

PUBLIC WORKS COMMITTEE MEETING
Monday March 20, 2023 at 4:30 p.m.
Caledonia Village Hall – 5043 Chester Lane

1. Call to Order
2. Approval of Minutes
3. 3268 Bergamot – Retaining Wall Variance Request
4. Adjournment

March 17, 2023

Joslyn Hoeffert
Village Clerk

Only committee members are expected to attend. However, attendance by all Board members (including non-members of the committee) is permitted. If additional (non-committee) Board members attend, three or more Board members may be in attendance. Section 19.82(2), Wisconsin Statutes, states as follows:

If one-half or more of the members of a governmental body are present, the meeting is rebuttably presumed to be for the purposes of exercising the responsibilities, authority, power or duties delegated to or vested in the body.

To the extent that three or more members of the Caledonia Village Board actually attend, this meeting may be rebuttably presumed to be a “meeting” within the meaning of Wisconsin’s open meeting law. Nevertheless, only the committee’s agenda will be discussed. Only committee members will vote. Board members who attend the committee meeting do so for the purpose of gathering information and possible discussion regarding the agenda. No votes or other action will be taken by the Village Board at this meeting.

1. Call to Order

Trustee Weatherston called the meeting to order at 4:30 p.m. in the East Conference Room, 5043 Chester Lane, Racine, Wisconsin.

Present: Trustee Weatherston and Trustee McManus. Trustee Martin was also present.

Absent: None.

Staff present: Public Services Director Anthony Bunkelman and Village Engineer Ryan Schmidt.

2. Approval of Minutes

Motion by Trustee Martin to approve the minutes from the August 8, 2022, meeting. Seconded by Trustee Weatherston. Motion carried unanimously.

3. Ordinance 2022-XX - An Ordinance To Create Section 10-1-9 (D) (26) And To Amend Section 10-1-9 (F) (11) Of The Code Of Ordinances Of The Village Of Caledonia, Racine County, Wisconsin, Relating To Speed Limits On 4 Mile Road

As part of the civil/site review, the Engineering department discovered some potential sight distance issues with the proposed eastern access for Likewise, 13301 4 Mile Road. TADI preformed a traffic analysis, and it was determined that the speed limit should be reduced to 35 miles per hour for truck traffic to exit the accessway of Likewise safely.

Motion By Trustee McManus To Recommend Approval And Forward To The Legislative And Licensing Committee Ordinance 2022-XX - An Ordinance To Create Section 10-1-9 (D) (26) And To Amend Section 10-1-9 (F) (11) To Modify The Speed Limit Along 4 Mile Road Between The East Frontage Road And CTH V To 35 Miles Per Hour. Seconded By Trustee Weatherston. Motion carried unanimously.

4. Adjournment


Trustee McManus motioned to adjourn. Seconded by Trustee Weatherston. Motion carried unanimously. Meeting adjourned at 4:39 p.m.

Respectfully submitted,
Megan O'Brien
Deputy Village Clerk

MEMORANDUM

Date: March 15, 2023

To: Board of Public Works
Village Board

From: Ryan Schmidt, P.E.
Village Engineer 

Re: Variance for Easement Encroachment - Vey Pool Project – 3268 Bergamot

Background Information

In June and July of 2022, Breezy Hill Nursery (Contractor), Bob's Pool Builders (Contractor), and Grace Vey (Owner) reached out to the Engineering and Zoning Departments to begin the process of applying for a pool permit at 3268 Bergamot. This information included setbacks, zoning requirements, and general permit information. The home is located on Lot 93 the Auburn Hills Subdivision as included in the attached exhibits. The home was built in 2022 and contains a 9' exposure due to the significant grade differential from the front of the home to the back. More specifically, the Finished Yard Grade at the front of the home is at 740.60 while the lowest elevation at the west lot line is 721.55. Minor retaining walls were included on the proposed home build to maintain 4:1 side slopes, which were approved as part of the building permit process.

With the significant grade change, the initial concept of the rear yard improvements to include a pool also included a large retaining wall exceeding 4' along the entire western edge. After initial discussion with the owner and the contractor, staff put together standard requirements from our building code that need to be met as part of the pool approval. This included telling the owner to refrain from placing the wall in any easements, acquiring engineer approved plans for the wall, and meeting the other setbacks provided by Zoning.

The easement is sized and located for specific reasons. The grading of the subdivision was built to best fit the topography of the site. Bergamot Drive was significantly higher than Indigo Drive and Blazing Star and proper sizing was required to ensure it was built to a maintainable level. The lots along the east side of Indigo Drive also drain to this rear yard swale (total of 30' wide) and eventually to an outlet structure behind Lots 101 and 102. The 30' easement was created as part of the Auburn Hills Phase A project and also functioned as the transition point between Phase A and Phase B.

Now in March of 2023, the Owner and Contractor have come back with a set of stamped engineered plans for the proposed wall and an updated layout that includes the location of the wall and pool on the site. These are included in the exhibits. The lowest elevation of the wall is 723.83 with the overall top-of-wall elevation at 731.50. Due to the restrictions of the easement locations, the owner has requested the ability to encroach upon the northern easement with their

retaining wall as shown in the attached layout and similarly to how the initial retaining wall was installed. The owner hopes that this will provide the appropriate space to manage their rear yard effectively and allow the rear yard to be functional. The pool is primarily intended to be for physical therapy for Grace's husband and the pool cannot be installed as intended unless the yard has been elevated to the degree shown. Staff believes that a 5' encroachment will allow the wall to be built and create enough area for drainage along the shared lot lines. Slight modifications will be required to the plans to include this, and the contractor shall ensure that the project is built per the PE Stamped Plans.

The Landscape Contractor has also included significant vegetation that encroaches into the easement along the North side of the home. Small plantings and shrubbery will be allowed to encroach within this 5' limit but all large plantings shall remain outside of the drainage easement, specifically the proposed tree on the NE corner of the lot. Any other plantings must acquire the appropriate utility company for approval if placed in another easement. The Owner may benefit from extending the retaining wall east along the north side to improve the slopes along that portion of the home.

The Pool Contractor has also provided their permit application which includes installing the pool filter equipment along the north side of the home. The pool equipment is recommended to be relocated to another area outside of the easement but may be allowed if no other suitable location can work on site. This must be provided in writing by the Pool Contractor on why the only suitable location is within an easement. Both contractors must update their plans accordingly to meet the maximum encroachment of 5' for all landscaping and retaining walls before final approval.

If the Public Works Committee is in favor of allowing a retaining wall in a portion of the 15' drainage easement, Staff Recommends the following motion:

Staff Recommendation

Move to recommend approval of a variance request at 3268 Bergamot to install a retaining wall in the 15' Drainage Easement along the north side of the lot with the following conditions:

- **The retaining wall, pool equipment, and landscaping does not encroach more than 5' into the 15' easement. It is recommended an alternate location is found for the pool equipment.**
- **Owner enters into a Hold Harmless Agreement with the Village for the retaining wall and fence.**
- **Owner collects waivers from all utility companies prior to approval (ATT, Spectrum, Caledonia, We Energies).**
- **The Contractor maintains 4:1 slopes outside of the retaining wall and proposed landscaping.**
- **The Contractor keeps the landscaping, walls, and any hard surfaces 5' North of the South Lot Line.**
- **Contractor installs silt fence downstream of the project. A Land Disturbance permit will be required if issues arise.**

Ryan Schmidt

From: gvey@wi.rr.com
Sent: Tuesday, March 14, 2023 1:15 PM
To: Ryan Schmidt
Cc: svey2323@gmail.com
Subject: 3268 Bergamot Drive, Caledonia Lot 93 Landscape & Pool Project

Hello Ryan,

Hope this email finds you doing well in 2023.

We've been working together on this project since June 2022 and kickoff time is finally here. Lots of steps have taken place with due diligence and project details since we last spoke.

- Structural Professional Engineer was hired and paid for the retaining wall design
- Large deposits placed with Breezy Hill, Bob's Pool Builders, Electrician, Plumber, Fence, etc..
- All steel and structural pool materials were ordered
- HOA approval was secured

We received a call from Dan Hitzeman at Breezy Hill today regarding your feedback on the project.

Our communication has been transparent and shared with all trades involved including our builder, Korndoerfer, for a long time.

It appears we reached a roadblock after all the due diligence and would like to request a special "variance" meeting to allow a North wall retaining wall.

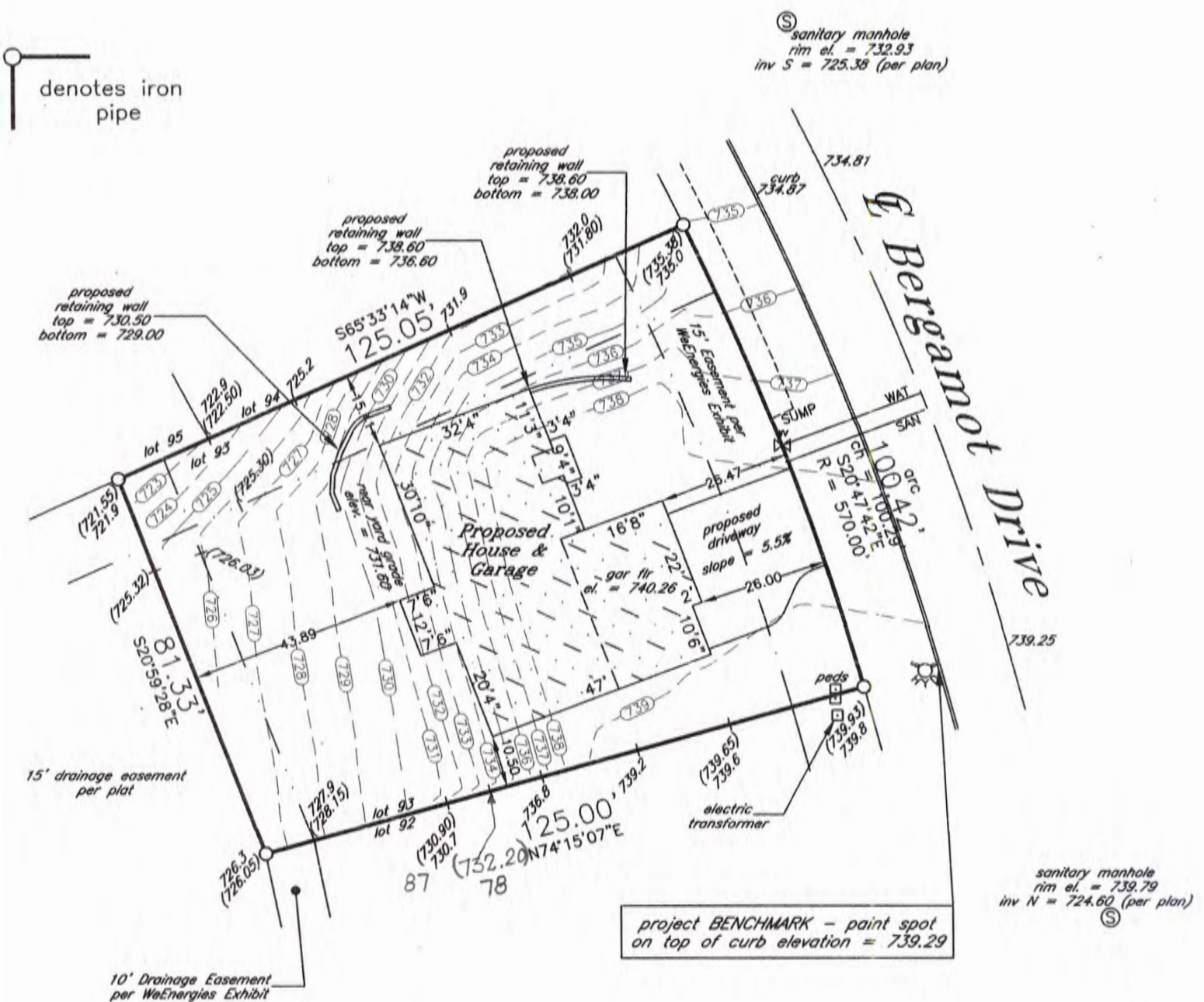
I discussed this wall with you over the phone a while back and the importance of our "walking safety" around the pool.

