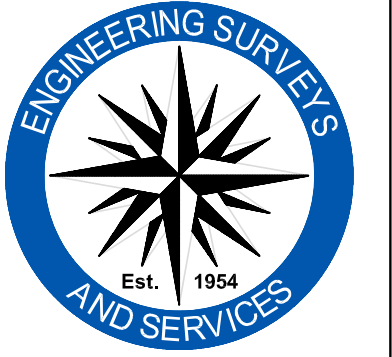


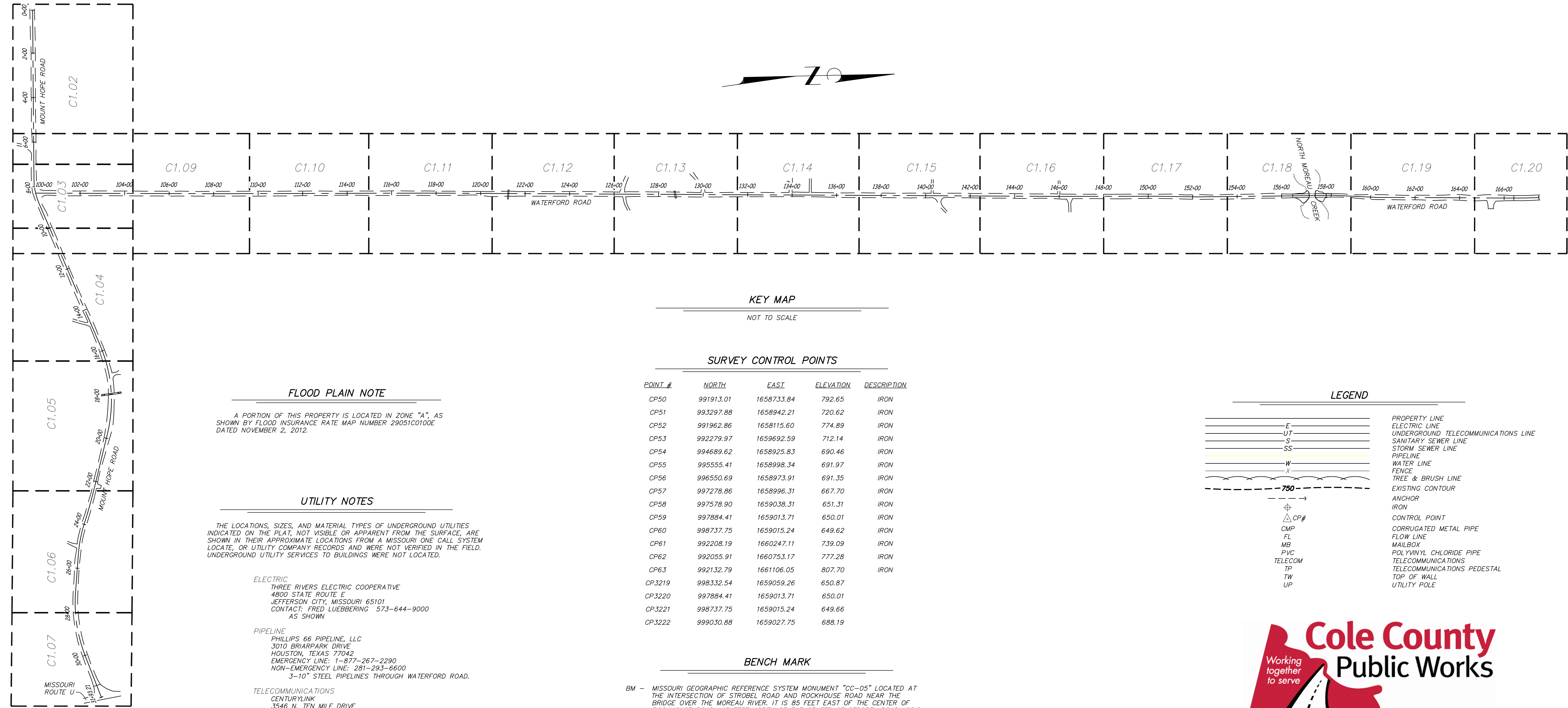
WATERFORD - MOUNT HOPE ROADWAY IMPROVEMENTS

COLE COUNTY, MISSOURI
PROJECT NO.
2017-901-1 & 2017-902-1



Engineering Surveys and Services
Consulting Engineers, Scientists, and Land Surveyors
Analytical and Material Laboratories
802 El Dorado Drive, Jefferson City, Missouri 65101
314-406-2300 - www.ESS-INC.com
Other Offices:
Columbia, Missouri - Scalia, Missouri
Missouri Land Surveying Corporation # 2004004672

WATERFORD AND MOUNT HOPE
ROADWAY IMPROVEMENTS
COLE COUNTY, MISSOURI



KEY MAP

NOT TO SCALE

SURVEY CONTROL POINTS

POINT #	NORTH	EAST	ELEVATION	DESCRIPTION
CP50	991913.01	1658733.84	792.65	IRON
CP51	993297.88	1658942.21	720.62	IRON
CP52	991962.86	1658115.60	774.89	IRON
CP53	992279.97	1659692.59	712.14	IRON
CP54	994689.62	1658925.83	690.46	IRON
CP55	995555.41	1658998.34	691.97	IRON
CP56	996550.69	1658973.91	691.35	IRON
CP57	997278.86	1658996.31	667.70	IRON
CP58	997578.90	1659038.31	651.31	IRON
CP59	997884.41	1659013.71	650.01	IRON
CP60	998737.75	1659015.24	649.62	IRON
CP61	992208.19	1660247.11	739.09	IRON
CP62	992055.91	1660753.17	777.28	IRON
CP63	992132.79	1661106.05	807.70	IRON
CP3219	998332.54	1659059.26	650.87	
CP3220	997884.41	1659013.71	650.01	
CP3221	998737.75	1659015.24	649.66	
CP3222	999030.88	1659027.75	688.19	

BENCH MARK

- BM - MISSOURI GEOGRAPHIC REFERENCE SYSTEM MONUMENT "CG-05" LOCATED AT THE INTERSECTION OF STROBEL ROAD AND ROCKHOUSE ROAD NEAR THE BRIDGE OVER THE MOREAU RIVER. IT IS 85 FEET EAST OF THE CENTER OF ROCKHOUSE ROAD; 45 FEET NORTH OF THE CENTER OF STROBEL ROAD; 23.8 FEET SOUTHEAST OF A NAIL IN A 12 INCH BLACK OAK; 9.9 FEET SOUTHWEST OF A 10 INCH CEDAR; 35.5 FEET SOUTHWEST OF A 18 INCH WHITE OAK AND 2 FEET SOUTH OF A CARSONITE WITNESS POST.
ELEVATION = 708.66
- BM - MISSOURI GEOGRAPHIC REFERENCE SYSTEM MONUMENT "CG-04" LOCATED ABOUT 1 MILE SOUTHWEST OF CENTERTOWN. IS IN A PASTURE FIELD AT #762 WATERFORD ROAD; 8.5 FEET EAST OF A NORTH-SOUTH FENCE AND 28 FEET NORTHEAST OF A CARSONITE WITNESS POST AT A GATEPOST.
ELEVATION = 841.53
- BM - MISSOURI GEOGRAPHIC REFERENCE SYSTEM MONUMENT "CG-27" LOCATED ABOUT 4 MILES NORTH OF RUSSELLVILLE. IT IS ACROSS FROM #1534 ROUTE U; 24.5 FEET SOUTHEAST OF THE CENTER OF ROUTE U; 16.2 FEET SOUTHWEST OF A NAIL AND SHINER IN A POWER POLE; 59.8 FEET NORTH OF A NAIL AND SHINER IN A TIE POST AND 6 FEET NORTHWEST OF A CARSONITE WITNESS POST IN THE FENCE.
ELEVATION = 766.07

NOTE:
ACCURATE ELEVATIONS HAVE BEEN SURVEYED AS SHOWN. CONTOURS SHOWN ARE INTERPOLATED BASED ON THESE ELEVATIONS.

FLOOD PLAIN NOTE

A PORTION OF THIS PROPERTY IS LOCATED IN ZONE "A", AS SHOWN BY FLOOD INSURANCE RATE MAP NUMBER 29051C0100E DATED NOVEMBER 2, 2012.

UTILITY NOTES

THE LOCATIONS, SIZES, AND MATERIAL TYPES OF UNDERGROUND UTILITIES INDICATED ON THE PLAT, NOT VISIBLE OR APPARENT FROM THE SURFACE, ARE SHOWN IN THEIR APPROXIMATE LOCATIONS FROM A MISSOURI ONE CALL SYSTEM LOCATE, OR UTILITY COMPANY RECORDS AND WERE NOT VERIFIED IN THE FIELD. UNDERGROUND UTILITY SERVICES TO BUILDINGS WERE NOT LOCATED.

ELECTRIC
THREE RIVERS ELECTRIC COOPERATIVE
4800 STATE ROUTE E
JEFFERSON CITY, MISSOURI 65101
CONTACT: FRED LUEBBERING 573-644-9000
AS SHOWN

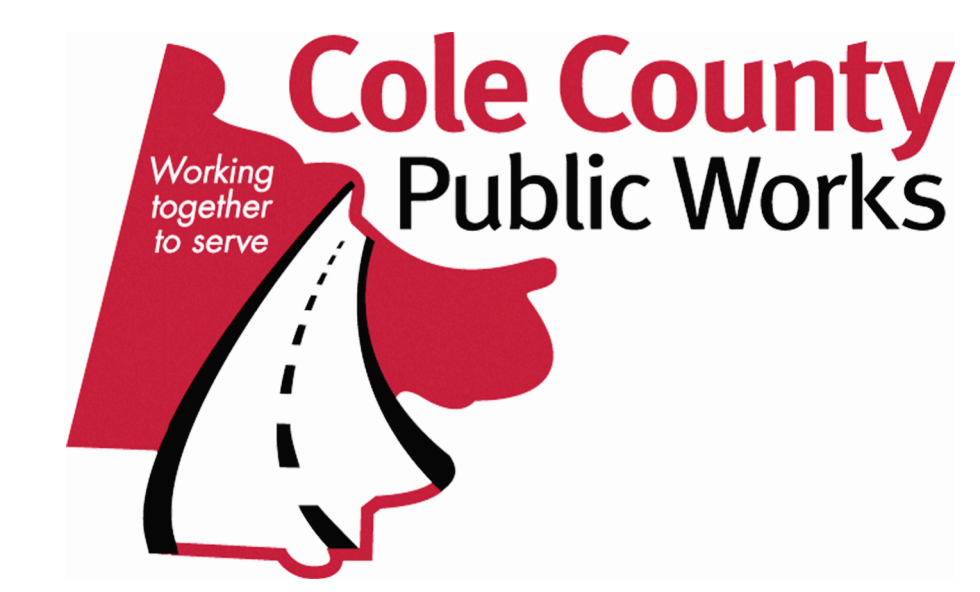
PIPELINE
PHILLIPS 66 PIPELINE, LLC
3010 BRIARPARK DRIVE
HOUSTON, TEXAS 77042
EMERGENCY LINE: 1-877-267-2290
NON-EMERGENCY LINE: 281-293-6600
3-10" STEEL PIPELINES THROUGH WATERFORD ROAD.

TELECOMMUNICATIONS
CENTURYLINK
3546 N. TEN MILE DRIVE
JEFFERSON CITY, MISSOURI 65101
CONTACT: ALAN GRONER 573-681-2503
AS SHOWN

MoDOT
MoDOT - DISTRICT 5
P.O. BOX 718, 1511 MISSOURI BLVD.
JEFFERSON CITY, MISSOURI 65102
CONTACT: MIKE SCHUPP 660-882-3197
AS SHOWN

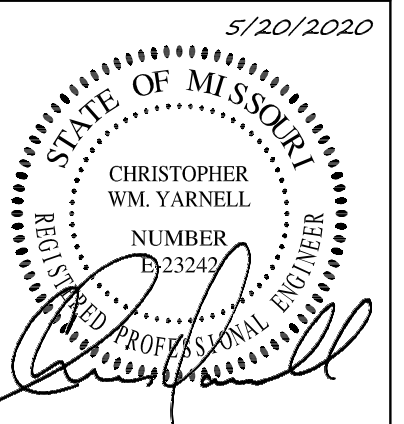
LEGEND

---	PROPERTY LINE
---	ELECTRIC LINE
---	UNDERGROUND TELECOMMUNICATIONS LINE
---	SANITARY SEWER LINE
---	STORM SEWER LINE
---	PIPELINE
---	WATER LINE
---	FENCE
---	TREE & BRUSH LINE
---	EXISTING CONTOUR
---	ANCHOR
---	IRON
△ CP#	CONTROL POINT
OMP	CORRUGATED METAL PIPE
FL	FLOW LINE
MB	MAILBOX
PVC	POLYVINYL CHLORIDE PIPE
TELECOM	TELECOMMUNICATIONS
TP	TELECOMMUNICATIONS PEDESTAL
TW	TOP OF WALL
UP	UTILITY POLE



SHEET INDEX

C0.01	COVER
C0.02	GENERAL NOTES
C0.03	TYPICAL SECTIONS
C1.02-C1.20	PLAN AND PROFILE
C2.00-C2.35	CROSS SECTIONS
SS1-SS8	SPECIAL SHEETS



CHRISTOPHER W. YARNELL
REGISTERED PROFESSIONAL ENGINEER E-23242

THIS DOCUMENT WAS INTENDED TO BE DIGITALLY SIGNED. IF SIGNATURE AND VALIDATION ARE NOT PRESENT THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.

Date
MAY 20, 2020

Revised

Surveyed: DH/RE Drawn: DAN

COVER
Sheet
C 0.01

ES&S PROJECT NO. 5813

P:\UPR\MINIST\CURRENT\DRAWINGS\LOCAL COUNTY\2017\150113 SITE PLAN AC IMPR.DWG 5/20/2020

CONSTRUCTION NOTES

- 1. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE VARIOUS UTILITY COMPANIES AND VERIFYING LOCATIONS BEFORE STARTING CONSTRUCTION.
2. CONTRACTOR SHALL UTILIZE TOPSOIL FROM SITE IN LANDSCAPED AREAS WITH ANY EXCESS BEING REMOVED FROM SITE.
3. CONTRACTOR SHALL INSTALL EROSION CONTROL BARRIER AT THE TOE OF SLOPES OF ALL AREAS AFFECTED BY CONSTRUCTION AS SHOWN ON PLANS. EROSION CONTROL BARRIER SHALL REMAIN UNTIL VEGETATION HAS BEEN ESTABLISHED OR LANDSCAPING AND PAVING ARE COMPLETE.
4. IMMEDIATELY UPON COMPLETION OF FINISH GRADING IN EACH AREA, ALL LANDSCAPING AREAS SHALL BE SEEDED AND MULCHED.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MODOOT TO SECURE ALL NECESSARY PERMITS FOR WORK WITHIN RIGHT-OF-WAY.
CONTACT: JOHN KUHLMAN, PERMIT SPECIALIST
MISSOURI DEPARTMENT OF TRANSPORTATION
1511 MISSOURI BOULEVARD
JEFFERSON CITY, MISSOURI 65102
573-522-6806
10. CONTRACTOR SHALL REMOVE ALL STUMPS BY EXCAVATING TO INCLUDE REMOVAL OF ASSOCIATED ROOT SYSTEM.
11. CONTRACTOR WILL REMOVE ALL TRASH, DEBRIS, TREES & BRUSH AND OTHER MATERIAL CREATED AS A RESULT OF THE CONSTRUCTION WORK AND THE SITE WILL BE RETURNED TO ITS ORIGINAL CONDITION.
12. TREE PRESERVATION BARRIER SHALL BE A FENCE CONSTRUCTED USING STEEL POSTS AND ROPE WITH ORANGE COLORED FLAGGING SUFFICIENT TO DELINEATE THE TREE PRESERVATION AREAS, AS SHOWN ON THE PLANS.
13. ALL PERIMETER LANDSCAPED AREAS SHALL BE GRASS COVERED.
17. SUBSTANCES REGULATED BY FEDERAL LAW UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) OR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) WHICH ARE TRANSPORTED, STORED OR USED FOR MAINTENANCE, CLEANING OR REPAIRS SHALL BE MANAGED ACCORDING TO THE PROVISIONS OF RCRA AND CERCLA.
18. ALL PAINTS, SOLVENTS, PETROLEUM PRODUCTS AND PETROLEUM WASTE PRODUCTS (EXCEPT FUELS) AND STORAGE CONTAINERS (SUCH AS DRUMS, CANS OR CARTONS) SHALL BE STORED SUCH THAT THESE MATERIALS ARE NOT EXPOSED TO STORM WATER. SUFFICIENT PRACTICES OF SPILL PREVENTION, CONTROL AND/OR MANAGEMENT SHALL BE PROVIDED TO PREVENT ANY SPILLS OF THESE POLLUTANTS FROM ENTERING A WATER OF THE STATE. ANY CONTAINMENT SYSTEM USED TO IMPLEMENT THIS REQUIREMENT SHALL BE CONSTRUCTED OF MATERIALS COMPATIBLE WITH THE SUBSTANCES CONTAINED AND SHALL ALSO PREVENT THE CONTAMINATION OF GROUNDWATER.
19. THE APPLICANT SHALL NOTIFY BY TELEPHONE AND IN WRITING THE DEPARTMENT OF NATURAL RESOURCES, WATER POLLUTION CONTROL PROGRAM, POST OFFICE BOX 176, JEFFERSON CITY, MO 65102, 1-800-361-4827, OF ANY OIL SPILLS OR IF HAZARDOUS SUBSTANCES ARE FOUND DURING THE PROSECUTION OF WORK UNDER THIS PERMIT.
5. CONTRACTOR SHALL NOT ADVANCE TRENCH EXCAVATION BEYOND AMOUNT THAT CAN ACCOMMODATE PIPE INSTALLATION AND BACKFILLING AT THE END OF EACH DAY.
9. THE OWNER, ENGINEER AND REPRESENTATIVES FROM THE STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES SHALL AT ALL TIMES HAVE ACCESS TO THE PROJECT TO INSPECT THE MATERIALS AND WORK BEING PERFORMED.
10. THESE PLANS COMPLY WITH THE REQUIREMENT OF THE CLEAN WATER REGULATION.
11. TOP ELEVATIONS FOR ACCESS RISERS, MANHOLES, AND CLEANOUTS TO BE CONSTRUCTED ARE APPROXIMATE AND WILL BE ADJUSTED TO MEET EXISTING GRADES.
1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
2. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL IDENTIFIED PROPERTY CORNERS, LAND SURVEY CORNERS, AND ACCESSORIES. THE CONTRACTOR SHALL CAUSE THE CORNERS AND ACCESSORIES TO BE REFERENCED BY A LICENSED LAND SURVEYOR, AND ANY SUCH CORNER OR ACCESSORIES DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE RESET BY THE SURVEYOR AT THE ORIGINAL LOCATION, AND FILE THE RESTORATIONS AND MONUMENT DOCUMENTS AS THE LAW REQUIRES.
4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE COLE COUNTY PUBLIC WORKS DEPARTMENT FOR REVIEW AND APPROVAL FOR ALL MATERIALS BEFORE ORDERING.
7. ALL STRIPING SHALL BE 4" WIDE WHITE LINES, ACCESSIBLE SPACES SHALL BE 4" WIDE BLUE LINES AND ALL STRIPING SHALL BE A MINIMUM OF 2 COATS.
8. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
9. STANDARD DUTY AND HEAVY DUTY PAVEMENT MAY BE CONCRETE OR ASPHALT UNLESS OTHERWISE NOTED. INTEGRAL CURB MAY BE USED FOR CONCRETE PAVEMENT.
10. ALL TRAFFIC CONTROL SHALL BE PER CURRENT MUTCD REQUIREMENTS AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. A TRAFFIC CONTROL PLAN WILL BE REQUIRED FOR ANY WORK WITHIN THE RIGHT-OF-WAY.
11. CONTRACTOR SHALL NOTIFY ADJACENT PROPERTY OWNERS IN WRITING 30 DAYS PRIOR TO CONSTRUCTION.
12. IF A CONFLICT EXISTS BETWEEN THE CIVIL PLANS AND CIVIL SPECIFICATIONS, THE CIVIL PLANS SHALL GOVERN.

