



April 8, 2019

Doug Schultz, PLA, LEEP AP
Sabak, Wilson & Lingo, Inc.
608 South Third Street
Louisville, Kentucky 40202
doug.schultz@swlinc.com

Subject: Geotechnical Slope Evaluation Report
The Breakers at Prospect Subdivision – Preliminary Slope Evaluation
7800 Sutherland Farm Road
Prospect, Kentucky 40059
ECS Project No. 61-2000

Dear Mr. Schultz:

A new residential subdivision is proposed for construction in Prospect, Jefferson County, Kentucky. The site is located to the west of Sutherland Farm Road, approximately 2 miles north of the I-265 (Gene Snyder Freeway) ramp onto Highway 42). The approximate site location is shown on the attached **Site Vicinity Map**. The property generally consisted of a farm with gently undulating pastures, a large pond, a residence, barns, and a steeper sloped ridgeline in the northwest portion of the site. Surface drainage generally was directed toward small drainage ditches along the private roadways on the property, and toward the Ohio River to the northwest. Provided drawings and Google Earth data indicated that existing surface elevations ranged from approximately ~EL 437 at the bottom of the steeper sloped area in the northwest portion of the site, to approximately ~EL 464 along a line in the central upland area of the site.

The "Major Preliminary Subdivision Plan: The Breakers at Prospect, LLC, 7800 Sutherland Farm Road, Prospect, KY 40059," (Plan) prepared by Sabak, Wilson & Lingo, Inc., dated 03/18/2019 (most recent revision date) identified existing >30% slopes on the property. The areas with existing >30% slopes are located in areas that will be disturbed for the installation of a utility trench, and the construction of a private access road (i.e., maintenance roadway, not for the residences). A copy of the drawing is attached.

The current Metro Louisville Land Development Code (LDC) 4.7.5 includes requirements for land disturbing activities on slopes greater than 20%. Item B.3 of 4.7.5 states "A geotechnical report shall be submitted for land disturbing activities on slopes greater than 30%."

Accordingly, ECS Southeast, LLP (ECS) was retained to conduct an initial slope evaluation of the two steeper sloped areas of the site identified above, and to determine if additional geotechnical exploration/analyses would be required. Our evaluation consisted of the following tasks:

- Review the Plan
- Review USGS Geologic Quadrangle Map information
- Review USDA NRCS Soil Survey information
- Conduct a visual reconnaissance of indicated steeper slope areas that would be disturbed by new construction
- Evaluate the reviewed information and prepare a report of our findings and recommendations



USGS Geologic Quadrangle Map Review

The “Geologic Maps of the Anchorage and Jeffersonville Quadrangles, Kentucky” published by the U. S. Geological Survey and shown on the Kentucky Geologic Map Information Service indicated that the majority of the proposed development area (roughly above ~EL 437) was underlain by Glacial Outwash (Wisconsinan) deposits. The remainder of the site was mantled by Alluvium (roughly below ~EL 437). The mapped extent of the geologic formations is shown on **Figure 1**.

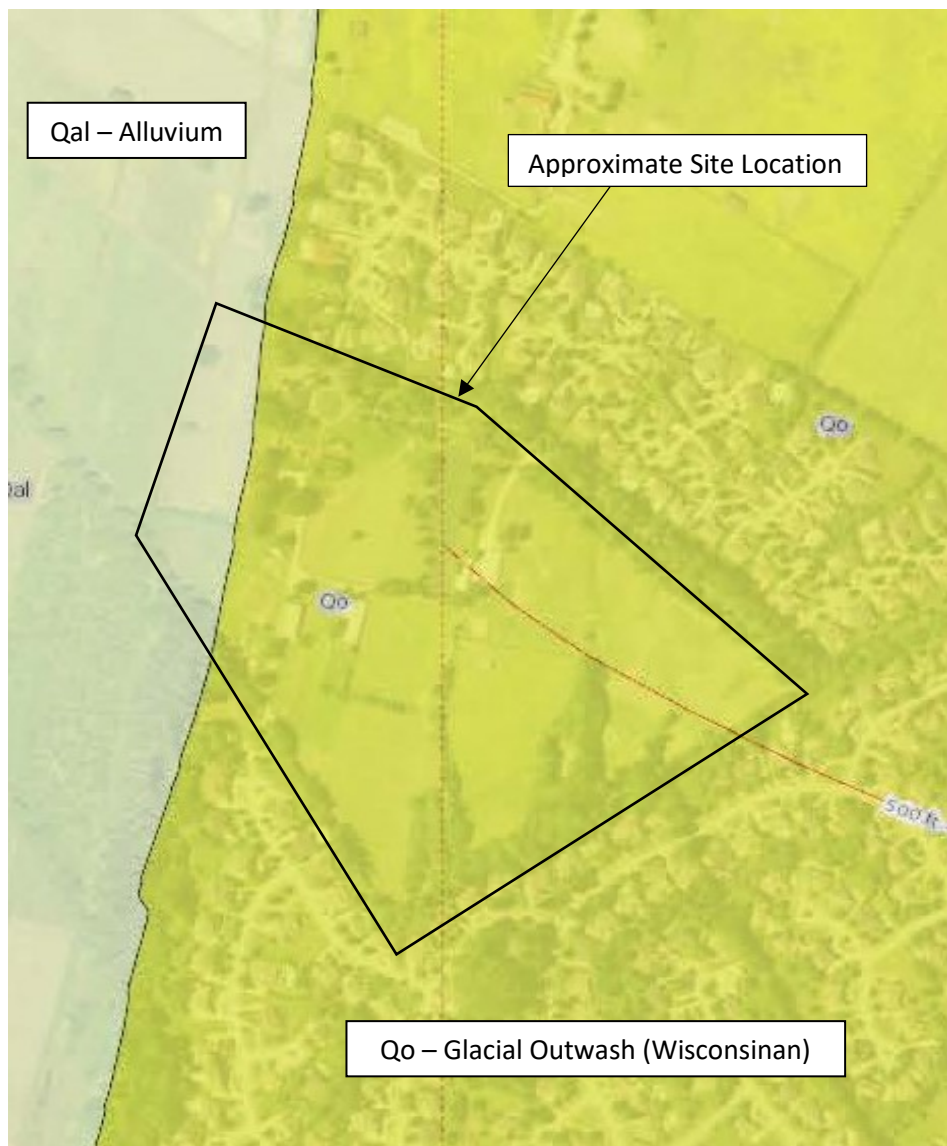


Figure 1: Reported Site Geology



Outwash Deposits (Wisconsinan)

Total Reported Thickness: 0 – 135+’

Karst Potential: Non-Karst

Primary Lithology: Clay, silt, sand and gravel.