Please request a variance meeting with BPW to allow a retaining wall . I am not sure who you are requesting to be in attendance for this meeting.

Jeanine represented the approval from the Village Board for the landscaping plan.

Thank you,

Grace Vey
414-218-0403
3268 Bergamot Drive
Caledonia, WI 53406



lot area = 11,468 S.F.

* Verify exact number with City Engineering Department

* outside finish grade = EL 740.60 (advisory only) - top of foundation = EL 741.27 (advisory only) unless otherwise determined in writing by Village Engineering Department

Scale
1" = 30'

Proposed building field staked true size. Contractor to verify all dimensions before building by same and adhere to drainage plan in effect for this subdivision. Refer to a current title report for easements or restrictions which may affect the use of this site that are not shown on the recorded subdivision plat.

J.K.R. SURVEYING, INC.
8121 22ND AVENUE
KENOSHA, WI 53143



I hereby certify that this property was surveyed under my direction and this plat is a true representation thereof.

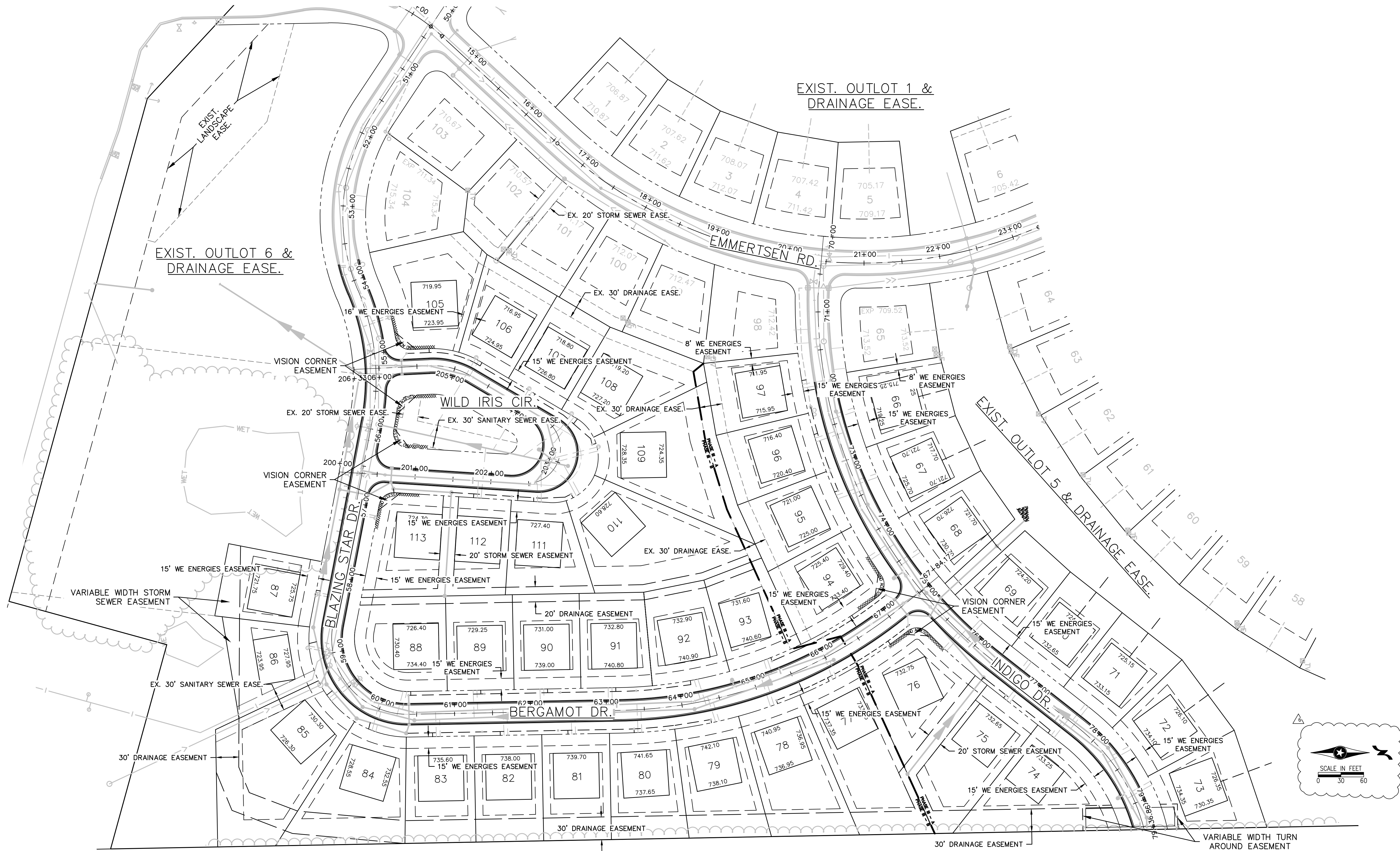
[Signature]

Reg. Land Surveyor

February 1, 2022
Revised 2/16/22

Plat of Survey of
LOT 93 IN
AUBURN HILLS
in SW1/4 Section 36-4-22
VILLAGE OF CALEDONIA
RACINE COUNTY, WIS.
-for-
Korndoerfer Development
(AHCA-0-093)

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DRAWN BY:	ZJH	NO.	BY	DATE	REVISIONS
DESIGNER:	J. VAYNBERG	1	ZJH	03/16/2018	REVISED PER 01/19/2018 VILLAGE COMMENTS
CHECKED BY:	--	2	ZJH	10/11/2018	REVISED PER ADDITIONAL VILLAGE COMMENTS
DESIGN TEAM		3	ZJH	02/19/2019	REVISED PER MEETING WITH VILLAGE
		4	ZJH	05/02/2019	REVISED SCALE ISSUE



AUBURN HILLS PHASE III - A & B
VILLAGE OF CALEDONIA, WI

PHASE III MASTER EASEMENT PLAN

FILE NO.	141157	C 1.04
DATE	05/10/2017	



"BUILT FROM THE GROUND UP"

VEY POOL PROJECT CALEDONIA, WI

RETAINING WALL (RW) CONSTRUCTION ADDRESSED BY THESE DRAWINGS ARE PART OF A SIGNIFICANTLY LARGER PROJECT BEING BUILT BY THE GENERAL CONTRACTOR, WHO HAS SEPARATELY RETAINED AN EARTHWORK GRADING CONTRACTOR TO ASSIST IN DEVELOPING THE SITE FOR THE OWNER. THE OWNER HAS RETAINED A PROJECT GEOTECHNICAL ENGINEER TO ADVISE IT ON MATTERS RELATIVE TO CONSTRUCTION AND WHO WILL BE PROVIDING QUALITY ASSURANCE TESTING AND OBSERVATION OF THE RW CONSTRUCTION WORK FOR THE OWNER. OUTLINED BELOW IS A BRIEF SUMMARY OF THE RESPONSIBILITIES OF EACH OF THE PARTIES REQUIRED BY THE RW CONSTRUCTION, AS OUTLINED IN THESE DRAWINGS, TO ENSURE A QUALITY CONSTRUCTION PROJECT:

- A. GENERAL/EARTHWORK CONTRACTOR SHALL BE RESPONSIBLE FOR OVERALL SITE GRADING AND STORM WATER CONTROL, BEFORE, DURING, AND AFTER RW CONSTRUCTION, UNTIL THE PERMANENT PAVING AND STORM WATER DRAINAGE CONTROLS ARE ALL IN PLACE AND OPERATIONAL. DAMAGE TO EXISTING RW CONSTRUCTION BY POORLY CONTROLLED STORM WATER DRAINAGE SHALL NOT BE THE RESPONSIBILITIES THE RW CONTRACTOR OR RW DESIGNER.
- B. GENERAL/EARTHWORK CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL, BEFORE, DURING, AND AFTER RW CONSTRUCTION.
- C. OWNER AND/OR GENERAL CONTRACTOR SHALL PROVIDE SURVEYING SERVICES SUFFICIENT TO LOCATE THE WALL, HORIZONTALLY AND VERTICALLY ON THE SITE FOR CONSTRUCTION PURPOSES.
- D. GENERAL/EARTHWORK CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A BEARING SURFACE AT THE BOTTOM RETAINING WALL ELEVATION THAT MEETS THE BEARING REQUIREMENTS SHOWN ON THESE DRAWINGS. THE BEARING SURFACE AND ALL AREAS INTO WHICH THE RW CONTRACTOR WILL PLACE AND COMPACT FILL MUST BE CLEARED, GRUBBED AND ALL DELETERIOUS SOILS AND/OR ORGANIC MATTER REMOVED TO PROJECT GEOTECHNICAL ENGINEER'S SATISFACTION, AS PROVIDED IN THEIR DAILY PROJECT REPORTING.
- E. THE OWNER'S PROJECT GEOTECHNICAL ENGINEER SHALL OBSERVE AND PROVIDE WRITTEN APPROVAL THAT THE "ALLOWABLE" BEARING CAPACITY AT THE BOTTOM RETAINING WALL ELEVATION AND WITHIN THE ENTIRE REINFORCED (GEOGRID) ZONE IN EACH LOCATION MEETS OR EXCEEDS THE MINIMUM REQUIREMENTS SHOWN ON THESE DRAWINGS. THE RW CONTRACTOR WILL NOT BEGIN CONSTRUCTION WITHOUT THE APPROVAL.
- F. THE OWNER AND/OR GENERAL CONTRACTOR SHALL PROVIDE THE FILL SOILS TO THE RW CONTRACTOR TO UTILIZE FOR RW CONSTRUCTION. THOSE FILL SOILS SHOULD BE TESTED PRIOR TO STARTING RW CONSTRUCTION, AND PERIODICALLY THROUGHOUT THE PROJECT, TO ENSURE THEY MEET THE SPECIFICATION OUTLINED HEREIN. RW CONTRACTOR WILL NOTIFY THE OWNER'S GEOTECHNICAL ENGINEER AND/OR THE GENERAL/EARTHWORK CONTRACTOR WHEN A CHANGE IN FILL SOIL APPEARANCE, CONSISTENCY, OR GRADATION LOOKS TO BE DETRIMENTAL, OR HAS REASON TO BELIEVE THE SOIL BEING PROVIDED DOES NOT MEET THE PROJECT SPECIFICATIONS. HOWEVER, THE OWNER'S GEOTECHNICAL ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING WHETHER THE FILL MATERIALS MEET AND ARE PLACED ACCORDING TO THE SPECIFICATIONS IN THESE DRAWINGS.
- G. THE OWNER AND/OR OWNERS REPRESENTATIVE SHALL BE RESPONSIBLE FOR CONTRACTING THE SPECIAL INSPECTOR AND OBTAINING SUFFICIENT DATA THROUGHOUT THE RW CONSTRUCTION TO SATISFY THE REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY TO SECURE APPROVAL OF THE RETAINING WALL CONSTRUCTION AND BY PERFORMING THE DUTIES OUTLINED IN SPECIFICATION 8.0.

