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|-----------------------|----------------|--------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 1 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | CONTRACT NO. 63422 | | |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

PLANS FOR PROPOSED FEDERAL AID PROJECT

**FAU ROUTE 3602 (GILMER ROAD, COUNTY HIGHWAY V76)
AT LAKEWOOD FOREST PRESERVE
FORT HILL TRAIL BIKE PATH UNDERPASS**

**SECTION 08-F3000-07-BT
PROJECT NO. TE-00D1 (822)
LAKE COUNTY FOREST PRESERVE DISTRICT
LAKE COUNTY
C-91-484-10**



PROJECT LOCATED IN
FREMONT TOWNSHIP

INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
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IDOT HIGHWAY STANDARDS

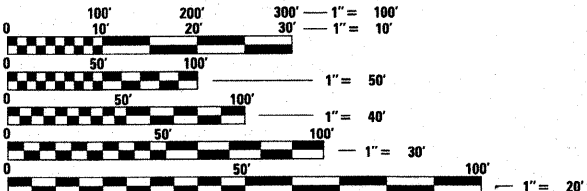
| | |
|-----------|---|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 280001-05 | TEMPORARY EROSION CONTROL SYSTEMS |
| 542301-03 | PRECAST REINFORCED CONCRETE FLARED END SECTION |
| 542546-01 | FLUSH INLET BOX FOR MEDIAN |
| 601101-01 | CONCRETE HEADWALL FOR PIPE UNDERDRAIN |
| 701301-04 | LANE CLOSURE 2L2W-SHORT TIME OPERATION |
| 701306-03 | LANE CLOSURE 2L2W-SLOW MOVE OPERATIONS, DAY ONLY 45 MPH |
| 701326-04 | LANE CLOSURE 2L2W PAVEMENT WIDENING 45 MPH |
| 701701-07 | URBAN LANE CLOSURE MULTI LANE INTERSECTION |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| TC-18 | SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS |
| TC-22 | ARTERIAL ROAD INFORMATION SIGN |

LCDOT HIGHWAY STANDARDS

| | |
|---------|---|
| LC 2050 | TRIANGULAR SILT DIKE INSTALLATION FOR ROADWAY DITCH OR DRAINAGE DITCH |
| LC 2051 | PERIMETER EROSION BARRIER INSTALLATION |
| LC 4202 | CONCRETE WASHOUT FACILITIES |
| LC 6020 | SUB-SURFACE DRAINS |
| LC 7000 | MODIFIED STANDARD 701011-01 |
| LC 7001 | MODIFIED STANDARD 701501-03 |
| LC 7200 | DIRECTION INDICATOR BARRICADES |
| LC 7201 | TEMPORARY CONSTRUCTION INFORMATION SIGNS |
| LC 7202 | MODIFIED M.U.T.C.D. TYPICAL APPLICATION DIAGRAM TA-3 |
| LC 7800 | TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS |

DESCRIPTION OF PROJECT

THIS IMPROVEMENT CONSISTS OF EARTH EXCAVATION, BIKEPATH UNDERPASS STRUCTURE, CONSTRUCTION OF STORM SEWERS AND DRAINAGE STRUCTURES, AND RECONSTRUCTION OF EXISTING ROADWAY.

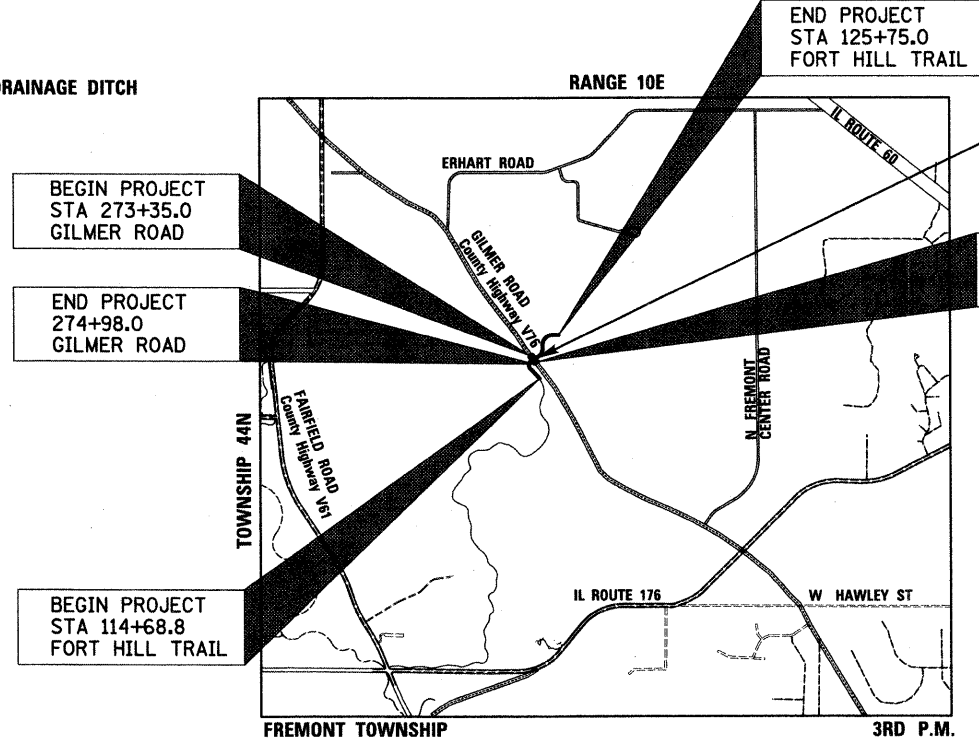


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

with the following
COUNTY: LAKE
CITY-TOWNSHIP: WAUCONDA - FREMONT
SEC. & 1/4 SEC. NO. 20 SW 1/4 NE 1/4 & N 1/2 SE 1/4
48 HOURS BEFORE YOU DIG
EXCLUDING SAT., SUN. & HOLIDAYS