Clay and silt deposits 20 to 30 feet thick underlie a large area of the old Ohio River alluvial surface, which generally occurs between 460 and 470 feet. Yellowish brown to grayish brown above the water table; medium gray to olive gray below the water table; weathers yellowish gray or grayish orange brown on surface. Clay and silt (older alluvium) are shown by drilling the overlying sand and gravel deposits, which are as much as 100 feet thick. Cobbles up to 8 inches in diameter are reported in these gravelly beds, attributed almost wholly to outwash of Wisconsin age. The bottom of the old deep channel of the Ohio River is indicated in nearby wells to be at an elevation of 334, feet just west of the Anchorage Quadrangle. Soils developed on this unit may show hardpan development and include the Wheeling, Weinbach, Sciotoville, and Ginat Series. Water is available in large amounts from wells in the glacial outwash, and in lesser amounts from wells and springs near the base of the Jeffersonville Limestone, the base of the Louisville Limestone, and the Brassfield Formation. These formations are not mapped to underlie the subject site. Formations underlying the thick Outwash and Alluvium deposits (Laurel Dolomite, and the Osgood and Drakes Formations described later in this report) are not exposed on site, and therefore do not impact slope stability.

Alluvium

Total Reported Thickness: 0-30+’

Karst Potential: Non-karst

Primary Lithology: Silt, clay, sand, and gravel.

Silt, clay, sand and gravel, interbedded and intermixed. Dark brown, grayish brown, and moderate yellowish-brown. Silty, clay, and sand 10 to 30 feet thick in Ohio River Valley, may be much thicker beneath islands and along natural levees such as Juniper Beach; commonly overlie glacial outwash from which much sand and gravel is derived. Gravel consists of pebbles and cobbles of chert, limestone, dolomite, shale, siltstone, quartzite, granite, gneiss, schist, phyllite, and finely crystalline igneous and metamorphic rocks. Smaller valleys contain sand and gravel of local origin including abundant pebbles and cobbles of chert, dolomite, limestone, and limonite pellets and nodules eroded from soils. Unit locally contains unmapped colluvium along valley walls and covers or interfingers with lacustrine deposits in valleys tributary to the Ohio River Valley. Soils developed on this unit include Huntington, Newark, Melvin, and Lindsides Series.



LAUREL DOLOMITE

Dolomite of two types in three distinct bedding sets: Upper two fifths of unit is greenish gray to light olive gray, mottled light gray patches; weathers dark yellowish orange; micro-grained to very finely crystalline; calcite in irregular blebs up to 0.8 foot wide and 0.3 foot thick; characterized by even beds separated by stylolites 0.1 to 3 feet apart. Second type is more massive, somewhat porous, mottled dolomite in two bedding sets separated by a dark gray to olive gray dolomitic clay shale bed 0.8 to 2.5 feet thick 5 to 8 feet above the base. Lens of coarsely crystalline limestone reported from 6.5 feet above shale break. Contact with underlying formation indistinct through gradational interval of as much as 3 feet; arbitrarily placed at base of lowest persistent dolomite bed separated from overlying dolomite by less than an equivalent thickness of shale. Calcite veinlets associated with slickensides indicate lateral movement of as much as 4 inches in southeastern part of quadrangle.

OSGOOD FORMATION

Dolomite and dolomitic shale, dusky yellowish green to grayish green, or less commonly olive gray; dolomite weathers dark yellowish orange to grayish orange; argillaceous dolomitic shale beds weather lighter yellowish gray. Reddish gray shale rare in this area, more common in quadrangles to south. Unit is most dolomitic and thinnest in fresh cuts along new Interstate 71 in eastern part of quadrangle. Here, bed thickness of alternating shaley dolomite and dolomitic shale ranges from 0.2 to 4 feet in a total interval ranging from 13 to 16 feet. Basal 2 to 3 feet of unit dolomite; readily distinguishable from limestone of underlying unit with which it appears to be conformable.

DRAKES FORMATION (Saluda Dolomite Member)

Dolomite, greenish gray, with light gray laminae; weathers yellowish gray; very finely crystalline; glauconitic in part; upper 20 to 24 feet massive; separated from underlying, somewhat more calcareous beds by persistent clay shale bed generally less than 1 foot thick. Associated with the marker bed is a micro-grained dolomitic limestone with scattered ostracods and medium to coarse fossil fragments. Intermittent thin limestone at top of unit has been called the Hitz Limestone Member of the Whitewater Formation (Upper Ordovician). Micro-grained limestone is resistant and ledge forming, as opposed to smooth weathering nearly vertical surfaces of the massive dolomite. Basal 10 to 20 feet locally contains dolomitized colonial coral heads as much as 3 feet in diameter; grades into underlying shale and fossil fragmental limestone over interval of 6 to 8 feet.



Soil Conservation Service Soil Survey

The USDA Natural Resources Conservation Service “Web Soil Survey” website indicated 15 general soil types at the site as shown in **Figure 2**. Descriptions of these soil types are summarized below.



