



SUPPLEMENTAL INSTRUCTION

CONTRACTOR:
Tal-co Building Innovations
Address:
Suite 2, 1341 Coker Street
Greely, Ontario, K4P 1A1

PROJ.: **Boys and Girls Club Prince of Wales**
PROJ. No.: **1716**
DATE: **Jan 26, 2018**
S.I. No. **S.I. - 009**

Supplemental Instructions are issued to the Construction Manager to record a clarification or revision to the previously issued Contract Documentation as reflected by the attached Information Bulletin prepared by the identified Consultant.

The Construction Manager shall review the Supplemental Instruction and the attached Information Bulletin and issue to the effected Trade Contractors identifying the following course of action by the trade contractor:

- Proceed with Instruction. Issued for general information, no change to Contract price or schedule. (Site Instruction)
- Proceed with Instruction and provide a quotation within 10 days, identifying change to Contract price and schedule (Change Directive)
- Do not proceed. Provide quotation identifying change to Contract price and schedule within 10 days. (CCO)

Partners

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1.1 TITLE

Update to Structural Drawings – Phase 2

1.2 DESCRIPTION OF THE WORK

.1 Provision of additional information and updated drawings related to structural changes on Phase 2.

1.3 ATTACHMENTS

BGCO-PW-IB-S02-A (Phase 2)

1.4 REASON

To provide additional information related to structural changes related to coordination with cost savings and updates to the architectural drawings related to those cost savings.

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Distribution:

- | | | | | |
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Information Bulletin S02-A

Issued to: Hobin Architecture
Inc

JAN 25, 2018

Project: BOYS & GIRLS CLUB OF OTTAWA-ADDITION-1463 PRINCE OF WALES DR

Project No.: 17-007

Architect: Hobin Architecture Inc.

The following clarification and revision items are noted, as they relate to the specifications and drawings previously issued.

STRUCTURAL ITEMS

1. Title: STRUCTURAL REVISIONS

2. Attachments:

.1 S00, S02, S03, S100, S101, S102, S300, S301, S302

3. Description:

- .1 S00 SEISMIC DATA – REVISIONS ARE CLOUDED
- .2 S01 GENERAL NOTES – REVISIONS ARE CLOUDED
- .3 S02 TYPICAL DETAILS – REVISIONS ARE CLOUDED
- .4 S100 FOUNDATION PLAN – REVISIONS ARE CLOUDED
- .5 S101 GROUND FLOOR PLAN – REVISIONS ARE CLOUDED
- .6 S102 ROOF PLAN – REVISIONS ARE CLOUDED
- .7 S300 SECTIONS & DETAILS – NO REVISIONS
- .8 S301 SECTIONS & DETAILS – REVISIONS ARE CLOUDED
- .9 S302 SECTIONS & DETAILS – REVISIONS ARE CLOUDED

4. Comments:

The revisions in this Information Bulletin are part of a cost saving exercise. The major revisions are the change of the gym roof structure from Glulam beams to steel joists and the deletion of the exterior concrete ramps, stairs & foundations. There are however additional cost saving revisions throughout the drawings in this package. Please read in conjunction with the Architectural drawings.

END OF BULLETIN

SEISMIC SYSTEM/LOADING DATA:
MAIN BUILDING
SEISMIC FORCE RESISTING SYSTEM (SFRS)
 SFRS: SYSTEM & CONNECTIONS: (2012 OBC CLAUSE 4.1.8.9/4.1.8.10)
 LATERAL LOAD RESISTING SYSTEM: CONVENTIONAL CONSTRUCTION (MASONRY SHEARWALLS)
 Rd = 1.5
 Ro = 1.5
 CSA STANDARD: CAN/CSA S304.1-04
 APPLICABLE CLAUSE(S): 4.6.3
 SFRS: DIAPHRAGMS & CONNECTIONS: (2012 OBC CLAUSE 4.1.8.15)
 CSA STANDARD: CAN/CSA S16-09
 APPLICABLE CLAUSE(S): 27.11.1 (b)
 SFRS: SYSTEM FOUNDATIONS: (2012 OBC CLAUSE 4.1.8.16)
 CSA STANDARD: CAN/CSA A23.3-04 FOR ANCHORED FOOTINGS
 APPLICABLE CLAUSE(S): 21.11 FOR UNANCHORED FOOTINGS
 CONFIRMATION: FOUNDATIONS HAVE BEEN DESIGNED TO RESIST THE LATERAL LOAD CAPACITY OF THE SFRS INCLUDING ALL APPLICABLE AMPLIFICATION FACTORS
SEISMIC IMPORTANCE FACTOR: (2012 OBC CLAUSE 4.1.8.5)
 Ie = 1.0
PROJECT CITY: (OTTAWA, CITY HALL)
SITE CLASS: THE NOTED SITE CLASSIFICATION FOR SEISMIC SITE RESPONSE AND SHEAR WAVE VELOCITY PARAMETERS INDICATED ARE AS REPORTED IN THE GEOTECHNICAL REPORT No. 61446.15 (MAR 23, 2017 & JUNE 2, 2017) PREPARED BY HOULE CHEVRIER ENGINEERING REFER TO THE NOTED GEOTECHNICAL REPORT FOR V_s, N₆₀, AND/OR S_u VALUES USED TO DETERMINE SITE CLASSIFICATION.
 A B C D E F (SITE SPECIFIC SPECTRUM: OTTAWA, CITY HALL)
 PGA: 0.320
RESPONSE SPECTRUM DATA:
5% DAMPED SPECTRAL RESPONSE ACCELERATION VALUES: (2012 OBC SUPPLEMENT STANDARD SB-1)
 Sa (0.2) = 0.640
 Sa (0.5) = 0.310
 Sa (1.0) = 0.140
 Sa (2.0) = 0.046
DESIGN SPECTRAL RESPONSE ACCELERATION VALUES (DSRAV): (2012 OBC CLAUSE 4.1.8.4)
 CLASS D: (Fo=1.144/Fv=1.36)
 S (0) = 0.732
 S (0.2) = 0.732
 S (0.5) = 0.422
 S (1.0) = 0.190
 S (2.0) = 0.062
 S (4.0) = 0.031
SYSTEM RESTRICTION VALUE: IeFoSa(0.2) = 0.732 ≥ 0.35 YES
 NO
PERIOD DATA:
STATIC PERIOD: (2012 OBC CLAUSE 4.1.8.11(3))
 Ta (STATIC) NS = 0.236 sec
 Ta (STATIC) EW = 0.236 sec
MODAL PERIOD: (2012 OBC CLAUSE 4.1.8.11(3) AND 4.1.8.3(6))
 Ta (MODAL) NS = N/A
 Ta (MODAL) EW = N/A
DESIGN PERIODS/MODE & MOMENT FACTORS: (2012 OBC CLAUSE 4.1.8.11(5))
 Sa(0.2) = 13.9 ≥ 8.0 YES
 Sa(2.0) NO
 Ta (DESIGN) NS = 0.236 sec MV = 1.00 J = 1.00
 Ta (DESIGN) EW = 0.236 sec MV = 1.00 J = 1.00
DESIGN FUNDAMENTAL PERIOD BASED DSRAV:
 S(Ta) NS = 0.695
 S(Ta) EW = 0.695
IRREGULARITY REVIEW (2012 OBC CLAUSE 4.1.8.6)
 1. VERTICAL STIFFNESS: YES NO
 2. WEIGHT: YES NO
 3. VERTICAL GEOMETRIC: YES NO
 4. IN PLANE DISCONTINUITY: YES NO
 5. OUT OF PLANE: YES NO
 6. WEAK STOREY: YES NO
 7. TORSIONAL: YES NO
 B NS = 1.5
 B EW = 1.4
 8. NON-ORTHOGONAL: YES NO
 CONCLUSION: BUILDING IS REGULAR IRREGULAR
 DYNAMIC ANALYSIS: REQUIRED NOT REQUIRED
 DYNAMIC PROCEDURE METHOD: MODAL RESPONSE SPECTRUM NUMERICAL INTEGRATION TIME HISTORY N/A
TORSIONAL ECCENTRICITY: ± 0.10 Dnx (4.1.8.11(10a), B ≤ 1.7 EQUIV. STATIC FORCE PROCEDURE)
 ± 0.10 Dnx (4.1.8.12(4a), B ≥ 1.7)
 ± 0.05 Dnx (4.1.8.12(4b), B < 1.7, 3-D DYNAMIC ANALYSIS)
STRUCTURAL SEPARATION: THE NEW AND EXISTING STRUCTURES HAVE BEEN SEPARATED IN ACCORDANCE WITH 4.1.8.14(1) OF THE 2012 O.B.C.
 N/A
BASE SHEARS/MOMENTS: (2012 OBC CLAUSE 4.1.8.11)
 Vstatic = S(Ta)MvieW/(RdRo) = 1187 kN W = 3840 kN
STATIC MAXIMUM/MINIMUM VALUES:
NORTH-SOUTH: (↑)
 Vmin = S(4.0)MvieW/(RdRo) = 72 kN W = 3840 kN
 Vmax = 2/3 S(0.2)ieW/(RdRo) = 833 kN W = 3840 kN
EAST-WEST: (↔)
 Vmin = S(4.0)MvieW/(RdRo) = 72 kN W = 3840 kN
 Vmax = 2/3 S(0.2)ieW/(RdRo) = 833 kN W = 3840 kN

| SEISMIC LOADS | |
|---|----------------------------------|
| STATIC LOADS | DESIGN LOADS |
| NORTH-SOUTH: (↑) | |
| Vstns = 833 kN W = 3840 kN Mstns = 6580 kNm | Vdns = 833 kN Mdns = 6580 kNm |
| EAST-WEST: (↔) | |
| Vstew = 833 kN W = 3840 kN Mstew = 6580 kNm | Vdew = 833 kN Mdew = 6580 kNm |
| NOTES: 1) DYNAMIC LOAD SCALING FACTOR $S.F. = g \cdot \frac{I_e}{RdRo} = 0.444$ 2) DESIGN LOAD SHEAR VALUES ARE BASED ON THE EVALUATION OF V _{st} AND V _d IN ACCORDANCE WITH 4.1.8.12 (5),(6),(7),(8), AND (9) OF THE 2012 OBC. LOADS INDICATED SHOW THE DESIGN BASE SHEAR AND CORRESPONDING OVERTURNING MOMENT. | |

WIND UPLIFT (REF FIG I-9 NBC 2010 STRUCTURAL COMMENTARY I)
 PNET = 1.4 (pe-p) - 0.9 D
 Pe = Iw q Ce Cp Cg
 Pi = Iw q Ce Cpi Cgi
 z = 1.9 m
 Pf = 1.4 Pw NET - 0.9 Pd
 Pw NET = Pe - Pi
 Pw NET INTERIOR = 0.97 kPa
 Pw NET PERIMETER = 1.22 kPa

DESIGN SNOW LOAD PARAMETERS
 OTTAWA, ONTARIO, CANADA
 S = Is [Ss(CuCWcCo)+Sr]
 Ss = 2.4 kPa
 Sr = 0.4 kPa
 Is = 1.0 FOR NORMAL
 S = 1.0 [2.4(0.8x1.0x1.0)+0.4]
 S = 2.32 kPa

WIND
 (2012 OBC 4.1.7, 2010 NBC COMMENTARY FIGURE I-7 TO I-9)
 P = Iw q Ce Cp Cg
 q = 0.41 kPa
 Iw (uls) = 1.0 Iw (sls) = 0.75
 Ce = VARIES FROM 0.9 TO 1.4
 CpCg = 1.3 OR 1.95

| | N.S. (↑) | E.W. (↔) | UNITS |
|-------|----------|----------|-------|
| VBASE | 172 | 82 | KN |
| MBASE | 1359 | 648 | KN.m |

 NORTH FOR THE PURPOSES OF THIS DATA IS AT THE TOP SIDE OF ALL PLANS IN THIS SET OF DRAWINGS

DRAWING LIST
 S00 SEISMIC DATA
 S01 GENERAL NOTES
 S02 TYPICAL DETAILS
 S100 FOUNDATION PLAN
 S101 GROUND FLOOR PLAN
 S102 ROOF PLAN
 S300 SECTIONS & DETAILS
 S301 SECTIONS & DETAILS
 S302 SECTIONS & DETAILS
 S303 PLATE DETAILS

DELETED

| | | |
|---|----------------------------|-----------|
| 2 | ISSUED WITH IB-S02-A | JAN 25/18 |
| 1 | ISSUED FOR BUILDING PERMIT | OCT 27/17 |

| No. | REVISION | DATE |
|-----|----------|------|
| | | |

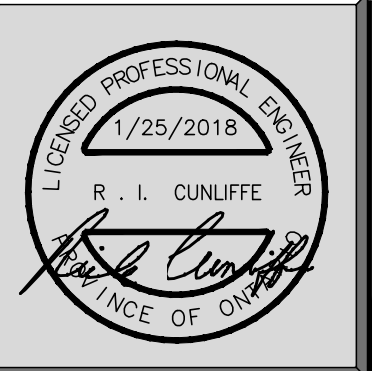
- THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MATERIAL RELEVANT TO THE PROJECT.
- ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH THE DRAWINGS IN THE CONTRACT DOCUMENTS.
- DO NOT SCALE DRAWINGS.

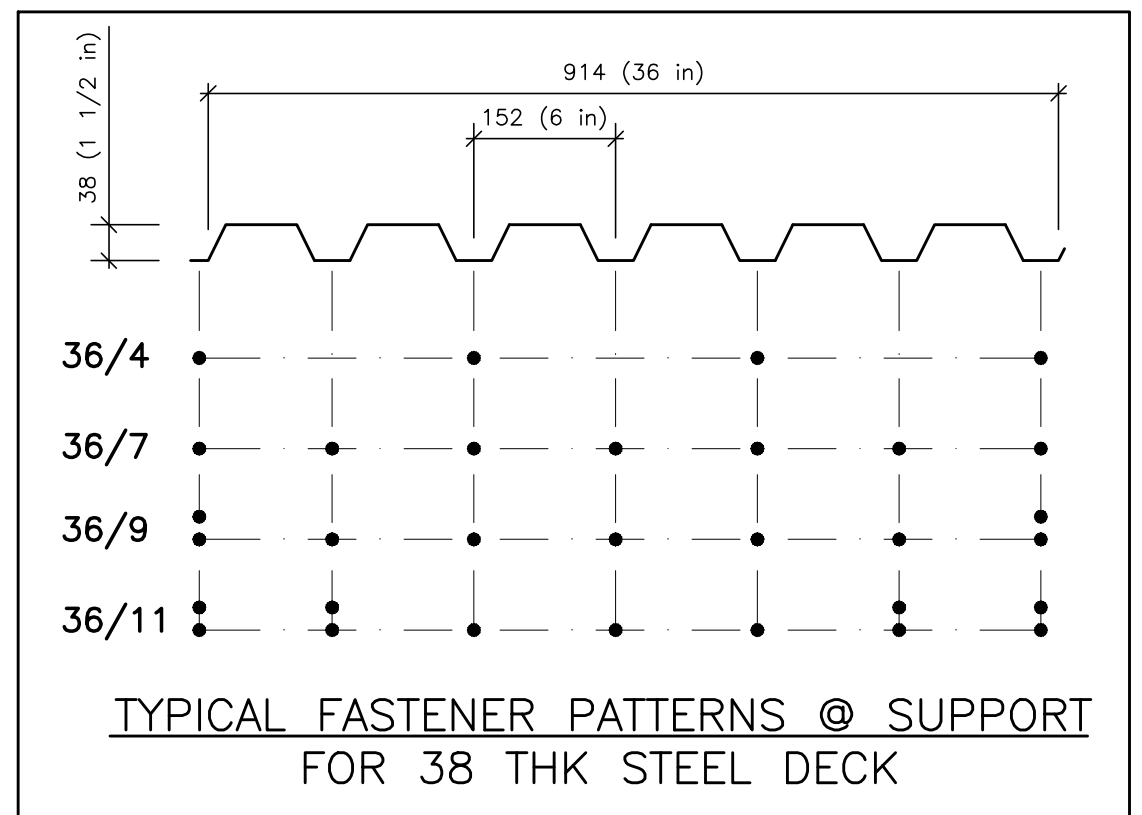
PROJECT
BOYS & GIRLS CLUB OF OTTAWA
1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
SEISMIC DATA

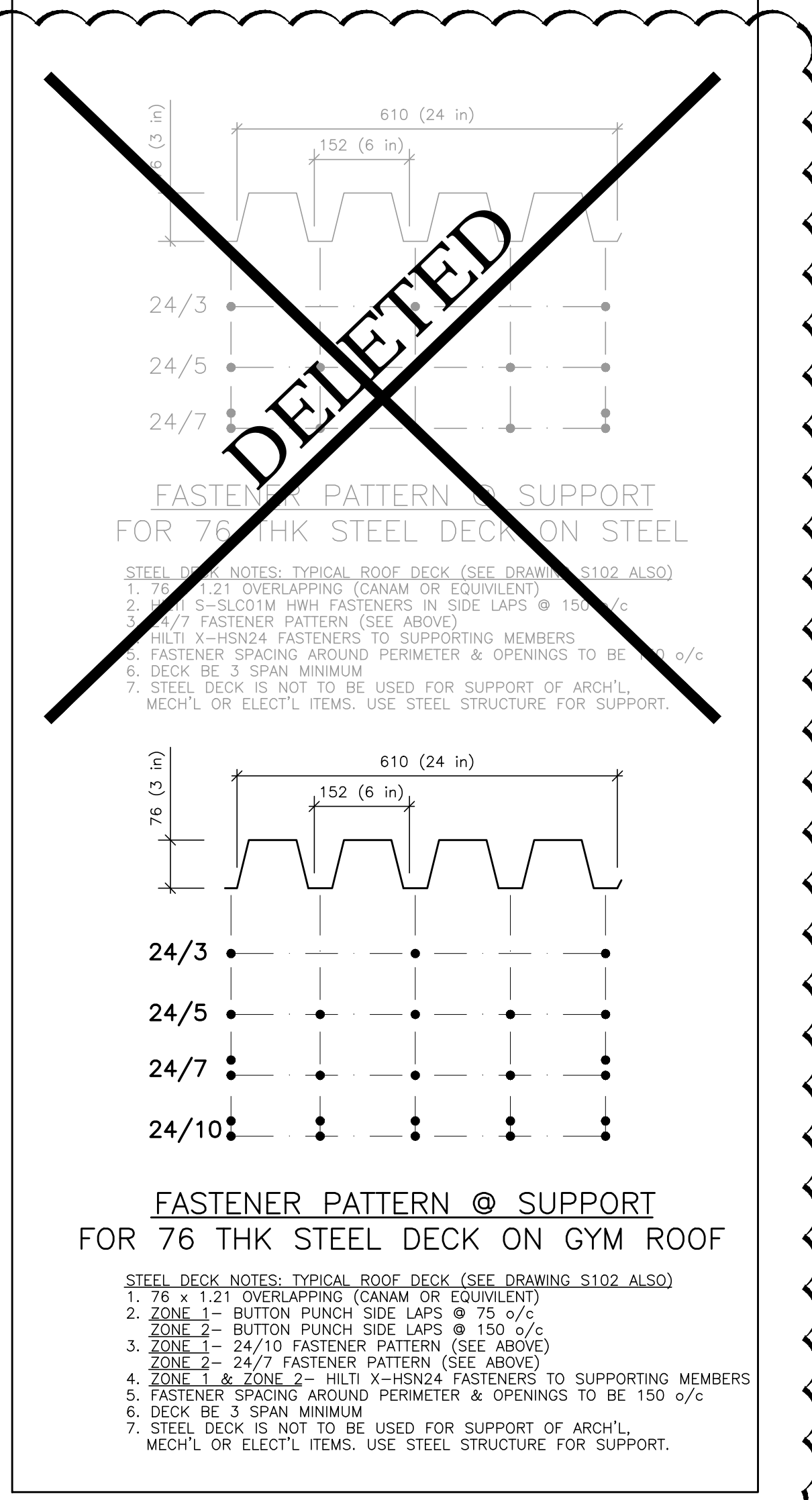
CUNLIFFE
CUNLIFFE & ASSOCIATES
 CONSULTING STRUCTURAL ENGINEERS
 102-1737 WOODWARD DR. OTTAWA ONT. K2C 0P9
 TEL (613) 728-7242 FAX (613) 728-1461
 Email <cunliffe@cunliffe.ca>

| | |
|---|------------------------------|
| ENGINEER'S SEAL | SCALE NOT TO SCALE |
|  | DRAWN RW |
| | REVIEWED RIC |
| | PROJECT NO. 17-007 |
| REVISION NO. | SHEET NO. S00 |



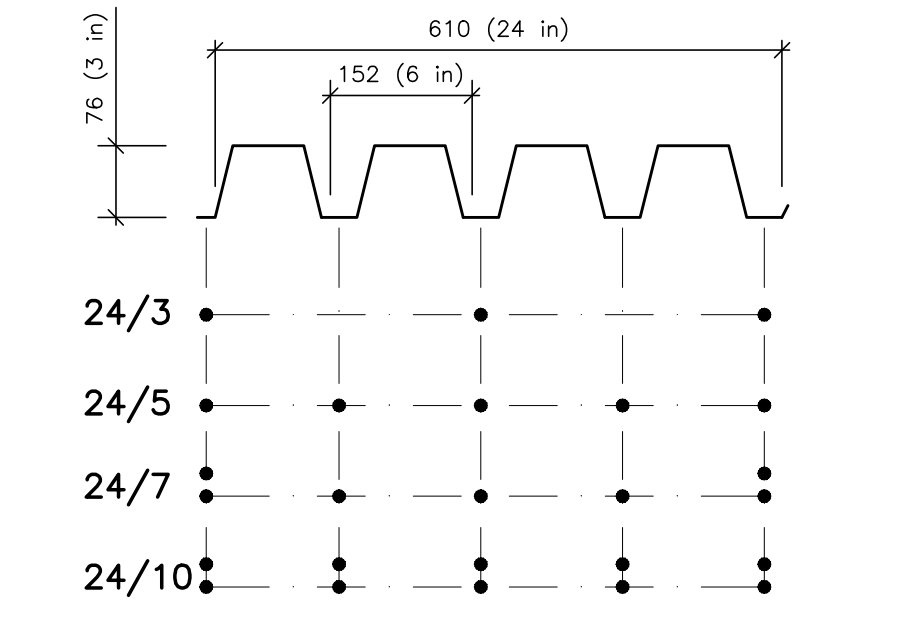
TYPICAL FASTENER PATTERNS @ SUPPORT FOR 38 THK STEEL DECK

- STEEL DECK NOTES: TYPICAL ROOF DECK (SEE DRAWING S102 ALSO)**
- 38 x 0.91 OVERLAPPING (CANAM OR EQUIVALENT)
 - HILTI S-SLOC10M HWH FASTENERS IN SIDE LAPS @ 150 o/c
 - 36/7 FASTENER PATTERN (SEE ABOVE)
 - HILTI X-HSN24 FASTENERS TO SUPPORTING MEMBERS
 - FASTENER SPACING AROUND PERIMETER & OPENINGS TO BE 150 o/c
 - DECK BE 3 SPAN MINIMUM
 - STEEL DECK IS NOT TO BE USED FOR SUPPORT OF ARCH'L, MECH'L OR ELECT'L ITEMS. USE STEEL STRUCTURE FOR SUPPORT.
 - USE ACOUSTIC DECK WHERE NOTED ON PLAN



FASTENER PATTERN @ SUPPORT FOR 76 THK STEEL DECK ON STEEL

- STEEL DECK NOTES: TYPICAL ROOF DECK (SEE DRAWING S102 ALSO)**
- 76 x 1.21 OVERLAPPING (CANAM OR EQUIVALENT)
 - HILTI S-SLOC10M HWH FASTENERS IN SIDE LAPS @ 150 o/c
 - 36/7 FASTENER PATTERN (SEE ABOVE)
 - HILTI X-HSN24 FASTENERS TO SUPPORTING MEMBERS
 - FASTENER SPACING AROUND PERIMETER & OPENINGS TO BE 150 o/c
 - DECK BE 3 SPAN MINIMUM
 - STEEL DECK IS NOT TO BE USED FOR SUPPORT OF ARCH'L, MECH'L OR ELECT'L ITEMS. USE STEEL STRUCTURE FOR SUPPORT.



FASTENER PATTERN @ SUPPORT FOR 76 THK STEEL DECK ON GYM ROOF

- STEEL DECK NOTES: TYPICAL ROOF DECK (SEE DRAWING S102 ALSO)**
- 76 x 1.21 OVERLAPPING (CANAM OR EQUIVALENT)
 - ZONE 1 - BUTTON PUNCH SIDE LAPS @ 75 o/c
 - ZONE 2 - BUTTON PUNCH SIDE LAPS @ 150 o/c
 - ZONE 1 - 24/10 FASTENER PATTERN (SEE ABOVE)
 - ZONE 2 - 24/7 FASTENER PATTERN (SEE ABOVE)
 - ZONE 1 & ZONE 2 - HILTI X-HSN24 FASTENERS TO SUPPORTING MEMBERS
 - FASTENER SPACING AROUND PERIMETER & OPENINGS TO BE 150 o/c
 - DECK BE 3 SPAN MINIMUM
 - STEEL DECK IS NOT TO BE USED FOR SUPPORT OF ARCH'L, MECH'L OR ELECT'L ITEMS. USE STEEL STRUCTURE FOR SUPPORT.

