULE DUE TO NONCOMPLIANCE WITH THIS REQUIREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. SHOP DRAWINGS ARE REVIEWED FOR CONFORMANCE WITH THE GENERAL DESIGN CONCEPT. THIS REVIEW DOES NOT IMPLY APPROVAL OF THE DETAILED DESIGN OR QUANTITIES DESCRIBED IN THE SHOP DRAWINGS. THE RESPONSIBILITY FOR THE QUANTITIES AND DETAILED DESIGN OF THE MATERIALS AND COMPONENTS AS REQUIRED TO PROVIDE THE COMPLETE AND SATISFACTORY JOB DESCRIBED IN THE DESIGN DOCUMENTS REMAINS WITH THE CONTRACTOR.

D02) FOUNDATIONS

1. SOIL INFORMATION IS LOCATED IN GEOTECHNICAL REPORT NUMBERED OTT-00227292-A0 PREPARED BY EXP. DATED JULY 29, 2015.
2. SOIL NATIVE ASSUMED TO HAVE BEARING CAPACITY OF 75kPa AT SLS, AND 150kPa AT ULS. CONTRACTOR TO RETAIN SERVICES OF GEOTECHNICAL ENGINEER TO CONFIRM PRIOR TO INSTALLATION.
3. THE GEOTECHNICAL REPORT INDICATES THAT SOILS IN THE AREA HAVE A CHANCE OF LIQUEFACTION IN A SEISMIC EVENT. THE OWNER IS TO ACCEPT ALL RESPONSIBILITY OF DAMAGE TO THE WALL SHOULD SUCH AN EVENT TAKE PLACE.
4. REFER TO GEOTECHNICAL REPORT FOR INFORMATION ON EXCAVATION & BACKFILL REQUIREMENTS.

D03) CONCRETE

D03-1 CONCRETE COVER (CLEAR TO REINFORCING): (UNLESS NOTED)

U/S FOOTINGS (AGAINST SOIL)	75mm
FOOTINGS (SIDES & TOP)	50mm
FOUNDATION WALLS	40mm

D03-2 REINFORCING STEEL

1. SPACING OF BARS SHALL BE APPROXIMATELY UNIFORM WITHIN THE CORRESPONDING STRIPS. DO NOT ELIMINATE OR DISPLACE REINFORCEMENT TO ACCOMMODATE HARDWARE. IF INSERTS CANNOT BE LOCATED AS SPECIFIED, OBTAIN APPROVAL OF ALL MODIFICATIONS FROM DEPARTMENTAL REPRESENTATIVE BEFORE THE PLACING OF CONCRETE.
2. WHERE TENSION LAPS ARE SPECIFIED, LAP REINFORCING STEEL IN ACCORDANCE WITH THE REQUIREMENTS OF CAN/A23.3, LATEST EDITION. ALL OTHER LAPS AND EMBEDMENT OF DOWELS SHALL BE 24 BAR DIAMETERS, BUT NOT LESS THAN 600mm IF NOT SPECIFIED OTHERWISE. WIRE MESH LAPS SHALL BE 150mm MINIMUM.

TYPICAL REBAR REQUIREMENTS:

LAPS: AS ON DRAWINGS > 36 BAR DIA. ≥ 1.5 #
> 600mm(24")

D03-3 CONCRETE MIXES

PROPORTION NORMAL DENSITY CONCRETE IN ACCORDANCE WITH CAN/CSA-A23.1, TO GIVE THE FOLLOWING QUALITY FOR ALL CONCRETE AS INDICATED UNLESS OTHERWISE NOTED.

28 DAY LOCATION	STRENGTH	SLUMP	CLASS OF EXPOSURE
SLAB ON GRADE	35 MPa	75mm	C-1
RETAINING WALLS	25 MPa	75mm	F-2

*NOTE: ALL CONCRETE EXPOSED TO EXTERIOR CONDITIONS TO HAVE PROPER AIR ENTRAINMENT. REFER TO CSA A23.1 FOR AIR CONTENT REQUIREMENTS.

