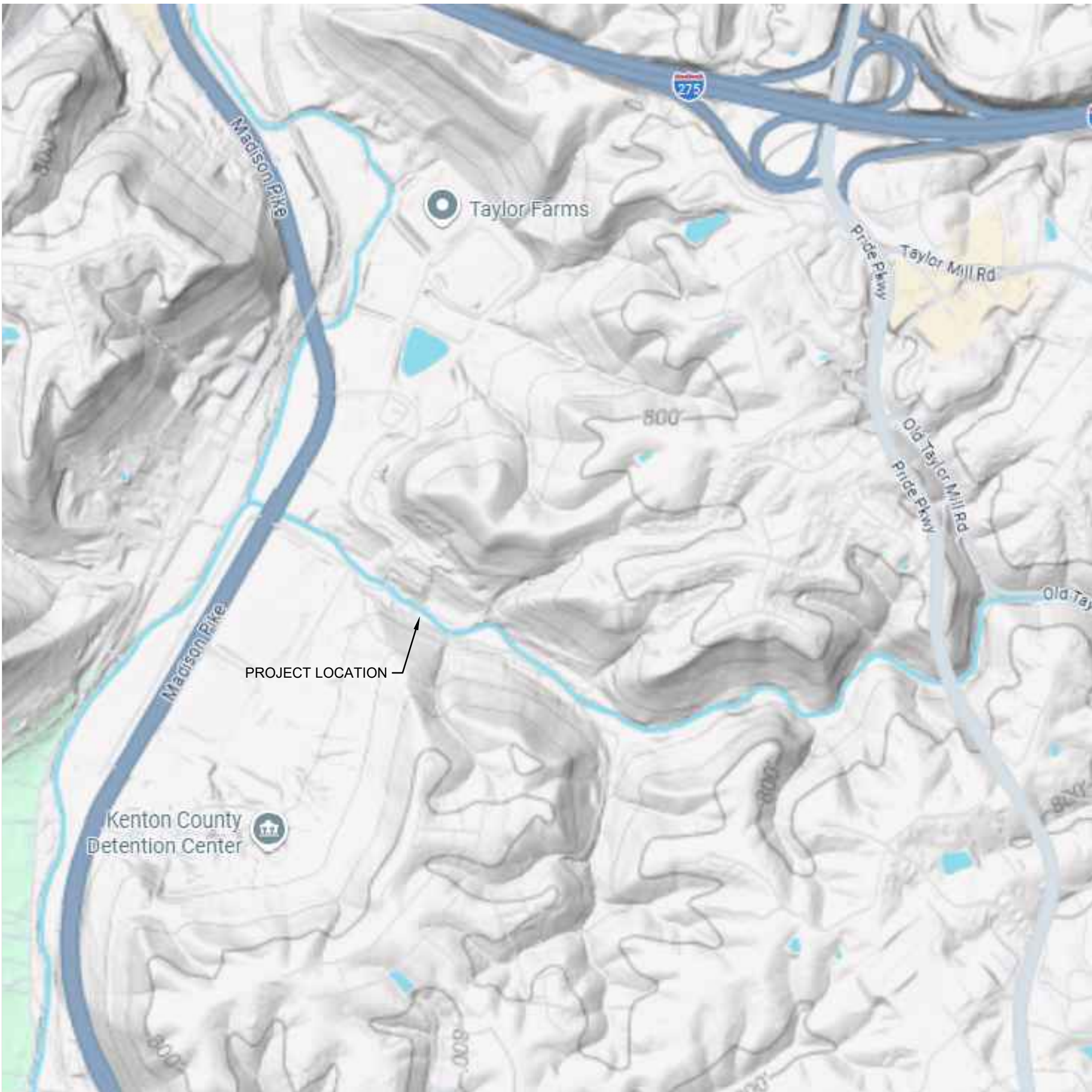


DRILLED SHAFT WALL HOLDS BRANCH ROAD BANK STABILIZATION TAYLOR MILL, KENTUCKY



VICINITY MAP

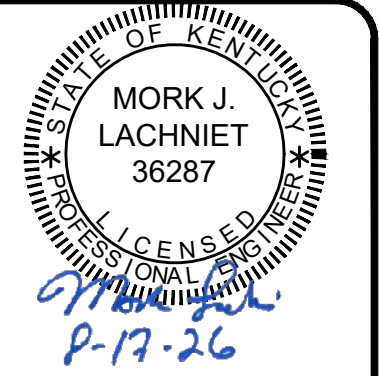
K.T.C SPECIFICATIONS

THE LATEST STANDARD SPECIFICATIONS OF THE KENTUCKY TRANSPORTATION CABINET, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS THERETO AND CITY OF TAYLOR MILL ENGINEERING DEPARTMENT REQUIREMENTS SHALL GOVERN THIS IMPROVEMENT.

SHEET INDEX	
SHEET NO.	SHEET TITLE
101	TITLE SHEET & VICINITY MAP
102	PLAN & SCHEDULES
103	PROFILE
104	DETAILS & GENERAL NOTES
105	BORING LOGS

PROJECT DESCRIPTION

THIS IS TO PROVIDE SLOPE AND ROADWAY STABILITY TO A PORTION OF HOLDS BRANCH ROAD IN TAYLOR MILL KENTUCKY. SLOPE STABILITY WILL CONSIST OF INSTALLING CONCRETE REINFORCED PILES AND NON-REINFORCED PLUG PILES. INCLUDED IN THE PROJECT IS REMOVAL AND INSTALLATION OF GUARDRAIL, MINOR GRADING AND IF NEEDED PAVEMENT REPAIRS.