Figure 2: Reported Soil Data

- ErA Elk silt loam – 0 to 2 percent slopes, rarely flooded
Parent material – mixed fine-silty alluvium over mixed loamy alluvium
Typical Profile
 - 0 to 9 inches: silt loam
 - 9 to 15 inches: silt loam
 - 15 to 46 inches: silty clay loam
 - 46 to 80 inches: silty clay loam

- Mf Melvin silty loam – 0 to 2 percent slopes, frequently flooded
Parent material – mixed fine-silty alluvium
Typical Profile
 - 0 to 4 inches: silt loam
 - 4 to 46 inches: silt loam
 - 46 to 82 inches: silt loam



- Ne Newark silt loam – 0 to 2 percent slopes, occasionally flooded
Parent material – mixed fine-silty alluvium
Typical Profile
0 to 7 inches: silt loam
7 to 66 inches: silt clay loam
66 to 80 inches: loam
- OtA Otwood silt loam – 0 to 2 percent slopes
Parent material – mixed fine-silty alluvium over mixed loamy alluvium
Typical Profile
0 to 10 inches: silt loam
10 to 27 inches: silt loam
27 to 46 inches: silt loam
46 to 83 inches: silt loam
83 to 91 inches: stratified sandy loam to loam
- RoA Robertsville silt loam – 0 to 2 percent slopes
Parent material – thin fine-silty loess over clayey residuum weathered from limestone
Typical Profile
0 to 6 inches: silt loam
6 to 21 inches: silt loam
21 to 45 inches: silty clay loam
45 to 65 inches: silty clay
- RpA Robertsville silt loam – 0 to 2 percent slopes, ponded
Parent material – mixed fine-silty alluvium
Typical Profile
0 to 10 inches: silt loam
10 to 16 inches: silt loam
16 to 74 inches: silt loam
74 to 90 inches: silty clay
- ScA Sciotoville silt loam – 0 to 2 percent slopes
Parent material – mixed fine-silty alluvium over mixed loamy alluvium
Typical Profile
0 to 10 inches: silt loam
10 to 18 inches: silt loam
18 to 77 inches: silt loam
77 to 100 inches: loam



- UbC Urban land-alfic udarents complex, loamy substratum – 0 to 12 percent slopes
Parent material – mixed fine-loamy alluvium
Typical Profile
 - 0 to 49 inches: loam
 - 49 to 85 inches: stratified sandy loam

- UeC Urban land-alfic udarents complex, fargipan substratum-over loamy sediment – 0 to 12 percent slopes
Parent material – mixed fine-silty alluvium over mixed loamy alluvium
Typical Profile
 - 0 to 20 inches: silt loam
 - 20 to 41 inches: silt loam
 - 41 to 52 inches: silty clay loam
 - 52 to 82 inches: stratified loam to silty clay loam

- UrC Urban land-alfic udarents0otwood complex – 0 to 12 percent slopes
Parent material – mixed fine-silty alluvium over mixed loamy alluvium
Typical Profile
 - 0 to 27 inches: silt loam
 - 27 to 46 inches: silt loam
 - 46 to 83 inches: silt loam
 - 83 to 91 inches: stratified sandy loam to loam

- W Water

- WhA Wheeling loam – 0 to 2 percent
Parent material – mixed fine-loamy alluvium
Typical Profile
 - 0 to 6 inches: loam
 - 6 to 49 inches: loam
 - 49 to 85 inches: stratified sandy loam

- WhB Wheeling loam – 2 to 6 percent slopes
Parent material – mixed fine-loamy alluvium
Typical Profile
 - 0 to 6 inches: loam
 - 6 to 49 inches: loam
 - 49 to 85 inches: stratified sandy loam

- WkB Wheeling loam – 2 to 6 percent slopes, occasionally flooded
Parent material – mixed fine-loamy alluvium
Typical Profile



- 0 to 6 inches: loam
- 6 to 49 inches: loam
- 49 to 85 inches: stratified sandy loam

WkD Wheeling loam – 12 to 25 percent slopes, occasionally flooded

Parent material – mixed fine-loamy alluvium

Typical Profile

- 0 to 6 inches: loam
- 6 to 49 inches: loam
- 49 to 85 inches: stratified sandy loam

Visual Reconnaissance of Selected Slope Areas

Two areas shown on the Plan as >30% slopes would be disturbed during site development for a new utility trench (Area 01 – Lot 7 and Open Space Lot 85,) and a maintenance access roadway (Area 02 – Lot 82 and Open Space Lot 85). See attached **Visual Slope Reconnaissance Plan** for approximate locations. Typical slopes along the ridge line were on the order of 4 horizontal to 1 vertical (4H:1V), but ranged to 2H:1V in localized areas. A visual reconnaissance of these areas was conducted on April 3, 2019. Photos of the conditions observed at these areas are shown below. Similar conditions were observed in most areas. The slopes primarily were covered in field grasses, trees and low brush. The slope for the maintenance roadway was located in a manicured lawn area near a residence. No rock outcrops were observed on or along the hillsides. No indications of large, wide-scale or small-scale erosion were noted. No visual indications of slope instability were observed. In particular, none of the following were noted: unusual tilting or fallen trees, tension cracks, scarps, displaced soil, or mounds of soil in lower areas.

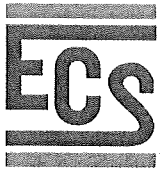


Steep slope at Area 01



Steep slope at Area 02

Based on our review of the above reference information and on our past experience with construction under similar conditions in Jefferson County, our opinion is that the on-site slopes in the observed areas were stable at the time of our reconnaissance. The current, on-site slope stability likely is related to the following factors:



- Cohesive (clayey) soil matrix
- 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 configuration does not involve disturbance significantly greater than what was indicated on the Plan.

Several measures may be considered to help maintain the stability of the existing and planned slopes during 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 fill embankments along or at the crest of existing slopes.
- Excavations for road or utility construction may require benching or temporary shoring, especially where transverse to the slope and if conducted during periods of frequent precipitation.
- 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 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,

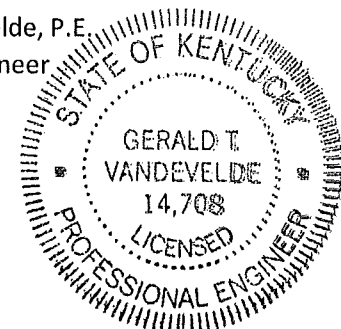
ECS Southeast, LLP

Liz Newcomb, P.E.

