

**STEEL PLATFORM
GENERAL NOTES**

Contract No. CP000902	Dwg. No. S100
Sheet 12 of 111	
Asset No.	
Asset Group	
Des. T.M./A.F	Chk'd. T.M.
Dwn. Y.W.	Chk'd. T.M./A.F
Utility Circ. No.	Index No.
Const. Inspector	
Scale: AS SHOWN	



NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yyyy)
1	30% DESIGN ISSUED FOR REVIEW	T.M.	23/05/2025
2	90% DESIGN ISSUED FOR REVIEW	T.M.	27/06/2025
3	DRAFT TENDER	T.M.	15/10/2025
4	ISSUED FOR TENDER	T.M.	05/12/2025
5	ISSUED FOR ADDENDUM #1	T.M.	18/03/2026

GENERAL

- ALL CODES REFERENCED ARE TO BE THE LATEST VERSION AT THE DATE OF ISSUE.
- DESIGN IS BASED ON THE ONTARIO BUILDING CODE 2024.
- READ THESE DESIGN NOTES IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS AND ALL OTHER CONTRACT DOCUMENTS.
- OBTAIN ENGINEER'S APPROVAL BEFORE CUTTING, BORING, OR SLEEVING LOAD-BEARING MEMBERS UNLESS NOTED OTHERWISE.
- THE STRUCTURAL DRAWINGS ARE FOR THE COMPLETED PROJECT. STABILITY OF THE EXISTING AND/OR NEW STRUCTURE DURING CONSTRUCTION REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.
- REFER TO PROCESS, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SMALL OPENINGS, SLEEVES, RECESSES, DEPRESSIONS, SUMPS, TRENCHES, CURBS, HOUSEKEEPING PADS, EQUIPMENT BASES, AND SLOPES NOT INDICATED ON THE STRUCTURAL DRAWINGS.
- OPENINGS AND SLEEVES INDICATED ON THE STRUCTURAL DRAWINGS ARE FOR REFERENCE ONLY. COORDINATE ALL OPENING LOCATIONS AND DIMENSIONS WITH THE APPROPRIATE CONSULTANT AND THE SUB-CONTRACTOR PRIOR TO CONSTRUCTION.
- REVIEW ALL DRAWINGS AND CHECK DIMENSIONS PRIOR TO IMPLEMENTING THE WORK. REPORT ANY DISCREPANCIES TO THE CONSULTANT FOR CLARIFICATION BEFORE PROCEEDING.
- COORDINATE PLACEMENT AND LOCATION OF ITEMS BY SUBSEQUENT TRADES. RELEVANT TRADES SHALL REVIEW PRIOR TO ERECTION AND/OR INSTALLATION.
- NOTIFY THE ENGINEER A MINIMUM OF 24 HOURS PRIOR TO ANY REQUIRED SITE REVIEWS.
- SUBMIT SHOP DRAWINGS AND OR PRODUCT DATA SHEETS FOR ALL PRODUCTS TO BE USED ON SITE, INCLUDING SDS SHEETS TO THE CONTRACT ADMINISTRATOR.

EXISTING STRUCTURES

- THE STRUCTURAL DESIGN IS BASED ON INFORMATION GATHERED FROM THE RECORD DRAWINGS AND FROM LIMITED VISUAL OBSERVATIONS ON SITE.
- VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS ON SITE PRIOR TO IMPLEMENTING AFFECTED WORK.
- NOTIFY THE CONSULTANT OF ANY SITE CONDITIONS THAT DIFFER FROM THE CONTRACT DOCUMENTS OR THE RECORD DRAWINGS.

DESIGN LOADS

- UNLESS NOTED OTHERWISE, THE LOADS NOTED IN TABLES AND ON DRAWINGS ARE UNFACTORED.
- CLIMATIC INFORMATION REFER TO CLIMATIC INFORMATION TABLE
- SITE INFORMATION REFER TO SITE INFORMATION TABLE
- DESIGN LOADS REFER TO DESIGN LOADS TABLE
- CONSTRUCTION LOADS SHALL NOT EXCEED THE LOADS NOTED ON THE DRAWINGS.

DELEGATED DESIGN

- PORTIONS OF THE DETAILED DESIGN ARE DELEGATED TO THE CONTRACTOR. RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO TO COMPLETE THE DESIGN.
- SUBMIT SHOP DRAWINGS FOR COMPONENTS REQUIRING DELEGATED DESIGN UNDER THE SEAL AND SIGNATURE OF THE ENGINEER RESPONSIBLE FOR THE DESIGN.
- THE FOLLOWING COMPONENTS REQUIRE DELEGATED DESIGN:
 - STRUCTURAL STEEL CONNECTIONS
 - SEISMIC RESTRAINT OF EQUIPMENT
 - LADDER AND STAIRCASE DESIGN
- THE ENGINEER RESPONSIBLE FOR THE DESIGN IS ALSO RESPONSIBLE FOR REVIEW OF FABRICATION AND INSTALLATION OF THE COMPONENTS. UPON COMPLETION OF THE WORK, CERTIFY IN WRITING TO THE CONSULTANT THAT SUCH REVIEW HAS BEEN COMPLETED.
- REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS.