ISSUE DATE:	07/01/2026
SCALE:	1" = 20'
DESIGNED BY:	ADN
DRAWN BY:	AJAC
CHECKED BY:	MLAC

HOLDS BRANCH RD. LANDSLIDE
CITY TAYLOR MILL
KENTON COUNTY, KENTUCKY

TITLE

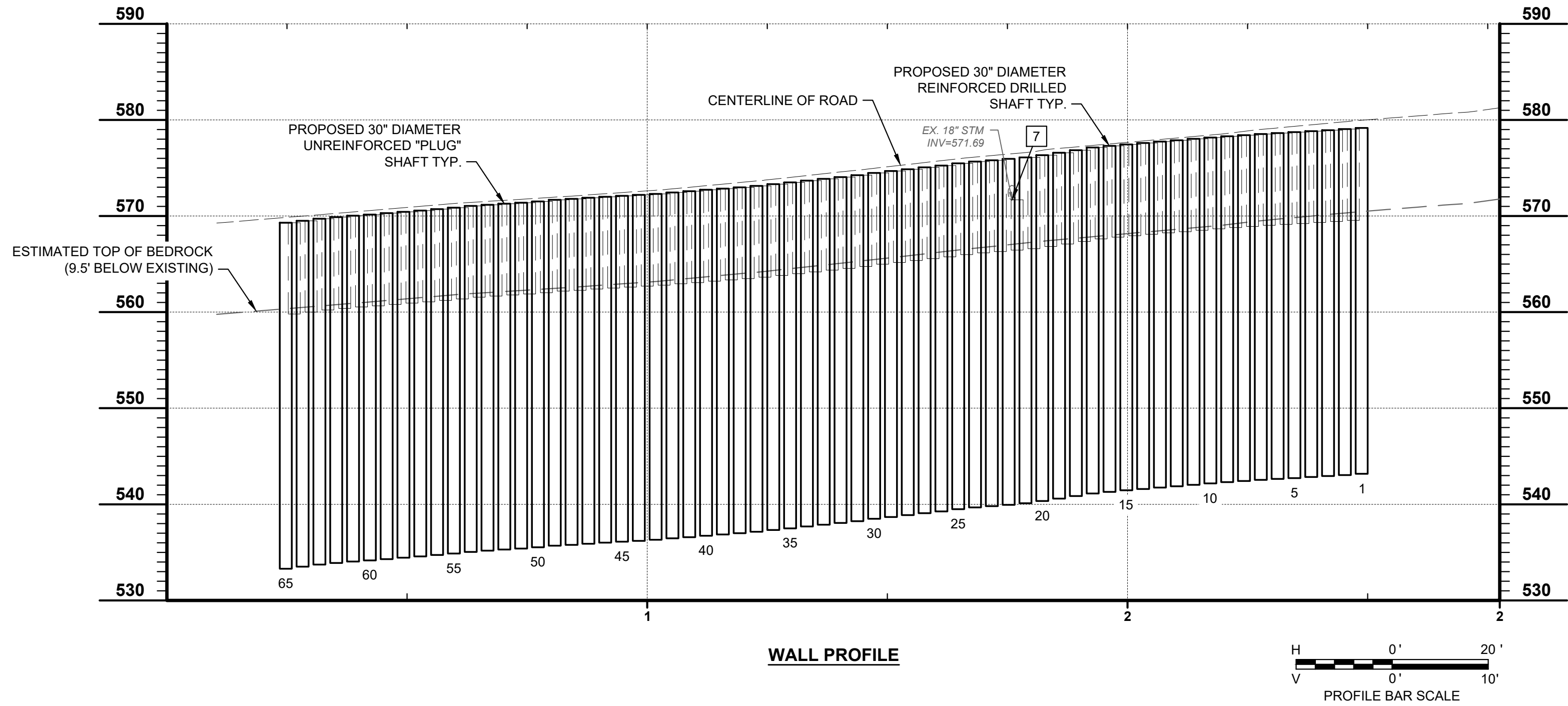
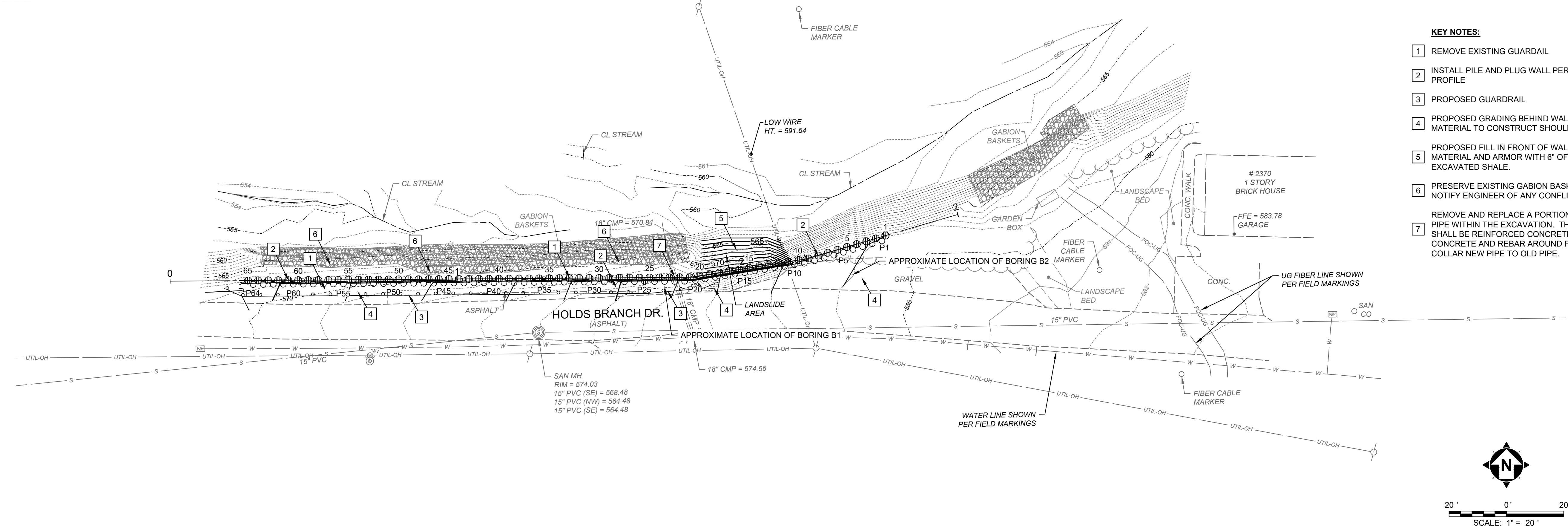
PROJECT NO.	
45513	
DISCIPLINE	
CIVIL	
SHEET NAME	
TTL	
	OF
1	6