CONTRACT NO. 63422



PROJECT LOCATION
NOT TO SCALE

PROJECT LENGTH:
GILMER ROAD GROSS & NET LENGTH - 163.0 FT (0.031 MILE)
FORT HILL TRAIL GROSS & NET LENGTH - 1,106.2 (0.210 MILE)

ADT:
GILMER ROAD - 7,300 VPD (2008)

DESIGN SPEEDS:
GILMER ROAD - 55 MPH POSTED SPEED = 50 MPH
FORT HILL - 20 MPH

DESIGN DESIGNATION:
1113(30) MINOR ARTERIAL 0.90 (B-20)

STATION EQUATION:
STA 274+14.15 GILMER ROAD =
STA 119+03.17 FORT HILL TRAIL

PROPOSED UNDERPASS
STA 118+40.7 TO STA 119+65.7
SN: 049-N006

| |
|---|
| STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS |
| APPROVED <i>[Signature]</i> 20 10 |
| LAKE COUNTY FOREST PRESERVE DISTRICT |
| PASSED <i>[Signature]</i> 20 10 |
| DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS |
| RELEASING FOR BID BASED ON LIMITED REVIEW <i>[Signature]</i> 20 11 |
| DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER |

| |
|---|
| APPLIES TO SHEETS 1-13, 25-60 |
| |
| REGISTERED P.E., STATE OF ILLINOIS EXPIRES 11/30/2011 |
| APPLIES TO SHEETS 14-24 |
| |
| REGISTERED S.E., STATE OF ILLINOIS EXPIRES 11/30/2012 |



CIVILTECH
194-00022
LSP/SE
CORPORATION
ILLINOIS
450 E. Devon Ave, Suite 300 - Itasca, Illinois 60143
Tel: 630.773.3900 - Fax: 630.773.3975
www.civiltechinc.com

CONSULTANT ENGINEER: REID T. MAGNER, P.E. CIVILTECH ENGINEERING INC.
PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406 SCHAUMBURG, IL

GENERAL NOTES

60+6 = 66

A. GENERAL

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2007, THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE "MANUAL OF TEST PROCEDURES OF MATERIALS" IN EFFECT ON THE DATE OF INVITATION OF BIDS, AND THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS INDICATED ON THE CHECK SHEETS IN THE SPECIAL PROVISIONS. ANY REFERENCE TO "STANDARDS" THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED AS THE LATEST I.D.O.T. STANDARD.
2. PROPOSED LINES AND GRADES SHOWN ON THE CONSTRUCTION PLANS REPRESENT FINISHED GRADE ELEVATIONS.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, ILLINOIS DEPARTMENT OF TRANSPORTATION (847) 705-4487, LAKE COUNTY DIVISION OF TRANSPORTATION (847) 377-7400, AND THE LAKE COUNTY FOREST PRESERVE (847) 968-3277, 72 HOURS PRIOR TO THE COMMENCEMENT OF WORK.
4. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
5. ALL UNBALLASTED TYPE I AND TYPE II BARRICADES SHALL HAVE TWO SANDBAGS ON THE BOTTOM RAIL.
6. IN ADDITION TO ARTICLE 107.35, CONSTRUCTION ACTIVITIES MAY OCCUR BETWEEN 7:00AM AND 7:00PM MONDAY THROUGH FRIDAY AND 8:30AM TO 5:00PM ON SATURDAYS. CONSTRUCTION ACTIVITIES ON SUNDAY ARE PROHIBITED. NO WORK WILL BE PERFORMED ON STATE OF ILLINOIS OBSERVED HOLIDAYS. CONSTRUCTION ACTIVITIES ARE IDENTIFIED AS THE OPERATION OF HEAVY EQUIPMENT, INCLUDING BUT NOT LIMITED TO THE WARMING UP OF ANY PIECE OF EQUIPMENT OR TURNING ON ENGINES. CONSTRUCTION ACTIVITIES SHALL NOT BEGIN BEFORE 7:00AM.
7. SHOULD THE CONTRACTOR DESIRE TO OBTAIN WATER FOR CONSTRUCTION PURPOSES FROM THE LOCAL AREA, THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING ARRANGEMENTS THROUGH THE PUBLIC WORKS DEPARTMENT. LAKE COUNTY PUBLIC WORKS WILL INSTRUCT THE CONTRACTOR WHERE A POTABLE WATER SUPPLY FROM A HYDRANT NEAR THE WORK SITE IS LOCATED. THE COUNTY SHALL METER THE POTABLE WATER USED BY THE CONTRACTOR AND THE CONTRACTOR WILL BE CHARGED FOR THE WATER USED AT THE COUNTY RATES. THE CONTRACTOR IS RESPONSIBLE FOR THE TRANSPORTATION OF THE WATER TO THE SITE WHERE NEEDED. THE COST OF ALL MATERIALS REQUIRED AND ALL LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS WILL NOT BE PAID FOR SEPARATELY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. INSPECTION AND LAYOUT - THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE FINISHED WORK CONFORM TO THE LINES, GRADES, ELEVATIONS, AND DIMENSIONS CALLED FOR IN THE PLANS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE QUALITY AND COMPLETENESS OF HIS WORK. THE ENGINEER IS THE FOREST PRESERVE'S REPRESENTATIVE TO VERIFY QUALITY AND COMPLETENESS. ALL CONSTRUCTION LAYOUT NECESSARY SHALL BE COORDINATED THROUGH THE RESIDENT ENGINEER. THE CONTRACTOR SHALL EXERCISE CARE IN THE PRESERVATION OF STAKES AND BENCH MARKS AND SHALL HAVE THEM RESET AT HIS/HER EXPENSE WHEN ANY ARE DAMAGED, LOST, DISPLACED, OR REMOVED OR OTHERWISE OBLITERATED.
9. TEMPORARY TOILET - THE CONTRACTOR SHALL PROVIDE A TEMPORARY TOILET FACILITY FOR THE USE OF ALL CONTRACTORS' PERSONNEL EMPLOYED ON THE WORK, AND SHALL MAINTAIN SAME IN PROPER SANITARY CONDITION. AT COMPLETION, THE FACILITY SHALL BE REMOVED AND THE PREMISES LEFT CLEAN. THE ENGINEER SHALL APPROVE THE LOCATION OF THE TEMPORARY TOILET. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

