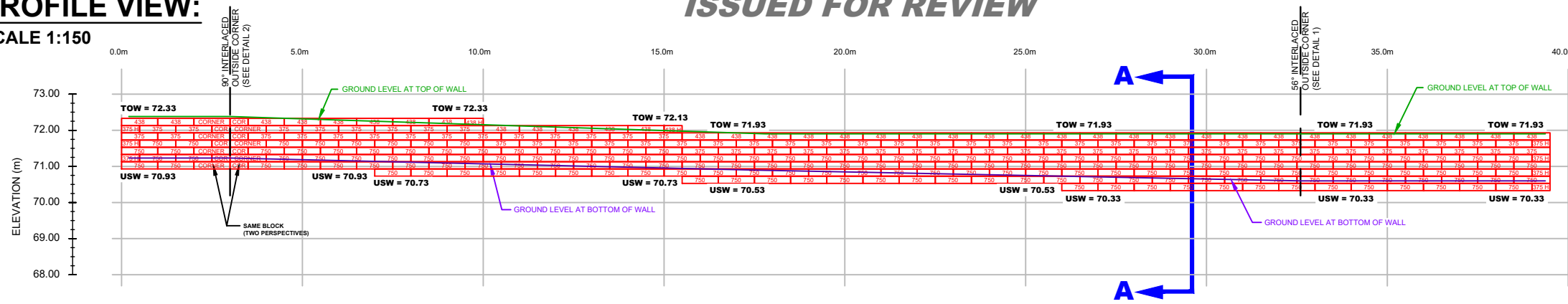


PROFILE VIEW:

SCALE 1:150



ISSUED FOR REVIEW

NOTES:

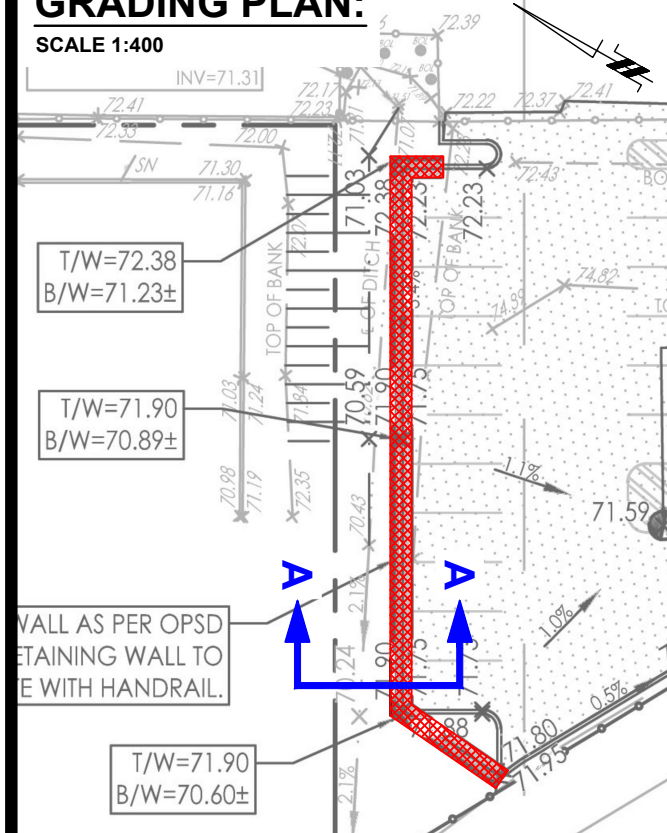
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR UTILITY CLEARANCES AND CONSTRUCTION SITE SAFETY. PATERSON GROUP SHALL NOT BE RESPONSIBLE FOR MEANS OR METHODS OF CONSTRUCTION OR FOR SAFETY OF WORKERS OR OF THE PUBLIC.
- THIS DESIGN IS BASED ON THE FOLLOWING SOIL PROPERTIES:

| PROPERTY | RETAINED FILL | FOUNDATION MEDIUM |
|-------------------------|-------------------------|-----------------------|
| FRICTION ANGLE - ϕ | 38° | 33° |
| UNIT WEIGHT - γ | 21 kN/m ³ | 18 kN/m ³ |
| COHESION - C | 0 | 5 kPa |
| SOIL TYPE | OPSS GRANULAR B TYPE II | VERY STIFF SILTY CLAY |

