

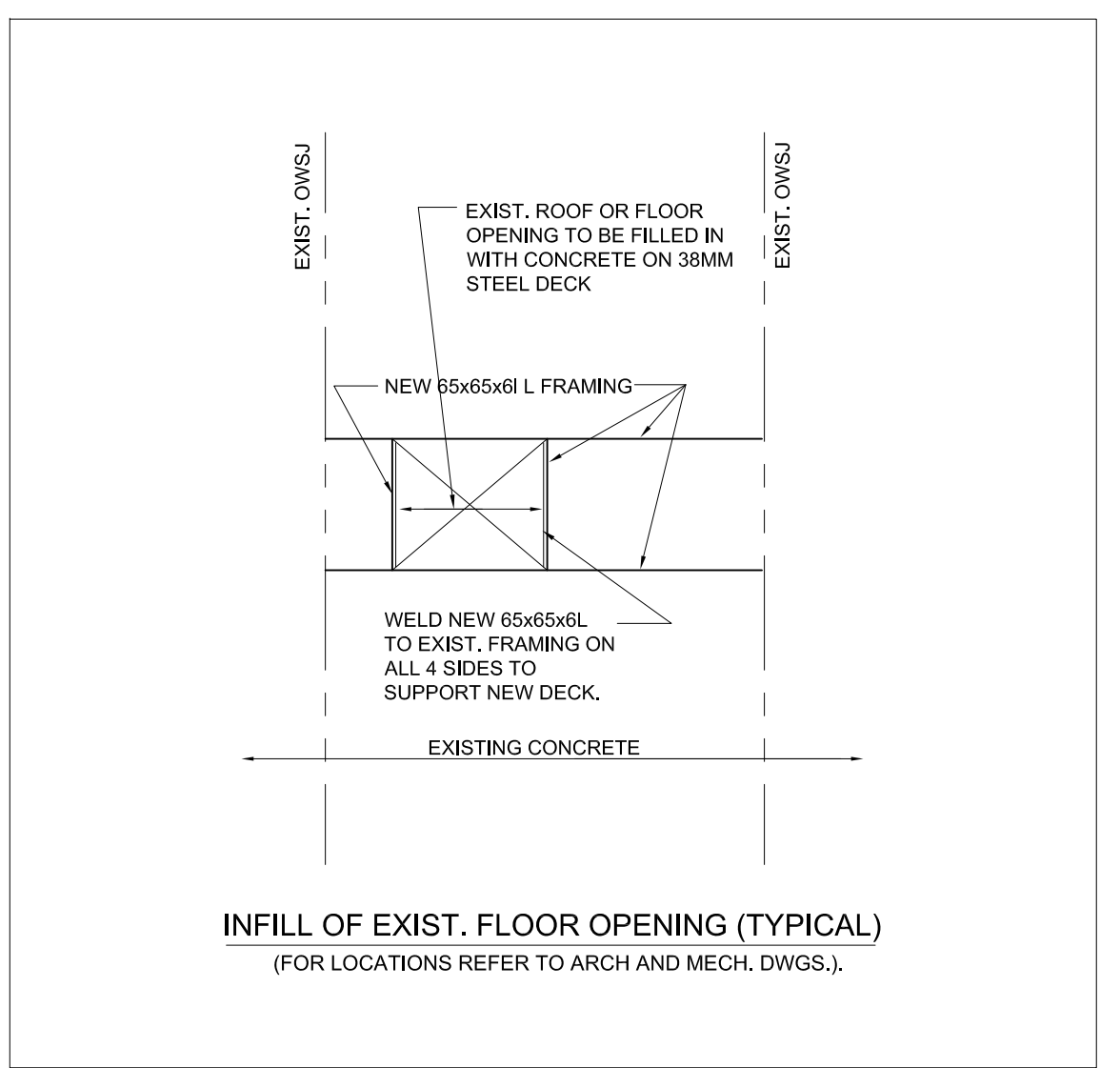
PART FLOOR FRAMING PLAN SCALE 1:50

- FOR SLOPES AND ELEVATIONS SEE ARCHITECTURAL DRAWINGS.
- FLOOR STRUCTURE IS EXISTING UNLESS NOTED OTHERWISE. EXISTING FRAMING DATA ARE TAKEN FROM THE ORIGINAL DRAWINGS DESIGNED BY SHARNET & REIDER HYMMEN ARCHITECTS ON YEAR 1965. REPORT TO CONSULTANTS DISCREPANCIES AND NECESSARY.
- ADJUSTMENTS DUE TO ACTUAL CONDITIONS BEFORE PROCEEDING WITH WORK.
- EXISTING CLASSROOMS JOISTS ARE DESIGNED FOR DEAD LOAD 60 psf (2.9 kPa), NOT INCLUDING SELFWEIGHT, AND LIVE LOAD 60 psf (2.9 kPa).
- NEW KITCHEN FLOOR JOISTS TO BE DESIGNED FOR DEAD LOAD 60 psf (2.9 kPa) NOT INCLUDING SELFWEIGHT, AND LIVE LOAD 4.8 kPa. ADD 0.5 kPa FOR MECHANICAL. NEW JOISTS DESIGN SHAPE TO MATCH EXISTING.
- NEW JOISTS DESIGN SHAPE TO TAKE IN ACCOUNT THE EXISTING DEFLECTION OF THE EXISTING FLOOR TO AVOID INSTALLATION ISSUES.
- WHERE NEW JOISTS/MEMBERS ARE PLACED BETWEEN EXISTING JOISTS, DISCONNECT EXISTING BRIDGING LINES AND RECONNECT AFTER NEW JOISTS ARE INSTALLED.
- LIVE LOAD IS 4.8kN/m² FOR STAIRS, CORRIDORS AND LOBBIES EXCEPT AS OTHERWISE NOTED.
- UNLESS NOTED OTHERWISE PROVIDE L65 X 65 X 6.4 ANGLE REINFORCING AROUND ALL OPENINGS IN FLOOR SLAB THAT ARE BIGGER THAN 150mm x 150mm.
- SEE ALSO TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS.
- UNLESS NOTED OTHERWISE PROVIDE 170 X 12 X 200 BEARING PLATES EACH END OF ALL STEEL BEAMS. ALL BEARING PLATES SHALL BE WITH 2-190 WELDED ANCHORS X 250 LG. WELD BEAM TO BEARING PLATES TYPICAL.
- UNLESS NOTED OTHERWISE FOR LINTELS OVER MECHANICAL WALL OPENINGS REFER TO "LINTELS FOR DUCTS AND SERVICES" ON TYPICAL DETAIL SHEET. FOR ALL NEW LINTELS IN EXISTING WALLS CONFIRM WALL THICKNESS BEFORE LINTELS ARE FABRICATED. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS.
- BLOCK VOIDS WITH REINFORCING OR SHOWN AS "FILLED SOLID" SHALL BE FILLED WITH 20MPa CONCRETE WITH PEA GRAVEL OR 20MPa COARSE GROUT.
- VERIFY ALL DIMENSIONS ON SITE BEFORE SHOP DRAWINGS ARE SUBMITTED.
- SHORE AS REQUIRED.

IMPORTANCE FACTOR CATEGORY 'HIGH'

	ULS	SLS
SNOW	1.15	0.9
WIND	1.15	0.75
EARTHQUAKE	1.3	1.0

- MASONRY WALL REINFORCING-TYPICAL**
(UNLESS NOTED OTHERWISE ON PLANS OR SECTIONS)
- EXTERIOR WALLS:
 - 190 BACK UP WALL - 15M VERTICAL REINFORCING AT 800c/c SET IN MIDDLE OF 190 WALL.
 - 240 BACK UP WALL - 15M VERTICAL REINFORCING AT 800c/c SET IN MIDDLE OF 240 WALL.
 - 290 BACK UP WALL - 15M VERTICAL REINFORCING AT 800c/c EACH FACE OF WALL.
 - INTERIOR WALLS:
 - 190 WALL - 15M VERTICAL REINFORCING AT 1200c/c SET IN MIDDLE OF 190 WALL.
 - 240 WALL - 15M VERTICAL REINFORCING AT 1200c/c SET IN MIDDLE OF 240 WALL.
 - 290 WALL - 15M VERTICAL REINFORCING AT 800c/c SET IN MIDDLE OF 290 WALL.
 - PROVIDE 1-15M VERTICAL EACH FACE OF BLOCK AT EACH SIDE OF ALL WALL OPENINGS AND BEAM BEARINGS FOR SPANS LARGER THAN 1200mm. TYPICAL FOR ALL EXTERIOR AND INTERIOR WALLS. (NOT REQUIRED IF PIER REINFORCING IS SPECIFIED ON PLANS AT THIS LOCATION).
 - PROVIDE HORIZONTAL MASONRY REINFORCING AS PER SPECIFICATION.
 - ALL BLOCK VOIDS WITH REINFORCING SHALL BE FILLED SOLID WITH 20MPa COURSE GROUT OR 20MPa CONCRETE WITH PEA GRAVEL.
 - MASONRY INDICATED ON PLAN AS "FILLED SOLID", SHALL BE FULLY FILLED WITH 20MPa COURSE GROUT OR 20MPa CONCRETE WITH PEA GRAVEL.
 - PROVIDE MINIMUM SPLICE 600mm FOR ALL VERTICAL REINFORCING.
 - MASONRY REQUIRED TO BE "FILLED SOLID", SHALL BE FILLED IN LOW LIFTS UNLESS APPROVED BY THE CONSULTANT.
 - CO-ORDINATE MASONRY REINFORCING PLACEMENT WITH LINTEL AND BEAM BEARINGS.
 - PROVIDE CONTINUOUS LINTEL BLOCK BAND COURSE WITH 2-15M CONT. BARS AT GROUND FLOOR LEVEL AND EACH SUBSEQUENT FRAMED LEVEL ABOVE.