DOWELS

- ALL POST INSTALLED DOWELS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN RECOMMENDATIONS.
- THE EXISTING CONCRETE TO RECEIVE THE DOWELS SHALL BE SCANNED WITH GROUND PENETRATING RADAR, OR OTHER APPROVED METHOD PRIOR TO DRILLING HOLES FOR DOWELS. SUBMIT COPY OF SCAN REPORT INDICATING POTENTIAL OBSTRUCTIONS TO DOWEL INSTALLATION.
- ALL ADHESIVE FOR ANCHORS SHALL MEET THE ASSESSMENT CRITERIA OF ACI 308.4.
- ALL ANCHORS SHALL BE INSTALLED BY QUALIFIED PERSONNEL, EITHER THROUGH MANUFACTURERS TRAINING OR PREVIOUS EXPERIENCE, PROOF OF QUALIFICATIONS TO BE SUBMITTED TO CONTRACT ADMINISTRATOR.
- PER CSA A23.3:19 ANNEX D, THE CONTRACTOR SHALL RETAIN THE SERVICES ON AN INDEPENDENT TESTING ORGANIZATION TO PERFORM "PERIODIC SPECIAL INSPECTION" AS DEFINED IN ACI 308.4, AS A MINIMUM THE FOLLOWING ITEMS SHALL BE REVIEWED BY THE INDEPENDENT TESTING ORGANIZATION FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS:
 - HOLE DRILLING METHOD IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
 - ANCHOR EDGE DISTANCE AND SPACING
 - HOLE DIAMETER AND DEPTH
 - HOLE CLEANING IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
 - ANCHOR ELEMENT TYPE, MATERIAL, DIAMETER, AND LENGTH
 - ADHESIVE IDENTIFICATION AND EXPIRATION DATE
 - ADHESIVE INSTALLATION IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
 - FOR PERIODIC SPECIAL INSPECTION, THE INSPECTOR SHALL VERIFY THE INITIAL INSTALLATION OF EACH TYPE AND SIZE OF ADHESIVE ANCHOR. SUBSEQUENT INSTALLATION OF ANCHORS MAY BE PERFORMED WITHOUT THE PRESENCE OF THE INSPECTOR. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED, OR THE PERSONNEL PERFORMING THE INSTALLATION SHALL TRIGGER ANOTHER SPECIAL INSPECTION. AT A MINIMUM 15% OF THE ANCHORS INSTALLED SHALL BE WITNESSED BY THE INSPECTOR.
 - THE PERIODIC SPECIAL INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR. THE INSPECTOR SHALL SUBMIT A LETTER STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO, ATTESTING THAT THE INSPECTION WAS PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS AND THAT ALL ANCHOR INSTALLATION OBSERVED WERE INSTALLED IN CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
 - DESIGN PARAMETERS FOR THE ADHESIVE ANCHORS ARE AS FOLLOWS:
 - ANCHORS TO MEET THE REQUIREMENTS OF ACI 308.4
 - ANCHORS TO BE INSTALLED IN HOLES DRILLED WITH A ROTARY IMPACT DRILL OR ROCK DRILL.
 - CONCRETE AT THE TIME OF THE ANCHOR INSTALLATION SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 17 MPa.
 - CONCRETE AT TIME OF ANCHOR INSTALLATION SHALL HAVE A MINIMUM AGE OF 21 DAYS.
 - CONCRETE TEMPERATURE AT TIME OF ANCHOR INSTALLATION SHALL BE AT LEAST 10 °C. AND
 - REFER TO EPOXY ANCHORAGE - MINIMUM CHARACTERISTIC BOND STRESSES TABLE.

STRUCTURAL STEEL

- DESIGN, FABRICATION, ERECTION, AND OTHER CONSTRUCTION PRACTICES TO CONFORM TO CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
- STEEL TO BE FABRICATED AND ERECTED BY A SHOP CERTIFIED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA-W47.1, DIVISION 1 OR 2.1 ONLY.
- SUBMIT SHOP DRAWINGS SHOWING ALL STRUCTURAL STEEL MEMBERS FOR REVIEW PRIOR TO FABRICATION. WELDING TO CONFORM TO CSA-W59.
- ALL STEEL TO BE HOT DIPPED GALVANIZED TO CONFORM TO CAN/CSA-G164.
- ALL EXPOSED WELDS TO BE CONTINUOUS. GRIND ALL EXPOSED WELDS SMOOTH, INCLUDING PAINTED STEEL.
- SUPPLY STEEL WITH PROPERTIES NOTED IN STEEL GRADES TABLE.
- CONNECTIONS NOT DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED AND DETAILED BY A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO AT THE STEEL FABRICATOR'S EXPENSE.
- UNLESS NOTED OTHERWISE, DESIGN MOMENT CONNECTIONS FOR NON-COMPOSITE BEAMS FOR A FACTORED MOMENT EQUAL TO THE FULL MOMENT CAPACITY OF THE SMALLER MEMBER JOINED.
- PROVIDED A MINIMUM OF 2 BOLTS IN BOLTED CONNECTIONS.
- ALL BOLTED CONNECTIONS TO USE SNUG-TIGHTENED HIGH-STRENGTH BOLTS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PROVIDE 10 mm PLATE STIFFENERS EACH SIDE OF BEAM WHERE AT ALL BEARING CONNECTIONS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- DO NOT SPLICE MATERIAL WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. WHERE GRANTED, A COMPLETE NON-DESTRUCTIVE EXAMINATION WILL BE MANDATORY AND PAID FOR BY THE SUB-CONTRACTOR.
- PROVIDE 10 mm WEEP HOLES AT TOP AND BOTTOM OF ALL HSS COLUMNS.
- ALL GROUT UNDER BEARING PLATES AND BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 50 MPa. INSTALLED IN ACCORDANCE WITH THE SPECIFICATION AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE GROUT WEEP HOLES IN COLUMN BASE PLATES WHERE SHOWN.
- SQUARE CUT OR FULL STRENGTH WELD ALL COLUMNS AT BASE PLATES AND AT TOP WHERE BEARING UNDER CONTINUOUS BEAMS.
- TOUCH-UP FIELD WELDS, CONNECTIONS AND ABRASIONS WITH TWO COATS OF ZINC RICH PAINT.
- ALL STRUCTURAL STEEL THAT IS LOCATED WITHIN ±2m VERTICALLY OF A WALKING SURFACE SHALL BE PAINTED SAFETY YELLOW AND SHALL HAVE YELLOW AND BLACK STRIPED SAFETY TAPE INSTALLED ON THE BOTTOM SECTION OF THE MEMBER.
- SHOP AND FIELD INSPECTION OF STEEL FABRICATION AND ERECTION TO BE COMPLETED BY A THIRD PARTY TESTING AND INSPECTION AGENCY APPROVED BY AND RESPONSIBLE TO THE ENGINEER. TESTING AGENCY SHALL BE CERTIFIED TO CSA-W178. TESTING PAID FOR BY CONTRACTOR.