MATERIAL PROPERTIES ARE BASED ON SITE EVALUATION BY PATERSON GROUP AND DISCUSSIONS WITH CONTRACTOR. SEISMIC LOADING WAS EVALUATED ACCORDING TO THE CURRENT CANADIAN HIGHWAY BRIDGE DESIGN CODE WITH A PEAK GROUND ACCELERATION VALUE OF 0.296.
- THIS DESIGN IS BASED ON A GRADING PLAN PROVIDED BY STANTEC, PROJECT No. 160401534, SITE SERVICING AND GRADING PLAN, DRAWING No. SSGP-1, REVISION 1 DATED JUNE 22, 2023. THE WALL BASE DESIGN ASSUMES A BEARING RESISTANCE AT SLS OF 150 kPa ON VERY STIFF SILTY CLAY. 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.
- RETAINING WALL DESIGN WITH A GLOBAL STABILITY FACTOR GREATER THAN 1.5 UNDER 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.
- PRECAST UNITS SHALL BE GRANDE RETAINING WALL UNITS MANUFACTURED UNDER LICENSE FROM PERMACON.
- THE WALL BASE SHALL CONSIST OF A MINIMUM OF 300mm OF OPSS GRANULAR B TYPE II. THE GRANULAR BEDDING LAYER SHOULD EXTEND AT LEAST 300mm BEYOND THE FRONT BLOCK FACE AND A MINIMUM OF 300mm BEYOND THE REAR BLOCK FACE. THE BASE SHALL BE SMOOTHED TO ENSURE COMPLETE CONTACT OF RETAINING WALL UNIT WITH BASE. 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.
- WALL IS DESIGNED WITH A MIN. 200mm TOE EMBEDMENT WITH A CONCRETE BEDDING LAYER EXTENDING A MINIMUM 300mm BEYOND THE FACE, AND A MINIMUM 300mm BEYOND THE HEEL OF THE BASE BLOCK.
- THE CONDITIONS WILL BE EVALUATED BY THE GEOTECHNICAL ENGINEER DURING PREPARATION FOR WALL CONSTRUCTION IN EACH AREA TO CONFIRM THE SUBSURFACE PROFILE INDICATED BY THE GEOTECHNICAL REPORT WITHIN THE FOOTPRINT OF THE PROPOSED WALL. WHERE GRANULAR BEDDING WILL NOT BE SUFFICIENT, THE USE OF CONCRETE BEDDING MAY BE REQUIRED AND WILL BE PROVIDED AS SITE INSTRUCTIONS.
- BACKFILL MATERIAL SHALL BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO USE AND SHOULD CONSIST OF OPSS GRANULAR B TYPE II B 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 SPMD. MOISTURE CONTENT SHOULD BE CONTROLLED AND MAINTAINED WITHIN -3 TO +4 PERCENT OF OPTIMUM.
- MAINTAIN TEMPORARY GRADES TO DIVERT SURFACE WATER AWAY FROM THE RETAINING WALL EXCAVATION. SLOPE FINAL BACKFILL TO PROVIDE POSITIVE DRAINAGE AND TO ELIMINATE PONDING.
- EXCAVATION SIDE SLOPE 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.
- ANY CUTTING OF BLOCKS TO SUIT SITE CONDITIONS OR WALL DESIGN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- USE MASONRY ADHESIVE RECOMMENDED BY THE SUPPLIER FOR THE TOP THREE COURSES AND CAP
- PRELIMINARY PROFILE PROVIDED. PROFILE IS AT THE DISCRETION OF THE INSTALLER AND SHOULD FOLLOW MANUFACTURERS 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.

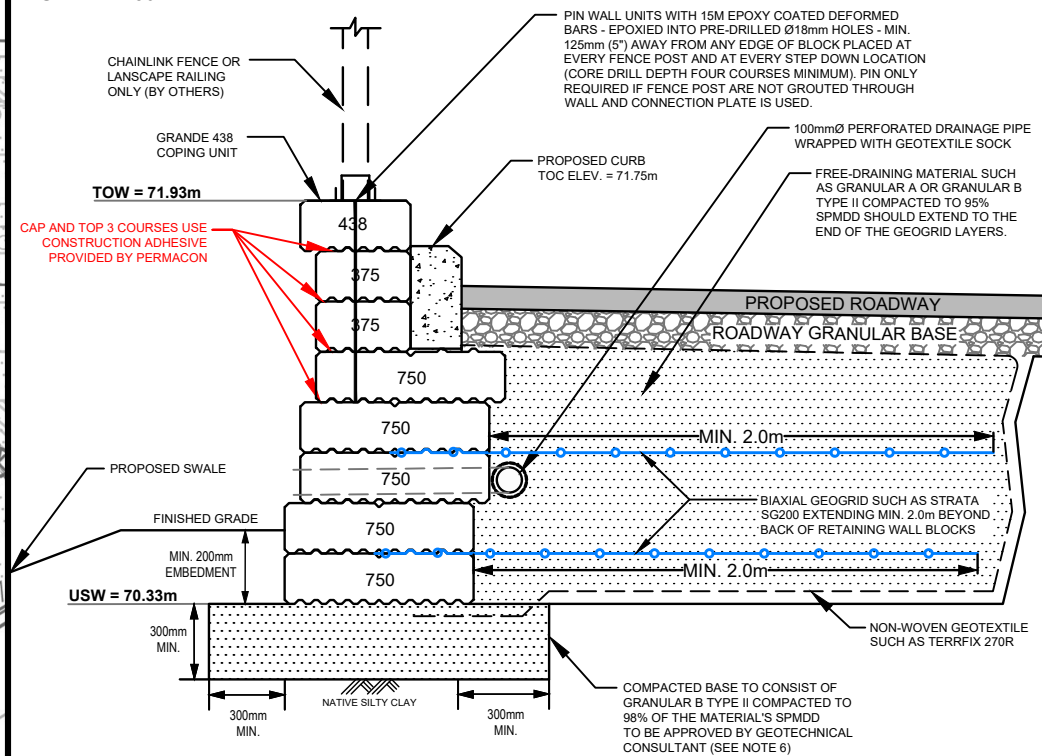
GRADING PLAN:

SCALE 1:400



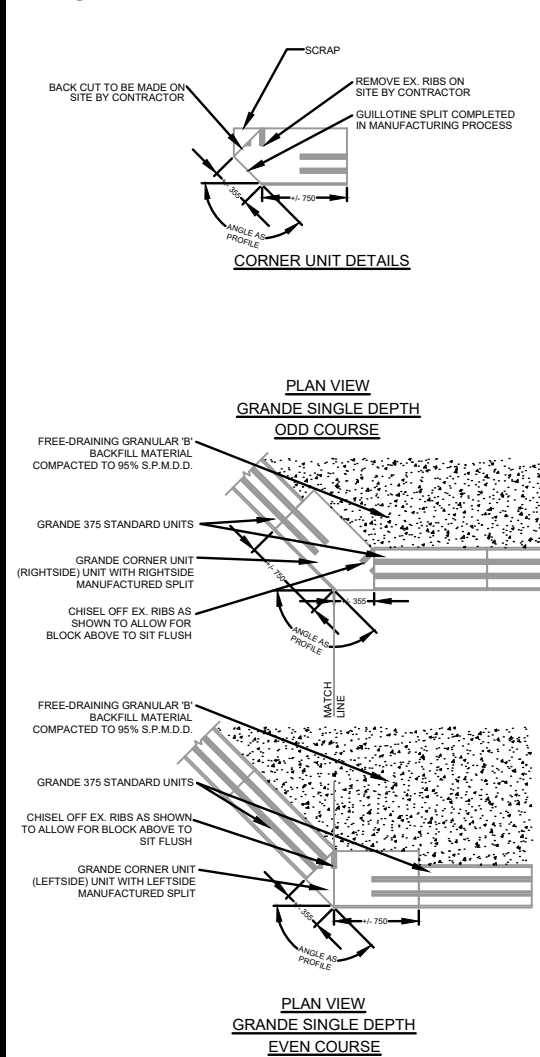
CROSS SECTION A-A:

SCALE 1:30



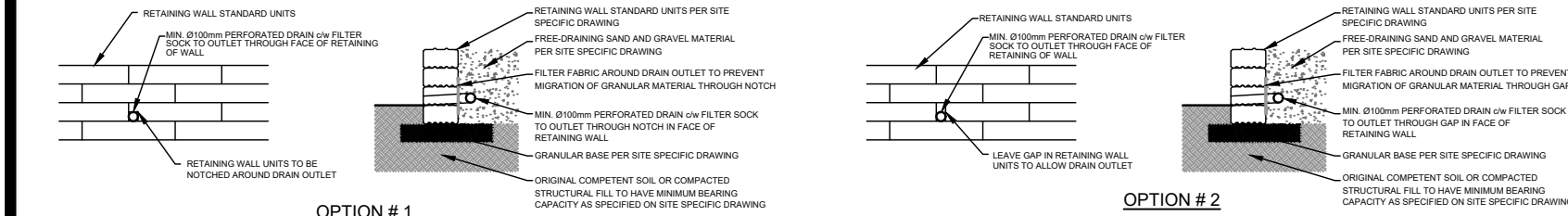
DETAIL 1:

N.T.S.



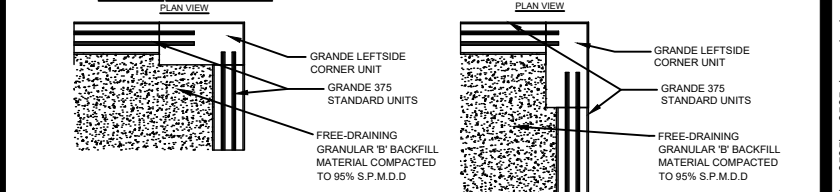
DRAINAGE DETAILS:

N.T.S.



DETAIL 2:

N.T.S.



| NO. | REVISIONS | DATE | INITIAL |
|-----|-----------|------|---------|
| | | | |
| | | | |
| | | | |

RICHCRAFT
PROPOSED RETAINING WALL
2370 WALKELY ROAD

OTTAWA, ONTARIO

Title: **GRANDE RETAINING WALL DESIGN**



| | | |
|-----------------|-----------------|---------------------------|
| Stamp: | Scale: AS SHOWN | Date: 07/2023 |
| Drawn by: NFRV | Checked by: JV | File No.: PG6595 |
| Approved by: FA | | Dwg. No.: PG6595-1 |
| | | Revision No.: |

p:\autocad\drawings\geotechnical\pg6595\pg6595-1_grande.dwg