KEY PLAN
AREA OF RENOVATION

NOTE: THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE DIMENSIONS AND FOR NOTIFYING THE ARCHITECT OF ANY SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

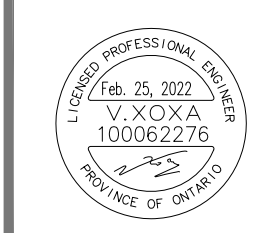
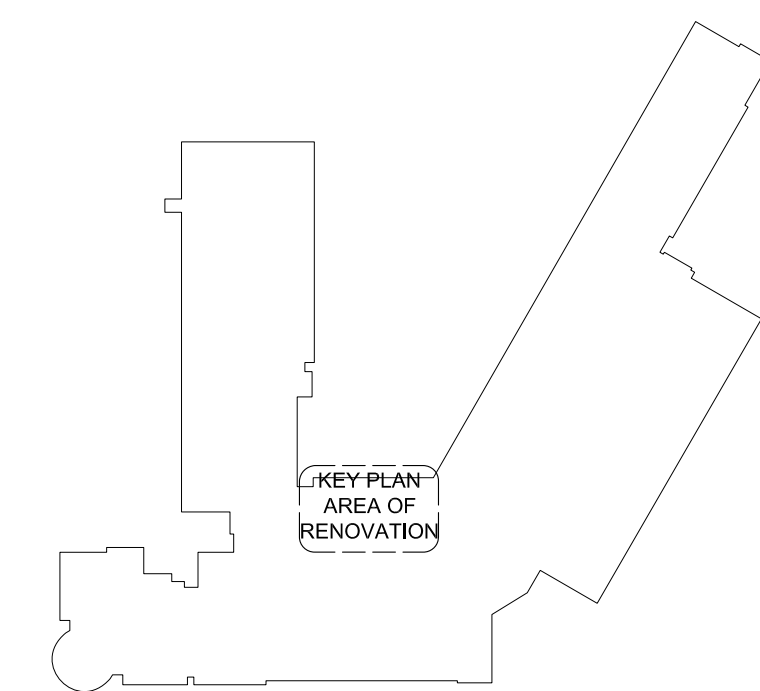
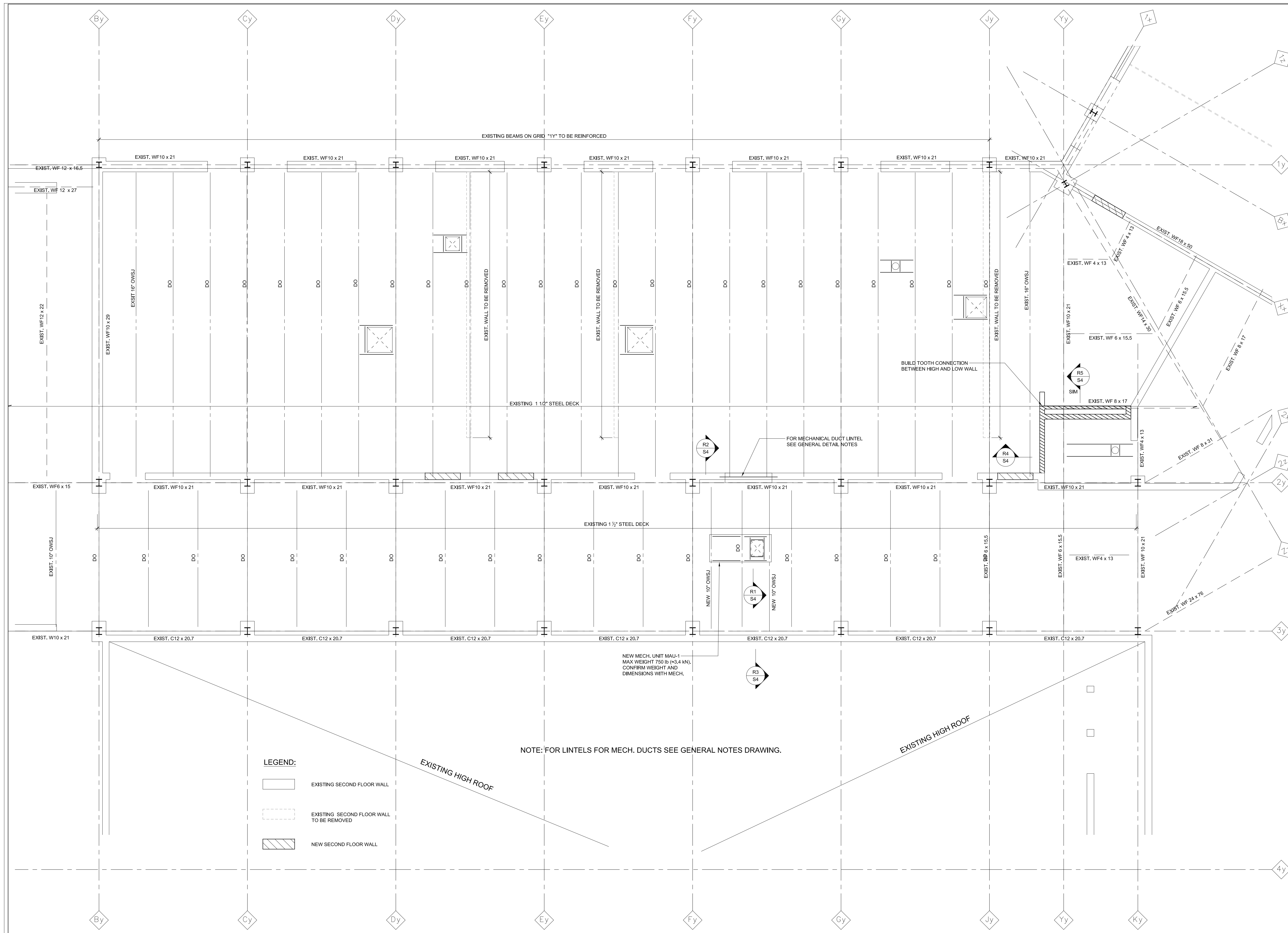
no.	revision	date
1	Issued for Permit and Tender	Feb. 25, 2022

project
WRDSB GRAND RIVER COLLEGIATE INSTITUTE RENOVATIONS
WATERLOO REGION DISTRICT SCHOOL BOARD
175 INDIAN RD, KITCHENER, ON N2B 2S7
drawing
SECOND FLOOR AND GROUND SECTIONS
drawing scale
AS NOTED
ward99 project number
20038 - WRDSB GRAND RIVER
VX Engineering project number
2106 - WRDSB GRAND RIVER
drawing no.

VX
VX ENGINEERING INC
STRUCTURAL ENGINEERS

VX ENGINEERING inc.
2500 - 135Marlee Avenue
Toronto, Ontario M6B 4C6
416 670 9422 www.vxengineering.com

S2



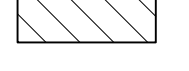


NOTE: THIS DRAWING IS NOT TO SCALE. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE DIMENSIONS AND FOR NOTIFYING THE ARCHITECT OF ANY SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

no.	revision	date

no.	issue	date
1	Issued for Permit and Tender	Feb. 25, 2022

project
 WRDSB GRAND RIVER COLLEGIATE INSTITUTE RENOVATIONS
 WATERLOO REGION DISTRICT SCHOOL BOARD
 175 INDIAN RD, KITCHENER, ON N2B 2S7
 drawing
EXISTING PART ROOF FRAMING PLAN
 drawing scale
AS NOTED
 ward99 project number
 20038 - WRDSB GRAND RIVER
 VX Engineering project number
 2106 - WRDSB GRAND RIVER

