Quality Assurance Provisions

General Design Notes

1. The following effective strength design parameters were assumed in the preparation of structural calculations for the Keystone retaining wall system:

	ϕ	c(psf)	γ(pcf)	Soil Type
Reinforced Soil	30°	0	120	SM - Silty Sand
Retained Soil	30°	0	120	SM - Silty Sand
Foundation Soil	30°	0	120	SM - Silty Sand

   Soil types and design properties shall be confirmed by the site geotechnical engineer prior to wall construction. Keystone accepts no responsibility for the interpretation or verification of subsurface conditions.

2. The system has been evaluated for internal stability and simple external sliding and overturning. Refer to design calculations for specific minimum factors of safety utilized for the wall design.
3. The walls are designed to support the following maximum surcharge loadings:

Live Load:	250 psf	Wall 1
Dead Load:	50 psf	Wall 1
Back slope:	Level	Wall 1
	3H:1V	Wall 2
Seismic:	As = 0.20g	All Walls

4. The wall foundation soils at each wall location shall be capable of safely supporting 3000 psf or as indicated on the wall elevations without failure or excessive settlement. Local bearing capacity shall be confirmed by the site engineer.
5. The Contractor shall provide surface and subsurface drainage, grading, and erosion control during and after wall construction to avoid damage to the wall structure
6. The Contractor is responsible for obtaining all permits and easements necessary for wall construction. The Contractor is responsible for protecting adjacent property from wall construction activities.

Quality Assurance Provisions

1. Wall construction shall be monitored by a qualified Engineer to verify field conditions. If this work is not performed by the site geotechnical engineer, the geotechnical engineer shall be consulted in those matters pertaining to soil conditions and wall performance.
2. The foundation soils at each wall location shall be inspected by the Engineer and any unsuitable soils or improperly compacted embankment material removed and replaced as directed by the Engineer prior to wall construction to provide adequate bearing capacity and minimize settlement.
3. All wall excavation and retained soils shall be inspected for groundwater conditions and any additional drainage provisions required in the field shall be incorporated into the wall construction as directed by the Engineer.
4. Wall backfill material shall be tested and approved by the Engineer for use in the reinforced soil zone meeting the minimum requirements of the approved design plans.
5. All soil backfill shall be tested by the Engineer for moisture, density, and compaction periodically (every 2’ vertically, 100’-200’ c/c) and shall meet the minimum requirements of the approved design plans or project specifications.
6. Wall construction shall be periodically inspected by the Engineer to insure the geogrid reinforcement elevations and lengths are installed in accordance with the approved design plans.
7. All wall elevations, grades, and back slope conditions shall be verified by the Engineer in the field for conformance with the approved design plans. Any revisions to the structure geometry or design criteria shall require design modification prior to proceeding with construction.