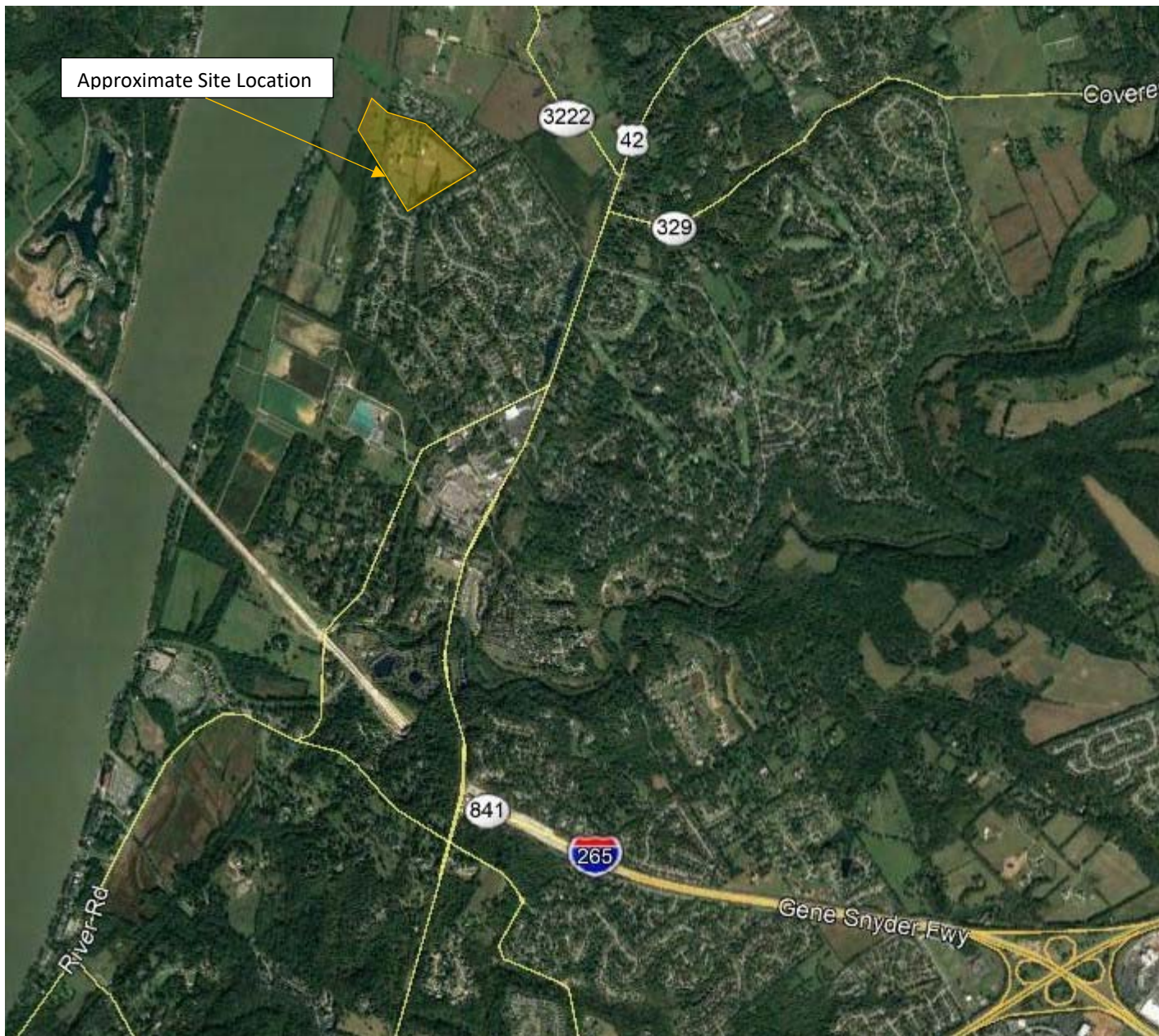
Geotechnical Department Manager

G. T. Vandeveld, P.E.

Principal Engineer



- Attachments: Site Vicinity Map
Major Preliminary Subdivision Plan of The Breakers at Prospect
Visual Slope Reconnaissance Plan



Based on Google Earth imagery dated 10/21/2018.