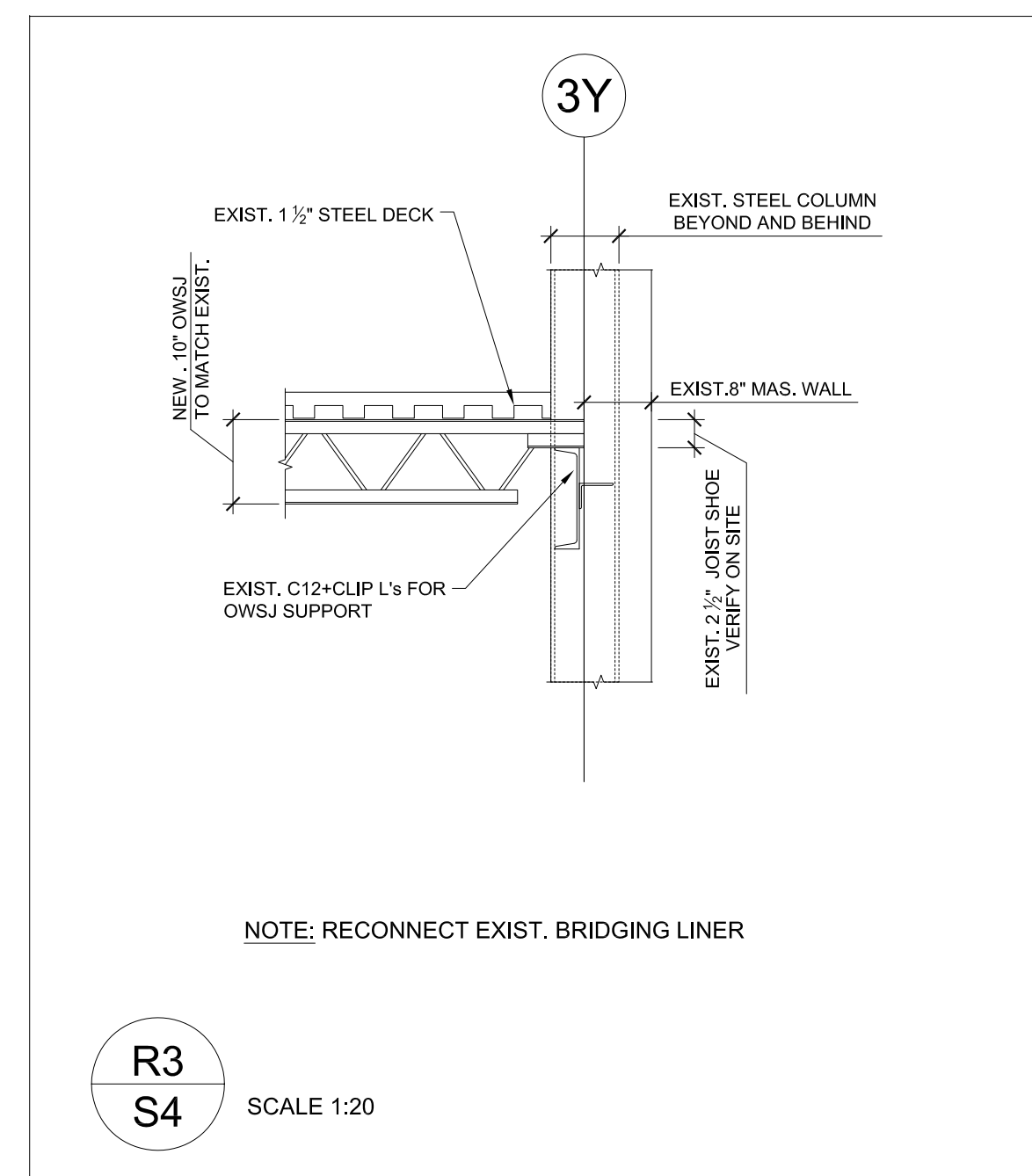
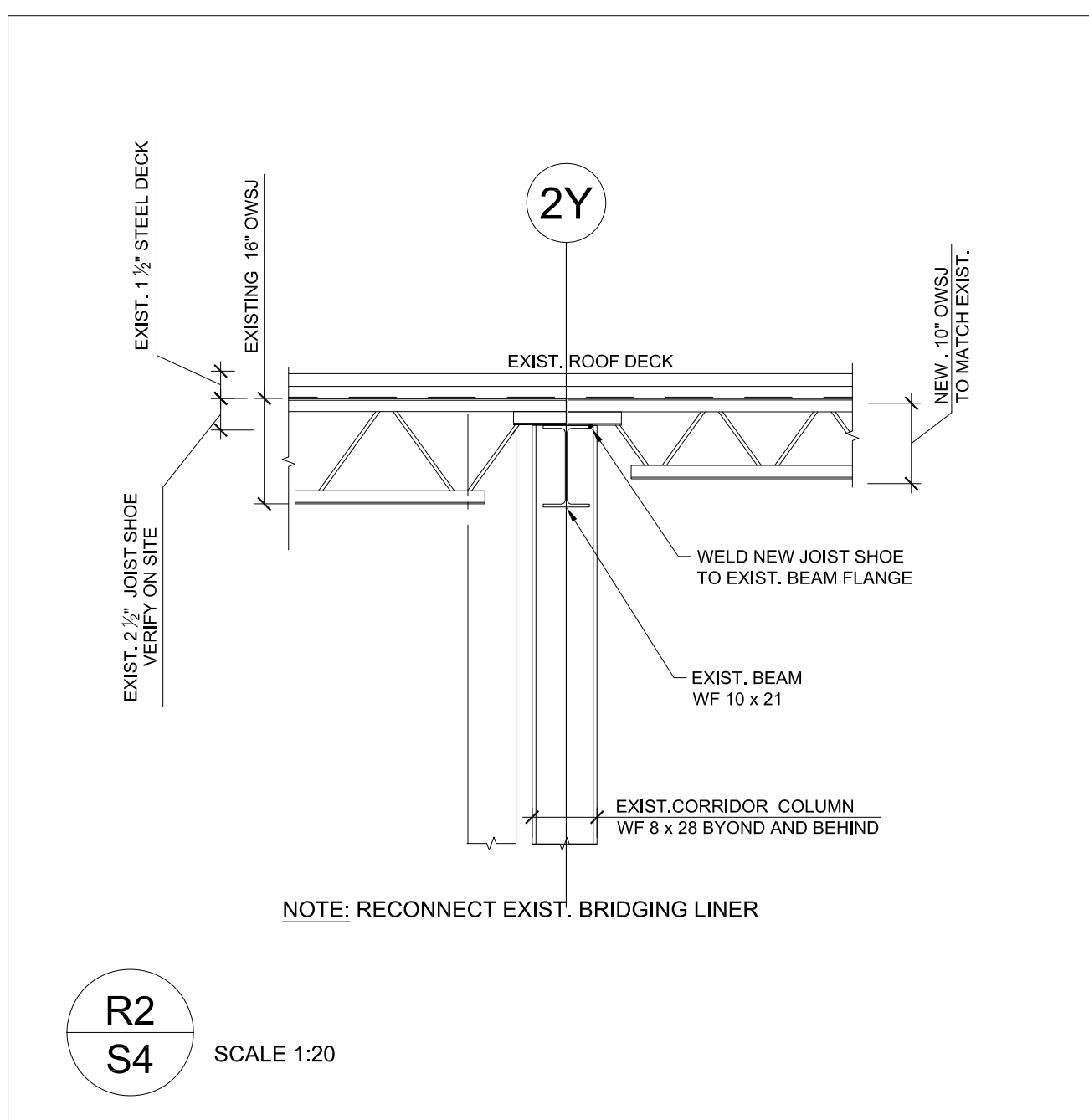
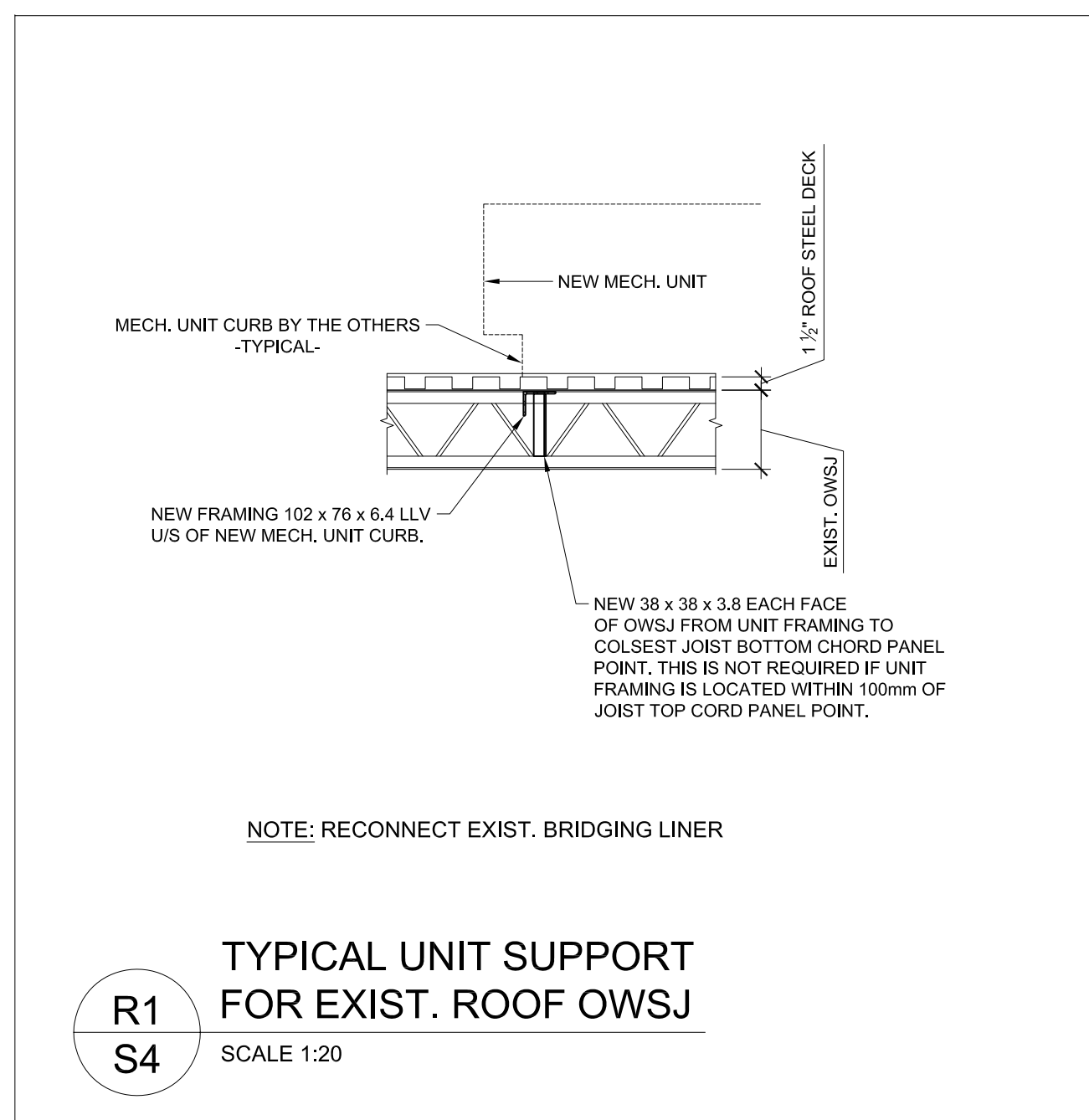
LEGEND:
 EXISTING SECOND FLOOR WALL
 EXISTING SECOND FLOOR WALL TO BE REMOVED
 NEW SECOND FLOOR WALL

1
S3 EXISTING PART ROOF FRAMING PLAN
 1:50 FOR NOTES SEE S4



VX ENGINEERING INC.
 2500 - 135Marte Avenue
 Toronto, Ontario M6B 4C6
 416 670 9422 www.vxengineering.com

