



## MEMO No. 4

TO: City Council

DATE: March 11, 2019

FROM: Mary McCrea, Development Services

RE: **Hillview Crossing TED Conditional Use – Geotech Report & Storm Water Plan**

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The Land Use and Planning (LUP) committee of City Council has discussed the Hillview Crossing TED Conditional Use on January 16 & 23, February 27, and March 6, 2019 following the public hearing for this project on December 17, 2018 and the pre-public hearing discussion at LUP on December 12, 2018.

City Council members discussed concerns regarding cut and fill, manufactured slopes, location and height of retaining walls, stockpiling of topsoil, location of storm water retention facilities and the need for a geotechnical report for both building sites and roads. City Council discussed whether the 2015 Geotech Report is adequate for City Council review.

### **2015 Geotech Report – City Engineering Review**

Referring to the Hillview Crossing - Summary of LUP.022719 document, the following summarizes comments provided by Troy Monroe, Assistant City Engineer, regarding his review of the 2015 Geotech Report:

1. The 2015 Report is only valid until December 3, 2020.
2. The 2015 Report would need to be updated for the proposed TED layout, however there is enough similarity between the layouts that generalizations between the geotechnical aspects can be made.
3. The 2015 report is for the overall site grading. It can not be used to determine specific home requirements but does give an overall evaluation of the proposed home sites.
4. The current TED layout includes retaining wall locations and the 2015 Report would need to be updated to evaluate the associated point loads of the retaining walls and their point loads.
5. The applicant has not provided an exhibit that shows the maximum design slopes, therefore City Engineering can not confirm the design meets the 2015 report recommendations of maximum vertical slopes following grading.
6. The 2015 report was written from a mass-grading standpoint. Meaning that all excavation and embankment would be performed at once. The Geotechnical Engineer would have concern if the excavation and embankment were made into smaller projects and performed at different time intervals.
7. The 2015 report requires that all fill be placed on a horizontal plane which requires the existing ground be stair-stepped. This method of embankment eliminates any weak plane soils that may be at the surface, however requires a major earth moving construction firm, familiar with this type of embankment, to perform the work.
8. The 2015 report does not evaluate any storm water detention/retention basin or storage facilities. City Engineering has not seen any proposal from the developer regarding the plan to retain the required 17,393 cubic feet of storm water. A storm water basin built up at the base or dug into the hillside would affect the stability of the hillside and should be evaluated.

9. City Engineering does not have enough information to determine if the retaining walls and storm water facility would significantly reduce the factors of safety or not.

### **City Engineering Recommendations**

City Engineering recommends an updated Geotechnical Report be provided for roads, infrastructure, utility locations, storm water facility locations, retaining wall locations, pedestrian pathway locations, including any excavation or embankment locations, construction staging of topsoil and erosion control measures during construction.

The updated report should be valid for a minimum of 5 years and include:

- an evaluation of existing conditions,
- recommendations for excavation and embankment,
- requirements for construction and oversight, and
- requirements for the submission of as-built and testing results to the City Engineer.

### **Options:**

- A. Option A: The updated Geotechnical Report for the mass grading and a Grading and Drainage Plan shall be provided for City Engineering review prior to City Council decision on the Hillview Crossing TED conditional use.

The updated Geotechnical Report shall include mass site grading for roads, pedestrian walkways, and infrastructure such as utilities, sewer, water and storm water facilities, retaining wall locations, locations for storm water detention/retention, locations for construction staging of topsoil, erosion control measures during construction, and including any excavation or embankment locations.

Option A also includes adoption of conditions of approval #25 and #26 as shown below. Staff recommends approval of condition of approval #25 below in order to ensure that the findings of fact at the time of conditional use approval remain valid, and all the infrastructure is installed within the five year timeframe of the updated Geotechnical Report.

City Engineering also recommends a Geotech Report for each building site be approved at the time of building permit review for each two-unit townhouse structure. See condition of approval #26 below.

25. The townhome exemption declaration for the Hillview Crossing TED shall be submitted in one zoning compliance permit application and shall include all sixty-eight (68) TED unit ownership parcels, all infrastructure, and meeting conditions of approval for the conditional use, subject to review and approval of Development Services, prior to approval of the zoning compliance permit of the townhome exemption declaration. All infrastructure shall be constructed within five years of approval of the Geotechnical report and an improvements agreement guaranteed by a security that covers the cost of all the roads, sidewalks, pedestrian pathways, storm water facilities, retaining walls and site grading is approved by City Engineering prior to zoning compliance permit approval of the townhome exemption declaration.

26. A Geotechnical Report is required for each two unit townhouse structure submitted with the building permit application, subject to review and approval by City Engineering, prior to building permit approval.

- B. Option B includes adoption of conditions of approval #25, #26 and #27 as shown below. Staff recommends approval of condition of approval #25 below in order to ensure that the findings of fact at the time of conditional use approval remain valid, and all the infrastructure is installed within the five year timeframe of the updated Geotechnical Report.

City Engineering also recommends a Geotech Report for each building site be approved at the time of building permit review for each two-unit townhouse structure. See condition of approval #26 below.