- KEY NOTES:**
- 1 REMOVE EXISTING GUARDRAIL
 - 2 INSTALL PILE AND PLUG WALL PER DETAILS AND PROFILE
 - 3 PROPOSED GUARDRAIL
 - 4 PROPOSED GRADING BEHIND WALL; USE GOOD MATERIAL TO CONSTRUCT SHOULDER AND SLOPE.
 - 5 PROPOSED FILL IN FRONT OF WALL; USE GOOD MATERIAL AND ARMOR WITH 6" OF ROCK OR EXCAVATED SHALE.
 - 6 PRESERVE EXISTING GABION BASKET ARMORING. NOTIFY ENGINEER OF ANY CONFLICTS.
 - 7 REMOVE AND REPLACE A PORTION OF THE 18" PIPE WITHIN THE EXCAVATION. THE NEW PIPE SHALL BE REINFORCED CONCRETE PIPE. FORM CONCRETE AND REBAR AROUND PIPE. CONCRETE COLLAR NEW PIPE TO OLD PIPE.



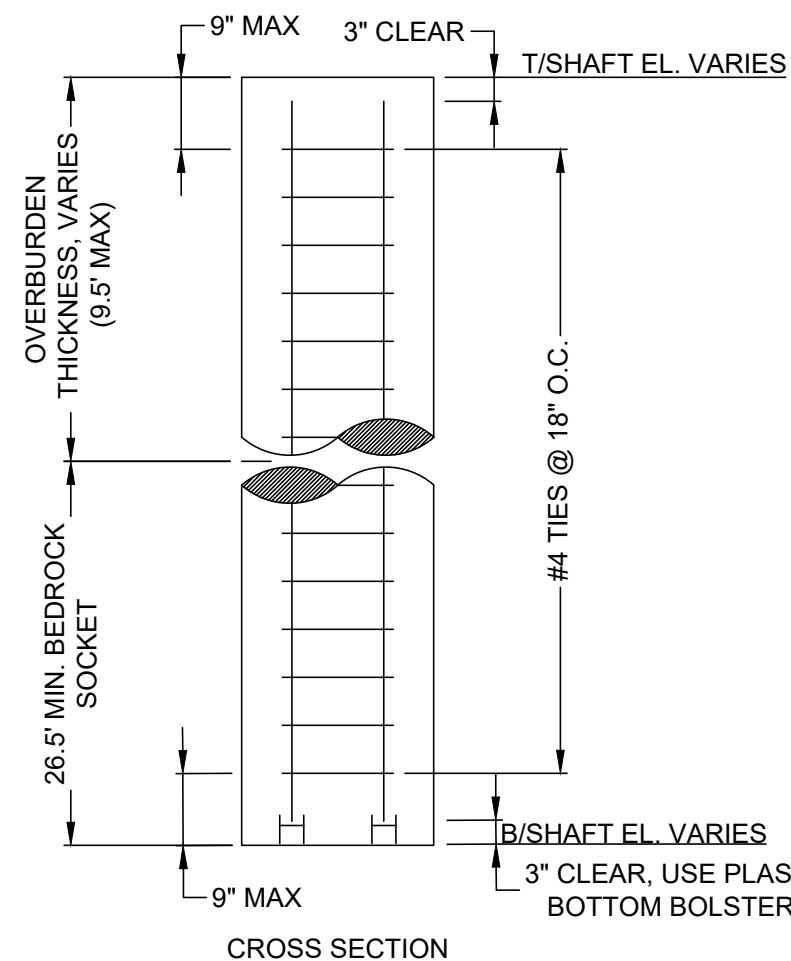
verdantas



HOLDS BRANCH RD. LANDSLIDE
CITY TAYLOR MILL
KENTON COUNTY, KENTUCKY

PLAN AND PROFILE

PROJECT NO.	
45513	
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SHEET NAME	
PLAN	
OF	
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A