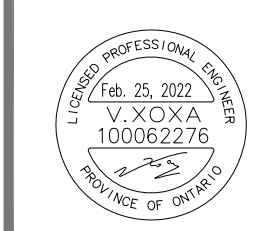
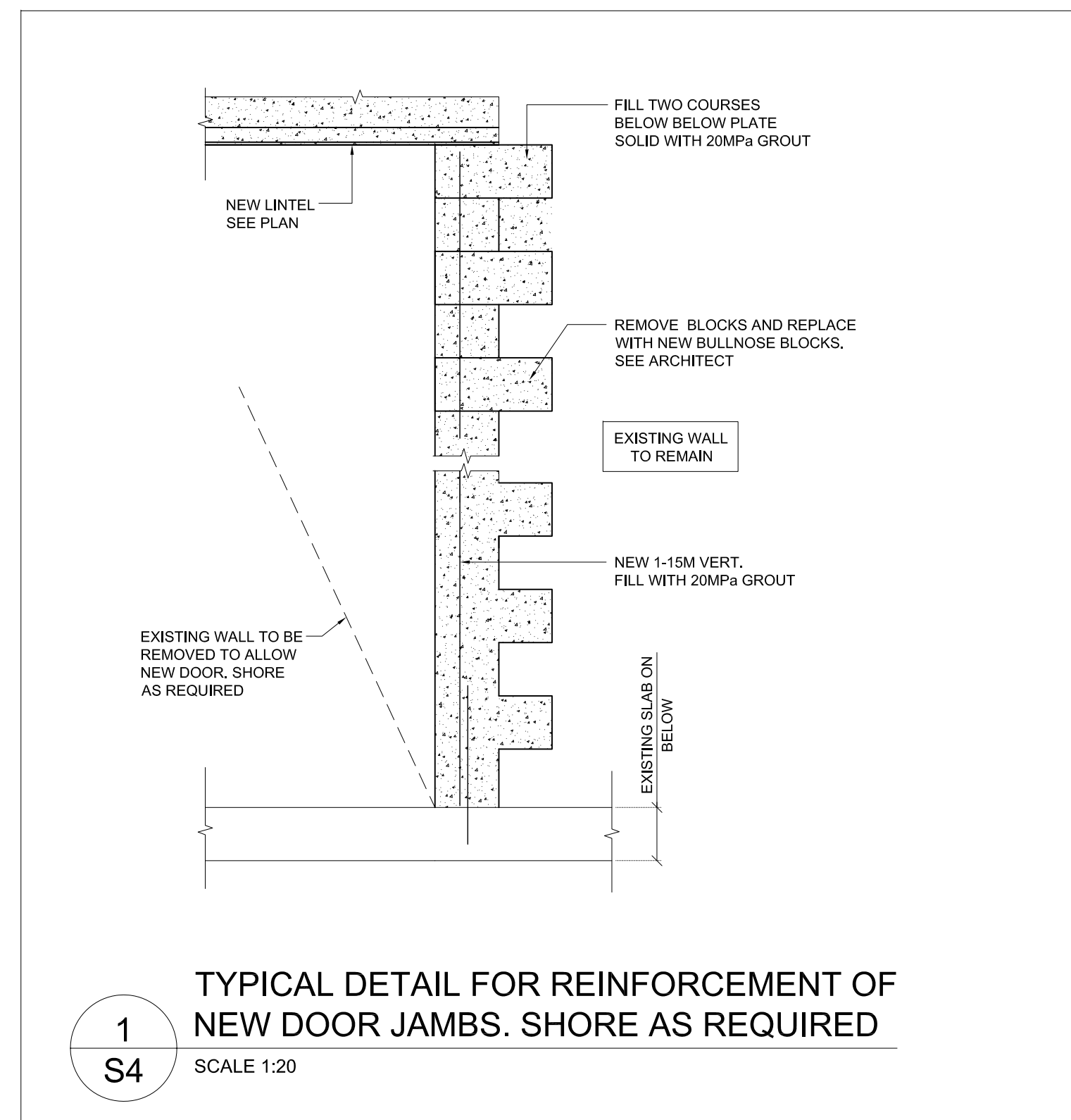
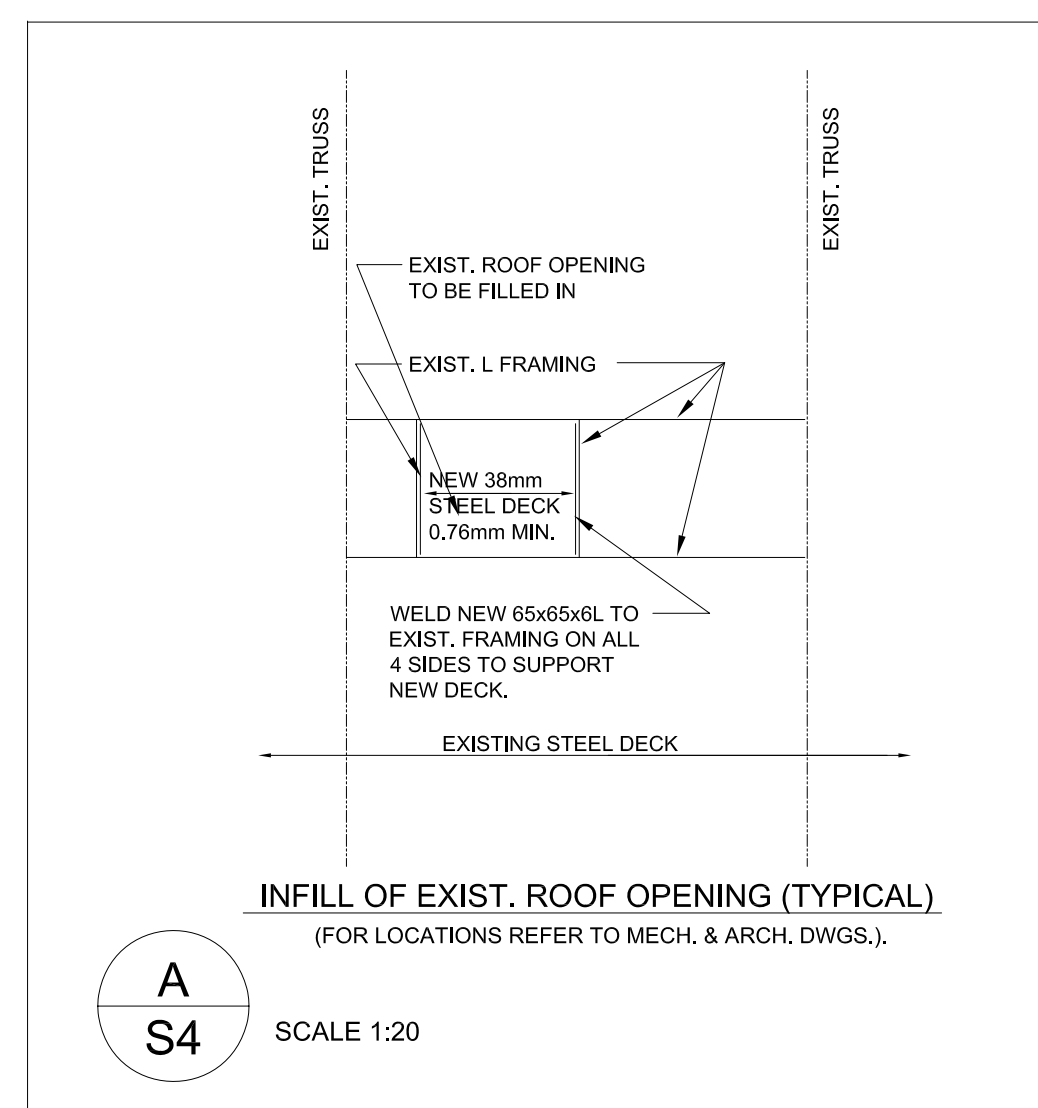
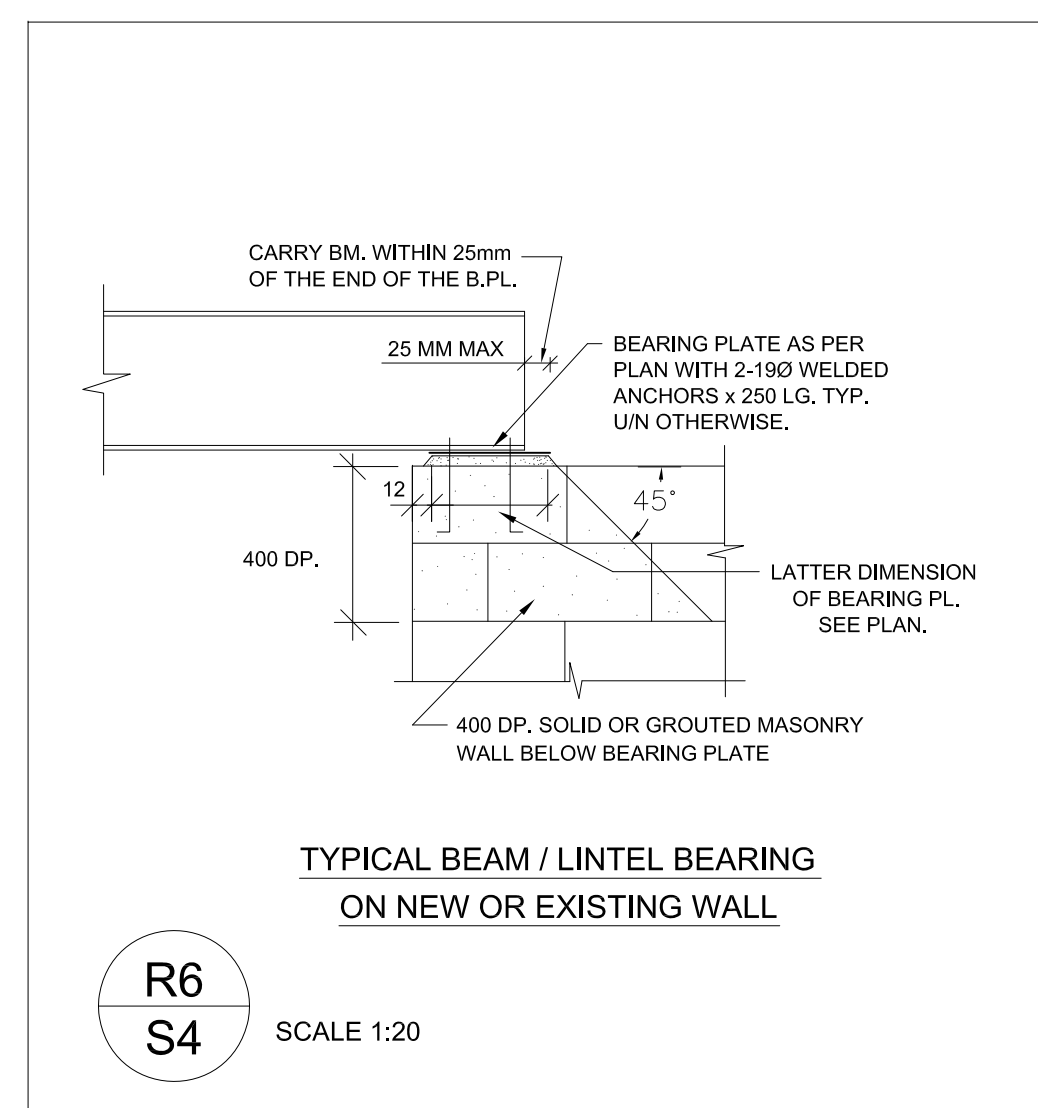
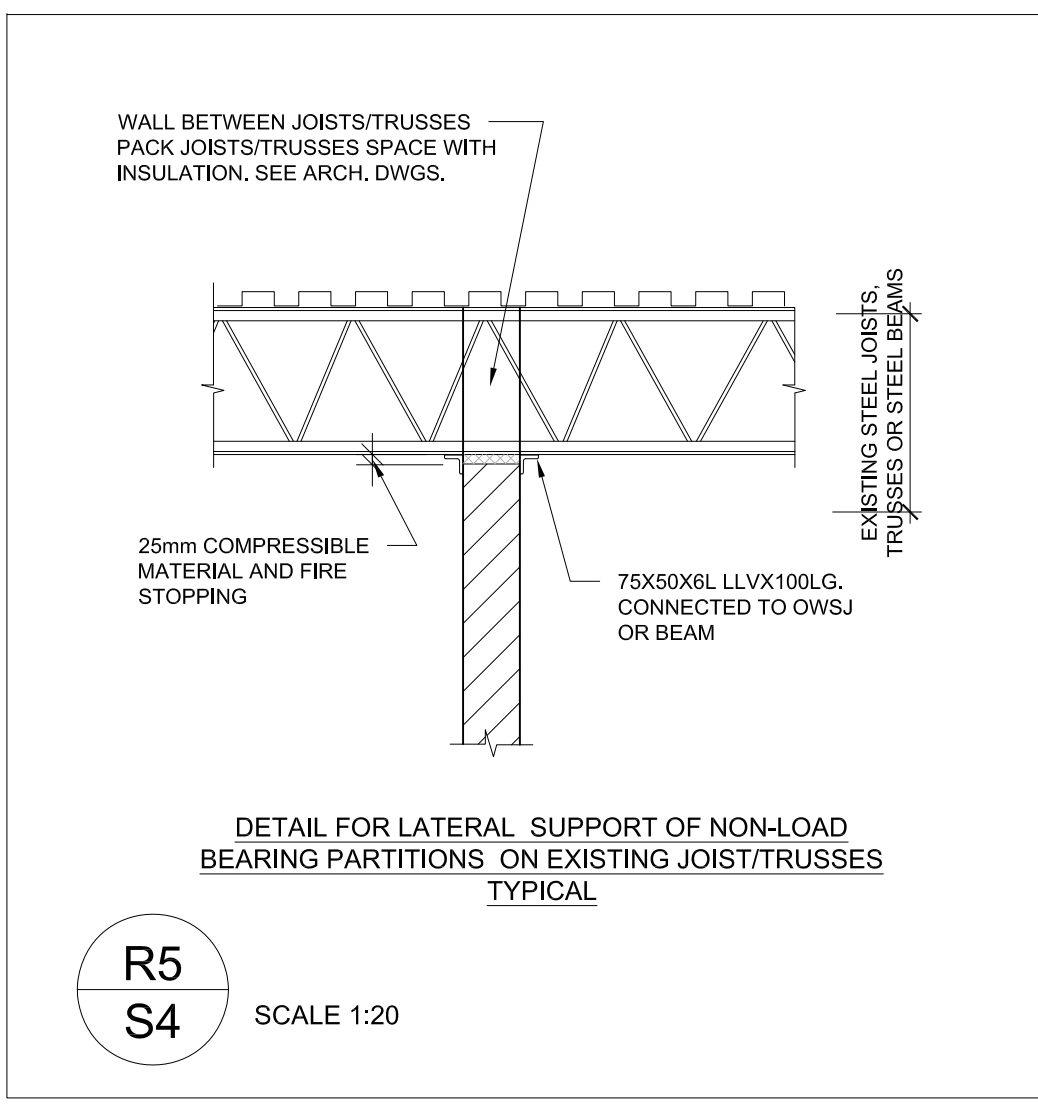
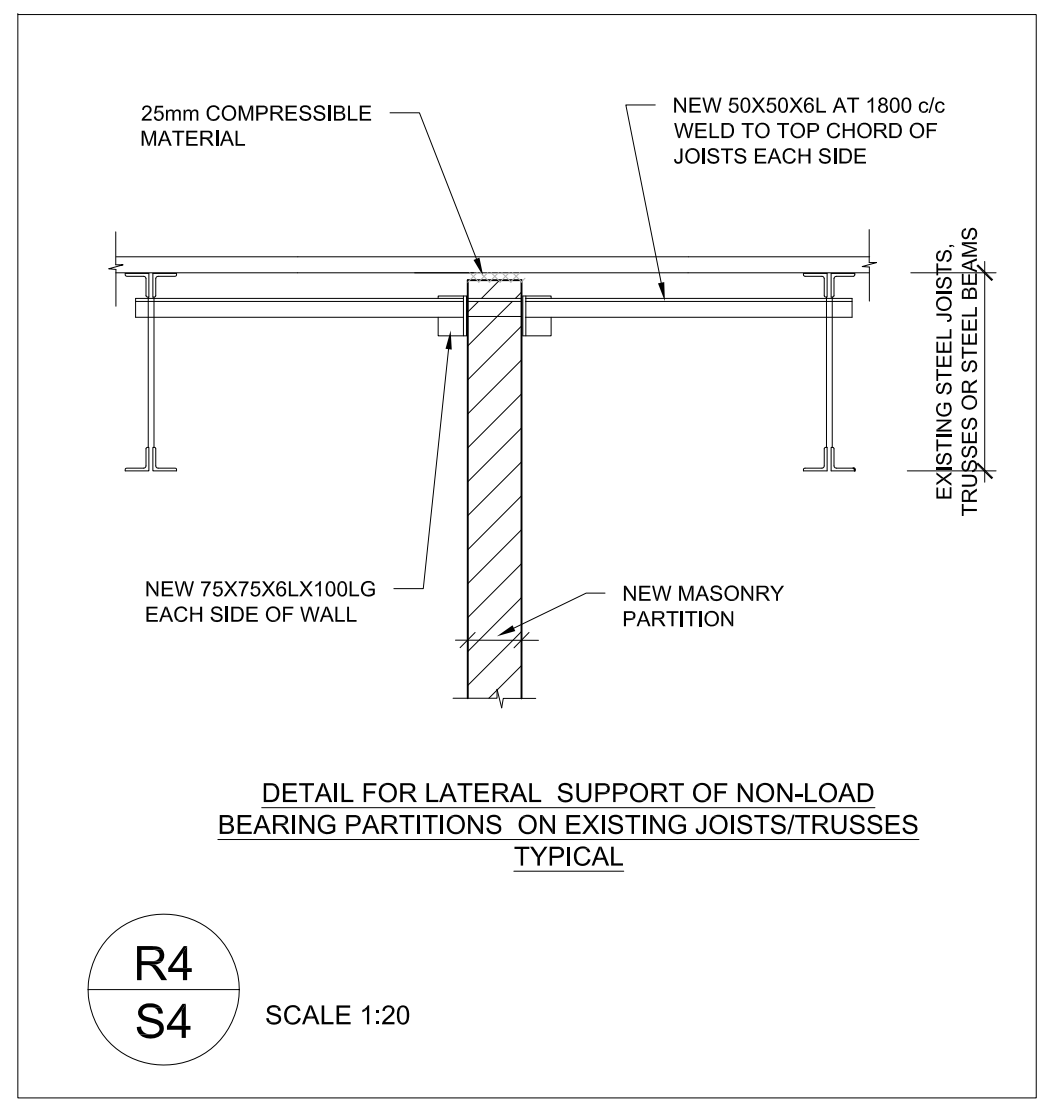
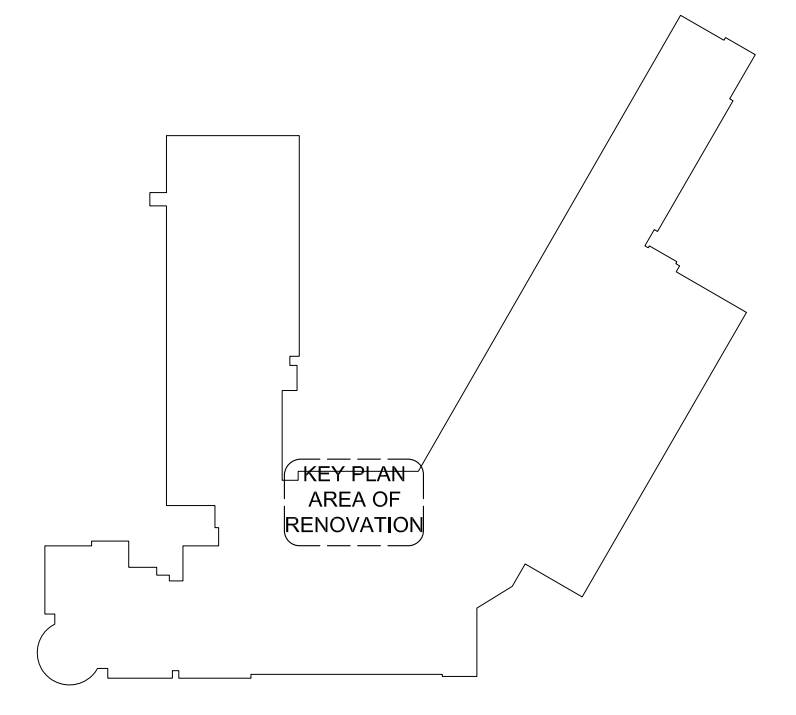
S3