B. UTILITIES

10. THE LOCATION OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THEIR ACCURACY IS NOT GUARANTEED. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF SUCH UTILITIES SO AS NOT TO DAMAGE THEM IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITY OWNERS SO THAT THEIR FACILITIES MAY BE ADJUSTED OR RELOCATED, IF NECESSARY, PRIOR TO CONSTRUCTION OPERATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR DESTRUCTION OF PUBLIC OR PRIVATE PROPERTY IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND ARTICLE 107.20 OF THE "STANDARD SPECIFICATIONS", AND SHALL RESTORE SUCH PROPERTY AT HIS OWN EXPENSE. COORDINATION OF ALL UTILITY WORK INVOLVED IN THE CONSTRUCTION AREA WILL BE DISCUSSED AT A PRE-CONSTRUCTION CONFERENCE. THE CONTRACTOR SHALL USE ALL NECESSARY PRECAUTIONS AND PROTECTIVE MEASURES REQUIRED TO MAINTAIN EXISTING UTILITIES, SEWERS, AND APPURTENANCES THAT MUST BE KEPT IN OPERATION. IN PARTICULAR, THE CONTRACTOR WILL TAKE ADEQUATE MEASURES TO PREVENT THE UNDERMINING OF UTILITIES AND SEWERS WHICH ARE STILL IN SERVICE.
12. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS AND CABLE TELEVISION FACILITIES IN ACCORDANCE WITH STATE LAW.

C. DRAINAGE

13. WHENEVER DURING CONSTRUCTION OPERATIONS ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES SUCH THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL UTILITY STRUCTURES SHALL BE CLEANED AND FREE FROM DIRT AND DEBRIS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
14. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL PROVIDE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR OTHER ACCEPTABLE METHOD. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
15. THE CONTRACTOR SHALL CONFIRM ALL EXISTING STORM SEWER PIPE SIZES AND INVERTS PRIOR TO ORDERING STRUCTURES. MODIFICATION OF STRUCTURES DUE TO THE FAILURE OF THE CONTRACTOR TO PERFORM THIS TASK SHALL BE AT THE CONTRACTOR'S EXPENSE AND MAY LEAD TO THE REJECTION OF THE STRUCTURE IN THE FIELD.
16. MATERIALS CONSIDERED SUITABLE BY THE ENGINEER FOR SALVAGE SHALL BE STORED WITHIN THE PROJECT LIMITS FOR LATER REMOVAL BY THE COUNTY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
17. OFFSETS SHOWN FOR ALL STRUCTURES ARE TO THE CENTER OF STRUCTURE.
18. DEWATERING OF SEWER AND UNDERPASS TRENCHES AS WELL AS TEMPORARY SHEETING OR BRACING THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. IN THE EVENT THAT SOFT MATERIALS ARE ENCOUNTERED IN SEWER CONSTRUCTION, THE CONTRACTOR SHALL, UPON THE APPROVAL OF THE ENGINEER, OVER EXCAVATE TO A DEPTH OF 12 INCHES BELOW THE BOTTOM OF THE PIPE AND BACKFILL WITH COMPACTED CRUSHED STONE, PROPERLY FORMED TO FIT THE BOTTOM OF THE PIPE.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A DEWATERING PLAN IN COMPLIANCE WITH NPDES REGULATIONS AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

