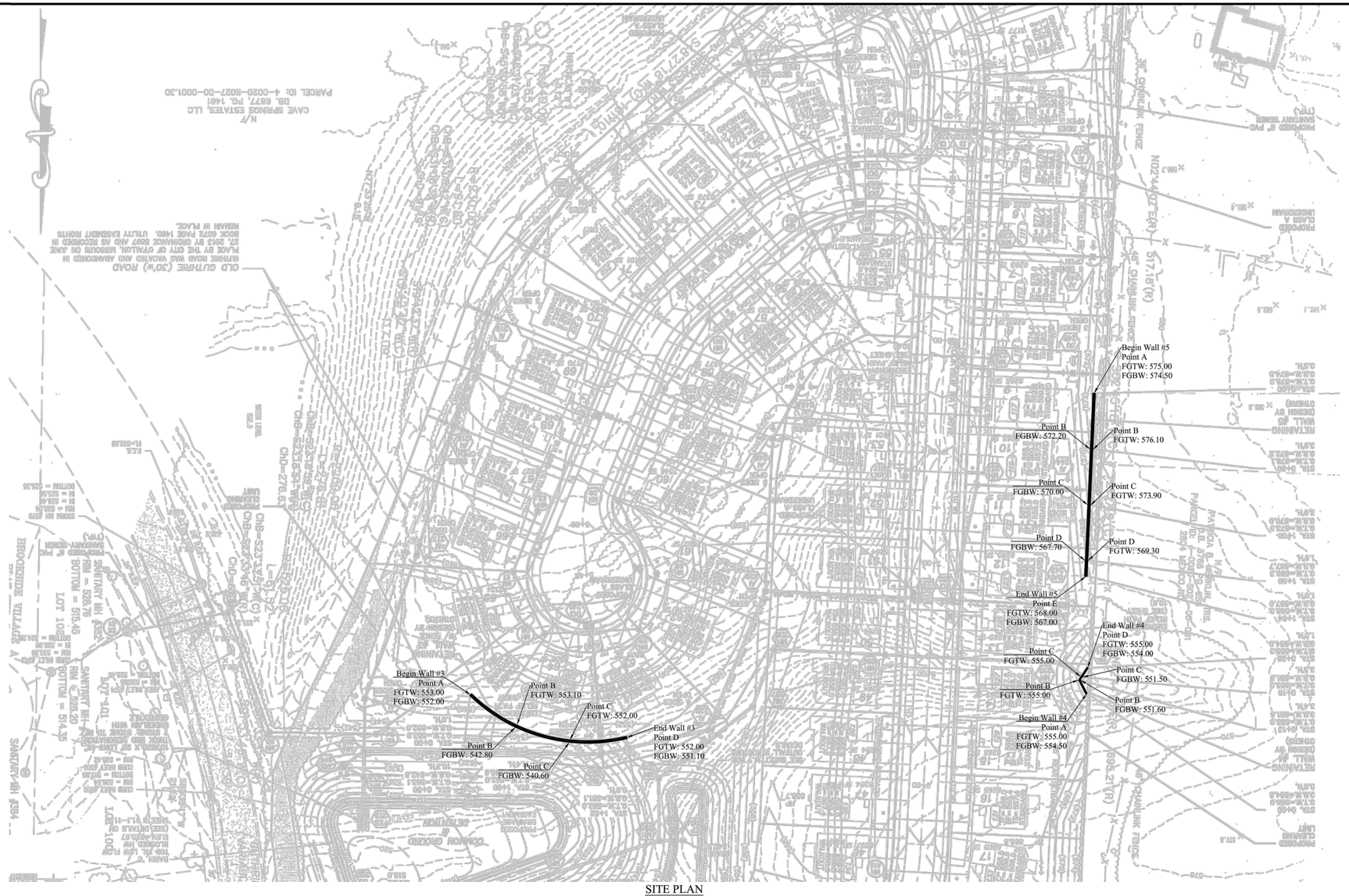


SITE PLAN

SCALE: 1"=50'-0"

General
The drawing is based on plan by the Sterling Co. Engineers & Surveyors, last revised on 8/28/2017. The contractor shall protect all existing utilities, and shall be responsible for all worker and public safety at the retaining wall site. All installation shall be per the retaining wall manufacturer's construction recommendations and/or as noted herein.