PART ROOF FRAMING PLAN SCALE 1:50

- FOR ROOF SLOPES AND ELEVATIONS SEE ARCHITECTURAL DRAWINGS.
- FLOOR STRUCTURE IS EXISTING UNLESS NOTED OTHERWISE. EXISTING FRAMING DATA ARE TAKEN FROM THE ORIGINAL DRAWINGS DESIGNED BY BARNET & REIDER HYYMEN ARCHITECTS ON YEAR 1965. REPORT TO CONSULTANTS DISCREPANCIES AND NECESSARY.
- ADJUSTMENTS DUE TO ACTUAL CONDITIONS BEFORE PROCEEDING WITH WORK
- EXISTING ROOF STRUCTURE IS DESIGNED FOR SNOW LOAD 48 psf (2.3 kPa). DEAD LOAD 1.0 kPa NOT INCLUDING SELFWEIGHT.
- SPECIFIED SNOW LOAD IS 2.0kN/m². ADD DRIFT SNOW AS SHOWN. MULTIPLY SNOW LOADS BY IMPORTANCE FACTOR - SEE IMPORTANCE FACTOR TABLE.
- UNLESS NOTED OTHERWISE PROVIDE L100x75x8 LRV FRAMING U/S NEW ROOF MECHANICAL UNITS AND L90 X 90 X 8.0 ANGLE REINFORCING AROUND ALL OPENINGS IN ROOF DECK THAT ARE BIGGER THAN 150mm x 150mm.
- SEE ALSO TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS.
- UNLESS NOTED OTHERWISE PROVIDE 170 X 12 X 200 BEARING PLATES EACH END OF ALL STEEL BEAMS. ALL BEARING PLATES SHALL BE WITH 2-190 WELDED ANCHORS X 250 LG. WELD BEAM TO BEARING PLATES TYPICAL. FILL BLOCKS WITH GROUT AS PER R6/S4 AND AS PER TYPICAL DETAILS.
- UNLESS NOTED OTHERWISE PROVIDE 170 X 12 X 200 BEARING PLATES FOR EXISTING OWSJ'S WHERE REQUIRED. ALL BEARING PLATES SHALL BE WITH 2-190 WELDED ANCHORS X 250 LG. WELD BEAM TO BEARING PLATES TYPICAL.
- W.P.L.'1 - 75 X 6 CONTINUOUS STEEL PLATE WITH 120 X 200 LG. STUDS AT 800cc SET IN BLOCK VOIDS FILLED WITH 20MPa CONCRETE
- REFER TO OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS FOR ROOF MOUNTED OR SUSPENDED UNITS. SHOW THE UNITS ON THE STEEL FABRICATORS SHOP DRAWINGS AND OBTAIN ARCHITECTS, MECHANICAL AND OR ELECTRICAL ENGINEERS APPROVAL OF WEIGHTS AND LOCATIONS BEFORE FABRICATION IS STARTED.
- UNLESS NOTED OTHERWISE FOR LINTELS OVER MECHANICAL WALL OPENINGS REFER TO 'LINTELS FOR DUCTS AND SERVICES' ON TYPICAL DETAIL SHEET. FOR ALL NEW LINTELS IN EXISTING WALLS CONFIRM WALL THICKNESS BEFORE LINTELS ARE FABRICATED. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS.
- FOR NEW PARTITIONS LATERAL SUPPORT SEE DETAILS R4/S4 AND R5/S4.
- BLOCK VOIDS WITH REINFORCING OR SHOWN AS 'FILLED SOLID' SHALL BE FILLED WITH 20MPa CONCRETE WITH PEA GRAVEL OR 20MPa COARSE GROUT.
- WIND LOAD PARAMETERS, AS PER OBC 2012, PART 4, ¹/₁₀ WIND PRESSURE 0.37kPa, ¹/₅₀ WIND PRESSURE 0.29kPa.
- REFER TO 'IMPORTANCE FACTOR' TABLE.
- SHORE AS REQUIRED.

