

EXISTING CONDITIONS

- Two-way stop-controlled intersection in Tumalo, OR
- Located on highway US20—major freight route
- High traffic volumes
- History of angle crashes
- Mobility challenges for bicycles and pedestrians
- Deteriorating pavement

EXISTING INTERSECTION



SOURCE: GOOGLE MAPS

PROJECT OBJECTIVES

- Improve intersection safety
- Maintain intersection performance
- Increase community connectivity through bicycle & pedestrian infrastructure
- Allow for mobility of freight vehicles
- Manage drainage of project footprint

Transportation Team:

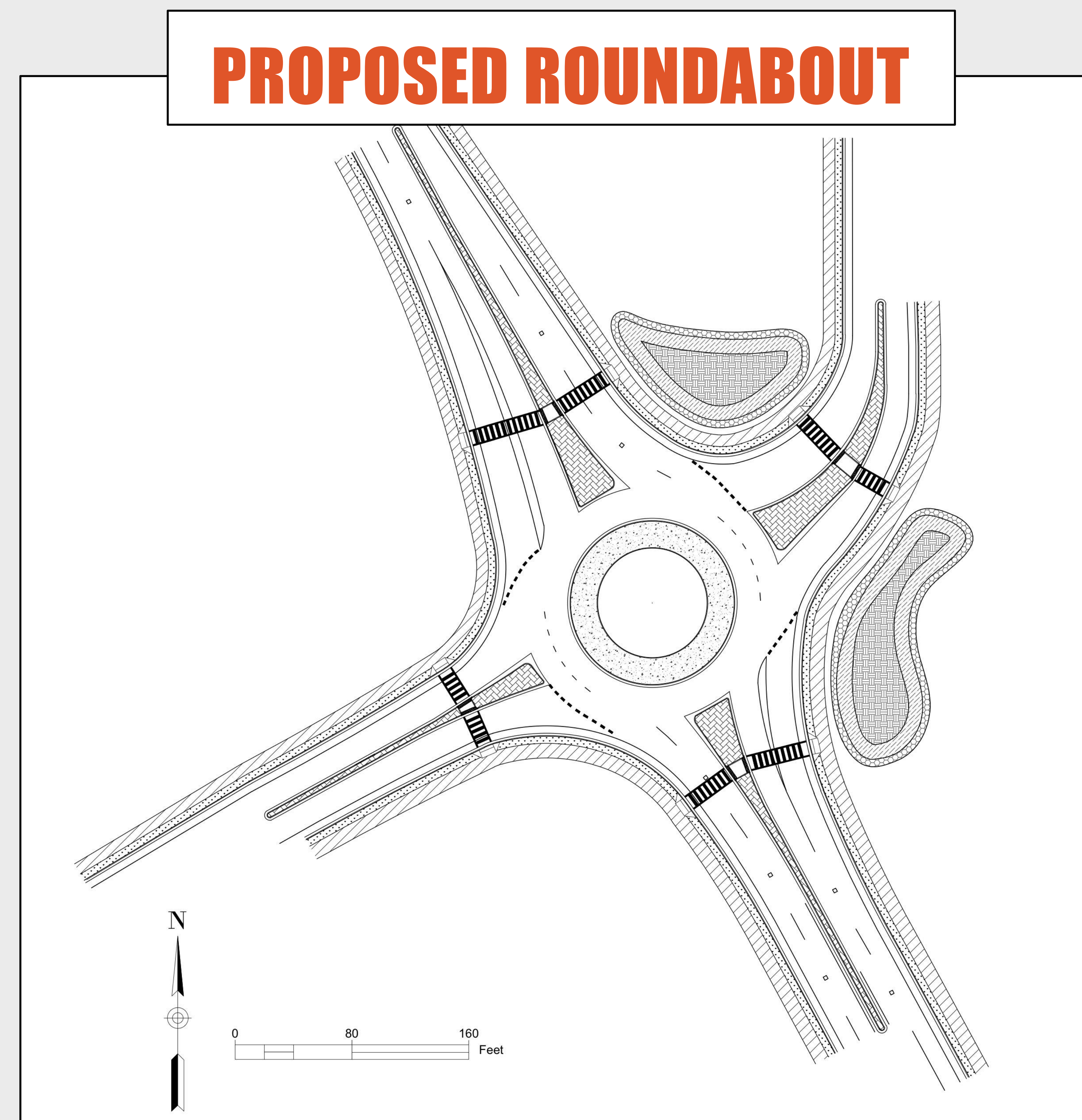
Taylor Gann, Miles Barnes, Burke Faber



US20 AT TUMALO

Infrastructure improvements at the intersection of O.B. Riley Road/Cook Avenue and US20

