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6106 S. WATTERSON TRAIL SUBDIVISION DEVELOPMENT POTENTIAL TRANSFER (LDQ/47.7)

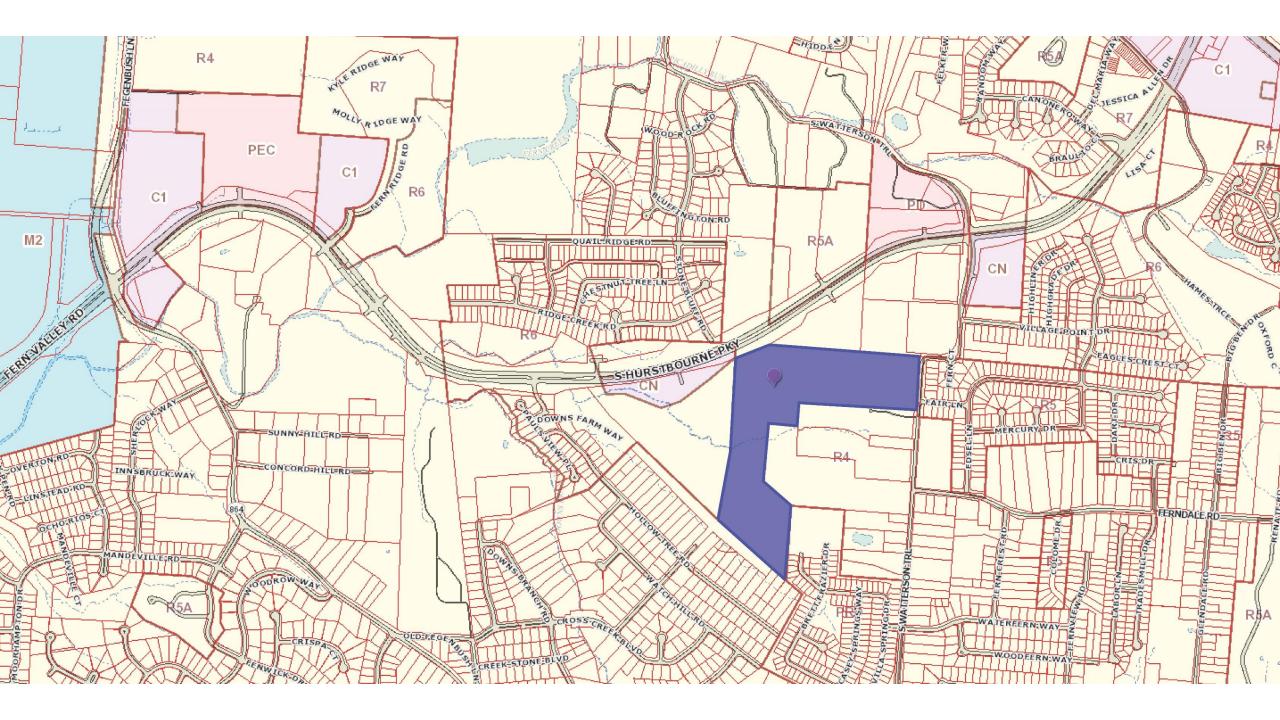
Planning Commission Hearing

19-MSUB-0018

May 21, 2020

Case Manager: Lacey Gabbard

Plan Prepared By: Mindel Scott

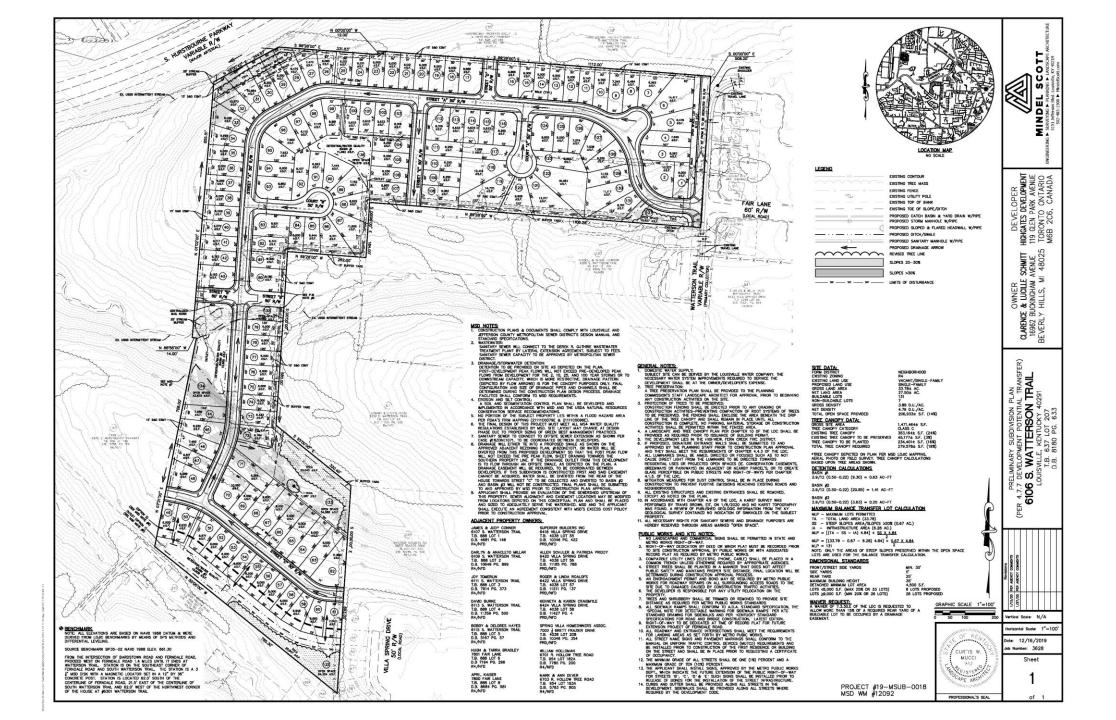


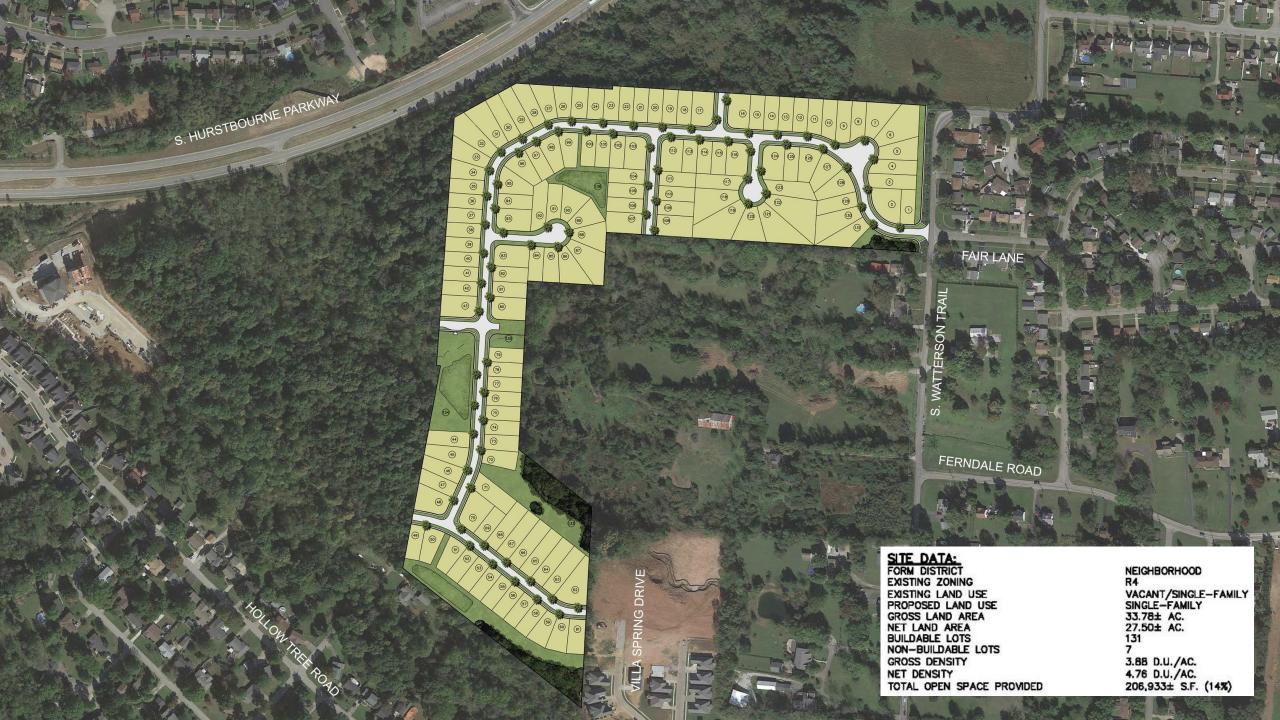


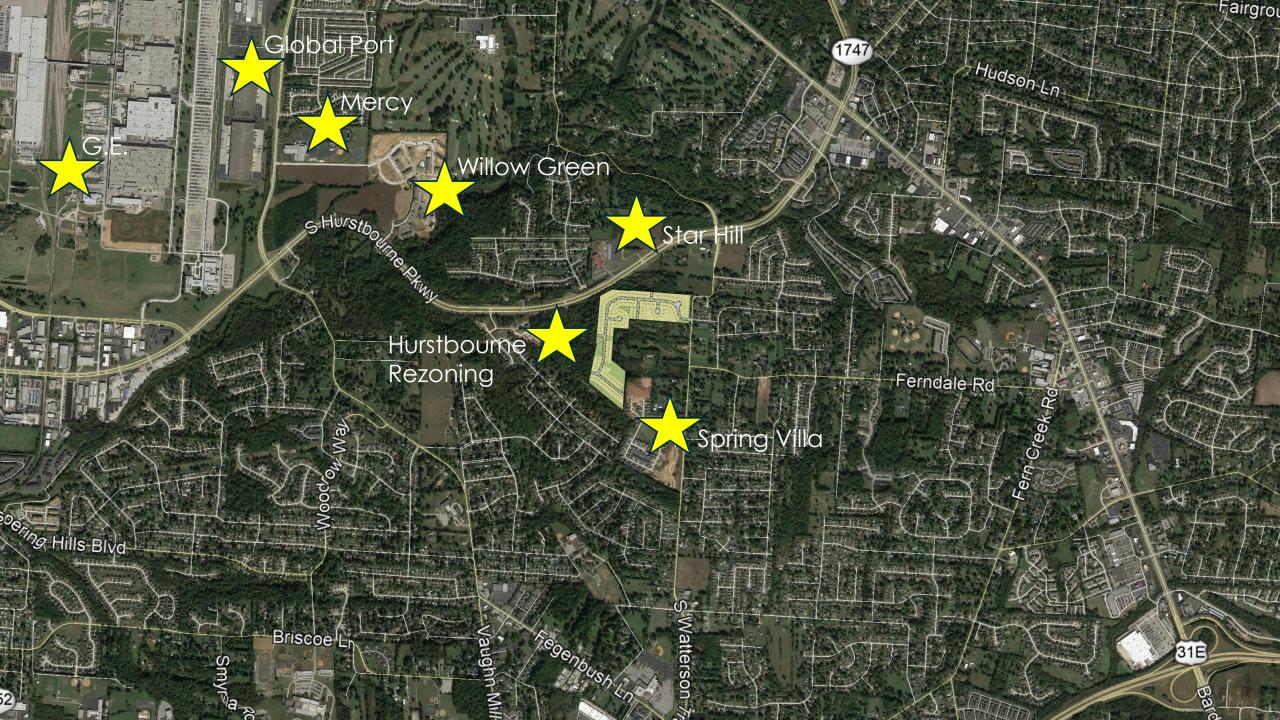


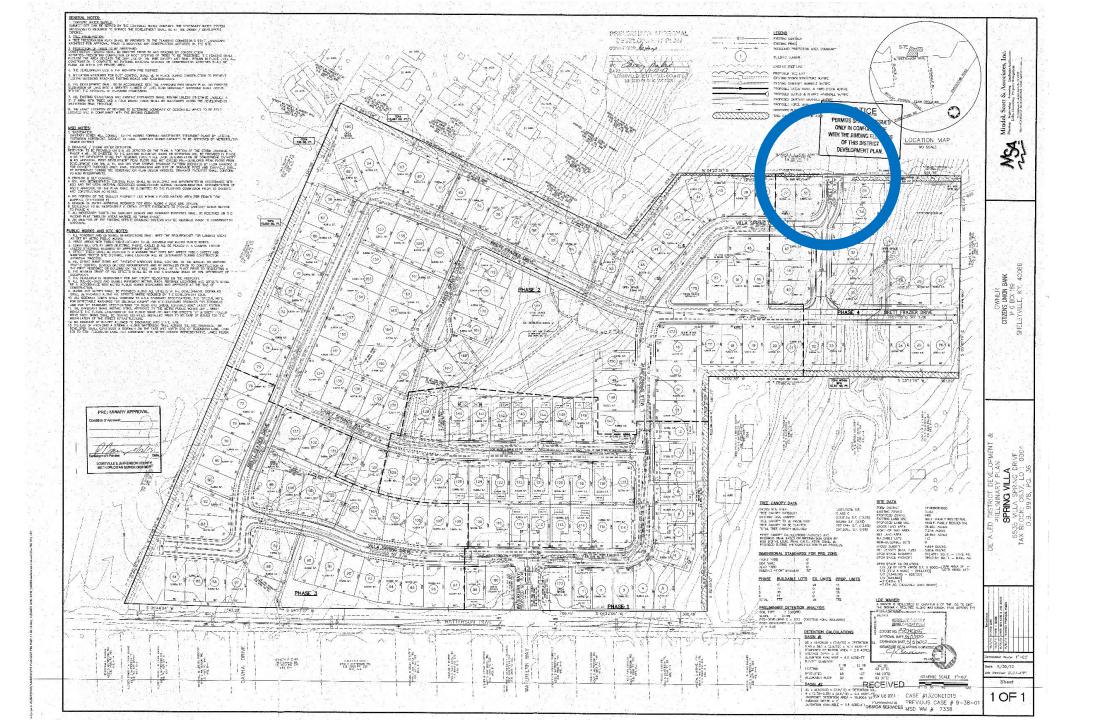


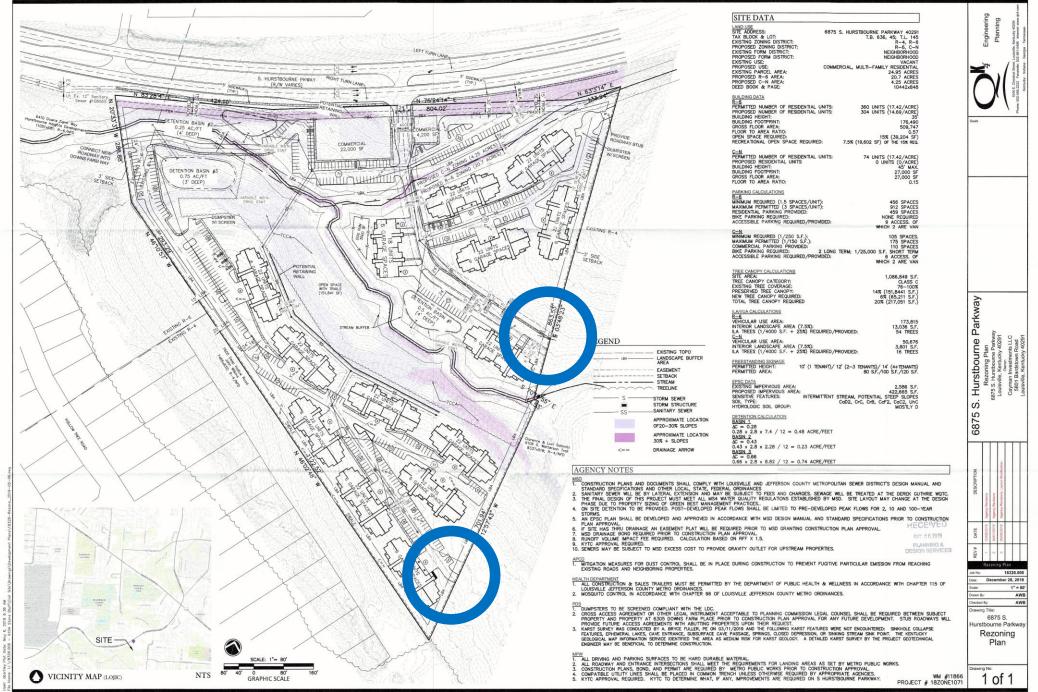


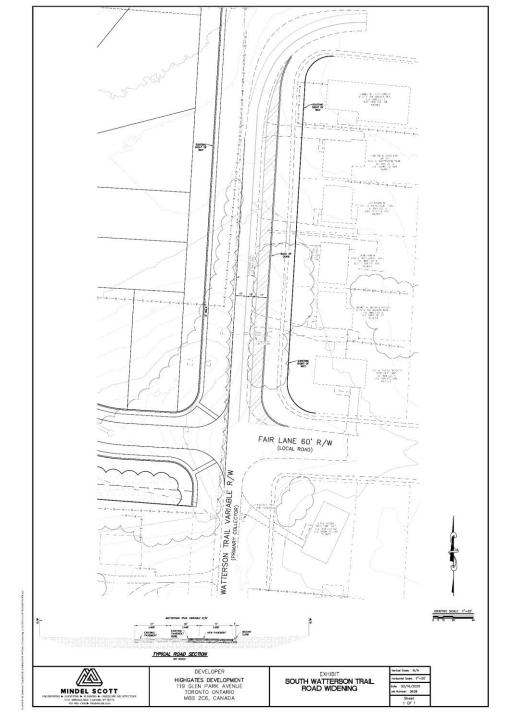




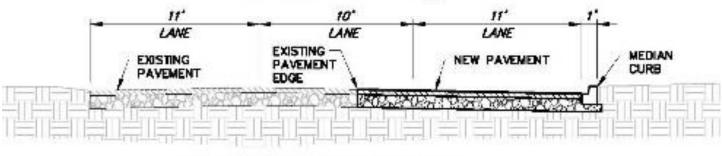






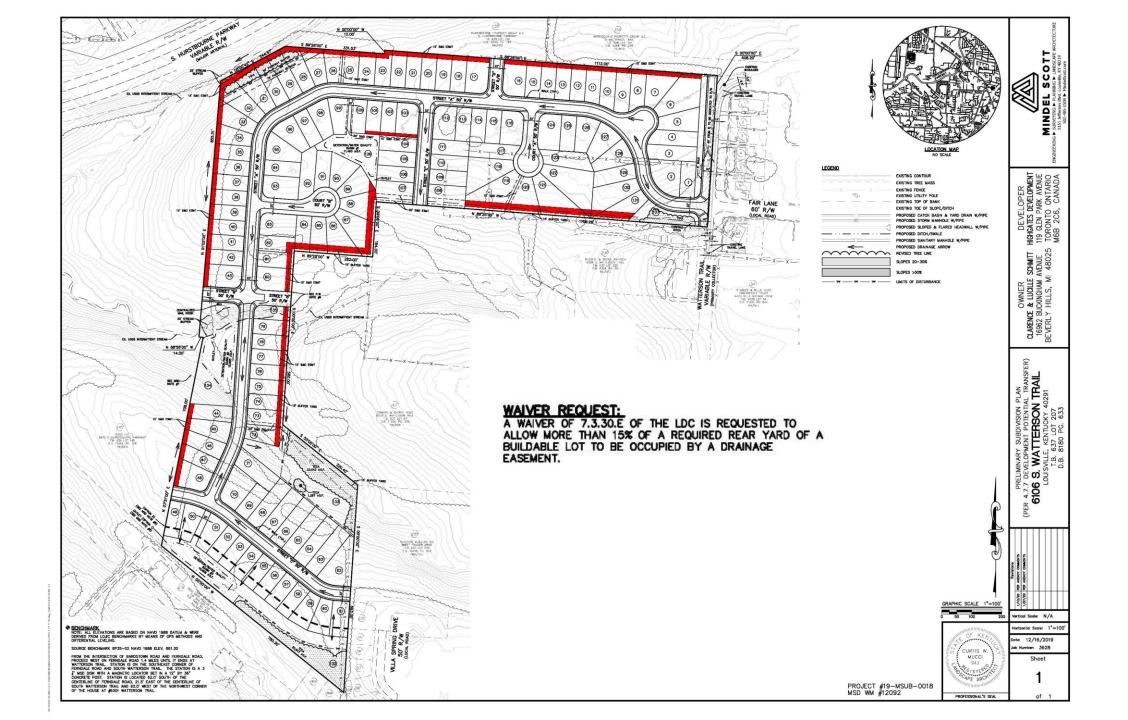