	IMPORTANCE FACTOR CATEGORY 'HIGH'	
	ULS	SLS
SNOW	1.15	0.9
WIND	1.15	0.75
EARTHQUAKE	1.3	1.0



NOTE: THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE DIMENSIONS AND FOR NOTIFYING THE ARCHITECT OF ANY SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

no.	revision	date

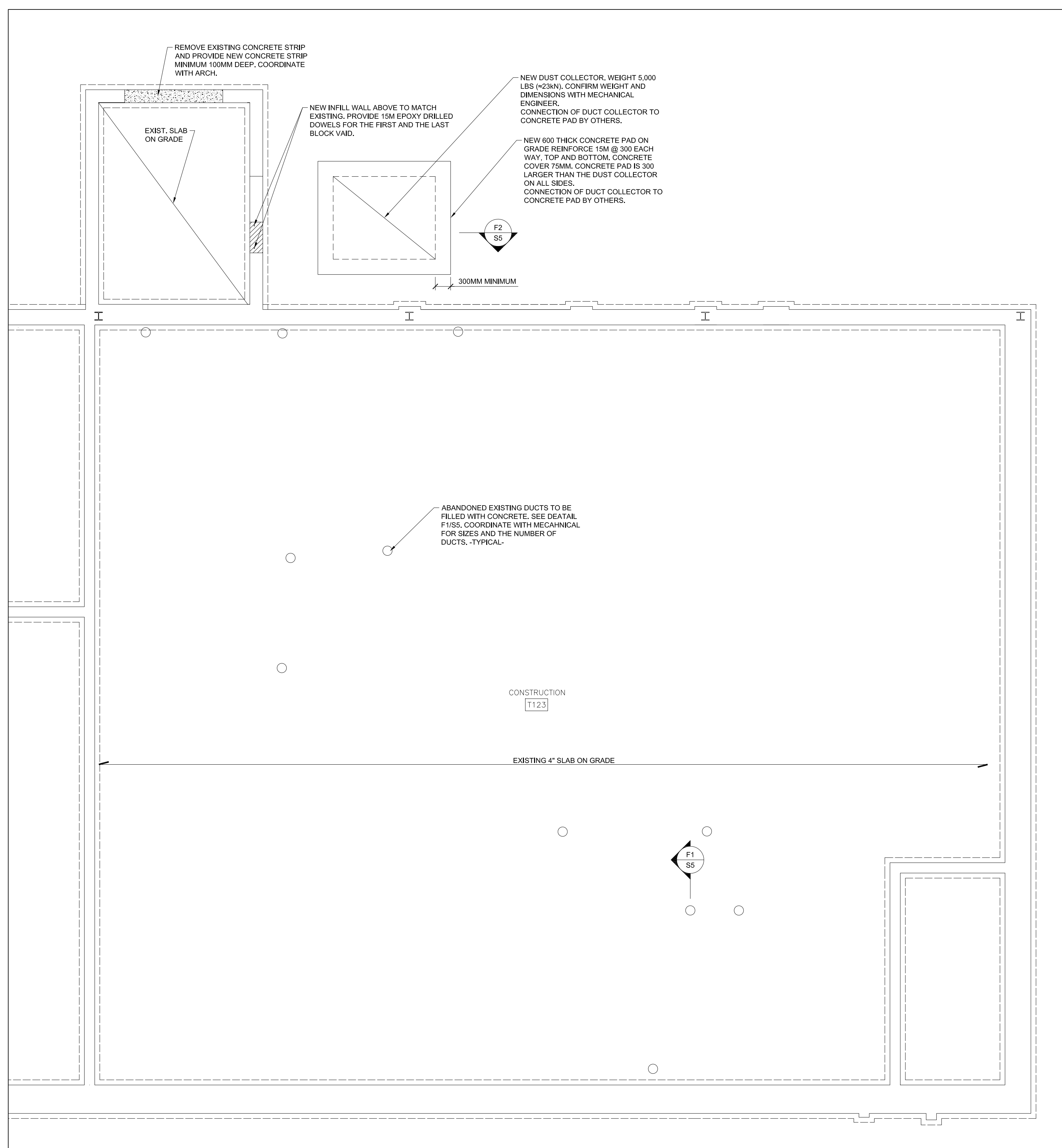
no.	issue	date
1	Issued for Permit and Tender	Feb. 25, 2022

project
WRDSB GRAND RIVER COLLEGIATE INSTITUTE RENOVATIONS
 WATERLOO REGION DISTRICT SCHOOL BOARD
 175 INDIAN RD. KITCHENER, ON N2B 2S7
 drawing
ROOF SECTIONS AND ROOF NOTES
 drawing scale
AS NOTED
 ward99 project number
 20038 - WRDSB GRAND RIVER
 Vx Engineering project number
 2106 - WRDSB GRAND RIVER
 drawing no.

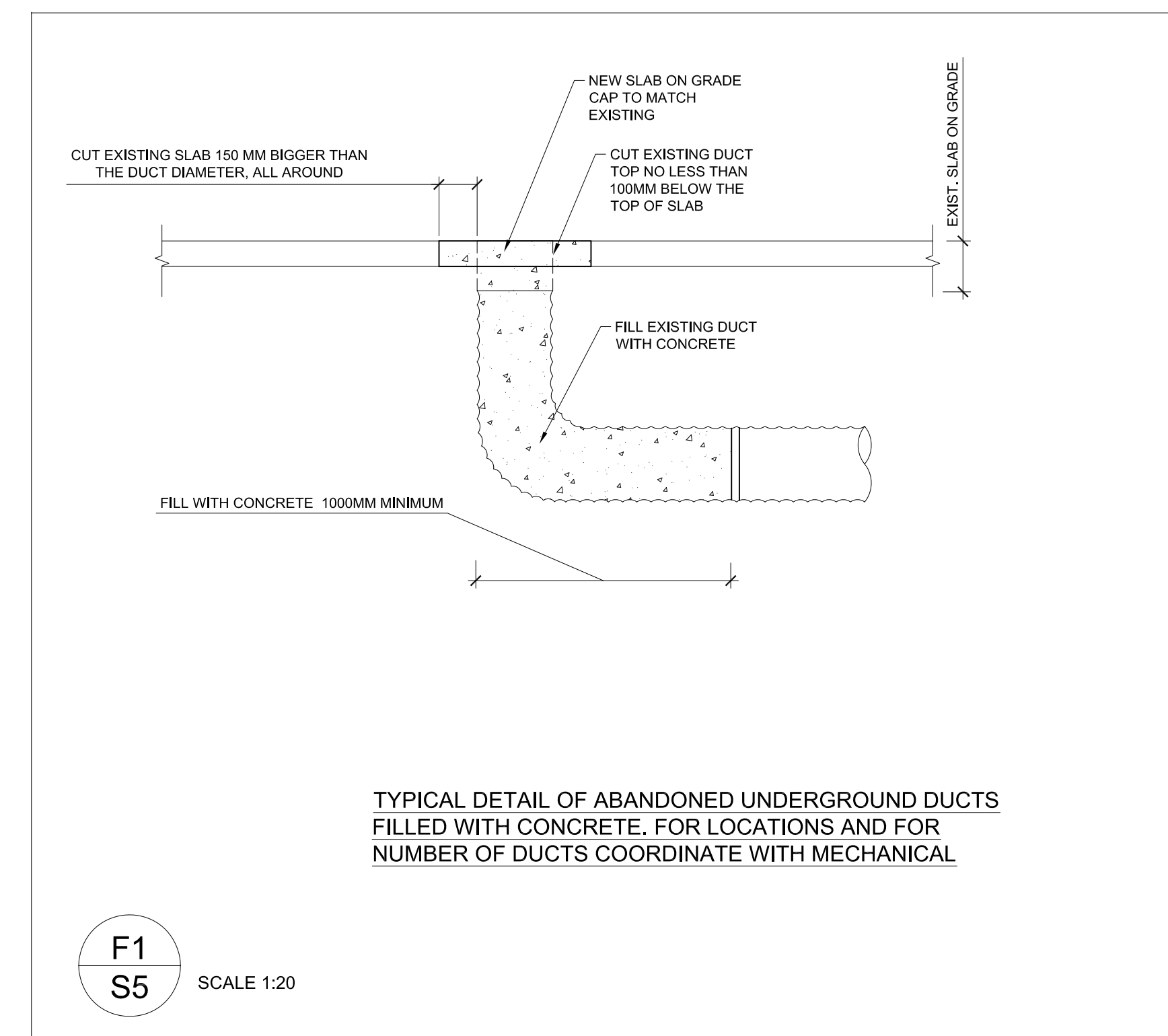


VX ENGINEERING inc.
 2500 - 135Marlee Avenue
 Toronto, Ontario M6B 4C6
 416 670 9422 www.vxengineering.com