READY-MIXED CONCRETE AND CONCRETE PROPORTIONS SHALL BE IN ACCORDANCE WITH CSA A23.1 AND AS FOLLOWS:

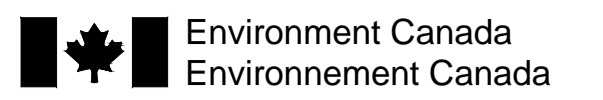
1. IF BLENDED NORMAL PORTLAND CEMENT/CEMENTITIOUS HYDRAULIC SLAG IS USED EXCEPT FOR FLOOR MIXES, SLAG CONTENT SHALL NOT BE MORE THAN 25% OF TOTAL MASS OF CEMENT. TOTAL VOLUME OF CEMENT IN CONCRETE FLOOR MIXES SHALL BE 100% NORMAL PORTLAND CEMENT.
2. PROVIDE CERTIFICATION THAT MIX PROPORTIONS SELECTED WILL PRODUCE CONCRETE OF SPECIFIED QUALITY AND YIELD AND THAT STRENGTH WILL COMPLY WITH CAN/CSA-A23.1
3. USE OF CALCIUM CHLORIDE NOT PERMITTED.
4. DO NOT CHANGE CONCRETE MIX WITHOUT PRIOR APPROVAL OF DEPARTMENTAL REPRESENTATIVE'S. SHOULD CHANGE IN MATERIAL SOURCE BE PROPOSED, NEW MIX DESIGN TO BE APPROVED BY DEPARTMENTAL REPRESENTATIVE'S.

D03-4 CONCRETE WINTER PROTECTION

1. CONTRACTOR IS RESPONSIBLE TO PROVIDE TEMPORARY HEAT, INSULATION MATERIALS OR OTHER MEANS AS REQUIRE TO PROTECT THE MASONRY BLOCKS, GROUT, CONCRETE AND GRANULAR MATERIALS FROM FREEZING DURING THE WORK, IN ACCORDANCE WITH CSA-A23.1.
2. PROTECT SUB-GRADE FROM FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.
3. CONTRACTOR TO PROVIDE PROPOSED METHOD OF PROTECTION FOR OUR REVIEW PRIOR TO COMMENCING THE WORK

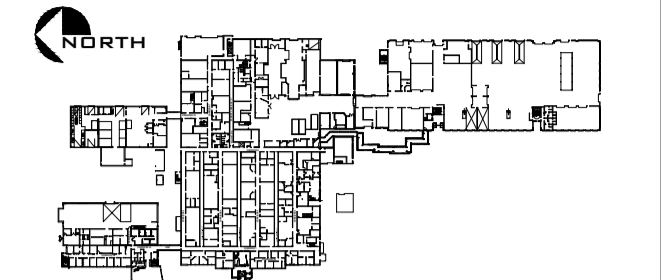
D03-5 FIELD QUALITY CONTROL

1. INSPECTION AND TESTING OF CONCRETE AND CONCRETE MATERIALS WILL BE CARRIED OUT BY AS TESTING LABORATORY DESIGNATED BY THE CLIENT IN ACCORDANCE WITH CAN/CSA-A23.1.
2. AIR ENTRAINMENT TEST AND SLUMP TEST MADE FROM SAME BATCH OF CONCRETE FROM WHICH TEST CYLINDERS ARE MADE.
3. TESTS WILL BE MADE IN ACCORDANCE WITH CSA A23.2.
4. INSPECTION COMPANY'S REPORTS OF TESTS WILL BE FORWARDED TO THE CONSULTANT AND CONTRACTOR WITH AN OPINION OR REASON FOR ANY ABNORMALITIES NOTES THEREON.
5. COOPERATE WITH AND ASSIST INSPECTION COMPANY'S PERSONNEL DURING INSPECTION AND TESTS.
6. REMOVE DEFECTIVE MATERIALS AND COMPLETED WORK WHICH FAILS TESTS AND REPLACE AS DIRECTED BY THE DEPARTMENT REPRESENTATIVE.
7. WHERE WORK OR MATERIALS FAIL TO MEET STRENGTH REQUIREMENTS AS INDICATED BY TEST RESULTS, PAY COSTS OF ADDITIONAL INSPECTION AND TESTING REQUIRED FOR NEW REPLACEMENT WORK OR MATERIALS.
8. NON-DESTRUCTIVE METHODS FOR TESTING CONCRETE SHALL BE IN ACCORDANCE WITH CAN/CSA-A23.2.
9. INSPECTION OR TESTING BY THE DEPARTMENT REPRESENTATIVE WILL NOT AUGMENT OR REPLACE CONTRACTOR QUALITY CONTROL NOR RELIEVE HIM OF HIS CONTRACTUAL RESPONSIBILITY.