Site Location: Tumalo, OR



ROUNDABOUT DESIGN

- 180 ft inscribed diameter
- 130 ft center island with 18 ft truck apron
- 10 ft multi-use path for bicycles & pedestrians
- Splitter islands direct traffic into roundabout
- Crosswalks with accessible pedestrian signals, pedestrian indicators on all legs
- 5 ft landscape buffer separates pedestrians from traffic

DESIGN BENEFITS

- Improved safety through reduced collision points
- Multi-use path & crosswalks provide community connectivity across highway
- Truck apron allows for mobility of heavy vehicles
- Reduced queueing on minor approaches
- Concrete paving reduces maintenance needs
- Retention pond provides adequate drainage in event of a storm

WATER RESOURCES

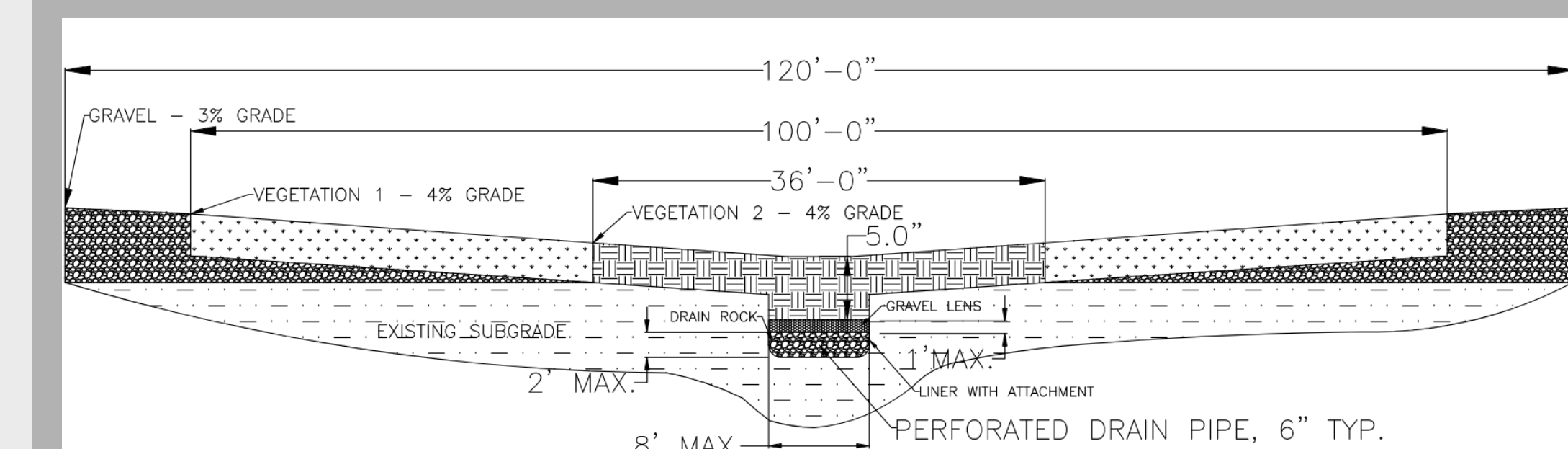
The water resource engineers have been tasked with mitigating stormwater runoff at the Tumalo Intersection/Roundabout. Various considerations have been taken into account, including the efficiency of stormwater mitigation, the maintenance, and the overall aesthetic. The engineers have decided to design a system including retention ponds, storm drains, and curb cutouts.