S4

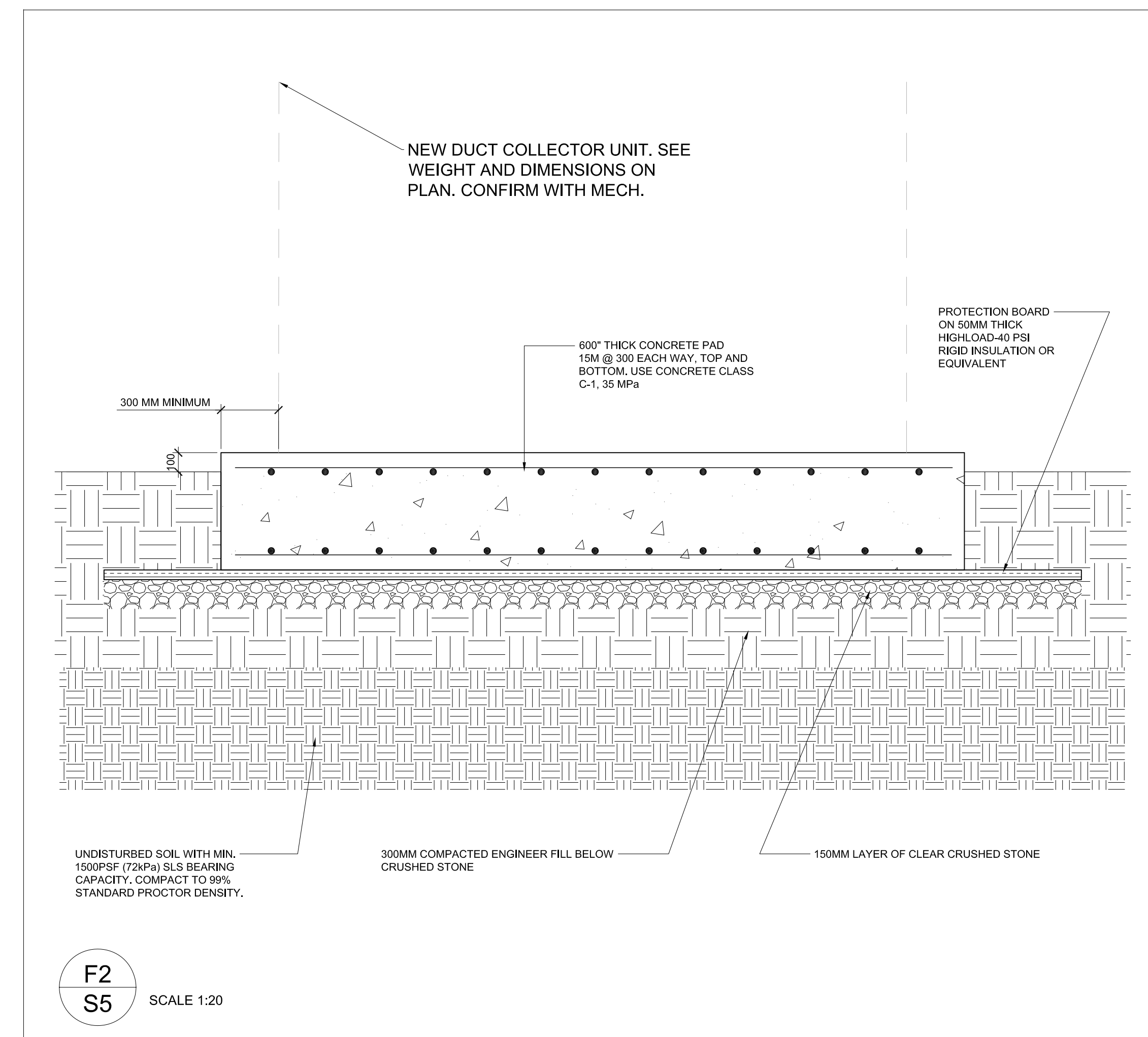


1
S5 EXISTING PART FOUNDATION PLAN
1:50 FOR NOTES SEE S6 AND A/S6, B/S6

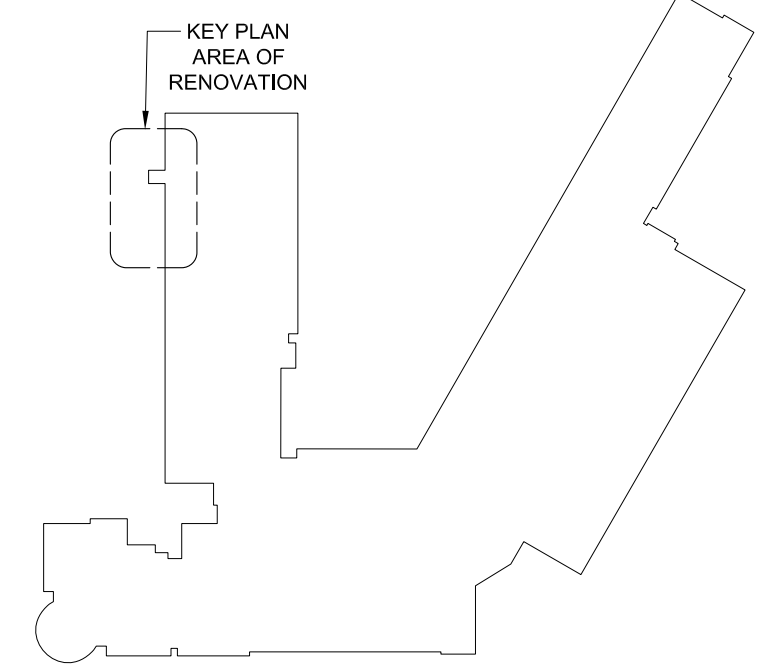


TYPICAL DETAIL OF ABANDONED UNDERGROUND DUCTS FILLED WITH CONCRETE. FOR LOCATIONS AND FOR NUMBER OF DUCTS COORDINATE WITH MECHANICAL.

F1
S5 SCALE 1:20



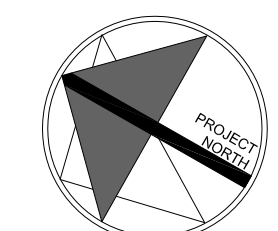
F2
S5 SCALE 1:20



NOTE: THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE DIMENSIONS AND FOR NOTIFYING THE ARCHITECT OF ANY SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

no.	revision	date

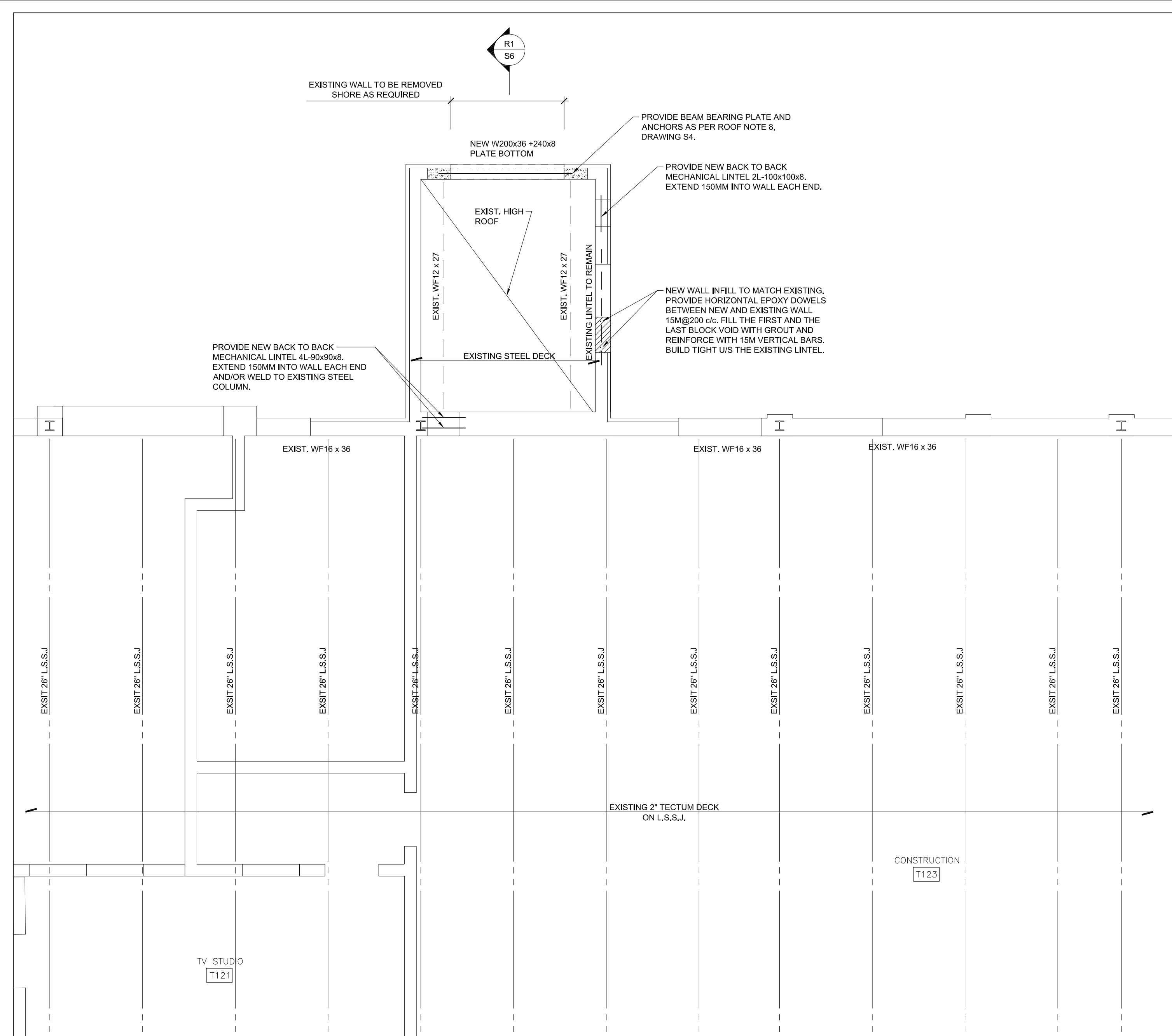
no.	issue	date
1	Issued for Permit and Tender	Feb. 25, 2022



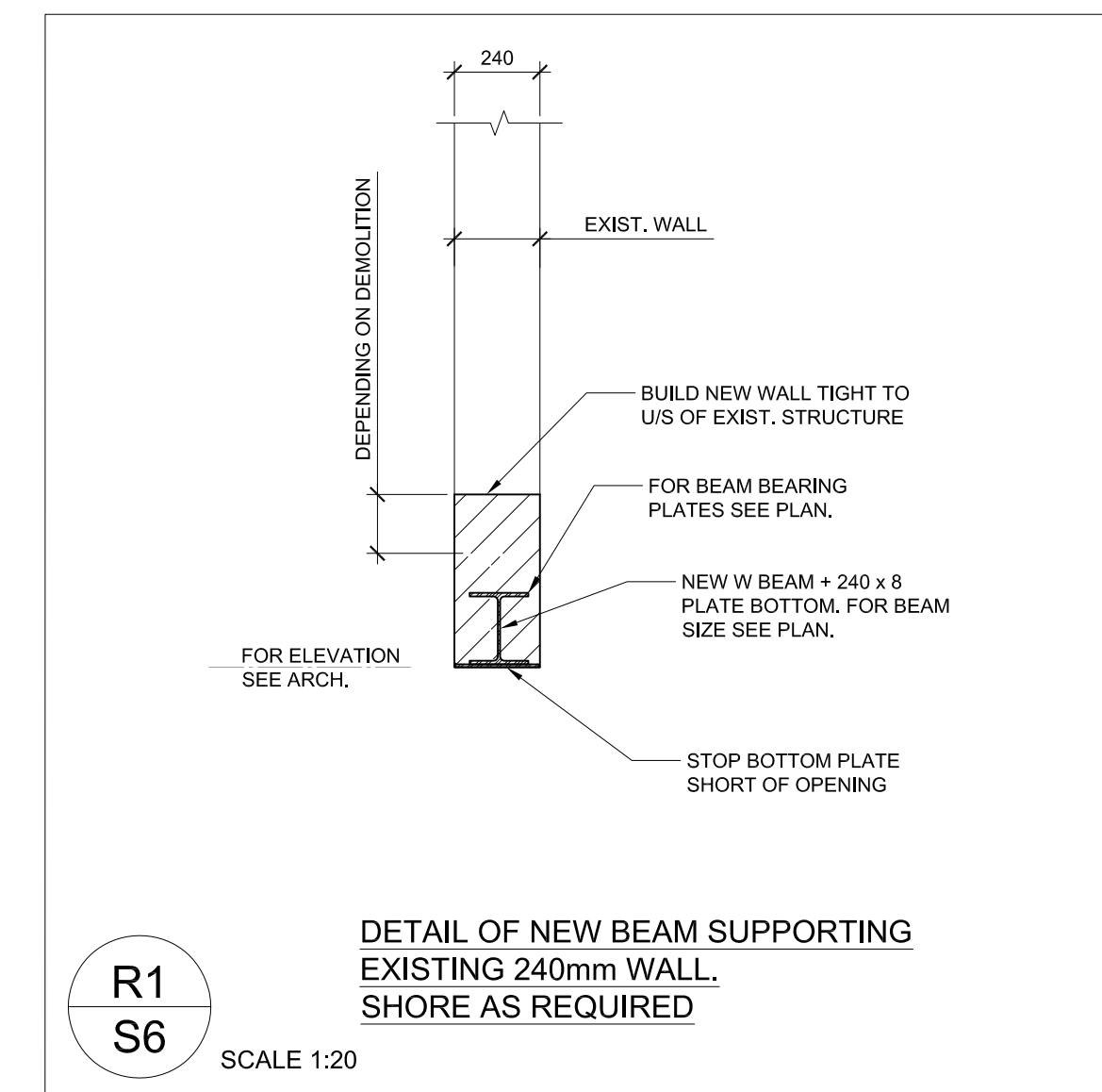
project
WRDSB GRAND RIVER COLLEGIATE INSTITUTE RENOVATIONS
WATERLOO REGION DISTRICT SCHOOL BOARD
175 INDIAN RD, KITCHENER, ON N2B 2S7
drawing
DUCT COLLECTOR AND ROOM T123 PART FOUNDATION PLAN AND SECTIONS
drawing scale
AS NOTED
ward99 project number
20038 - WRDSB GRAND RIVER
VX Engineering project number
2106 - WRDSB GRAND RIVER
drawing no.