ASPHALT PAVING NOTES

- 1. FURNISH ALL MATERIALS, LABOR, EQUIPMENT, AND SERVICES NECESSARY TO PERFORM ALL HOT MIX ASPHALT PAVING WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED IN MODOOT MISSOURI STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION SECTION 401.
2. SUBGRADE MATERIALS FOR THE ASPHALT BASE COURSE SHALL CONSIST OF WELL-GRADED CRUSHED LIMESTONE OR DOLOMITE MEETING THE SPECIFICATIONS OF MODOOT 1007 TYPE 5 AGGREGATE FOR BASE. NO MATERIALS SUBSTITUTIONS MAY BE MADE.
3. ASPHALT MIXES SHALL BE MODOOT BASE MIX AND MODOOT BP-1 MIX ONLY. ASPHALT MATERIALS SHALL CONFORM TO THE APPLICABLE STANDARDS WITHIN THE MISSOURI STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION.
4. ASPHALT PAVING OPERATIONS SHALL NOT BE PERFORMED WHEN THE SUBSTRATE IS WET OR EXCESSIVELY DAMP. THE RECEIVING SURFACE SHOULD BE CLEAN AND DRY PRIOR TO PLACEMENT OF HOT MIX ASPHALT.
5. THE WEATHER AT THE TIME OF PAVING SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
PRIME & TACK COATS (WHEN REQUIRED): MIN SURFACE TEMPERATURE = 60F
ASPHALT BASE COURSE: MIN SURFACE TEMPERATURE = 40F AND RISING
ASPHALT SURFACE COURSE: MIN SURFACE TEMPERATURE = 60F
6. SUBMIT THE JOB MIX FORMULA TO THE COUNTY REPRESENTATIVE AT LEAST 14 DAYS BEFORE PAVING.
7. THE SURFACE COURSE IS TO BE PLACED IN ONE SINGLE LIFT. THE BASE COURSE SHALL BE PLACED IN LIFTS NO THICKER THAN 3 INCHES FOR BREAKDOWN ROLLERS SMALLER THAN 10 TONS, AND NO THICKER THAN 4 INCHES FOR 10-TON OR LARGER BREAKDOWN ROLLERS.
8. THE MIX SHALL BE SPREAD AT A MINIMUM TEMPERATURE OF 250F, AND COMPACTION SHALL BE COMPLETE BEFORE THE MIX COOLS TO 185F.
9. FINISHED PAVEMENT SURFACE SHALL BE CLEAN AND FREE OF ANY DEPRESSIONS THAT WILL OBSTRUCT DRAINAGE.

STORM WATER POLLUTION PREVENTION PLAN NOTES

- 1. CONTRACTOR SHALL FOLLOW STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES. A COPY OF THIS PLAN AND PERMIT SHALL REMAIN ON SITE THROUGHOUT CONSTRUCTION.
2. CONTRACTORS ARE REQUIRED TO SUBMIT TO CITY INSPECTION STAFF COPIES OF THEIR INSPECTION REPORTS REQUIRED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) ON A MONTHLY BASIS.
3. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVAL HAS BEEN RECEIVED FROM ALL GOVERNING AUTHORITIES. CONTRACTOR SHALL UTILIZE TOPSOIL FROM SITE IN LANDSCAPED AREAS WITH ANY EXCESS BEING REMOVED FROM SITE.
4. IMMEDIATELY UPON COMPLETION OF FINISH GRADING IN EACH AREA, ALL LANDSCAPING AREAS SHALL BE SEEDED AND MULCHED.
5. SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED IN THE SWPPP.
6. LAND DISTURBANCE SITES SHOULD BE INSPECTED ON A REGULAR SCHEDULE AND WITHIN A REASONABLE TIME PERIOD (NOT TO EXCEED 48 HOURS) FOLLOWING HEAVY RAINS (RESULTING IN STORM WATER RUNOFF). REGULARLY SCHEDULED INSPECTION SHALL BE AT A MINIMUM OF ONCE PER WEEK. ANY DEFICIENCIES SHALL BE NOTED IN A WEEKLY REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE REPORT.
7. THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
8. CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
9. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
10. CONTRACTOR SHALL BE RESPONSIBLE TO TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
11. ALL SLOPES GREATER THAN 3:1 SHALL BE REINFORCED BY NORTH AMERICAN GREEN P300 PERMANENT TURF REINFORCEMENT MAT OR APPROVED EQUAL.
12. CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS, TREES & BRUSH AND OTHER MATERIAL CREATED AS A RESULT OF THE CONSTRUCTION WORK AND THE SITE SHALL BE RETURNED TO ITS ORIGINAL CONDITION.
13. ALL PERIMETER LANDSCAPED AREAS SHALL BE GRASS COVERED.
14. IN ORDER TO TERMINATE A STATE OPERATING PERMIT, THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MNR) REQUIRES THAT THE PERMITTEE SUBMIT FORM H (INCLUDED WITH THE APPROVED PERMIT) TO MNR. A PERMIT IS ELIGIBLE FOR TERMINATION WHEN EITHER PERENNIAL VEGETATION, PAVEMENT, BUILDINGS, OR STRUCTURES USING PERMANENT MATERIALS COVER ALL AREAS THAT HAVE BEEN DISTURBED. VEGETATIVE COVER SHOULD BE AT LEAST 70% OF FULLY ESTABLISHED PLANT DENSITY OVER 100% OF THE DISTURBED AREA. A COPY OF FORM H SHALL BE SUBMITTED TO THE CITY OF COLUMBIA AT WHICH TIME THE CITY WILL REMOVE THE PROJECT FROM ITS INSPECTION SCHEDULE.
15. THE SITE CONTRACTOR SHALL INCLUDE MAINTENANCE OF ALL BMP'S AS PART OF THEIR CONTRACT AND SHALL BE RESPONSIBLE FOR THE PROJECT UNTIL THE NPDES PERMIT IS TERMINATED.
16. SOIL STOCKPILES SHALL COMPLY WITH THE COLE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS.

TEMPORARY TRAFFIC GENERAL NOTES

- 1. ALL TRAFFIC CONTROL DEVICES AND TEMPORARY TRAFFIC CONTROL PLANS SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SITE, WORKER, AND TRAFFIC SAFETY.
3. CONTRACTOR SHALL MODIFY THE TEMPORARY TRAFFIC CONTROL PLAN TO ACCOMMODATE THEIR CONSTRUCTION MEANS, METHODS, SEQUENCE, AND TECHNIQUES OR PROCEDURES. ALL MODIFICATIONS TO THE TEMPORARY TRAFFIC CONTROL PLAN SHALL BE APPROVED BY COLE COUNTY PUBLIC WORKS DEPARTMENT, IN WRITING, PRIOR TO IMPLEMENTATION.
4. CONTRACTOR SHALL DESIGNATE A TRAINED PERSON AT THE PROJECT LEVEL WHO HAS THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TEMPORARY TRAFFIC CONTROL PLAN AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PROJECT. THE TRAINED PERSON SHALL BE A MODOOT CERTIFIED "WORK ZONE SPECIALIST" HAVING PASSED MODOOT'S ADVANCED WORK ZONE OR EQUIVALENT TRAINING. (MODOOT STANDARD SPEC 616.3.4 (a))
5. CONTRACTOR SHALL MONITOR TRAFFIC FLOW THROUGH THE WORK ZONE AND MAKE ADJUSTMENTS TO THE TRAFFIC CONTROL PLAN AS REQUIRED.
6. PROVIDE FLAGGERS FOR TWO WAY TRAFFIC OVER ONE LANE AS REQUIRED.

GRADING AND STORM SEWER CONSTRUCTION NOTES

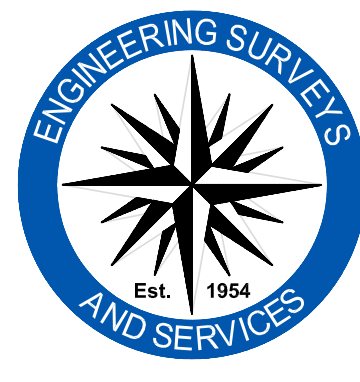
- 1. ALL STORM SEWER PIPES AND INLETS SHALL MEET HEAVY DUTY TRAFFIC (HS20) LOADING AND BE INSTALLED ACCORDINGLY.
2. CONCRETE STORM SEWER INLETS & JUNCTION BOXES SHALL BE INSTALLED PER THE COLE COUNTY PUBLIC WORKS DEPARTMENT SPECIFICATIONS AND AS DETAILED IN THESE PLANS.
3. REINFORCED CONCRETE PIPE (RCP) SHALL BE INSTALLED PER THE "EMBEDMENT OF RCP STORM SEWER PIPE" DETAIL. PIPE CLASS SHALL BE APPROPRIATE TO DEPTH AND BEDDING MATERIAL AS SHOWN IN SCHEDULE.
4. ALL RCP PIPE JOINTS SHALL BE SOIL TIGHT PER CURRENT MODOOT SPECIFICATIONS SECTION 726.3.1.
7. CONTRACTOR SHALL ADJUST ALL GRATES, MANHOLES, VALVE BOXES, ETC. TO MATCH FINISH GRADES, AS REQUIRED.
8. ALL STRUCTURE CONNECTIONS SHALL BE WATERTIGHT.
9. ALL CONCRETE STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
10. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE FLUSH WITH FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER". TOP OF BOXES SHALL BE SLOPED TO MATCH PAVEMENT GRADE.
11. PIPE LENGTHS ARE GIVEN FROM CENTER OF STRUCTURE OR DOWNSTREAM END OF FLARED END SECTIONS.
12. ALL FLARED END SECTIONS FOR CONCRETE PIPE SHALL BE REINFORCED PRECAST CONCRETE.
13. ALL SITES USED FOR IMPORTING OR EXPORTING OF FILL MATERIAL SHALL HAVE AN ACTIVE MISSOURI DEPARTMENT OF NATURAL RESOURCES LAND DISTURBANCE PERMIT, AS REQUIRED.
17. ENGINEERED FILL SHOULD BE FREE OF FROZEN SOIL, ORGANICS, RUBBISH, LARGE ROCKS, WOOD, OR OTHER DELETERIOUS MATERIAL. COHESIVE FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY AND BE WITHIN -2 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT AS DESCRIBED BY ASTM D698. GRANULAR FILLS SHOULD BE UNIFORMLY COMPACTED TO AT LEAST 95 PERCENT OF THE "STANDARD" MAXIMUM DRY DENSITY AND SHOULD BE DRIER THAN +4 PERCENT OF OPTIMUM MOISTURE CONTENT. PLACE FILL MATERIAL IN LOOSE LIFTS NOT TO EXCEED 8 INCHES IN THICKNESS.
18. ROCKS AND STONES THAT EXCEED THE THICKNESS OF THE LOOSE LIFT FILL LAYER SHOULD BE REMOVED AND DISPOSED OF OFF THE IMMEDIATE CONSTRUCTION AREA.
19. IMPORTED SOILS PROPOSED FOR USE AS FILL OR BACKFILL SHOULD BE REVIEWED AND ANALYZED BY THE GEOTECHNICAL ENGINEER PRIOR TO USE ON SITE. SOIL CLASSIFIED AS MH, OH, OL, OR PT (HIGH PLASTICITY SOILS AND ORGANIC SOILS) BY THE UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487) SHOULD NOT BE IMPORTED FOR USE AS ENGINEERED FILL. SUITABLE IMPORTED MATERIALS FOR GENERAL SITE FILL ARE THOSE THAT CLASSIFY AS GW, GM, GC, SC, AND CL IN ACCORDANCE WITH ASTM D 2487. MATERIALS CLASSIFIED AS CH SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO THEIR IMPORTATION AND ONLY USED OUTSIDE THE BUILDING PAD AT DEPTHS BELOW THE UPPER 2 FEET OF SUBGRADE, SUBJECT TO FINAL DESIGN REQUIREMENTS FOR WALL BACKFILL. SUITABLE IMPORTED MATERIALS FOR WALL AND TRENCH BACKFILL ARE THOSE THAT CLASSIFY AS GW, GP, GM, GC, SM, SW, SP, SC, AND CL IN ACCORDANCE WITH ASTM D2487.
20. FILLS PLACED IN AREAS WHERE THE NATURAL SLOPE IS GREATER THAN 5H:1V (HORIZONTAL TO VERTICAL) SHOULD BE BENCHED INTO THE EXISTING GRADE TO REDUCE THE POTENTIAL FOR SLIPPAGE BETWEEN EXISTING SLOPES AND ENGINEERED FILL. BENCHES SHOULD BE LEVEL AND WIDE ENOUGH TO ACCOMMODATE COMPACTION AND EARTH MOVING EQUIPMENT.
21. FILL AND SUBGRADE CONSTRUCTION SHOULD NOT BE STARTED ON FOUNDATION SOIL, PARTIALLY COMPLETED FILL, OR SUBGRADES THAT CONTAIN FROST OR ICE. FILL SHOULD NOT BE CONSTRUCTED USING FROZEN SOIL. FROZEN SOIL SHOULD BE REMOVED PRIOR TO PLACING FILL MATERIAL.
22. AFTER STRIPPING AND GRUBBING OPERATIONS ARE COMPLETED AND PRIOR TO FILL PLACEMENT, AREAS TO BE FILLED SHALL BE PROOF-ROLLED USING A LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY SOFT AND UNSUITABLE AREAS. SOFT MATERIAL MAY BE MOISTURE CONDITIONED AND REUSED AS ENGINEERED FILL, UNSUITABLE AND DELETERIOUS MATERIAL SHALL BE REMOVED FROM SITE.
23. ALL NEW UTILITY TRENCHES SHOULD BE BACKFILLED IN ACCORDANCE WITH APPROPRIATE CONTROLLED ENGINEERED FILL SPECIFICATIONS.
24. FIELD DENSITY TESTS SHOULD BE CONDUCTED IN ACCORDANCE WITH ASTM D6938 (NUCLEAR METHODS) OR ASTM D 1556 (SAND CONE METHOD). FIELD DENSITY TESTS SHOULD BE PERFORMED AT THE RATE OF ONE TEST PER 2,500 SQUARE FEET PER LIFT WITHIN THE BUILDING AND 10,000 SQUARE FEET PER LIFT BENEATH PAVEMENTS, SIDEWALKS, AND OTHER POTENTIAL STRUCTURAL AREAS WITH A MINIMUM OF 3 TESTS PER LIFT AND ONE TEST PER 150 LINEAL FEET PER LIFT FOR FOUNDATION, TRENCH AND WALL BACKFILL.
25. BUILDING PAD AND PARKING AREAS SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK TO IDENTIFY ANY SOFT OR UNSUITABLE AREAS. PRIOR TO BASE ROCK PLACEMENT THE PROOF-ROLL SHALL BE OBSERVED BY A GEOTECHNICAL ENGINEER OF THIS FIRM. AREAS IDENTIFIED AS UNSUITABLE SHALL BE OVER EXCAVATED AND RECONSTRUCTED WITH ENGINEERED FILL.
26. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS FOR ALL LANDSCAPED AND PAVED AREAS.