D. MISCELLANEOUS

20. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
21. THE CONTRACTOR SHALL SAW CUT PAVEMENT, CURB & GUTTER, SIDEWALK, AND DRIVEWAY PAVEMENT AS INDICATED ON THE PLANS TO SEPARATE THE EXISTING MATERIAL TO BE REMOVED BY MEANS OF AN APPROVED CONCRETE SAW TO A DEPTH AS SHOWN ON THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER. ALL SAWCUTTING SHALL BE INCLUDED IN THE COST OF REMOVAL ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVAL UNLESS OTHERWISE NOTED.
22. CARE SHALL BE TAKEN BY THE CONTRACTOR TO NOT DAMAGE THE MATERIALS REMAINING DIRECTLY ADJACENT TO THE MATERIAL TO BE REMOVED. ANY DAMAGE TO THE EXISTING MATERIAL RESULTING FROM THE MATERIAL REMOVAL OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
23. THE CONTRACTOR WILL BE REQUIRED TO DISPOSE OF ALL SIDEWALK, CURB AND GUTTER, PAVEMENT, AND ALL OTHER MATERIAL EXCAVATED OR REMOVED DUE TO CONSTRUCTION OPERATIONS, AT HIS EXPENSE. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM SITE ON THE DAY IT IS EXCAVATED. NO PAYMENT WILL BE MADE FOR HAULING OR TRUCKING MATERIAL TO A LOCATION, PROVIDED BY THE CONTRACTOR, OUTSIDE THE LIMITS OF THE IMPROVEMENT, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
24. WHEN DIRECTED BY THE ENGINEER, SUPPLEMENTAL WATERING SHALL BE APPLIED TO ALL SEEDED/SODDED AREAS PRIOR TO FINAL ACCEPTANCE AT A RATE SPECIFIED BY THE ENGINEER AND IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS" AND SPECIAL PROVISIONS.
25. ALL SUITABLE EXCESS MATERIAL FROM SEWER TRENCHES, SIDE ROADS, ENTRANCES OR OTHER NECESSARY EXCAVATIONS SHALL BE USED IN THE CONSTRUCTION OF THE IMPROVEMENT. PLACEMENT AND COMPACTION OF THIS MATERIAL SHALL BE CONSIDERED AS INCLUDED IN THE COST OF "EARTH EXCAVATION", AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
26. ALL EXCAVATION AND EMBANKMENT SHALL BE CONSTRUCTED FOUR (4) INCHES BELOW FINISHED GRADE LINE TO ALLOW FOR TOP SOIL PLACEMENT AS DESIGNATED IN THE PLANS FOR THIS CONTRACT.
27. ALL EXISTING GRASS AREAS DISTURBED BY THE CONSTRUCTION OPERATIONS SHALL BE SODDED OR SEEDED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
28. ALL CLEARING AND REMOVAL OF BUSHES, HEDGES AND TREES UNDER 6" IN DIAMETER SHALL BE INCLUDED IN THE COST OF "EARTH EXCAVATION."

D. MISCELLANEOUS (CONTINUED)

29. ALL EXISTING TRAFFIC SIGNS, STREET SIGNS, ETC., WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND ARE NOT NOTED FOR REMOVAL OR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT LOCATIONS AS DESIGNATED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. ALL SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THEIR OWNER AS APPROPRIATE. IN ADDITION, ALL MAIL BOXES THAT INTERFERE WITH CONSTRUCTION SHALL BE SIMILARLY RELOCATED AT NO ADDITIONAL COST IN ACCORDANCE WITH ARTICLE 107.20 OF THE I.D.O.T. STANDARD SPECIFICATIONS.
30. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGE WAY. IF THIS CANNOT BE ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE OF SIMILAR SIZE AND MATERIAL TO THE ORIGINAL LINE AND PUT IN ACCEPTABLE OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR ON-SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
31. THE CONTRACTOR SHALL KEEP A SET OF "APPROVED" CONSTRUCTION PLANS ON THE JOB SITE, AND SHALL MAINTAIN (AS INDICATED HEREIN AND ELSEWHERE WITHIN THESE CONSTRUCTION NOTES, SPECIFICATIONS, AND PLANS) LEGIBLE RECORD ON SAID PLANS OF ANY FIELD TILE ENCOUNTERED, ANY MODIFICATIONS/ALTERATIONS TO ALIGNMENT AND/OR TO PLANS AND SPECIFICATIONS OF PROPOSED IMPROVEMENTS, ETC. UPON COMPLETION OF THE CONTRACTORS' WORK, SAID PLANS AND INFORMATION SHALL BE PROVIDED TO THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
32. THE COST OF REMOVING TEMPORARY CONCRETE BARRIER IS INCLUDED IN THE COST OF "TEMPORARY CONCRETE BARRIER".
33. ALL EARTHWORK AND STRUCTURE EXCAVATION IS TO BE REGRADED/PLACED ON SITE. THERE IS NO HAUL-OFF ANTICIPATED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND STRUCTURE EXCAVATION.
34. MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS SHALL INCLUDE THE REPAIR OF THE VARIOUS SYSTEMS, REMOVAL OF ENTRAPPED SEDIMENT AND CLEANING OF ANY SILT FILTER FABRIC. THE SEDIMENT SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AND DISPOSED OF ACCORDING TO ARTICLE 202.03 OF THE "STANDARD SPECIFICATIONS". MAINTENANCE OF TEMPORARY EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE COST OF TEMPORARY EROSION CONTROL ITEMS BEING INSTALLED.

E. POINTS OF CONTACT:

LAKE COUNTY FOREST PRESERVE DISTRICT
MR. JEFF SLOOT
PROJECT ARCHITECT
32492 NORTH ALMOND ROAD
GRAYSLAKE, IL 60030
PH: (847) 968-3277

LAKE COUNTY DIVISION OF TRANSPORTATION
MS. BETSY A DUCKERT, P.E.
DEVELOPMENT ENGINEER
600 W WINCHESTER ROAD
LIBERTYVILLE, IL 60048

NICOR GAS
MS. CONSTANCE LANE
ENGINEERING ADMINISTRATOR
1844 FERRY ROAD
NAPERVILLE, IL 60563-9600
PH: (630) 388-3830
FAX: (630) 983-4028