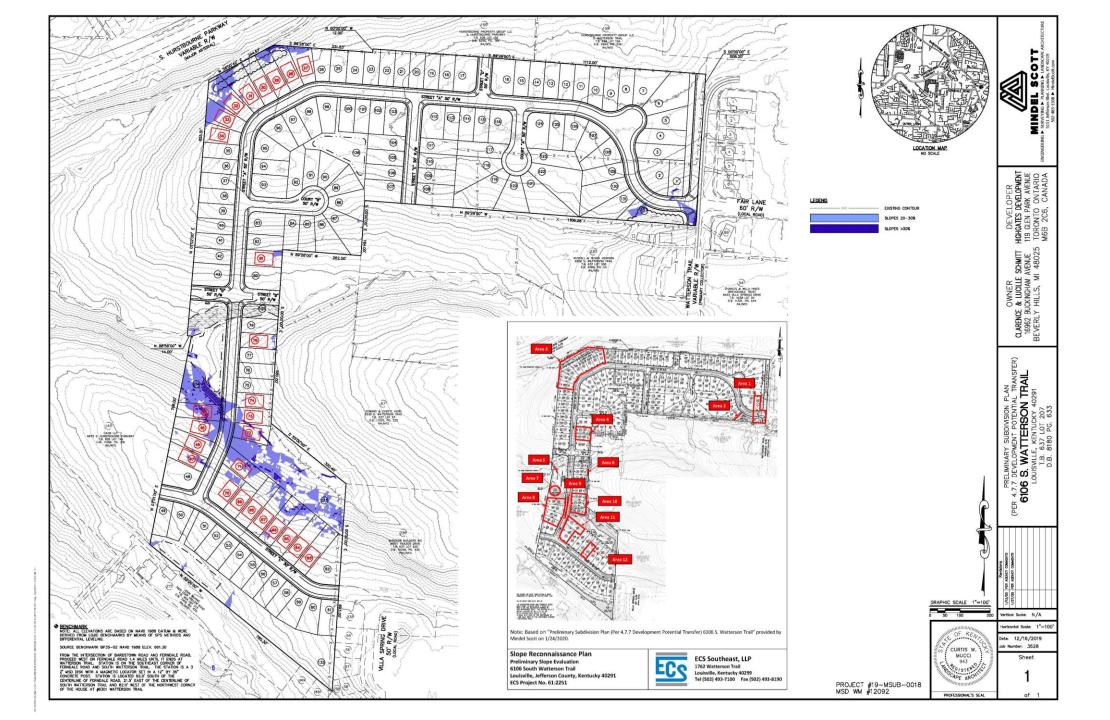
WATTERSON TRAIL VARIABLE R/W



TYPICAL ROAD SECTION

NO SCALE





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Slope and drainage feature in Area 1



Steep slope in Area 3



Slope and rock outcropping in Area 2



Steep slope in Area 3 where minor instability observed

Based on our review of the above reference observations and information, and on our past experience with site development for similar conditions in Jefferson County, our opinion is that the on-site slopes (excluding small, localized erosion features along swales and streams) in the <u>observed areas were