SHEET INDEX

SHEET	DESCRIPTION
RW-1.0	TITLE SHEET
RW-2.0	CONSTRUCTION NOTES
RW-2.1	CONSTRUCTION NOTES
RW-3.0	WALL LOCATION PLAN VIEW
RW-4.0	WALL 1 ELEVATION
RW-4.1	WALL 1 ELEVATION
RW-5.0	WALL SECTION A-A
RW-5.1	WALL SECTION B-B
RW-6.0	CONSTRUCTION DETAILS
RW-6.1	CONSTRUCTION DETAILS

THIS DRAWING IS BEING FURNISHED FOR THIS SPECIFIC PROJECT ONLY. ANY PARTY ACCEPTING THIS DOCUMENT DOES SO IN CONFIDENCE AND AGREES THAT IT SHALL NOT BE DUPLICATED IN WHOLE OR IN PART, NOR DISCLOSED TO OTHERS WITHOUT THE CONSENT OF GEOWALL DESIGNS

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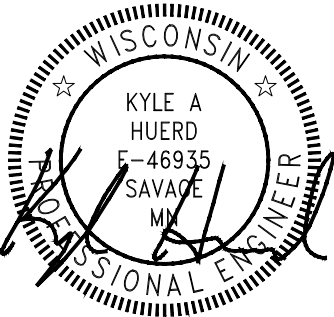
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Title: TITLE SHEET			
Project: VEV POOL PROJECT CALEDONIA, WI SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: N.T.S.	Sheet No: RW-1.0



1.0 MATERIALS

- 1.1 BACKFILL SOILS

1.1.1 REINFORCED FILL 1 MATERIALS SHALL BE APPROVED IN WRITING BY GEOWALL DESIGNS AND THE OWNER'S REPRESENTATIVE AND SHALL MEET THE STRENGTH REQUIREMENTS AS DEFINED IN SECTION 6.0. THE REINFORCED BACKFILL MATERIAL SHALL MEET THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING
1.5"	100%
1.0"	95-100%
1/2"	25-60%
No. 4	0-10%
No. 8	0-5%

LOSS BY WASHING 2.0% MAX

1.1.2 REINFORCED BACKFILL AND RETAINED SOIL/FILL MATERIALS SHALL BE FREE OF EXCESS MOISTURE, ROOTS, MUCK, SOD, SNOW, FROZEN LUMPS, ORGANIC MATTER OR OTHER DELETERIOUS MATERIALS. ALL ROCK PARTICLES AND HARD EARTH CLODS SHALL BE LESS THAN FOUR INCHES IN THE LONGEST DIMENSION. REINFORCED BACKFILL MATERIALS WHICH DO NOT MEET THIS CRITERIA SHALL BE CONSIDERED UNSUITABLE AND REMOVED.

1.1.3 DENSE GRADED AGGREGATE (DGA) SHALL CONSIST OF CRUSHED GRAVEL WITH FINES MEETING THE FOLLOWING GRADATION TESTED IN ACCORDANCE WITH ASTM C-136:

SIEVE SIZE	PERCENT PASSING
1.5"	100%
3/4"	60-90%
No. 10	25-45%
No. 60	5-30%
No. 200	4-11%

1.1.4 LEVELING PAD SHALL CONSIST OF DENSE-GRADED, OPEN-GRADED CRUSHED STONE OR CRUSHED GRAVEL. IF OPEN GRADED AGGREGATE IS USED IN WATER APPLICATION, LEVELING PAD SHALL BE WRAPPED WITH NON-WOVEN GEOTEXTILE.
- 1.2 GEOGRID REINFORCING TYPE SHALL BE AS SHOWN OR APPROVED EQUAL. THE GEOGRID MANUFACTURER SHALL PROVIDE A MATERIAL CERTIFICATION THAT THE PRODUCT SHIPPED TO THE PROJECT MEETS OR EXCEEDS THE ULTIMATE, LONG TERM DESIGN STRENGTH, AND CONNECTION STRENGTH USED IN THE DESIGN.
- 1.3 BLOCK FACING SHALL BE BELGARD DIAMOND PRO, 8" UNITS. UNITS SHALL MEET ASTM C1372 FOR DRY CAST BLOCK OR C1776 FOR WET CAST CONCRETE, EXCEPT MANUFACTURED CONCRETE VERTICAL DIMENSIONAL TOLERANCE SHALL BE +/- 1/16". CONCRETE SHALL BE OF ORIGINAL PRODUCTION MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI. AIR CONTENT, MIX DESIGN, ABSORPTION, AND FREEZE THAW EXPOSURE CLASS SHALL MEET THE SPECIFICATIONS AS REQUIRED BY THE CONTRACT DOCUMENTS AND INDUSTRY BEST PRACTICES.
- 1.4 FILTER FABRIC SHALL BE 4 oz/sy (MIN.) NON-WOVEN, NEEDLE PUNCHED, POLYPROPYLENE GEOTEXTILE - ERS 400N OR EQUAL.
- 1.5 DRAIN PIPE SHALL BE 4" DIAMETER SINGLE WALL HDPE PIPE WITHOUT FILTER SOCK, OR APPROVED EQUAL. PIPE AND PIPE FITTINGS SHALL MEET ASTM F405 AND F667. 4" FLEX DRAIN IS A PRE APPROVED ALTERNATE.

2.0 TECHNICAL REQUIREMENTS

- 2.1 THE OWNER'S REPRESENTATIVE OR GRADING CONTRACTOR SHALL SUBMIT TO GEOWALL DESIGNS THE GRADATION AND STRENGTH PARAMETERS OF THE REINFORCED BACKFILL MATERIAL, RETAINED SOIL/FILL AND FOUNDATION SOIL, FOR APPROVAL PRIOR TO PROCEEDING WITH CONSTRUCTION. WORK SHALL NOT PROCEED UNTIL THIS SUBMITTAL IS APPROVED BY GEOWALL DESIGNS.
- 2.2 PRIOR TO CONSTRUCTION OF THE WALLS, THE GRADING CONTRACTOR SHALL CLEAR AND GRUB THE REINFORCED BACKFILL ZONE AREA, REMOVING TOP SOILS, BRUSH, SOD OR OTHER ORGANIC OR DELETERIOUS MATERIALS. ANY UNSUITABLE SOILS SHALL BE OVER-EXCAVATED, REPLACED AND COMPACTED WITH REINFORCED BACKFILL MATERIAL TO PROJECT SPECIFICATIONS OR OTHERWISE DIRECTED BY THE OWNER'S GEOTECHNICAL ENGINEER.
- 2.3 THE GEOTECHNICAL ENGINEER SHALL CONFIRM THAT THE SITE HAS BEEN PROPERLY PREPARED AND THE DESIGN PARAMETERS IN SECTION 6.0 ARE APPROPRIATE PRIOR TO FILL PLACEMENT. A WRITTEN CONFIRMATION SHALL BE PROVIDED TO GEOWALL DESIGNS PRIOR TO FILL PLACEMENT.
- 2.4 FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 10" (INCHES) IN UNCOMPACTED THICKNESS FOR HEAVY COMPACTION EQUIPMENT. FOR ZONES WHERE COMPACTION IS ACCOMPLISHED WITH HAND OPERATED EQUIPMENT, FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 6" (INCHES) IN UNCOMPACTED THICKNESS. ONLY HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN THREE FEET OF THE BACK FACE OF WALL FACING.
- 2.5 FILL MATERIALS SHALL BE PLACED FROM THE BACK OF THE FACING UNITS TOWARDS THE ENDS OF THE GEOGRID TO ENSURE FURTHER TENSIONING OR AS DIRECTED BY THE MANUFACTURER.
- 2.6 TESTING METHODS AND VERIFICATION OF FILL SHALL BE COMPACTED AS SPECIFIED BY PROJECT SPECIFICATIONS OR TO A MINIMUM 95% (98% MINIMUM FOR WALLS EXCEEDING 10 FT) OF THE MAXIMUM DRY DENSITY AND WITHIN +/-2% OF THE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH STANDARD PROCTOR (ASTM D698). MATERIAL SPECIFICATIONS AND COMPACTION TESTING IS THE RESPONSIBILITY OF THE OWNER'S REPRESENTATIVE.

2.6.1 WHERE COMPACTION OF STONE BACKFILL CANNOT BE VERIFIED USING IN-SITU FIELD DENSITY TEST METHODS, THE FILL SHALL BE COMPACTED USING APPROPRIATE VIBRATORY EQUIPMENT AS APPROVED BY THE SITE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL MAKE A SUFFICIENT NUMBER OF PASSES WITH APPROVED ROLLING EQUIPMENT UNTIL THE SURFACE SHOWS NO VISIBLE SIGN OF FURTHER CONSOLIDATION. THE SITE GEOTECHNICAL ENGINEER SHALL APPROVE MEANS AND METHODS AND VERIFY COMPACTION.
- 2.7 WHERE REQUIRED, CAP UNITS SHALL BE PERMANENTLY SECURED TO THE BLOCK UNITS USING AN OUTDOOR CONSTRUCTION ADHESIVE FOR CONCRETE MASONRY OR HARDSCAPES SUCH AS LIQUID NAILS (OR EQUIVALENT). ADHESIVE SHALL BE PLACED PER MANUFACTURERS RECOMMENDATIONS.
- 2.8 AN APPROVED SET OF CONSTRUCTION DRAWINGS AND CONTRACT SPECIFICATIONS SHALL BE ON-SITE AT ALL TIMES, DURING CONSTRUCTION OF THE RETAINING WALLS.

3.0 GEOGRID PLACEMENT

- 3.1 GEOGRID SHALL BE PLACED AT THE LOCATIONS AND ELEVATIONS SHOWN ON THE CONSTRUCTION DRAWINGS.
- 3.2 GEOGRID LENGTH SHALL BE AS SHOWN ON THE CONSTRUCTION DRAWINGS. GEOGRID LENGTH IS MEASURED FROM THE FRONT FACE OF WALL UNITS TO THE TAIL OF GEOGRID UNLESS OTHERWISE NOTED.

3.2.1 GEOGRID REINFORCEMENT SHALL BE CONTINUOUS THROUGHOUT THEIR EMBEDMENT LENGTH(S).

3.2.2 GEOGRID SHALL BE PLACED AT THE COVERAGE AS SHOWN IN 3/RW-6.0.
- 3.3 PRIOR TO PLACING FILL, THE GEOGRID MATERIALS SHALL BE PLACED IN BETWEEN BLOCK COURSES. REMOVE GEOGRID SLACK AND ANCHOR GEOGRID PRIOR TO FILL PLACEMENT AND COMPACTION.
- 3.4 CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOGRID. A MINIMUM FILL THICKNESS OF SIX INCHES IS REQUIRED FOR OPERATION OF TRACKED VEHICLES OVER THE GEOGRID. TURNING OF VEHICLES SHOULD BE KEPT TO A MINIMUM TO PREVENT DISPLACING THE FILL AND/OR THE GEOGRID.
- 3.5 GEOGRID IS BIDIRECTIONAL AND MAY BE BE ROLLED OUT) PERPENDICULAR OR PARALLEL TO THE WALL FACE.
- 3.6 A MINIMUM OF 3 INCHES OF FILL MATERIAL SHALL BE PLACED BETWEEN OVERLAPPING LAYERS OF GEOGRID, UNLESS OTHERWISE SHOWN.