GENERAL NOTES

- ANY DEVIATION FROM THE CONDITIONS SHOWN ON THESE DRAWINGS MUST BE REPORTED TO THE ENGINEER.
- THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF PART 4 OF THE O.B.C. (2012 EDITION) ONTARIO REGULATION 332/12 (AS AMENDED)
- STANDARDS**
 - CSA STANDARD A23.3-04 DESIGN OF CONCRETE STRUCTURES
 - CAN/CSA-S16-09 LIMIT STATES DESIGNS OF STEEL STRUCTURES
 - CSA STANDARD S304.1-04 DESIGN OF MASONRY STRUCTURES
 - CAN/CSA-086-09 ENGINEERING DESIGN IN WOOD
- ANY MODIFICATIONS TO EXISTING STRUCTURES ARE TO BE LIMITED TO WORK NOTED ON THESE DRAWINGS. ANY ADDITIONAL OR PROPOSED MODIFICATIONS TO EXISTING STRUCTURES MUST BE APPROVED BY THE ENGINEER
- FOUNDATIONS**
 - 1 ALL FOOTINGS ARE TO BEAR ON ENGINEERED FILL.
 - 2 BEARING CAPACITY USED IN THE FOOTING DESIGN IS ASSUMED TO BE SLS= 100 kPa/ULS= 200 kPa
 - 3 BEARING SURFACE IS TO BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
 - 4 FOR FURTHER INFORMATION SEE GEOTECHNICAL REPORT No. 61446.15 (MAR 23, 2017 & JUNE 2, 2017) PREPARED BY HOULE, CHEVRIER ENGINEERING
 - 5 STEP FOOTINGS WHERE INDICATED ON PLAN AT THE RATE OF 2 HORIZONTAL TO 1 VERTICAL.
- SLABS ON GRADE**
 - 1 SLABS ON GRADE TO BE UNREINFORCED UNLESS NOTED.
 - 2 FOR COMPOSITION & COMPACTION OF FILL SUPPORTING SLABS ON GRADE SEE GEOTECHNICAL REPORT.
 - 3 PROVIDE 12 mm ASPHALT IMPREGNATED FIBREBOARD BETWEEN SLABS ON GRADE & FOUNDATION WALLS OR COLUMNS.
 - 4 SAWCUT SLAB ON GRADE TO (1/4 x SLAB DEPTH) @ 8 HOURS AFTER CONCRETE PLACEMENT.
 - 5 SPACE SAWCUTS ON A 4500 mm x 4500 mm MAXIMUM GRID. AVOID LONG & NARROW SAWCUT PATTERNS. LOCATE SAWCUTS ALONG COLUMN LINES WHERE POSSIBLE. CONTRACTOR IS TO PROVIDE THE ENGINEER WITH DOCUMENTATION SHOWING PROPOSED SAWCUT LOCATIONS FOR APPROVAL UNLESS SAWCUT LOCATIONS ARE OTHERWISE INDICATED ON THESE DRAWINGS.
- MATERIALS**
 - 1 CONCRETE STRENGTH AT 28 DAYS TO BE AS NOTED ON DRAWINGS AND SPECIFICATIONS.
 - 2 REINFORCING STEEL TO BE DEFORMED GRADE 400R WITH $F_y = 400$ MPa.
 - 3 HOLLOW STRUCTURAL STEEL SECTIONS TO BE ASTM A500 GRADE C OR G40.21 350W CLASS C.
 - 4 ALL "W" SHAPE STEEL SECTIONS TO BE GRADE G40.21 350W WITH $F_y = 350$ MPa.
 - 5 ALL OTHER STRUCTURAL STEEL TO BE GRADE G40.21 300W WITH $F_y = 300$ MPa UNLESS NOTED OTHERWISE.
 - 6 ALL STRUCTURAL STEEL TO RECEIVE 1 SHOP APPLIED COAT OF PRIMER UNLESS NOTED.
 - 7 ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR IS TO BE HOT DIP GALVANIZED UNLESS NOTED.
 - 8 ANCHOR BOLTS TO BE A307.
 - 9 ALL OTHER BOLTS TO BE A325.
 - 10 A325 BOLTS EXPOSED TO EXTERIOR ARE TO BE STAINLESS STEEL.
 - 11 A307 BOLTS EXPOSED TO EXTERIOR ARE TO BE GALVANIZED.
 - 12 CONCRETE BLOCK TO BE 1/15/A/M & IMPERIAL VERSION
 - 13 CONCRETE BLOCK MASONRY MORTAR TO BE 8.5 MPa TYPE 'S' U/N.
 - 14 CONCRETE BLOCK MASONRY GROUT TO BE 12 MPa "HIGH SLUMP" (200-250 mm SLUMP)
- CONCRETE COVER**
 - 1 FOOTINGS: 75 mm BOTTOM, 50 mm SIDES
 - 2 WALLS: 40 mm UNLESS NOTED OTHERWISE
- REINFORCING STEEL DESIGNATION**
 - 8-20M x 1500 T/B
 - B = NUMBER OF BARS
 - 20M = SIZE OF BARS
 - 1500 = LENGTH OF BARS
 - T = BAR LOCATION - TOP
 - B = BAR LOCATION - BOT
 - LENGTH OF BARS DOES NOT INCLUDE HOOKS OR BENDS
- DOWELS**
 - DOWELS TO FOOTINGS TO BE OF SAME DIAMETER AS THE LOWEST LIFT OF VERTICAL REINFORCING IN COLUMNS, PIERS OR WALLS.
- REINFORCING STEEL SPLICES**
 - REINFORCING STEEL SPLICES TO BE AS NOTED IN REINFORCING BAR LAP LENGTH TABLE ON 501 U/N.
- OPENINGS**
 - 1 AT OPENINGS IN WALLS PROVIDE 2-20M T & B OF OPENING EXTENDING 600 mm MIN. BEYOND CORNERS OF OPENINGS.
 - 2 FOR ADDITIONAL OPENINGS 300 x 300 OR SMALLER SEE ARCHITECTURAL & MECHANICAL DRAWINGS.
 - 3 REPORT ANY OPENINGS LARGER THAN 300 x 300 NOT SHOWN ON THESE DRAWINGS TO THE ENGINEER.
- LOADS**
 - ALL LOADS & FORCES INDICATED ON THESE DRAWINGS ARE UNFACTORED WORKING LOADS UNLESS NOTED.
- CONCRETE BLOCK MASONRY**
 - 1 140 mm CONCRETE BLOCK
VERT: 1-15M @ 800 o/c
HORIZ: HL2 @ 400 o/c
 - 2 190 mm CONCRETE BLOCK
VERT: 1-15M @ 800 o/c
HORIZ: HL2 @ 200 o/c
 - 3 240 mm CONCRETE BLOCK
ALL WALL LOCATIONS UNLESS NOTED BELOW
VERT: 1-20M @ 600 o/c
HORIZ: HL2 @ 200 o/c
ADDN'L AT BLOCK BELOW CORNER WINDOWS 20M @ 800 o/c IN LOW WEB BLOCK
WALL LOCATED ON GRID 1x BETWEEN GRIDS M & N
VERT: 1-20M @ 800 o/c
HORIZ: HL2 @ 200 o/c
WALL LOCATED ON GRID 8b BETWEEN GRIDS N & k
VERT: 1-20M @ 800 o/c
HORIZ: HL2 @ 200 o/c
- LEGEND**
 - S- STANDARD 9 GAUGE LONGITUDINAL & CROSS WIRES
 - H- HEAVY 5 mm LONGITUDINAL WIRES
9 GAUGE CROSS WIRES
 - L- LADDER TYPE REINFORCEMENT
 - T- TRUSS TYPE REINFORCEMENT
 - 2- 2 LONGITUDINAL WIRES
- SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR TYING MASONRY TO BACK UP WALLS.
- SPECIAL WALLS - SEE NOTES ON PLANS FOR ADDITIONAL REINFORCING AND GROUTING OTHER THAN INDICATED ABOVE
- REINFORCE CELLS @ END OF WALLS AT INTERSECTING WALLS & BESIDE OPENINGS.
- GROUT MASONRY SOLID BELOW BEARING BASE PLATES FOR 500mm MIN.
- PROVIDE A CONCRETE BOND BEAM COURSE c/w 1-20M CONT. USING LOW WEB BLOCKS AT THE TOP OF WALLS AND AT EACH FLOOR LEVEL U/N. GROUT COURSE SOLID.
- PROVIDE 1-20M CORNER BAR (750 BEND x 750 BEND) AT AT CONCRETE BOND BEAM COURSES @ BLOCK WALL INTERSECTIONS.
- PROVIDE "CLEAN OUTS" AT BOTTOM OF CELLS TO BE GROUTED TO ENSURE PROPER LAP LENGTH AND THAT CELL IS FILLED SOLIDLY. MAXIMUM GROUT LIFT IS 3 metres.
GROUT TO HAVE 250mm SLUMP
- EMBEDMENT OF MASONRY DOWELS IN CONCRETE STRUCTURE BELOW CONCRETE BLOCK WALLS TO BE AS FOLLOWS:
15M DOWELS = 600 mm EMBEDMENT - 1300 Lg. DOWEL
20M DOWELS = 800 mm EMBEDMENT - 1700 Lg. DOWEL
- BLOCK CONTROL JOINT SPACED AT 9000 mm MAXIMUM VENEER CONTROL JOINT SPACED AT 12000 mm MAXIMUM COORDINATE LOCATION OF JOINTS WITH ARCHITECT & ENGINEER
- LEGEND**
 - B = BOTTOM
 - B1 = BOTTOM LOWER LAYER
 - B2 = BOTTOM UPPER LAYER
 - BL1 = BOTTOM LOWER LAYER
 - BL2 = BOTTOM UPPER LAYER
 - BBP1 = BEAM (OR OWS) BEARING PLATE NUMBER
 - BUL = BOTTOM UPPER LAYER
 - CONT = CONTINUOUS
 - DP = DEPTH
 - DWL = DOWELS
 - EF = EACH FACE
 - EL = ELEVATION
 - ES = EACH SIDE
 - EW = EACH WAY
 - F1 = PAD FOOTING NUMBER
 - H = HORIZONTAL
 - (H) = HOOKED BAR
 - O/C = ON CENTER
 - SC1 = STEEL COLUMN NUMBER
 - T = TOP
 - T1 = TOP UPPER LAYER
 - T2 = TOP LOWER LAYER
 - TLL = TOP LOWER LAYER
 - TUL = TOP UPPER LAYER
 - U/N = UNLESS NOTED OTHERWISE
 - V = VERTICAL
 - WB1 = WOOD CONNECTOR BRACKETS
 - WF1 = WALL FOOTING NUMBER
 - WP1 = WOOD POST

DESIGN & DETAILING CRITERIA FOR SUPPLIERS

- STRUCTURAL STEEL CONNECTIONS**

STRUCTURAL STEEL CONNECTIONS ARE TO BE DESIGNED AND DETAILED BY STRUCTURAL STEEL SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO THE DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED 'FOR CONNECTIONS ONLY' BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. INSPECTION OF WELDS, CONNECTIONS & INSTALLATION IS TO BE UNDERTAKEN BY A 3RD PARTY, CERTIFIED INSPECTION SERVICE.
- COLD FORMED STEEL STUDS & JOISTS**

STEEL STUDS & JOISTS ARE TO BE DESIGNED AND DETAILED BY STEEL STUDS & JOISTS SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL STEEL STUD & JOIST WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE STEEL STUD & JOIST DESIGN ENGINEER.
- MISCELLANEOUS METALS**

MISC METALS ARE TO BE DESIGNED AND DETAILED BY MISC METALS SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL MISC METAL WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE MISC METALS DESIGN ENGINEER.
- GUARDS & HANDRAILS**

GUARDS & HANDRAILS ARE TO BE DESIGNED AND DETAILED BY STEEL SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL GUARDS & HANDRAIL WORK IS TO BE INSPECTED DURING CONSTRUCTION BY THE GUARD & HANDRAIL DESIGN ENGINEER. NOTE THAT IT IS NOT ACCEPTABLE TO CORE CONCRETE FOR POST INSTALLATIONS.
- SEISMIC RESTRAINT OF MECH'L EQUIPMENT & PIPING**

SEISMIC RESTRAINT OF MECH'L EQUIPMENT & PIPING TO BE DETAILED BY MECH'L EQUIPMENT & PIPING SUPPLIER OR CONTRACTOR. SHOP DRAWINGS ARE TO BE SUBMITTED TO CUNLIFFE & ASSOCIATES FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL SEISMIC RESTRAINT INSTALLATIONS ARE TO BE INSPECTED DURING CONSTRUCTION BY THE DESIGN ENGINEER OF RECORD
- CONCRETE BLOCK MASONRY WALLS-CONSTRUCTION BRACING**

ALL LOAD BEARING CONCRETE BLOCK MASONRY WALLS ARE TO BE LATERALLY BRACED DURING CONSTRUCTION UNTIL STRUCTURE AND DIAPHRAGM IS CONSTRUCTED ON WALL. ALL NON LOAD BEARING CONCRETE BLOCK MASONRY WALLS ARE TO BE LATERALLY BRACED DURING CONSTRUCTION UNTIL PERIMETER LATERAL BRACING IS INSTALLED AS PER TYPICAL DETAILS AND/OR SECTIONS.
LATERAL CONSTRUCTION BRACING DRAWINGS ARE TO BE SUBMITTED TO CUNLIFFE & ASSOCIATES FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
- SEISMIC RESTRAINT OF SUSPENDED CEILINGS**

SEISMIC RESTRAINT OF SUSPENDED CEILINGS TO BE DETAILED BY CEILING SUPPLIER OR CONTRACTOR. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL SEISMIC RESTRAINT INSTALLATIONS ARE TO BE INSPECTED DURING CONSTRUCTION BY THE DESIGN ENGINEER OF RECORD
- TEMPORARY SHORING (FOR DEMOLITION AND/OR CONSTRUCTION)**

TEMPORARY SHORING FOR THE PURPOSES OF DEMOLITION AND/OR CONSTRUCTION IS TO BE DESIGNED & DETAILED BY A PROFESSIONAL ENGINEER LICENSED IN ONTARIO. SHOP DRAWINGS ARE TO BE SUBMITTED TO THE DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. PERMIT REVIEW OF TEMPORARY SHORING BY CUNLIFFE & ASSOCIATES PRIOR TO COMMENCEMENT OF CONSTRUCTION AND/OR DEMOLITION AND ALSO PRIOR TO REMOVAL OF TEMPORARY SHORING.
- GLULAM MEMBER CONNECTIONS**

SUPPORTS FOR CURTAIN WALLS ARE TO BE DESIGNED AND DETAILED BY GLULAM MEMBER SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED 'FOR CONNECTIONS ONLY' BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. INSPECTION OF CONNECTIONS & INSTALLATION IS TO BE UNDERTAKEN BY THE GLULAM MEMBER DESIGN ENGINEER.
- CURTAIN WALLS**

SUPPORTS FOR CURTAIN WALLS ARE TO BE DESIGNED AND DETAILED BY CURTAIN WALL SUPPLIER. SHOP DRAWINGS ARE TO BE SUBMITTED TO DESIGN TEAM FOR REVIEW. SHOP DRAWINGS ARE TO BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO. ALL SUPPORTS ARE TO BE INSPECTED DURING CONSTRUCTION BY THE SUPPORT DESIGN ENGINEER.

NOTE:
INSPECTION REPORTS CREATED AS A RESULT OF THE ABOVE NOTED WORK MUST BE SUBMITTED TO THE CONSTRUCTION MANAGER. CONSTRUCTION MANAGER IS TO PROVIDE COPIES TO THE CONSULTANTS.

CONCRETE BLOCK MASONRY WALLS

REINFORCING BAR LAP LENGTH TABLE

| HJR | REINFORCING BAR LAP LENGTH (mm) | | | | |
|-----|---------------------------------|-----|-----|------|------|
| | 10M | 15M | 20M | 25M | 30M |
| 300 | 525 | 750 | 925 | 1450 | 1725 |

FOR SPECIAL CONDITIONS MULTIPLY THE VALUES LISTED ABOVE BY THE FOLLOWING FACTORS:
1. EPOXY COATED REINFORCING (X 1.5)
2. HORIZONTAL REINFORCING WITH >300 mm GROUT BELOW (X 1.3)
3. FOR CONDITIONS 1 & 2 OCCURRING SIMULTANEOUSLY (X 1.7)

REINFORCING BAR LAP LENGTH TABLE

| CONCRETE STRENGTH (MPa) | REINFORCING BAR LAP LENGTH (mm) | | | | |
|-------------------------|---------------------------------|-----|-----|------|------|
| | 10M | 15M | 20M | 25M | 30M |
| 20 | 475 | 700 | 850 | 1325 | 1575 |
| 25 | 425 | 600 | 750 | 1200 | 1400 |
| 30 | 400 | 550 | 675 | 1100 | 1275 |
| 35 | 375 | 525 | 625 | 1000 | 1200 |

FOR SPECIAL CONDITIONS MULTIPLY THE VALUES LISTED ABOVE BY THE FOLLOWING FACTORS:
1. EPOXY COATED REINFORCING (X 1.5)
2. HORIZONTAL REINFORCING WITH >300 mm CONCRETE BELOW (X 1.3)
3. FOR CONDITIONS 1 & 2 OCCURRING SIMULTANEOUSLY (X 1.7)

| No. | REVISION | DATE |
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| 2 | ISSUED WITH IB-SO2-A | JAN 25/18 |
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- DO NOT SCALE DRAWINGS.

PROJECT
BOYS & GIRLS CLUB OF OTTAWA
1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
GENERAL NOTES

CUNLIFFE
CUNLIFFE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
102-1737 WOODWARD DR. OTTAWA ONT. K2C 0P9
TEL (613) 728-7242 FAX (613) 728-1461
Email <cunliffe@cunliffe.ca>

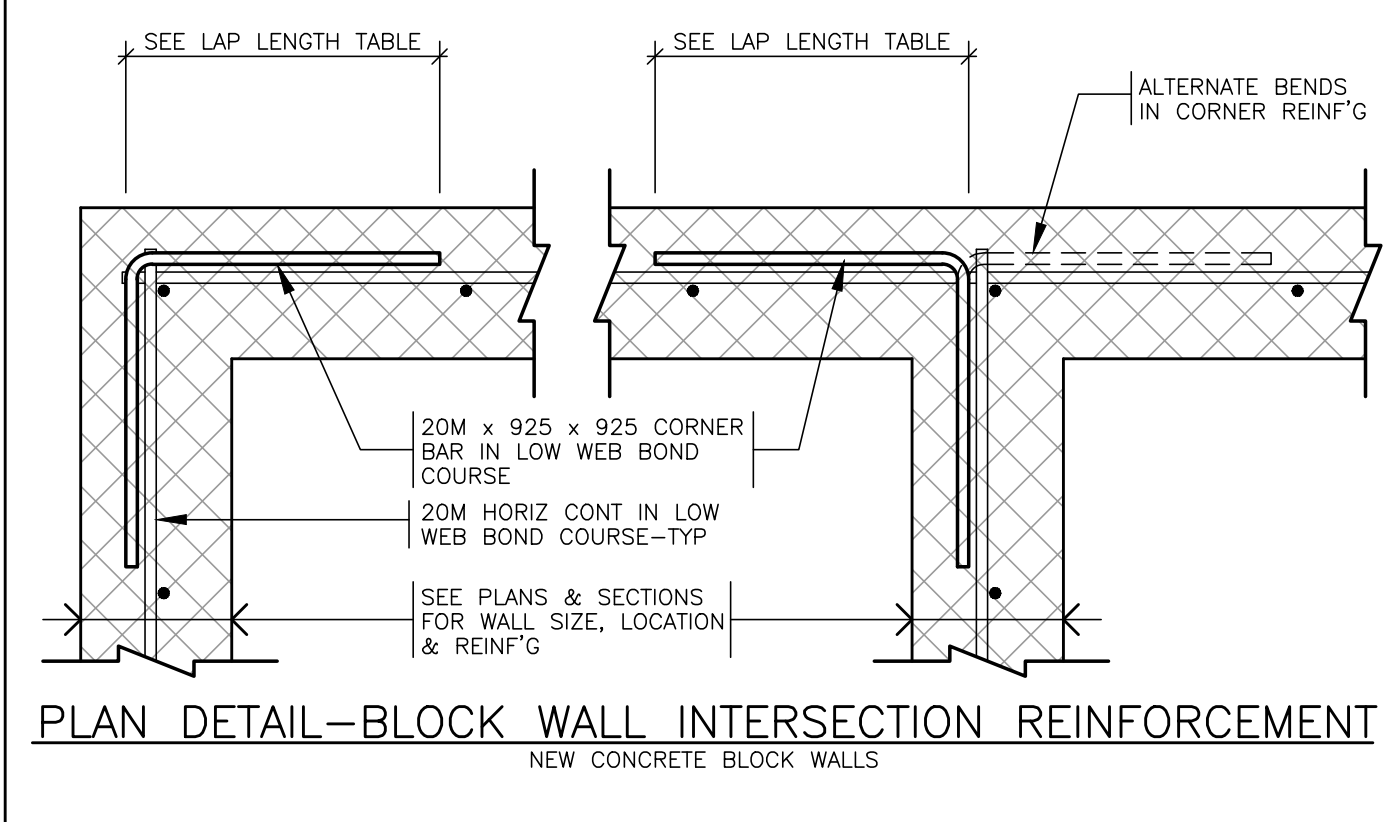
ENGINEER'S SEAL: R. I. CUNLIFFE, 1/25/2018, PROFESSIONAL ENGINEER, PROVINCE OF ONTARIO

SCALE: NOT TO SCALE

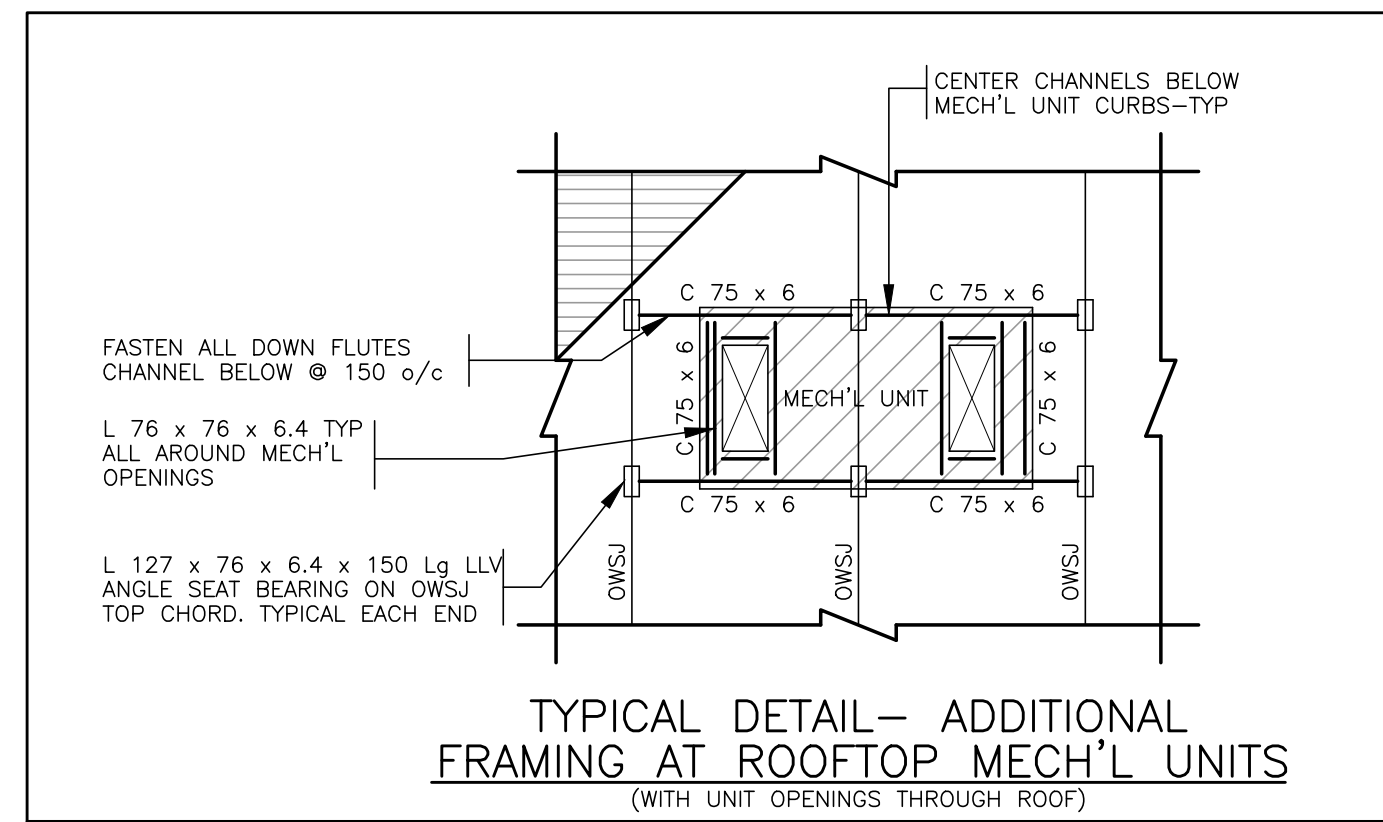
DRAWN: RW, REVIEWED: RIC

PROJECT NO: 17-007, SHEET NO: S01

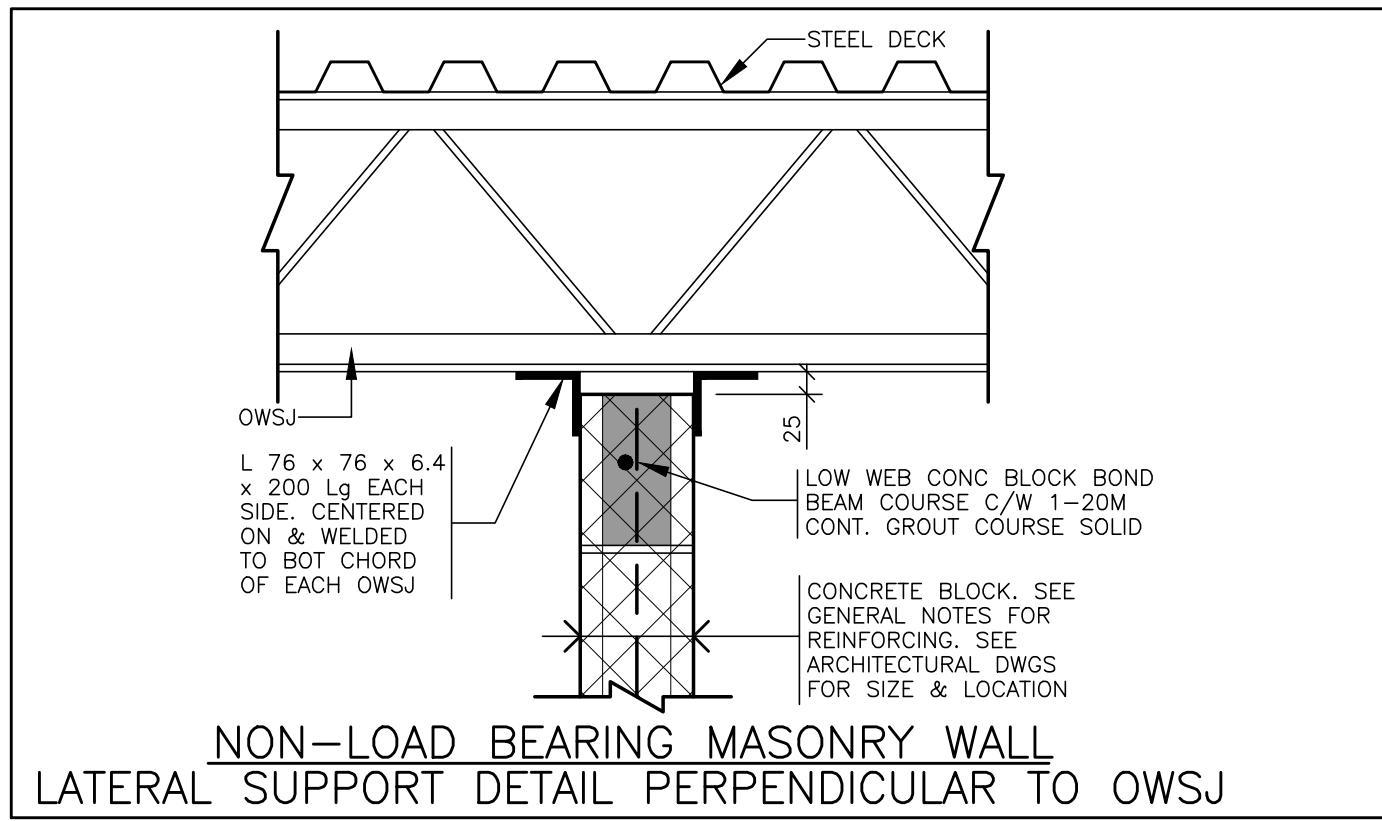
REVISION NO: []



