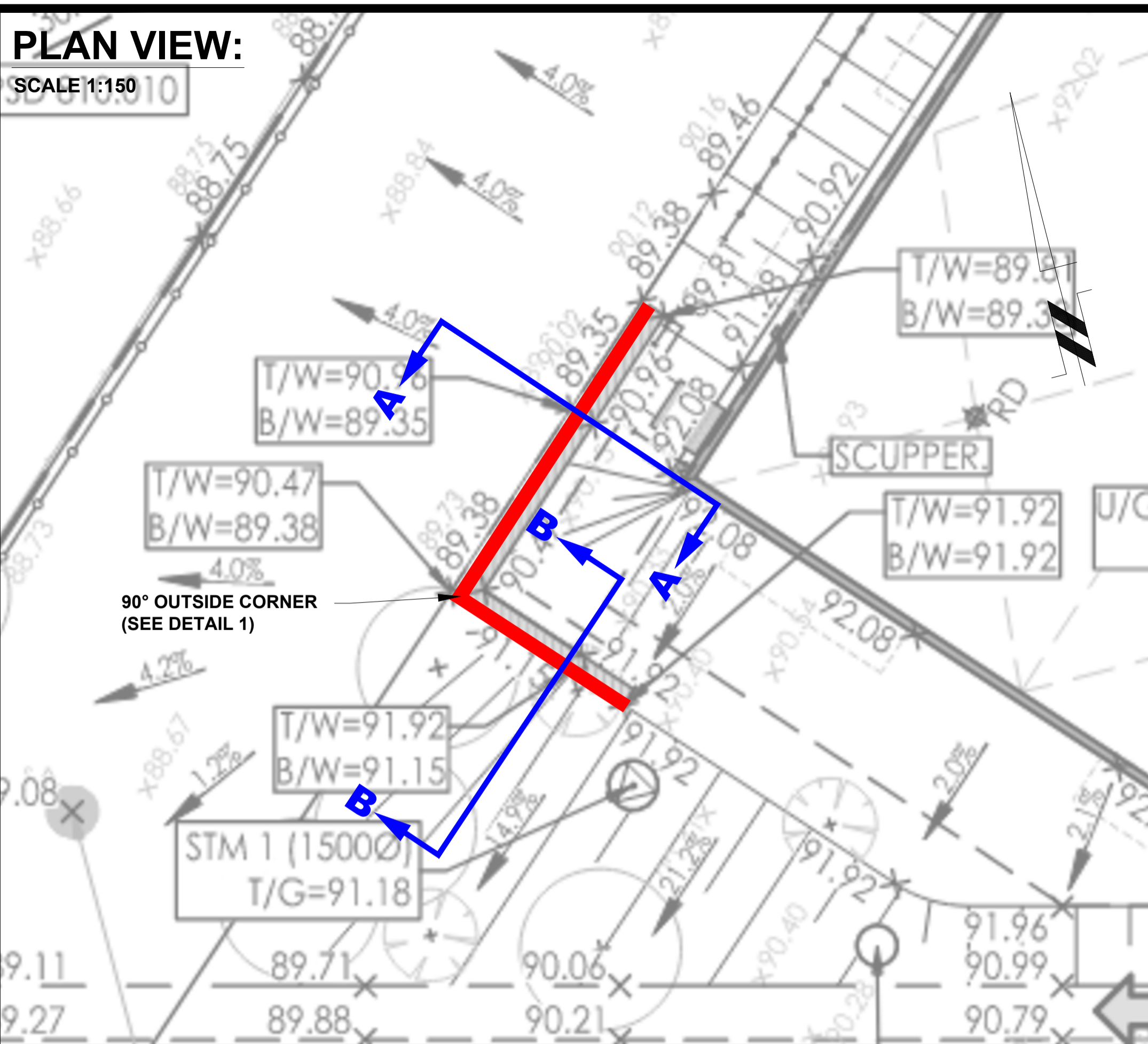


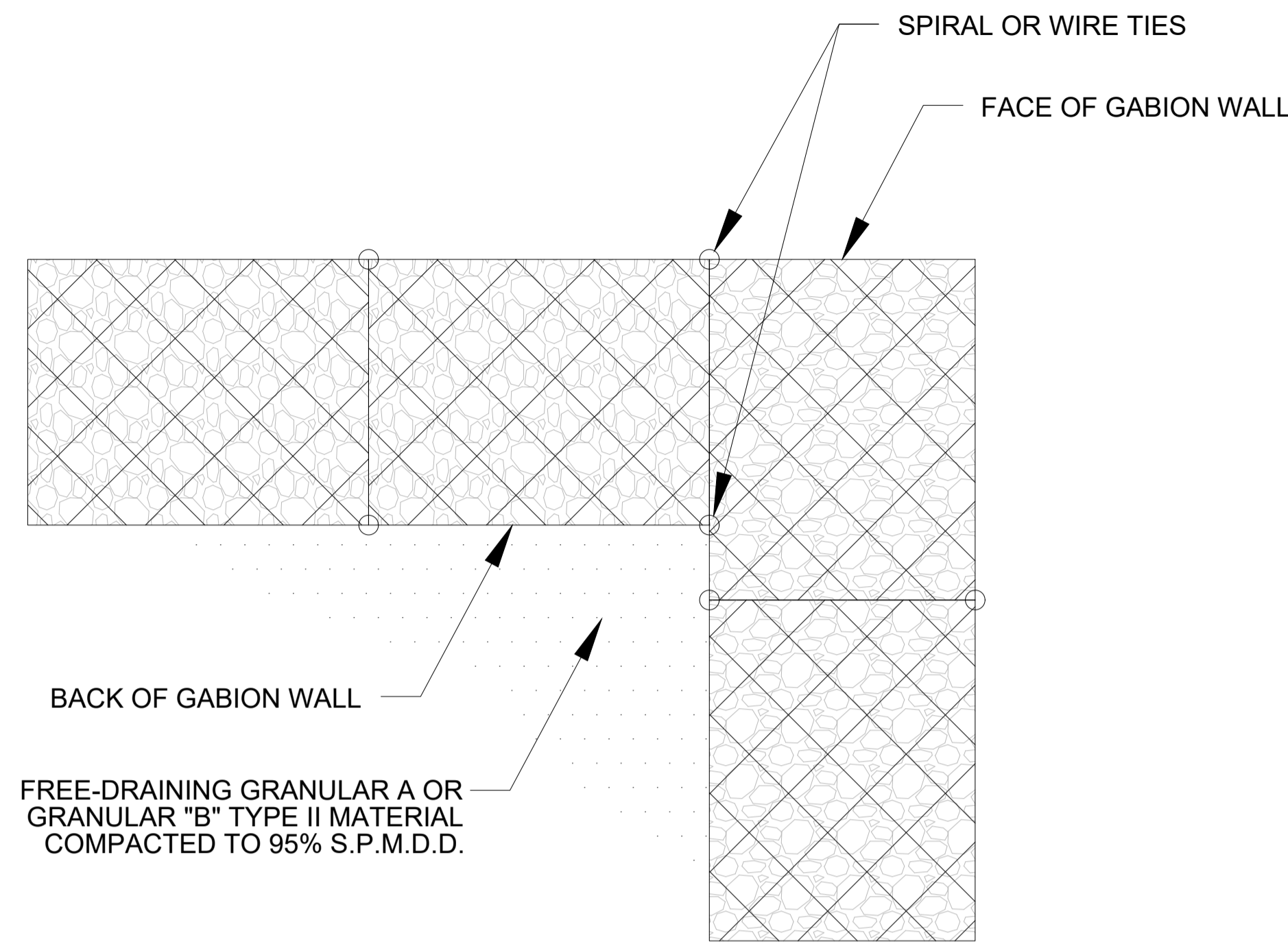
**PLAN VIEW:**

SCALE 1:150



**DETAIL 1 - 90° OUTSIDE CORNER:**

N.T.S.