generally stable at the time of our reconnaissance</u>. Evidence of minor instability was observed in an isolated area in the northwestern portion of the site (Area 3). The current, on-site slope stability observed likely is related to the following factors:

- · Relatively thin depths of soil in slope areas
- · Cohesive (clayey) soil matrix
- Rocky soil texture
- Limestone bedrock
- · Numerous trees and other vegetation

Based on the conditions observed, our opinion is that additional geotechnical exploration/analyses including soil/rock test borings/coring, shear strength tests of soils, etc. are not required for the evaluated on-site slopes, provided that the planned subdivision is designed and constructed utilizing the guidelines included in this report. Area 3 where minor instability was observed

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should be further investigated during the construction phase of the project once the location and planned elevation of the proposed structures and related improvements are known.

The following guidelines should be used to help maintain the stability of the existing and planned slopes during the design and construction of the new subdivision, and over the life of the new homes. These measures include:

- · Plan grading to minimize changes to existing topography along slopes.
- Minimize disturbance to slopes and vegetation outside new construction areas.
- Avoid significant transverse cuts along or at the toe of existing slopes.
- · Avoid significant embankments on the face, or along or at the crest of existing slopes.
- Maintain the following limits for new embankments without additional geotechnical exploration and analysis:
 - 3:1 (horizontal:vertical) or flatter slopes.
 - Properly strip all vegetation, topsoil, etc. where fill will be placed.