Site Vicinity Map

The Breakers at Prospect Subdivision - Preliminary Slope
Evaluation

7800 Sutherland Farm Road
Prospect, KY 40059
ECS Project No. 61-2000



ECS Southeast, LLP

1762 Watterson Trail
Louisville, Kentucky 40299
tel (502) 493-7100 fax (502) 493-8190

GENERAL NOTES

- 1. CONSTRUCTION PLANS AND DOCUMENTS SHALL COMPLY WITH LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT'S DESIGN MANUAL AND STANDARD SPECIFICATIONS AND OTHER LOCAL, STATE AND FEDERAL ORDINANCES.
2. WASTEWATER: SANITARY SEWER IS AVAILABLE BY LATERAL EXTENSION AGREEMENT SUBJECT TO FEES. SANITARY SEWER PATTERN DEPICTED FOR CONCEPTUAL PURPOSES ONLY. FINAL CONFIGURATION AND SIZE OF SEWER PIPES SHALL BE DETERMINED DURING THE CONSTRUCTION PLAN DESIGN PROCESS.
3. STORMWATER: WATERSHED DIVERSION TO THE OHIO RIVER THROUGH AN APPROPRIATELY SIZED DRAINAGE SYSTEM LOCATED WITHIN A PUBLIC MSD SEWER AND DRAINAGE EASEMENT WILL BE UTILIZED IN LIEU OF DETENTION (SUBJECT TO EITHER MSD FACILITY FEE POLICY OR PROVISION OF ENHANCED STORM WATER QUALITY FEATURES); OR A DETENTION BASIN FACILITY WILL BE PROVIDED AS INDICATED ON THIS PLAN, IF DETENTION IS PROVIDED, THE DETENTION BASIN STORAGE VOLUME AND DISCHARGE CONTROL STRUCTURE SHALL BE CAPABLE OF LIMITING POST-DEVELOPMENT DISCHARGES TO THE CAPACITY OF THE DOWNSTREAM SYSTEM TO THE OHIO RIVER.
4. THE DEVELOPMENT LIES IN THE HARRODS CREEK FIRE DISTRICT.
5. A PORTION OF THE SUBJECT PROPERTY LIES WITHIN A FLOOD HAZARD AREA PER FEMA FIRM MAPS, (21111C0002E & 21111C0003E).
6. THE DEVELOPMENT SHALL BE IN ACCORDANCE WITH THE APPROVED PRELIMINARY PLAN. NO FURTHER SUBDIVISION OF LAND INTO A GREATER NUMBER OF LOTS THAN ORIGINALLY APPROVED SHALL OCCUR, WITHOUT THE APPROVAL OF PLANNING COMMISSION.
7. COMPATIBLE UTILITY LINES (ELECTRIC, PHONE, CABLE) SHALL BE PLACED IN A COMMON TRENCH UNLESS OTHERWISE REQUIRED BY APPROPRIATE AGENCIES.
8. STREET TREES SHALL BE PLANTED IN A MANNER THAT DOES NOT AFFECT PUBLIC SAFETY AND MAINTAINS PROPER SIGHT DISTANCE. FINAL LOCATION WILL BE DETERMINED DURING THE CONSTRUCTION APPROVAL PROCESS.
9. ALL STREETS AND RIGHTS OF WAY SHALL MEET THE REQUIREMENTS OF CHAPTER 6 OF THE LAND DEVELOPMENT CODE.
10. MITIGATION MEASURES FOR DUST CONTROL SHALL BE IN PLACE DURING CONSTRUCTION TO PREVENT FUGITIVE PARTICULATE EMISSIONS FROM REACHING EXISTING ROADS AND NEIGHBORING PROPERTIES.
11. THE FINAL DESIGN OF THIS PROJECT MUST MEET ALL MS4 WATER QUALITY REGULATIONS ESTABLISHED BY MSD.
12. CURBS AND GUTTER SHALL BE PROVIDED ALONG ALL STREETS IN THE DEVELOPMENT.
13. RIGHT OF WAY DEDICATION SHALL BE RECORDED AS PART OF THE REQUIRED RECORD PLAT.
14. ALL STREET NAME SIGNS AND PAVEMENT MARKING SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS AND BE INSTALLED PRIOR TO CONSTRUCTION OF THE FIRST RESIDENCE OR BUILDING ON THE STREET AND SHALL BE IN PLACE AT THE TIME OF THE BOND RELEASE/PRIOR TO RECEIVING A CERTIFICATE OF OCCUPANCY.
15. ALL RADIUSES, SIDEWALK LOCATIONS AND OFFSETS SHALL BE IN ACCORDANCE WITH METRO PUBLIC WORKS STANDARDS AND APPROVED AT THE TIME OF CONSTRUCTION.
16. THE APPLICANT SHALL INSTALL SIGNS, APPROVED BY THE METRO PUBLIC WORKS DEPARTMENT WHICH INDICATE THE FUTURE EXTENSION OF THE PUBLIC RIGHT OF WAY FOR STREET SUTHERLAND FARM ROAD. SUCH SIGNS SHALL BE INSTALLED PRIOR TO RELEASE OF BONDS FOR THE INSTALLATION OF THE STREET INFRASTRUCTURE.
17. ALL ROADWAY AND ENTRANCE INTERSECTIONS SHALL MEET THE REQUIREMENTS FOR LANDING AREAS AS SET BY METRO PUBLIC WORKS.
18. TREE CANOPY CREDIT AREAS (TCCA) IDENTIFIED ON THIS PLAN REPRESENT PORTIONS OF THE SITE THE DEVELOPER HAS AGREED TO PRESERVE. THESE ARE PERMANENT PRESERVATION AREAS. ALL CLEARING, GRADING, AND FILL ACTIVITY IN THESE AREAS MUST BE IN KEEPING WITH THE RESTRICTIONS ESTABLISHED AT THE TIME OF PLAN APPROVAL. NO FURTHER CLEARING, GRADING, CONSTRUCTION OR OTHER LAND DISTURBING ACTIVITY SHALL TAKE PLACE BEYOND PRUNING TO IMPROVE THE GENERAL HEALTH OF THE TREE OR TO REMOVE DEAD OR DECLINING TREES THAT MAY POSE A PUBLIC HEALTH AND SAFETY THREAT.
19. US ARMY CORPS OF ENGINEERS APPROVAL REQUIRED PRIOR TO CONSTRUCTION.
20. FINAL SUBDIVISION RECORD PLAT FURTHER AMENDS PB37, PG 80, A MINOR SUBDIVISION PLAT FOR SUTHERLAND FARMS.
21. HYDRIC SOILS ARE PRESENT AT ISOLATED LOCATIONS ON THE SITE. ALL MSD AND ARMY CORPS PERMITS WILL BE OBTAINED.
22. ANY UTILITY OR ACCESS DRIVE CONSTRUCTION ON SLOPES GREATER THAN 30% SHALL UTILIZE CONSTRUCTION METHODS APPLICABLE FOR STEEP SLOPES, TO MINIMIZE SOIL EROSION.

SWPP NOTES

THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN SHALL BE IMPLEMENTED PRIOR TO ANY LAND-DISTURBING ACTIVITY ON THE CONSTRUCTION SITE. ANY MODIFICATIONS TO THE APPROVED EPSC PLAN MUST BE REVIEWED AND APPROVED BY THE PRIVATE DEVELOPMENT REVIEW OFFICE. EPSC BMPs SHALL BE INSTALLED PER THE PLAN AND M.S.D. STANDARDS.

DETENTION BASINS, IF APPLICABLE, SHALL BE CONSTRUCTED FIRST AND SHALL PERFORM AS SEDIMENT BASINS DURING CONSTRUCTION UNTIL THE CONTRIBUTING DRAINAGE AREAS ARE SEEDED AND STABILIZED.

ACTIONS MUST BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION AREAS ONTO PUBLIC ROADWAYS. SOILS TRACKED ONTO THE ROADWAY SHALL BE REMOVED DAILY.