BAR GRATING

- METAL GRATING TO BE IN ACCORDANCE WITH ANSI/NAAMM MBG 531-09 (METAL BAR GRATING MANUAL), SERRATED GALVANIZED FINISH. ALL EDGES BANDED. CONNECT TO SUPPORTING MEMBERS USING SADDLE CLIPS OR WELDED LUGS.

CLIMATIC INFORMATION – OTTAWA (BARRHAVEN)	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
SNOW LOAD (1/50), S _s	2.4 kPa
SNOW LOAD (1/50), S _w	0.4 kPa
ONE DAY RAIN (1/50)	92 mm
HOURLY WIND PRESSURE (1/10)	0.32 kPa
HOURLY WIND PRESSURE (1/50)	0.41 kPa
SEISMIC RESPONSE, S _s (0.2)	0.601
SEISMIC RESPONSE, S _s (0.5)	0.361
SEISMIC RESPONSE, S _s (1.0)	0.194
SEISMIC RESPONSE, S _s (2.0)	0.0902
SEISMIC RESPONSE, S _s (5.0)	0.0241
SEISMIC RESPONSE, S _s (10.0)	0.00801
SEISMIC RESPONSE, PGA	0.318
SEISMIC RESPONSE, PGV	0.247

SITE INFORMATION	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
IMPORTANCE CATEGORY	POST-DISASTER
WIND EXPOSURE TYPE	OPEN TERRAIN
INTERNAL PRESSURE CATEGORY	1
FOUNDATION SITE CLASS	D

DESIGN LOADS	
TO BE READ IN CONJUNCTION WITH DESIGN LOADS DESIGN NOTES	
BASEMENT	
LIVE LOAD	4.8 kPa
PLATFORMS	4.8 kPa
FIRST FLOOR	
LIVE LOAD	3.6 / 4.8 kPa
LIVE LOAD – CORRIDORS AND STAIRS	4.8 kPa

EPOXY ANCHORAGE - MINIMUM CHARACTERISTIC BOND STRESSES*†				
INSTALLATION AND SERVICE ENVIRONMENT	MOISTURE CONTENT OF CONCRETE AT TIME OF ANCHOR INSTALLATION	PEAK IN-SERVICE TEMPERATURE OF CONCRETE, °C	f _{ocr} , MPa (10M BAR)	f _{uncr} , MPa (10M BAR)
OUTDOOR	DRY TO FULLY SATURATED	80	6.8	9.9
INDOOR	DRY	43	7.4	10.8

* WHERE ANCHOR DESIGN INCLUDES SUSTAINED TENSION LOADING, MULTIPLY VALUES OF f_{ocr} AND f_{uncr} BY 0.4.

† WHERE ANCHOR DESIGN INCLUDES EARTHQUAKE LOADS FOR STRUCTURES WHERE (IES(0.2) ≥ 0.35), MULTIPLY VALUES OF f_{ocr} BY 0.8 AND f_{uncr} BY 0.4.

STEEL GRADES	
TO BE READ IN CONJUNCTION WITH STRUCTURAL STEEL DESIGN NOTES	
MEMBER TYPE	GRADE
ROLLED W-SHAPES, TEES	CSA G40.21 350W OR ASTM A992 GRADE 50
WELDED WIDE FLANGE SECTIONS	CSA G40.21 350W
HOLLOW STRUCTURAL SECTIONS	CSA G40.21 350W CLASS C
OTHER STRUCTURAL SHAPES AND PLATES	CSA G40.21 300W
BOLTS	ASTM F3125 GRADE A325
ANCHOR RODS	ASTM F1554 GRADE 36
THREADED ROD	ASTM A36

**STAIRCASE
REMOVAL PLAN**

Contract No. **CP000902** Dwg. No. **S101**

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CARINA DUCLOS, P. ENG. Director
Infrastructure Services

ERIC OUMET, P. ENG. Project Manager
Infrastructure Services



Des. T.M./A.F. Chk'd. T.M.

Dwn. Y.W. Chk'd. T.M./A.F.

Utility Circ. No. Index No.