The Geotech Report is updated prior to approval of the zoning compliance permit for the townhome exemption declaration per condition of approval #27 below:

25. The townhome exemption declaration for the Hillview Crossing TED shall be submitted in one zoning compliance permit application and shall include all sixty-eight (68) TED unit ownership parcels, all infrastructure, and meeting conditions of approval for the conditional use, subject to review and approval of Development Services, prior to approval of the zoning compliance permit of the townhome exemption declaration. All infrastructure shall be constructed within five years of approval of the Geotechnical report and an improvements agreement guaranteed by a security that covers the cost of all the roads, sidewalks, pedestrian pathways, storm water facilities, retaining walls and site grading is approved by City Engineering prior to zoning compliance permit approval of the townhome exemption declaration.
26. A Geotechnical Report is required for each two unit townhouse structure submitted with the building permit application, subject to review and approval by City Engineering, prior to building permit approval.
27. The applicant shall provide a Grading and Drainage Plan and an updated Geotechnical Report for mass site grading for roads, pedestrian walkways, and infrastructure such as utilities, sewer, water and storm water facilities, retaining wall locations, locations for storm water detention/retention, locations for construction staging of topsoil, erosion control measures during construction, and including any excavation or embankment locations, subject to review and approval by City Engineering, prior to zoning compliance approval of the townhome exemption declaration. The scope of the Geotechnical Report shall include an evaluation of existing conditions, recommendations for excavation and embankment, requirements for construction and oversight and requirements for submission of as-built and testing results to the City Engineer. The Geotechnical report shall be part of the design submittal for roads and infrastructure and be valid for five (5) years from the date the report was approved by City Engineering.

#### **Storm Water Plan – City Engineering Review**

City Engineering reviewed the preliminary Storm Water Plan provided in the applicant's submittal packet for the Hillview Crossing TED conditional use application. Troy Monroe, Assistant City Engineer noted in an email to the applicant's representative that Section 5.2B and Section 5.2C related to storm water calculations need to be revised in the Storm Water Plan.

The preliminary Storm Water Plan specifies that the development will be required to hold 17,393 cubic feet of storm water. The preliminary plan did not include a proposal from the developer regarding how they plan to retain the required storm water nor locations for required storm water detention/retention basins or facilities.

The locations of any storm water detention/retention basin or facilities built up at the base of the hillside or dug into the hillside would affect the stability of the hillside and should be evaluated in the recommended update to the Geotechnical Report.

#### **Options:**

- A. Option A: The Final Storm Water Plan with locations of all Storm Water detention/retention basins or facilities shall be provided for City Engineering review prior to City Council decision on the Hillview Crossing conditional use.

The applicant shall revise the Storm Water Plan to address both Section 5.2B and Section 5.2C related to storm water calculations as specified in the email message from the Assistant City Engineer dated October 9, 2018. The final storm water plan shall specify long-term maintenance requirements for the storm water facilities.

The Geotechnical Engineer shall review and approve all locations of storm water detention/retention basins and facilities for conformance with the recommendations in the updated Geotechnical Report.

Condition of approval #2 and #3 shall be revised as follows:

2. ~~The applicant shall revise the Storm Water Plan to address both Section 5.2B and Section 5.2C related to storm water calculations as specified in the email message from the City Assistant City Engineer dated October 9, 2018, prior to zoning compliance approval of the townhome exemption declaration. The Construction plans for the~~ final Storm Water Plan ~~for construction~~ shall be reviewed and approved by City Engineering and the Geotechnical Engineer prior to zoning compliance approval of the townhome exemption declaration. Storm water facilities shall be installed prior to building permit approval for the first structure or included in an Improvements Agreement guaranteed by a security subject to review and approval of the City Engineer.
  3. ~~The final storm water plan shall specify long-term maintenance requirements for the storm water facilities.~~ The applicant shall specify in the Development Covenants the long-term maintenance requirements for the storm water facilities and that the maintenance of the storm water facilities shall be the responsibility of the Developer, transferring to the Homeowners' Association once formed and shall include all maintenance and replacement costs as outlined in the final storm water plan, subject to review and approval of Development Services, prior to zoning compliance approval of the townhome exemption declaration.
- B. Option B: The Final Storm Water Plan for construction with locations of all Storm Water detention/retention basins or facilities shall be provided to City Engineering and the Geotechnical Engineer for review and approval prior to approval of the zoning compliance permit for the townhome exemption declaration per amended condition of approval #2 and condition of approval #3 from the staff report as show below:**
2. The applicant shall revise the Storm Water Plan to address both Section 5.2B and Section 5.2C related to storm water calculations as specified in the email message from the ~~City~~ Assistant City Engineer dated October 9, 2018, prior to zoning compliance approval of the townhome exemption declaration. The Geotechnical Engineer shall review and approve all locations of storm water detention/retention basins and facilities for conformance with the recommendations in the updated Geotechnical Report. The final Storm Water Plan for construction shall be reviewed and approved by City Engineering and the Geotechnical Engineer prior to zoning compliance approval of the townhome exemption declaration. Storm water facilities shall be installed prior to building permit approval for the first structure or included in an Improvements Agreement guaranteed by a security subject to review and approval of the City Engineer.
  3. The final storm water plan shall specify long-term maintenance requirements for the storm water facilities. The applicant shall specify in the Development Covenants that the maintenance of the storm water facilities shall be the responsibility of the Developer, transferring to the Homeowners' Association once formed and shall include all maintenance and replacement costs as outlined in the final storm water plan, subject to review and approval of Development Services, prior to zoning compliance approval of the townhome exemption declaration.