SOIL STOCKPILES SHALL BE LOCATED AWAY FROM STREAMS, PONDS, SWALES, AND CATCH BASINS. STOCKPILES SHALL BE SEEDED, MULCHED, AND ADEQUATELY CONTAINED THROUGH THE USE OF SILT FENCING.

ALL STREAM CROSSINGS MUST UTILIZE LOW-WATER CROSSING STRUCTURES PER M.S.D. STANDARD DRAWING ER-02.

WHERE CONSTRUCTION OR LAND DISTURBANCE ACTIVITY WILL BE TEMPORARILY CEASED ON ANY PORTION OF A SITE, TEMPORARY SITE STABILIZATION MEASURES SHALL BE REQUIRED AS SOON AS PRACTICALLY, BUT NOT LATER THAN 14 CALENDAR DAYS AFTER THE ACTIVITY HAS CEASED.

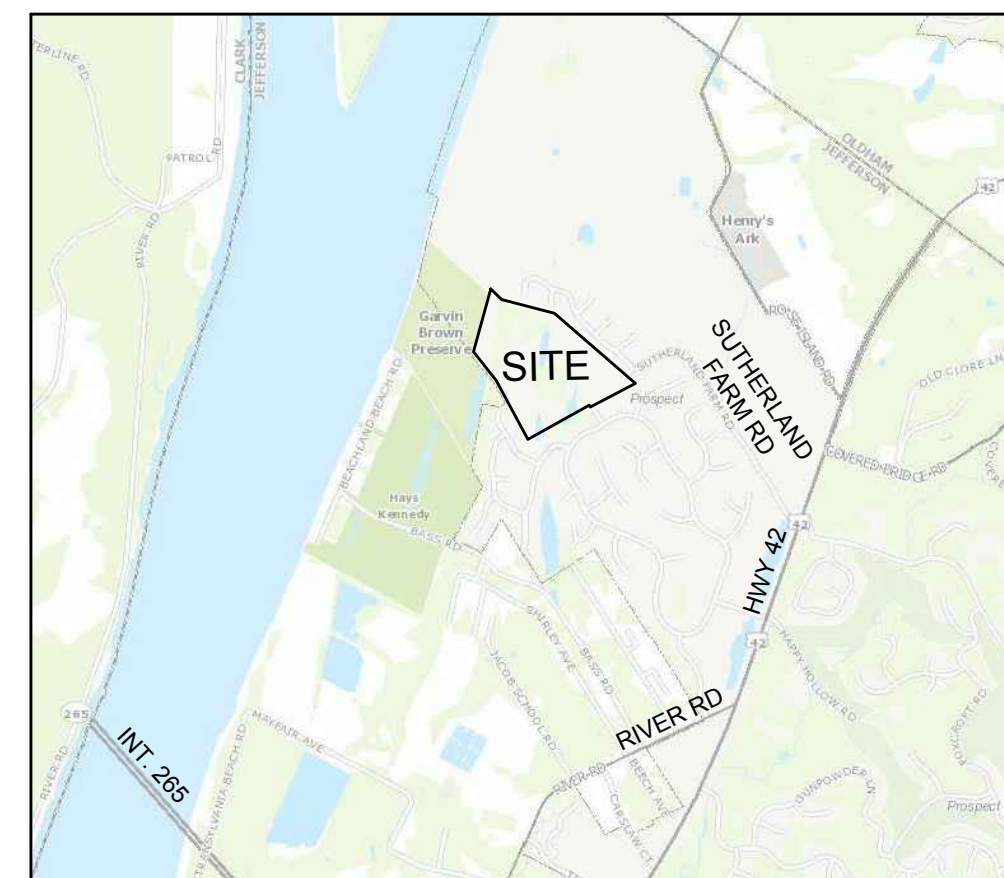
SEDIMENT-LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING, OR OTHER EXCAVATION ACTIVITIES SHALL BE PUMPED TO A SEDIMENT TRAPPING DEVICE PRIOR TO BEING DISCHARGED INTO A STREAM, POND, SWALE, OR CATCH BASIN.

EROSION PREVENTION PLAN

ALL STORM WATER RUNOFF FROM DISTURBED AREAS WILL BE DIRECTED TO DITCH CHECKS OR SILT FENCE PERIMETER CONTROLS UNTIL STORM SEWERS ARE INSTALLED. AFTER STORM SEWER INSTALLATION, ALL STORM INLETS SHALL BE PROTECTED WITH STONE BAGS, SILT SACKS OR OTHER MSD APPROVED INLET CONTROLS. SILT FENCE SHALL BE UTILIZED AS PERIMETER CONTROLS AROUND SENSITIVE AREAS DURING CONSTRUCTION. SMALL WATERSHED AREAS MAY BE PROTECTED WITH SILT FENCE AND/OR DITCH CHECKS BASED ON FINAL GRADING.

UTILITY NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. INDIVIDUAL SERVICE LINES ARE NOT SHOWN. THE CONTRACTOR OR SUBCONTRACTOR SHALL NOTIFY THE UTILITY PROTECTION CENTER "B.U.D." (TOLL FREE PHONE NO. 1-800-752-6007) FORTY-EIGHT HOURS IN ADVANCE OF ANY CONSTRUCTION ON THIS PROJECT. THIS NUMBER WAS ESTABLISHED TO PROVIDE ACCURATE LOCATIONS OF EXISTING BELOW GROUND UTILITIES I.E. CABLES, ELECTRIC WIRES, GAS, AND WATERLINES. WHEN CONTACTING THE "B.U.D." CALL CENTER, PLEASE STATE THAT THE WORK TO BE DONE IS FOR A PROPOSED M.S.D. SEWER OR DRAINAGE FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BECOMING FAMILIAR WITH ALL UTILITY REQUIREMENTS SET FORTH ON THE PLANS, IN THE TECHNICAL SPECIFICATIONS, AND SPECIAL PROVISIONS.