4.0 CHANGES

- 4.1 NO CHANGES TO THE GEOGRID LAYOUT, INCLUDING, BUT NOT LIMITED TO, LENGTH, GEOGRID TYPE, OR ELEVATION, SHALL BE MADE WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF GEOWALL DESIGNS.
- 4.2 NO CHANGES TO THE WALL FACING TYPE SHALL BE MADE WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF GEOWALL DESIGNS.

5.0 DRAINAGE

- 5.1 AT THE END OF EACH WORK DAY, BACKFILL SURFACE SHALL BE COMPACTED WITH A SMOOTH PLATE COMPACTOR TO MINIMIZE PONDING OF WATER AND SATURATION OF THE BACKFILL.
- 5.2 PERMANENT AND TEMPORARY SURFACE WATER DIVERSION AND EROSION CONTROL SHALL BE AS REQUIRED AND PROVIDED BY THE OWNER OR OWNER'S REPRESENTATIVE. SURFACE WATER SHALL BE DIVERTED AWAY FROM THE REINFORCED FILL ZONE AND WALL FACE DURING WALL CONSTRUCTION OR AT THE END OF EACH WORK DAY.

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No.	Date	Revision	Drawn	Design	Check



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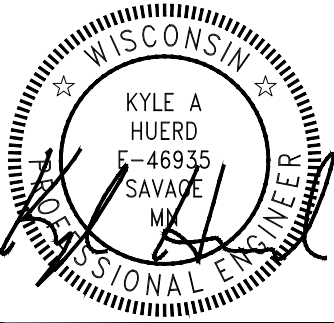
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Title: CONSTRUCTION NOTES			
Project: VEY POOL PROJECT CALEDONIA, WI			
SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: N.T.S.	Sheet No: RW-2.0



6.0 DESIGN PARAMETERS

6.1 DESIGN OF THE REINFORCED SOIL STRUCTURE IS BASED ON THE FOLLOWING EFFECTIVE PARAMETERS (COHESION ONLY APPLICABLE FOR GLOBAL STABILITY):

ZONE	DESCRIPTION	φ	C'	Υ
REINFORCED SOIL 1	GRAVEL - GP	38°	0 PSF	110 PCF
RETAINED SOIL 1	LEAN CLAY - CL	26°	0 PSF	125 PCF
RETAINED SOIL 2	GRAVEL - GP	38°	0 PSF	110 PCF
FOUNDATION SOIL 1	LEAN CLAY - CL	26°	35 PSF	125 PCF

6.1.1 DESIGN METHODOLOGY: NCMA THIRD EDITION, IBC-2018, AND ASCE 7-16

6.2 FACTORS OF SAFETY

6.2.1 INTERNAL STABILITY:

MIN. FACTOR OF SAFETY FOR GEOGRID PULLOUT =	1.5
MIN. FACTOR OF SAFETY FOR BLOCK CONNECTION =	1.5
MIN. FACTOR OF SAFETY FOR FACING STABILITY =	1.5
MIN. FACTOR OF SAFETY FOR SLIDING AT LOWEST GEOGRID =	1.5
PERCENT COVERAGE OF GEOGRID =	100%

6.2.2 EXTERNAL STABILITY:

MIN. FACTOR OF SAFETY FOR OVERTURNING (GRAVITY) =	1.5
MIN. FACTOR OF SAFETY FOR OVERTURNING (MSE) =	2.0
MIN. FACTOR OF SAFETY FOR SLIDING =	1.5
MIN. FACTOR OF SAFETY FOR BEARING (THEORETICAL) =	2.0

6.2.3 OVERALL / GLOBAL STABILITY:

MIN. FACTOR OF SAFETY FOR GLOBAL STABILITY (CRITICAL/NON CRITICAL) = 1.3/1.5

6.2.4 SEISMIC

MIN. FACTORS OF SAFETY ARE 75% OF STATIC CONDITIONS
1-SECOND DESIGN PEAK GROUND ACCELERATION = N/A

6.3 SURCHARGE LOADING

LIVE LOAD (LANDSCAPE AREAS) =	100 PSF
LIVE LOAD (ROAD/PARKING AREAS) =	N/A
DEAD LOAD =	N/A

6.4 BEARING

6.4.1 APPLIED BEARING

MAXIMUM APPLIED BEARING PRESSURE = (SEE ELEVATION VIEWS)

6.4.2 ULTIMATE BEARING CAPACITY CALCULATED USING SOIL PARAMETERS NOTED IN SECTION 6.0 AND GEOMETRIC PROPERTIES OF THE RETAINING WALL. GEOTECHNICAL ENGINEER SHALL DETERMINE ACTUAL BEARING CAPACITY BASED ON FIELD CONDITIONS AND LABORATORY RESULTS.

6.5 FENCE LOADING

WALLS ARE NOT DESIGNED FOR ANY CONCENTRATED FENCE LOADS. SLEEVE-ITS SHALL BE USED WHERE POSTS CANNOT BE PLACED A MINIMUM OF 3.00' FROM WALL FACE. CONTRACTOR TO VERIFY POST SPACING UTILIZED DOES NOT EXCEED LOAD LIMITS BASED ON IBC LOADING FOR PEDESTRIAN HANDRAILS OR THE DESIGN LOAD, WHICHEVER IS GREATER.

6.6 HYDRAULIC CONDITIONS

6.6.1 WATER APPLICATION

THE DESIGN DOES NOT CONSIDER HYDROSTATIC WATER PRESSURE AND ASSUMES WATER IS SUFFICIENTLY BELOW BOTTOM OF STRUCTURE SO AS NOT TO INFLUENCE STRUCTURE STABILITY.

6.6.2 EROSION CONTROL/PREVENTION

THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IS MAINTAINED BOTH DURING AND AFTER CONSTRUCTION. EROSION PREVENTION AND PROTECTION SHALL BE MAINTAINED ABOVE AND BELOW THE RETAININGW ALL AS DESIGNED BY OTHERS. ALL DOWNSPOUTS, SWALES, AND DRAINAGE FEATURES SHALL BE DIVERTED AWAY FROM THE WALL LOCATIONS.

6.7 WIND LOADING (ASD)

WIND LOAD HAS NOT BEEN EVALUATED IN THE DESIGN OF THE BELOW GRADE STRUCTURE. ALL ABOVE FREE STANDING STRUCTURES PLACED WITHIN A 1H:1V OF THE WALL FACING SHALL BE RELOCATED OR REDESIGNED AS TO NOT APPLY ANY ADDITIONAL LATERAL LOADING.

7.0 SPECIAL PROVISIONS

7.1 THE DESIGN PRESENTED HEREIN IS BASED ON SOIL PARAMETERS, FOUNDATION CONDITIONS, GROUNDWATER CONDITIONS, AND LOADINGS STATED IN SECTION 6.0., AND INTERPOLATED FROM INFORMATION PROVIDED BY OTHERS. GEOTECHNICAL DATA IS INTERPOLATED FROM REPORT PREPARED BY FIRM, REPORT #: NO., DATED DATE.

7.2 WALL ELEVATION VIEWS AND LOCATIONS AND GEOMETRY OF EXISTING STRUCTURES AND GRADE ABOVE AND BELOW THE WALLS MUST BE VERIFIED BY THE CONTRACTOR, TO MATCH ELEVATIONS SHOWN IN THE CONTRACT DOCUMENTS, PRIOR TO CONSTRUCTION.

7.3 GEOWALL DESIGNS ASSUMES NO LIABILITY FOR INFORMATION SUPPLIED BY OTHERS SUCH AS GEOTECHNICAL REPORT, SITE PLAN, AND WATER ELEVATIONS.

7.4 THE SOIL DESIGN PARAMETERS STATED IN SECTION 6.0 SHALL BE VERIFIED BY THE PROJECT GEOTECHNICAL ENGINEER. WRITTEN VERIFICATION OF DESIGN PARAMETERS SHALL BE SUBMITTED TO GEOWALL DESIGNS AND THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WITH CONSTRUCTION.

7.5 IF ANY ROCK FORMATIONS AND/OR GROUNDWATER (NOT ADDRESSED WITHIN THESE PLANS) ARE ENCOUNTERED DURING THE CONSTRUCTION OF THIS WALL, IMMEDIATELY CONTACT GEOWALL DESIGNS AT 952-303-4190 AND THE OWNER'S REPRESENTATIVE.

7.6 ANY REVISIONS TO DESIGN PARAMETERS STATED IN SECTION 6.0 OR STRUCTURE GEOMETRY SHALL REQUIRE DESIGN MODIFICATIONS PRIOR TO PROCEEDING WITH CONSTRUCTION.

7.7 ALL PIPES AND UTILITIES WITHIN 100 FEET OF THE RETAINING WALL MUST BE CONSTRUCTED WITH WATER TIGHT JOINTS.

7.8 THE SITE GEOTECHNICAL ENGINEER OR OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR EVALUATING TOTAL AND DIFFERENTIAL SETTLEMENTS.

7.9 THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE SELECTION OF PERMANENT EROSION PROTECTION AND PERMANENT VEGETATION FOR SLOPES LOCATED ABOVE OR BELOW THE PROPOSED RETAINING WALL(S).

8.0 QUALITY ASSURANCE

8.1 DUTIES OF THE SPECIAL INSPECTOR:

8.1.1 THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK REQUIRING SPECIAL INSPECTION FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

8.1.2 THE SPECIAL INSPECTOR SHALL FURNISH REPORTS TO BE KEPT AT THE SITE FOR USE BY THE BUILDING OFFICIAL, THE CONTRACTOR, AND THE ENGINEER OF RECORD. IF SPECIAL INSPECTION IS PROVIDED BY ANYONE OTHER THAN THE ENGINEER OF RECORD, REPORTS SHALL BE SUBMITTED TO THE OFFICE OF THE ENGINEER OF RECORD ON A WEEKLY BASIS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.

8.1.3 UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS/HER KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

8.2 SEE THE "SPECIAL INSPECTION SCHEDULE" FOR THE TYPES, EXTENTS, AND FREQUENCY OF SPECIFIC ITEMS REQUIRING SPECIAL INSPECTIONS AS PART OF THIS PROJECT.

SPECIAL INSPECTION SCHEDULE			
REQUIRED SPECIAL INSPECTION AREAS:	FREQUENCY OF TESTING		COMMENTS:
	CONTINUOUS	PERIODIC	
RETAINING WALLS			
GEOGRID		X	INSPECTION SHALL BE MADE OF THE TYPE, LOCATION, ORIENTATION, AND EXTENT OF GEOGRID PLACEMENT IN EACH WALL
DRAIN TILE INSTALLATION		X	INSPECTION SHALL BE MADE OF THE PLACEMENT, LOCATION, AND VENTING TO DAYLIGHT
SOILS			
EXCAVATIONS		X	VERIFY EXCAVATION ARE EXTENDED TO PROPER DEPTHS AND HAVE REACHED REQUIRED MATERIAL SUFFICIENT TO SUPPORT THE DESIGN
FIELD DENSITY		X	IN ACCORDANCE WITH ASTM D-6938 OR ASTM D-1556
MOISTURE-DENSITY RELATIONSHIPS		X	IN ACCORDANCE WITH AASHTO OR ASTM CRITERIA AS SPECIFIED FOR SUBGRADE, LEVELING PAD, AND BACKFILL
GRADATION ANALYSIS		X	IN ACCORDANCE WITH ASTM D-422
WALL BACKFILL		X	VERIFY USE OF PROPER MATERIALS, DENSITIES, LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF BACKFILL

TESTING MAY BE PERIODIC IN NATURE BUT CONTINUOUS THROUGHOUT CONSTRUCTION AS REQUIRED BY IBC.