UTILITY CONSTRUCTION NOTES

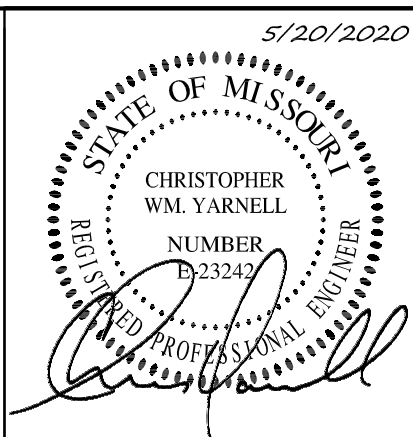
- 1. LOCATION OF SITE UTILITIES SHALL BE VERIFIED BY CONTRACTOR AND THE PROPER UTILITY COMPANY PROVIDING SERVICE PRIOR TO THE START OF CONSTRUCTION.
2. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
4. SITE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF COLE COUNTY PUBLIC WORKS DEPARTMENT WITH REGARDS TO MATERIALS AND INSTALLATION STORM SEWER AND CULVERTS.
8. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS. BACKFILL OF TRENCHES THROUGH ANY IMPROVED AREAS, SUCH AS STREET, DRIVES OR PARKING LOTS SHALL BE COMPACTED TO MINIMUM 95% STANDARD PROCTOR DENSITY (ASTM D-698).
10. ALL UNDERGROUND UTILITY CONDUITS SHALL BE PLACED 48" BELOW FINISH GRADE UNLESS NOTED OTHERWISE.
12. ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
13. TOPS OF EXISTING HANDHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED FINISHED ELEVATIONS.
14. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
15. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODE AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
21. STUBS FOR FUTURE UTILITIES SHOULD BE CLEARLY MARKED AND ES&S CONTACTED FOR DATA COLLECTION.



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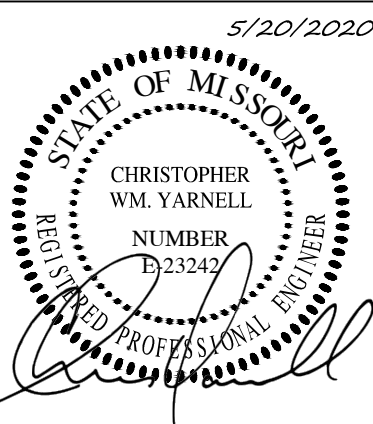
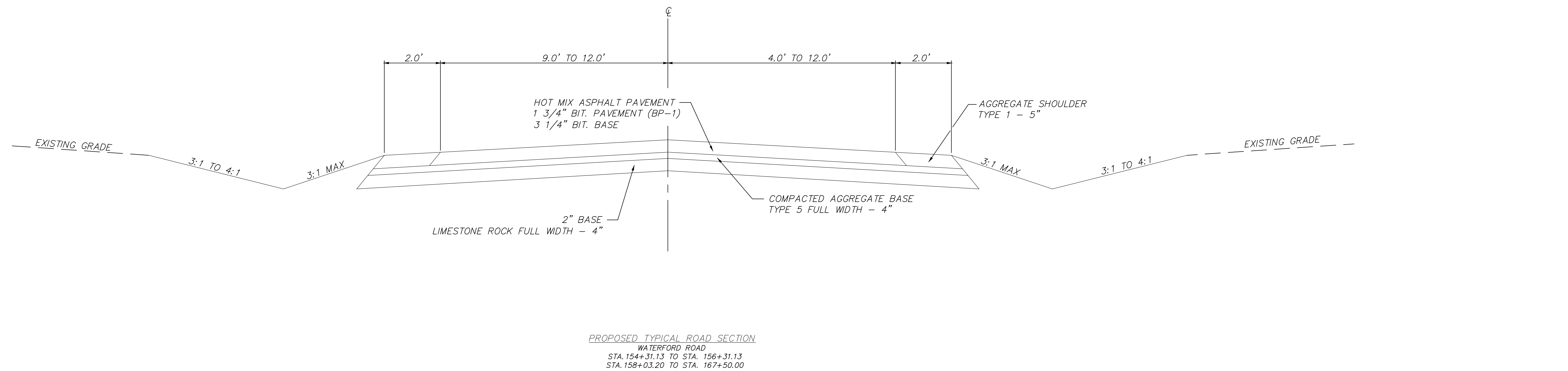
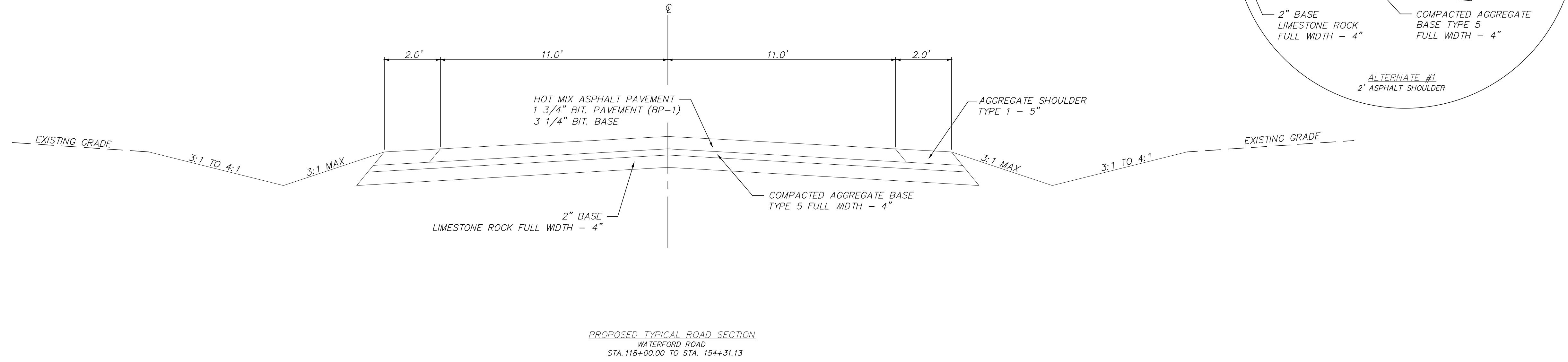
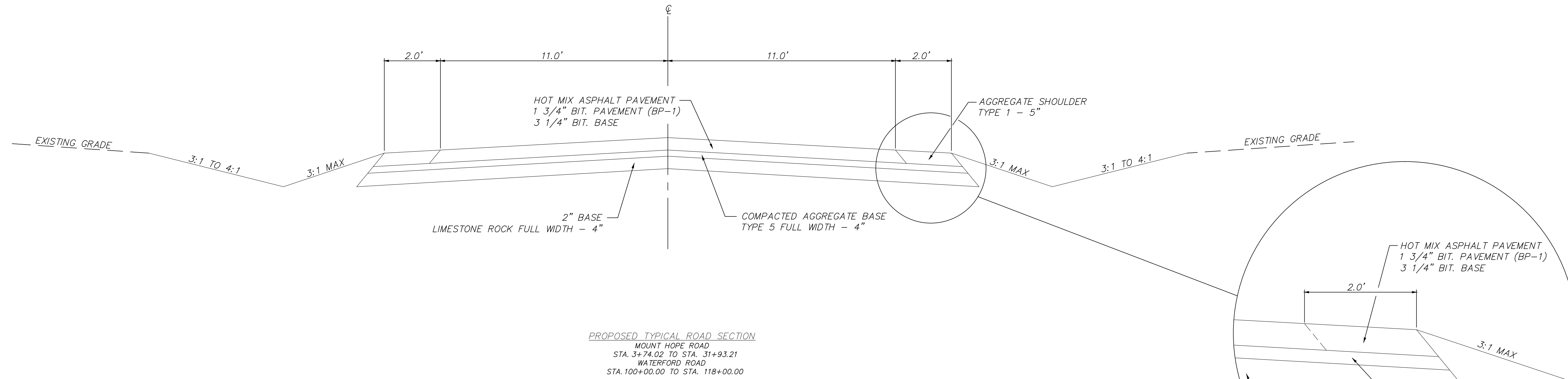
CHRISTOPHER W. YARNELL
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E-33324

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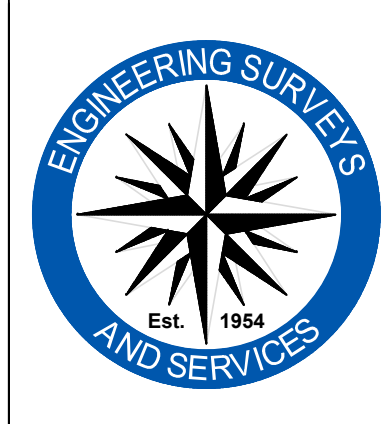
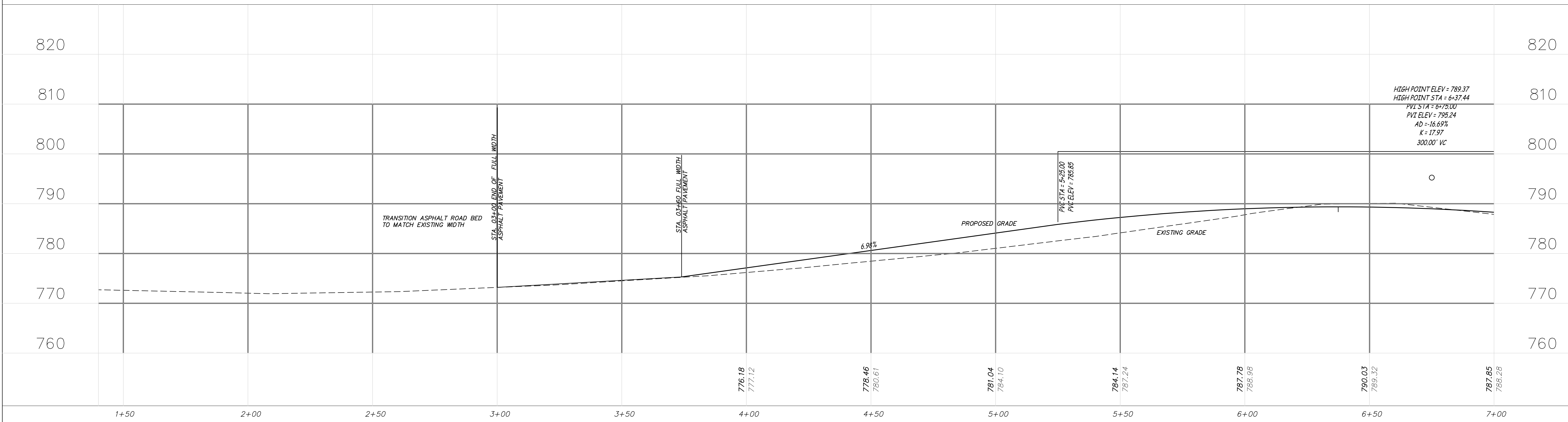
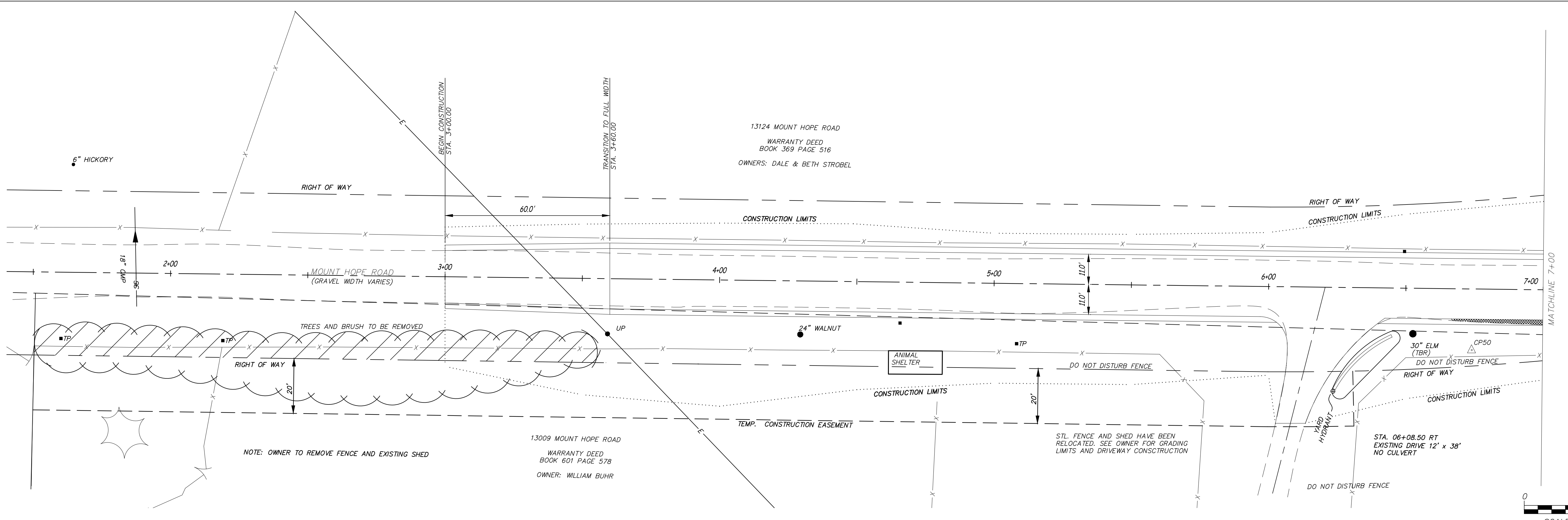
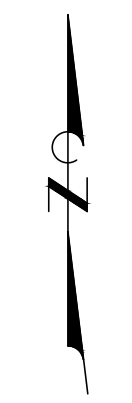
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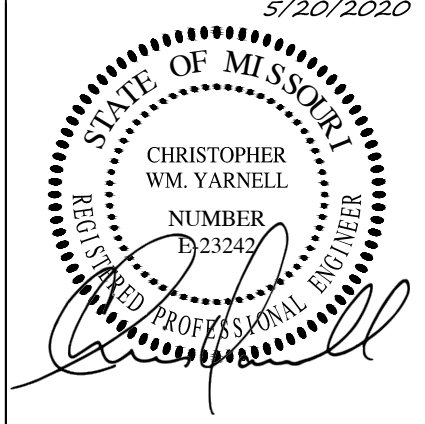
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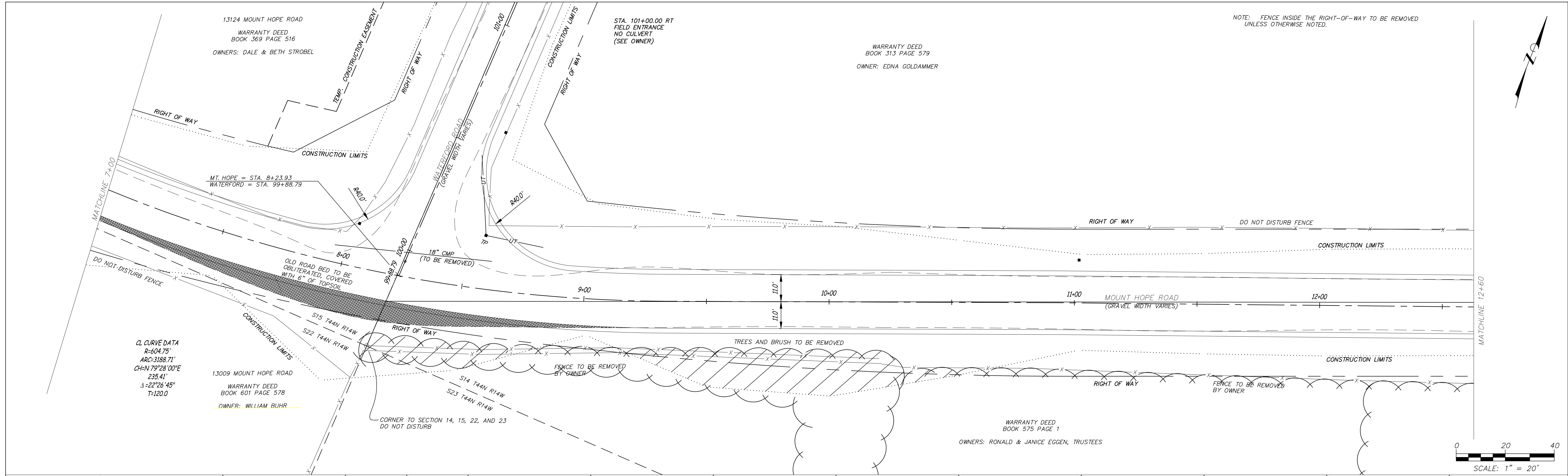