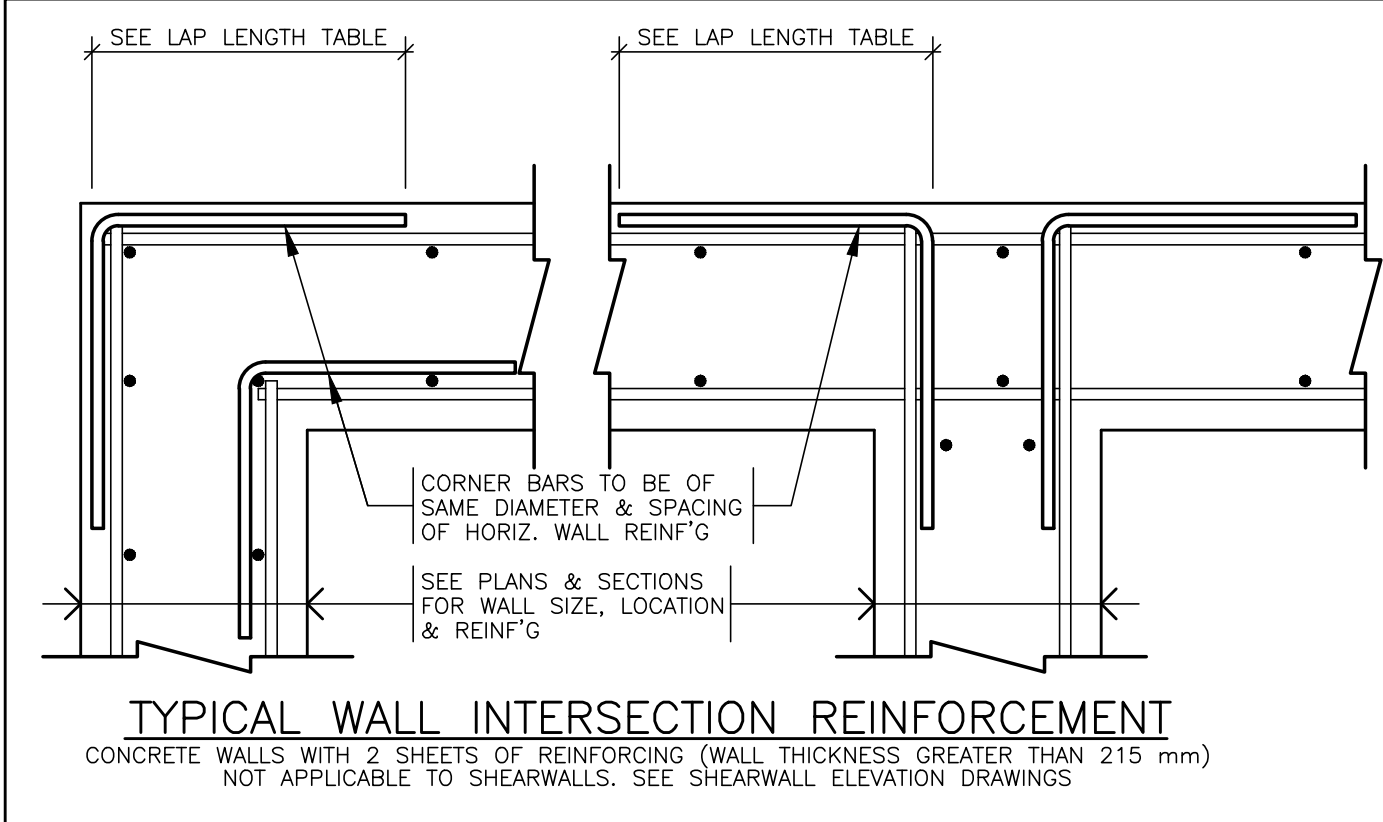
PLAN DETAIL-BLOCK WALL INTERSECTION REINFORCEMENT
NEW CONCRETE BLOCK WALLS



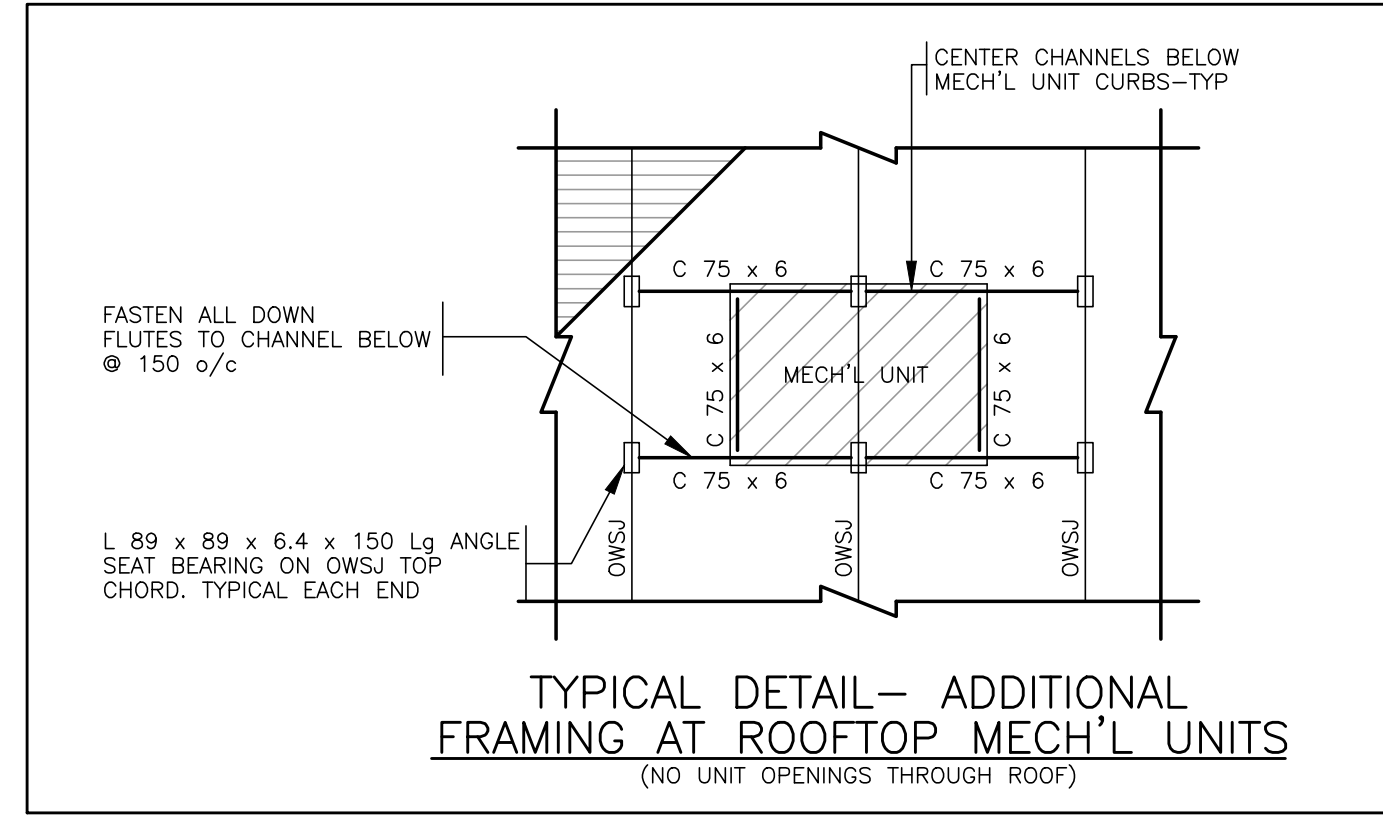
TYPICAL DETAIL- ADDITIONAL FRAMING AT ROOFTOP MECH'L UNITS
(WITH UNIT OPENINGS THROUGH ROOF)



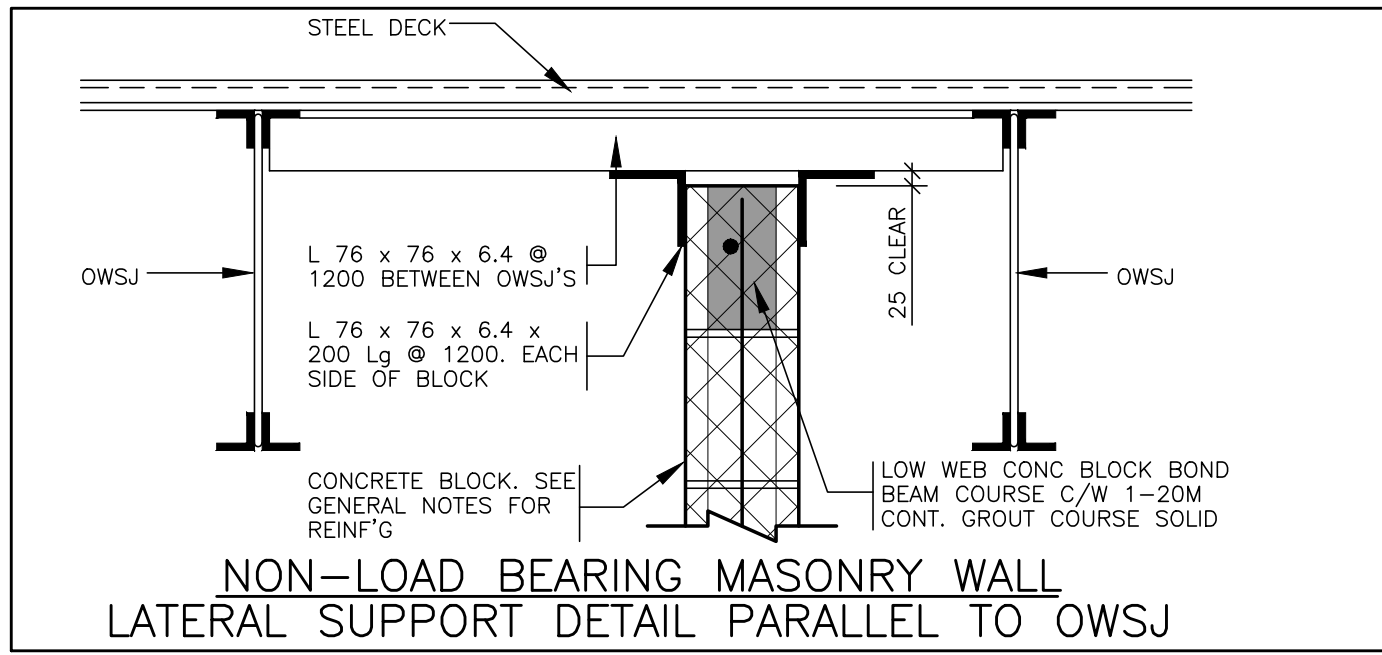
NON-LOAD BEARING MASONRY WALL LATERAL SUPPORT DETAIL PERPENDICULAR TO OWSJ



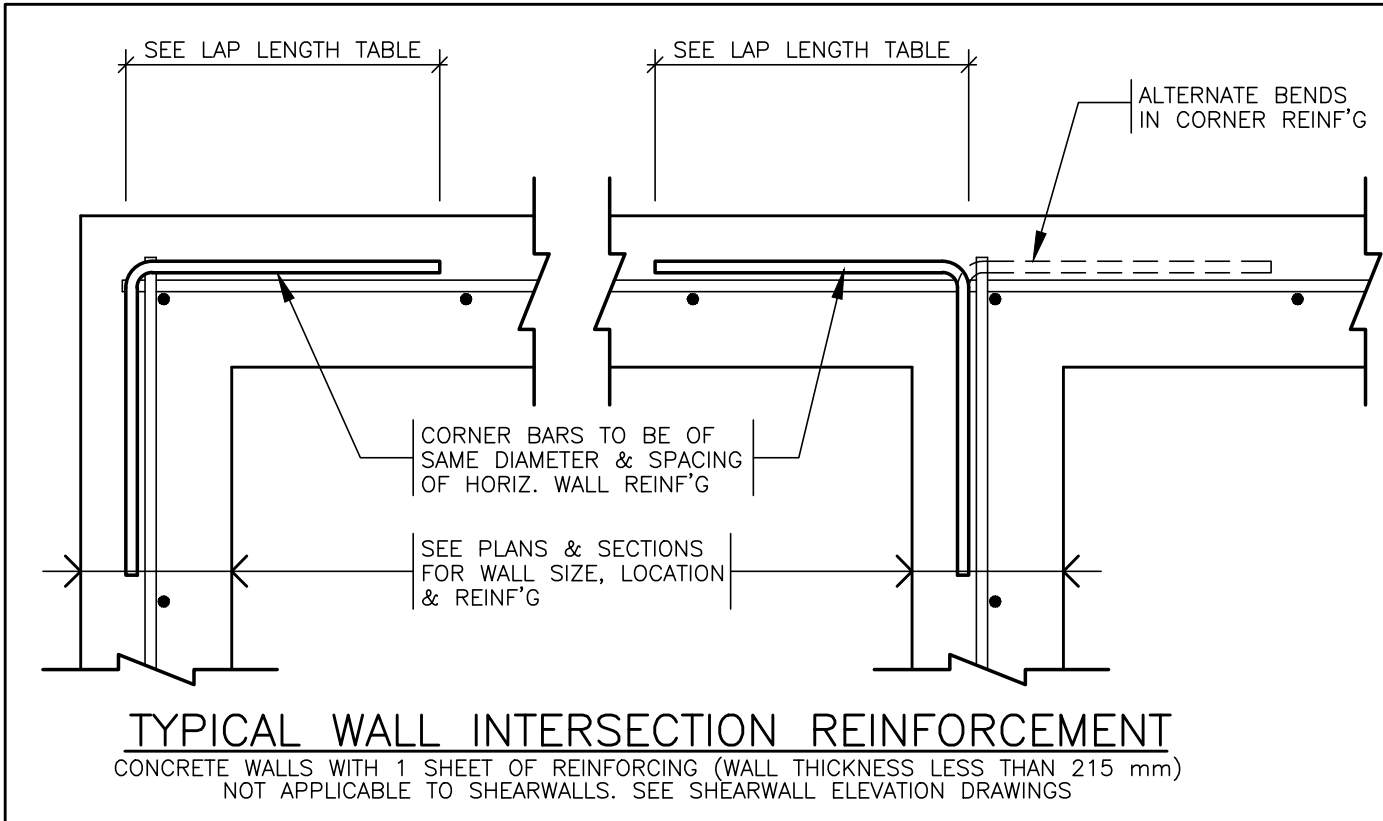
TYPICAL WALL INTERSECTION REINFORCEMENT
CONCRETE WALLS WITH 2 SHEETS OF REINFORCING (WALL THICKNESS GREATER THAN 215 mm)
NOT APPLICABLE TO SHEARWALLS. SEE SHEARWALL ELEVATION DRAWINGS



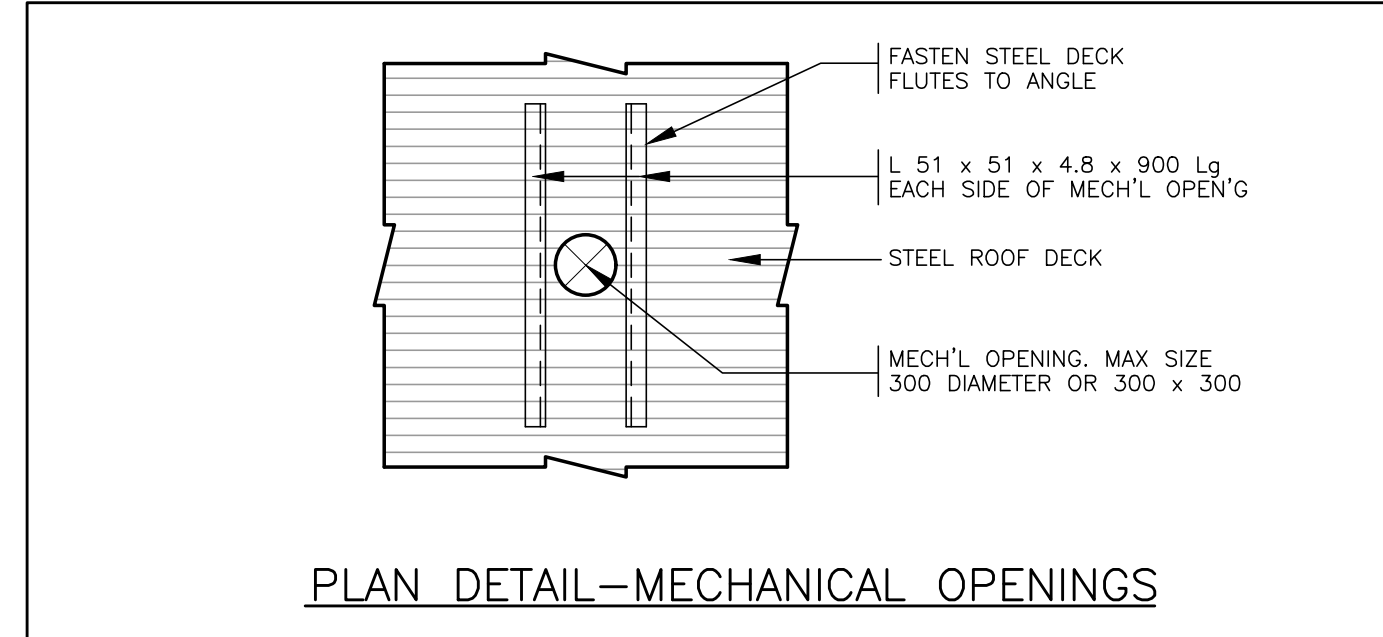
TYPICAL DETAIL- ADDITIONAL FRAMING AT ROOFTOP MECH'L UNITS
(NO UNIT OPENINGS THROUGH ROOF)



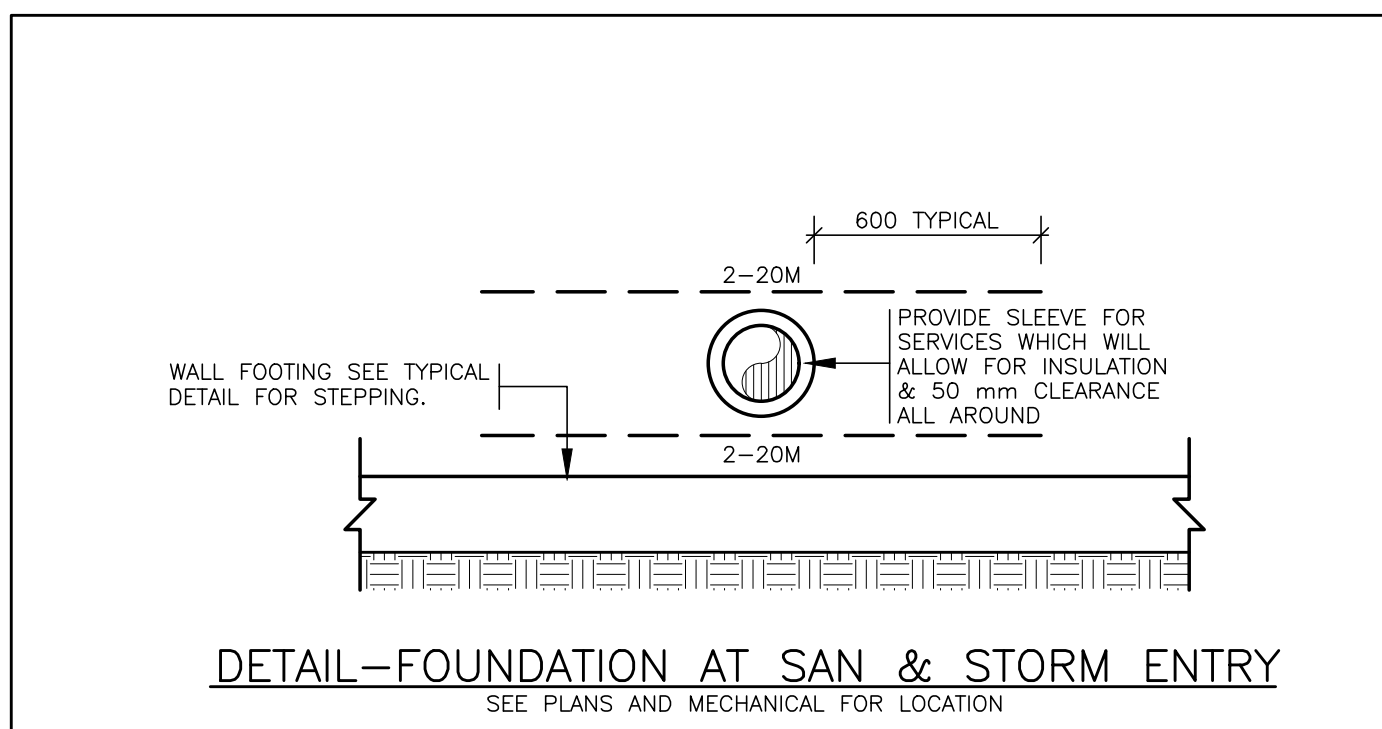
NON-LOAD BEARING MASONRY WALL LATERAL SUPPORT DETAIL PARALLEL TO OWSJ



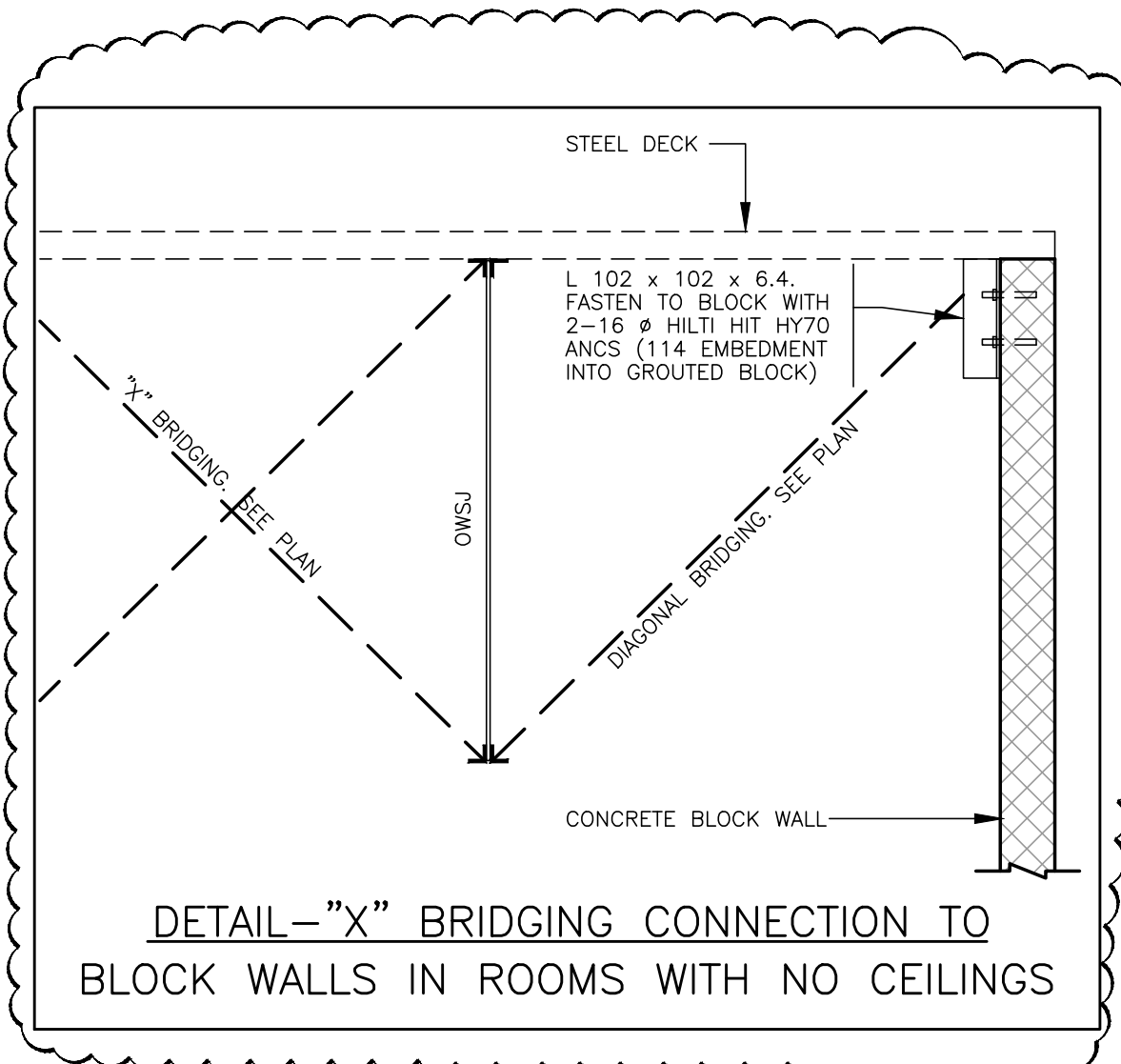
TYPICAL WALL INTERSECTION REINFORCEMENT
CONCRETE WALLS WITH 1 SHEET OF REINFORCING (WALL THICKNESS LESS THAN 215 mm)
NOT APPLICABLE TO SHEARWALLS. SEE SHEARWALL ELEVATION DRAWINGS