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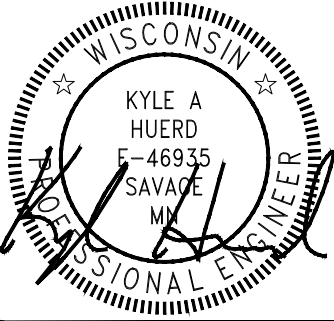
"BUILT FROM THE GROUND UP"

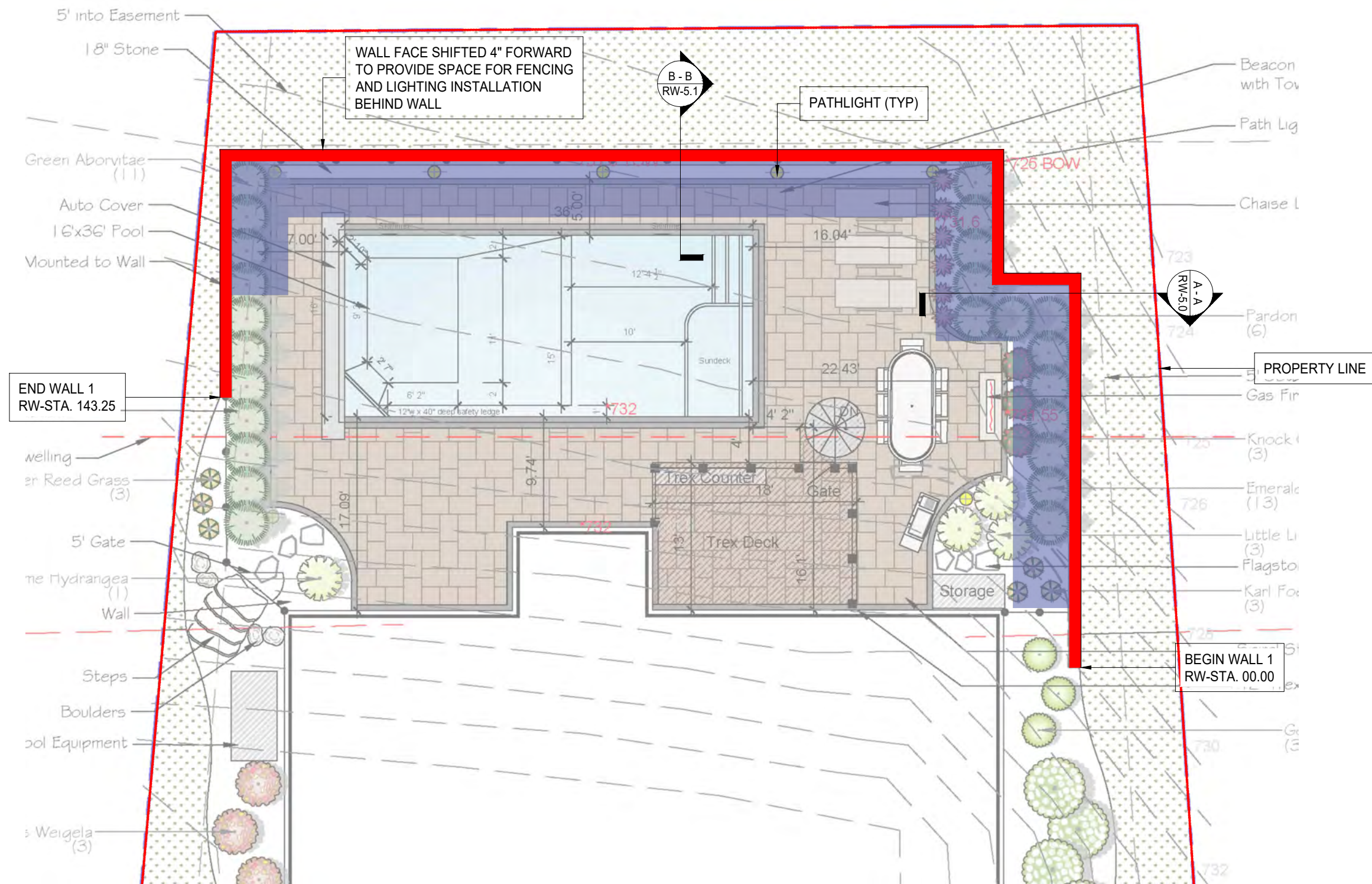
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Title: CONSTRUCTION NOTES			
Project: VEY POOL PROJECT CALEDONIA, WI			
SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: N.T.S.	Sheet No: RW-2.1







NOTE:

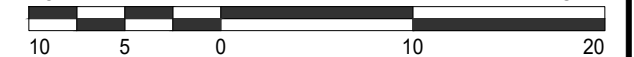
1. SITE PLAN IS FOR ILLUSTRATIVE PURPOSES ONLY AND IS TAKEN FROM THE CONTRACT PLANS PREPARED BY BREEZY HILL NURSERY LAST DATED 12/15/2022.
2. NORTH ARROW DIRECTION IS APPROXIMATE, REFER TO CONTRACT PLANS FOR ACTUAL HEADING.
3. REFER TO CONTRACT PLANS FOR ALL HORIZONTAL ALIGNMENT AND ACTUAL SITE GEOMETRY.

LEGEND:

 BOTTOM OF WALL

 APPROXIMATE GEOGRID COVERAGE

SCALE	UNIT
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Know what's **BELOW**.
CALL before you dig.

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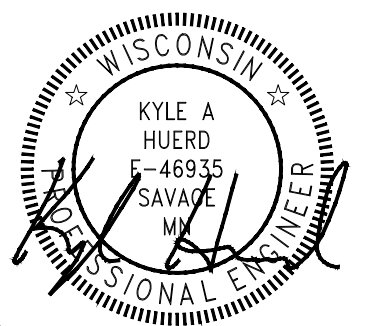
Title: WALL LOCATION PLAN VIEW

Project:

VEY POOL PROJECT
CALEDONIA, WI

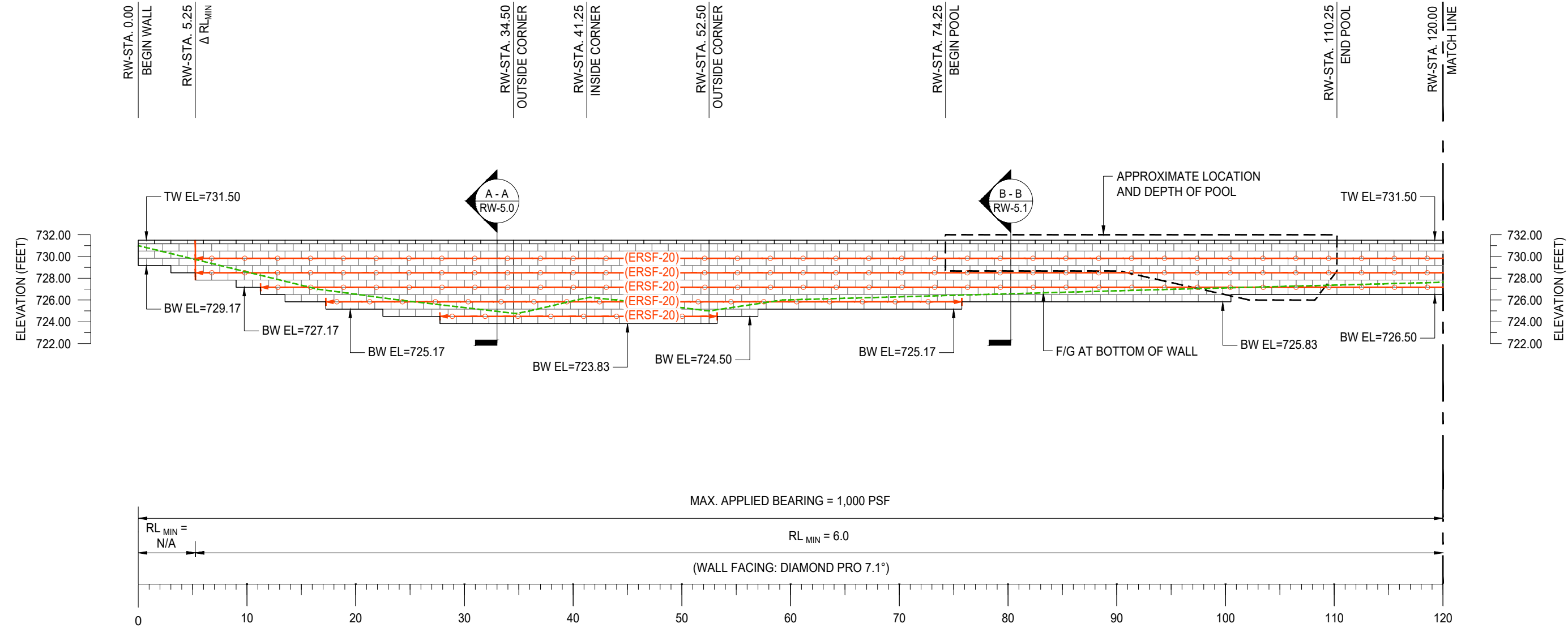
SEGMENTAL RETAINING WALL PLANS

Project No:	Date:	Scale:	Sheet No:
22BHN002	6 FEB 2022	1" = 10'	RW-3.0



- GENERAL NOTES:
- ALL ELEVATIONS AND DISTANCES ARE SHOWN IN FEET ALONG FACE OF WALL.
 - MINIMUM REINFORCEMENT LENGTH (RL_{MIN}) IS LISTED ALONG WALL FRONT FACE PROFILE. MINIMUM LENGTH IS MEASURED FROM FRONT FACE OF BLOCK TO TAIL OF GEOGRID.
 - THE WALLS SHALL BE CONSTRUCTED USING BELGARD: DIAMOND PRO 8" UNITS AND ERSF-20 GEOGRID SOIL REINFORCEMENT. SEE SHEET RW-2.0 FOR MATERIAL SPECIFICATIONS.
 - SEE MANUFACTURER'S INFORMATION FOR ADDITIONAL DETAILS ON THE BLOCK SYSTEM SHOWN.

- LEGEND:
- TOP OF WALL ELEVATION (TOP OF CAP) TW EL= XX.XX
- BOTTOM OF WALL ELEVATION (BOTTOM OF BLOCK) BW EL= XX.XX
- FINISHED GRADE LINE
- ERSF-20 GEOGRID



WALL 1 ELEVATION
DISTANCE SHOWN IN FEET ALONG FRONT FACE

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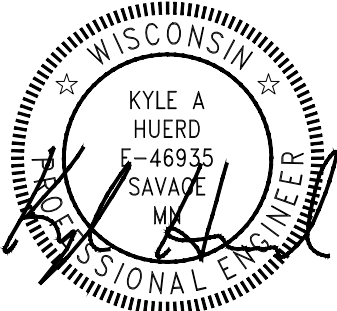
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Title: WALL 1 ELEVATION			
Project: VEY POOL PROJECT CALEDONIA, WI			
SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: 1" = 10'	Sheet No: RW-4.0



- GENERAL NOTES:
- ALL ELEVATIONS AND DISTANCES ARE SHOWN IN FEET ALONG FACE OF WALL.
 - MINIMUM REINFORCEMENT LENGTH (RL_{MIN}) IS LISTED ALONG WALL FRONT FACE PROFILE. MINIMUM LENGTH IS MEASURED FROM FRONT FACE OF BLOCK TO TAIL OF GEOGRID.
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 - SEE MANUFACTURER'S INFORMATION FOR ADDITIONAL DETAILS ON THE BLOCK SYSTEM SHOWN.