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 LICENSE # D-23242

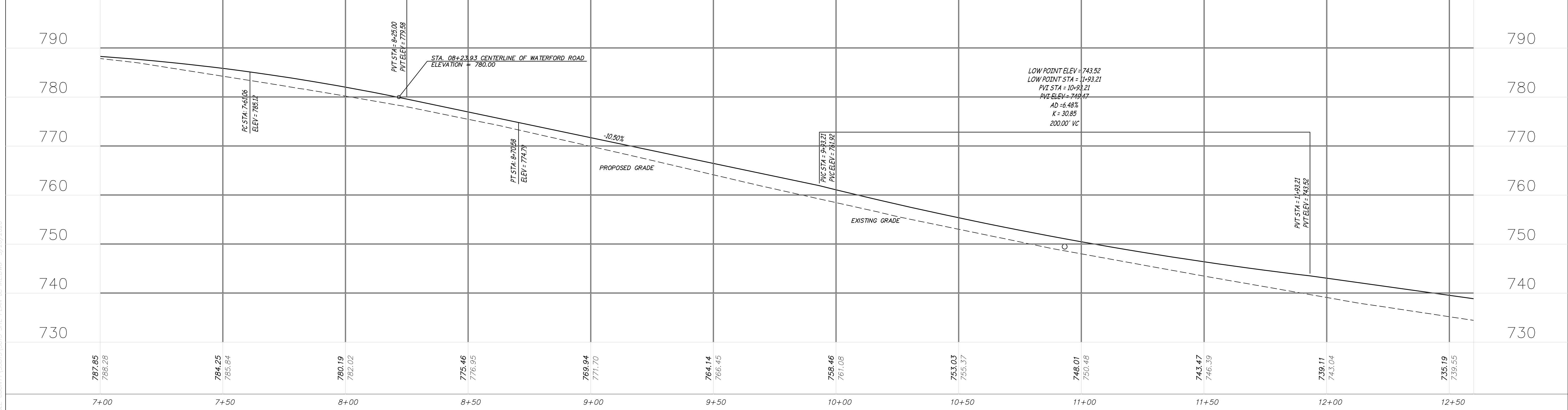
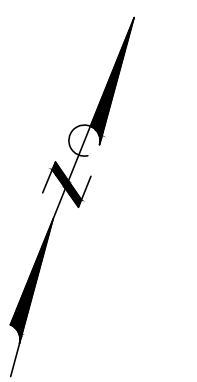
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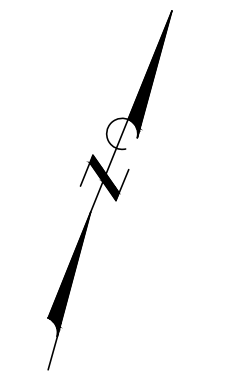
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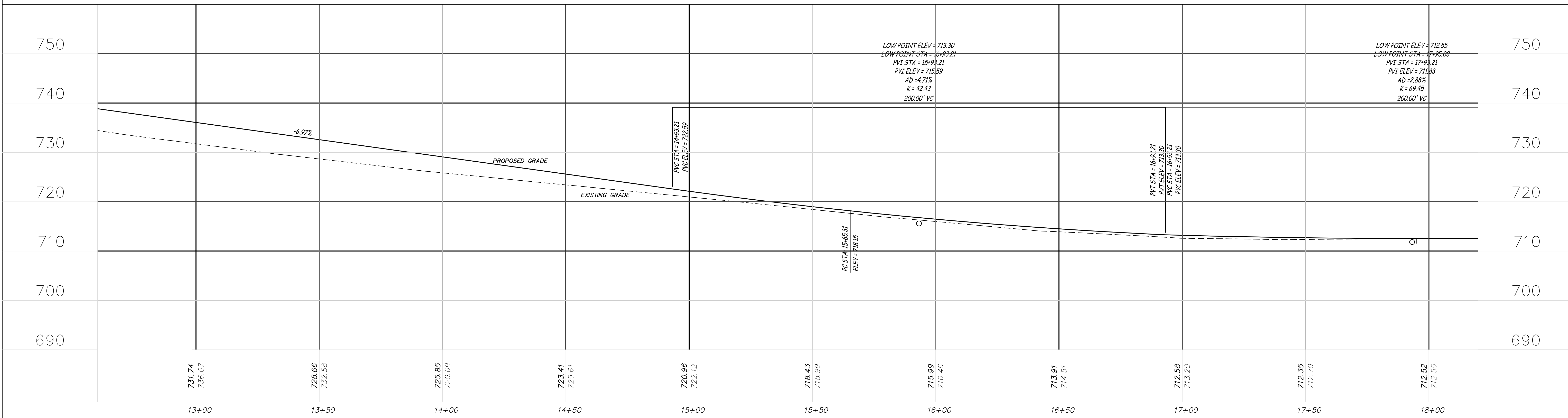
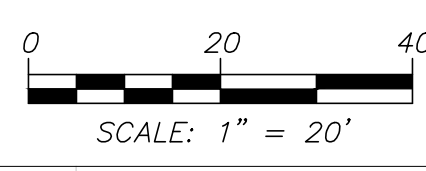
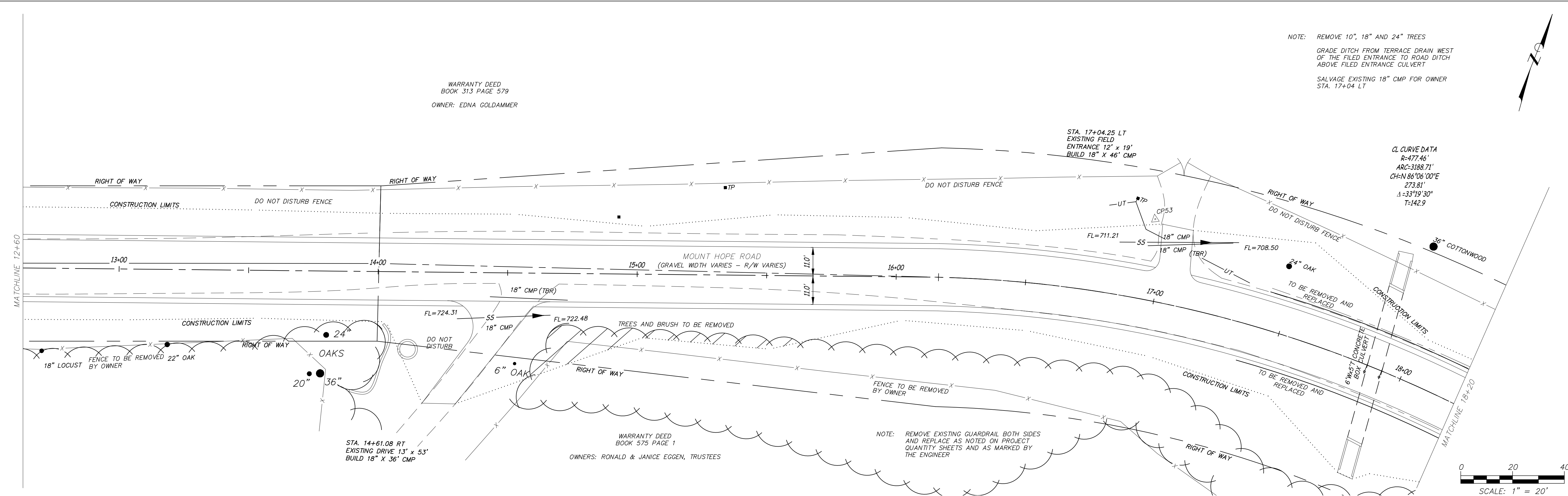
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NOTE: REMOVE 10", 18" AND 24" TREES
 GRADE DITCH FROM TERRACE DRAIN WEST OF THE FILED ENTRANCE TO ROAD DITCH ABOVE FILED ENTRANCE CULVERT
 SALVAGE EXISTING 18" CMP FOR OWNER STA. 17+04 LT



WARRANTY DEED
 BOOK 313 PAGE 579
 OWNER: EDNA GOLDAMMER

CL CURVE DATA
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 ARC=3188.71'
 CH=N 86°06'00"E
 273.81'
 Δ=33°19'30"
 T=142.9



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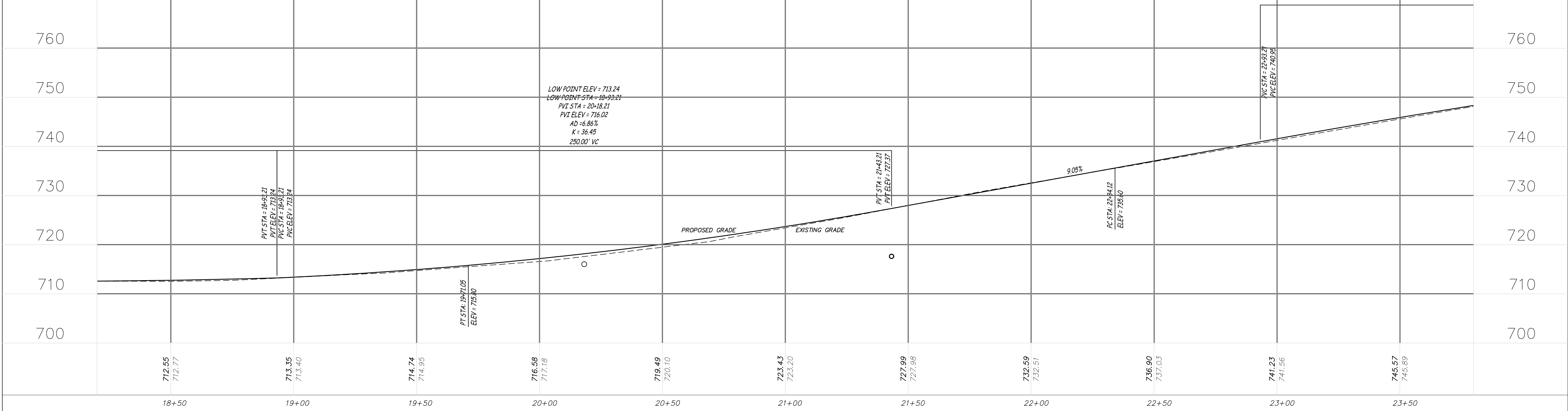
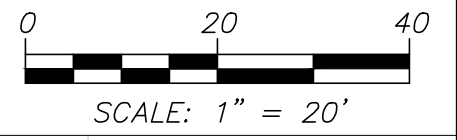
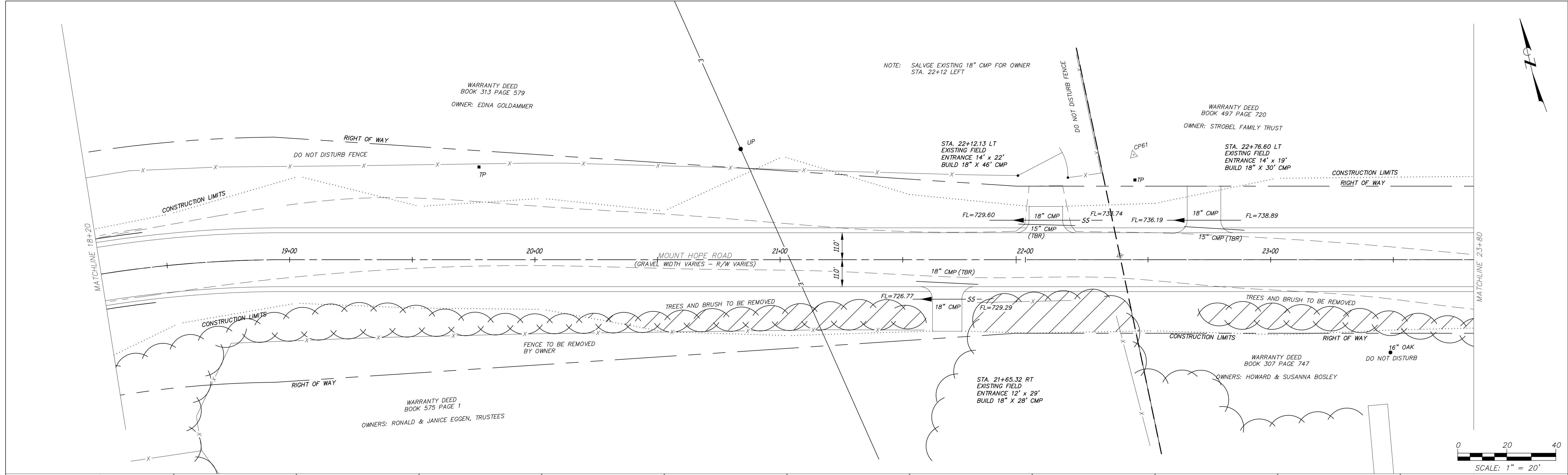
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 E-23324

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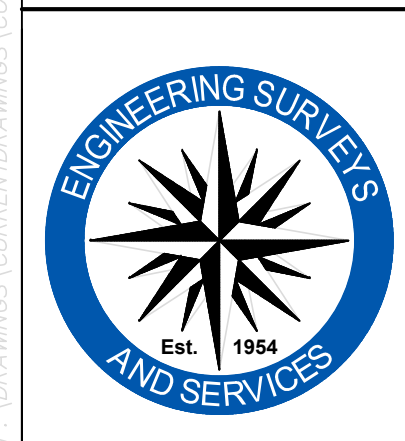
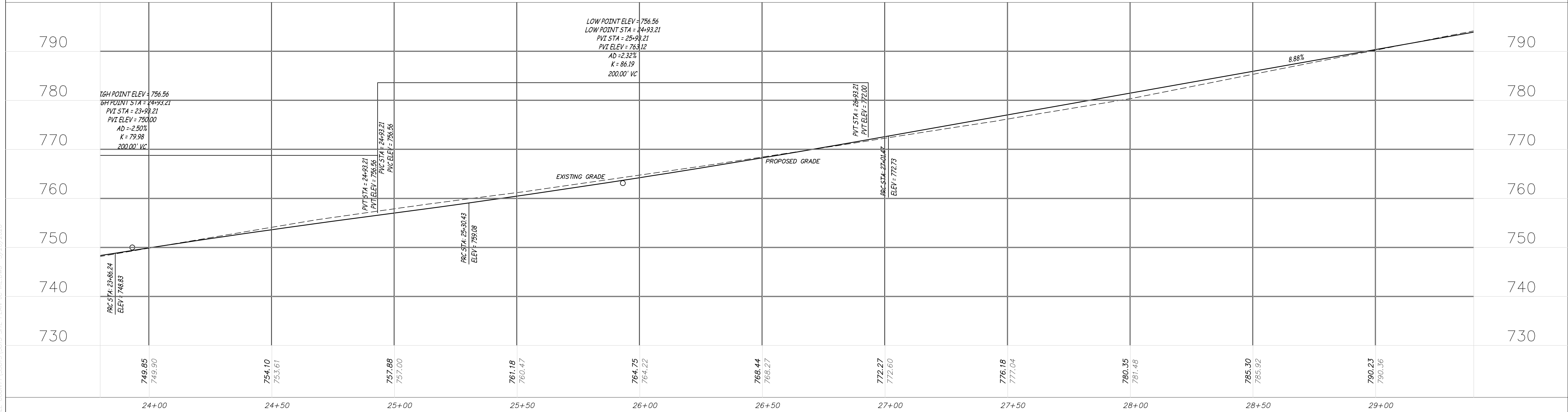
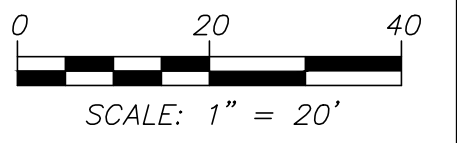
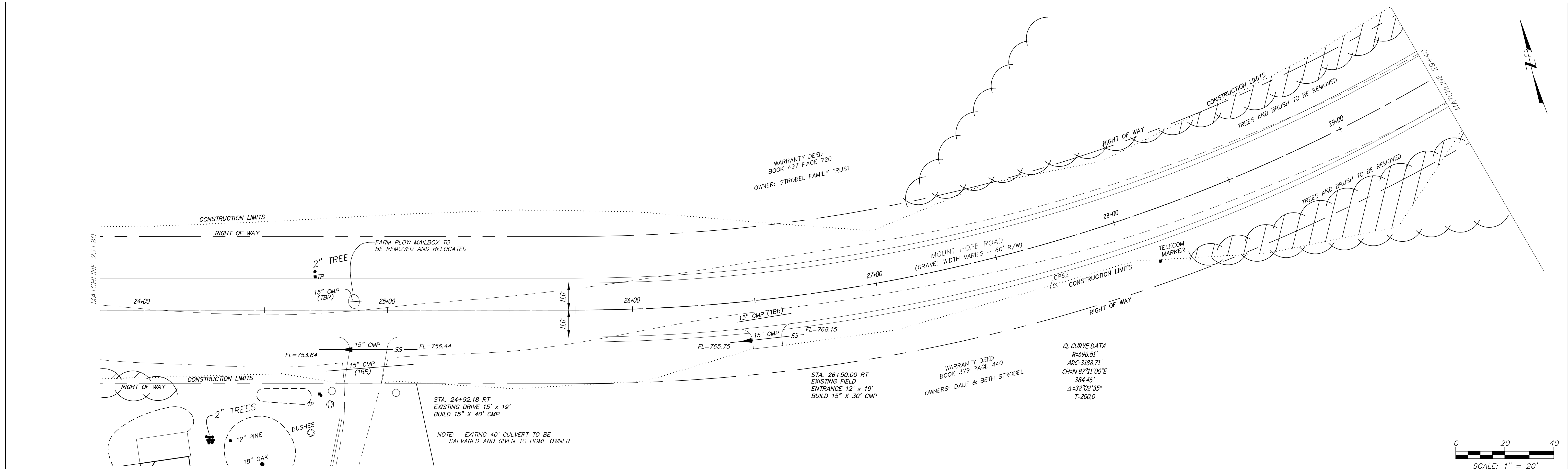
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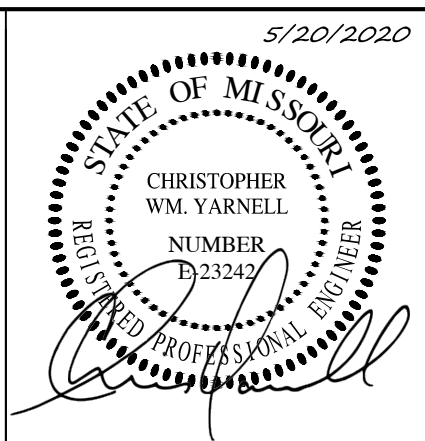
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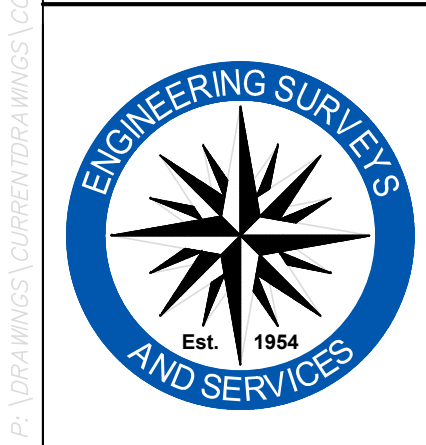
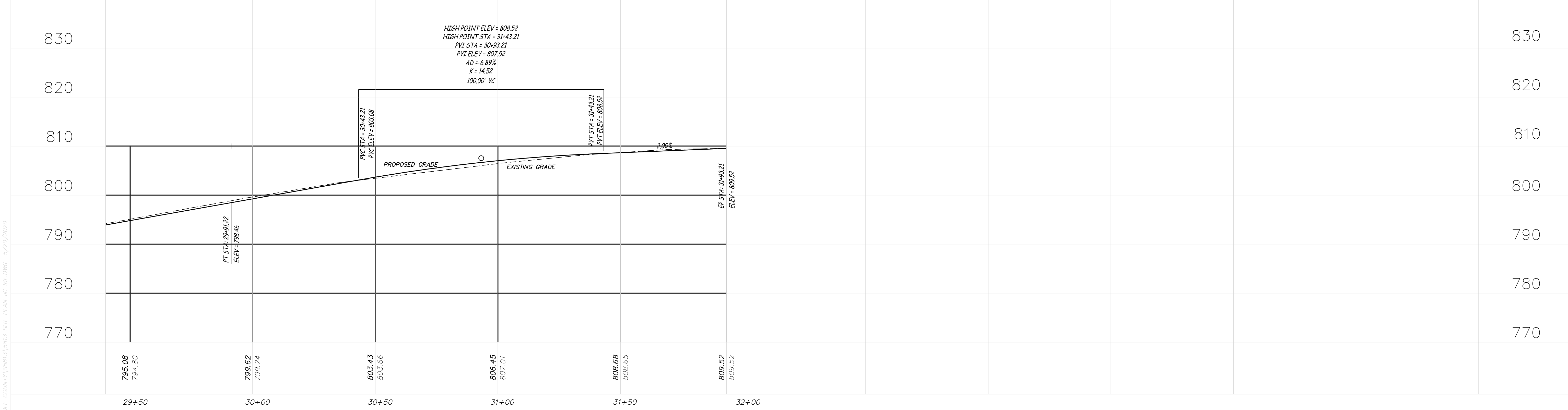
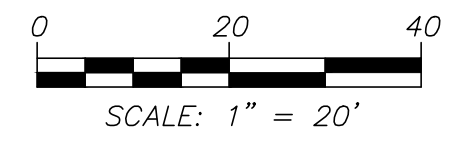
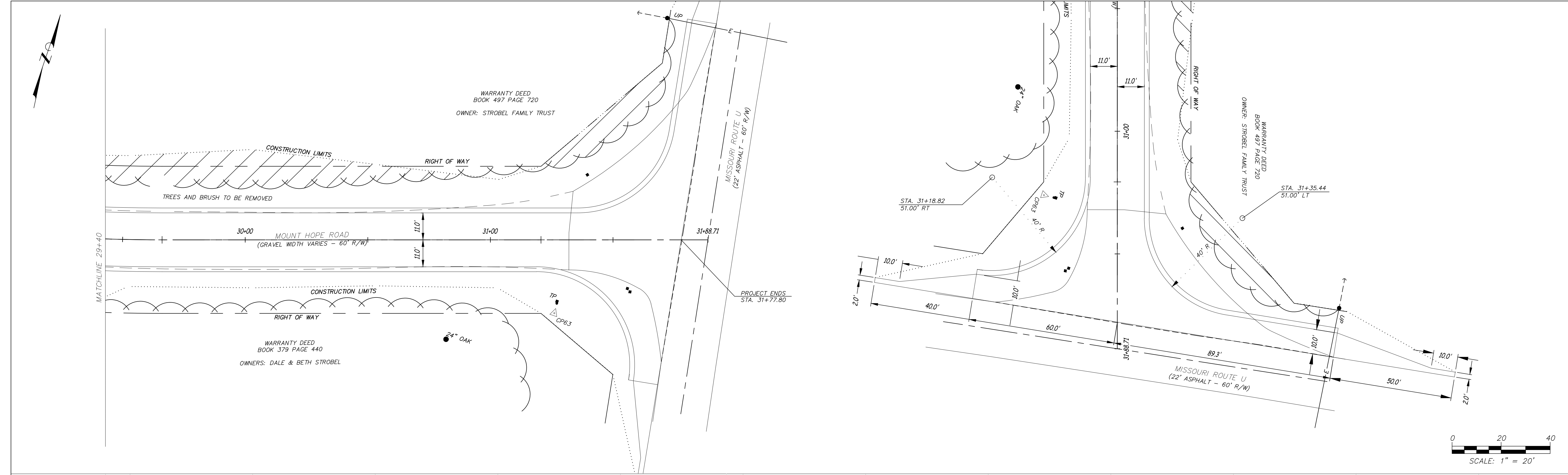


