

Company: AutoNation Car Dealership  
 Location: Houston, Texas  
 Size: 120,000 square feet  
 Solution Material: TRUEGRID with #57 Rock

# TRUEGRID CASE STUDY

## PARKING LOT EXPANSION

AutoNation car dealership increases inventory lot space while saving almost half a million dollars.



### ABOUT THE PROJECT

The AutoNation dealership needed a large car and truck inventory lot. The 120,000 SqFt site initially designated 21% or 25,000 SqFt for a concrete detention pond for the impervious concrete lot. AutoNation needed the whole 120,000 sq ft for its inventory requirements. In an effort to solve this issue and cut costs from a conventional concrete / detention pond design, AutoNation turned to BIG RED DOG ENGINEERING. TRUEGRID Permeable Paver was then chosen by Big Red Dog Engineering due to its superior strength, design and proven track record in Low Impact Development.

### TRUEGRID VS. CONCRETE

- Land Savings: 25,000 square feet
- Construction Cost Savings: \$480K
- 100% Pervious Cover Credit
- 100 extra parking spaces gained on the 500 space lot
- 100% Land Utilization
- Elimination of separate detention pond
- 0 Runoff

### PROBLEM

Design a solution that will allow Autonation to expand its current car inventory lot without spending more money on land

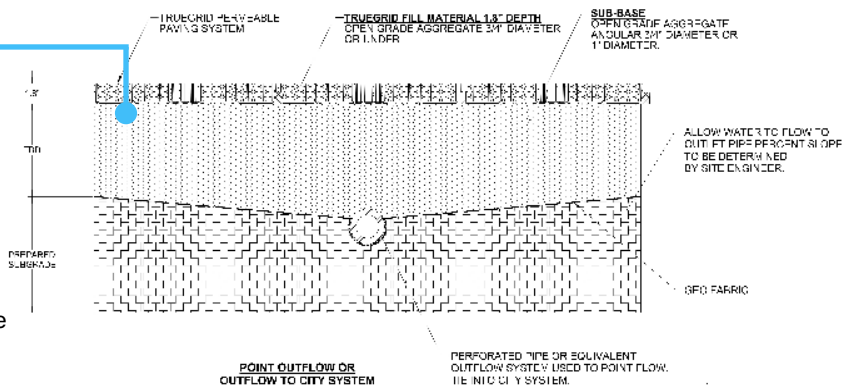
### CHALLENGES

High Cost for concrete, detention pond and drainage system cost, Maximize Land Utilization for Space Challenged Dealership, Stormwater detention requirements for site for flood prone area.



### SOLUTION

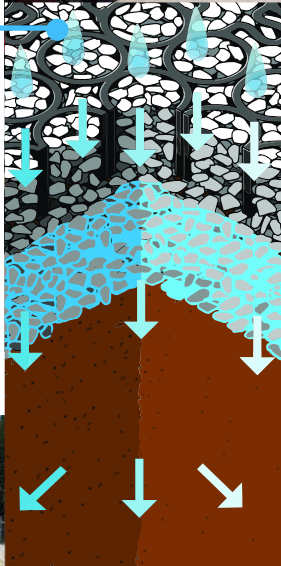
100 extra spaces is a grand slam to the dealership. The better-than concrete compression strength of 8000 psi fit the bill. The entire detention pond was eliminated with the 100% pervious TRUEGRID system and by transferring all of the required stormwater detention volume into the base and the gravel filled grid. Rain infiltrates the surface at over 200 inches/hour and there is no runoff. SuperSpot parking markers were used instead of striping paint for maintenance free striping. 43,200 cubic feet of detention volume available in TRUEGRID system for any future impervious cover.



## EXECUTION

- Fill material was ¾" hard, clean, angular stone at 1.8" depth
- The base material was ¾" hard, clean, angular stone at a 9" depth.
- The fat clay subgrade was slightly sloped towards the perforated outflow pipes.
- Perforated pipe was recessed in the center below the sub-base. Stormwater infiltrates the lot surface, is detained in the sub-base, then is directed by the slope to the perf pipe and moved to the city system within 48 hours.
- The entire detention pond was eliminated.

## COMPLETED PROJECT RESULTS



### TRUEGRID ECO-IMPACT SCORE CARD



Stormwater detained: 592,416 gallons  
equal to 14,810 bathtubs



CO2 Eliminated: 724 tons  
equal to 1,448,800 trees planted



Plastic Recycled :158,400 lbs  
equal to 1,200,000 one gallon jugs

#### LEED CREDIT OPPORTUNITIES WITH TRUEGRID

- STORMWATER MANAGEMENT
- RECYCLED CONTENT
- INNOVATION & DESIGN
- MATERIALS & RESOURCES

Call now for  
more Information

NWOOD@TRUEGRIDPAVER.COM  
WWW.TRUEGRIDPAVER.COM

### ESTIMATED SAVINGS USING TRUEGRID

|  |                  |
|--|------------------|
| Construction Costs<br>(square foot over entire site versus concrete) | \$360,000        |
| Detention Pond and<br>Drainage Construction Savings                  | \$120,000        |
| <b>TOTAL SAVINGS</b>   | <b>\$480,000</b> |

1-855-355-GRID

**TRUEGRID** <sup>®</sup>  **MADE IN U.S.A.**  
True to your project. True to the environment.