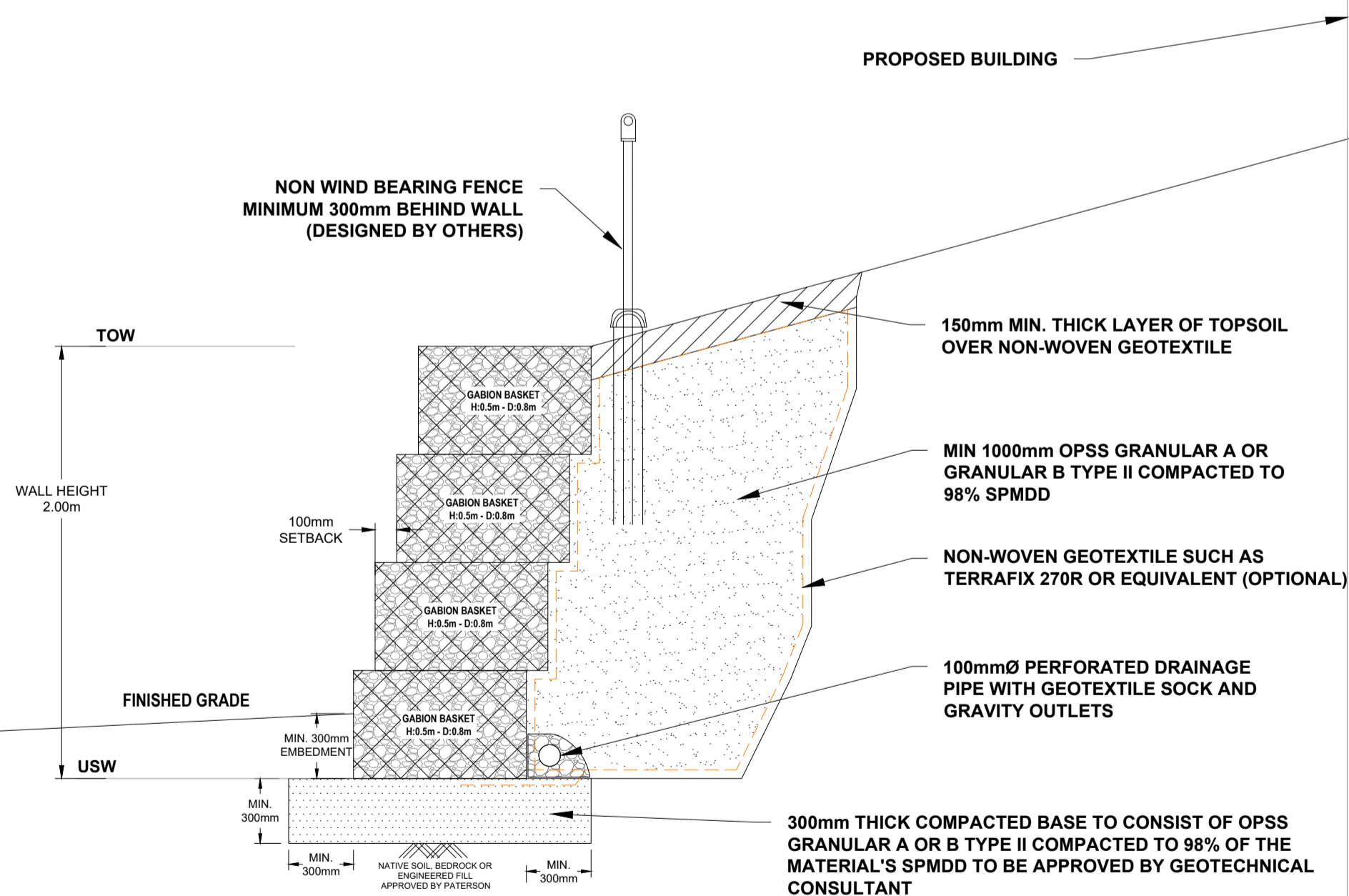
**NOTES:**

- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY CLEARANCES AND CONSTRUCTION SITE SAFETY. PATERSON GROUP AND BRIGIL SHALL NOT BE RESPONSIBLE FOR MEANS OR METHODS OF CONSTRUCTION OR FOR SAFETY OF WORKERS OR OF THE PUBLIC.
- THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES:
 