Const. Inspector

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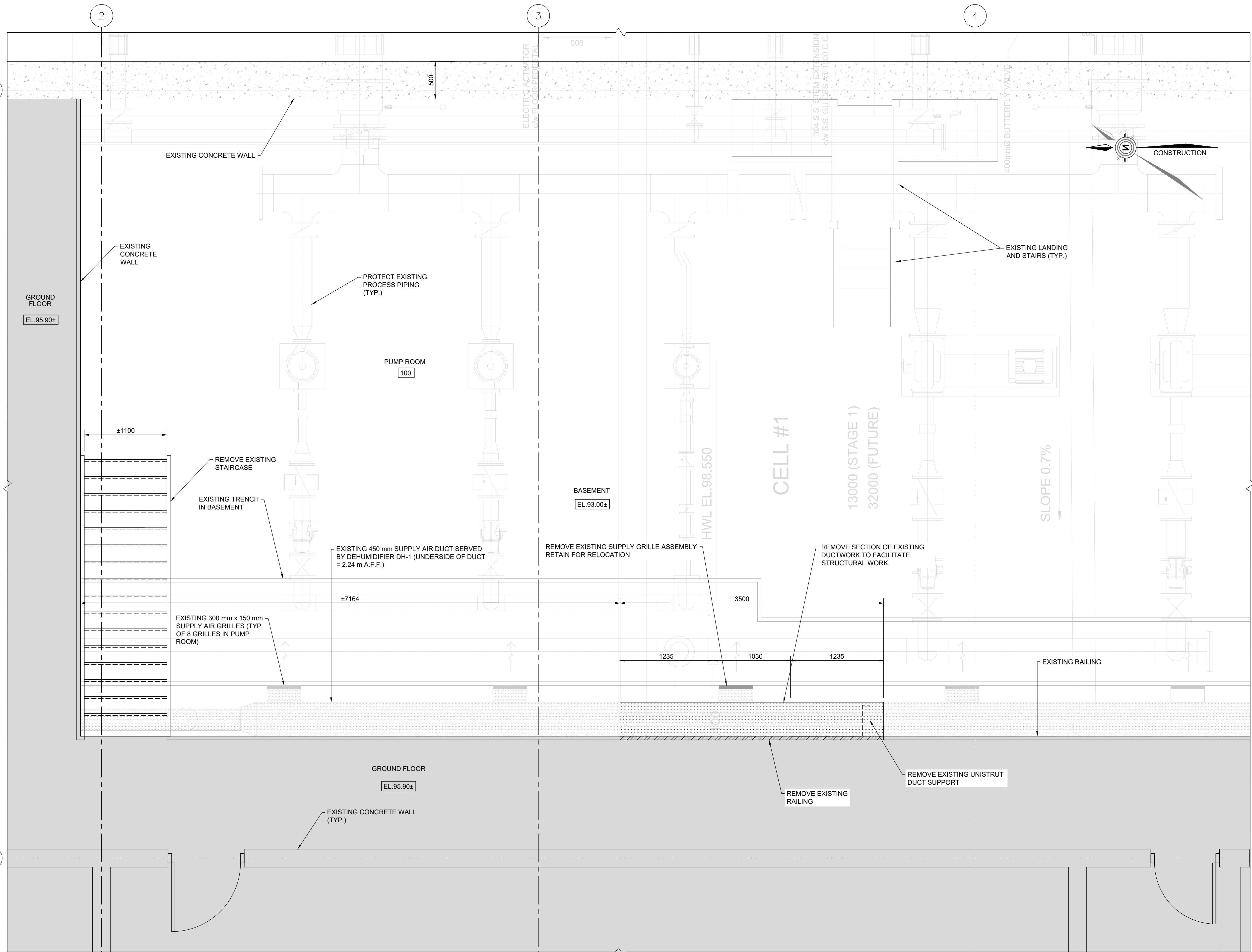
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NOTE

- PRE-CONSTRUCTION TAB REQUIREMENT
- CONTRACTOR SHALL RETAIN SERVICE BY TAB CONTRACTOR WHO WILL TAKE AIRFLOW MEASUREMENTS AT ALL EIGHT (8) EXISTING SUPPLY AIR GRILLES SERVED BY DH-1 DUCTWORK WITHIN PUMP ROOM PRIOR TO COMMENCEMENT OF DEMOLITION WORK. SUBMIT TAB REPORT TO CONSULTANT FOR REVIEW PRIOR TO PROCEEDING WITH DEMOLITION.