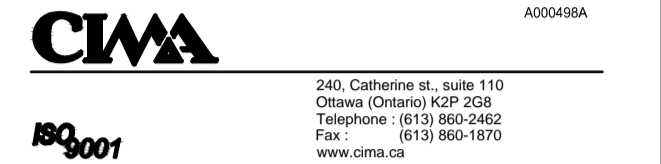


Real Property Management Division
Technical Services

Division Gestion des biens immobiliers
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BUILDING KEY PLAN



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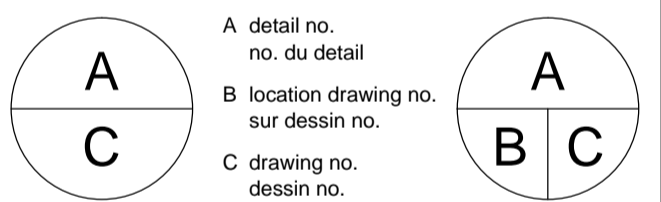


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STAMP SCEAU



02	ISSUED FOR TENDER	2017-12-08
01	ISSUED FOR REVIEW	2017-11-10
REV	Description	Date



project projet

STORAGE UNITS AND GRADING / UNITÉS D'ENTREPOSAGE ET NIVELLEMENT

ENVIRONMENT CANADA
335 River Rd
Ottawa ON. K1V 1C7

drawing dessin

GENERAL NOTES, PARTIAL PLAN, & DETAILS

Designed By S.PYE Conçu par

Drawn By M.EPPICH Dessiné par

Reviewed By C.FLUDE Examiné par

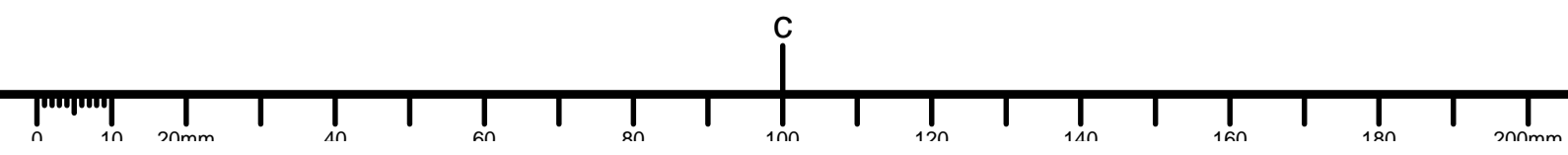
Approved By C.FLUDE Approuvé par

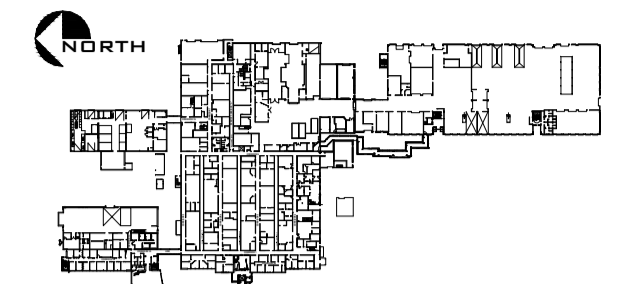
Tender TENDER Soumission

Project Manager GREG MULHOLLAND Administrateur de projets

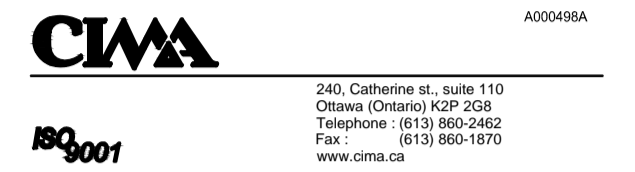
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Drawing no. S000 No. du dessin