LEGEND:

TOP OF WALL ELEVATION (TOP OF CAP)

TW EL= XX.XX

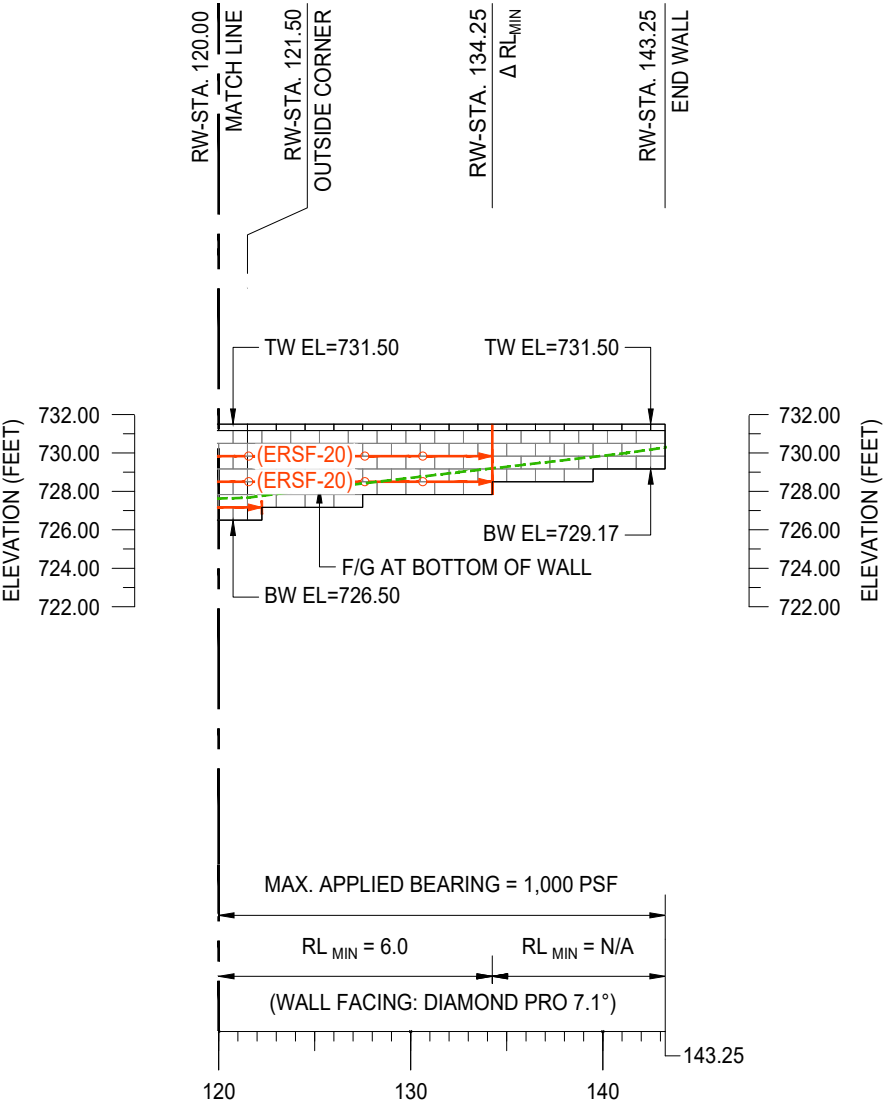
BOTTOM OF WALL ELEVATION (BOTTOM OF BLOCK)

BW EL= XX.XX

FINISHED GRADE LINE

ERSF-20 GEOGRID

(ERSF-20)



WALL 1 ELEVATION
DISTANCE SHOWN IN FEET ALONG FRONT FACE

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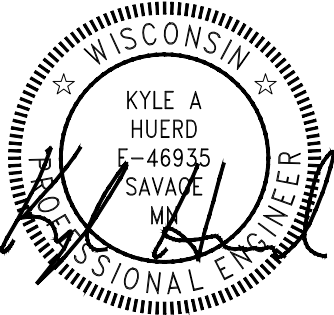
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







Title: WALL 1 ELEVATION			
Project: VEY POOL PROJECT CALEDONIA, WI SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: 1" = 10'	Sheet No: RW-4.1



1. THE SECTION SHOWN IS A REPRESENTATIVE WALL SECTION. THE WALL HEIGHTS, ELEVATIONS, TOE SLOPES, AND BACK SLOPES VARY ACCORDING TO THE ELEVATION PLAN AND SITE PLAN RESPECTIVELY.
2. UPON EXCAVATION, WHERE UNSUITABLE SOILS ARE FOUND, SUBCUT AS REQUIRED BY THE ONSITE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE COMPACTED STRUCTURAL FILL TO ACHIEVE THE REQUIRED BEARING CAPACITY. THE STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
3. APPROXIMATE LIMITS OF EXCAVATION VARIES WHERE SUBCUT IS REQUIRED. ACTUAL LIMITS AND SIDE SLOPES SHALL BE DETERMINED BY OSHA REGULATIONS AND MATCH FIELD CONDITIONS AS DETERMINED BY THE CONTRACTOR.
4. THE WALL IS DESIGNED AS A REINFORCED WALL REQUIRING ERSF-20 REINFORCEMENT AT THE ELEVATIONS SHOWN AND SHALL BE CONSTRUCTED WITH BELGARD: DIAMOND PRO 8" UNITS USING THE 7.1° BATTER.
5. 4" CORRUGATED PERFORATED DRAINPIPE INSTALLED AS LOW AS POSSIBLE WITH POSITIVE DRAINAGE. OUTLET INTO ONSITE DRAINAGE OR THROUGH WALL FACE AT 50.0' O.C. AND LOW ENDS OF WALL. SEE DETAIL 2/RW-6.0.
6. INSPECT EXCAVATION SLOPES FOR ACTIVE SEEPAGE AND PLACE ADDITIONAL DRAINS WHERE SEEPAGE OCCURS.
7. DO NOT BRING HEAVY COMPACTION OR PAVING EQUIPMENT WITHIN 3' OF THE BACK OF THE BELGARD RETAINING WALL.
8. SEE MANUFACTURER'S INFORMATION FOR ADDITIONAL DETAILS ON THE BELGARD RETAINING WALL SYSTEM.



LEGEND

	LOW PERMEABLE SOIL
	WALL ROCK (GRAVEL - GP)
	REINFORCED SOIL 1 (GRAVEL - GP)
	RETAINED SOIL 1 (LEAN CLAY - CL)
	LEVELING PAD (GRAVEL - GW)
	IN-SITU/STRUCTURAL FILL
	ERSF-20 GEOGRID
	4 oz NON-WOVEN FILTER FABRIC

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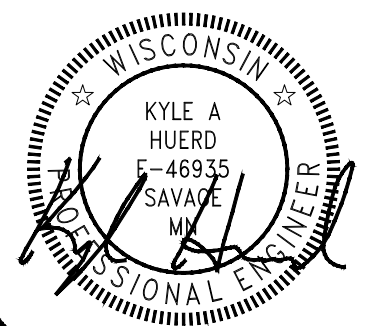
Project:

WALL SECTION A-A

VEY POOL PROJECT
CALEDONIA, WI









SEGMENTAL RETAINING WALL PLANS

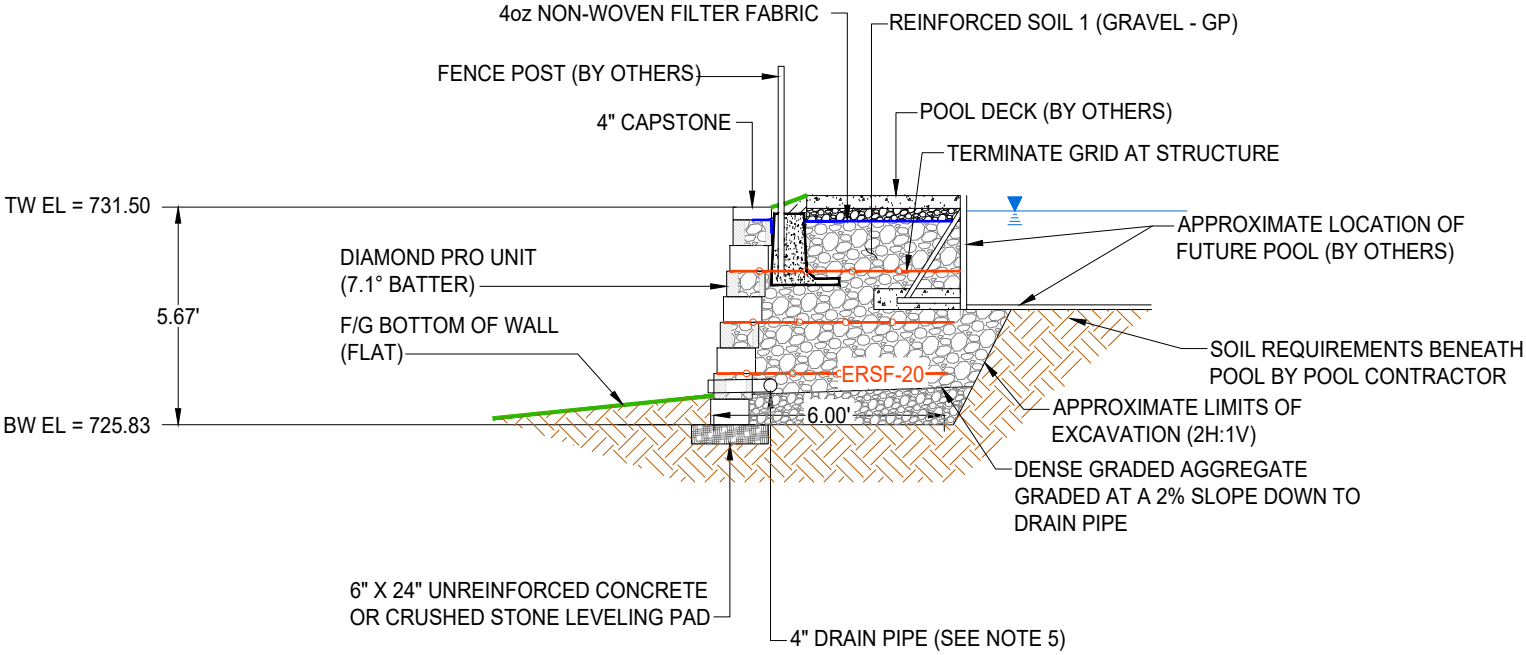
Project No:	Date:	Scale:	Sheet No:
22BHN002	6 FEB 2022	1" = 5'	RW-5.0



GENERAL NOTES:

1. THE SECTION SHOWN IS A REPRESENTATIVE WALL SECTION. THE WALL HEIGHTS, ELEVATIONS, TOE SLOPES, AND BACK SLOPES VARY ACCORDING TO THE ELEVATION PLAN AND SITE PLAN RESPECTIVELY.
2. UPON EXCAVATION, WHERE UNSUITABLE SOILS ARE FOUND, SUBCUT AS REQUIRED BY THE ONSITE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE COMPACTED STRUCTURAL FILL TO ACHIEVE THE REQUIRED BEARING CAPACITY. THE STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
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6. INSPECT EXCAVATION SLOPES FOR ACTIVE SEEPAGE AND PLACE ADDITIONAL DRAINS WHERE SEEPAGE OCCURS.
7. DO NOT BRING HEAVY COMPACTION OR PAVING EQUIPMENT WITHIN 3' OF THE BACK OF THE BELGARD RETAINING WALL.
8. SEE MANUFACTURER'S INFORMATION FOR ADDITIONAL DETAILS ON THE BELGARD RETAINING WALL SYSTEM.