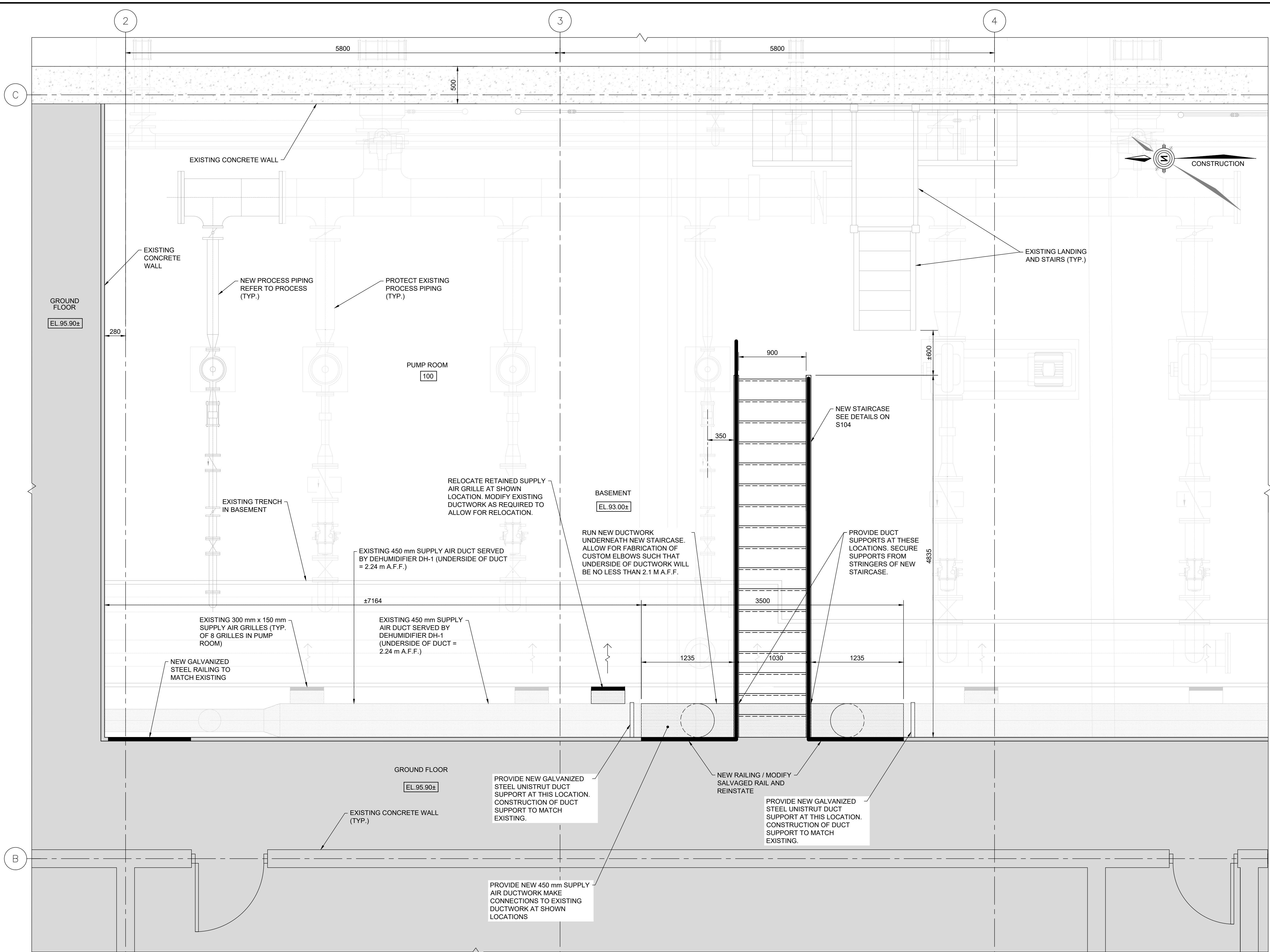
GROUND FLOOR PARTIAL PLAN
1:25

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Drawing Number: S101
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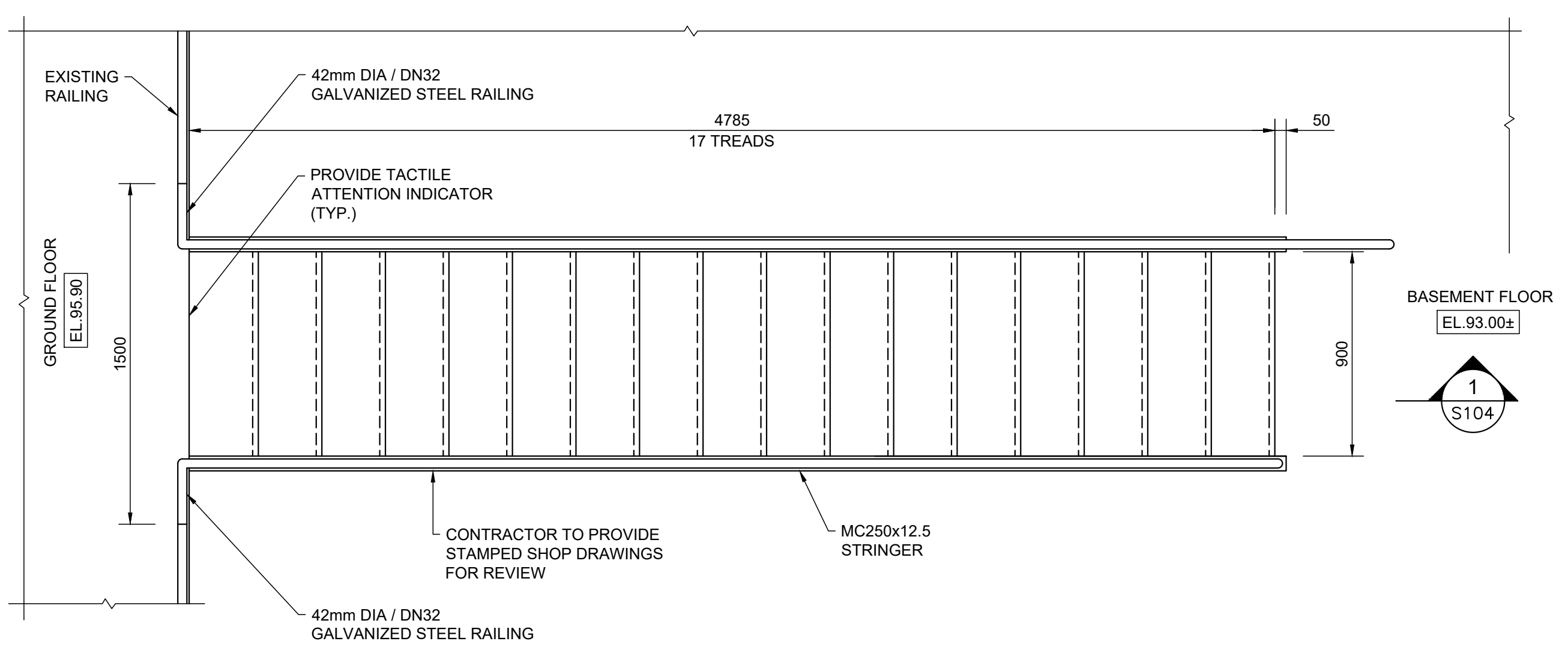
GROUND FLOOR PARTIAL PLAN
1:25