CURB CUTOUTS

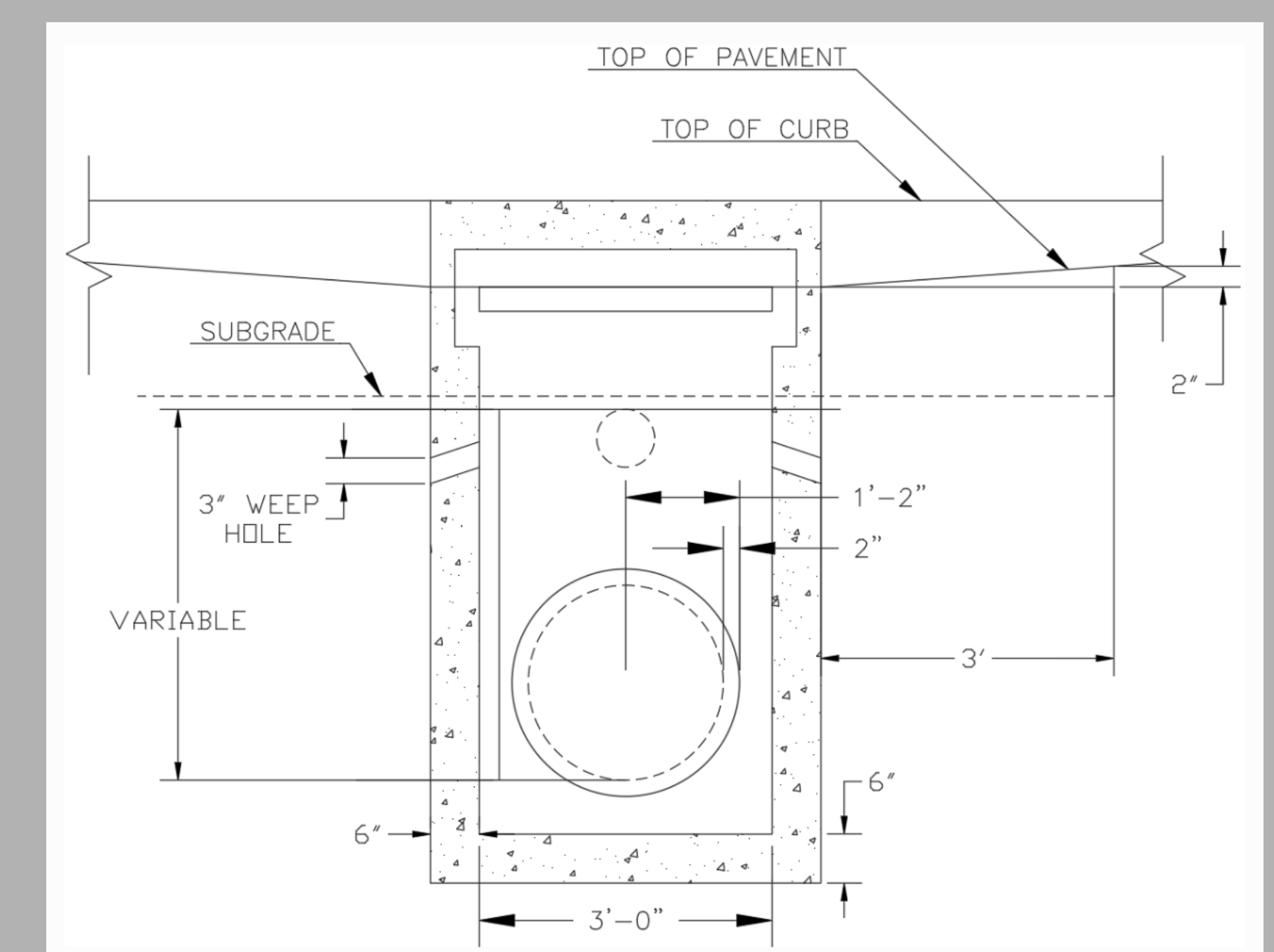


SOURCE: GOOGLE MAPS

RETENTION POND CROSS-SECTION



CATCH BASIN DETAIL



Water Resources Team:

Thomas Blacklock, Luis Contreras