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 LICENSE # D-23242

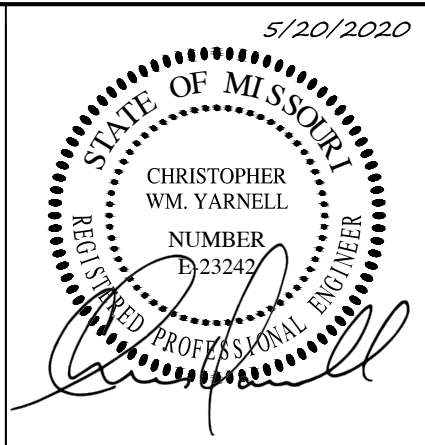
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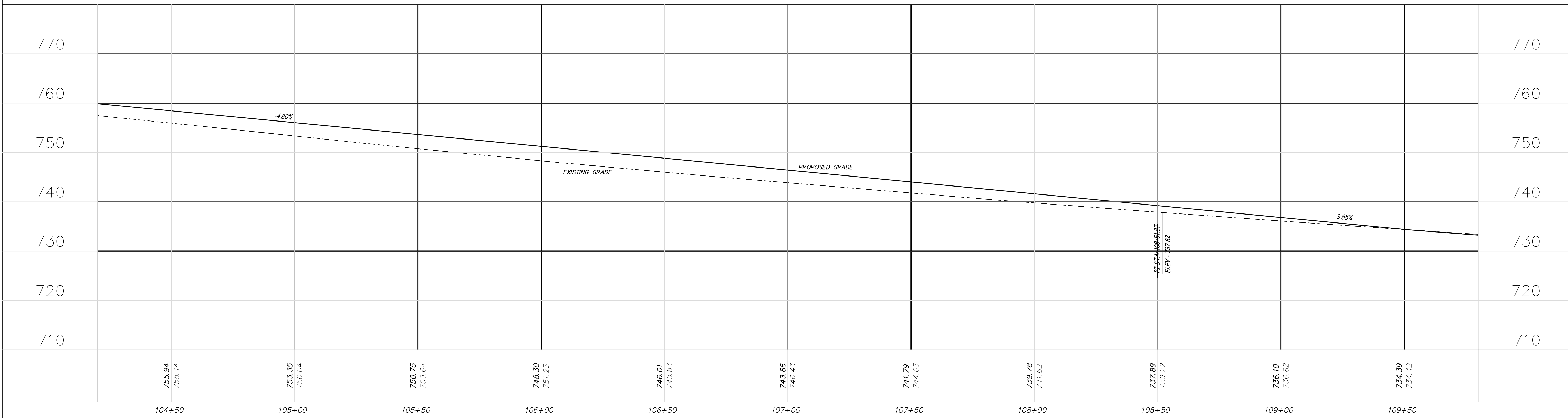
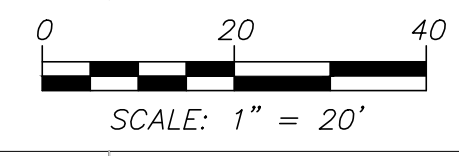
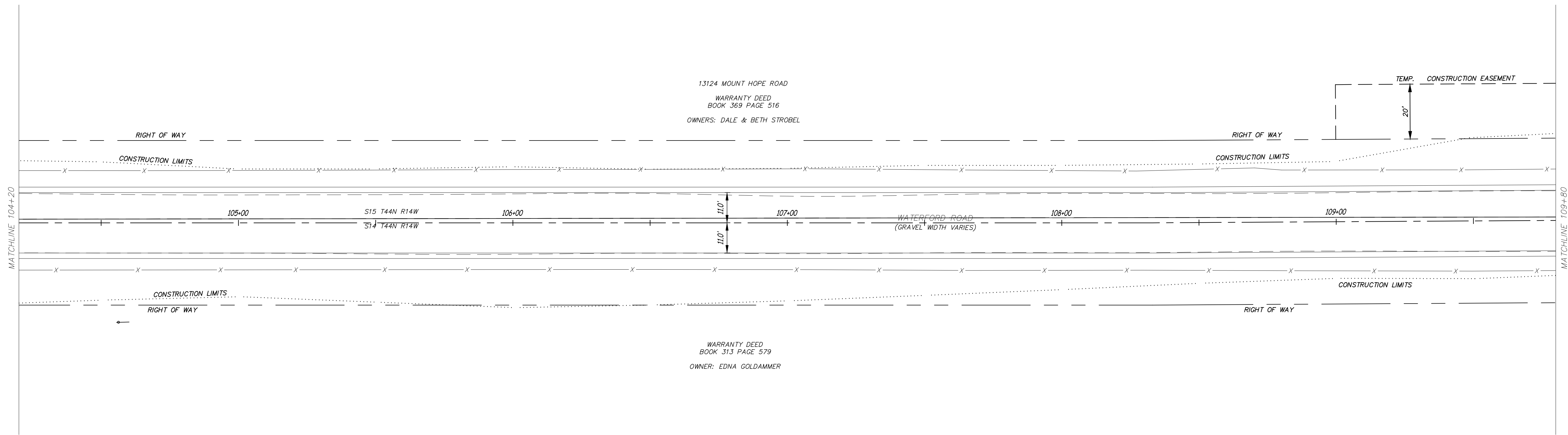


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 LICENSE # 23324

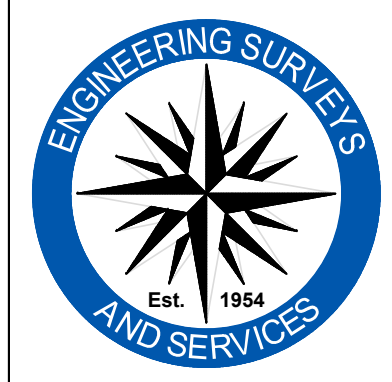
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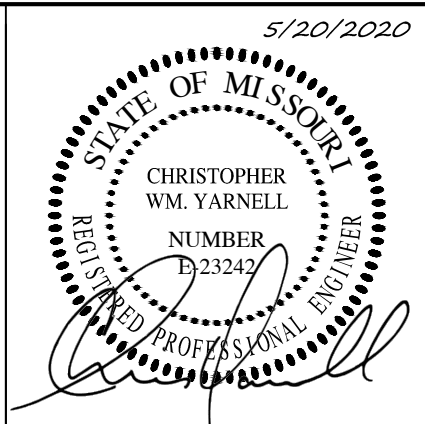
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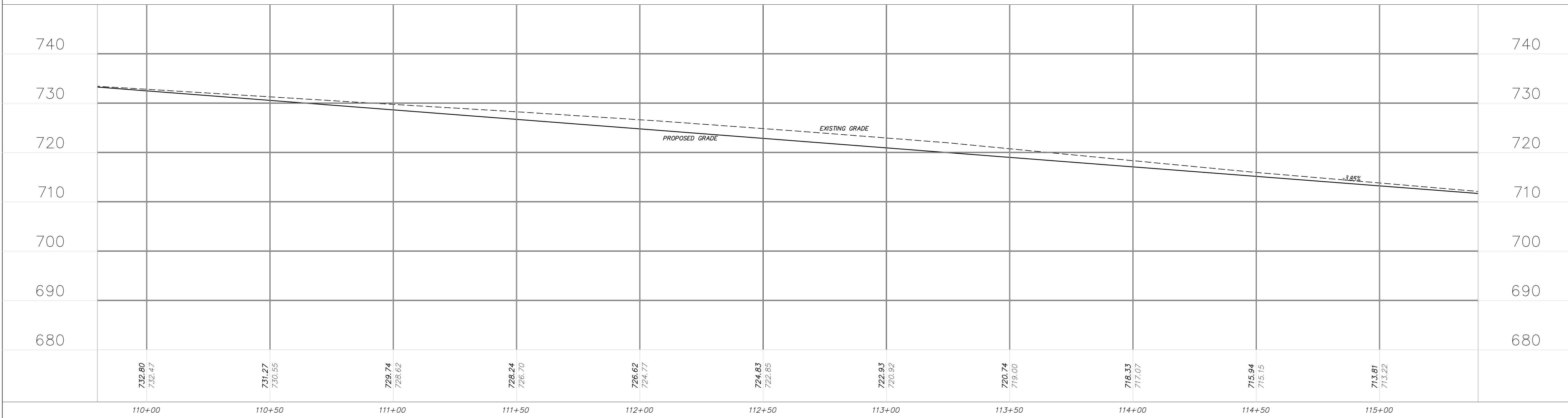
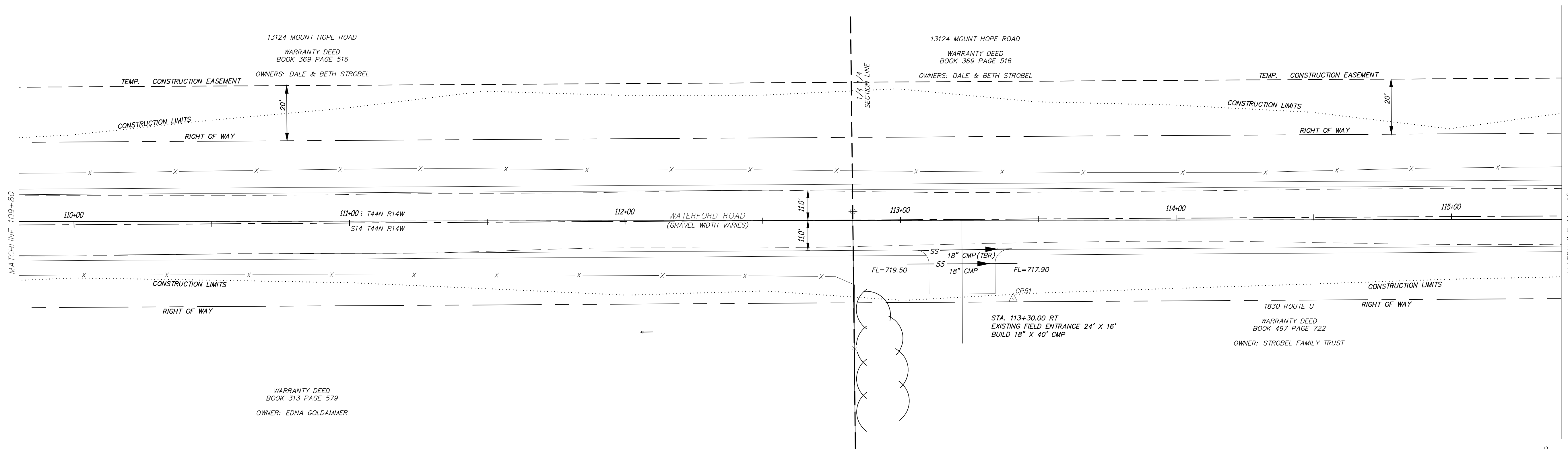