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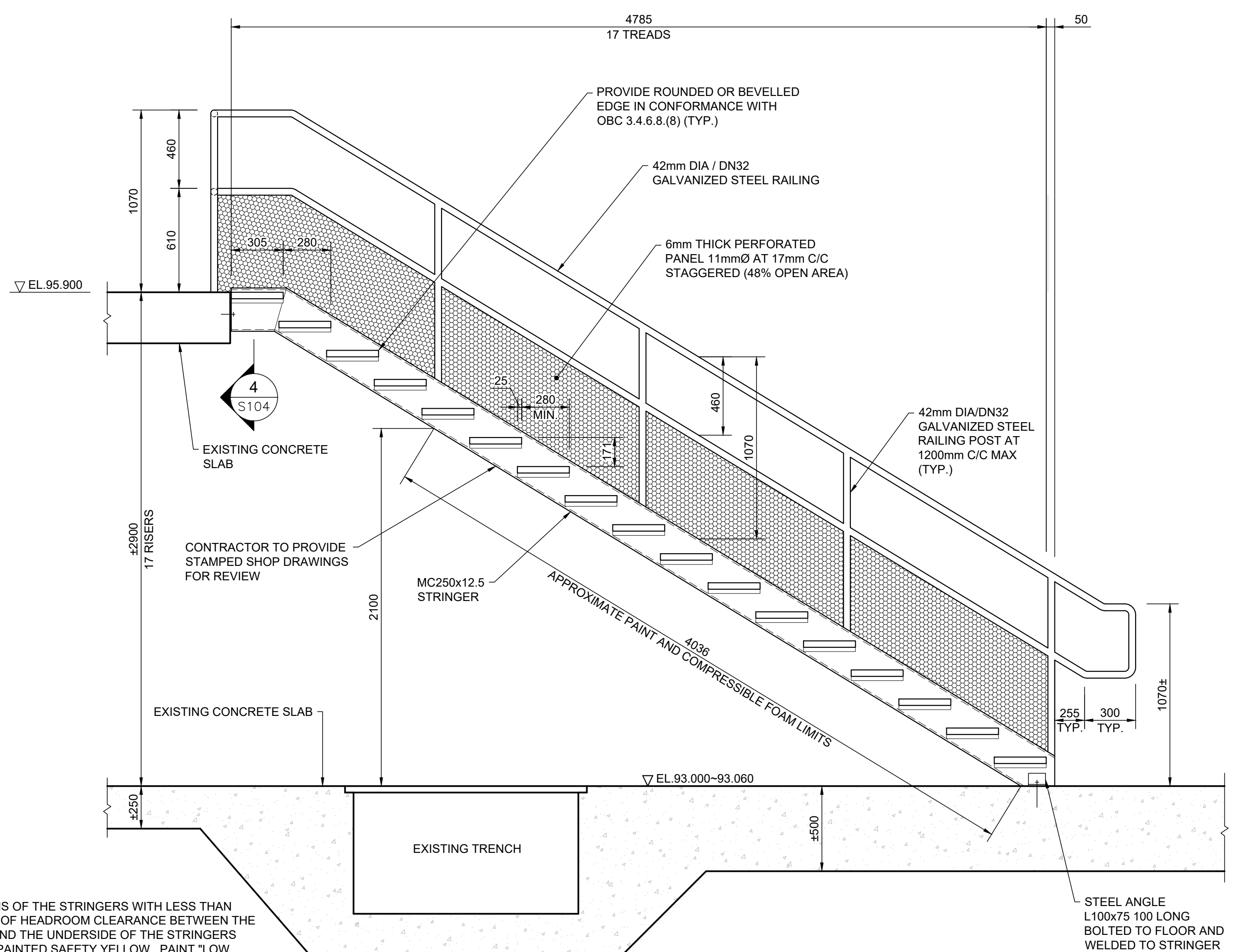
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NOTE:
EITHER A COLOR CONTRAST OR A DISTINCTIVE PATTERN TO DEMONSTRATE THE LEADING EDGE OF THE TREAD AND THE LEADING EDGE OF THE LANDING SHALL BE PROVIDED.