COMMONWEALTH EDISON COMPANY
MS. TERRI BLECK
MANAGER, PUBLIC RELOCATION GROUP - NORTHEAST REGION
1500 FRANKLIN BLVD.
LIBERTYVILLE, IL 60048
PH: (847) 816-5239
FAX: (847) 816-5348

AT&T ILLINOIS
MR. HECTOR GARCIA
LEGAL MANDATE ENGINEER
100 COMMERCE DRIVE, FLOOR 2
OAK BROOK, IL 60523
PH: (630) 573-5465

| | |
|---------------|--|
| DATE | |
| BY | |
| EMERGED | |
| NOTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| FINAL SURVEY | |
| NOTE BOOK | |
| NO. | |

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| DATE | |
| BY | |
| EMERGED | |
| NOTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| ORIGINAL SURVEY | |
| NOTE BOOK | |
| NO. | |

| | | |
|--|-------------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - |
| FILE NAME ...sheet\01 GEN\2130.notes.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE 50.00' / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/17/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES
FORT HILL TRAIL BIKE PATH UNDERPASS**

SHEET NO. 1 OF 2 SHEETS

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 2 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

SUMMARY OF QUANTITIES

| CODE NO. | SUMMARY OF QUANTITIES | | UNIT | TOTAL | 0028 ROADWAY |
|----------|-----------------------|--|--------|---------|--------------|
| | | PAY ITEM | | | |
| 20101000 | | TEMPORARY FENCE | FOOT | 500 | 500 |
| 20101200 | * ^ | TREE ROOT PRUNING | EACH | 30 | 30 |
| 20101300 | ^ | TREE PRUNING (1 TO 10 INCH DIAMETER) | EACH | 15 | 15 |
| 20101350 | ^ | TREE PRUNING (OVER 10 INCH DIAMETER) | EACH | 15 | 15 |
| 20200100 | * | EARTH EXCAVATION | CU YD | 32,743 | 32,743 |
| 20400800 | | FURNISHED EXCAVATION | CU YD | 100 | 100 |
| 20800150 | * | TRENCH BACKFILL | CU YD | 94 | 94 |
| 21001000 | | GEOTECHNICAL FABRIC FOR GROUND STABILIZATION | SQ YD | 2,566 | 2,566 |
| 21101615 | ^ | TOPSOIL FURNISH AND PLACE, 4" | SQ YD | 76,472 | 76,472 |
| 25000210 | ^ | SEEDING, CLASS 2A | ACRE | 15.3 | 15.3 |
| 25000400 | ^ | NITROGEN FERTILIZER NUTRIENT | POUND | 1,422 | 1,422 |
| 25000600 | ^ | POTASSIUM FERTILIZER NUTRIENT | POUND | 1,422 | 1,422 |
| 25100630 | ^ | EROSION CONTROL BLANKET | SQ YD | 100,188 | 100,188 |
| 25100635 | * ^ | HEAVY DUTY EROSION CONTROL BLANKET | SQ YD | 200 | 200 |
| 25200200 | ^ | SUPPLEMENTAL WATERING | UNIT | 43 | 43 |
| 28000200 | | EARTH EXCAVATION FOR EROSION CONTROL | CU YD | 200 | 200 |
| 28000250 | | TEMPORARY EROSION CONTROL SEEDING | POUND | 1,580 | 1,580 |
| 28000305 | * | TEMPORARY DITCH CHECKS | FOOT | 182 | 182 |
| 28000400 | * | PERIMETER EROSION BARRIER | FOOT | 3,704 | 3,704 |
| 28100101 | | STONE RIPRAP, CLASS A1 | SQ YD | 4 | 4 |
| 28200200 | | FILTER FABRIC | SQ YD | 5 | 5 |
| 35101800 | | AGGREGATE BASE COURSE, TYPE B 6" | SQ YD | 1,689 | 1,689 |
| 40600100 | | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 1,184 | 1,184 |
| 40603310 | | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 264 | 264 |
| 40701921 | | HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12" | SQ YD | 503 | 503 |
| 44000100 | | PAVEMENT REMOVAL | SQ YD | 503 | 503 |