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 LICENSE # D-23242

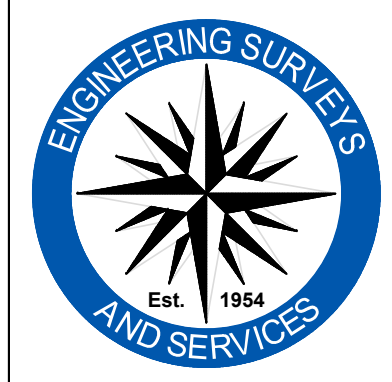
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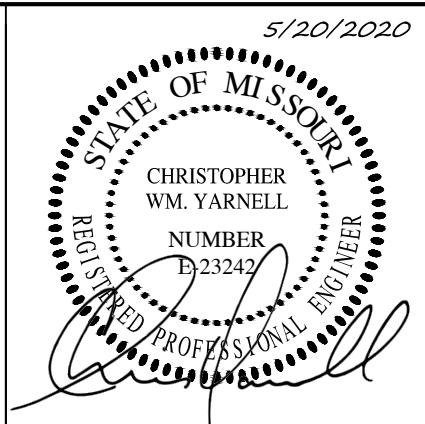
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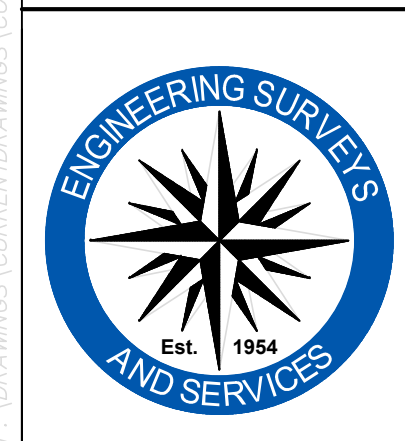
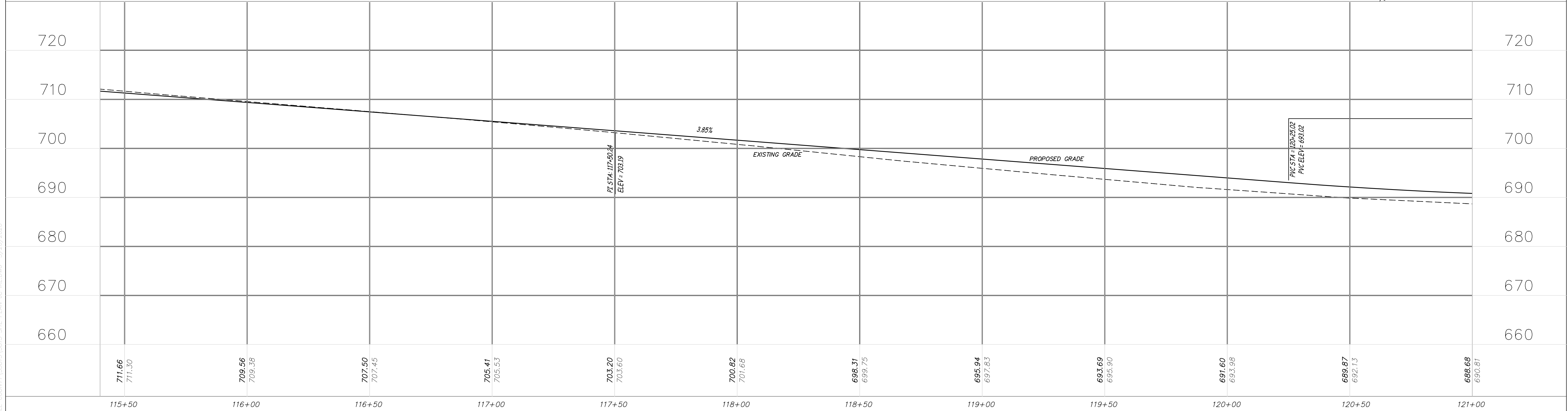
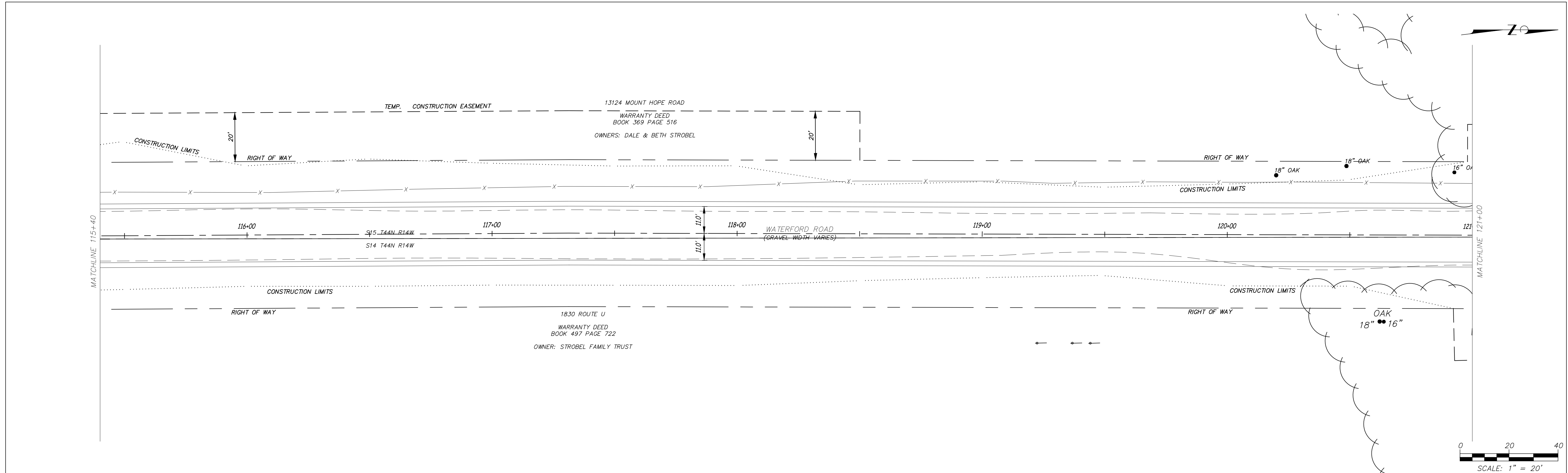


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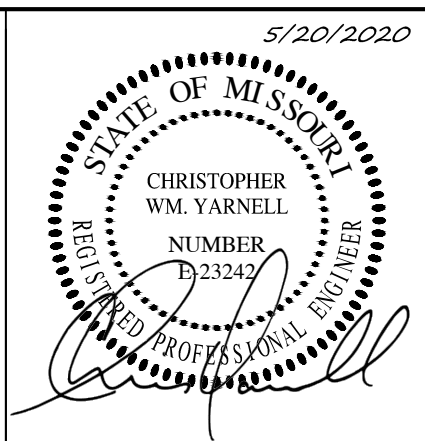
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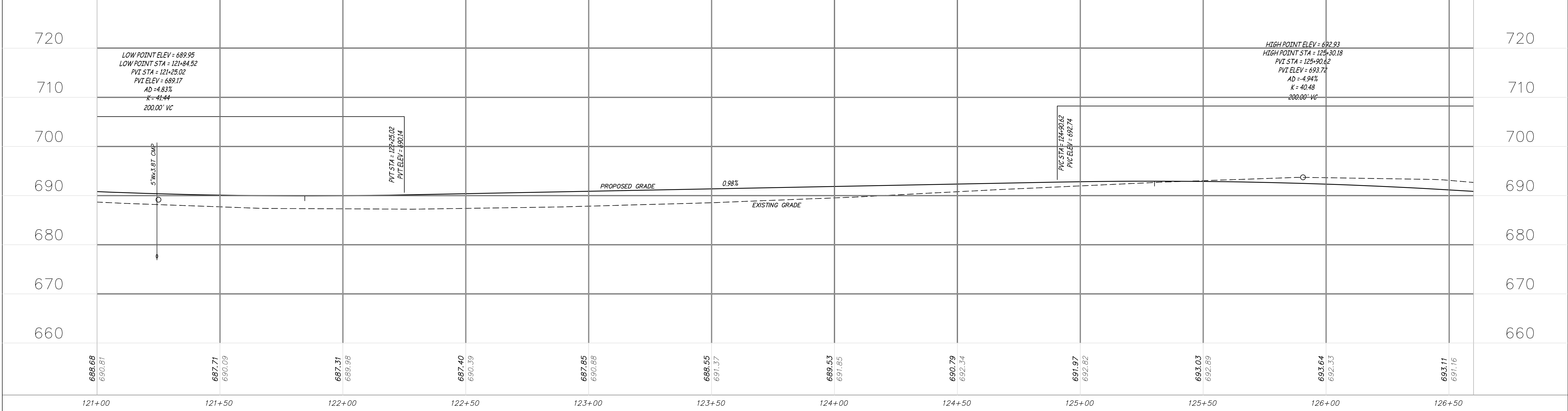
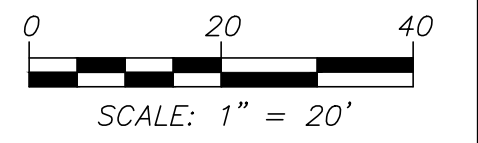
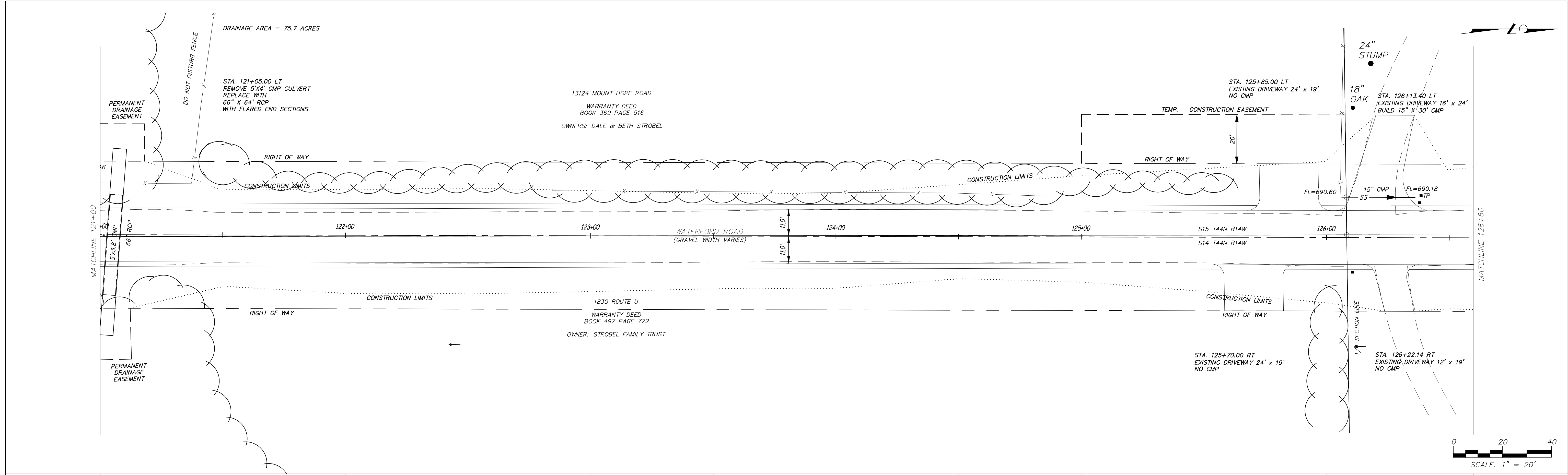


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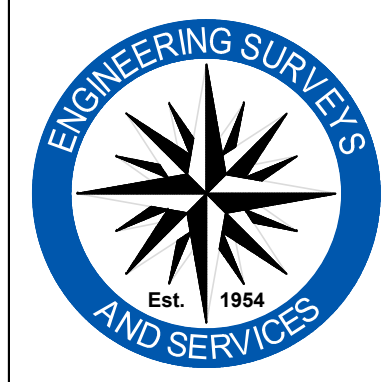
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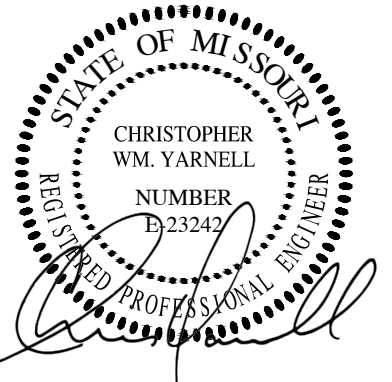
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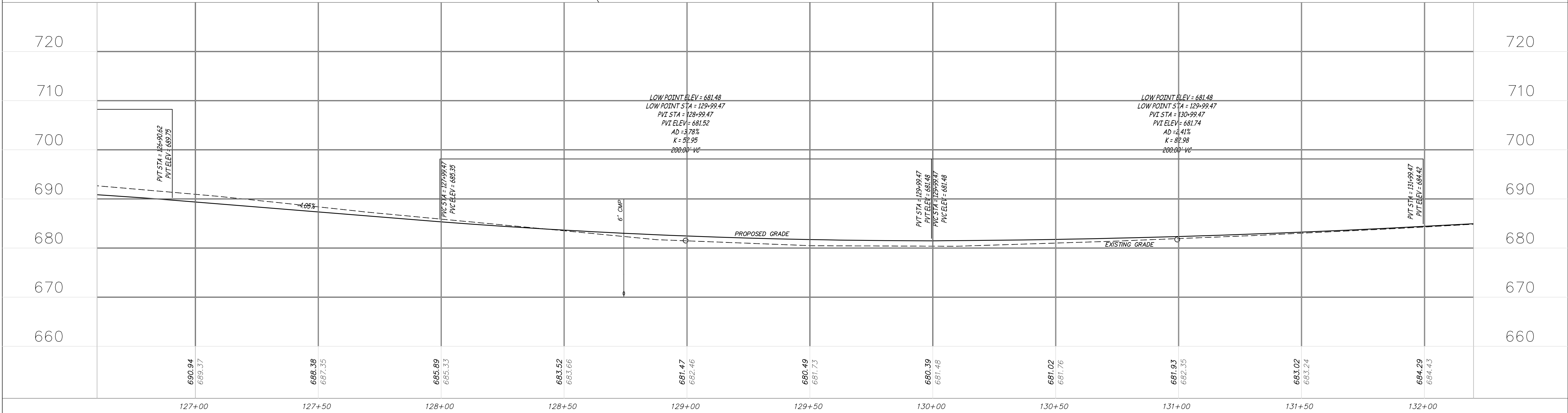
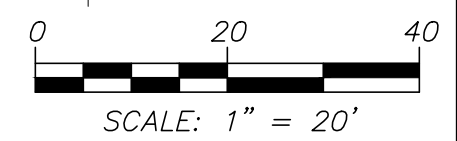
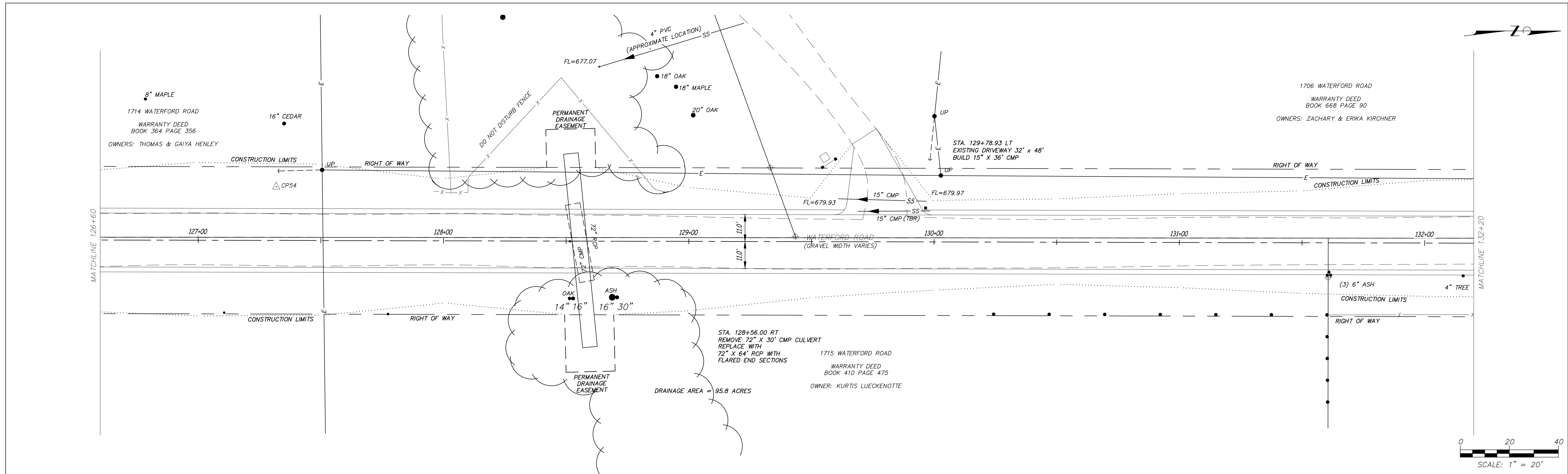