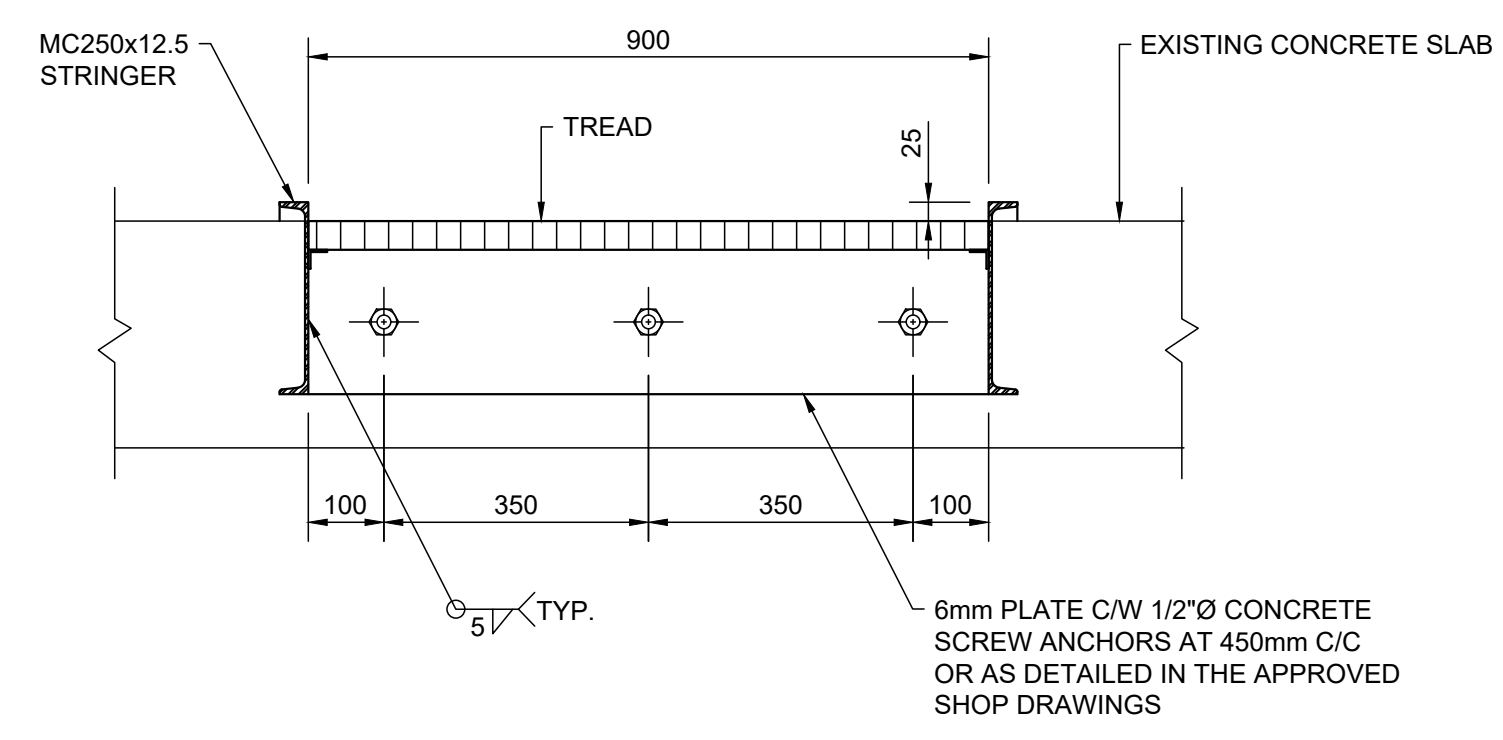


GALVANIZED STEEL STAIRS - PLAN
1:20

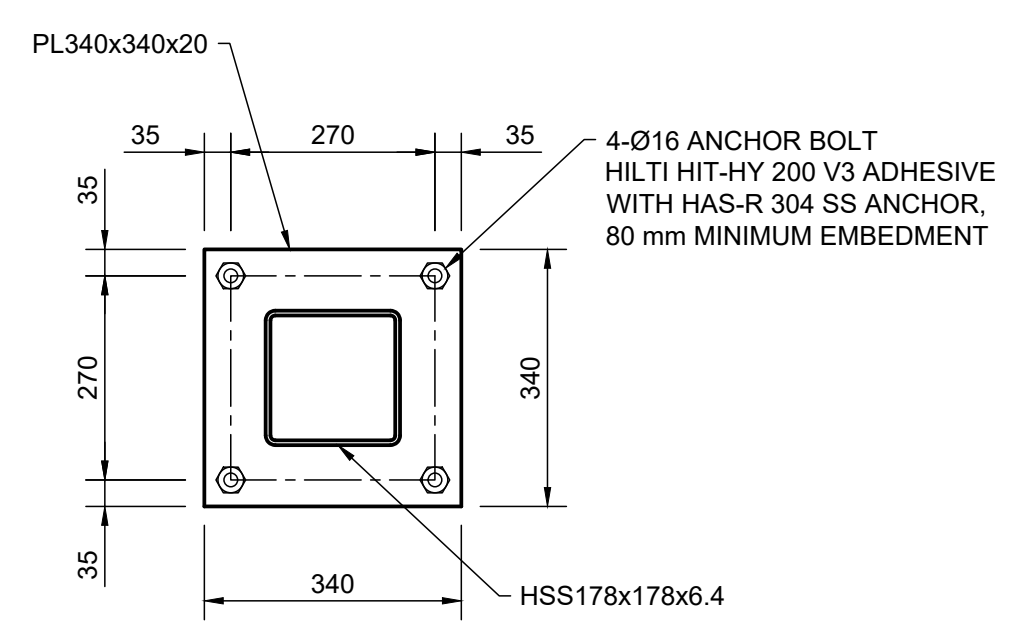


1 STAIR SECTION
1:20

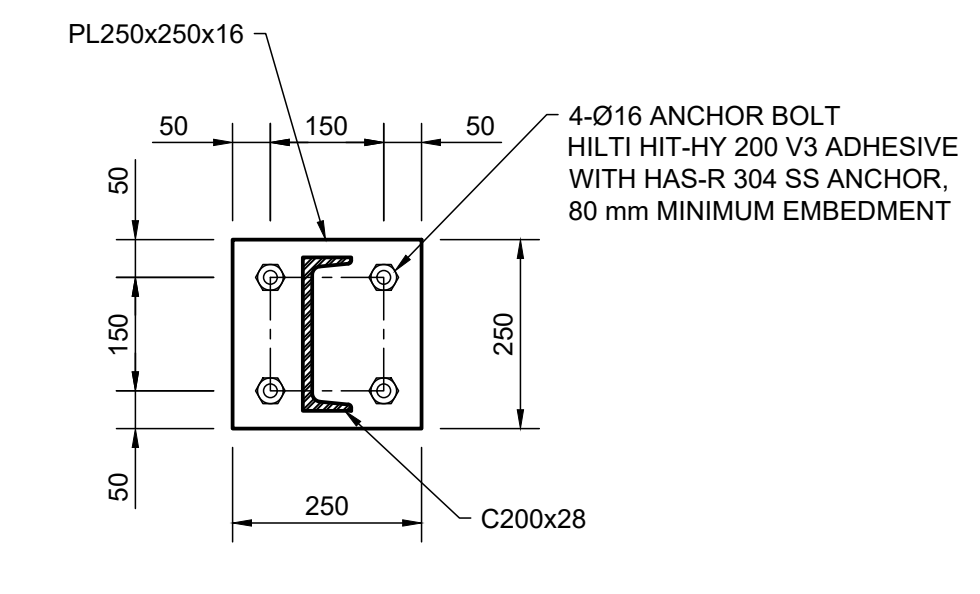
NOTE:
PORTIONS OF THE STRINGERS WITH LESS THAN 2100 mm OF HEADROOM CLEARANCE BETWEEN THE FLOOR AND THE UNDERSIDE OF THE STRINGERS TO BE PAINTED SAFETY YELLOW. PAINT "LOW HEADROOM" IN LARGE BLACK LETTERS ALONG THE EXTERIOR FACES OF THE STRINGERS. PROVIDE 25 mm THICK COMPRESSIBLE FOAM ADHESIVELY SECURED TO THE BOTTOM CORNERS OF THE STRINGERS AND TO THE BOTTOM CORNERS OF THE STAIR TREADS.