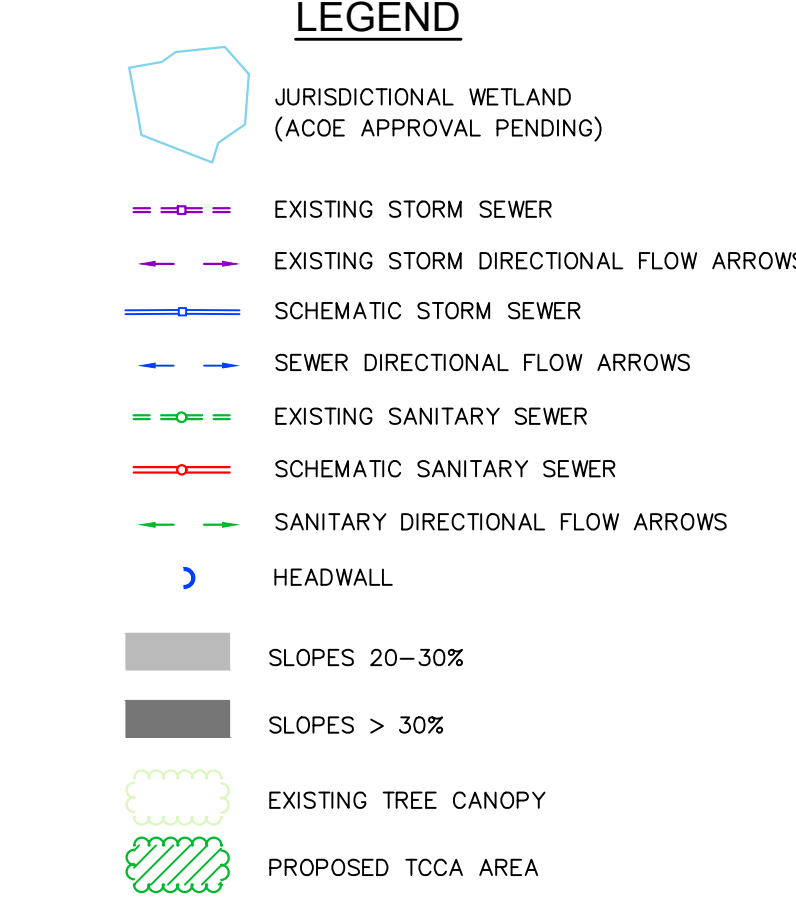


SITE DATA table with columns for FORM DISTRICT, ZONING, EXISTING USE, PROPOSED USE, GROSS SITE AREA, AREA IN R.O.W., NET SITE AREA, BUILDABLE LOTS, OPEN SPACE LOTS, GROSS DENSITY, NET DENSITY, and OPEN SPACE AREA.

TREE CANOPY CALCULATIONS table with columns for GROSS SITE AREA*, EXISTING TREE CANOPY, TREE CANOPY TO BE PRESERVED, TOTAL TREE CANOPY REQUIRED, and ADDITIONAL TREE CANOPY REQUIRED.

*ALL LOTS ARE DEVELOPED TO R4 STANDARDS.

- BENCH MARKS (1988 NAVD)
B.M. #1 ELEVATION 461.94' (NAVD 1988), BM #1 IS A 3/8" REBAR WITH A RED CAP STAMPED "SWL CONTROL" LOCATED AT THE NORTHWEST END OF THE PROPERTY AND APPROXIMATELY 27' NORTHEAST OF AN ASPHALT HORSESHOE DRIVEWAY.
B.M. #2 ELEVATION 461.68' (NAVD 1988), BM #2 IS A 3/8" REBAR WITH A RED CAP STAMPED "SWL CONTROL" LOCATED AT THE SOUTHEAST END OF THE PROPERTY AND APPROXIMATELY 82' NORTH OF A UTILITY LEG.



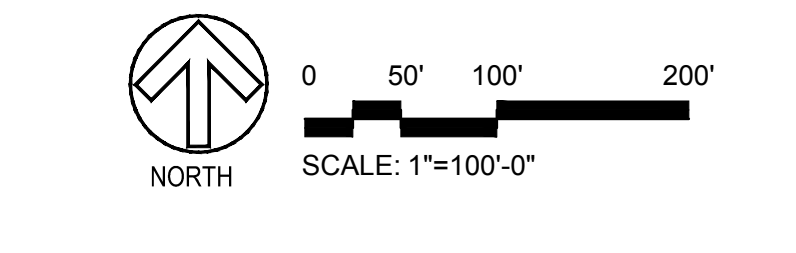
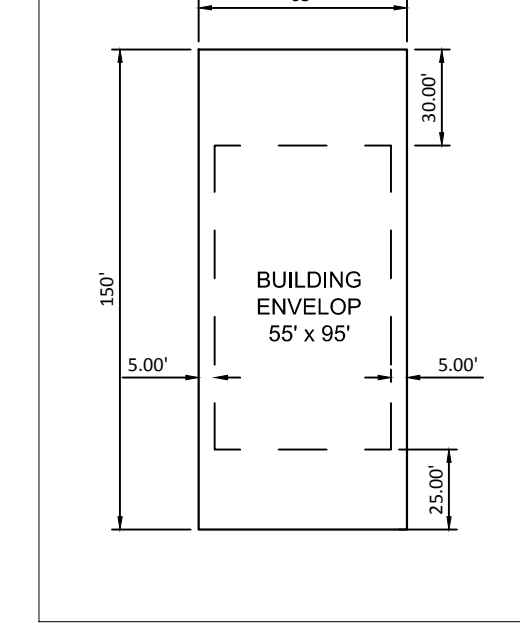
EXISTING TREE CANOPY ZONES
TREE CANOPY ZONES SHOWN ON THIS PLAN REPRESENT AREAS OF THE SITE WHERE EFFORTS WILL BE MADE TO PRESERVE AS MANY TREES AS POSSIBLE. DUE TO UNKNOWN MSD REQUIREMENTS, THESE AREAS ARE NOT BEING COUNTED AS TCCA AT THIS TIME, BUT MAY BE COUNTED AS TCCA AT THE TIME OF TREE PRESERVATION PLAN APPROVAL.