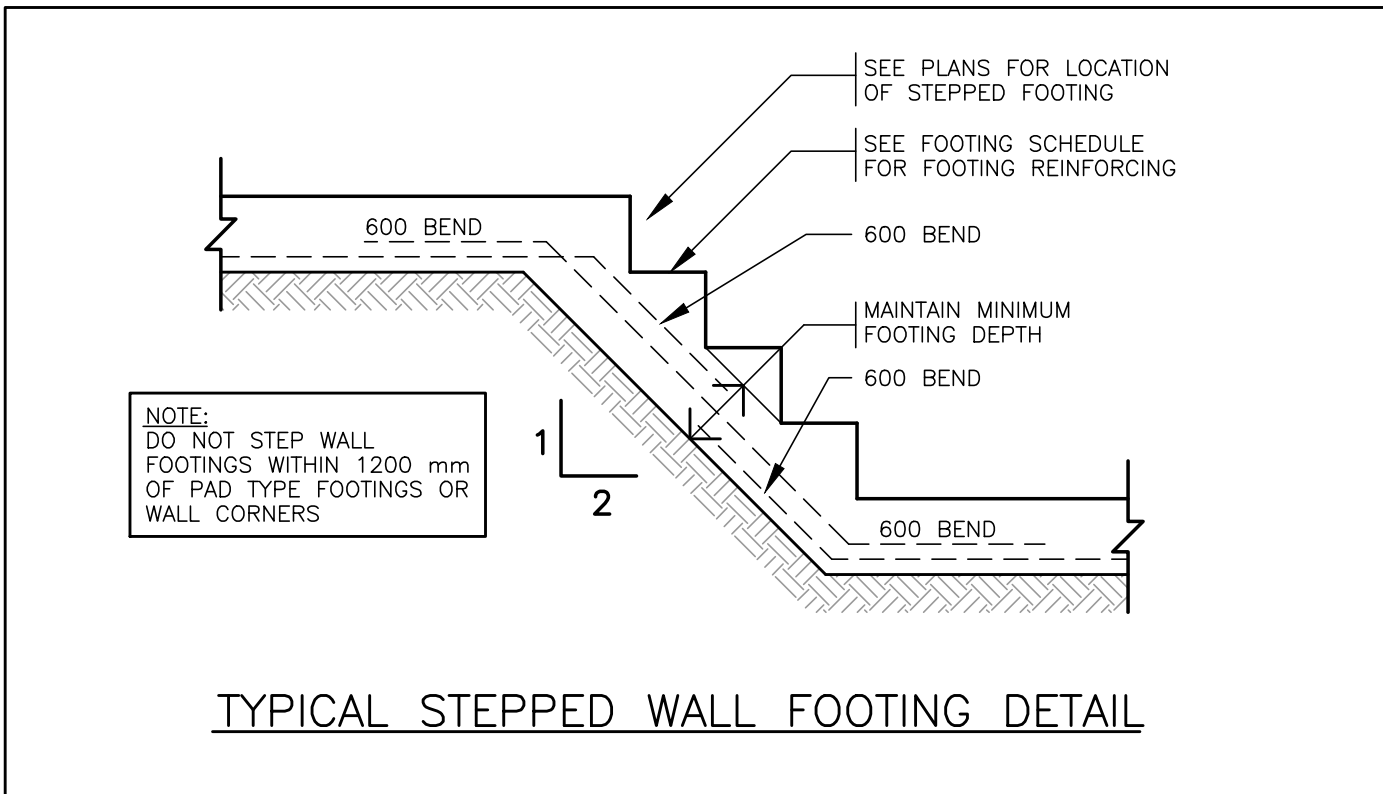
PLAN DETAIL-MECHANICAL OPENINGS



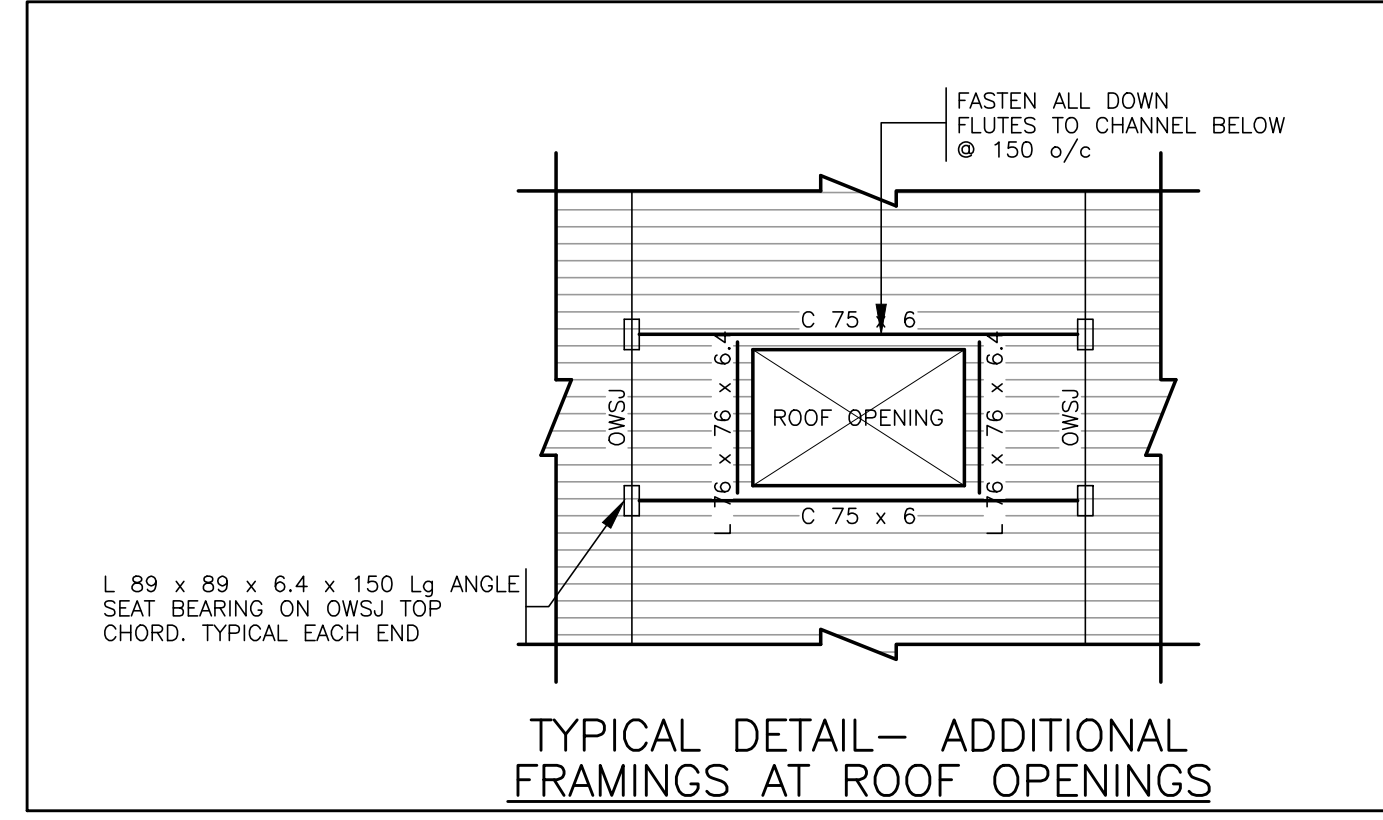
DETAIL-FOUNDATION AT SAN & STORM ENTRY
SEE PLANS AND MECHANICAL FOR LOCATION



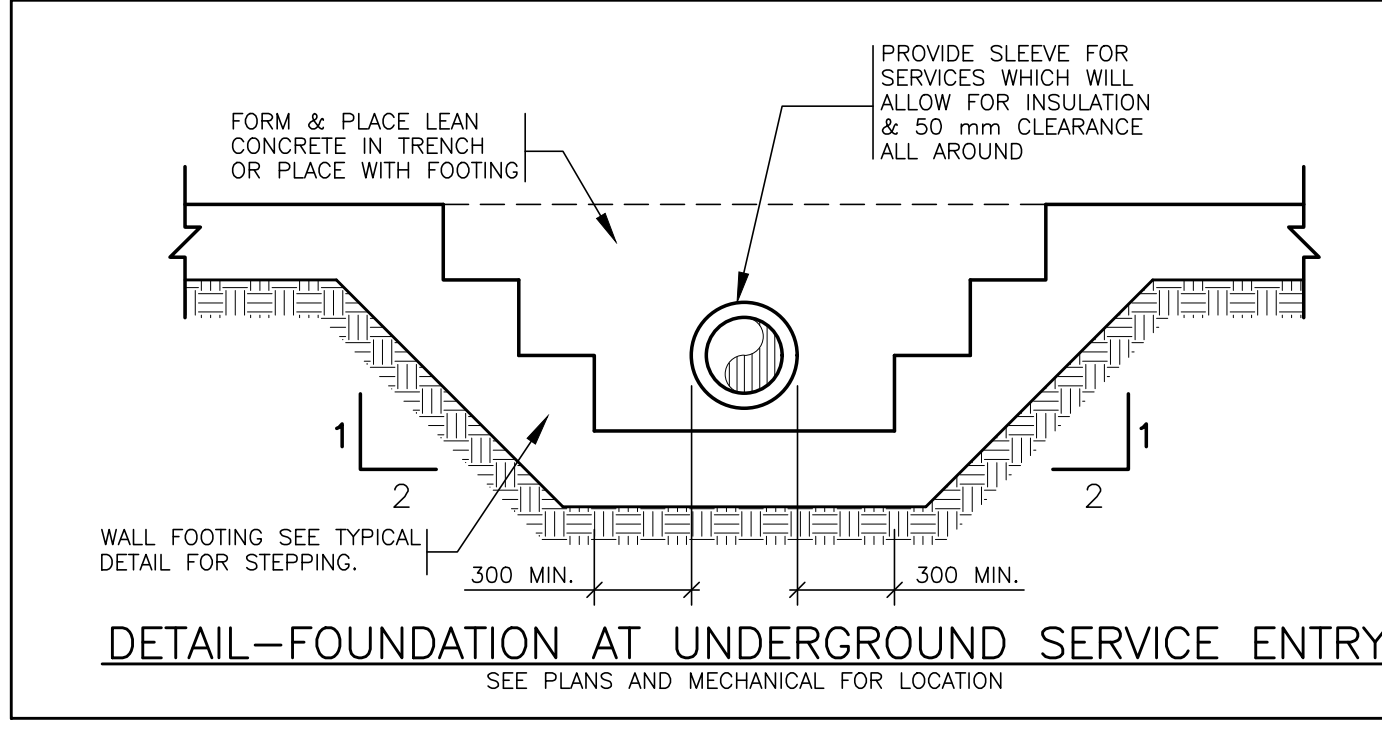
DETAIL-"X" BRIDGING CONNECTION TO BLOCK WALLS IN ROOMS WITH NO CEILINGS



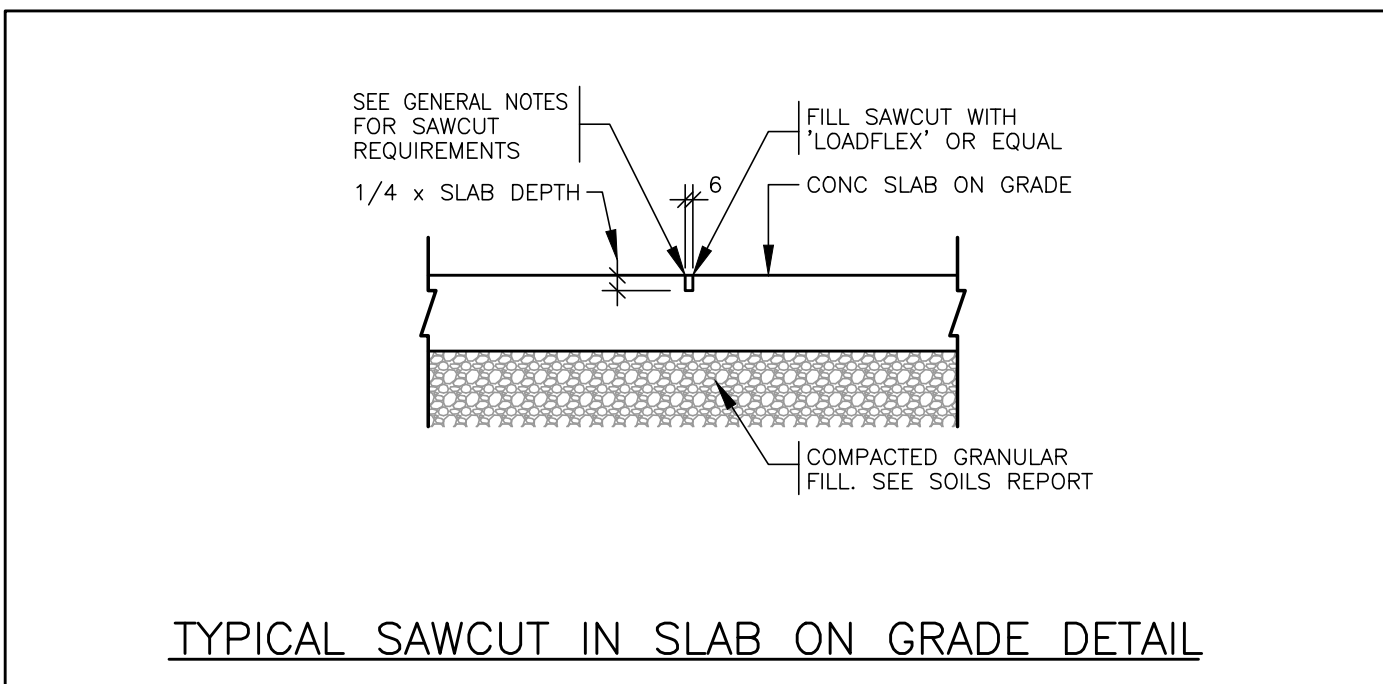
TYPICAL STEPPED WALL FOOTING DETAIL



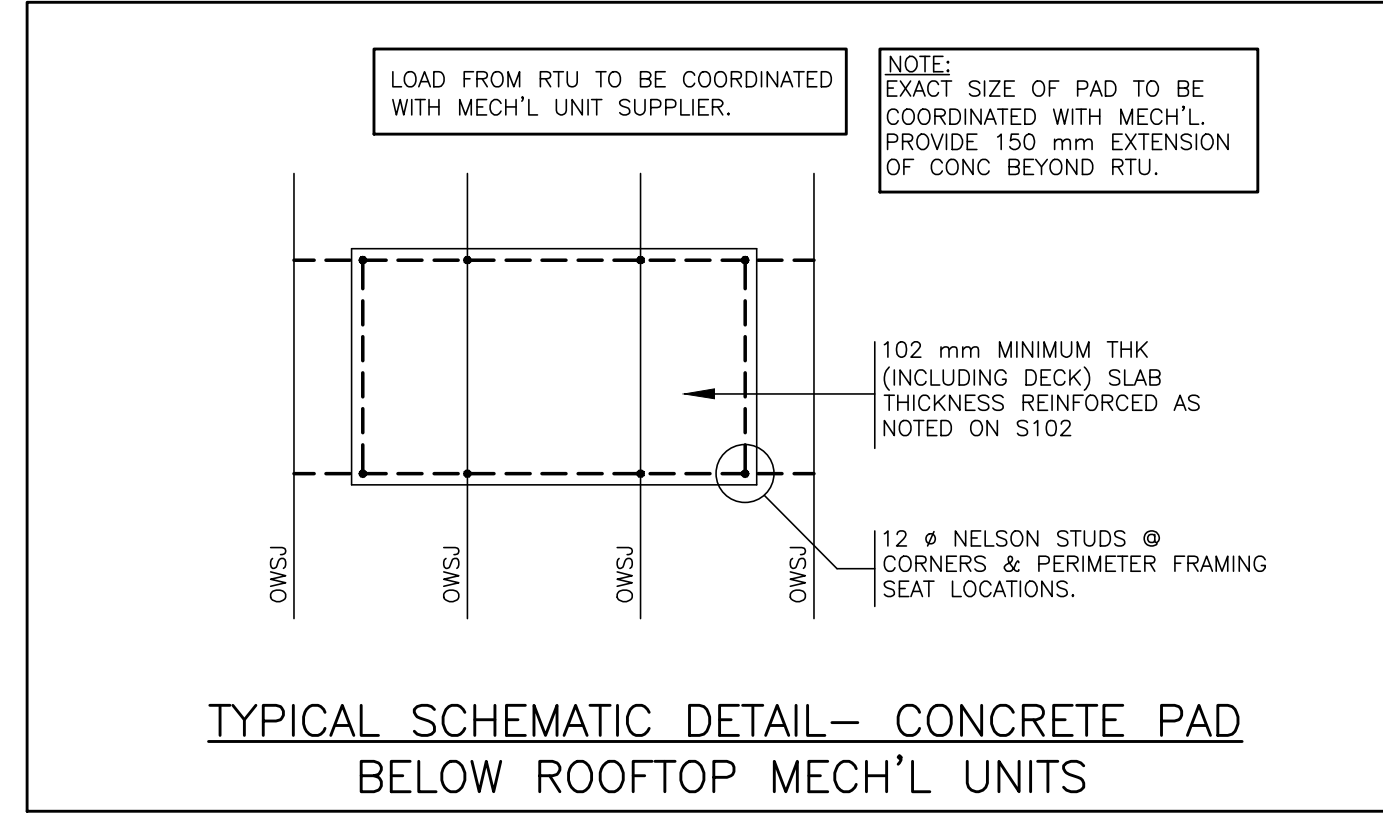
TYPICAL DETAIL- ADDITIONAL FRAMINGS AT ROOF OPENINGS



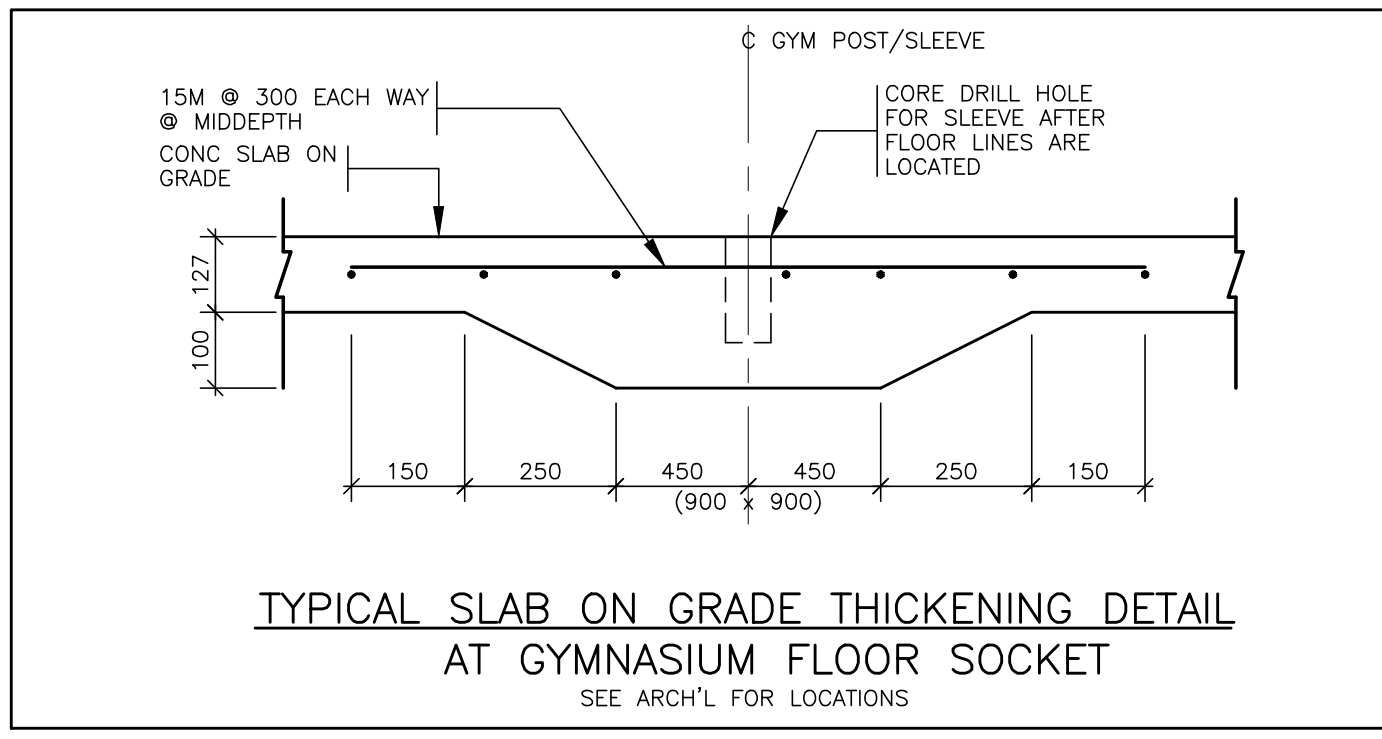
DETAIL-FOUNDATION AT UNDERGROUND SERVICE ENTRY
SEE PLANS AND MECHANICAL FOR LOCATION



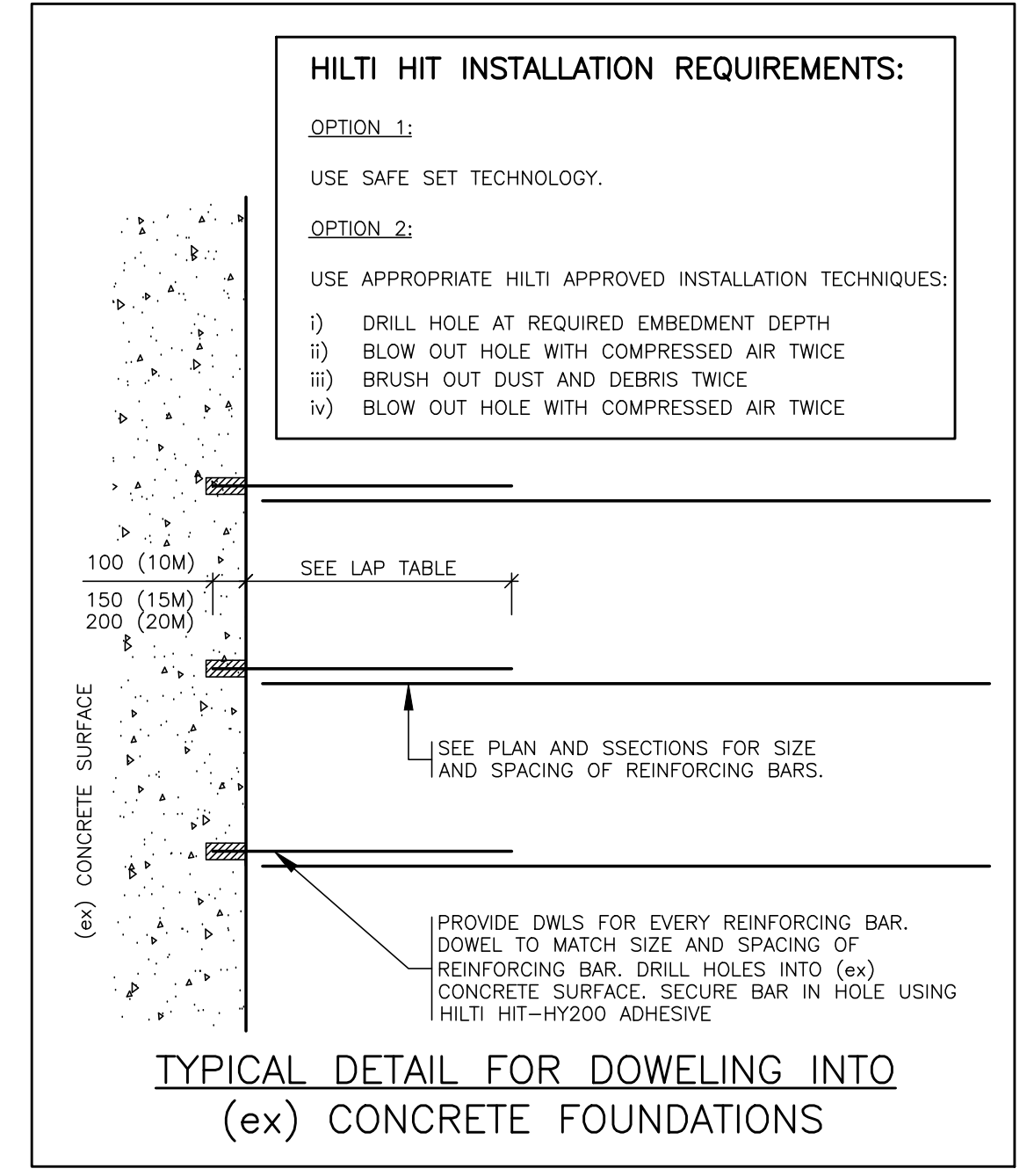
TYPICAL SAWCUT IN SLAB ON GRADE DETAIL



TYPICAL SCHEMATIC DETAIL- CONCRETE PAD BELOW ROOFTOP MECH'L UNITS



TYPICAL SLAB ON GRADE THICKENING DETAIL AT GYMNASIUM FLOOR SOCKET
SEE ARCH'L FOR LOCATIONS



TYPICAL DETAIL FOR DOWELING INTO (ex) CONCRETE FOUNDATIONS

| | | |
|---|----------------------------|-----------|
| 2 | ISSUED WITH IB-SO2-A | JAN 25/18 |
| 1 | ISSUED FOR BUILDING PERMIT | OCT 27/17 |

| No. | REVISION | DATE |
|-----|----------|------|
| 1 | | |
| 2 | | |

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4. DO NOT SCALE DRAWINGS.

PROJECT
BOYS & GIRLS CLUB OF OTTAWA
1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
TYPICAL DETAILS

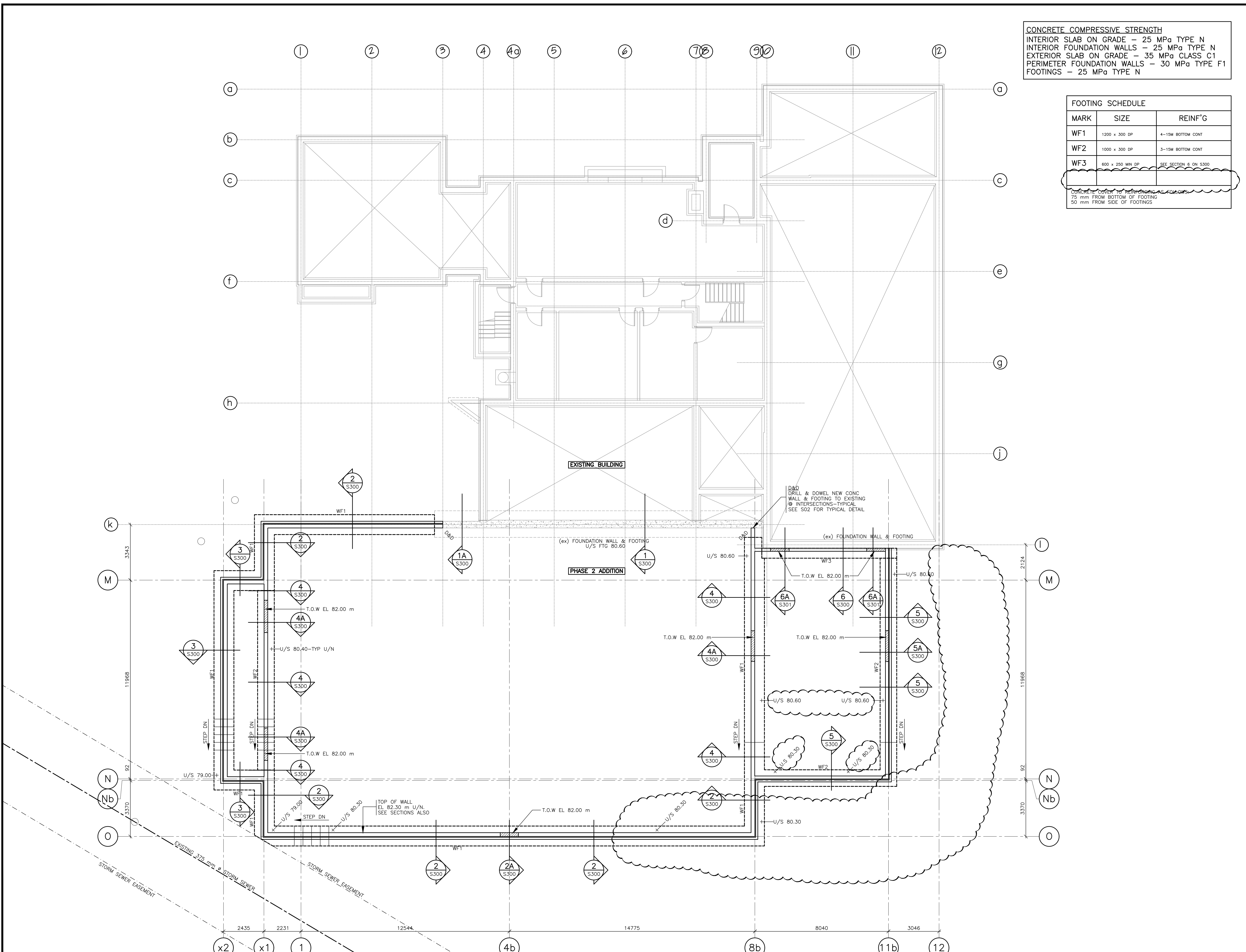
CUNLIFFE
CUNLIFFE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
102-1737 WOODWARD DR. OTTAWA ONT. K2C 0P9
TEL (613) 728-7242 FAX (613) 728-1461
Email <cunliffe@cunliffe.ca>

| | | | | | | | |
|-----------------|---|-------------------------|------------------------|------------------------------|-------------------------|--------------|--|
| ENGINEER'S SEAL | SCALE NOT TO SCALE | | | | | | |
| | <table border="1"> <tr> <td>DRAWN RW</td> <td>REVIEWED RIC</td> </tr> <tr> <td>PROJECT NO. 17-007</td> <td>SHEET NO. S02</td> </tr> <tr> <td>REVISION NO.</td> <td></td> </tr> </table> | DRAWN RW | REVIEWED RIC | PROJECT NO. 17-007 | SHEET NO. S02 | REVISION NO. | |
| | DRAWN RW | REVIEWED RIC | | | | | |
| | PROJECT NO. 17-007 | SHEET NO. S02 | | | | | |
| REVISION NO. | | | | | | | |

CONCRETE COMPRESSIVE STRENGTH
 INTERIOR SLAB ON GRADE - 25 MPa TYPE N
 INTERIOR FOUNDATION WALLS - 25 MPa TYPE N
 EXTERIOR SLAB ON GRADE - 35 MPa CLASS C1
 PERIMETER FOUNDATION WALLS - 30 MPa TYPE F1
 FOOTINGS - 25 MPa TYPE N

| FOOTING SCHEDULE | | |
|------------------|-----------------|-----------------------|
| MARK | SIZE | REINF'G |
| WF1 | 1200 x 300 DP | 4-15M BOTTOM CONT |
| WF2 | 1000 x 300 DP | 3-15M BOTTOM CONT |
| WF3 | 600 x 250 MN DP | SEE SECTION 6 ON S300 |

CONCRETE COVER TO REINFORCEMENT
 75 mm FROM BOTTOM OF FOOTING
 50 mm FROM SIDE OF FOOTINGS



| No. | REVISION | DATE |
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PROJECT
BOYS & GIRLS CLUB OF OTTAWA
 1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
FOUNDATION PLAN

CUNLIFFE
 CUNLIFFE & ASSOCIATES
 CONSULTING STRUCTURAL ENGINEERS
 102-1737 WOODWARD DR. OTTAWA ONT. K2C 0P9
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ENGINEER'S SEAL

SCALE
1 : 100

DRAWN
RW

REVIEWED
RIC

PROJECT NO.
17-007

SHEET NO.
S100

REVISION NO.