 - Construct embankments with controlled fill compacted to at least 98 percent of the Standard Proctor maximum dry density and within 2 percent of the optimum moisture content.
 - Maximum fill embankment height 5 feet.
 - Horizontally bench new fill into existing slopes.
- · Maintain the following limits for new cuts in soil without additional geotechnical exploration and analysis:
 - 3:1 (horizontal:vertical) or flatter slopes.
 - Maximum cut height 5 feet.
- Provide adequate erosion and surface water drainage control during construction and over the life of the subdivision.
- · Establish permanent vegetative cover as soon as practical.

We appreciate the opportunity to work with you on this project. If you have any questions about this evaluation, or if you need any further assistance, please call us at any time.

Cordially,

ECS Southeast, LLP

Morgan Hertelendy, E.I.T. Geotechnical Project Manager

Attachments: Site Vicinity Map

Slope Reconnaissance Plan

G.T. Vandevelde, P.E. Principal Engineer

Kentucky License No. 14708

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Quail Ridge Rd

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6106 S. WATTERSON TRAIL SUBDIVISION DEVELOPMENT POTENTIAL TRANSFER (LDQ/47.7)

Planning Commission Hearing

19-MSUB-0018

March 5, 2020

Case Manager: Lacey Gabbard

Plan Prepared By: Mindel Scott