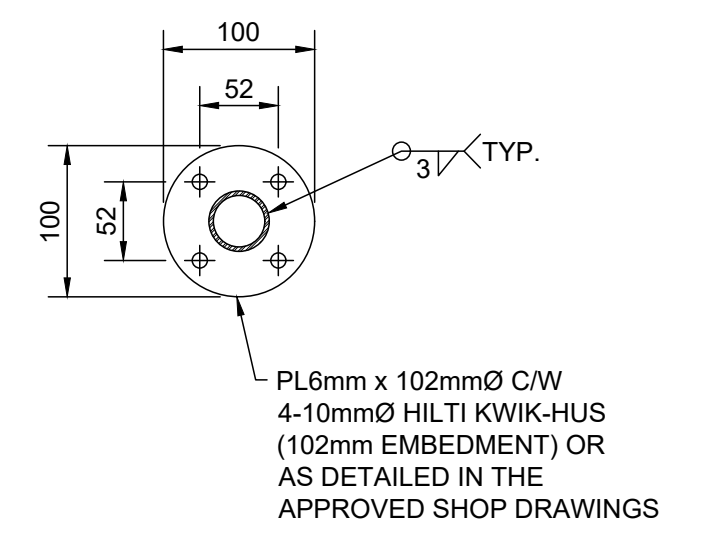
4 SECTION
1:10



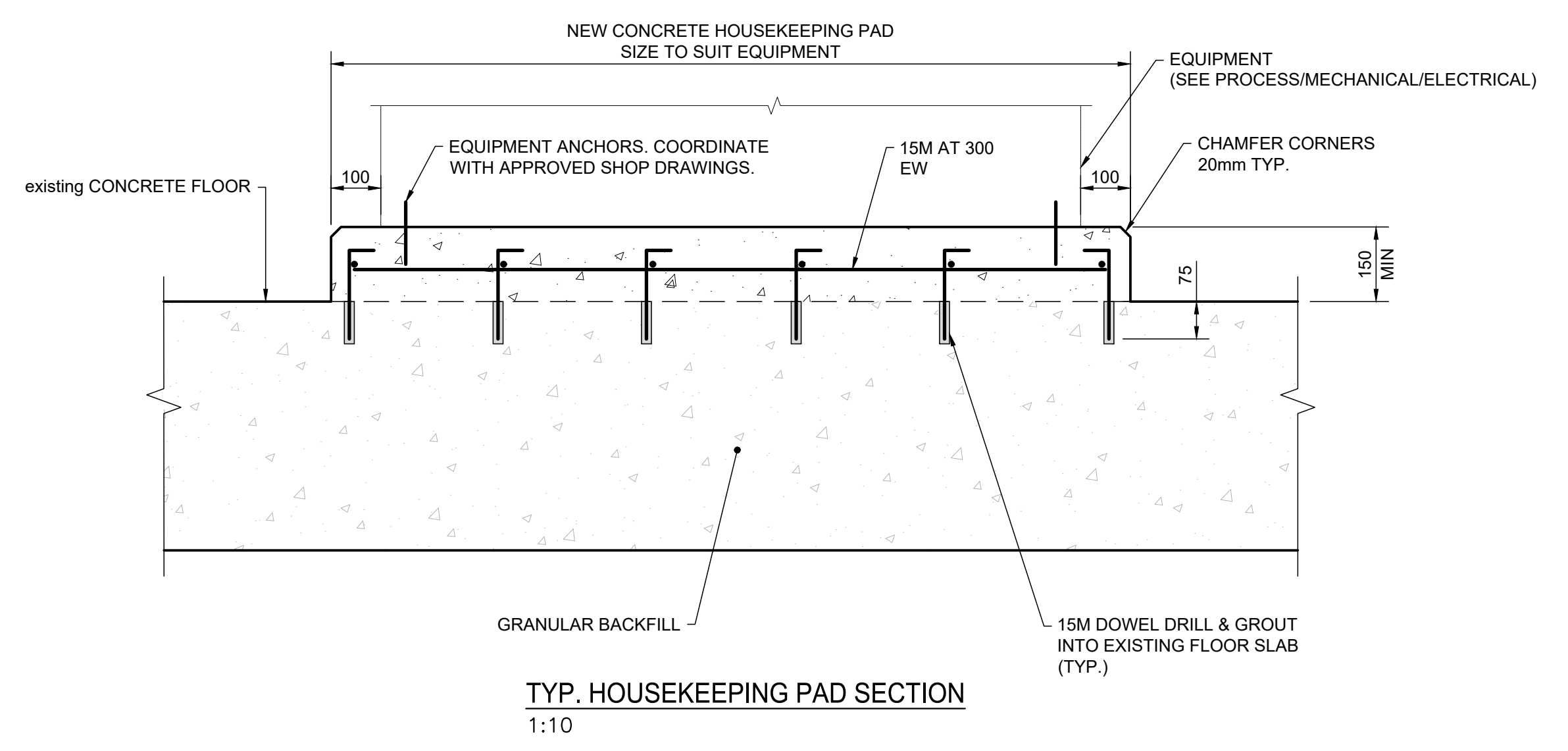
2 BASEPLATE DETAIL - BP1
1:10



3 BASEPLATE DETAIL - BP2
1:10



5 TYPICAL POST BASEPLATE
1:5



TYP. HOUSEKEEPING PAD SECTION
1:10

DRAWING FRAME: 780mm x 534mm City of Ottawa 2019
Drawing Number: S103
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