- 1.) THE FINAL AREAS TO BE REPAIRED UNDER THIS ITEM WILL BE DESIGNATED IN THE FIELD BY THE ENGINEER AND THE QUANTITY OF WORK TO BE COVERED UNDER THIS ITEM WILL BE BASED UPON MEASUREMENT OF THESE DESIGNATED AREAS.

ITEM 253 - PAVEMENT REPAIR
NTS



- 1.) THE FINAL AREAS TO BE REPAIRED UNDER THIS ITEM WILL BE DESIGNATED IN THE FIELD BY THE ENGINEER AND THE QUANTITY OF WORK TO BE COVERED UNDER THIS ITEM WILL BE BASED UPON MEASUREMENT OF THESE DESIGNATED AREAS.

ITEM 204 - PAVEMENT REPAIR WITH GEOGRID
NTS

- ① ITEM 207 - COMPACTED SUBGRADE
- ② ITEM 403 - 8" ASPHALT BASE (2" - 4" LIFTS)
- ③ ITEM 206 - 12" GRANULATED EMBANKMENT TYPE B (2" - 6" LIFTS)
- ④ ITEM 304 - BIAXIAL GEOGRID

3. NO DEVIATION FROM THESE SPECIFICATIONS OR ATTACHED DRAWINGS WILL BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. THE ENGINEER, THE ENGINEER IS TO BE THE FINAL JUDGE AS TO INTERPRETATION OF SPECIFICATIONS. WHENEVER THE WORD "OWNER" IS USED HEREIN, IT SHALL MEAN CITY OF TAYLOR MILL; AND WHEREVER THE WORD "ENGINEER" IS USED HEREIN, IT SHALL MEAN VERDANTAS, LLC.
2. SPECIAL PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO AVOID DAMAGE TO EXISTING UTILITIES PUBLIC OR PRIVATE, AND TO MAINTAIN SAFE WORKING CLEARANCES FOR THE SAFETY OF WORKERS IN ACCORDANCE WITH OSHA REGULATIONS AND THE UTILITY COMPANY. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND LICENSES FOR THE WORK TO BE PERFORMED, SHALL SET UP ALL NECESSARY INSPECTIONS BY THE SAME AND COORDINATE WITH THE ENGINEER. BEFORE PROCEEDING WITH THE WORK, THE CONTRACTOR SHALL CONFER WITH THE KENTUCKY 811 (1-800-752-6607), AND ANY NON-PARTICIPATING (NOT IN KENTUCKY 811) UTILITY COMPANIES. THESE AGENCIES SHOULD STAKE OR PAINT KNOWN UTILITY LOCATIONS IN THE CONSTRUCTION AREA. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL UTILITY LOCATION MARKS DURING THE ENTIRE PROJECT. NOTATIONS AS TO THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND SHALL NOT BE RELIED UPON. THE CITY IS WORKING WITH DUKE ENERGY TO HAVE THE OVERHEAD ELECTRIC LINES RELOCATED PRIOR TO CONSTRUCTION
3. THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO COMPLY WITH STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL CONTROL WASTE, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY ACTIONS OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER DISPOSAL AND MANAGEMENT OF ALL WASTES AND UNUSED BUILDING MATERIAL, APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL, IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS. IMMEDIATELY FOLLOWING CONSTRUCTION AND GRADING, PERMANENTLY STABILIZE EACH DISTURBED AREA ACCORDING TO THE SPECIFICATIONS. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF WITHIN THIRTY DAYS AFTER VEGETATION IS ESTABLISHED AND FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION. IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE EROSION AND SEDIMENTATION CONTROLS DURING THE SUSPENSION AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND OBSERVING THE FIELD CONDITIONS SO THAT THEY MAY COME TO THEIR OWN CONCLUSIONS WITH RESPECT TO CONSTRUCTION PRACTICES NEEDED TO COMPLETE THE WORK AS SPECIFIED.