1/25/2018
 R. I. CUNLIFFE
 ENGINEER OF ONTARIO

CONCRETE COMPRESSIVE STRENGTH
 INTERIOR SLAB ON GRADE - 25 MPa TYPE N
 INTERIOR FOUNDATION WALLS - 25 MPa TYPE N
 EXTERIOR SLAB ON GRADE - 35 MPa CLASS C1
 PERIMETER FOUNDATION WALLS - 30 MPa TYPE F1
 FOOTINGS - 25 MPa TYPE N

STEEL COLUMN SCHEDULE

| MARK | SIZE |
|------|---------------------|
| SC1 | HSS 178 x 178 x 6.4 |

BASEPLATE SCHEDULE

| MARK | SIZE | ANCHORS |
|------|----------------------------|---|
| BP1 | 365 x 365 x x 230 x 20 THK | 3-15M x 400 Lg WELDABLE REBAR CAST INTO BLOCK BELOW |

MASONRY LINTEL SCHEDULE

| MARK | SIZE | REIN'G |
|------|--------------|---|
| ML1 | 240 x 790 DP | 1-15M TOP 1-20M BOTTOM 20M Ø 800 VERT |
| ML2 | 240 x 590 DP | 1-15M TOP 1-20M BOTTOM 20M Ø 800 VERT |
| ML3 | 240 x 390 DP | 1-20M TOP 1-20M BOTTOM 20M Ø 800 VERT |
| ML4 | 190 x 790 DP | 1-15M TOP 1-20M BOTTOM 15M Ø 800 VERT |
| ML5 | 190 x 590 DP | 1-15M TOP 1-20M BOTTOM 15M Ø 800 VERT |

NOTE:
 1. ALL LINTELS ARE TO BE GROUDED SOLID
 2. LINTELS TO BEAR ON WALL EACH END 200 mm U/N
 3. GROUT WALL ENDS SOLID BELOW LINTEL FOR WIDTH OF BEARING INDICATED ABOVE
 4. SEE DRAWING S01 FOR MASONRY REINFORCEMENT. PROVIDE 20M VERT IN EACH GROUDED CORE AT WALL ENDS E.S. OF OPENING UNLESS NOTED OTHERWISE ON PLANS
 5. USE SPECIAL LINTEL BLOCKS FOR LOWEST LINTEL COURSE & LOW WEB BLOCKS FOR ALL OTHER LINTEL COURSES
 6. DO NOT INTERRUPT TYPICAL WALL REINFORCING AT LINTELS

NON-LOAD BEARING WALL MASONRY LINTEL SCHEDULE

| SPAN | SIZE & REIN'G |
|-------------|--------------------------------|
| 0 - 1000 mm | 200 DP 1-15M BOT CONT |
| 1001 - 1900 | 400 DP 1-20M BOT CONT |
| 1901 - 2500 | 600 DP 1-20M TOP & BOT CONT |
| 2501 - 3200 | 800 DP 1-20M TOP & BOT CONT |

NOTE:
 1. ALL MASONRY LINTELS ARE TO BE GROUDED SOLID
 2. GROUT WALL ENDS SOLID BELOW LINTEL FOR WIDTH OF 200 mm LINTEL BEARING
 3. SEE DRAWING S01 FOR MASONRY REINFORCEMENT. PROVIDE 1-20M VERT IN EACH GROUDED CORE AT WALL ENDS EACH SIDE OF LINTEL OPENING UNLESS NOTED OTHERWISE ON PLANS
 4. USE LOW WEB BLOCKS FOR LINTEL COURSES CONTAINING HORIZONTAL REBAR

MASONRY LINTEL SCHEDULE FOR LOAD BEARING WALLS WHERE LINTEL IS NOT SHOWN ON PLAN (i.e. MECH'L WALL OPENINGS)

| SPAN | MASONRY LINTEL |
|-------------|--------------------------------|
| 0 - 1000 mm | 400 DP 1-15M BOT CONT |
| 1001 - 1500 | 600 DP 1-20M TOP & BOT CONT |
| 1501 - 2000 | 800 DP 1-20M TOP & BOT CONT |

NOTE:
 1. ALL MASONRY LINTELS ARE TO BE GROUDED SOLID
 2. GROUT WALL ENDS SOLID BELOW LINTEL FOR WIDTH OF 200 mm LINTEL BEARING
 3. SEE DRAWING S01 FOR MASONRY REINFORCEMENT. PROVIDE 1-20M VERT IN EACH GROUDED CORE AT WALL ENDS EACH SIDE OF LINTEL OPENING U/N
 4. USE LOW WEB BLOCKS FOR LINTEL COURSES CONTAINING HORIZONTAL REBAR

| | | |
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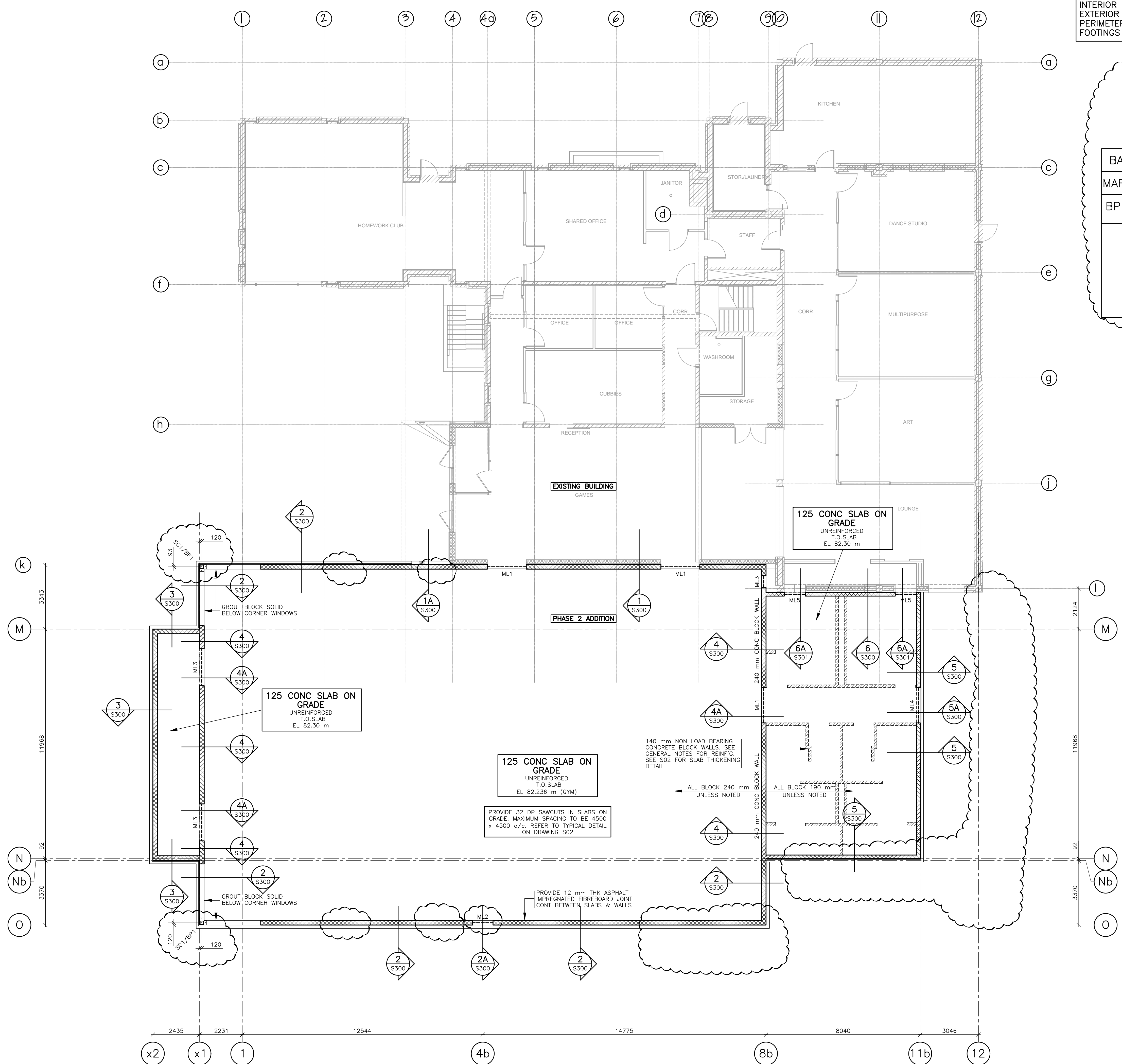
PROJECT
BOYS & GIRLS CLUB OF OTTAWA
 1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
GROUND FLOOR PLAN

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ENGINEER'S SEAL: **R. I. CUNLIFFE** (Professional Engineer License No. 125/2018)
 SCALE: 1 : 100
 DRAWN: **RW** REVIEWED: **RIC**
 PROJECT NO: **17-007** SHEET NO: **S101**
 REVISION NO: **1**



CONCRETE COMPRESSIVE STRENGTH
SLAB ON DECK - 25 MPa TYPE N

| BEAM BEARING PLATE SCHEDULE | | |
|-----------------------------|---|---|
| MARK | SIZE | ANCHORS |
| BBP1 | 350 x 180 x 19 THK PLATE | 2-15M WELDABLE REINFORCING BARS x 400 Lg |
| BBP2 | 200 x 13 THK CONT PLATE | 1-15M WELDABLE REINFORCING BAR x 400 Lg @ 650 o/s |
| BBP3 | 230 x 350 x 19 THK PLATE | 2-20M WELDABLE REINFORCING BARS x 400 Lg |
| BBP4 | 600 x 230 x 25 THK PLATE | 3-20M WELDABLE REINFORCING BARS x 400 Lg |
| BBP5 | 230 x 350 x 16 THK PLATE | 2-15M WELDABLE REINFORCING BARS x 400 Lg |
| BBP6 | 275 x 275 x 16 THK PLATE | 3-16 # HILTI HAS HIT HY200 ANCHORS (143 EMBEDMENT) SEE SECTION R3 ON S302 |
| BBP7 | 375 x 209 x 16 THK PLATE + 178 x 150 x 16 THK PLATE FULLY WELDED TOGETHER | 3-16 # HILTI HAS HIT HY200 ANCHORS (143 EMBEDMENT) SEE SECTION R3 ON S302 |

- NOTES:**
- BEAMS SUPPORTED ON BEAM BEARING BASE PLATES TO EXTEND ONTO PLATE A MINIMUM OF 80% OF LENGTH OF PLATE, IN DIRECTION OF BEAM UNLESS NOTED OTHERWISE OR PLAN
 - ANCHORS ARE TO BE CENTERED ON PLATE & SPACED AT 200 o/s TO ALIGN WITH CORE VOIDS IN BLOCK UNLESS OTHERWISE NOTED
 - ENSURE BEAM AND JOIST POCKETS IN MASONRY WALLS ARE BUILT-IN WITH MASONRY OR GROUTED SOLID
 - GROUT BLOCK CORES SOLID 600 mm MINIMUM BELOW BEAM BEARING PLATES

ROOF TOP MECHANICAL UNITS

RTU-1
 2311 x 1448 x 1600 HIGH
 (INCLUDES 558 mm CURB)
 WT=1400 LBS (INCLUDES CURB)

NOTES:

- REFER TO DWG S02 FOR ADDITIONAL FRAMING BELOW MECH'L UNITS & AT ROOF OPENINGS
- REFER TO DWG S02 FOR CONCRETE SLAB DETAILS BELOW MECH'L UNITS
- COORDINATE MECH'L UNIT OPENINGS WITH MECH'L ENGINEER
- NOTIFY CUNLIFFE & ASSOCIATES IF ANY OF THE MECH'L UNIT INFORMATION NOTED ON THIS DRAWING DIFFERS FROM THE ACTUAL UNITS SUPPLIED FOR INSTALLATION.
- 102 MAX/64 MIN CONC SLAB ON 3# x 0.91 COMPOSITE STEEL DECK, REINFORCE SLAB w/ 1 LAYER 152 x 152 x MW 18.7 x MW18.7 @ MIDDEPTH OF SLAB. TOP OF SLAB TO BE LEVEL. SEE DETAIL ON DRAWING S02.

MAIN ROOF NOTES:

- SEE DRAWING S01 FOR GENERAL NOTES
 - SEE DRAWING S02 FOR TYPICAL DETAILS
 - DESIGN LOADS**
- | TYPICAL STEEL ROOF AREAS | |
|--------------------------|-----------------------------|
| ROOF & INSUL. | 0.60 kPa |
| BOARD | 0.10 |
| STEEL DECK | 0.15 |
| STRUCTURE | 0.25 |
| CEILING | 0.15 |
| MECH. & MISC. | 0.25 |
| DEAD LOAD | 1.50 kPa |
| SNOW LOAD | 2.32 kPa (OR CONCENTRATION) |
| TOTAL LOAD | 2.32 kPa (OR DL + CONCEN) |
- | STEEL ROOF AREAS AT RTU | |
|-------------------------|-----------------------------|
| ROOF & INSUL. | 0.60 kPa |
| SLAB ON DECK | 0.60 kPa |
| STEEL DECK | 0.15 |
| STRUCTURE | 0.25 |
| CEILING | 0.15 |
| MECH. & MISC. | 0.25 |
| DEAD LOAD | 1.75 kPa |
| SNOW LOAD | 2.32 kPa (OR CONCENTRATION) |
| TOTAL LOAD | 2.32 kPa (OR DL + CONCEN) |
- | MINIMUM ROOF AREAS | |
|--------------------|----------|
| ROOF & INSUL. | 0.60 kPa |
| BOARD | 0.10 |
| STEEL DECK | 0.10 |
| STRUCTURE | 0.20 |
| MECH. & MISC. | 0.25 |
| DEAD LOAD | 1.45 kPa |
| SNOW LOAD | 2.32 kPa |
| TOTAL LOAD | 3.77 kPa |

- T.O.S = TOP OF STRUCTURE ELEV. = TOP OF OWSJ'S & GULUM BEAMS. SEE PLAN FOR ELEVATIONS
- REFER TO PLAN & SECTIONS FOR ADDITIONAL DEFLECTION LIMITATIONS
- D.W.S.J.'S
- U/N, THE TYPICAL ROOF OWSJ'S ARE TO BE DESIGNED SUCH THAT THE MAX DEFLECTION DUE TO SNOW LOADS DOES NOT EXCEED L/360 OR 25mm
- THE GYMNASIUM ROOF JOISTS ARE TO BE DESIGNED FOR A SNOW LOAD DEFLECTION OF 25 mm EXCEPT FOR JOIST IMMEDIATELY ADJACENT AND SUPPORTING THE ROLL-UP CURTAIN. THESE 2 JOISTS ARE TO BE LIMITED TO A SNOW LOAD DEFLECTION OF 25 mm
- OWSJ SUPPLIER TO DESIGN OWSJ'S FOR DESIGN LOADS INDICATED AND ADDITIONAL EQUIPMENT LOADS & LOADS NOTED ON OTHER DWGS
- OWSJ SHOE DEPTH 100 mm UNLESS NOTED
- OWSJ TOP & BOTTOM CHORD BRIDGING
- OWSJ MANUFACTURER IS RESPONSIBLE FOR BRIDGING DESIGN & DETAILING UNLESS NOTED OTHERWISE
- OWSJ MANUFACTURER TO REVIEW BRIDGING REQUIREMENTS WITH RESPECT TO ERECTION AND WIND SUCTION ON THE ROOF AND ADD BRIDGING AS REQUIRED
- BRIDGING IS TO BE NEATLY ERECTED IN ROOMS WITHOUT CEILING
- PROVIDE DIAGONAL BRIDGING AT BEAMS & AT END SPACES. CONNECT BRIDGING TO BLOCK WALLS.
- MINIMUM BRIDGING ANGLE SIZE TO BE L 35 x 35 x 3
- SEE DRAWING S02 FOR TYPICAL DETAILS FOR MECH'L UNIT SUPPORT & MECH'L OPENING FRAMING UNLESS NOTED
- ENSURE THAT WELDING PROCEDURES DO NOT DAMAGE OWSJ'S
- REFER TO ARCHITECTURAL DRAWINGS FOR SUPPLEMENTARY INFORMATION AND ALLOW FOR ARCHITECTURAL REVIEW PRIOR TO FABRICATION
- MECHANICAL OPENINGS SHOWN ON THIS PLAN ARE 300 x 300 mm IN SIZE OR LARGER. SEE MECH'L, ELECTR' & ARCH'L DWGS FOR SMALLER OPENINGS. CONFIRM SIZE OF OPENINGS WITH MECH'L ENGRS. SEE TYPICAL DETAIL ON DWG S02 FOR ADDITIONAL OPENING FRAMING UNLESS NOTED
- MECHANICAL PIPING MUST BE SUPPORTED FROM OWSJ TOP CHORD ONLY. DO NOT SUPPORT FROM OWSJ BOTTOM CHORD OR WEB MEMBERS OR STEEL DECK. SUPPORT AT OR NEAR OWSJ TOP CHORD PANEL POINT IS PREFERRED. IF NECESSARY, OWSJ MANUFACTURER IS TO COMMENT ON FEASIBILITY OF LOCATING PIPING SUPPORTS BETWEEN TOP CHORD PANEL POINTS.

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- DO NOT SCALE DRAWINGS.

PROJECT
BOYS & GIRLS CLUB OF OTTAWA
1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
ROOF PLAN

CUNLIFFE
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 TEL (613) 728-7242 FAX (613) 728-1461
 Email cunliffe@cunliffe.ca

ENGINEER'S SEAL

SCALE: 1 : 100

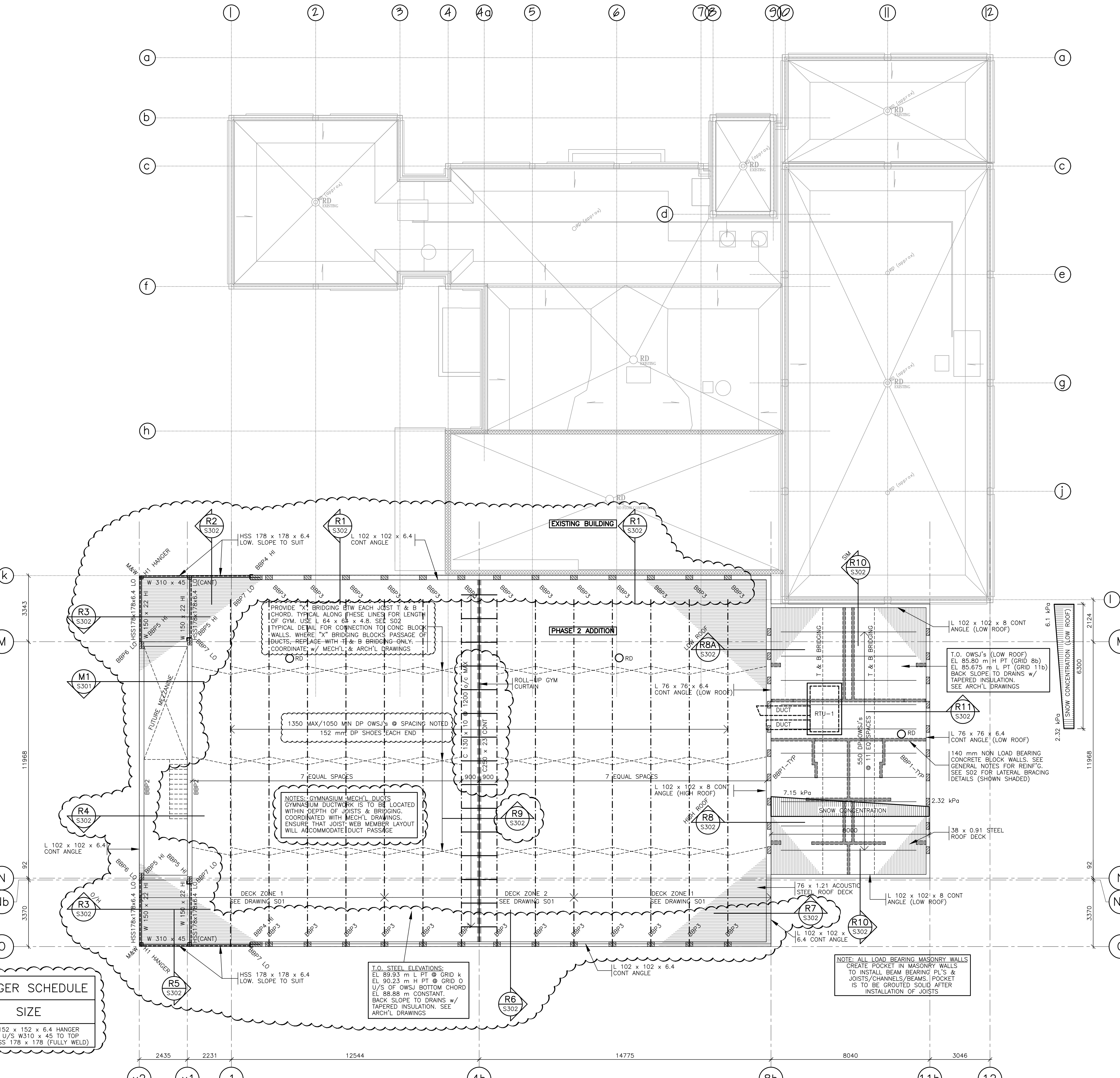
DATE: 1/25/2018

PROJECT NO: 17-007

SHEET NO: S102

REVISION NO:

APPROVED: R. I. CUNLIFFE



STEEL HANGER SCHEDULE

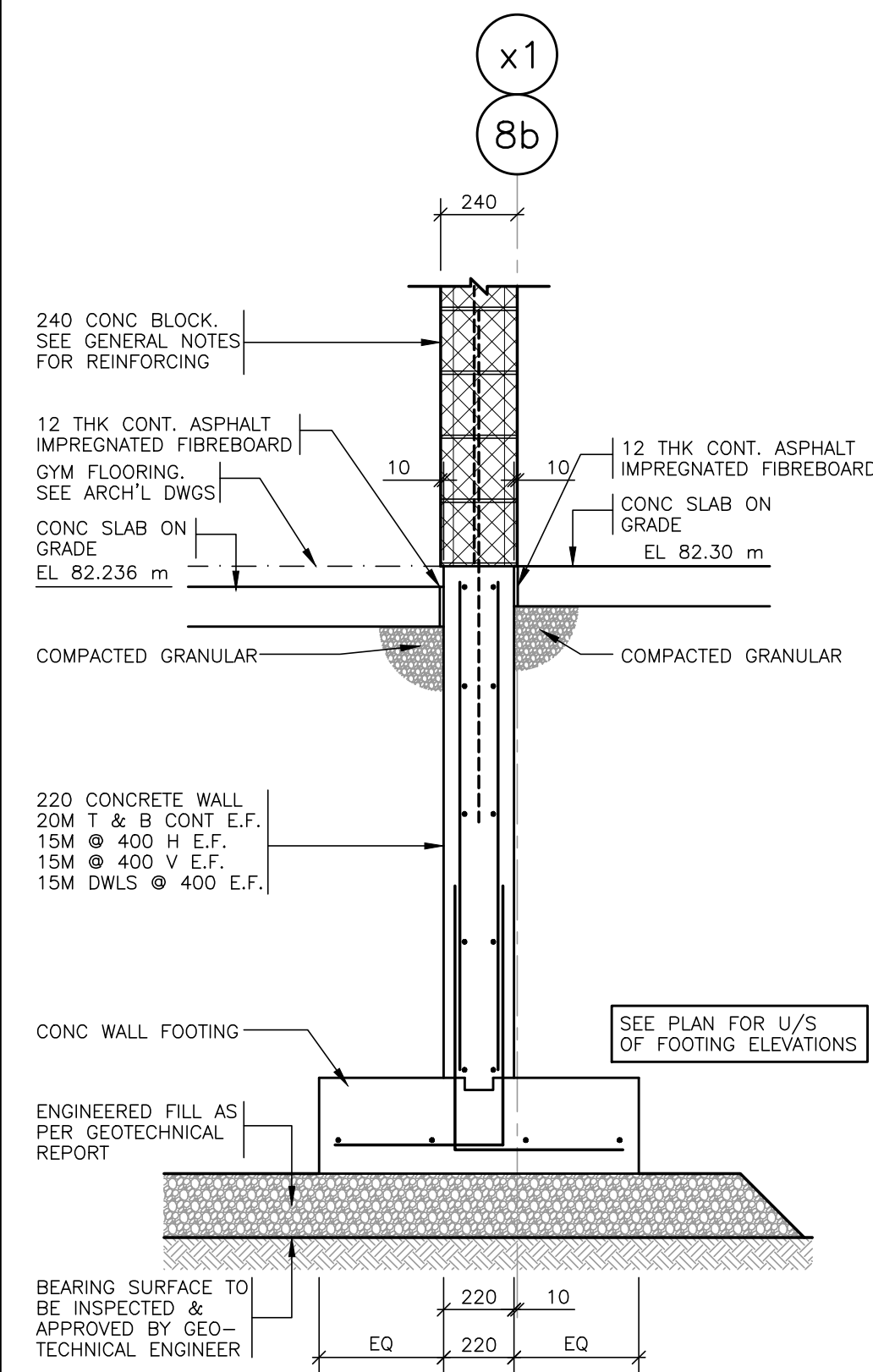
| MARK | SIZE |
|------|--|
| H1 | HSS 152 x 152 x 6.4 HANGER FROM U/S WS10 x 45 TO TOP OF HSS 178 x 178 (FULLY WELD) |

PROVIDE 'X' BRIDGING BTW EACH JOIST T & B CHORD, TYPICAL ALONG THESE LINES FOR LENGTH OF GYM. USE L 64 x 63 x 4.8. SEE S02 TYPICAL DETAIL FOR CONNECTION TO CONC BLOCK WALLS. WHERE 'X' BRIDGING BLOCKS PASSAGE OF DUCTS, REPLACE WITH H & B BRIDGING ONLY. COORDINATE W/ MECH'L & ARCH'L DRAWINGS

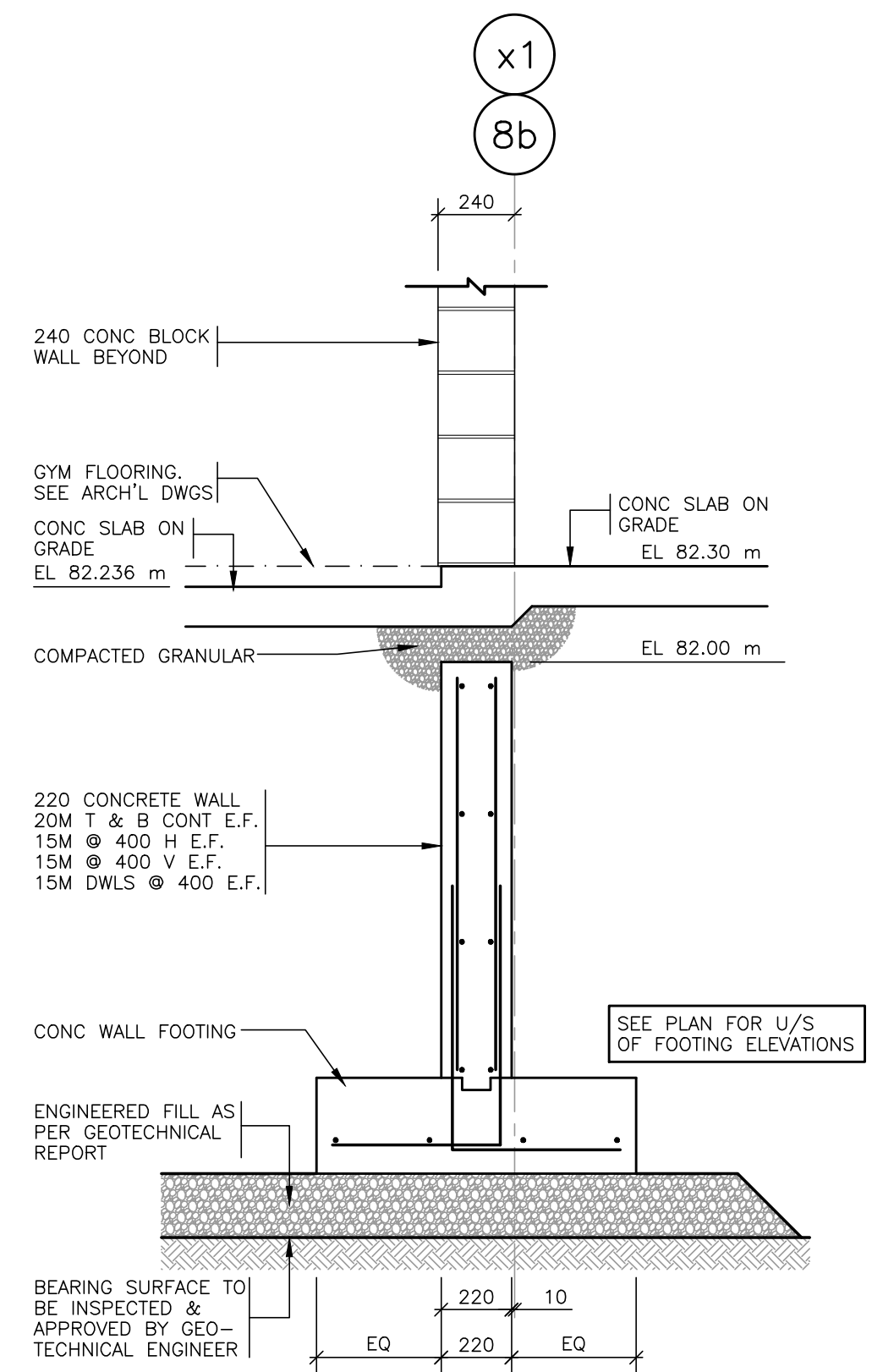
NOTES: GYMNASIUM MECH'L DUCTS GYMNASIUM DUCTWORK IS TO BE LOCATED WITHIN DEPTH OF JOISTS & BRIDGING. COORDINATE WITH MECH'L DRAWINGS. ENSURE THAT JOIST WEB MEMBER LAYOUT WILL ACCOMMODATE DUCT PASSAGE

T.O. STEEL ELEVATIONS:
 EL 89.93 m L PT @ GRID k
 EL 90.23 m H PT @ GRID 0
 U/S OF OWSJ BOTTOM CHORD
 EL 88.88 m CONSTANT.
 BACK SLOPE TO DRAINS w/
 TAPERED INSULATION. SEE
 ARCH'L DRAWINGS