| CODE NO. | SUMMARY OF QUANTITIES | | UNIT | TOTAL | 0028 ROADWAY |
|----------|-----------------------|---|--------|--------|--------------|
| | | PAY ITEM | | | |
| 48101200 | | AGGREGATE SHOULDERS, TYPE B | TON | 523 | 523 |
| 50200100 | | STRUCTURE EXCAVATION | CU YD | 4,536 | 4,536 |
| 50300225 | | CONCRETE STRUCTURES | CU YD | 683.6 | 683.6 |
| 50300254 | | RUBBED FINISH | SQ FT | 5,150 | 5,150 |
| 50300285 | * | FORM LINER TEXTURED SURFACE | SQ FT | 2,470 | 2,470 |
| 50800205 | | REINFORCEMENT BARS, EPOXY COATED | POUND | 96,970 | 96,970 |
| 50800515 | | BAR SPLICERS | EACH | 128 | 128 |
| 51500100 | | NAME PLATES | EACH | 1 | 1 |
| 5421D015 | | PIPE CULVERTS, CLASS D, TYPE 1 15"(TEMPORARY) | FOOT | 210 | 210 |
| 54213657 | | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" | EACH | 3 | 3 |
| 54213663 | | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18" | EACH | 1 | 1 |
| 54213870 | | STEEL END SECTIONS 15" | EACH | 4 | 4 |
| 54244405 | | FLUSH INLET BOX FOR MEDIAN, STANDARD 542546 | EACH | 5 | 5 |
| 550A0050 | | STORM SEWERS, CLASS A, TYPE 1 12" | FOOT | 181 | 181 |
| 550A0070 | | STORM SEWERS, CLASS A, TYPE 1 15" | FOOT | 138 | 138 |
| 550A0090 | | STORM SEWERS, CLASS A, TYPE 1 18" | FOOT | 107 | 107 |
| 58000100 | | MEMBRANE WATERPROOFING | SQ FT | 2,813 | 2,813 |
| 59100100 | | GEOCOMPOSITE WALL DRAIN | SQ YD | 669 | 669 |
| 67100100 | | MOBILIZATION | LSUM | 1 | 1 |
| 70106800 | | CHANGEABLE MESSAGE SIGN | CAL MO | 6 | 6 |
| 70300100 | | SHORT TERM PAVEMENT MARKING | FOOT | 652 | 652 |
| 70300220 | | TEMPORARY PAVEMENT MARKING - LINE 4" | FOOT | 2,194 | 2,194 |
| 70300230 | | TEMPORARY PAVEMENT MARKING - LINE 5" | FOOT | 2,377 | 2,377 |
| 70300520 | | PAVEMENT MARKING TAPE, TYPE III 4" | FOOT | 5,404 | 5,404 |
| 70300530 | | PAVEMENT MARKING TAPE, TYPE III 5" | FOOT | 5,221 | 5,221 |
| 70301000 | | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 3,978 | 3,978 |

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| PLOTTED | |
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| AREAS | |
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| CHECKED | |
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| FILE NAME ...sheet\01 GEN\2130_sum_qty.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE 50.00 / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/15/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

NOT TO SCALE

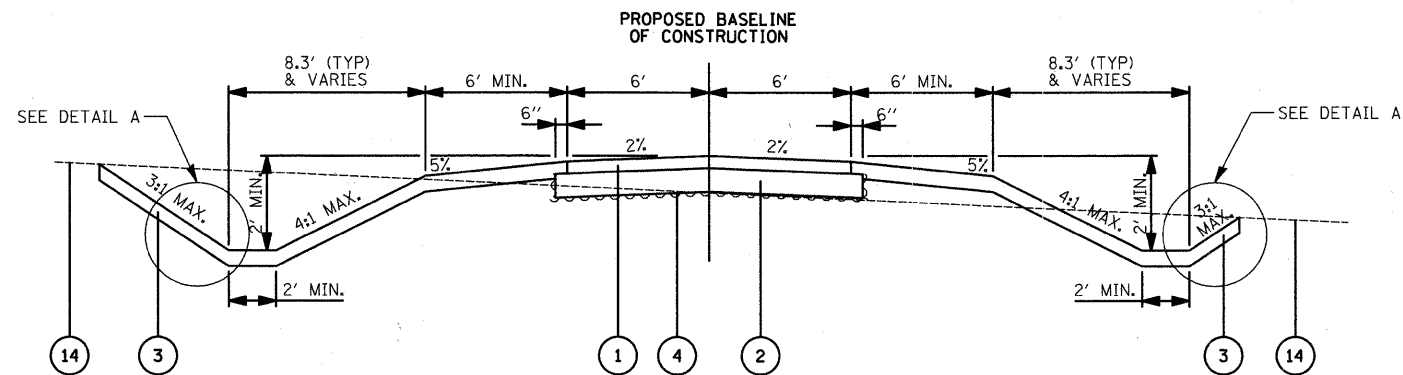
SUMMARY OF QUANTITIES
FORT HILL TRAIL BIKE PATH UNDERPASS

SHEET NO. 1 OF 2 SHEETS

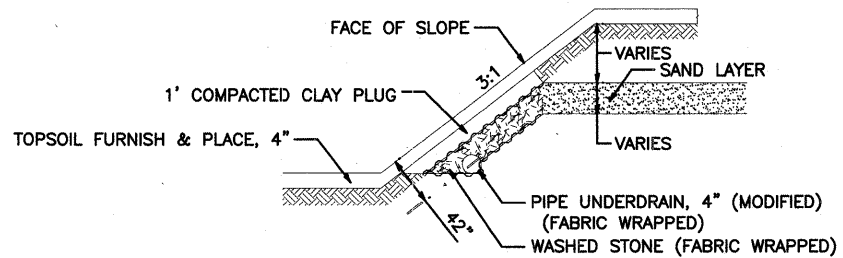
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|---|----------------|--------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 3 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| DATE | |
| BY | |
| SURVEY | |
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| AREAS CHECKED | |
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| AREAS CHECKED | |
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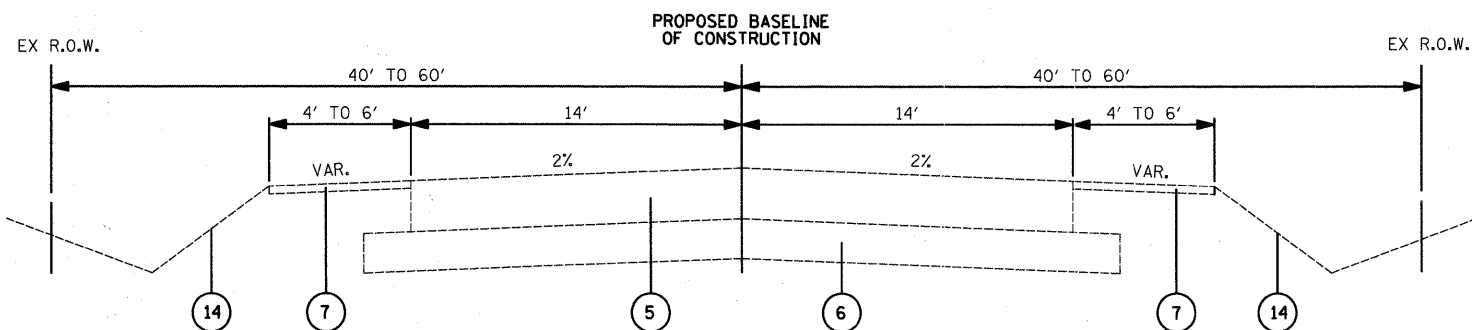


