

CONCRETE DRIVEWAY

Stafford, VA



Challenge: Design a custom concrete driveway.

Solution: 51 yards of concrete mix were required to build a driveway strong enough to support the mobilization of heavy-duty trucks, and equipment.

Location: Stafford County, VA



This case study depicts briefly the different steps followed to build a custom heavy-duty concrete driveway in Stafford County.

Miss Utility

Calling Miss Utility was the first step to start this concrete job. Utility location is the process of identifying and labeling public utility mains that are underground such as lines for telecommunication, electricity distribution, natural gas, etc. It is required by law before doing any digging.

Surveying and Marking

The next step was marking of the outer shape of the driveway, and limits according with design and diagram. This driveway had to be designed with curvature or waving edging given the condition of the terrain.

Excavation, Leveling and Framing

Excavation was done carefully removing rocks and soil along the slope terrain. The excavated soil was put aside to later be used as a support to strengthen the outer edging of the finish driveway.

The soil was then compacted evenly in preparation for the foundation bed. The crew then proceed to build the framing and supporting edging using lumber as shown in the pictures.

Foundation

A strong foundation bed was necessary to support the weight of the concrete mix. This foundation was built using steel mesh rolls which significantly increases the concrete strength and helps to support and distribute the weight of the passing vehicles.

In addition, 30 yards of river gravel rock (about 1 to 3 in.) were also spread evenly to straighten the bed foundation followed.





Pouring Concrete

Two days were needed for pouring the concrete mix delivered by 5 fully loaded commercial trucks. A 6-crew member team worked around the clock flattening the slabs 6 inch thick.

51 yards of concrete were required to build this custom driveway for a residence in Stafford County. The driveway was requested to be a strong concrete mix for the mobilization of heavy-duty trucks, and equipment.

Brushed Concrete

Adding texture using a broom for better traction. This simple step must be done while the concrete is still damp enough to imprint the desire texture. Using a broom, the damp concrete is brushed to create a slip-resistant texture on the driveway surface.

Curing the finished driveway

The goal is to keep the concrete moist to reach maximum strength. Concrete should not be allowed to dry fast in any situation. By keeping the concrete moist helps the curing process. The driveway had to hosed down several times during the day this allows the moisture in the concrete to evaporate slowly.

Contraction Joints

Once the poured concrete has gained sufficient strength it is necessary to create contraction joints. This is accomplished by making spacing saw cuts to avoid cracking due to shrinkage.



For concrete jobs, like the one described in here, please do not hesitate to contact us (703) 491-1462 or at Contact@Commercial1Services.Com

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