VX
VX ENGINEERING INC
STRUCTURAL ENGINEERS
VX ENGINEERING inc.
2500 - 135Marlee Avenue
Toronto, Ontario M6B 4C6
416 670 9422 www.vxengineering.com

S5

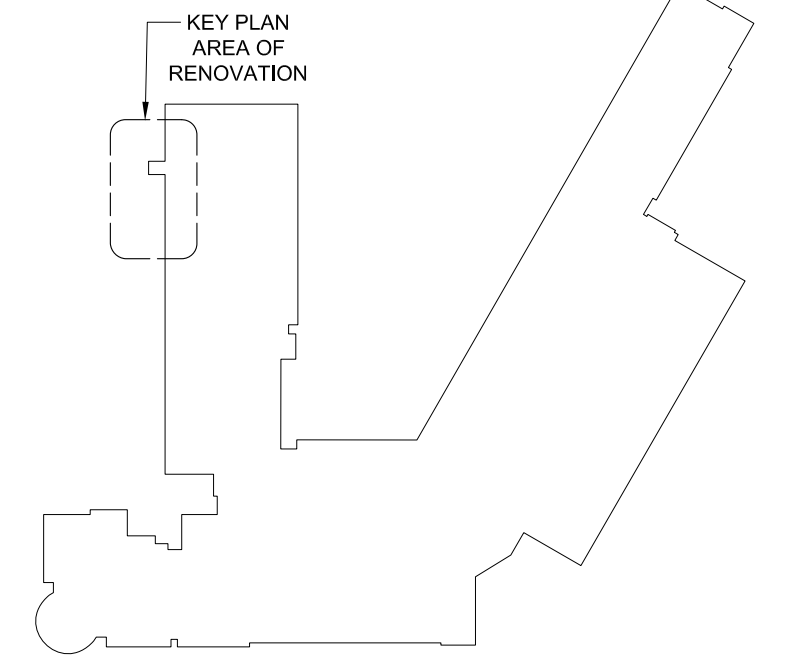
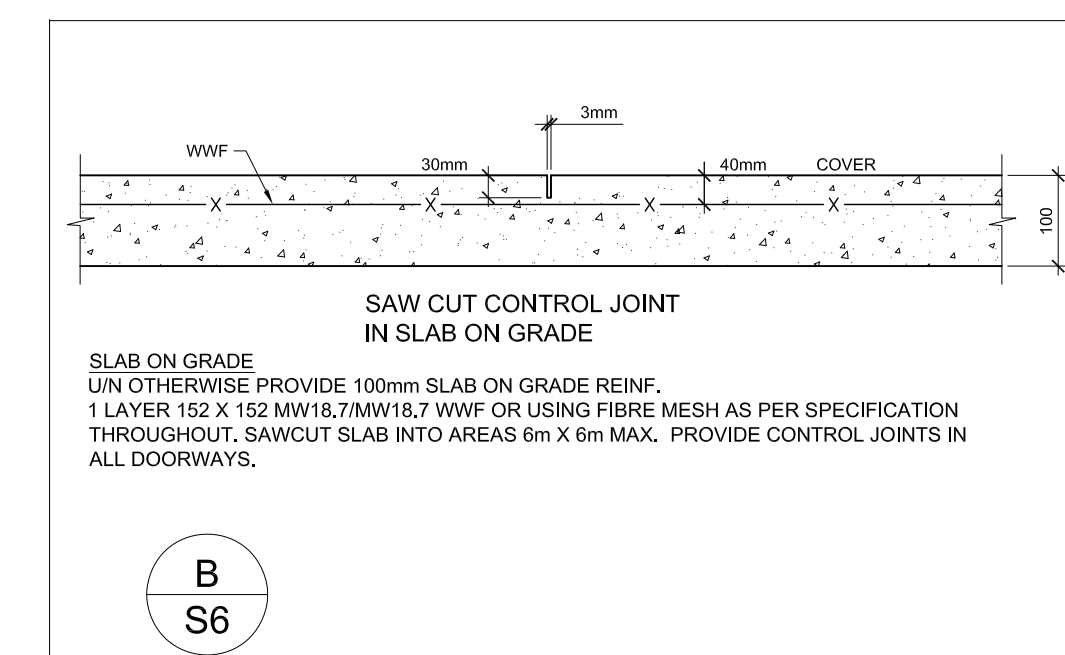
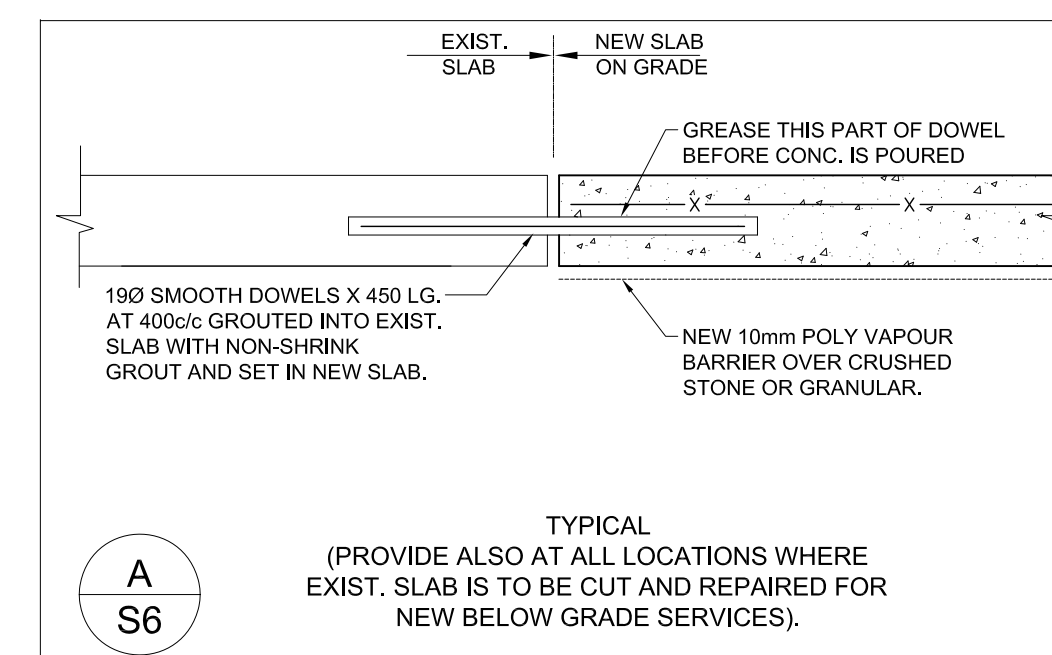


1
S6
EXISTING PART ROOF FRAMING PLAN
1:50 FOR NOTES SEE S4



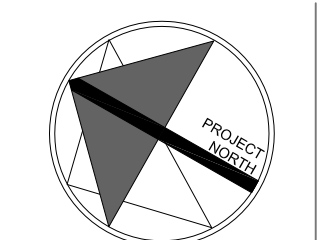
PART FOUNDATION PLAN SCALE 1:50

1. FOUNDATIONS ARE EXISTING UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR SLOPES AND DEPRESSIONS.
2. ALL FOOTINGS SHALL BE PLACED ON NATURAL UNDISTURBED SOIL CAPABLE OF SUPPORTING MINIMUM PRESSURE OF 190kPa SLS (4000 PSF). SOIL DATA AND EXISTING FOUNDATION DATA ARE TAKEN FROM THE ORIGINAL DRAWINGS DESIGNED BY E.W. HAYES LIMITED CONSTRUCTION ENGINEERS AND BARNETT & RIEDER HYMMEN ARCHITECTS ON YEAR 1965. SOIL ENGINEER TO VERIFY, REPORT TO CONSULTANTS DISCREPANCIES AND NECESSARY ADJUSTMENTS DUE TO ACTUAL CONDITIONS BEFORE PROCEEDING WITH WORK.
3. ALL NEW EXTERIOR FOOTINGS SHALL BE MINIMUM 1200mm BELOW FINISHED GRADE.
4. BEFORE PLACING SLAB-ON-GRADE VERIFY THAT BEARING CAPACITY OF SUBGRADE AND COMPACTION OF SUBBASE ARE ADEQUATE TO SUPPORT RESPECTIVELY 25 kPa AND 90 kPa UNIFORMLY DISTRIBUTED LOAD ON SLAB ON GRADE WITHOUT SIGNIFICANT DIFFERENTIAL SETTLEMENT BETWEEN SLAB AND BUILDING FOOTINGS.
5. ALL NEW FOOTINGS SHALL BE FORMED. FOOTINGS POURED INTO NEAT EXCAVATION ARE NOT ACCEPTABLE.
6. UNLESS NOTED OTHERWISE ALL NEW WALL FOOTINGS SHALL HAVE 200mm PROJECTION X 200mm DEEP.
7. NEW FOOTING ELEVATION TO MEET EXISTING FOOTING ELEVATION. S.D.F.- DENOTES STEPPED DOWN FOOTING. STEP NEW FOOTINGS TO MEET EXTERIOR FOOTING ELEVATION.
8. BACKFILLING TO BE DONE IN EQUAL HORIZONTAL LAYERS IN WHOLE LENGTH OF CONCRETE RETAINING WALLS.
9. REFER TO OTHER CONSULTANTS DRAWINGS FOR ALL EXISTING UNDERGROUND SERVICES. LOWER NEW FOOTINGS AS REQUIRED TO ACCOMMODATE THE NEW OR EXISTING UNDERGROUND SERVICES OR THE EXCAVATED DISTURBED SOILS.
10. REFER TO DRAWING S2 FOR WALL REINFORCING AND PROVIDE DOWELS TO MATCH VERTICALS.
11. SEE ALSO TYPICAL DETAILS AND GENERAL NOTES ON THESE DRAWINGS. SHORE AS REQUIRED.



NOTE: THIS DRAWING IS NOT TO BE SCALED. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL SITE DIMENSIONS AND FOR NOTIFYING THE ARCHITECT OF ANY SITE CONDITIONS AND SITE MEASUREMENTS THAT ARE NOT CONSISTENT WITH THE DRAWINGS.

no.	revision	date



no.	issue	date
1	Issued for Permit and Tender	Feb. 25, 2022

project
WRDSB GRAND RIVER COLLEGIATE INSTITUTE RENOVATIONS
WATERLOO REGION DISTRICT SCHOOL BOARD
175 INDIAN RD, KITCHENER, ON N2B 2S7
drawing
DUCT COLLECTOR ROOF PLAN AND SECTIONS, AND FOOTING NOTES
drawing scale
AS NOTED
ward99 project number
20038 - WRDSB GRAND RIVER
2106 - WRDSB GRAND RIVER
drawing no.

S6