PROPOSED TYPICAL SECTION
STA 114+68.8 TO STA 125+75.0 - BIKE PATH

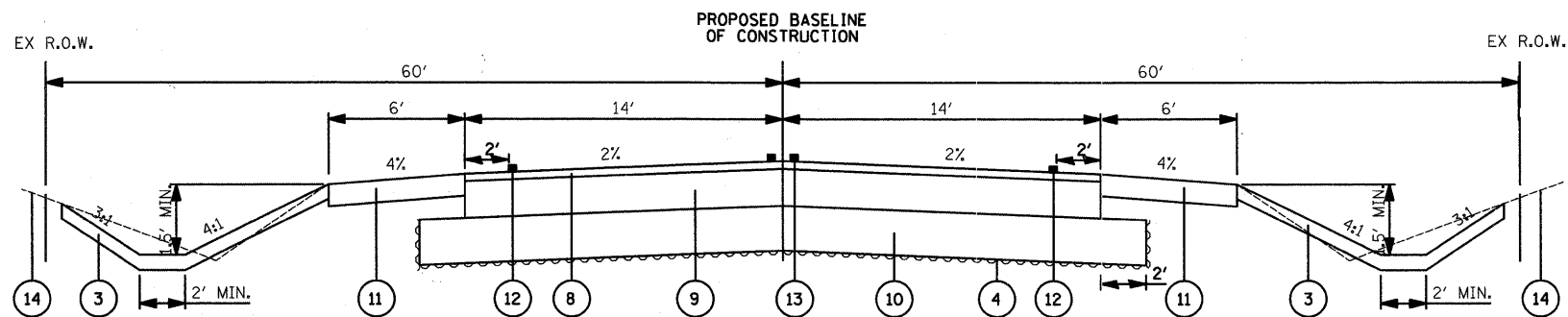


**PIPE UNDERDRAIN, 4" (MODIFIED) -
DETAIL A**

SEE BIKE PATH PLAN AND PROFILE FOR LOCATIONS



EXISTING TYPICAL SECTION
STA 265+42.4 TO STA 284+40.1 - GILMER ROAD



PROPOSED TYPICAL SECTION
STA 273+35.0 TO STA 274+98.0 - GILMER ROAD

LEGEND

- 1 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 3"
- 2 PROPOSED AGGREGATE BASE COURSE, TYPE B, 6"
- 3 PROPOSED TOPSOIL FURNISH AND PLACE, 4"
- 4 PROPOSED GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- 5 EXISTING HOT-MIX ASPHALT COURSE, THICKNESS VARIES FROM 13" TO 13-1/4" (REFERENCE SOIL EXPLORATION AND ANALYSIS REPORT PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. DATED APRIL 1, 2009)
- 6 EXISTING GRANULAR BASE COURSE, THICKNESS VARIES FROM 5-1/4" TO 10" (REFERENCE SOIL EXPLORATION AND ANALYSIS REPORT PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. DATED APRIL 1, 2009)
- 7 EXISTING AGGREGATE SHOULDER, 2" (REFERENCE SOIL EXPLORATION AND ANALYSIS REPORT PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. DATED APRIL 1, 2009)
- 8 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2"
- 9 PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 10"
- 10 PROPOSED AGGREGATE SUBGRADE, 12"
- 11 PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
- 12 WHITE EDGE LINE THERMOPLASTIC PAVEMENT MARKING LINE 5"
- 13 DOUBLE YELLOW CENTERLINE 11" (C-C) THERMOPLASTIC PAVEMENT MARKING LINE 4"
- 14 EXISTING GROUND LINE

NOTE:

THE CONTRACTOR SHOULD BE PREPARED TO CONTROL THE GROUNDWATER DURING THE CONSTRUCTION PERIOD. ACCORDING TO THE SOIL EXPLORATION AND ANALYSIS REPORT PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. DATED APRIL 1, 2009 BECAUSE OF THE GROUNDWATER CONDITIONS AND THE DEPTH TO PROPOSED TUNNEL SUBGRADE, EXCAVATION CONDITIONS ARE EXPECTED TO BE RELATIVELY DIFFICULT. SOIL STRATA WITH A RELATIVELY LARGE AMOUNT OF SAND AND GRAVEL WAS ENCOUNTERED DURING BORING THAT WILL ALLOW GROUNDWATER TO TRAVEL RELATIVELY QUICKLY WHEN EXPOSED IN EXCAVATIONS. THIS, IN TURN, WILL CONTRIBUTE TO SLOUGHING OF EXCAVATION SIDEWALLS AND UNSTABLE SUBGRADE CONDITIONS.