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 LICENSE NO. 23242

WATERFORD AND MOUNT HOPE ROADWAY IMPROVEMENTS

COLE COUNTY, MISSOURI

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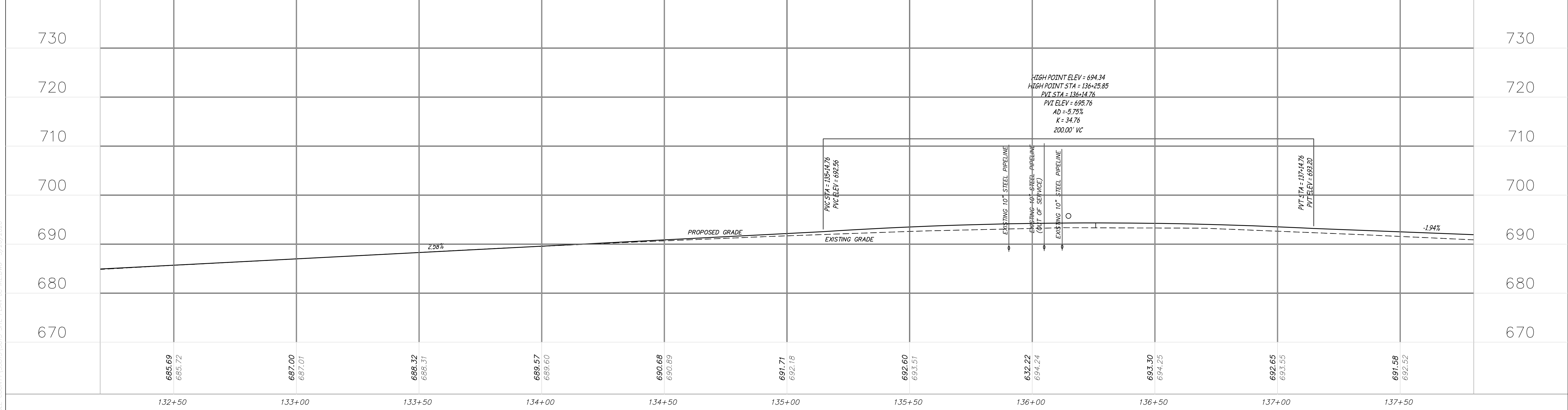
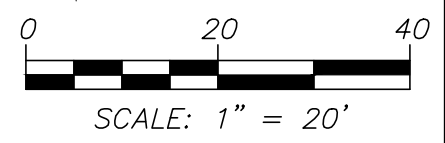
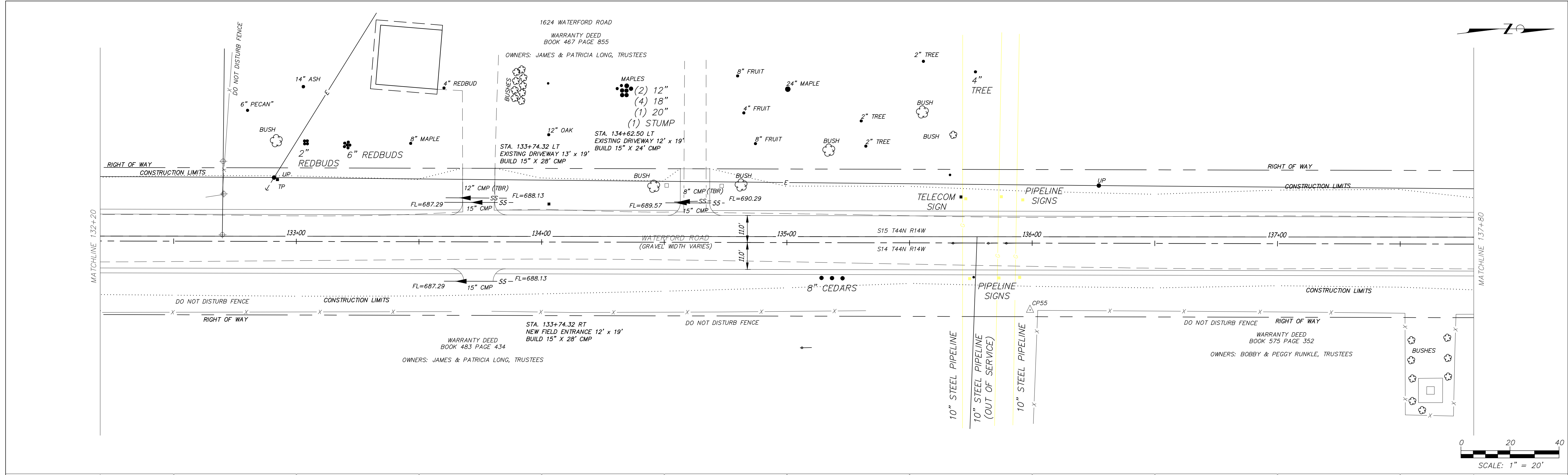
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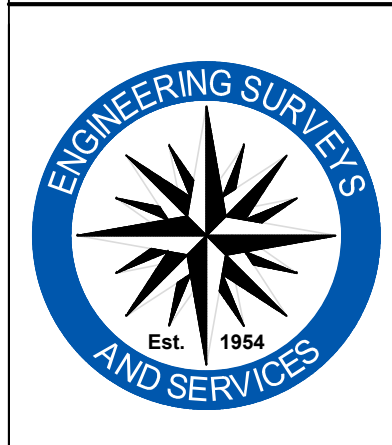
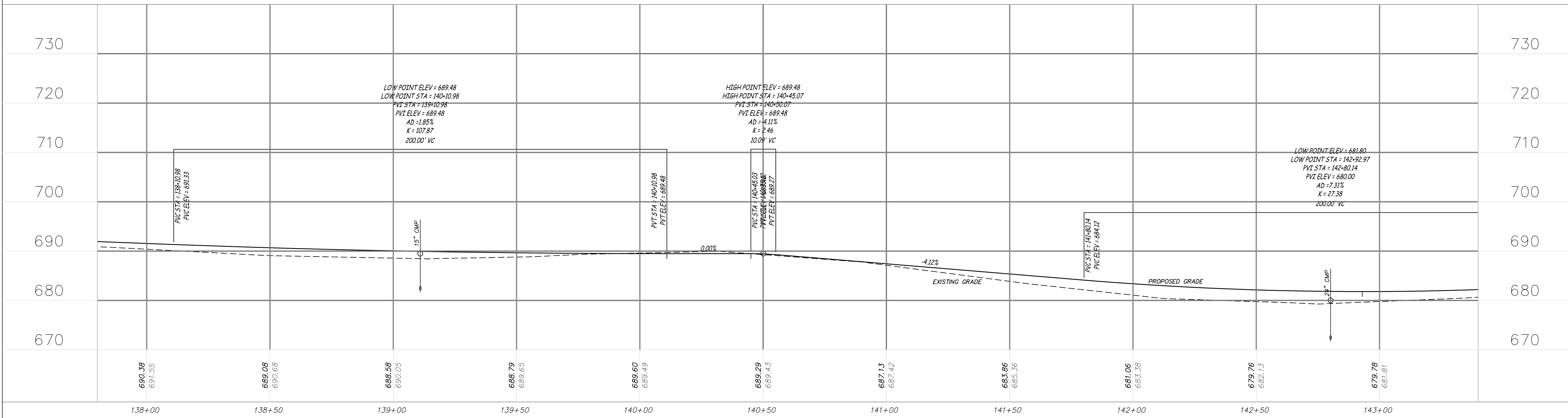
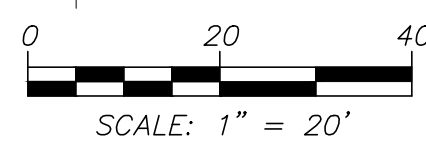
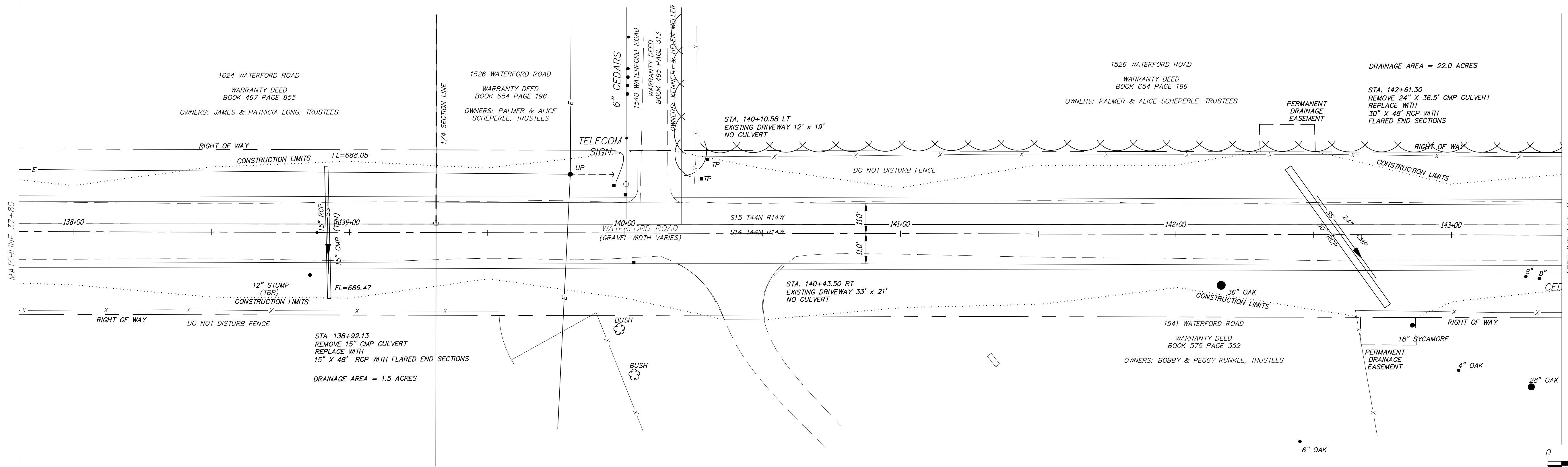
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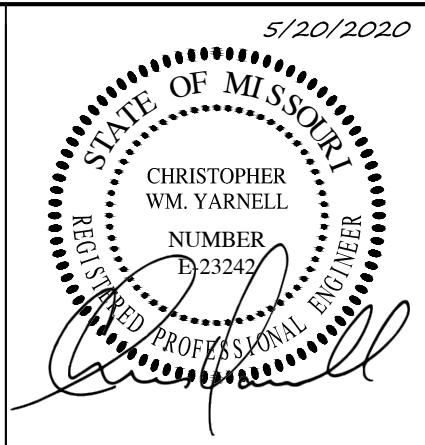


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 LICENSE NO. 23242

WATERFORD AND MOUNT HOPE ROADWAY IMPROVEMENTS

COLE COUNTY, MISSOURI

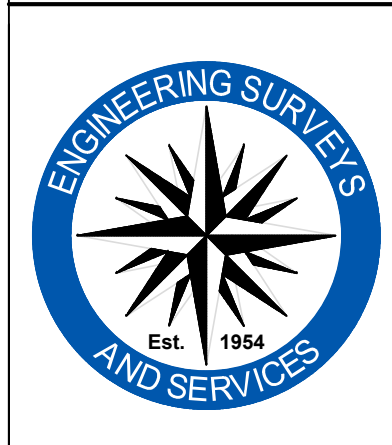
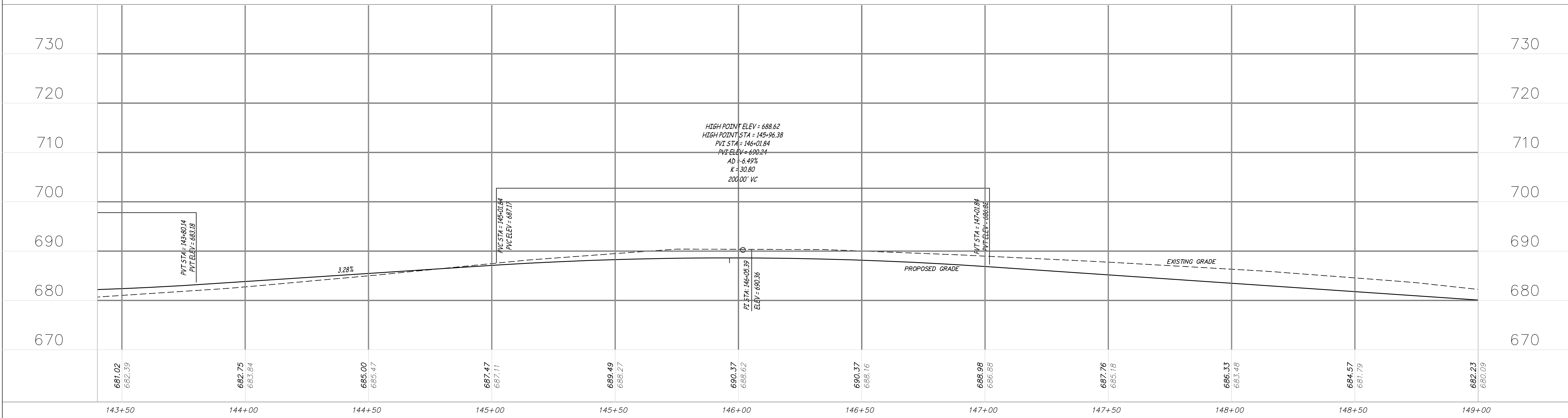
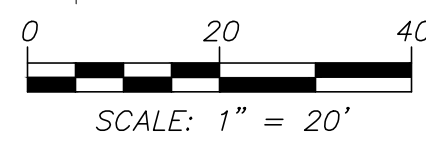
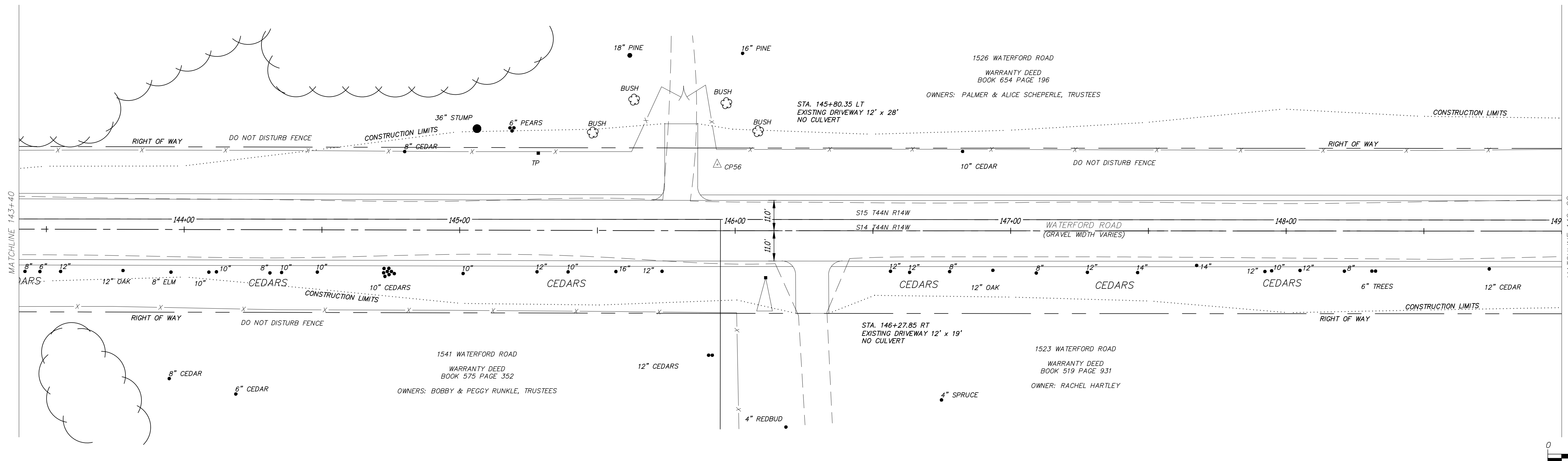
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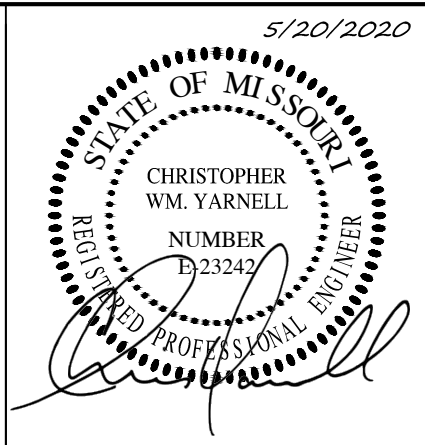
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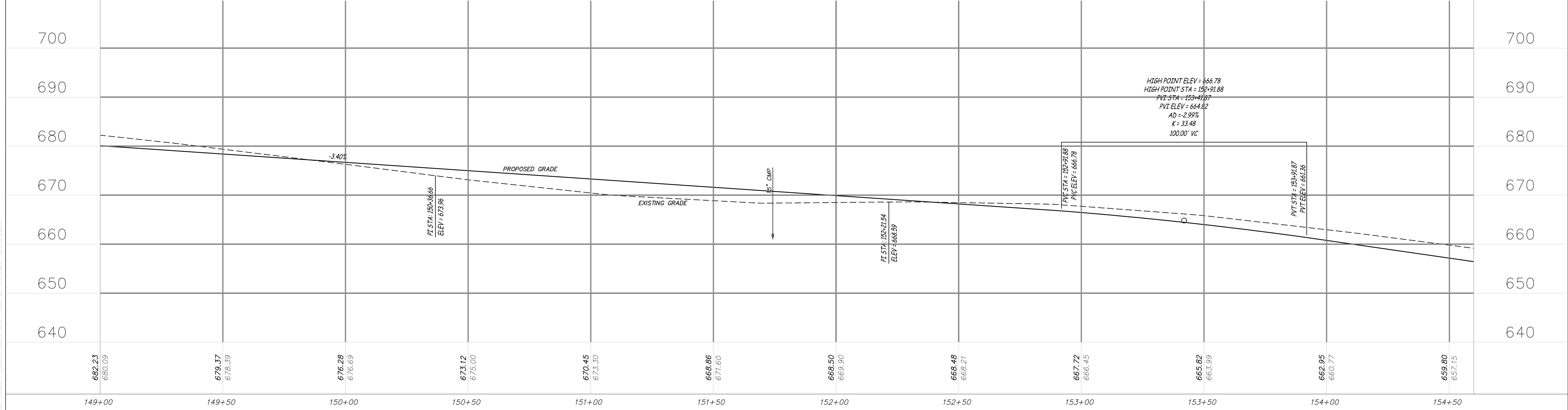
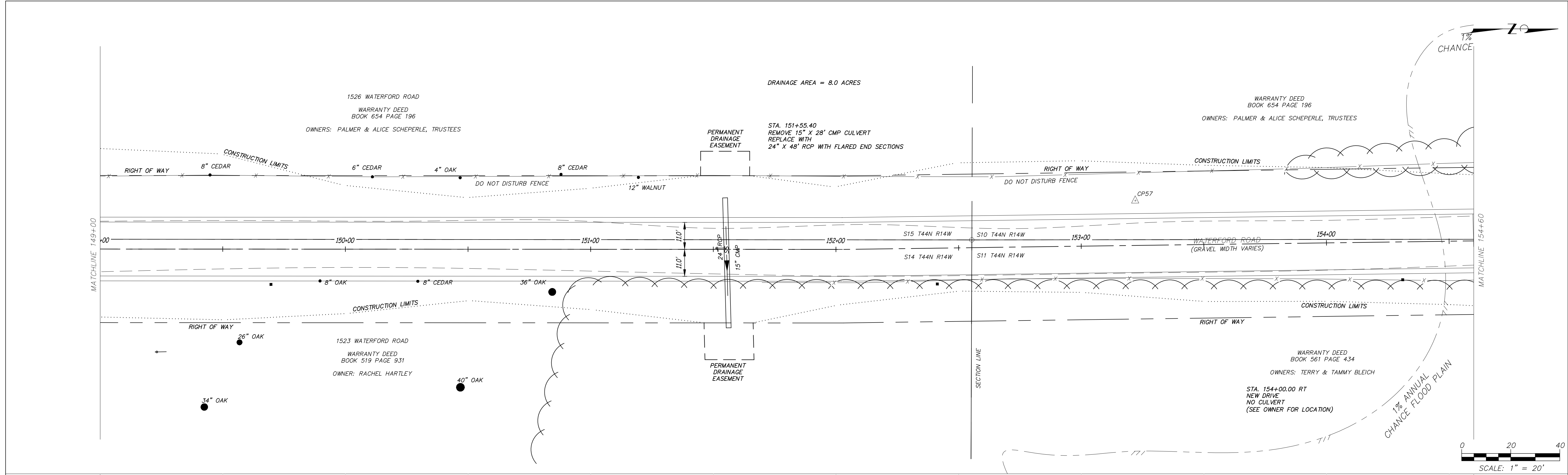
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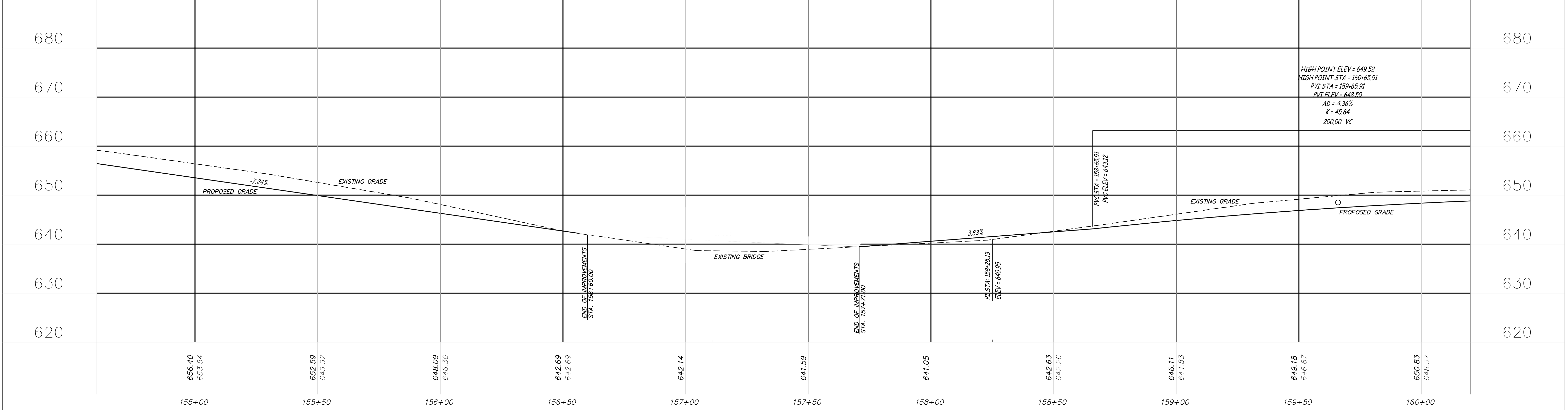
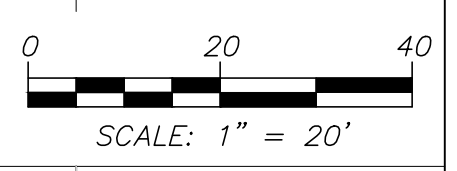
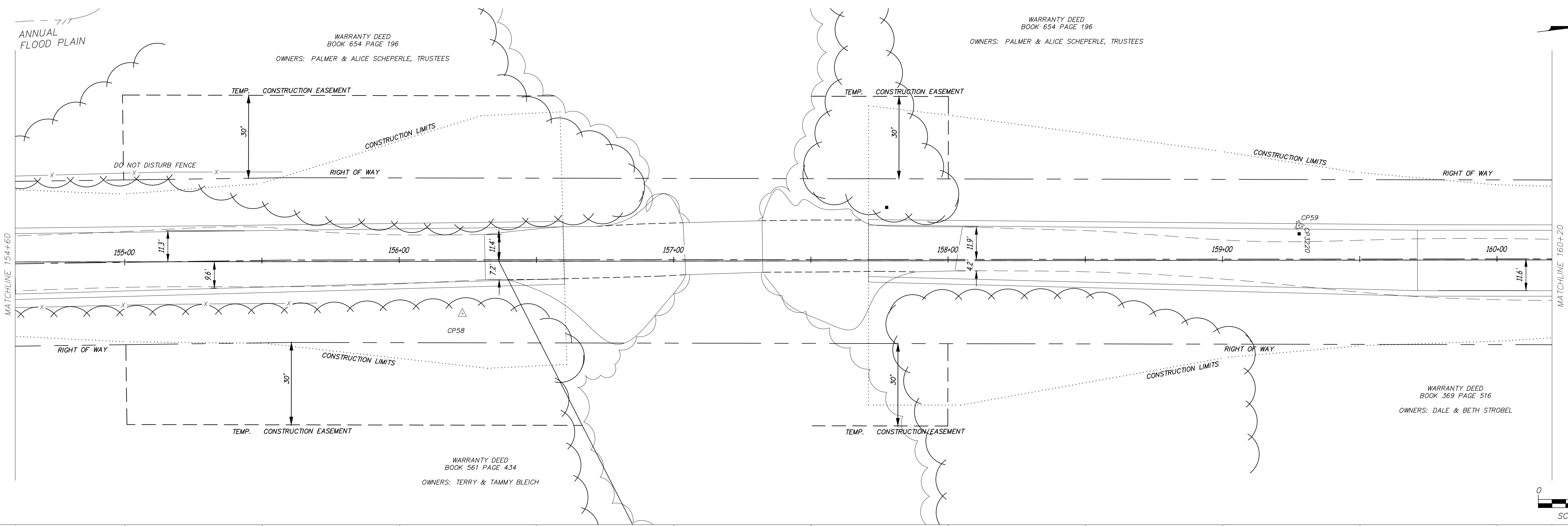
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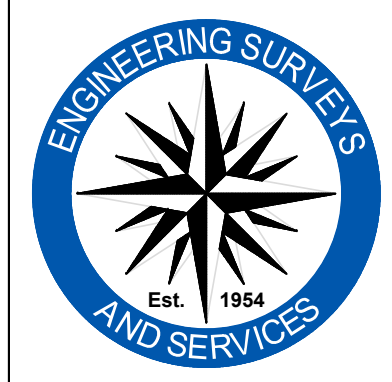


