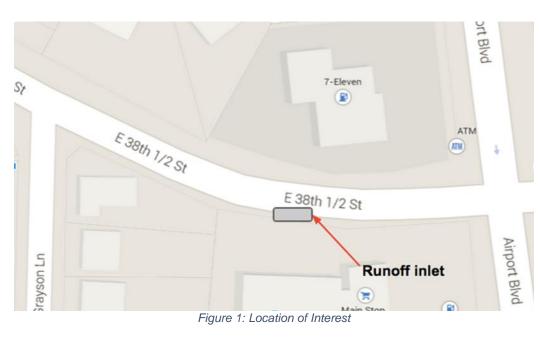
Jordan Alvarez, Emily Tat, Charles Yamashiro CE365K: Hydraulic Design

Proposal for 38th 1/2 St. in between Airport Blvd and Grayson Ln.

The focus of this project will be evaluating possible design alternatives for 38th ½ St. between Airport Blvd. and Grayson Lane. Currently this area is classified by the City of Austin as a potential flood zone. In the past this street has frequently flooded and has caused damages to residents living in the area. Upon examination of the site, possible solutions were spotted which could improve the drainage within this area without requiring major changes to the street.

One very important observation that was noted while examining the location was the fact that there was no curb on the south side of 38th ½ street. This meant that most of



the drainage on that side of the street would flow into the resident's yard. In addition, it was also noted that the slope in between the foundation of the house with respect to the street is very shallow. therefore when a 10 year storm

occurs the water begins to enter the house. This poses a tremendous safety issue to the residents living in the area. The City of Austin is considering in modifying the current drainage system of the street to reduce flooding in the area when a large storm hits Austin.

We have already observed the area during a storm on April 18th at around 10:00pm. It was a mild thundershower. Upon arriving at the site, we noticed that some areas where there was no curb were already flooding with around 1 ¼ inches of water. Creating a curb near the southern part of the street that was flooding will allow, for less water to flood into the resident's yard.

The creation of curb along the south side of 38th ½ street will reduce the amount of water that will drain into the yards of residents. Subsequently, the creation of a curb along the street will allow water to flow easier to the current inlet that is already installed along the street. In addition to the current inlet that is next to the shopping center east of 38th street we want to construct another inlet along the curb upstream of the flow so that the runoff from upstream is collected into the new inlet that we plan on designing.



Figure 2: South side of 38th 1/2 Street Curb

On April 18th a storm hit Austin around 9:30 P.M., we went to check out the street. We found that it is feasible and advantageous to design a curb along the south part of the 38 ½ street, and include an inlet which will empty into the north side of the street. Further investigation during the day is needed to determine what lies on the north part of the street. Based upon our observations during the storm it seemed to be a stream.