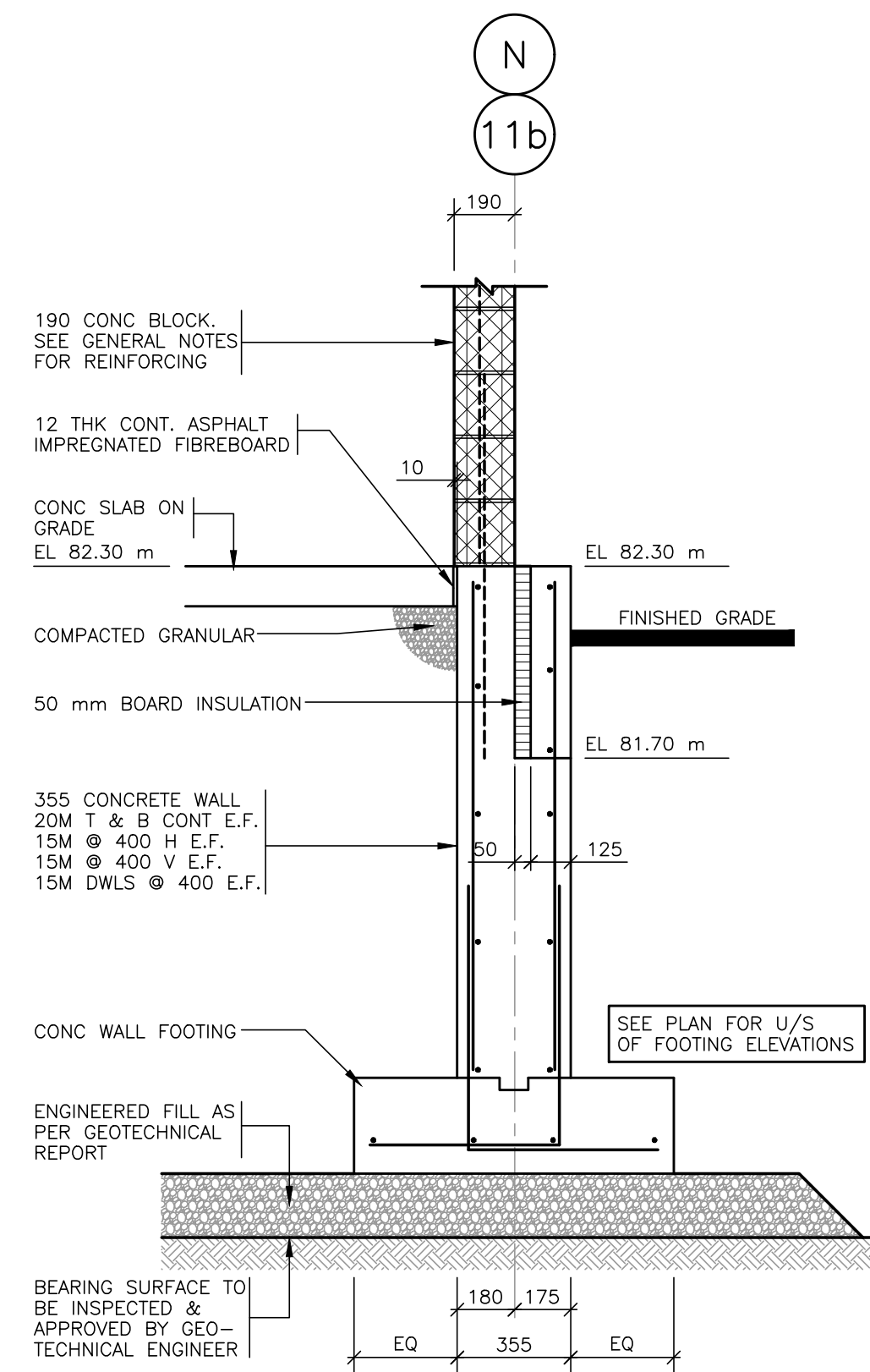
NOTE: ALL LOAD BEARING MASONRY WALLS CREATE POCKET IN MASONRY WALLS TO INSTALL BEAM BEARING PL'S & JOISTS/CHANNELS/BEAMS. POCKET IS TO BE GROUTED SOLID AFTER INSTALLATION OF JOISTS



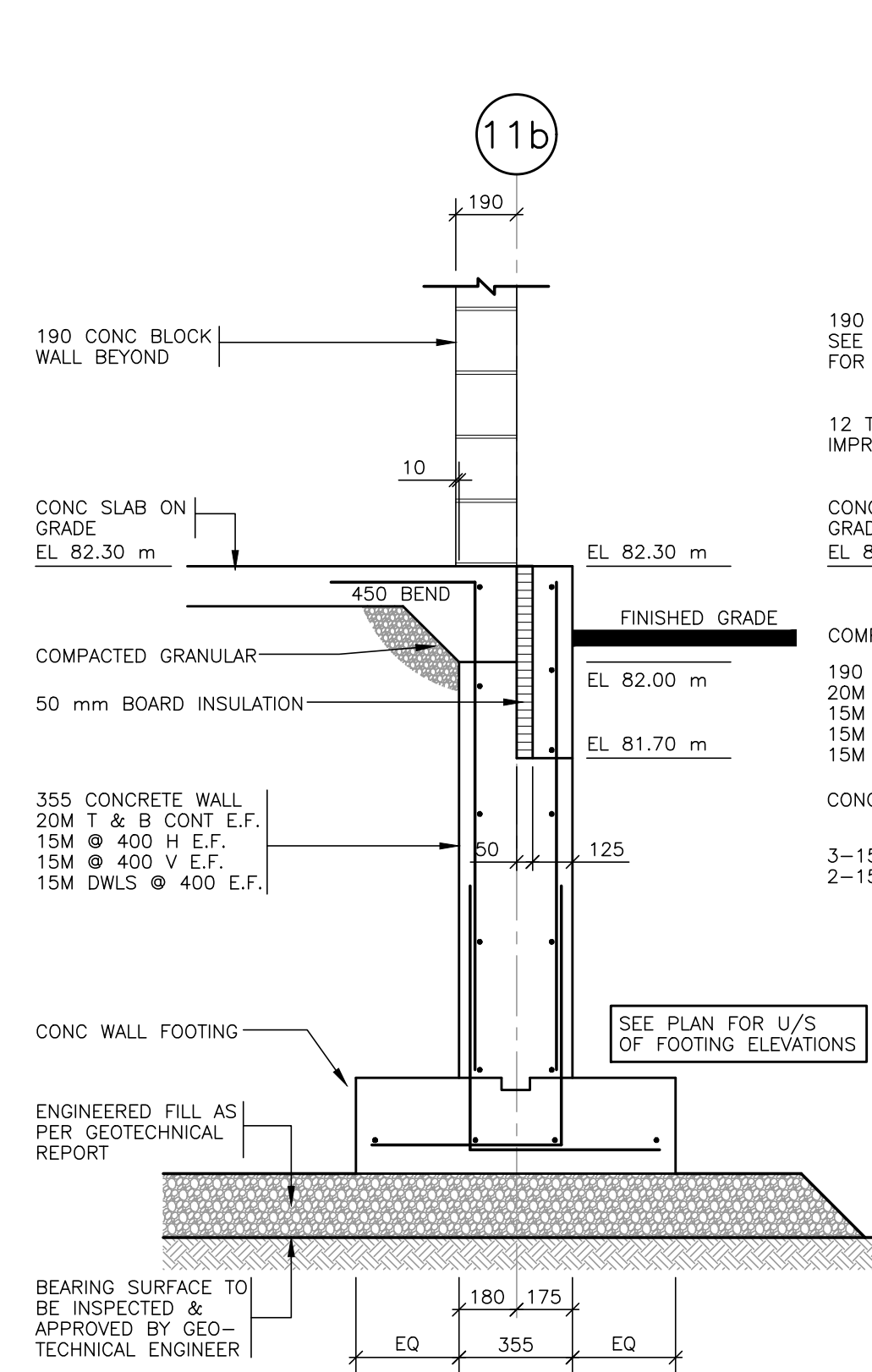
4 SECTION
S100 1 : 20



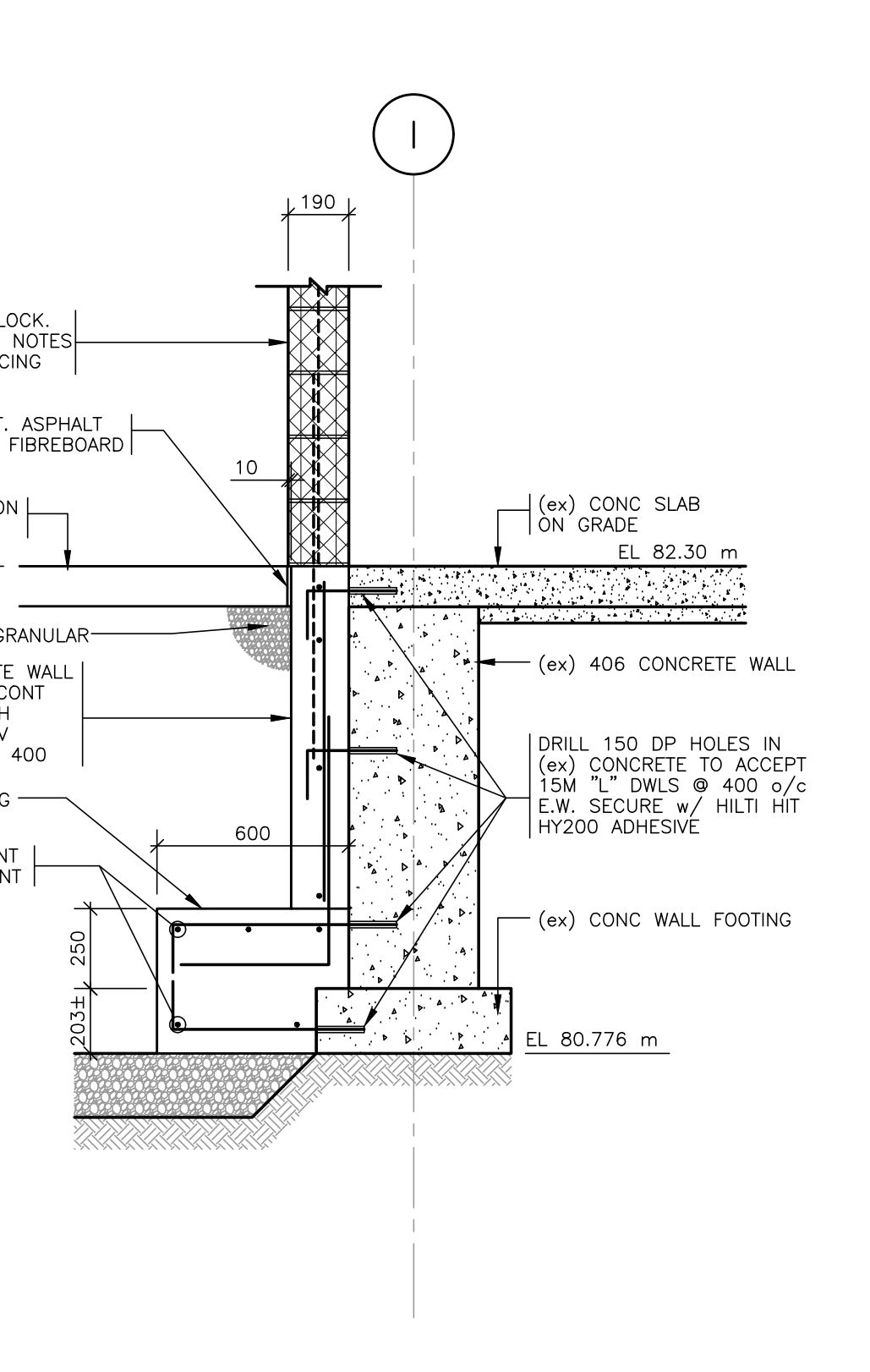
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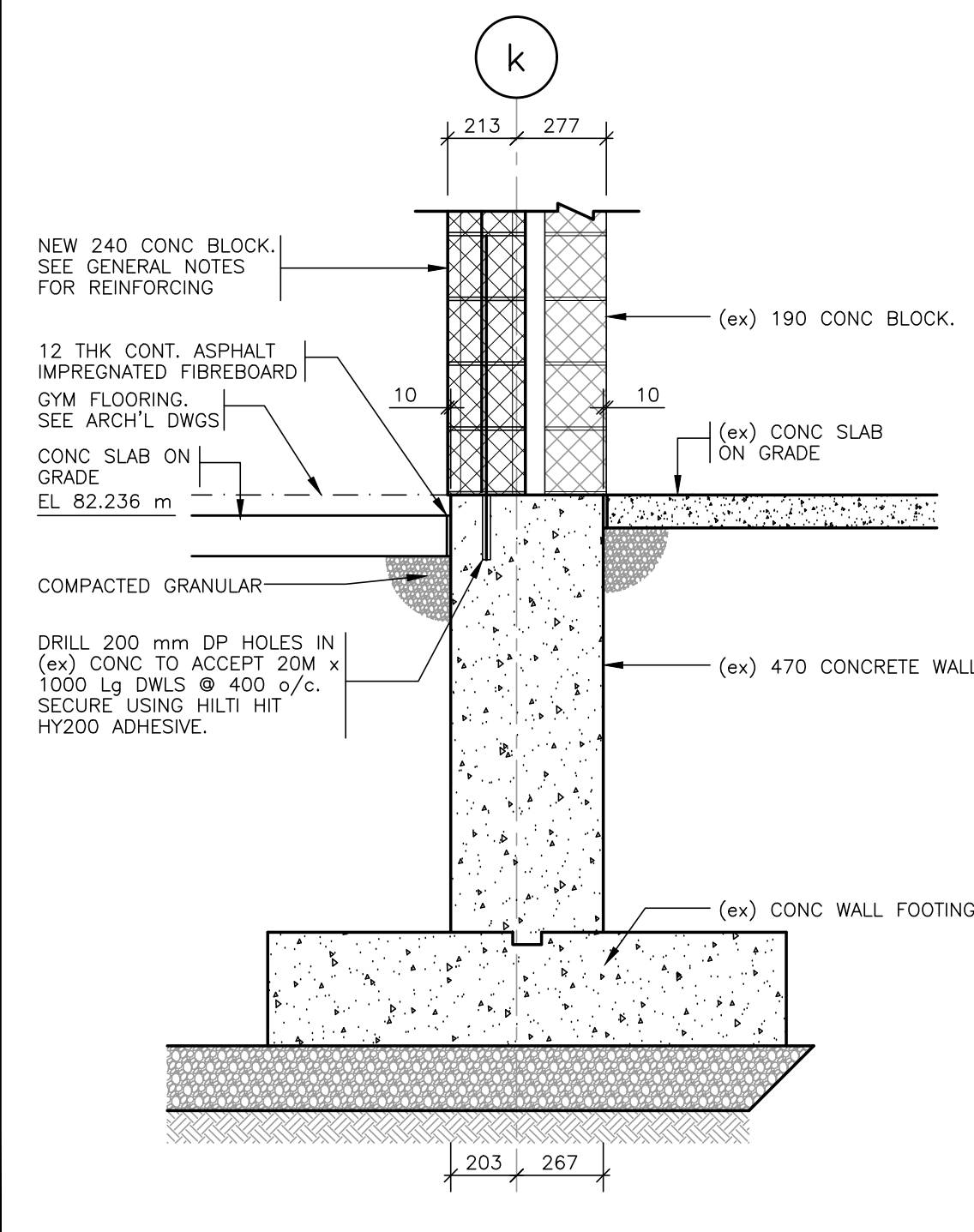
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S100 1 : 20



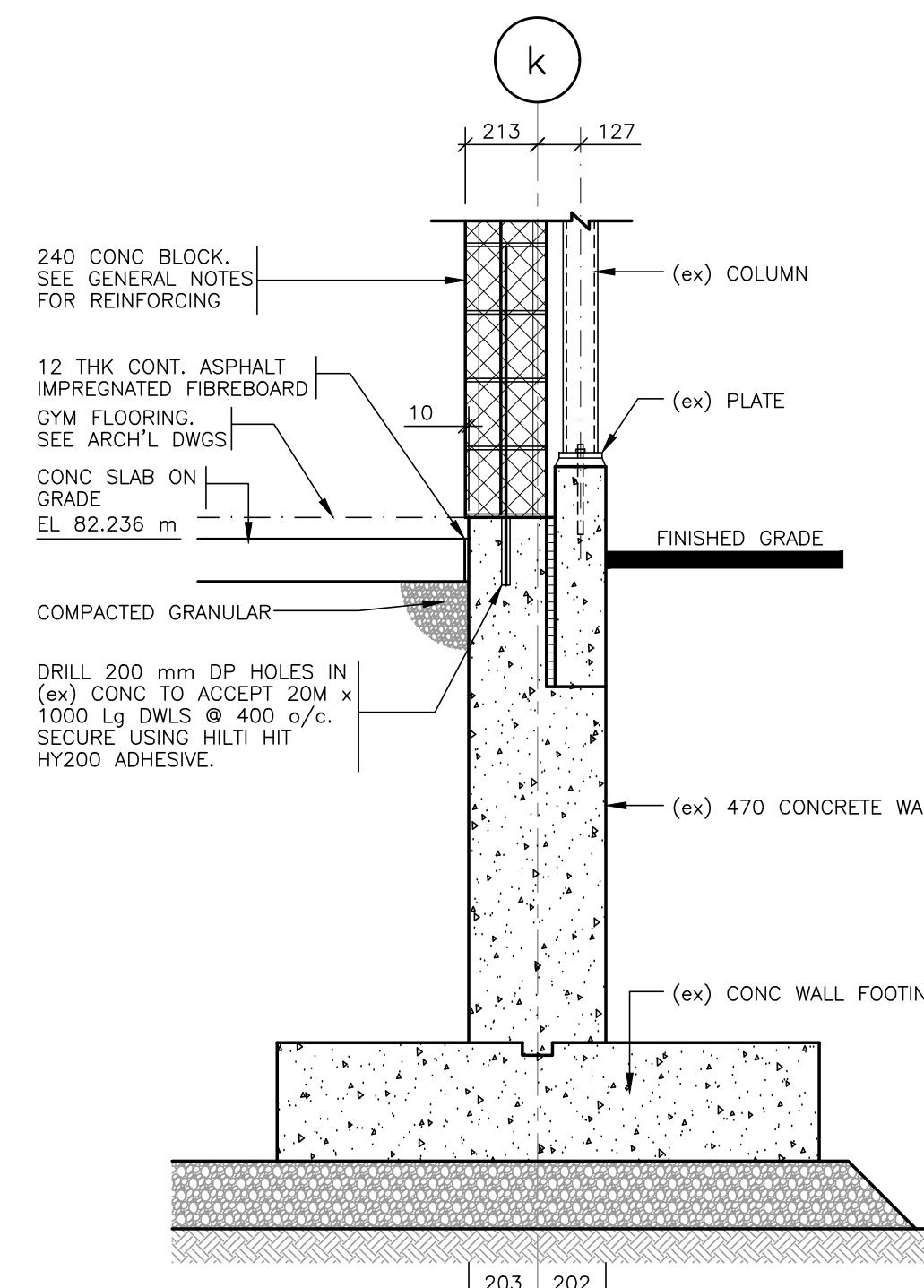
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S100 1 : 20



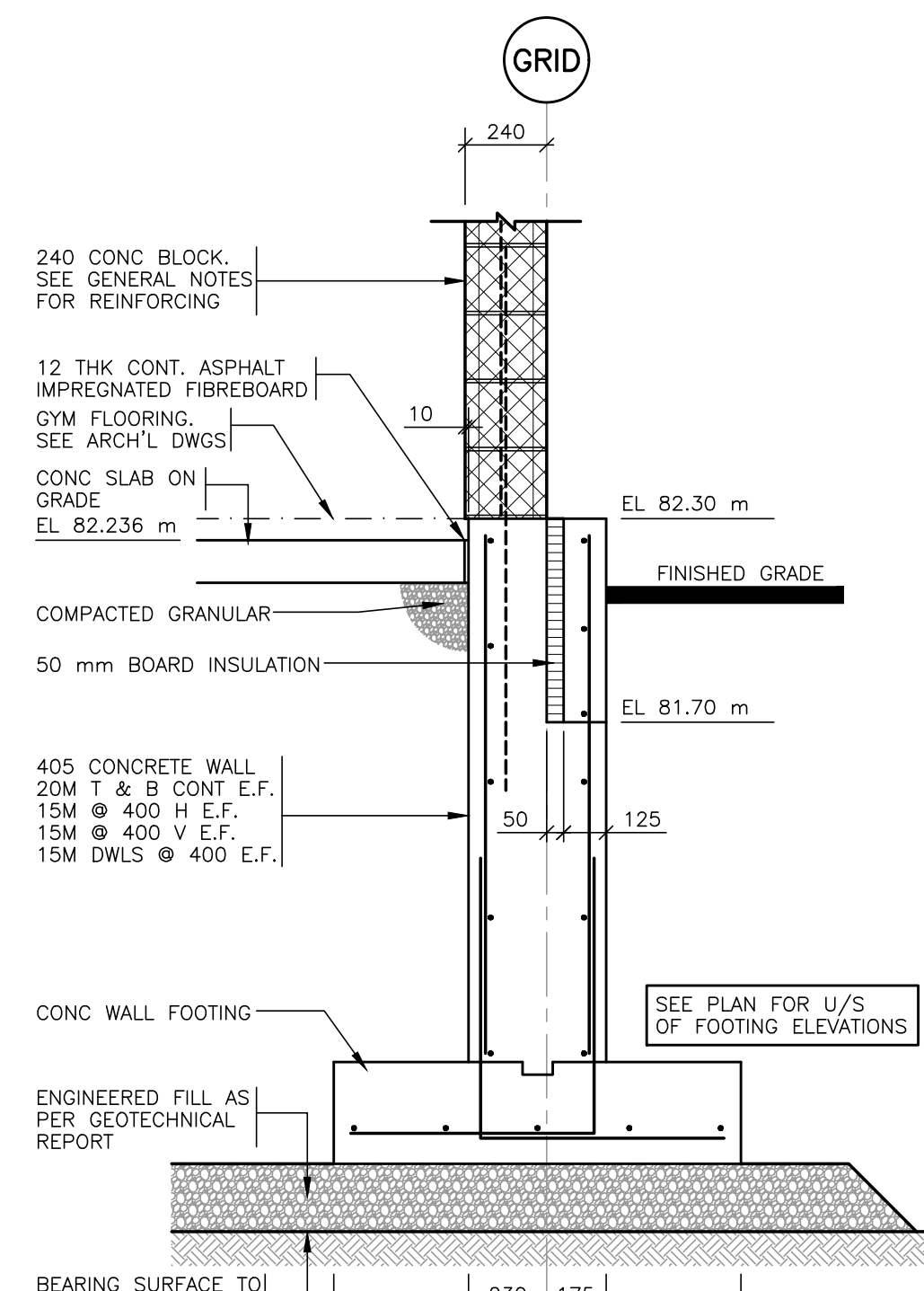
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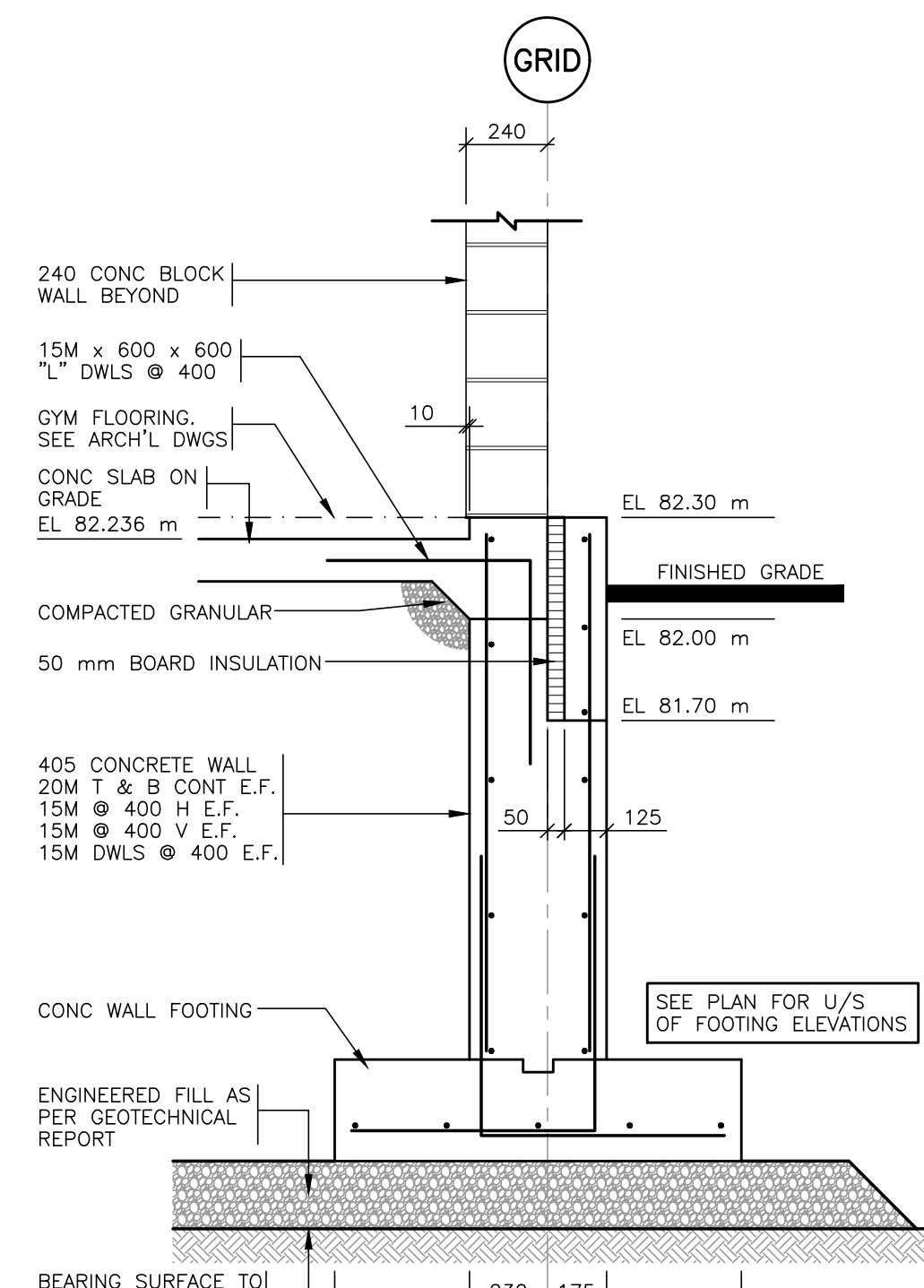
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S100 1 : 20



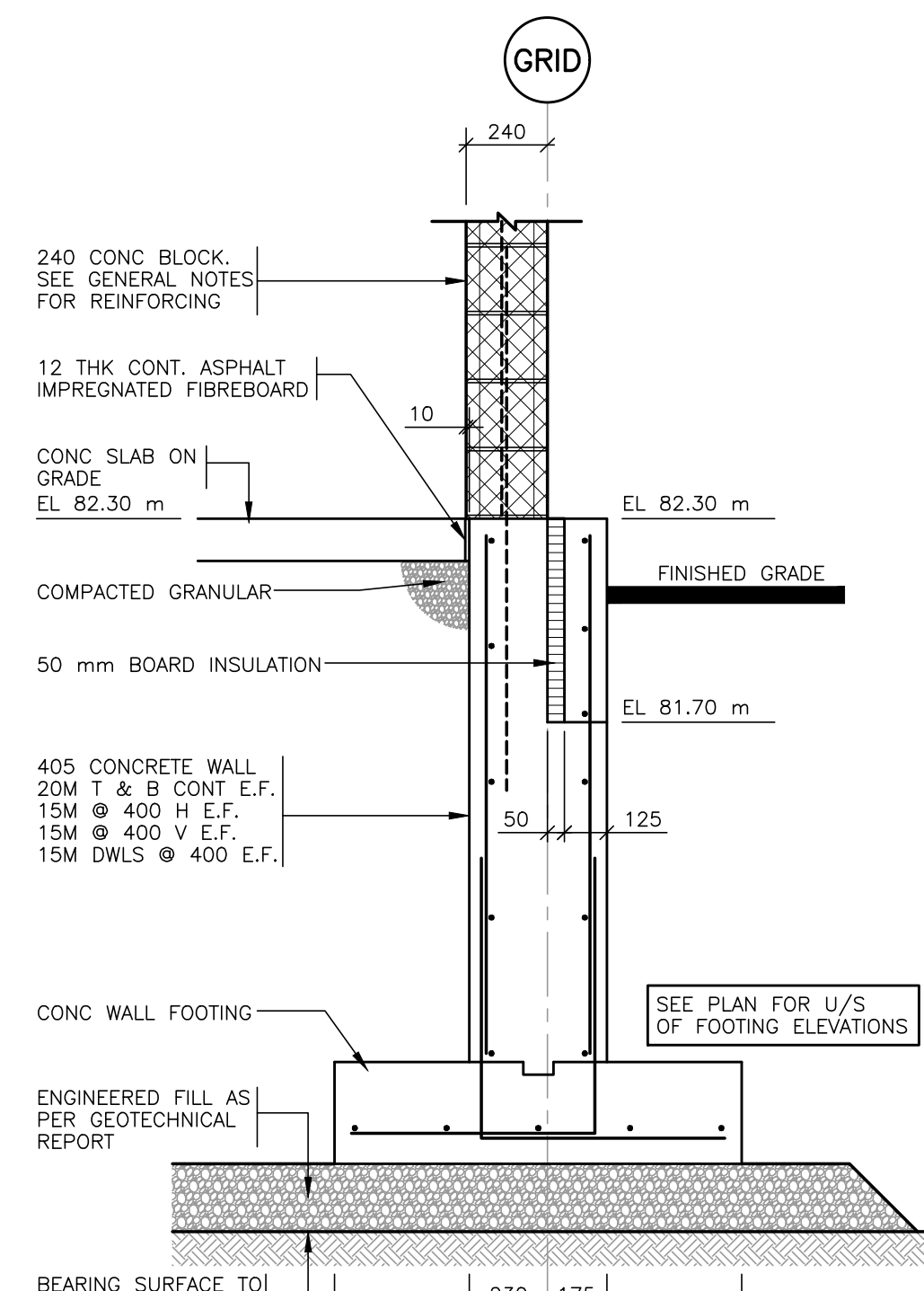
1A SECTION
S100 1 : 20



2 SECTION
S100 1 : 20



2A SECTION
S100 1 : 20



3 SECTION
S100 1 : 20

| | | |
|---|----------------------------|-----------|
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PROJECT
BOYS & GIRLS CLUB OF OTTAWA
1463 PRINCE OF WALES DR