LEGEND	
	LOW PERMEABLE SOIL
	WALL ROCK (GRAVEL - GP)
	REINFORCED SOIL 1 (GRAVEL - GP)
	RETAINED SOIL 1 (LEAN CLAY - CL)
	LEVELING PAD (GRAVEL - GW)
	IN-SITU/STRUCTURAL FILL
	ERSF-20 GEOGRID
	4 oz NON-WOVEN FILTER FABRIC



WALL SECTION B - B
(SECTION CUT: WALL 1 AT RW-STA. 80.25)

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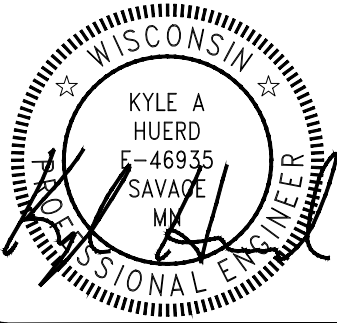


"BUILT FROM THE GROUND UP"

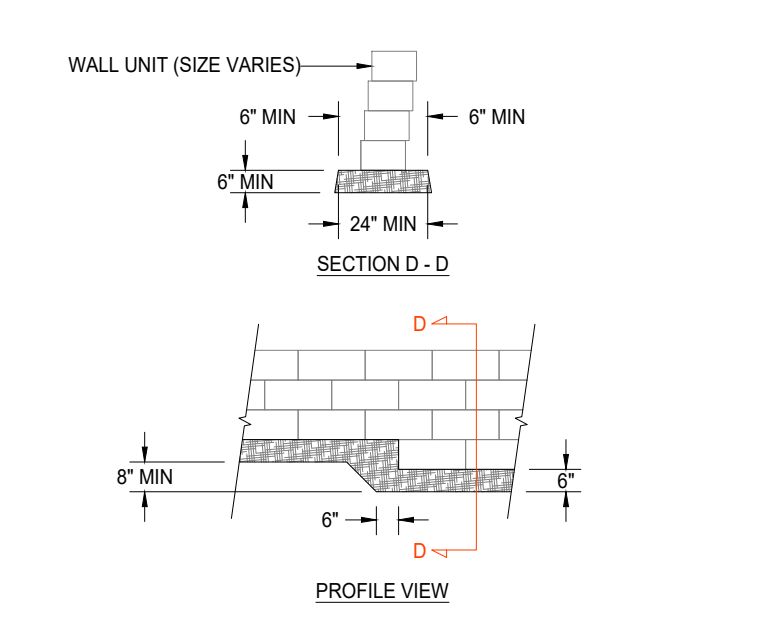
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Title: WALL SECTION B-B			
Project: VEY POOL PROJECT CALEDONIA, WI			
SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: 1" = 5'	Sheet No: RW-5.1

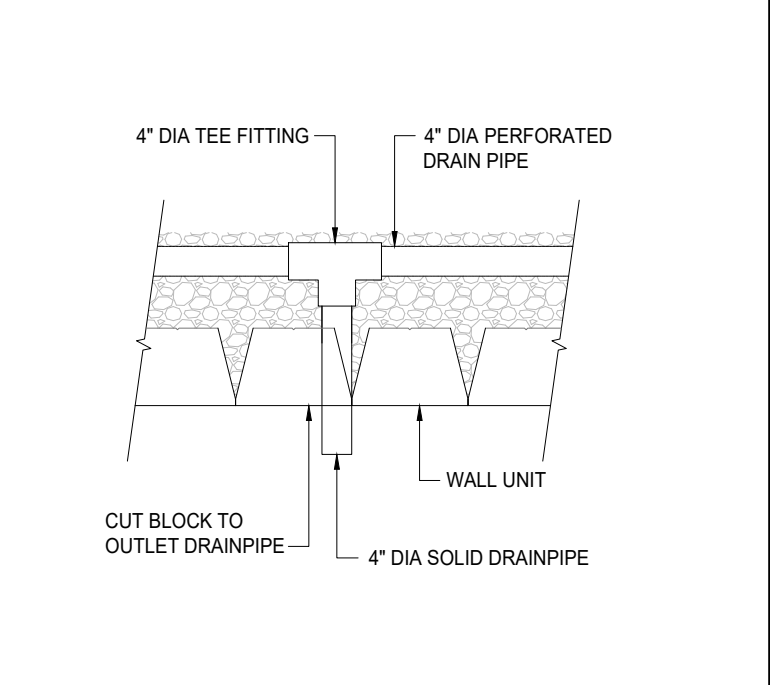


- NOTES:
- FOUNDATION SOILS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD.
 - LEVELING PAD SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN USING CRUSHED STONE OR 2,000 PSI UNREINFORCED CONCRETE.



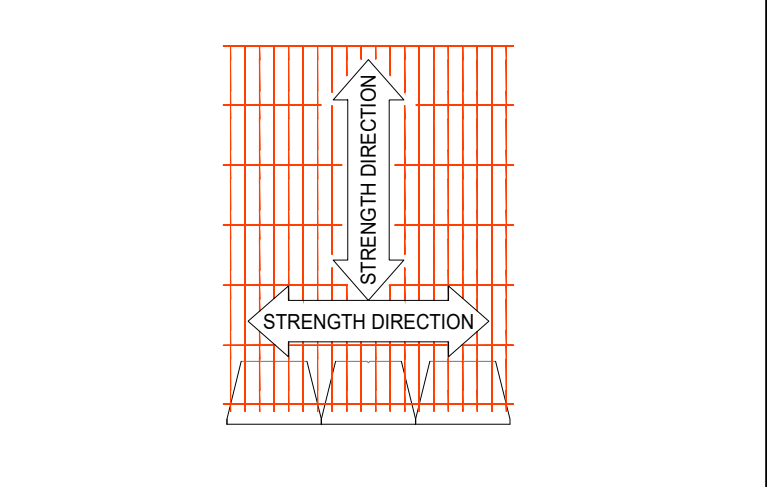
1 LEVELING PAD DETAIL - N.T.S

- NOTES:
- THE DRAINAGE SYSTEM SHALL CONSIST OF A 4" MINIMUM DIAMETER CORRUGATED PERFORATED PLASTIC DRAINPIPE.



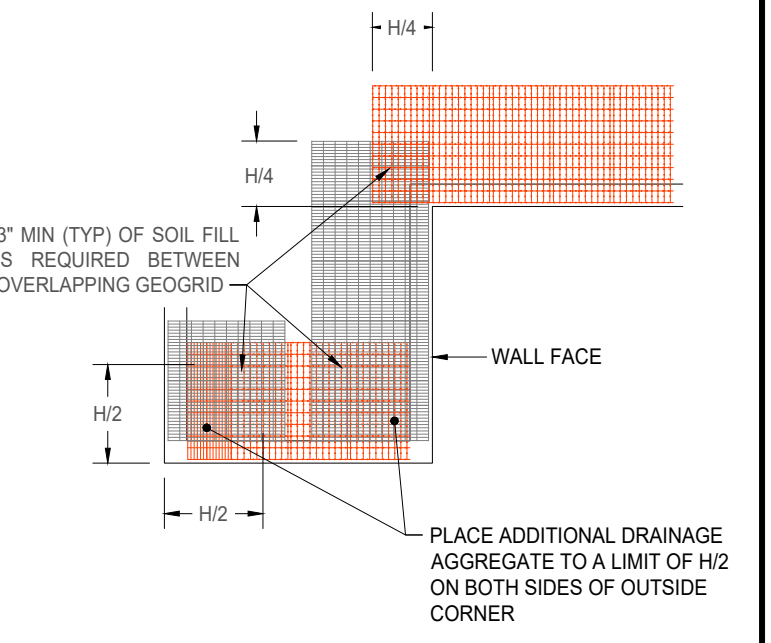
2 DRAIN PIPE OUTLET DETAIL - N.T.S

- NOTES:
- GEOGRID SHALL BE PLACED WITHIN 1" OF THE FRONT FACE OF RETAINING WALL UNITS.
 - GEOGRID SHALL LAY FLAT ON THE WALL UNITS AND COMPACTED BACKFILL SOILS BEHIND RETAINING WALL UNITS UNLESS DEFLECTION IS REQUIRED. GEOGRID SOIL REINFORCEMENT MAY DEFLECT VERTICALLY A MAXIMUM OF 15°.
 - PLACE THE NEXT COURSE OF RETAINING WALL UNITS. PULL GEOGRID TAUT TO REMOVE SLACK AND WRINKLES.
 - STAKE AS REQUIRED TO KEEP GEOGRID TAUT DURING BACKFILL PLACEMENT.



3 GEOGRID ORIENTATION DETAIL - N.T.S

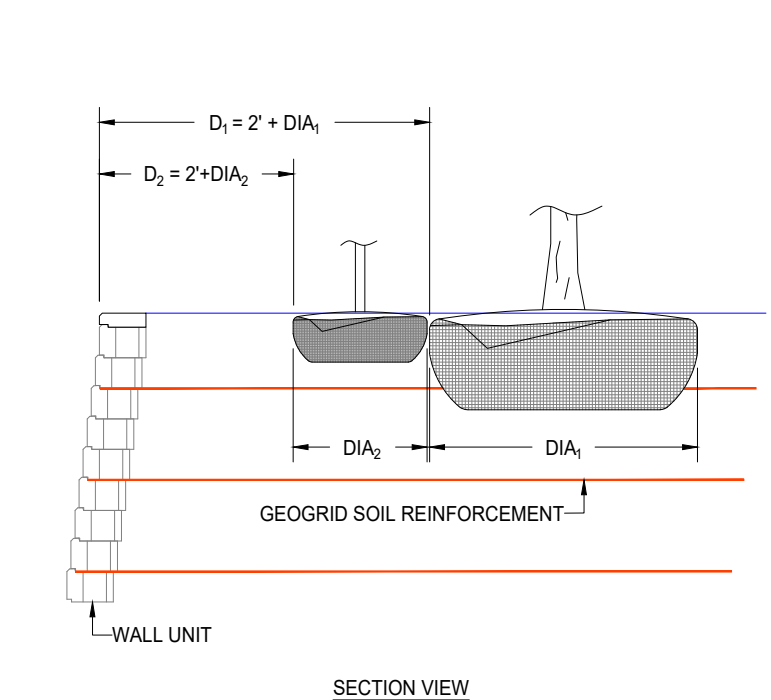
- NOTES:
- INSTALL GEOGRID IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND CONSTRUCTION DRAWINGS.
 - "H" IS EQUAL TO TOTAL WALL HEIGHT.