PROPERTY	RETAINED FILL	FOUNDATION MEDIUM
SOIL TYPE	GRANULAR B TYPE II	SILTY SAND
FRICTION ANGLE - $\phi$	38°	33°
UNIT WEIGHT - $\gamma$	22 kN/m <sup>3</sup>	19 kN/m <sup>3</sup>
COHESION - C	0 kPa	0 kPa
- MATERIAL PROPERTIES ARE BASED ON SITE EVALUATION BY PATERSON GROUP AND DISCUSSIONS WITH THE CONTRACTOR. SEISMIC LOADING WASEVALUATED ACCORDING TO THE CURRENT CHBDC DESIGN MANUAL CODE WITH A PEAK GROUND ACCELERATION (PGA) OF 0.345 (50% PGA = 0.1725).
- THIS DESIGN IS BASED ON A GRADING PLAN BY STANTEC, PROJECT No. 160401570 DRAWING No. GP-1, REV. 8, DATED 2026/02/26. THE WALL BASE DESIGN ASSUMES A BEARING RESISTANCE AT SLS OF 50 kPa ON SILTY SAND. THE SITE GEOTECHNICAL ENGINEER SHOULD OBSERVE THE BEARING CONDITIONS AND ADJUST THE THICKNESS OF THE GRANULAR BASE OR RECOMMEND CONCRETE BEDDING TO ACCOMMODATE THE SITE CONDITIONS, IF NECESSARY.
- THE DESIGN HAS BEEN REVIEWED FOR THE STABILITY OF THE PRECAST MODULAR RETAINING WALL SYSTEM AND GLOBAL STABILITY WITH A FACTOR OF SAFETY OF 1.5 FOR STATIC CONDITIONS AND 1.1 UNDER SEISMIC CONDITIONS. WALL GEOMETRY AND GRADE ELEVATIONS ABOVE AND BELOW THE WALL SHOULD CONFORM WITH THE GRADING PLAN PROVIDED HERE IN. IF ACTUAL SITE GRADES VARY SIGNIFICANTLY FROM THOSE SHOWN OR IF THE BACK SLOPE DOES NOT CONFORM, INSTALLATION SHALL NOT PROCEED UNTIL THE DESIGN IS VERIFIED OR MODIFIED IN THE APPLICABLE AREA.
- GABION CAGE TO CONSIST OF GALVANIZED OR PVC-COATED STEEL OR GALVANIZED ZINC COATED WELDED STEEL.
- GABION BASKET INFILL STONES TO BE HAND SELECTED HAND-SET AND STACKED AGAINST EXPOSED FACE INSIDE BASKETS AND RANDOMLY SET ELSEWHERE. SOUND DURABLE CRUSHED ROCK 100-200mm SIZE MEETING OPSS 1004.
- THE WALL BASE FOR THE WALL SHALL CONSIST OF A MIN. 300mm THICK OPSS GRANULAR A COMPACTED TO MIN. 98% OF THE MATERIALS SPMDD AND TESTED BY PATERSON GROUP GEOTECHNICAL PERSONNEL AT THE TIME OF CONSTRUCTION. SURFACE OF GRANULAR BASE MAY BE DRESSED WITH FINER AGGREGATE TO AID LEVELING. ENSURE GRADATION OF DRESSING MATERIAL IS SUCH AS TO PRECLUDE LOSS OF FINES INTO BASE. THE THICKNESS OF DRESSING LAYER SHOULD NOT EXCEED 3 TIMES THE MAXIMUM PARTICLE SIZE USED. ALL CONCRETE USED SHOULD BE EXPOSURE CLASS C-1 IN ACCORDANCE WITH CSA A23.1 WITH A MIN. COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS.
- WALL IS DESIGNED WITH A MIN. 300mm TOE EMBEDMENT WITH A MIN. HORIZONTAL LEDGE WITH A GRANULAR BEDDING LAYER EXTENDING A MIN. 300mm BEYOND THE FACE OF THE BASE BLOCK.
- THE CONDITIONS WILL BE EVALUATED BY THE GEOTECHNICAL ENGINEER DURING PREPARATION FOR WALL CONSTRUCTION IN EACH AREA. WHERE GRANULAR BEDDING WILL NOT BE SUFFICIENT THE USE OF CONCRETE BEDDING MAY BE REQUIRED.