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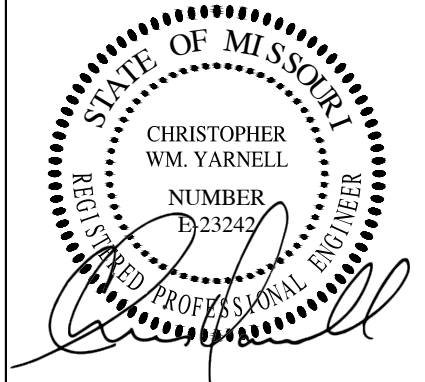
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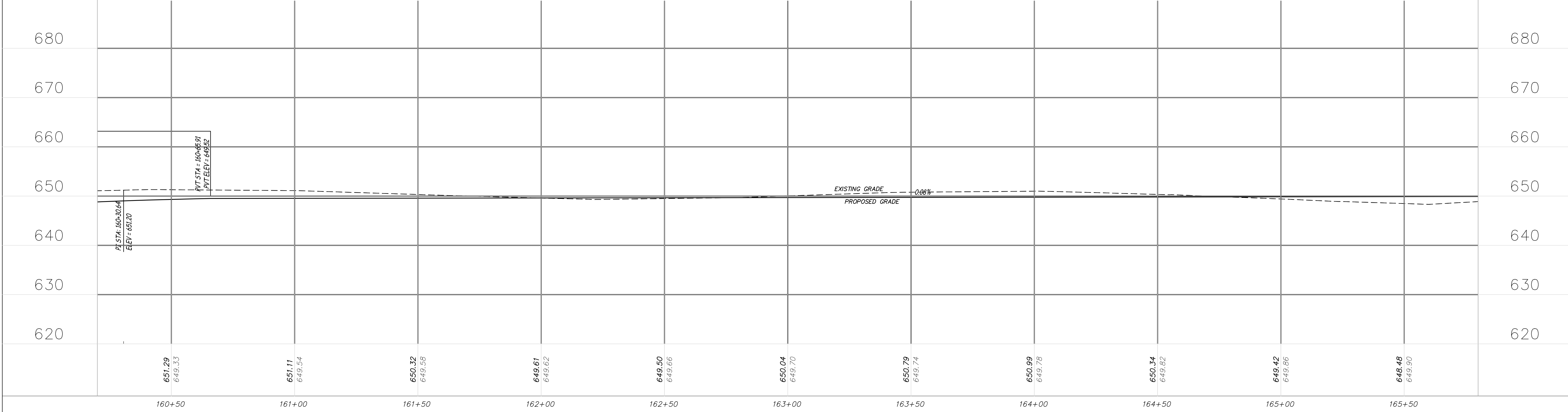
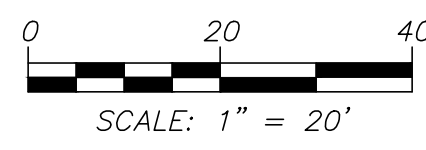
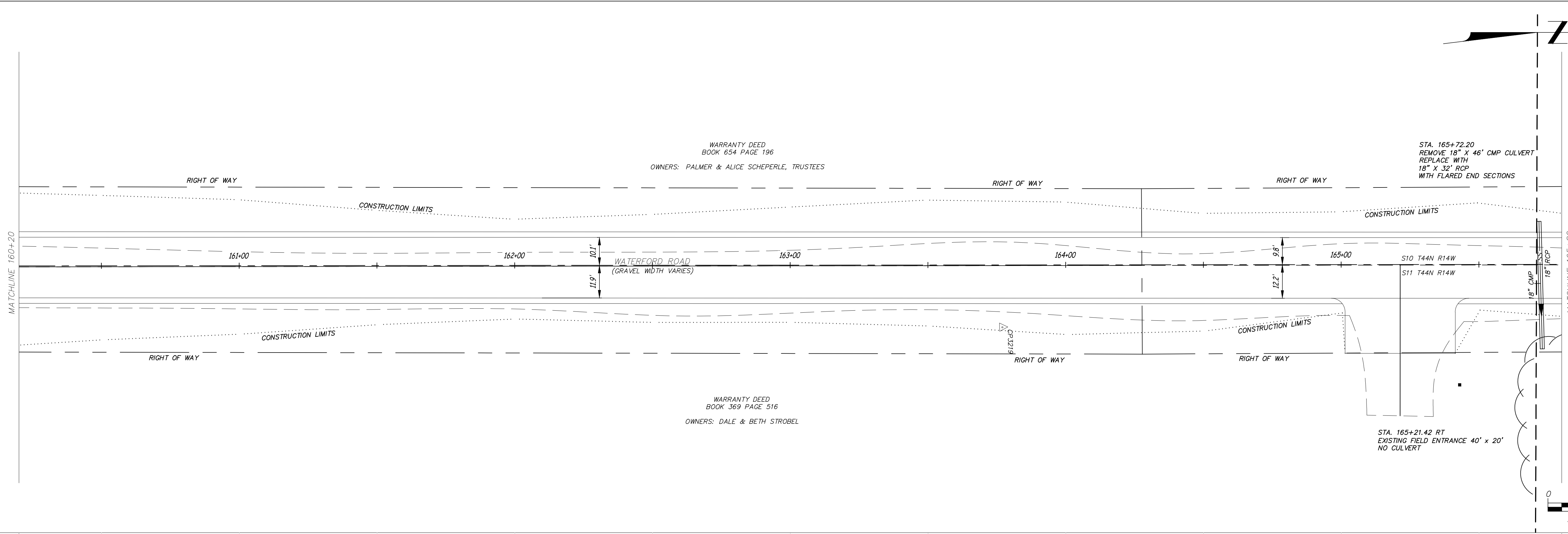
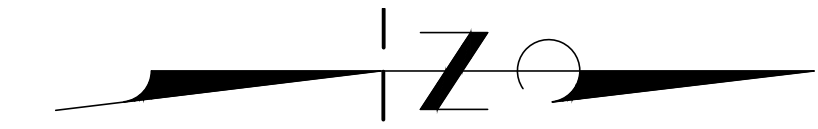


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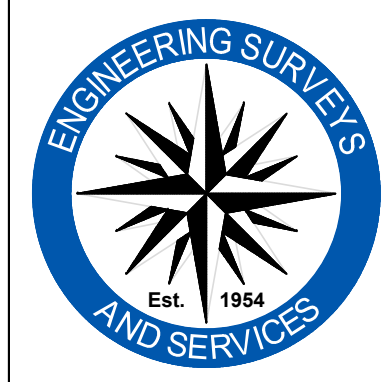
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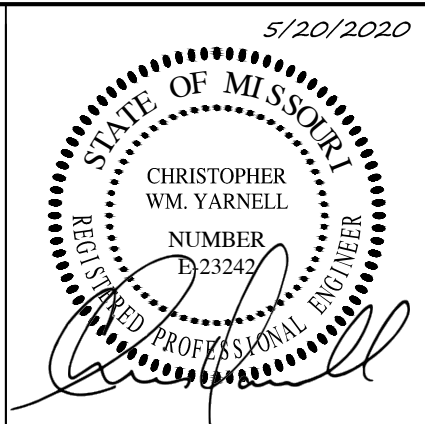
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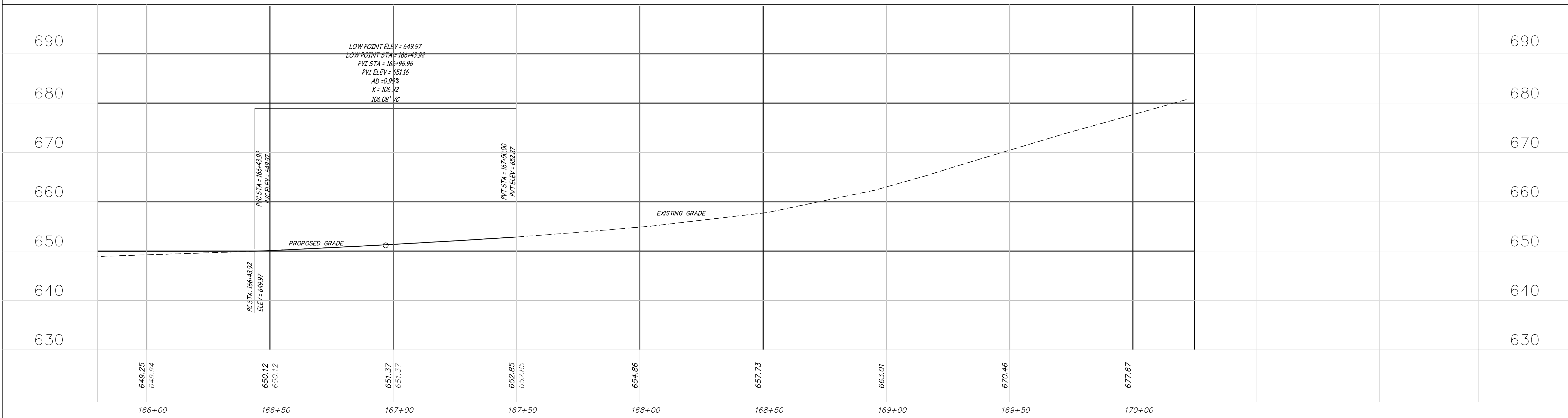
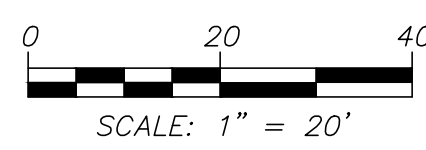
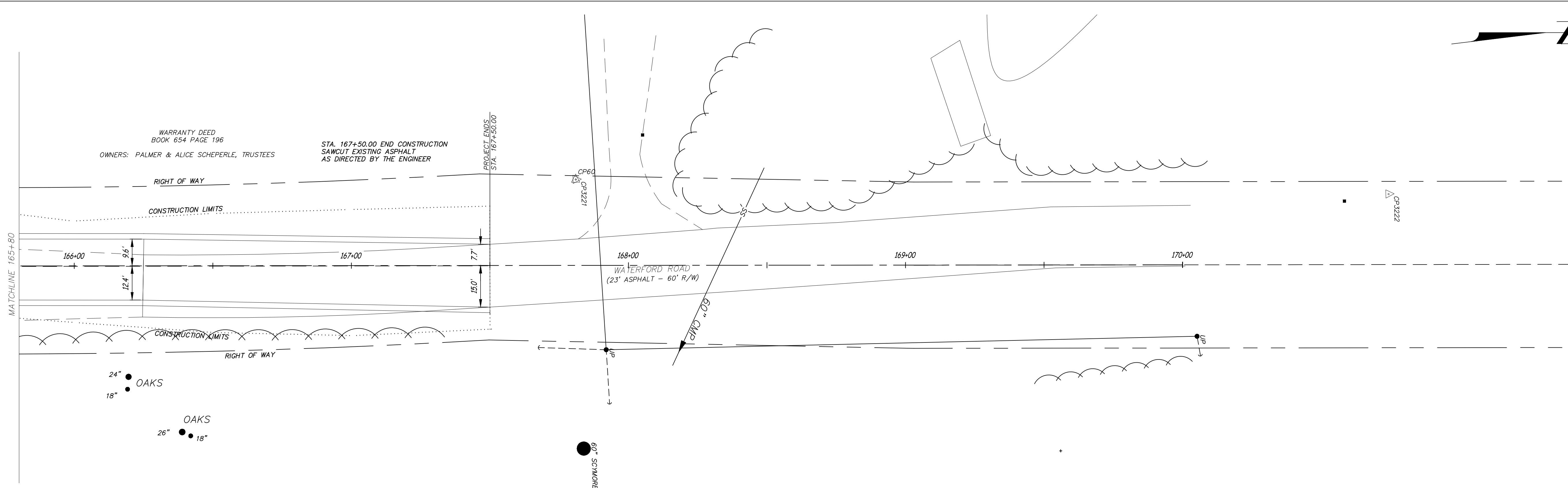


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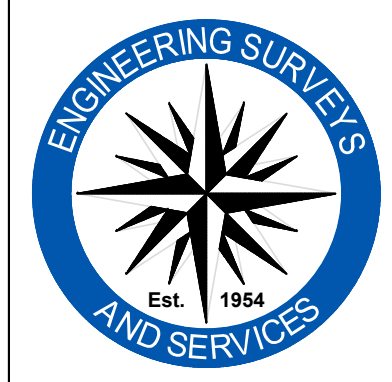
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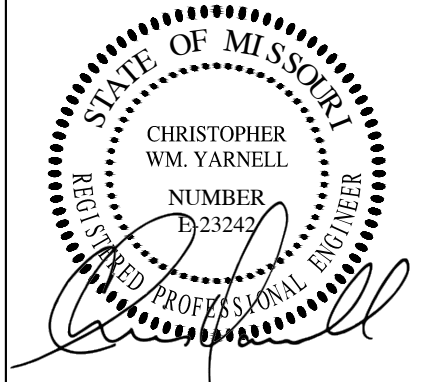
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