NEARBY STRUCTURES

If they are close to the wall, loads created by structures such as buildings, parking lots, storage areas, etc. can have an impact on final design. Depending on the circumstances and relative duration, these loads may be classified as either LIVE or DEAD.

For example, slopes are generally considered DEAD loads, whereas loads coming from parking lots may be classified as LIVE, due to their shorter duration. DEAD loads, e.g., building loads, or loads from a tiered wall may contribute to the overall stability of the wall, depending on closeness to the wall edge. Surcharges increase the stress on block and reinforcing grids. Keep in mind that these facts will contribute to a balanced design.

LIVE loads, such as those resulting from bulk storage, vehicular traffic, etc. may act both as stabilizing and destabilizing forces in your design. Typically, a conservative design approach is to neglect any live loads as part of the resisting set of forces in design.

As a rule of thumb, surcharge loads that are at a distance of twice the height of a wall below can be neglected in a design.

UTILITIES

Utilities should be designed to withstand any loads from the wall system. All utilities that have a potential for leaking (water mains, sprinkler systems) should be moved out of the reinforced soil zone if possible.

SOILS

Soils are important not only because they will ultimately bear the weight of the designed wall structure, but also because their properties directly affect the design.

Typically, well-graded coarse sands have better design properties than finer soils, like clay. Particles in sand fill voids and interlock better than uniform granular soils or clays, resulting in stronger structures.

Soils that are expansive, or organic (peats, etc.) should be avoided as fill material when building walls. Granular soils that are too coarse or sharp can damage the reinforcing grid. Consult the grid company for their installation damage reduction factor for a particular soil, that info can be used in the design, and the soil can be used. If the site has unsuitable soils (disturbed soils, soft, expansive, chemically aggressive, etc.) they must be excavated and replaced with appropriate materials prior to any other work.

TERRAIN GEOMETRY

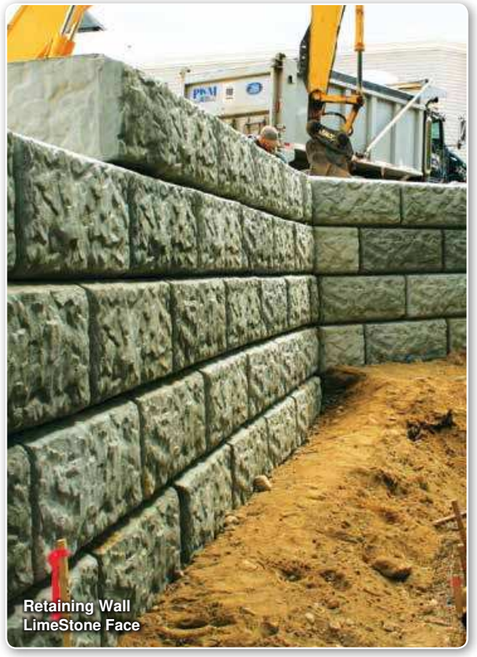
The first consideration when planning a LondonBoulder wall is to look at the site topography. Careful examination of changes in terrain elevation will help reduce excavation costs. Plan for adequate drainage and other remedies to channel water away from your wall.

Other important aspects to consider at this stage are whether adjacent construction, waterways or other terrain features could have an effect on the design and performance of the wall in the future.

GRADING

Careful examination of terrain grading both above and below the planned wall is essential. Slopes above the wall will create overloads, whereas a sloping grade at the wall footing typically decreases the available resistance to the design loads.

Grading can also create problems if it channels or retains water on or near the wall.



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Tri-Kon Precast Products Ltd.
601 Patterson Street West
Cranbrook BC V1C 6T3
250-426-8162
info@trikonprecast.com
trikonprecast.com

PRODUCT
London Boulder

DRAWING
Design Considerations: Nearby Structures, Terrain and Soils

WEIGHT

DRAWING NO.

DATE
As per drawing

SHEET
05 of 14

UNITS / SCALE
As per drawing

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