

GENERAL NOTES

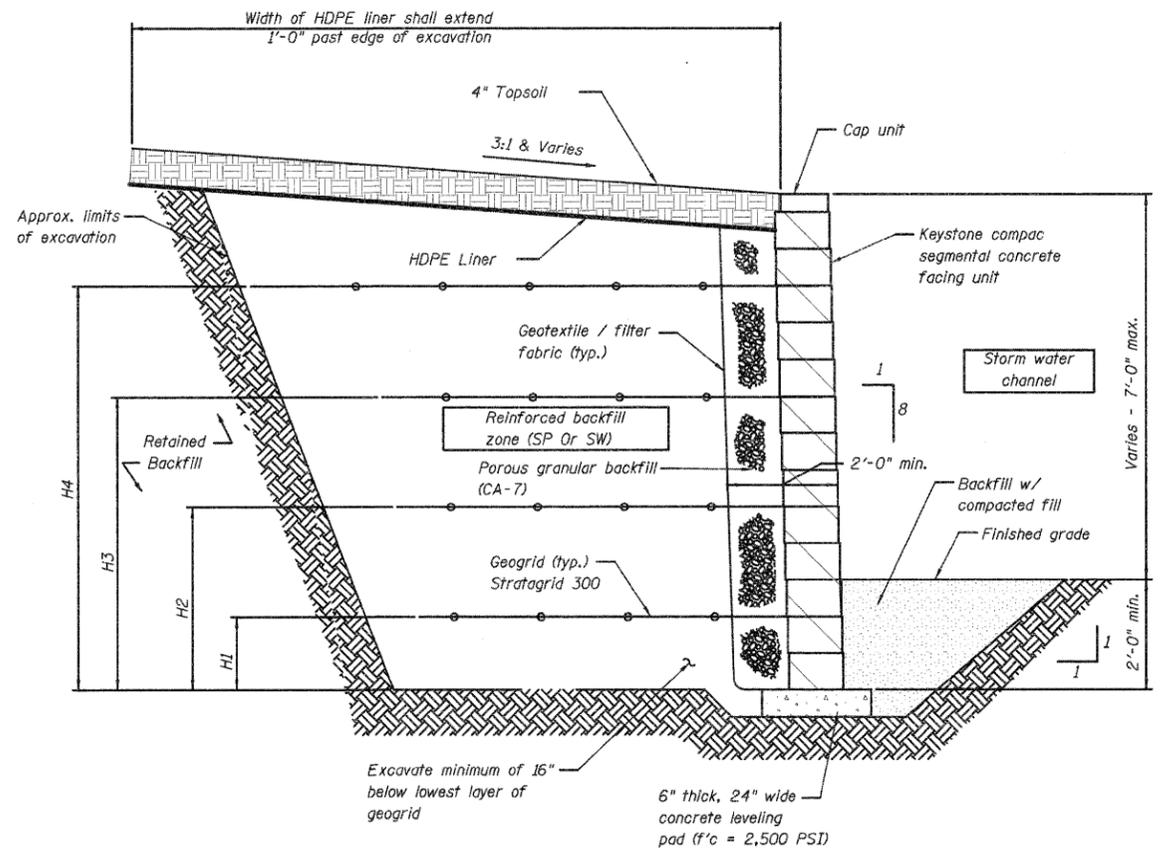
- This project shall be constructed in accordance with the modular retaining wall unit manufacturer specifications, the "Standard Specifications for Road and Bridge Construction" in Illinois and these drawings.
- This work shall consist of furnishing and installing Segmental Concrete Block Wall units as shown on the drawings, furnishing and installing leveling pads, unit fill and backfill and furnishing and installing all related materials required for the construction of the retaining walls. The work shall be constructed according to manufacturer's specifications.
- The contractor shall provide keystone compac or equal masonry retaining wall units in accordance with ASTM C-1372; the concrete wall units shall have a minimum 28-day compressive strength of 4,000 psi, the concrete shall have a maximum moisture absorption of 6% and units shall have a maximum of 1 sq. ft. face area each.
- Units shall have angled sides capable of concave and convex alignment curves with a minimum radius of 5 feet.
- Units shall be interlocked with non-corrosive fiberglass pins and have a built-in setback of 1/8 towards the back of the wall, as shown on the drawings.
- Connecting pins shall be 1/2" diameter thermoset isophthalic polyester resin-pultruded fiberglass reinforced rods with a minimum flexural strength of 128,000 psi.
- A minimum of 12" of free draining aggregate (CA-7) wrapped in filter fabric shall be placed behind the walls for drainage. Native soil shall be used for the remaining areas to be backfilled unless otherwise specified as porous granular backfill.
- The contractor shall excavate to the elevations shown on the drawings, being careful not to disturb embankment materials beyond limits needed.
- The base leveling pad shall be constructed according to manufacturer's recommendations and shall be a minimum thickness of 6 inches of unreinforced concrete (f'c = 2,500 psi). This is to provide a level hard surface on which to place the first course of units.
- The first course is the most important to insure accurate and acceptable results and shall be checked for levelness/alignment. Each unit of the first course is to be in full contact with the base. Fiberglass connecting pins shall be installed before filling and tamping. Each course is to be completely filled prior to the placing of the next course and the tops of each unit swept clean. Two pins are required per unit and shall protrude into the adjoining course. A minimum of one inch of each unit should be pulled forward as much as possible and backfilled as each course is completed.
- Provide permanent mechanical connection of cap units to wall units with construction adhesive. Apply adhesive to top surface of unit below and place cap unit into position.
- The geogrid reinforcement shall be Stratagrid 300.
- The wall shall have neutral color. The contractor shall supply a color sample to the engineer for approval.
- All disturbed areas shall be graded smooth and ready to be seeded or sodded.
- It shall be the contractor's responsibility to locate and adjust existing utilities. If interruption of services is warranted, a 48 hour notice is required.
- Buried utilities shall not be placed within the reinforced zone of the segmental wall.
- Site lighting pole bases shall not be placed within the reinforced zone of the segmental wall.
- Contractor shall coordinate access to the site with the engineer.
- Elevation of reinforcement layer shall be consistent across length of wall. Height of reinforcement may vary as shown in the table "Concrete Modular Block Wall Reinforcing."
- Backfill materials shall be compacted in 8"-12" lifts, or as directed by the manufacturer's recommendations.
- Scour protection shall be provided for entire width of access drive located around channel bend except for granular backfill required behind interior wall.