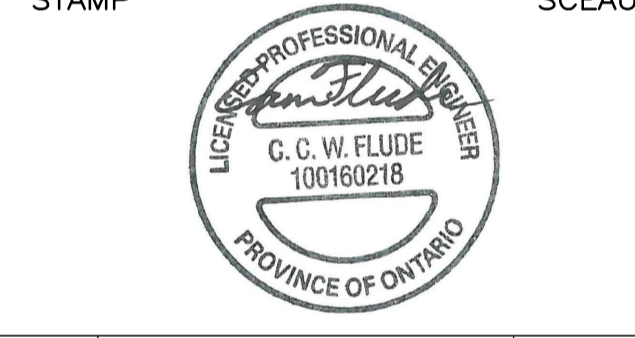
BUILDING KEY PLAN



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REV	Description	Date
02	ISSUED FOR TENDER	2017-12-08
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A	A detail no. / no. du détail	A
B	B location drawing no. / sur dessin no.	B
C	C drawing no. / dessin no.	C

project / projet
STORAGE UNITS AND GRADING / UNITÉS D'ENTREPOSAGE ET NIVELLEMENT
ENVIRONMENT CANADA
335 River Rd
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drawing / dessin

GENERAL NOTES, PARTIAL PLAN, & DETAILS

Designed By / Conçu par: S.PYE

Drawn By / Dessiné par: M.EPPICH

Reviewed By / Examiné par: C.FLUDE

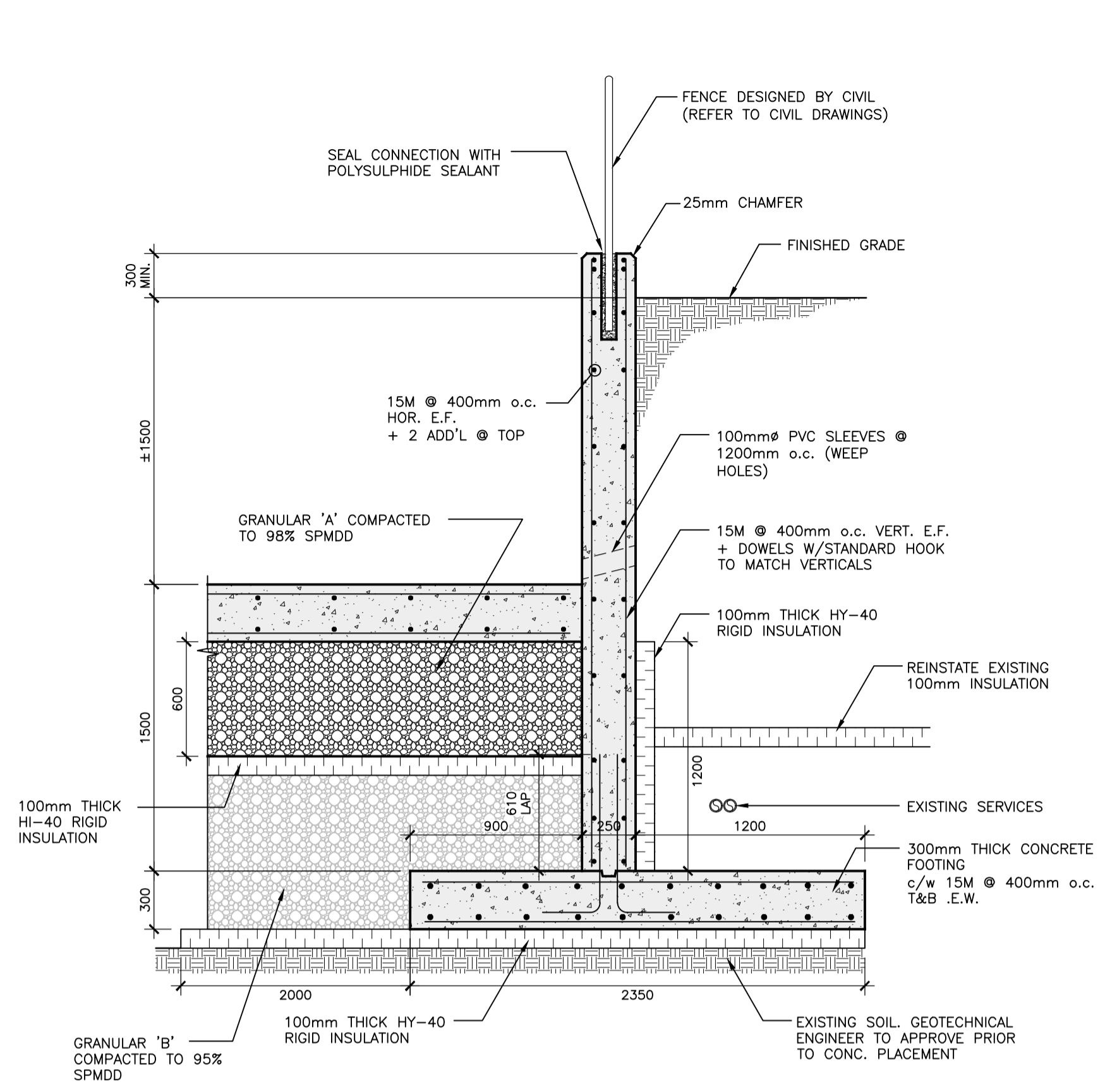
Approved By / Approuvé par: C.FLUDE

Tender / Soumission: TENDER GREG MULHOLLAND

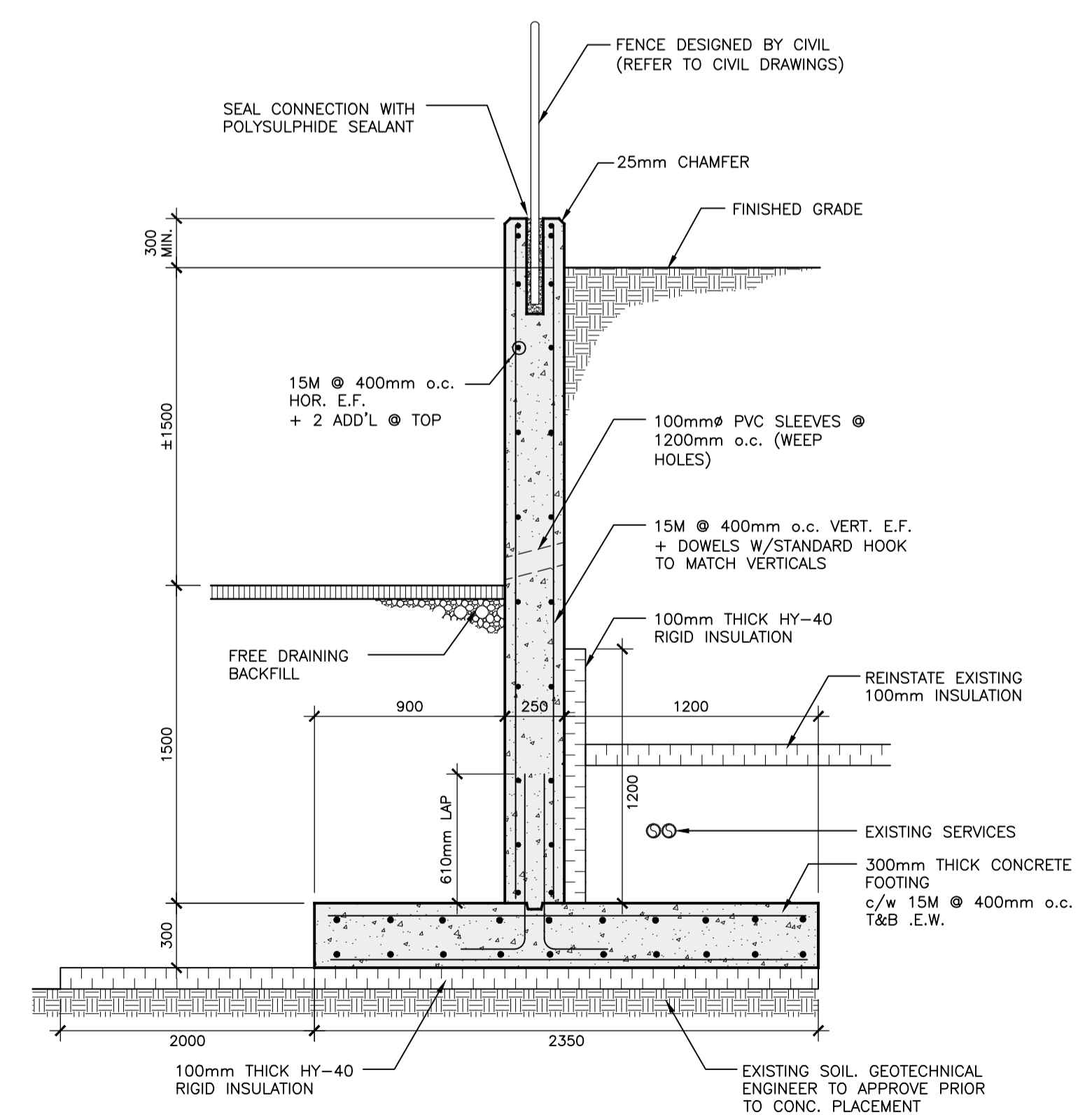
Project Manager / Administrateur de projets: GREG MULHOLLAND