Materials
The **Leveling Pad** shall be constructed 1" minus minimum dimensions of 6" thick and 24" wide.
City of O'fallon requires this material to be compacted to 95% standard proctor.

Retaining Wall Units shall be Anchor Diamond Pro or equal. Units must be 12" deep. Concrete wall units shall meet the requirements of ASTM C90-90 and compressive strength shall be a minimum of 3000 psi. The maximum water adsorption shall be limited to 8.0 percent.

The **reinforced wall backfill** material shall be compacted 1"- 2" clean.

Geogrid shall be Geostar HP200 as indicated on the plan, or approved equivalent.

Filter Fabric shall be Mirafi 140N or approved equivalent.

Drain Tile shall be 4" HDPE, perforated.

The **Soil Cap** shall consist of compacted low plastic impervious soil above the granular backfill in areas not to be paved.

Wall Foundation Excavation
Foundation soil shall be excavated as required for the leveling pads and the reinforcing zone. Any soils that are soft, plastic (LL > 50%), frozen, or wet and untested fills shall be removed and recompacted to 90% modified Proctor under the direction of the geotechnical engineer.

Wall Construction
Install toe first course of units on the leveling pad. Install the next course in a running bond stack. Adjust for setback per course. Backfill, install reinforcement as shown and continue construction. Filter fabric shall separate the granular backfill from the retained soil and the soil cap. Filter fabric shall not cover the foundation materials.

Geogrid Reinforcing
The geogrids shall be cut to the design lengths "L" and placed between the blocks at the elevations shown on the plans. The geogrid's primary strength direction shall be perpendicular to the wall face (into the fill). The geogrid shall be placed horizontally and laid flat on the reinforcing fill material. The geogrid shall be placed so that a minimum of 10" of grid is between the block layers. Slack in the geogrid shall be removed prior to placing backfill.

Wall Backfill
Backfill material shall be placed in maximum 24" lifts and compacted. Backfill shall be placed , spread and compacted in such a manner that minimizes wrinkles and movement of the geogrid. During backfill placement only hand operated equipment shall be used in the 4' zone directly behind the wall. The front of the wall shall be backfilled and compacted to finished grade.

Protection of Work
The surfaces surrounding the wall shall be graded at the end of each day to provide positive drainage away from the wall. Grading shall include proper contouring of fills in adjacent areas to prevent the flow of excessive surface water toward the wall. Finish grading should be completed in accordance with the approved site development plan.

Miscellaneous
If a fence or guardrail is be installed along the top of the wall shall be coordinated with the fence installer. We recommend that PVC or sonotube sleeves be placed as the wall is being backfilled to prevent a need to excavate post holes after wall construction which could damage the geogrid.

General Notes
Existing utilities are not shown. The contractor shall locate and protect all utilities. The contractor shall notify Engineering Solutions, P.C. of any utility conflict affecting this work.

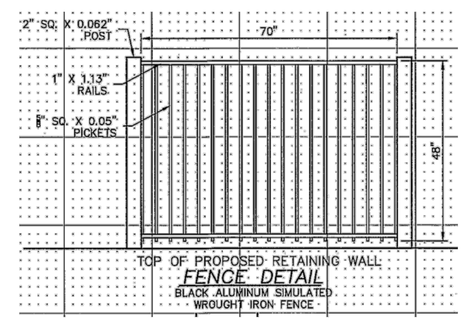
Unless otherwise noted all temporary shoring is strictly the responsibility of the contractor under a separate design.

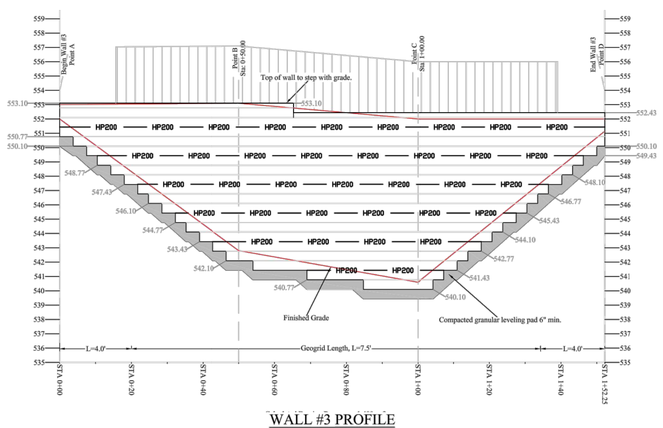
All job site worker and public safety is strictly the responsibility of the contractor. The conrractor shall comply with all OSHA regulations & requirements.