- An expansion joint shall be provided between the channel walls and concrete box culverts. This joint shall consist of a 1/2" thick preformed joint filler placed between the channel wall and the box culvert full height. Filter fabric shall be placed across the joint at the back face of the wall/box culvert to prevent soil from exiting through the joint.

Concrete Modular Block Wall Reinforcing					
Height	# Of Layer	Spacing		Length	
		Layer	Height	Layer	Height
9.0' & 8.33'	4	H1	1.33'	H1	5'-6"
		H2	3.33'	H2	5'-6"
		H3	5.33'	H3	5'-6"
		H4	7.33'	H4	7'-0"
7.67'	4	H1	1.33'	H1	5'-6"
		H2	3.33'	H2	5'-6"
		H3	5.33'	H3	5'-6"
		H4	6.67'	H4	7'-0"
7.0'	3	H1	1.33'	H1	4'-6"
		H2	3.33'	H2	4'-6"
		H3	5.33'	H3	6'-0"
6.33' & 5.67'	3	H1	1.33'	H1	4'-0"
		H2	3.33'	H2	4'-0"
		H3	4.67'	H3	5'-0"
5.0' & 4.33'	1	H1	1.33'	H1	4'-0"
		H2	3.33'	H2	4'-0"
3.67'	2	H1	1.33'	H1	4'-0"
		H2	2.67'	H2	4'-0"
3.0'	1	H1	1.33'	H1	3'-0"

Wall Segment	Friction Angle (Degrees)	Cohesion (PSF)	Unit Weight (PCF)
Reinforced Backfill	30	0	120
Retained Backfill	30	0	120
Foundation Soil	32	0	110

Foundation allowable soil bearing pressure = 120 psf. Verify in field at time of construction.



Typical Section View of Channel Wall
Scale: Not to Scale