CASE # 19SUBDIV1001
WM # 11927
TAX BLOCK 2617

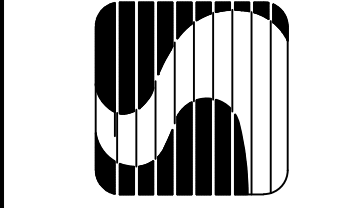
OWNER:
MARJORIE M. MCCALL
7800 SUTHERLAND FARM RD
PROSPECT, KY 40059-9204
D.B. 6568, PG. 236
WB. 700, PG. 587

DEVELOPER
THE BREAKERS AT PROSPECT LLC
5946 TIMBER RIDGE DRIVE
PROSPECT, KY 40059

LOT STANDARDS (typical) table with columns for EX. ZONING, MIN. LOT SIZE, MIN. LOT WIDTH, MIN. FRONT YARD, MIN. SIDE YARD, and MIN. REAR YARD.

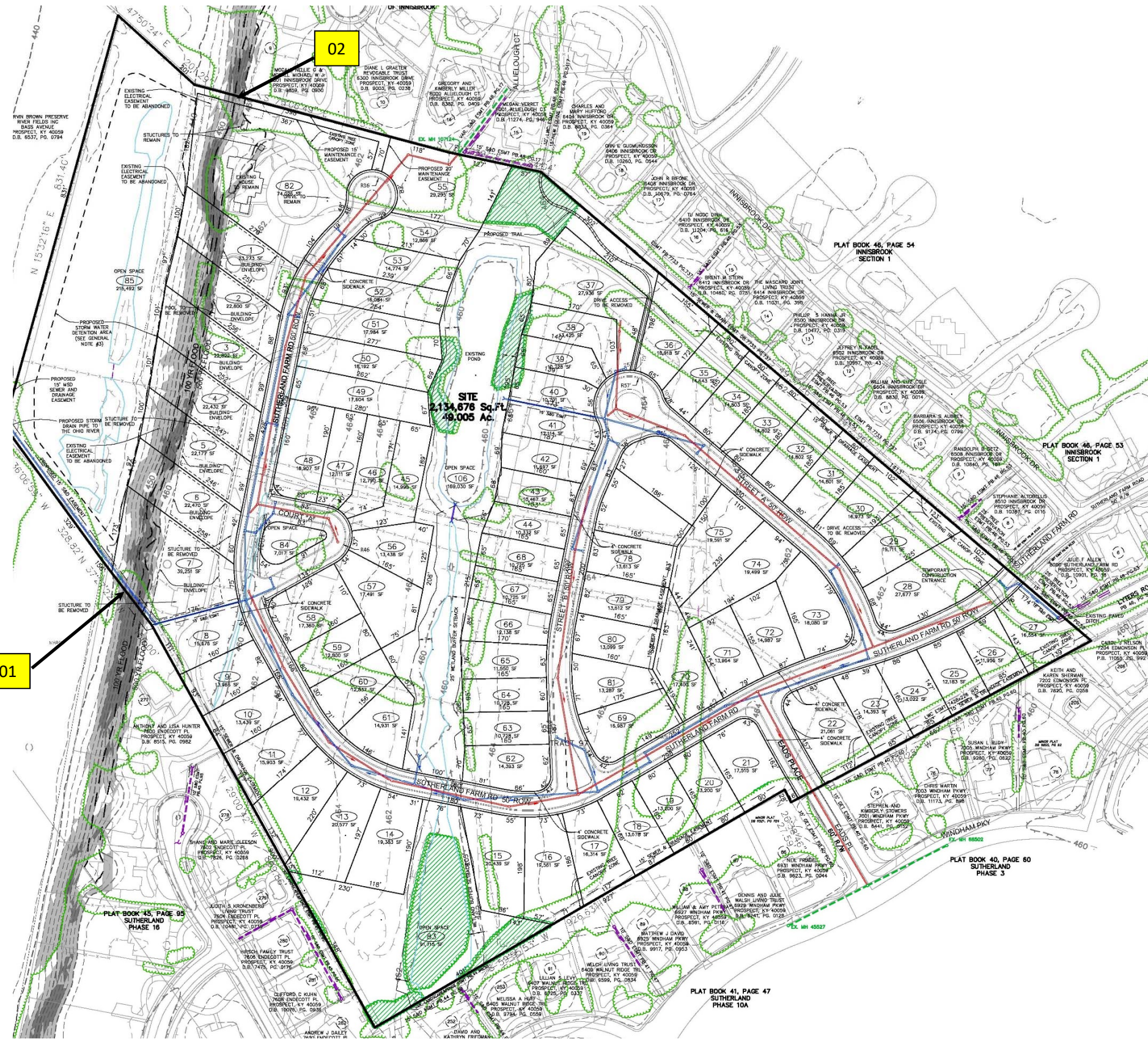


SA BAK, WILSON & LINGO, INC
ENGINEERS, LANDSCAPE ARCHITECTS & PLANNERS
LOUISVILLE, KENTUCKY 40202
608 S. THIRD STREET,
THE HENRY CLAY



Revision table with columns for NO., REVISION, DATE, and REV. COMMENT.

MAJOR PRELIMINARY SUBDIVISION PLAN
PROJECT TITLE: THE BREAKERS AT PROSPECT, LLC
7800 SUTHERLAND FARM RD
PROSPECT, KY 40059
SHEET TITLE:
JOB NO. 3146
SCALE: 1"=100'
DATE: 02/11/19
DRAWING NO.
SHEET 1 OF 1



NOTE: Locations are approximate and drawing not scaled.

Based on "Major Preliminary Subdivision Plan: The Breakers at Prospect, LLC, 7800 Sutherland Farm Road, Prospect, KY 40059" prepared by Sabak, Wilson and Lingo, Inc. and dated 03/18/2019.

Visual Slope Reconnaissance Plan
 The Breakers at Prospect Subdivision – Preliminary Slope Evaluation
 7800 Sutherland Farm Road
 Prospect, Kentucky 40059
 ECS Project No. 61-2000



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