- BACKFILL MATERIAL SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO USE AND SHOULD CONSIST OF OPSS GRANULAR A OR B TYPE II FOLLOWED BY SUITABLE BACKFILL MATERIAL. ALL FILL WITHIN A 1H:1V ZONE UP AND BACK FROM THE HEEL SHOULD ALSO BE COMPACTED. BACKFILL SHALL BE PLACED IN MAXIMUM 300mm LOOSE LIFTS AND COMPACTED TO A MINIMUM OF 95% OF SPMDD. MOISTURE CONTENT SHOULD BE CONTROLLED AND MAINTAINED WITHIN -3 TO +4 PERCENT OF OPTIMUM. IT IS RECOMMENDED TO REVIEW THE BACKFILL BEHIND THE EXISTING RETAINING WALL FOR REUSE SHOULD THE MATERIAL CONSIST OF CRUSHED STONE MATERIAL. MATERIAL SHOULD BE REVIEWED AND APPROVED BY PATERSON FIELD PERSONNEL AT THE TIME OF CONSTRUCTION. IT IS IMPERATIVE THAT THE INSTALLED BACKFILL MATERIAL IS FULLY WRAPPED WITH A NON WOVEN GEOTEXTILE SUCH AS TERRAFIX 270R OR EQUIVALENT APPROVED OTHER.
- MAINTAIN TEMPORARY GRADES TO DIVERT SURFACE WATER AWAY FROM THE RETAINING WALL EXCAVATION. SLOPE FINAL BACKFILL TO PROVIDE POSITIVE DRAINAGE AND TO ELIMINATE PONDING.
- BACKSLOPE SHOULD BE CUT BACK TO A MINIMUM OF 2H:1V TO 3H:1V TO MAINTAIN A LONG TERM SAFE SLOPE BEHIND THE RETAINING WALL.
- EXCAVATION SIDE SLOPES SHOULD BE PROTECTED TEMPORARILY DURING CONSTRUCTION FROM PRECIPITATION EVENTS BY PLACEMENT OF TARPS.
- ALL RETAINING WALL RELATED INSPECTIONS (BEARING SURFACE, COMPACTION, BLOCK INSTALLATION, ETC.) MUST BE COMPLETED BY PATERSON GROUP. ONCE THE WALL CONSTRUCTION IS COMPLETED AND REVIEWED BY PATERSON DURING CONSTRUCTION, A CERTIFICATE LETTER WILL BE ISSUED BY PATERSON GROUP.
- IF WINTER CONSTRUCTION IS CONSIDERED, HEAT MUST BE MAINTAINED WHEN THE BASE IS EXPOSED. THE WALL BASE MUST COVERED WITH HIGH GRADE INSULATION TARPS TO MAINTAIN HEAT AND PROTECT THE BASE FROM POTENTIAL FROST HEAVE. ONCE THE BASE IS BACKFILLED, THE TOP OF THE WALL MUST BE COVERED WITH INSULATION TARPS OVERNIGHT UNTIL THE WALL CONSTRUCTION IS COMPLETED. ADDITIONAL INSPECTIONS WILL BE REQUIRED DURING WINTER CONSTRUCTION TO ENSURE THE WALL CONSTRUCTION IS IN GENERAL CONFORMANCE WITH PATERSON'S RECOMMENDATIONS.
- THE CONTRACTOR SHOULD REFER TO THE INSTALLATION MANUAL PROVIDED FOR THE RETAINING WALL BLOCK TYPE PROVIDED HEREIN FOR ADDITIONAL DETAILS ON ACCEPTABLE INSTALLATION PRACTICES.
- IT IS RECOMMENDED THAT THE RETAINING WALL CONSTRUCTION BE COMPLETED IN AT MAXIMUM 3m SECTIONS TO MAXIMIZE THE STABILITY OF THE EXISTING RETAINING WALL. IT IS RECOMMENDED THAT OPENED SECTIONS BE COMPLETED THE SAME DAY TO MAINTAIN THE STRUCTURAL SUPPORT OF THE EXISTING RETAINING WALL.
- IT IS FURTHER RECOMMENDED THAT THE GABION BASKETS BE INSTALLED IN FRONT OF THE EXISTING LOWER TIER RETAINING WALL PRIOR TO REMOVING THE LUMBER FROM THE EXISTING WALL. ONCE THE GABION BASKETS ARE IN PLACE, THE LUMBER FROM THE EXISTING WALL MAY BE REMOVED AND REPLACED AS SHOWN ON CROSS-SECTION A-A DETAIL.
- THE PROPOSED STORMWATER MANHOLE MH1 WILL BE LOCATED IN PROXIMITY TO THE PROPOSED RETAINING WALL. IT IS EXPECTED THE SITE SERVICING WILL BE COMPLETED PRIOR TO CONSTRUCTION OF THE RETAINING WALL. ANY FUTURE MAINTENANCE FOR THE STORMWATER SYSTEM POST CONSTRUCTION OF THE RETAINING WALL SHOULD BE SUITABLY PLANNED TO AVOID UNDERMINING THE RETAINING WALL.