5. ALL DRILLED SHAFTS ARE TO BE REVIEWED BY THE ENGINEER OR HIS REPRESENTATIVE DURING DRILLING OF THE SHAFTS, AND PRIOR TO SETTING THE REINFORCING STEEL AND PLACING THE CONCRETE. THESE SERVICES SHALL BE COORDINATED BY THE CONTRACTOR AND SHALL BE THE RESPONSIBILITY OF THE OWNER.
6. ALL DRILLED SHAFTS ARE TO BE EXCAVATED RELATIVELY PLUMB AND THE BOTTOMS SHALL BE RELATIVELY LEVEL AND FREE OF ALL LOOSE MATERIAL PRIOR TO PLACING TO CONCRETE. CONCRETE SHALL BE DIRECTED THROUGH THE CENTER OF THE STEEL REINFORCING CAGES WITH A PIPE OF CHUTE SO AS TO NOT STRIKE THE CAGES DURING FREEFALL. THE CONTRACTOR SHALL MECHANICALLY VIBRATE THE TOP 6 FEET OF THE CONCRETE WITHIN THE SHAFTS.
7. THE CONCRETE FOR THE DRILLED SHAFTS SHALL REACH A COMPRESSIVE STRENGTH OF AT LEAST 4500 PSI IN 28 DAYS, SHALL CONTAIN 1.0 INCH MAXIMUM SIZE AGGREGATE, 4 TO 6 PERCENT ENTRAINED AIR AND BE PLACED AT A SLUMP NOT EXCEEDING 5 INCHES. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES WITHIN ACI 301, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE," AND, WHEN NECESSARY, IMPLEMENT PRACTICES OUTLINED WITHIN ACI 305, "HOT WEATHER CONCRETING", OR ACI 306, "COLD WEATHER CONCRETING."
8. CONCRETE SHALL NOT BE PLACED THROUGH MORE THAN 4 INCHES OF STANDING WATER THAT MAY ACCUMULATE AT THE BOTTOM OF ANY DRILLED SHAFT EXCAVATION. CONCRETE PLACEMENT FOR ANY GIVEN DRILLED SHAFT SHALL BE CONTINUOUS. IF CASING IS REQUIRED DURING THE DRILLED SHAFT EXCAVATIONS, THE TEMPORARY CASING SHALL BE EXTRACTED AT SUCH A RATE AND IN SUCH A MANNER THAT THE OVERBURDEN SOILS DO NOT CAVE INTO THE SHAFT DURING CONCRETE PLACEMENT AND THAT POCKETS OF AIR AND SOIL ARE NOT INTRODUCED INTO THE CONCRETE.
9. ALL REINFORCING STEEL BARS FOR THE REINFORCED DRILLED SHAFTS SHALL COMPLY WITH ASTM A615 AND HAVE MINIMUM YIELD STRENGTH OF 60,000 PSI (60 KSI). THE STEEL SHALL BE FITTED WITH CHAIRS AND SPACERS TO PROVIDE PROPER BOTTOM AND SIDE CLEARANCES
10. STAKING OF THE DRILLED SHAFT WALL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. SPOILS FROM THE DRILLED SHAFT EXCAVATIONS SHALL BE SPREAD AND COMPACTED ALONG THE UPSLOPE SIDE OF THE DRILLED SHAFTS TO BACKFILL UP TO THE TOP OF SHAFTS. NO FILL SHALL BE PLACED DOWNSLOPE OF THE DRILLED SHAFTS. THE FILL SOILS SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). THE TOP 12 INCHES OF FILL WITHIN THE ROADWAY SHALL BE DENSE GRADED AGGREGATE (DGA) COMPACTED TO AT LEAST 98 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). EXCESS SPOILS SHALL BE HAULED OFF SITE. DISTURBED AREAS OUTSIDE THE AREA OF DGA SHALL BE SEEDED, STRAWED AND COVERED WITH ADEQUATELY PINNED NETTING FOLLOWING WALL INSTALLATION AND FINAL GRADING.
12. VERDANTAS, LLC HAS DESIGNED THE DRILLED SHAFTS TO WITHSTAND LATERAL LOADS AND ASSUMES NO RESPONSIBILITY FOR, BUT NOT LIMITED TO THE FOLLOWING ITEMS:
 - A. LOCATION AND PROTECTION OF EXISTING UTILITIES, SEWERS, ETC.
 - B. PROTECTION OF THE PROPERTY DOWNSLOPE FROM THE DRILLED SHAFT RETAINING WALL, OR THE PROPERTY PAST EITHER END OF THE DRILLED SHAFT RETAINING WALLS.
 - C. COORDINATION AND VERIFICATION OF DIMENSIONS AND DETAILS WITH ON-SITE CONDITIONS.
 - D. CONDITIONS OF THE JOB SITE INCLUDING THE SAFETY OF PERSONS AND PROPERTY DURING CONSTRUCTION.
 - E. TRAFFIC CONTROL.
13. PROVIDE CYLINDRICAL FIBERBOARD OR OTHER SUITABLE TEMPORARY FORMS AS/IF NECESSARY FOR UPPER ABOVE-GRADE PORTIONS OF PIERS.