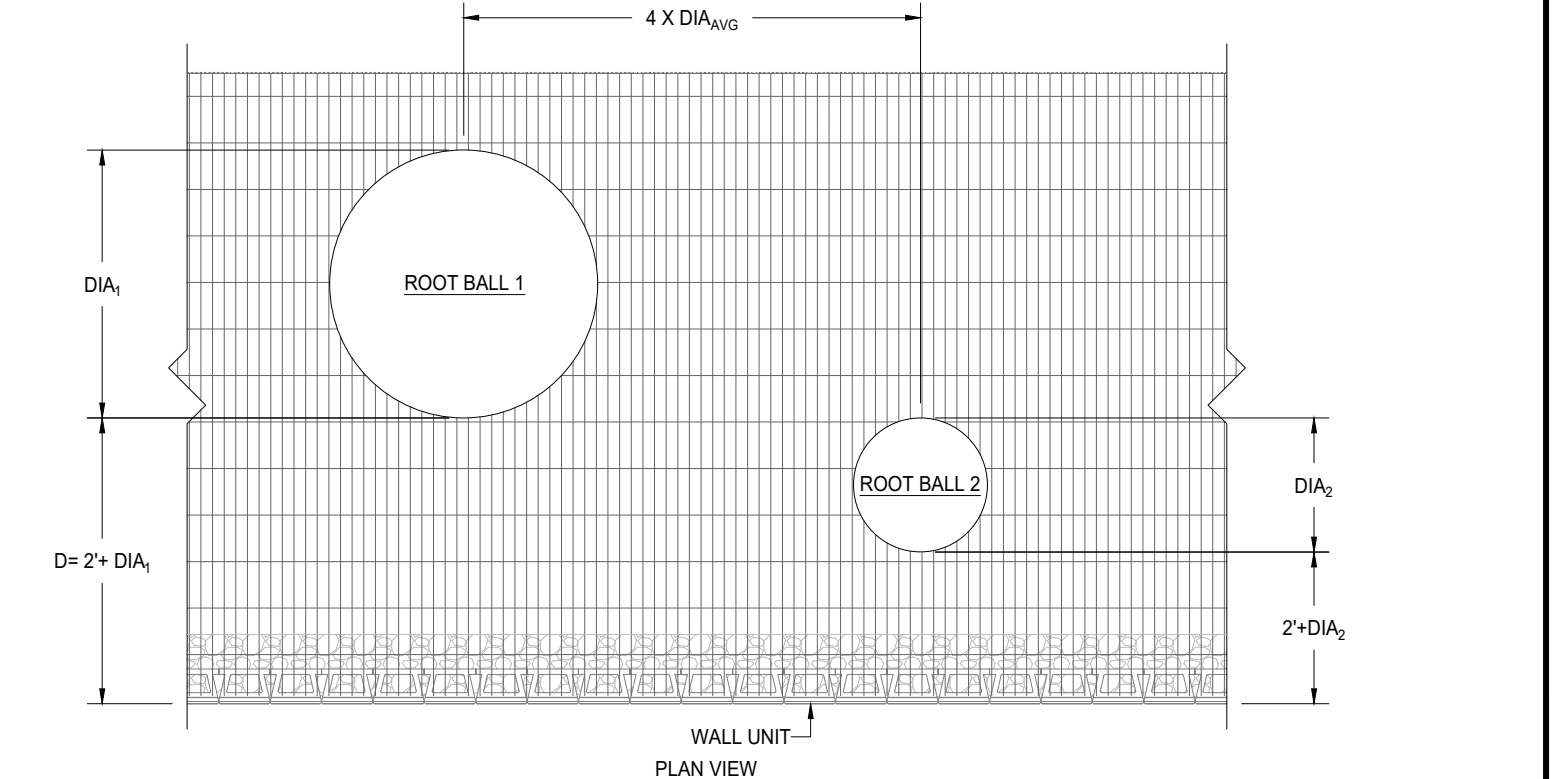
4 GEOGRID INSTALLATION ON CORNERS DETAIL - N.T.S

- NOTES:
- ALL PLANTING OFFSETS SHALL BE A MINIMUM OF 2' PLUS THE ROOT BALL DIAMETER MEASURED FROM FACE OF WALL.
 - LATERAL SPACES BETWEEN PLANTINGS SHALL BE A MINIMUM OF 4 TIMES THE AVERAGE ROOT BALL DIAMETER.
 - ONLY TOP LAYER OF GEOGRID MAY BE CUT. LANDSCAPING CONTRACTOR SHALL HAND CUT ALL GEOGRID TO LIMIT DISTURBANCE OF THE ADJACENT GEOGRID.
 - EXTREME CARE SHALL BE TAKEN IF INSTALLING IRRIGATION SYSTEMS DIRECTLY BEHIND THE WALL SO AS TO NOT DAMAGE THE SOIL REINFORCEMENT DURING INSTALLATION OR HAVE POTENTIAL LEAKAGE INTO THE RETAINING WALL SYSTEM. LEAKING IRRIGATION LINES CAN SATURATE THE BACKFILL CREATING HYDROSTATIC PRESSURE AND CAUSE WALL MOVEMENT.
 - UTILIZE A ROOT CONTROL BARRIER AS REQUIRED TO AVOID ROOT PRESSURES OR GROWTH THROUGH THE WALL UNITS.

ROOT BALL DIA (IN)	3x DIA	4x DIA	2' + DIA
18" Ø	54"	72"	42"
24" Ø	72"	96"	48"
30" Ø	90"	120"	54"



5 TYPICAL PLANTING LIMITS DETAIL - N.T.S

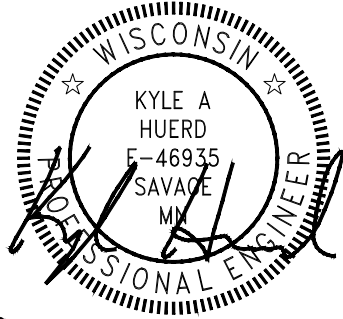


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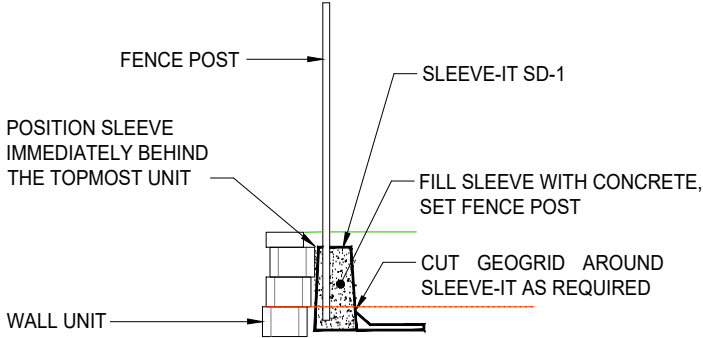


Title:	CONSTRUCTION DETAILS
Project:	VEY POOL PROJECT CALEDONIA, WI
	SEGMENTAL RETAINING WALL PLANS
Project No:	22BHN002
Date:	6 FEB 2022
Scale:	AS NOTED
Sheet No:	RW-6.0



NOTES:

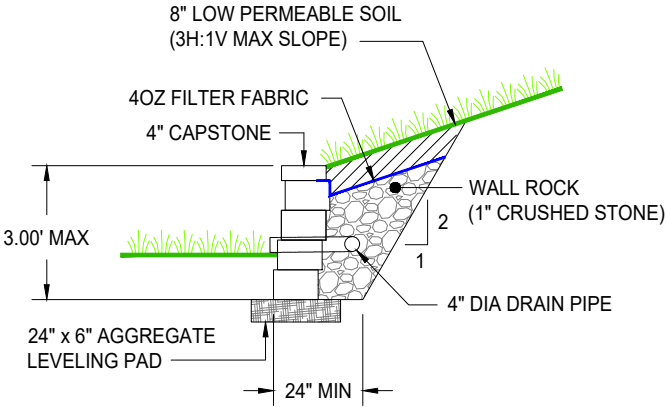
- SLEEVE-IT FENCE POST FOOTING SHALL BE USED WHERE POST MUST BE PLACED WITHIN 3-FEET OF THE FACE OF WALL. WHERE POSTS ARE LOCATED 3-FEET OR GREATER FROM FACE OF WALL SONO-TUBES SHALL BE USED FOR POST INSTALLATION.
- FENCING SYSTEMS APPROVED FOR USE WITH THE SLEEVE-IT SD-1 ARE LIMITED TO THE FOLLOWING HEIGHTS: CHAIN LINK UP TO 8 FT, PRIVACY UP TO 6 FT. MAXIMUM POST HEIGHTS ARE GOVERNED BY POST SPACING AND APPLIED LATERAL LOADINGS INCLUDING IBC MINIMUM AND WIND LOADINGS. FENCE CONTRACTOR SHALL ENSURE POST SPACING AND APPLIED LOADS DO NOT EXCEED SLEEVE-IT SD-1 CAPACITY.



6 | TYPICAL POST DETAIL - N.T.S

NOTES:

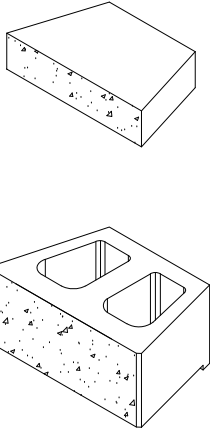
- THE SECTION SHOWN IS A REPRESENTATIVE WALL SECTION. THE WALL HEIGHTS, ELEVATIONS, TOE SLOPES, AND BACK SLOPES VARY ACCORDING TO THE ELEVATION PLAN AND SITE PLAN RESPECTIVELY.
- THE WALL IS DESIGNED AS A GRAVITY WALL CONSTRUCTED WITH BELGARD DIAMOND PRO: 8" UNITS USING THE 7.1° BATTER.
- 4" CORRUGATED PERFORATED DRAINPIPE WRAPPED WITH GEOTEXTILE INSTALLED AS LOW AS POSSIBLE WITH POSITIVE DRAINAGE. OUTLET INTO ONSITE DRAINAGE OR THROUGH WALL FACE AT 50.0' O.C. AND LOW ENDS OF WALL.



7 | TYPICAL GRAVITY WALL DETAIL - N.T.S

NOTES:

- BLOCK COLOR AND FACE STYLE (STRAIGHT / TRI-PLANE) SHALL BE APPROVED BY THE PROJECT OWNER PRIOR TO CONSTRUCTION.



CAPSTONE

HEIGHT: 4" ±

DEPTH: 10" ±

WIDTH: 18" ±

WEIGHT: 55 LBS ±

DIAMOND PRO UNIT

HEIGHT: 8" ±

DEPTH: 12" ±

WIDTH: 18" ±

WEIGHT: 75 LBS ±

8 | DIAMOND PRO UNIT DETAIL - N.T.S

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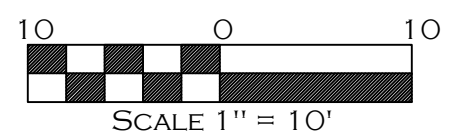
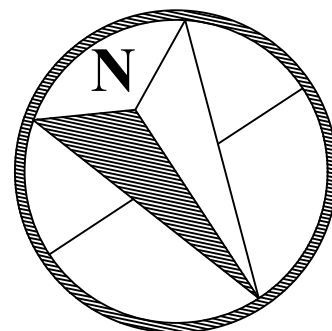
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Title: CONSTRUCTION DETAILS			
Project: VEY POOL PROJECT CALEDONIA, WI			
SEGMENTAL RETAINING WALL PLANS			
Project No: 22BHN002	Date: 6 FEB 2022	Scale: AS NOTED	Sheet No: RW-6.1





Lot 93, Bergamot Drive, Caledonia, WI



Sheet
L1

Designed By Dan Hitzeman
 Drawn By Kathy Feucht
 Date June 7th, 2022
 Revised February 13th, 2023-~~kf~~
 Project #005668



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