EC PMDI Proj no. / Consultant Proj no.: RR-019B / 14-2209

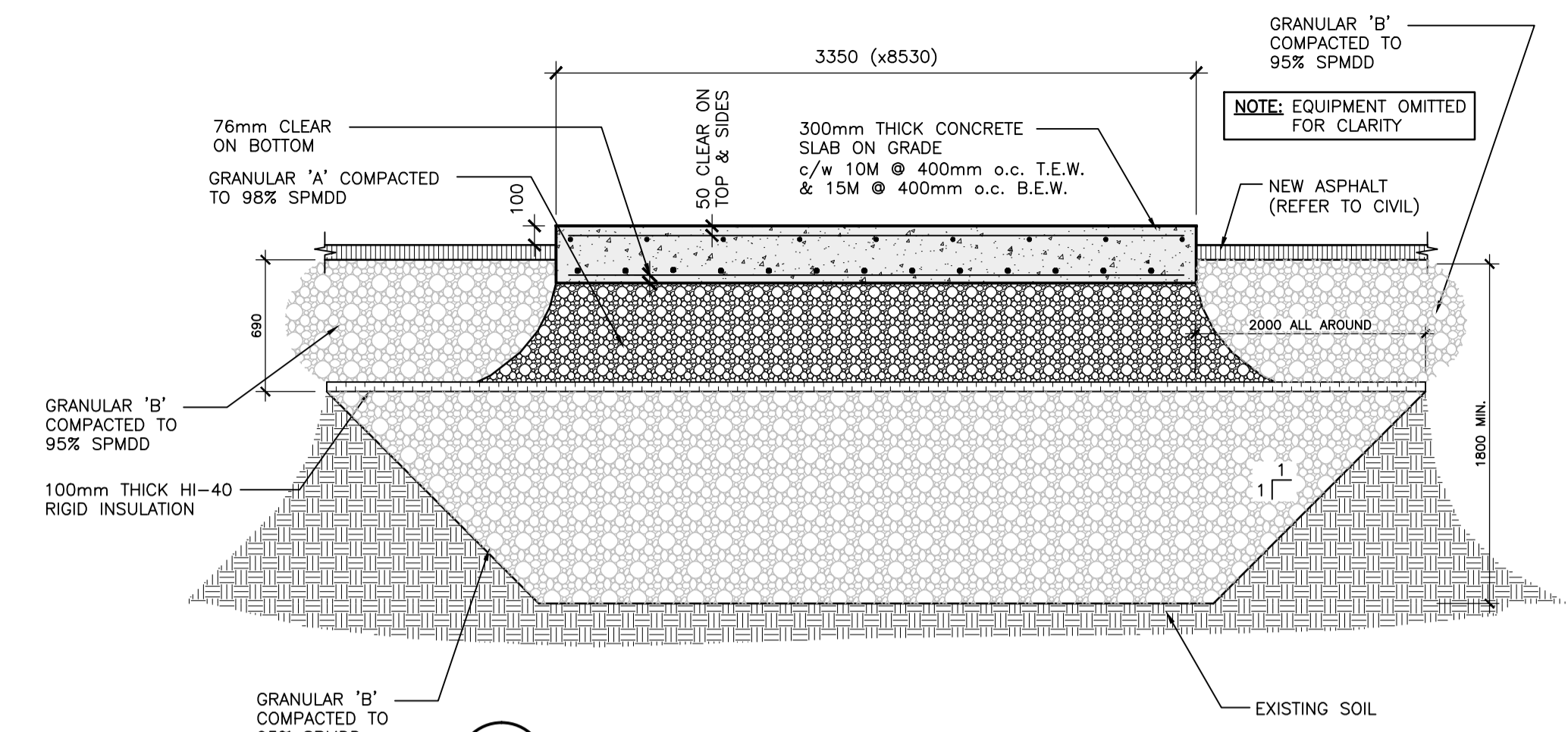
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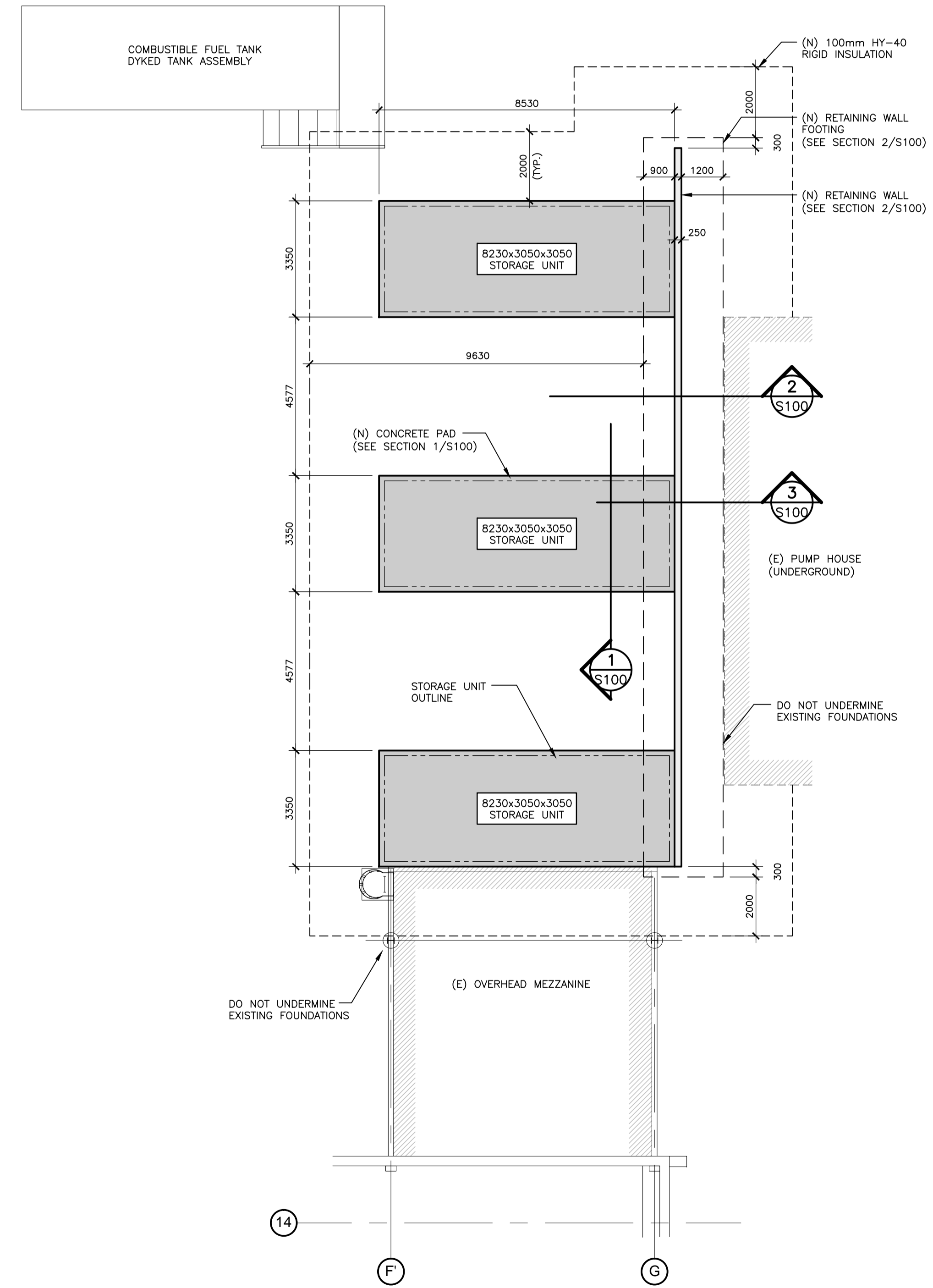
3 SECTION: RETAINING WALL
S100 SCALE: 1:25



2 SECTION: RETAINING WALL
S100 SCALE: 1:25



1 SECTION: CONCRETE SLAB ON GRADE
S100 SCALE: 1:30



PARTIAL PLAN: SITE PLAN FOR NEW STORAGE UNITS
SCALE: 1:100