ISSUE DATE:	07/01/2026			
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HOLDS BRANCH RD. LANDSLIDE
CITY TAYLOR MILL
KENTON COUNTY, KENTUCKY

DETAILS AND GENERAL NOTES

PROJECT NO.	
45513	
DISCIPLINE	
CIVIL	
SHEET NAME	
DET	
	OF
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Verdantas LLC
4420 Cooper Road
Cincinnati, Ohio 45242

BORING NUMBER B-2
PAGE 1 OF 1

CLIENT City of Taylor Mill

PROJECT NUMBER 45513

DRILLING CONTRACTOR JES C Lake

DRILLING METHOD 3-1/4 in. HSA

DATE STARTED 4/27/26 COMPLETED 4/27/26

LOGGED BY ASD CHECKED BY ASD

NOTES _____

PROJECT NAME Holds Branch Road Stabilization

PROJECT LOCATION Taylor Mill, Kentucky

RIG NO. TD-5 GROUND ELEVATION 579 ft

GROUND WATER LEVELS:

AT TIME OF DRILLING --

AT END OF DRILLING --

--hrs AFTER DRILLING --

ELEVATION (ft)	DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUES)	UNCONF. COMP. STR. (pcf)	DRY UNIT WT. (pcf)	PL 20	MC 40	LL 60	SH 80
	0.0		AGGREGATE BASE - 9 inches									
				0.8'								
577.5			Moist Medium Stiff to Stiff Brown SANDY FAT CLAY with gravel.									
	2.5											
575.0				SS 1	50	5-9-7 (16)	1.00		▲			
	5.0											
572.5				SS 2	94	6-17-22 (39)	0.75			▲		
	7.5		Very Moist Soft Brown FAT CLAY with sand, trace limestone fragments.	7.0'								
				8.5'								
570.0			Moist Medium Stiff Brown Lean Clay with sand, with relict bedding planes and trace shale fragments.		89	0-1-4 (5)	0.25		▲			
	10.0		Moist Extremely Weak Olive Brown HIGHLY WEATHERED SHALE.	9.5'			0.75					
				10.9'								
567.5			Moist Extremely Weak Gray SHALE.		100	37-41-50 (91)						▲
			Bottom of hole at 11.5 feet.	11.5'								

DOT GEOTECH. STANDARD 45513.GPJ (BNT) US L&B GDT 5/26/26

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KENTON COUNTY, KENTUCKY