ARCHITECT
HOBIN ARCHITECTURE INC

DRAWING
SECTIONS & DETAILS

CUNLIFFE
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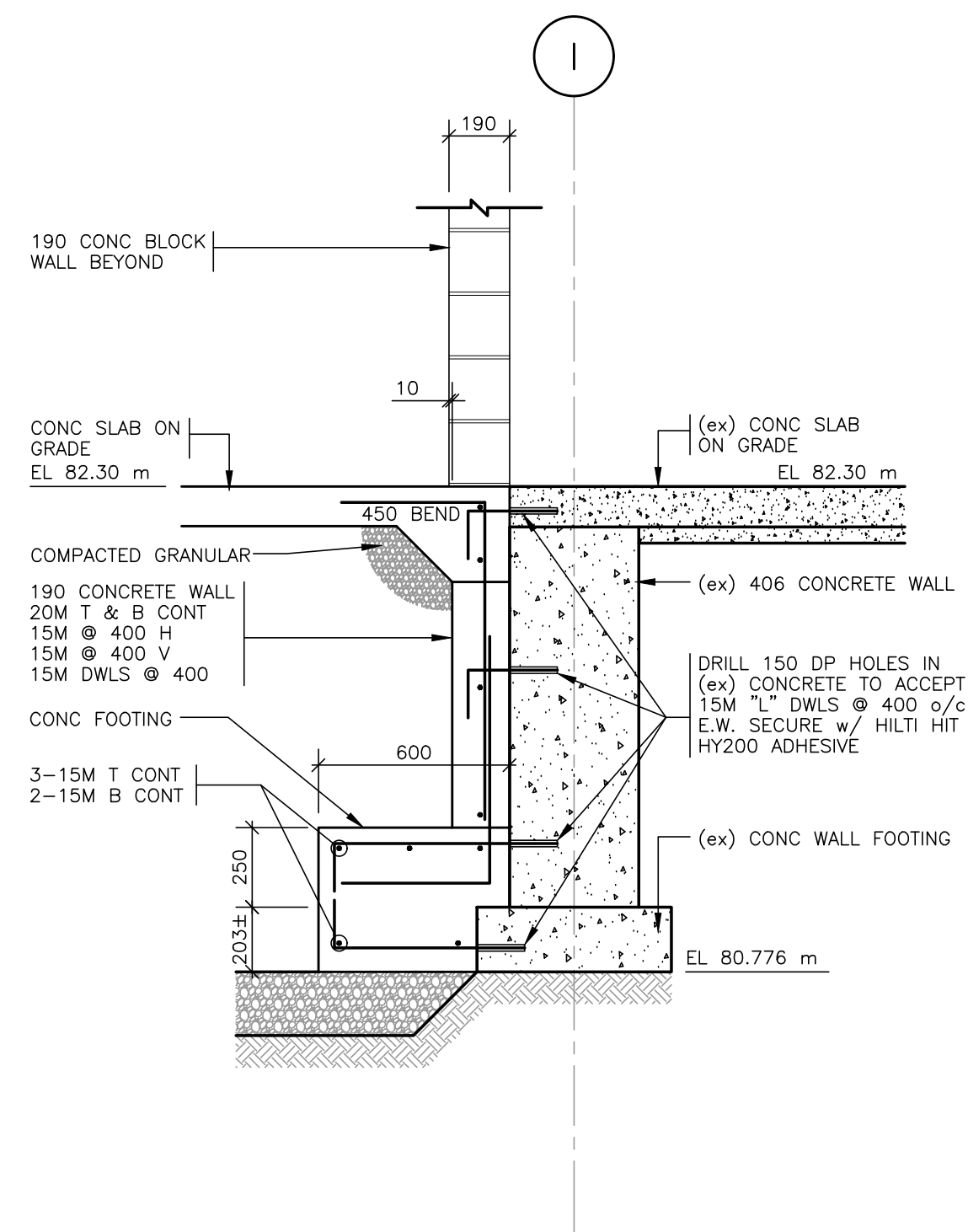
ENGINEER'S SEAL
SCALE 1 : 20 U/N

1/25/2018
R. L. CUNLIFFE
PROF. ENG. ONT.

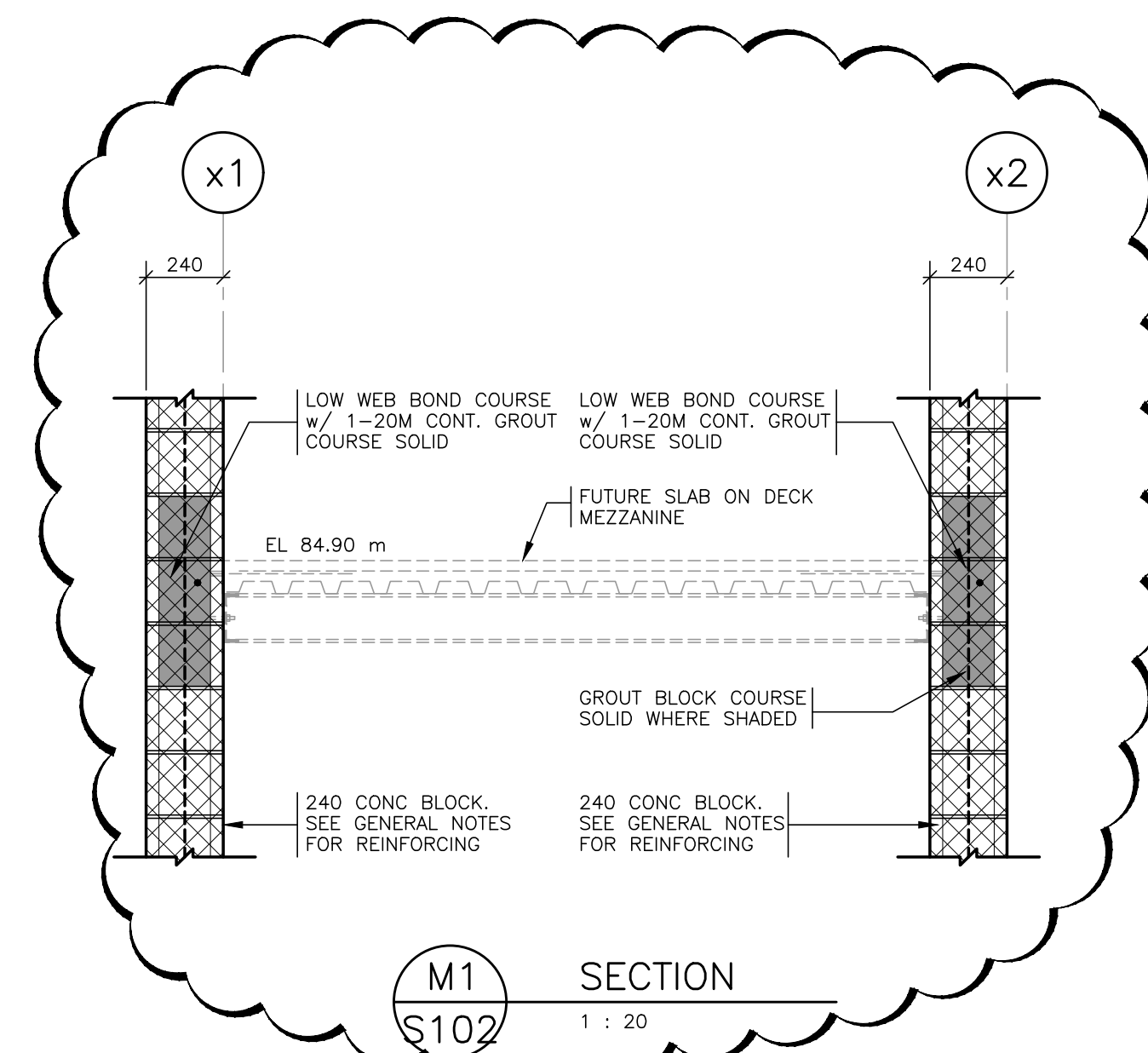
DRAWN: RW
REVIEWED: RIC

PROJECT NO: 17-007
SHEET NO: S300

REVISION NO. 1



6A SECTION
S100 1 : 20



M1 SECTION
S102 1 : 20

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|---|----------------------------|-----------|
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ARCHITECT
HOBIN ARCHITECTURE INC