Engineering Solutions, P.C. is available upon request to confirm construction compliance with this plan. Please notify Engineering Solutions, P.C. in advance of the work if field inspection is requested.

The Owner or Owner's Representative is responsible for ensuring that construction by others adjacent to the wall does not disturb the wall or place temporary construction loads on the wall that exceed design loads, including loads such as water pressure, temporary grades, or equipment loading. Heavy paving or grading equipment shall be kept a minimum of 3 feet behind the back of the wall face. Equipment with wheel loads in excess of 150 psf live load shall not be operated within 10 feet of the face of the retaining wall during construction adjacent to the wall. Care should be taken by the Owner or Owner's Representative to ensure water runoff is directed away from the wall structure until final grading and surface drainage collection systems are completed.

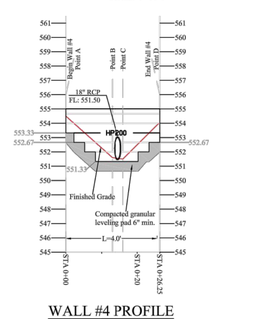
Global stability and settlement are outside of the scope of this design.





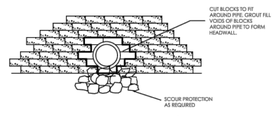
WALL #3 PROFILE

SCALE: 1"=5' vert. 1"=20' horiz.



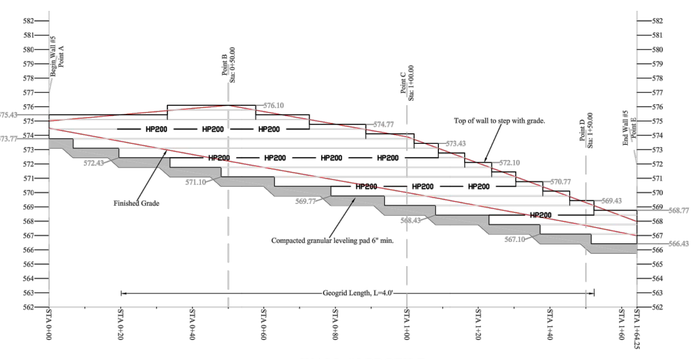
WALL #4 PROFILE

SCALE: 1"=5' vert. 1"=20' horiz.



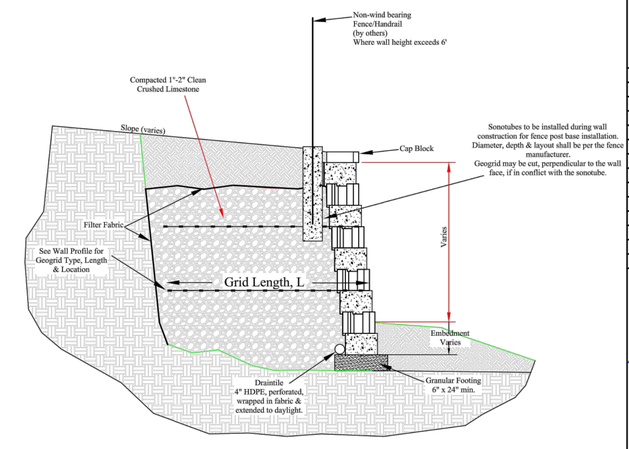
WALL WITH PIPE PENETRATION
CLASSIC 8

NOTES:
1. PIPE TO EXTEND BEYOND BASE COURSE OF WALL NO LESS THAN 12"



WALL #5 PROFILE

SCALE: 1"=5' vert. 1"=20' horiz.



REINFORCED BLOCK WALL

SCALE: NTS

Engineering Solutions, P.C.
5393 Old Baumgartner Rd
St Louis, Mo. 63129
Phone (314) 280-7748
Mo. State Certificate of Authority #P0056746

Retaining Wall Solutions, inc.
phone (314) 842-8200 fax (314) 842-8201
www.retainingwallsolutions.net

Retaining Wall Plan

Brookview
O'Fallon, Missouri

Date: 10/25/17

Revisions

#	Description	Date
1.	City Comments	11/24/17

STATE OF MISSOURI
MICHAEL JAMES YOUNT
NUMBER PE-2003001121
PROFESSIONAL ENGINEER
11/24/17

Michael James Yount - Engineer
Mo# PE-2003001121

Sheet:
RW 3 of 3