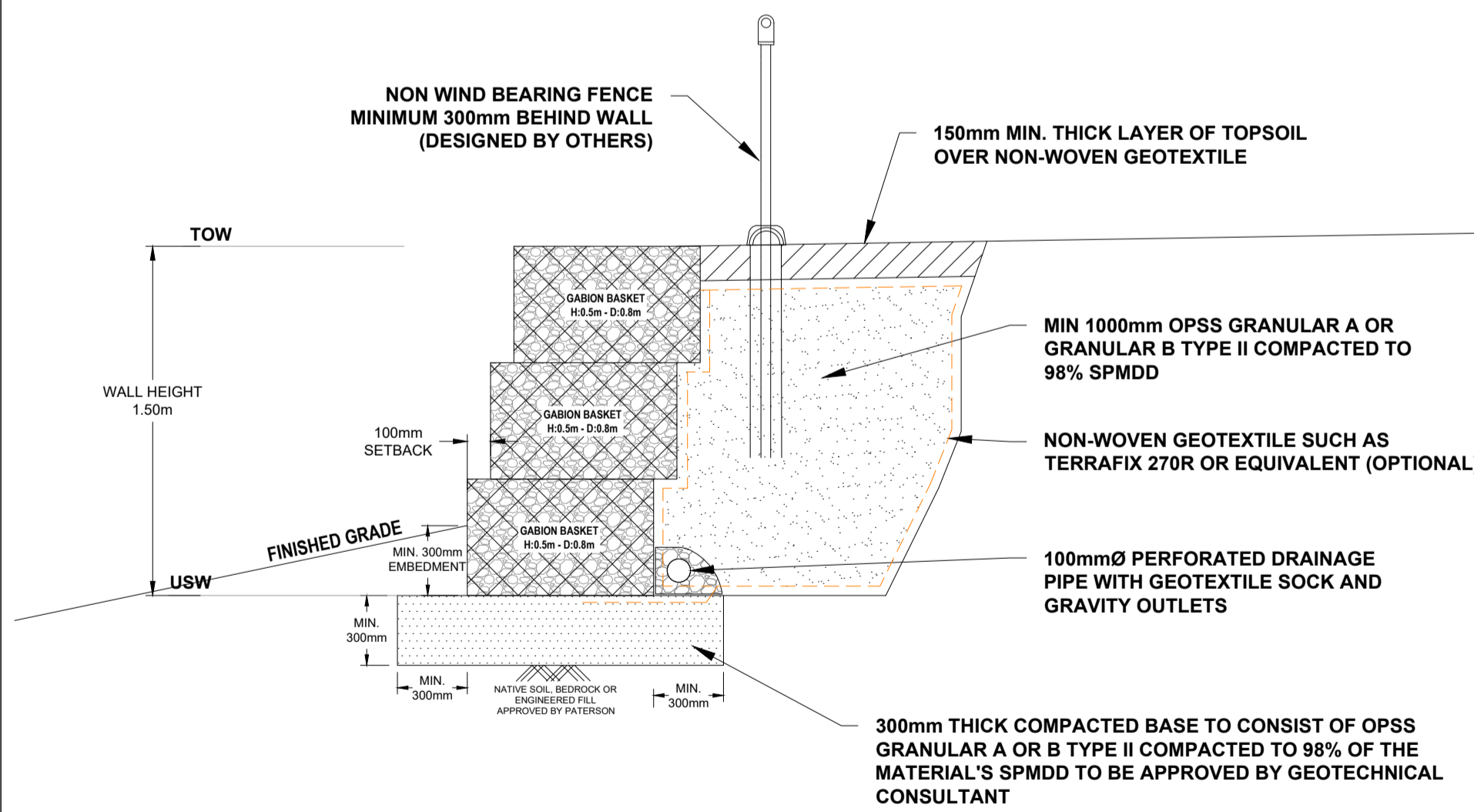
**CROSS SECTION A-A:**

SCALE 1:25



**CROSS SECTION B-B:**

SCALE 1:25



**ISSUED FOR REVIEW**



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NO.	REVISIONS	DATE	INITIAL

BRIGIL  
PROPOSED RETAINING WALL  
100 STACIE DRIVE  
OTTAWA, ONTARIO

Title: **GABION RETAINING WALL DESIGN**

Stamp: [Professional Engineer Seal: J. R. VILLENEUVE, 1003049344, PROVINCE OF ONTARIO]

Scale: AS SHOWN  
Drawn by: MLB  
Checked by: PT  
Approved by: JV  
Date: 28/04/2026

File No.: PG5788  
Drawing No.: PG5788-3  
Revision No.: 0

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