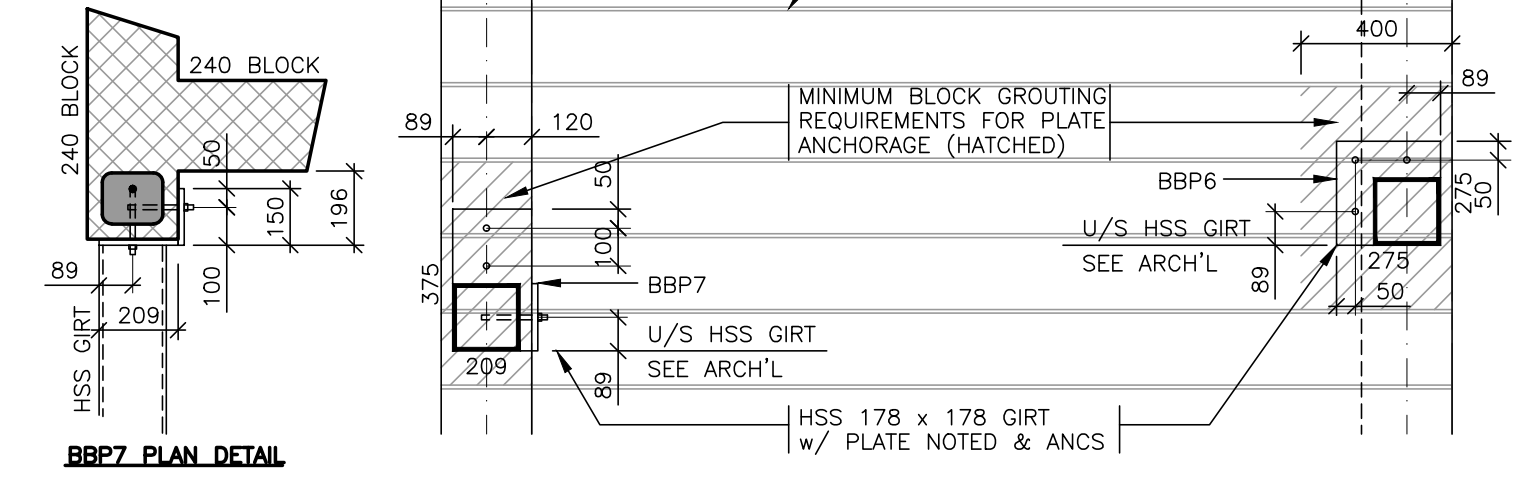
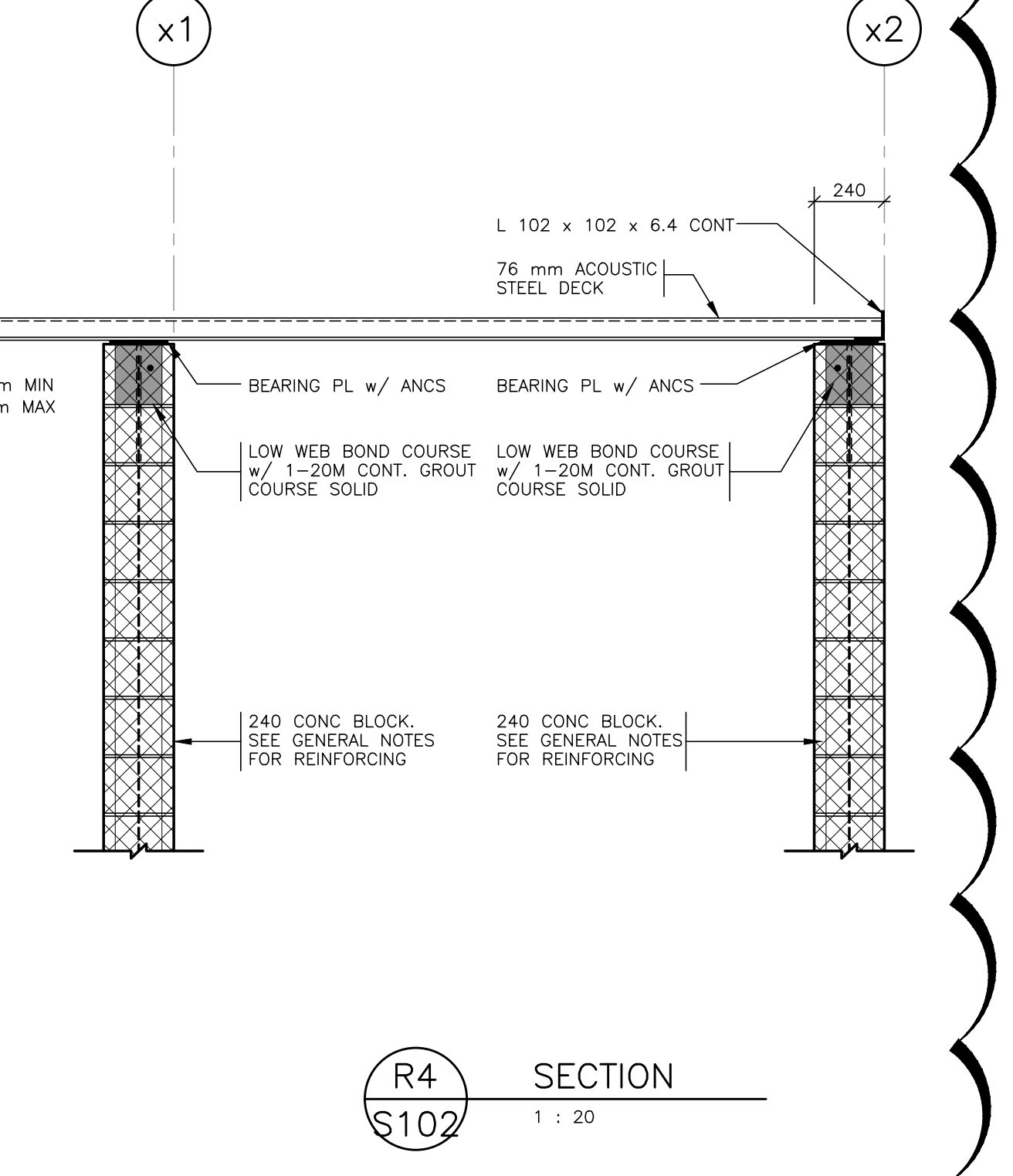
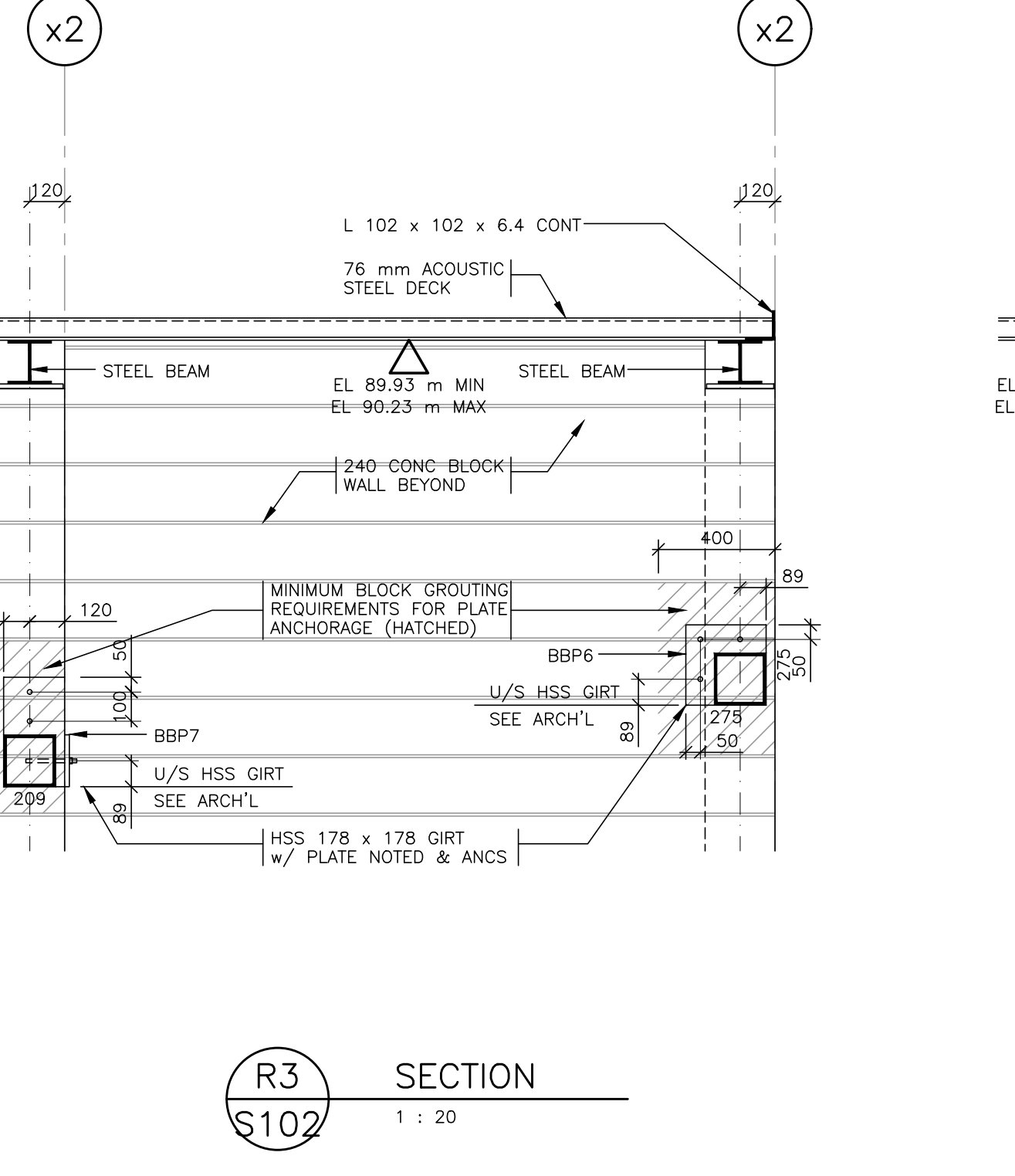
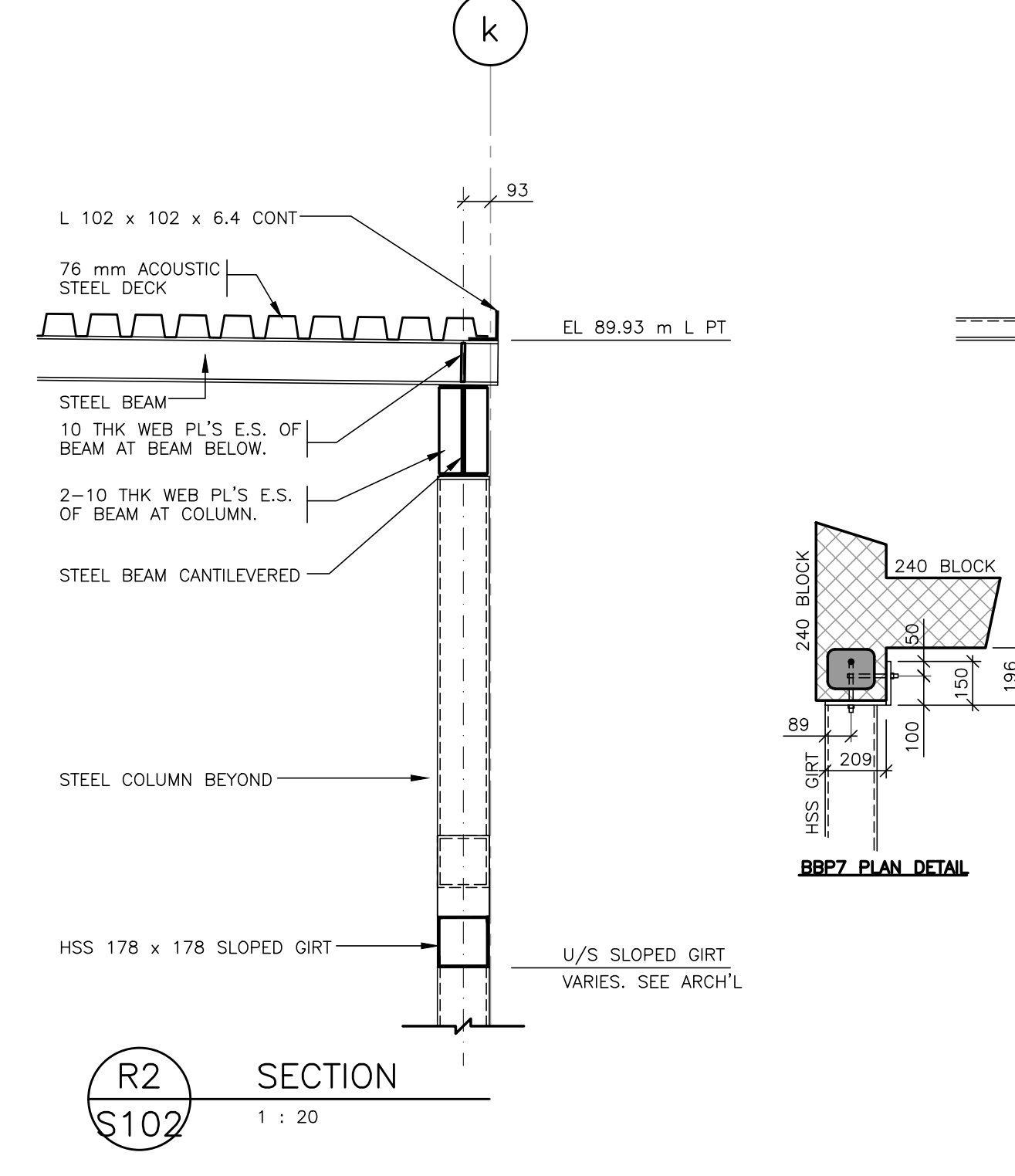
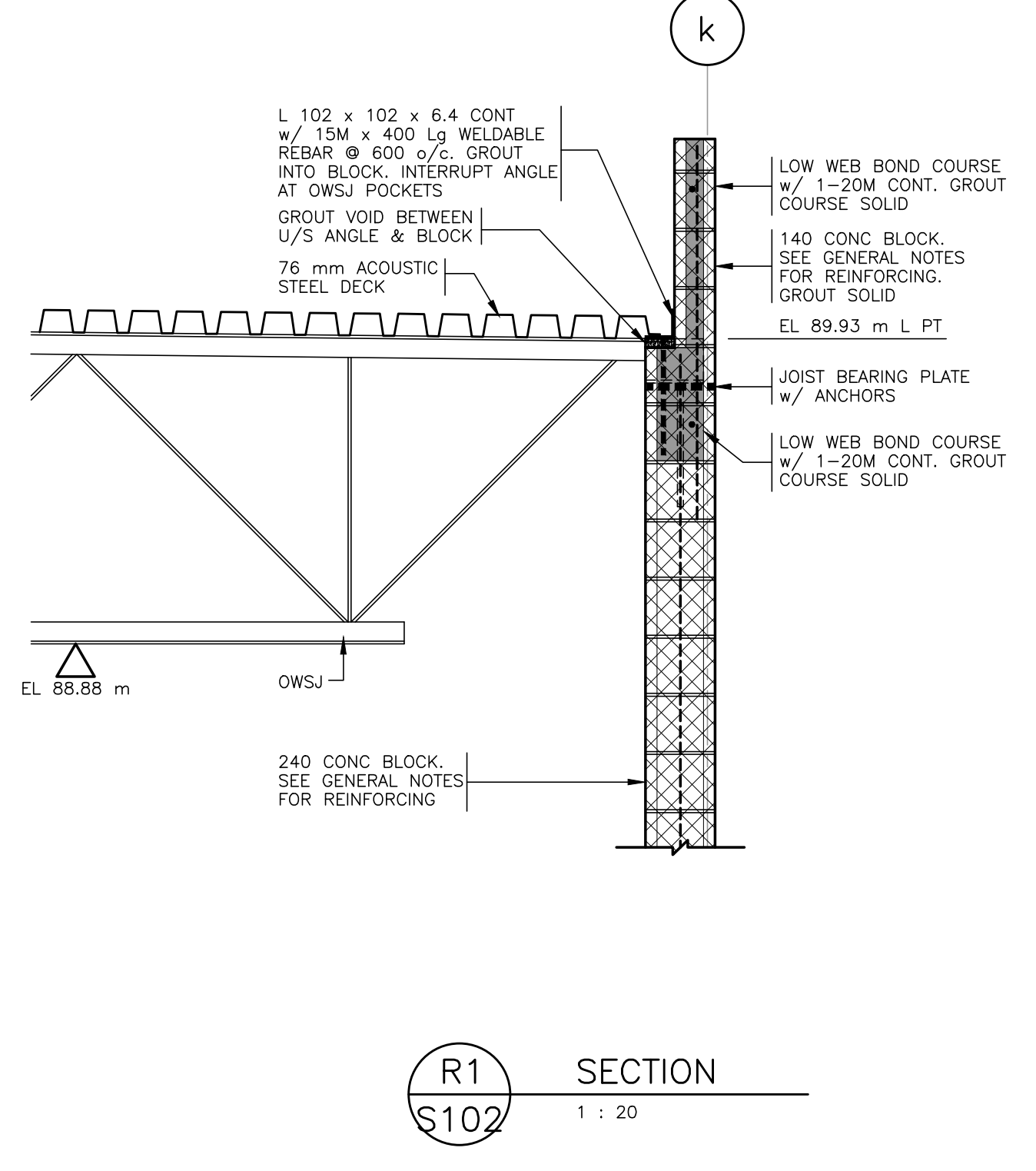
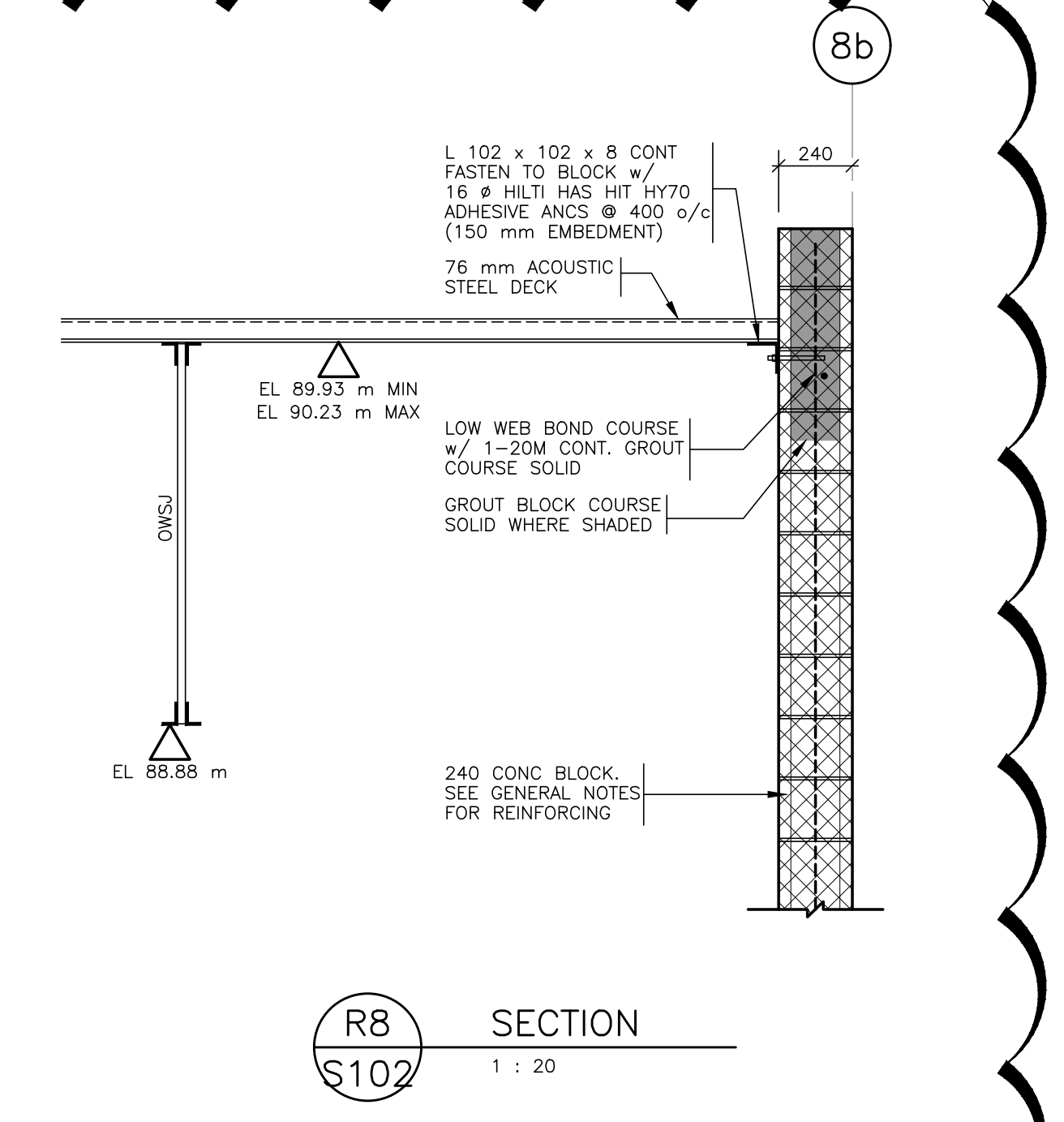
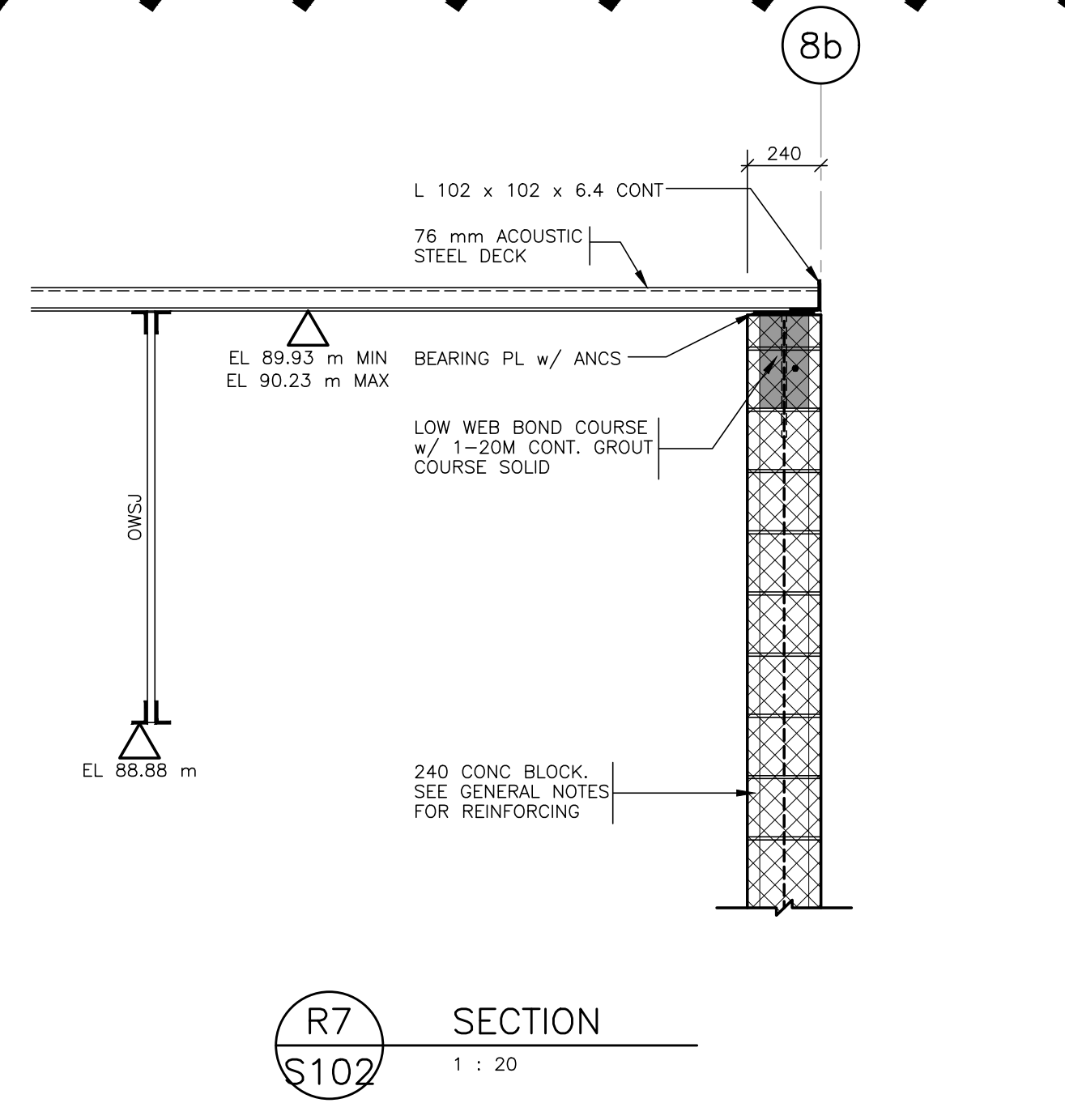
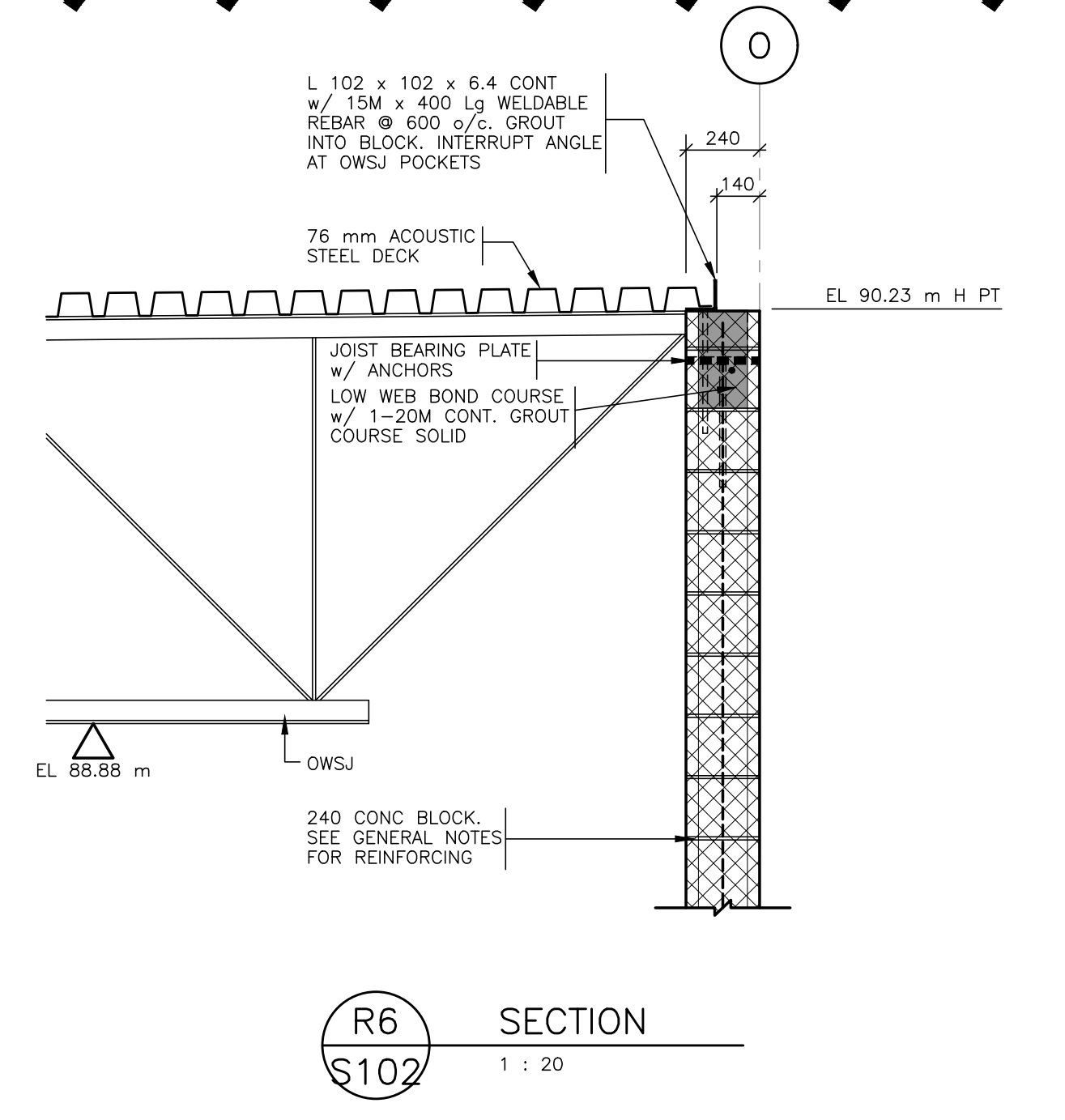
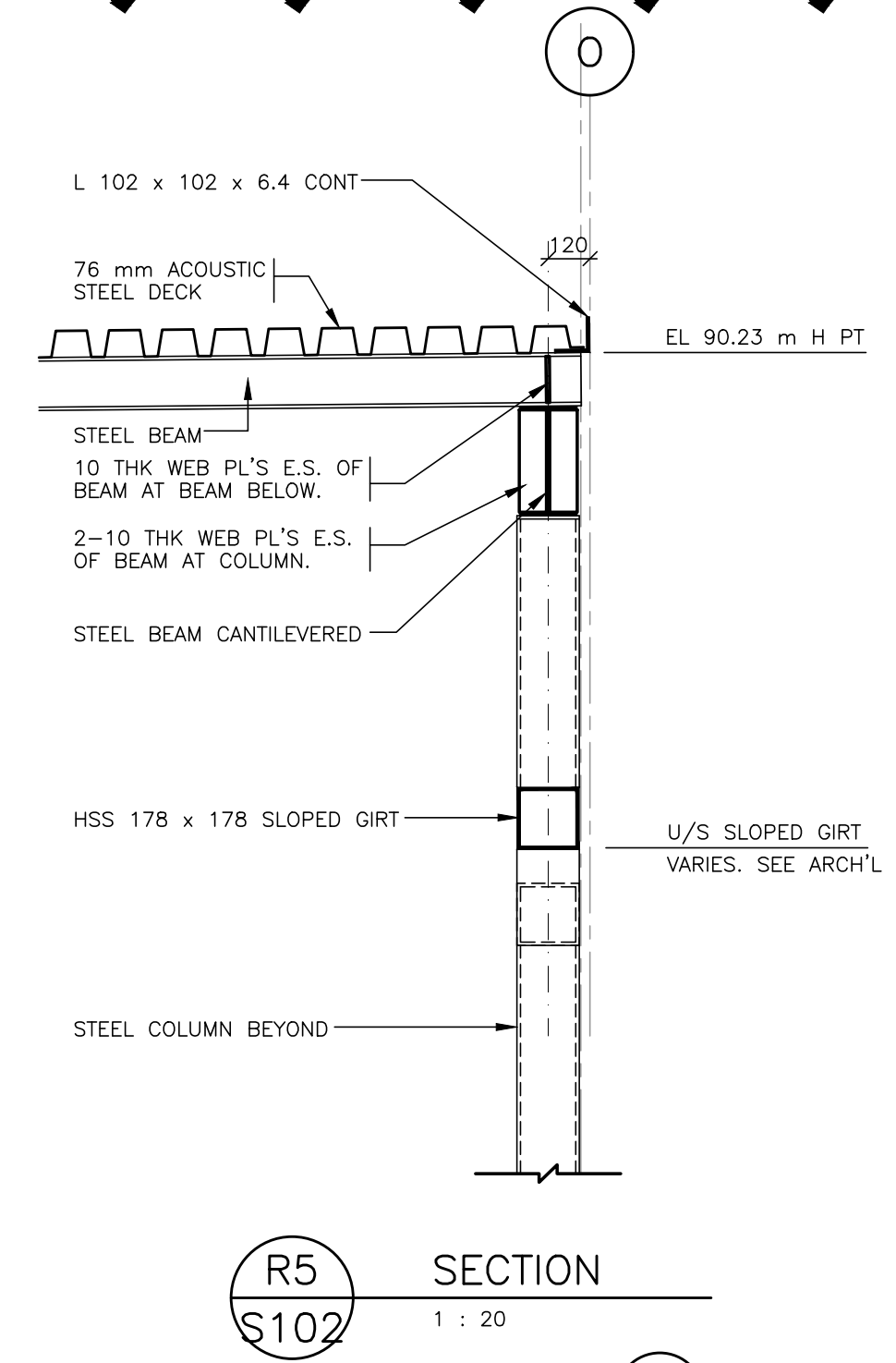
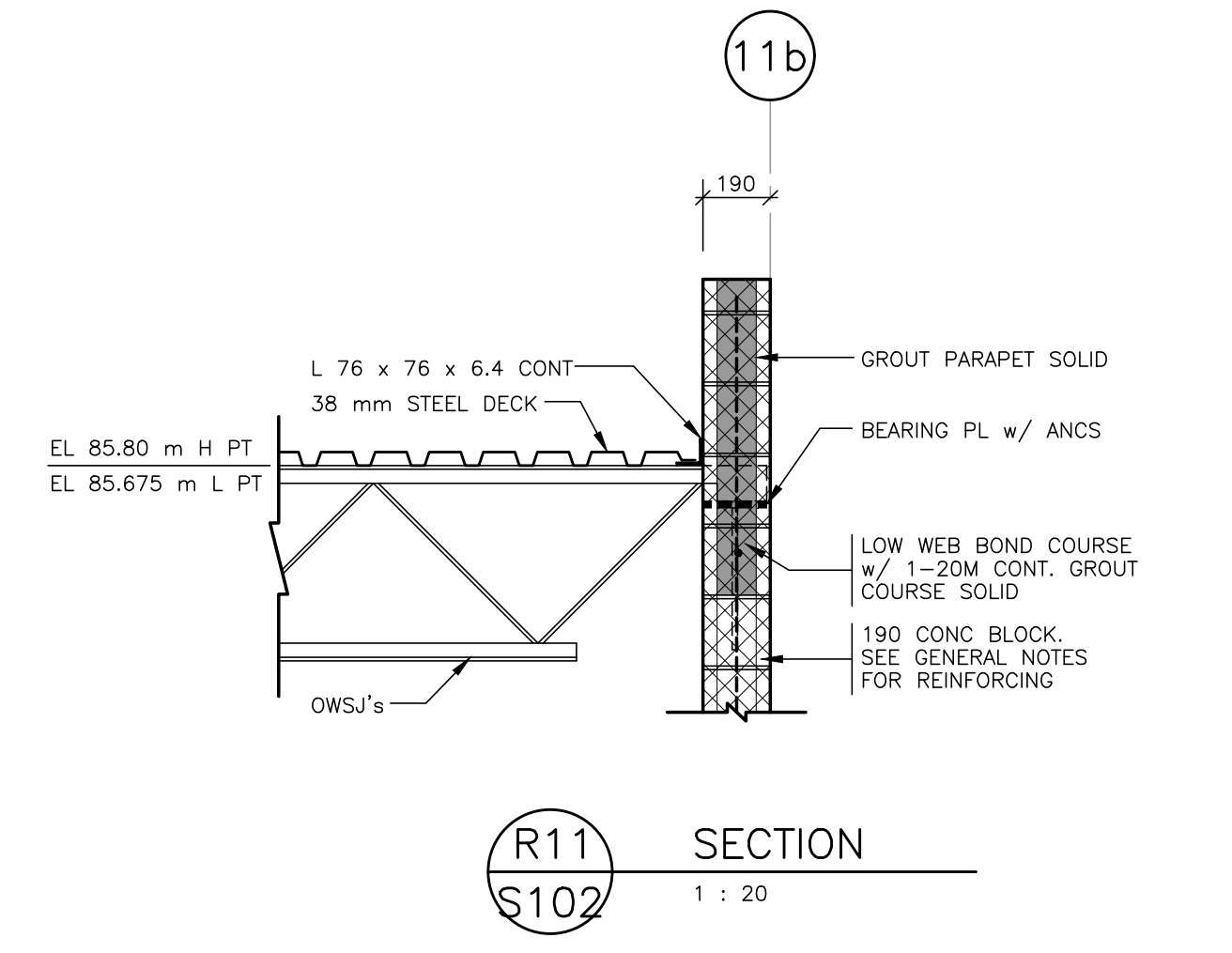
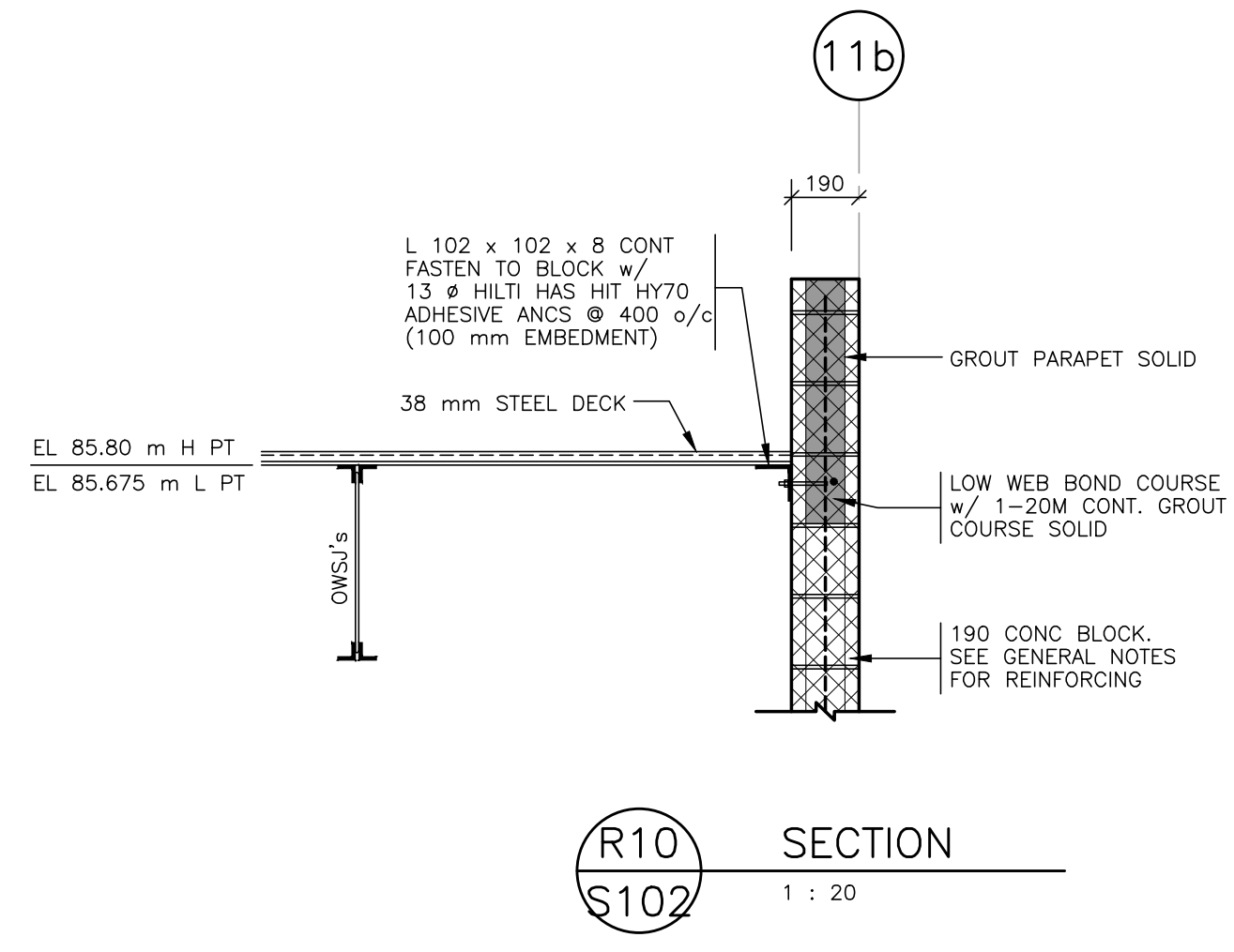
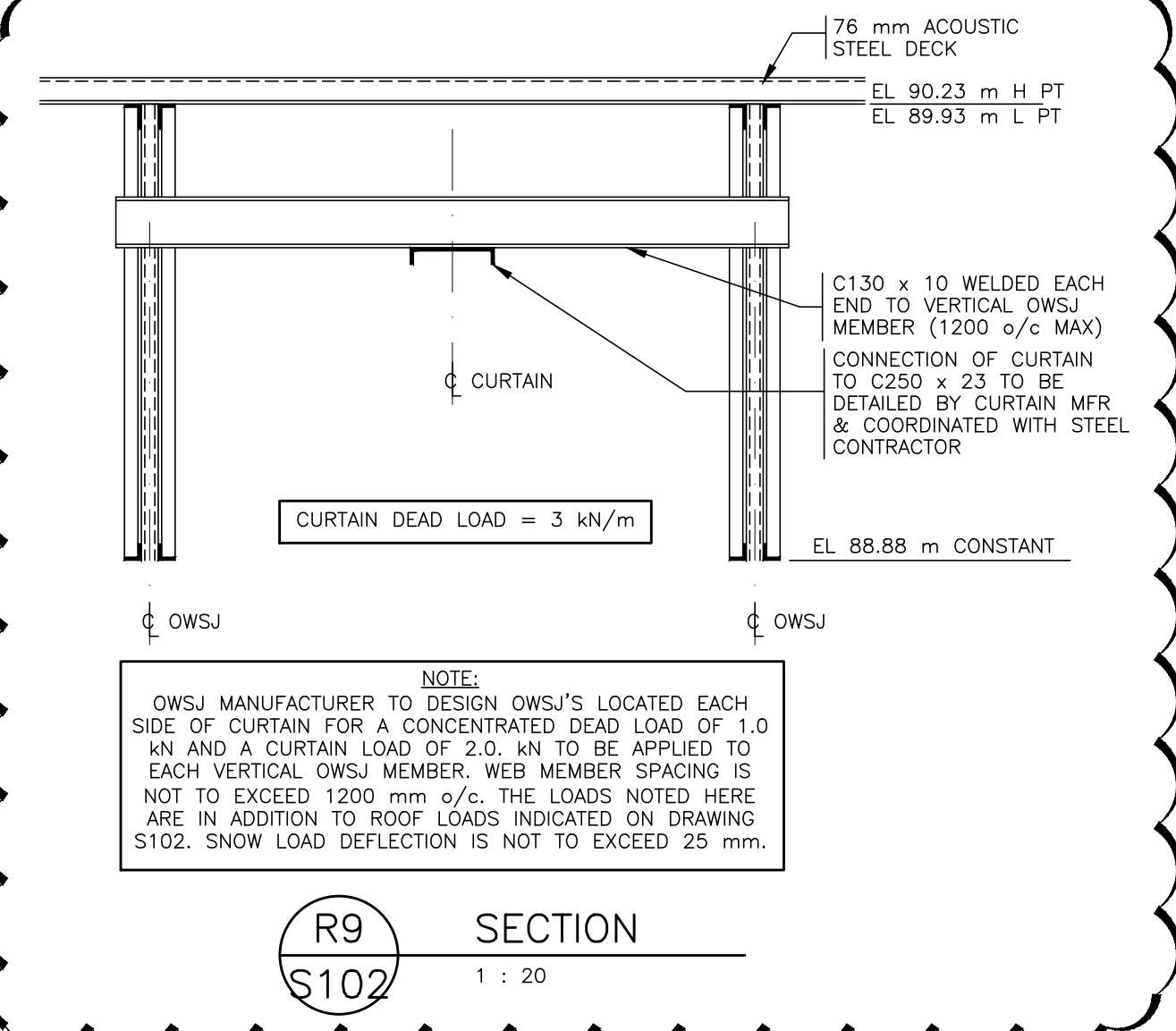
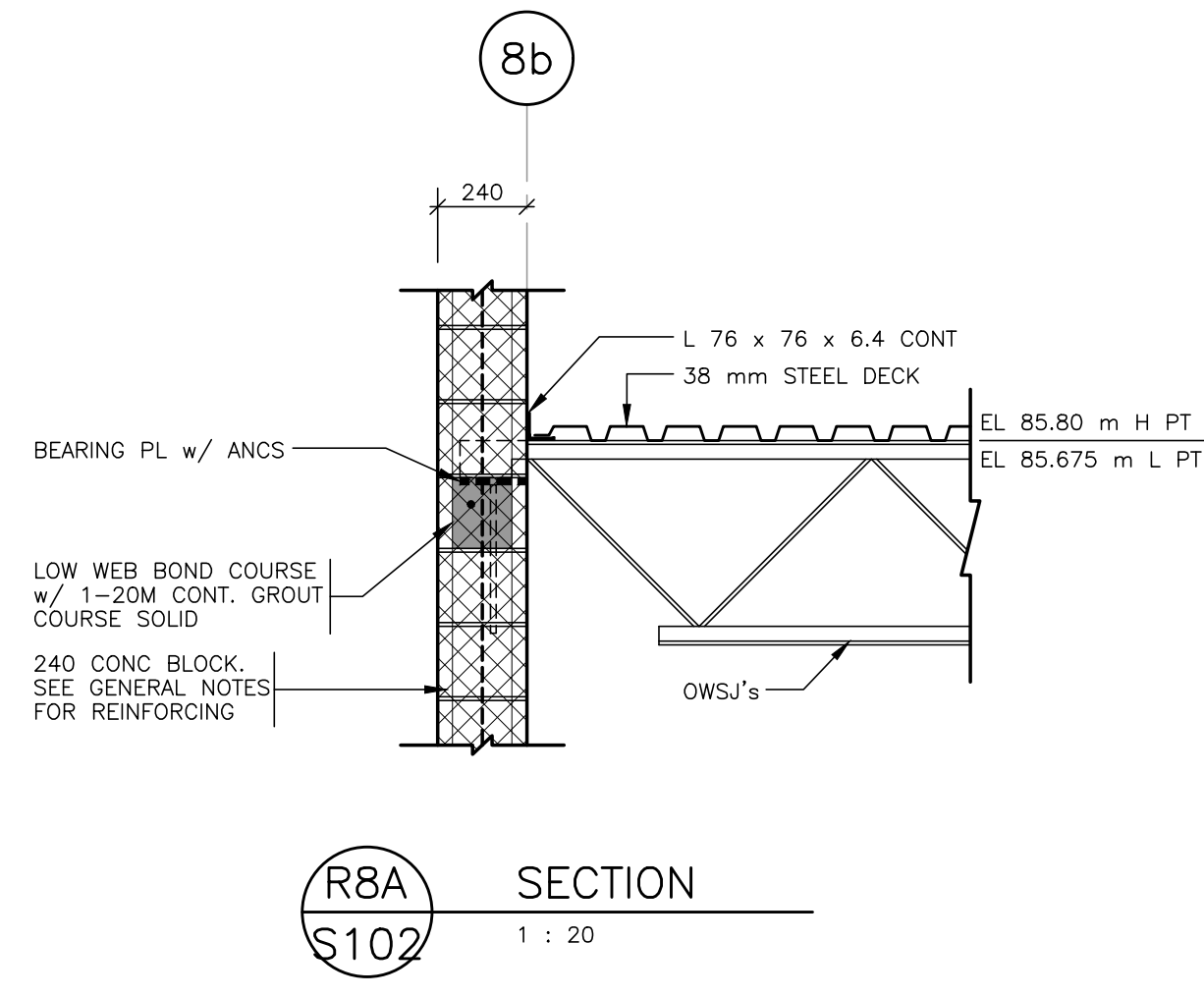
DRAWING
SECTIONS & DETAILS

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ENGINEER'S SEAL SCALE 1 : 20 U/N

PROFESSIONAL ENGINEER
1/25/2018
R. L. CUNLIFFE
PRINCE OF EDWARD

DRAWN RW REVIEWED RIC
PROJECT NO. 17-007 SHEET NO. S301
REVISION NO. 1



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ARCHITECT
HOBIN ARCHITECTURE INC

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CUNLIFFE
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ENGINEER'S SEAL
SCALE
1 : 20 U/N

PROFESSIONAL ENGINEER
R. L. CUNLIFFE
1/25/2018

DRAWN
RW

REVIEWED
RIC

PROJECT NO.
17-007

SHEET NO.
S302

REVISION NO.