A WORKING PLATFORM MAY BE NECESSARY TO MAINTAIN THE INTEGRITY OF THE EXPOSED BEARING SOIL FROM SOFTENING AND DISTURBANCE. THIS SHALL BE ACCOMPLISHED BY PLACING A MUD MAT 8"-INCH THICK LAYER OF OPEN GRADED AGGREGATE. THIS PROTECTIVE SUBGRADE SOIL LAYER SHALL BE PLACED SOON AFTER EXCAVATION AND APPROVAL OF BEARING SOIL.

POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES) HAS BEEN PROVIDED FOR SOILS THAT ARE UNSTABLE WHEN WET. THE NEED FOR REMOVAL AND REPLACEMENT WITH PGES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSTABLE SOILS ARE ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED WITH PGES. IF UNSTABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR.

NO SOIL SHALL BE USED TO BACKFILL THE FOOTINGS, WHETHER THE SOIL IS UNSTABLE OR NOT, PGES SHALL BE USED.

| HOT-MIX ASPHALT MIXTURE REQUIREMENTS | |
|--|--------------|
| MIXTURE TYPE | AIR VOIDS |
| FULL-DEPTH PAVEMENT | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 2" (IL-9.5 mm) | 4% @ 50 Gyr. |
| HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 10" | 4% @ 50 Gyr. |
| BIKE PATH | |
| HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50, 3" (IL-9.5 mm) | 4% @ 50 Gyr. |
| TEMPORARY PAVEMENT | |
| TEMP PAVEMENT (HMA BINDER IL-19.0, N50, 8") | 4% @ 50 Gyr. |

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG-70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

| | | |
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| USER NAME = pk | DESIGNED - PK | REVISED - |
| FILE NAME = ...02 TYP & SCHED\2130_TYP.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE = 1/8" = 1' | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

N.T.S.

TYPICAL SECTIONS
FORT HILL TRAIL BIKE PATH UNDERPASS
SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| | | | | |
|--------------------|----------------|--------|---|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 4 |
| CONTRACT NO. 63422 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | |

SCHEDULE OF QUANTITIES

| SCHEDULE OF EARTH QUANTITIES | | | |
|--|-----------------------------------|---|---|
| | EARTH EXCAVATION (20200100) (CUT) | POROUS GRANULAR EMBANKMENT, SUBGRADE (Z0042002) | FURNISHED EXCAVATION* (20400800) (FILL) |
| | (CU FT) | (CU FT) | (CU FT) |
| SUBTOTAL BIKE PATH | 761,317 | 0 | 37,845 |
| SUBTOTAL GILMER ROAD STAGE 1 | 10,012 | 97,372 | 28,755 |
| SUBTOTAL GILMER ROAD STAGE 2 | 41,931 | 0 | 4,565 |
| SUBTOTAL WESTERN BERM | 1,088 | 0 | 191,931 |
| SUBTOTAL EASTERN BERM | 59,743 | 0 | 507,570 |
| REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL** (CU FT) | 9,955 | 9,955 | 0 |
| PROJECT SUBTOTAL (CU FT) | 884,046 | 107,327 | 770,666 |
| PROJECT SUBTOTAL (CU YD) | 32,743 | 3,976 | 28,544 |
| SHRINKAGE FACTOR ADJUSTMENT (15%) | - | - | x 1.15 |
| PROJECT TOTAL NEEDED (CU YD) | 32,743 | 3,976 | 32,826 |
| PROJECT TOTAL (CU YD) | 32,743 | 3,976 | 100 |
| DENSITY FACTOR CONVERSION (2.00 TONS/CU YD) | - | x 2.00 | - |
| PROJECT TOTAL (TONS) | - | 7,952 | - |

| SCHEDULE OF DRAINAGE STRUCTURES | | | | | | |
|---------------------------------|-----------|-----------|---|---|--------------------------------------|---|
| STRUCTURE # | STATION | OFFSET | (54213657) PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" | (54213663) PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18" | (54213870) STEEL END SECTIONS 15" | (54244405) FLUSH INLET BOX FOR MEDIAN, STANDARD 542546 |
| | | | (EACH) | (EACH) | (EACH) | (EACH) |
| 1 | 117+93.38 | 19.32' RT | 1 | | | |
| 2 | 118+33.16 | 19.32' RT | | | | 1 |
| 3 | 117+79.91 | 19.32' LT | 1 | | | |
| 4 | 118+33.16 | 19.32' LT | | | | 1 |
| 5 | 120+23.23 | 19.32' RT | 1 | | | |
| 6 | 119+74.16 | 19.32' RT | | | | 1 |
| 7 | 119+74.16 | 19.32' LT | | | | 1 |
| 8 | 121+00.00 | 29.58' LT | | 1 | | |
| Temporary | 270+21.87 | 51.40' LT | | | 1 | |
| Temporary | 270+50.00 | 50.40' LT | | | 1 | |
| Temporary | 270+50.00 | 14.90' LT | | | | 1 |
| Temporary | 272+03.15 | 15.68' LT | | | 1 | |
| Permanent | 270+22.55 | 36.78' LT | | | 1 | |
| PROJECT TOTAL: | | | 3 | 1 | 4 | 5 |

* THERE IS NO HAUL-OFF ANTICIPATED AND ALL CUT SHOULD BE WASTED ON SITE AT THE DIRECTION OF ENGINEER. APPROXIMATE FILL QUANTITIES ARE PROVIDED FOR REFERENCE ONLY. 100 CU YD OF FURNISHED EXCAVATION HAS BEEN PROVIDED AS A CONTINGENCY QUANTITY.

** REMOVAL & DISPOSAL OF UNSUITABLE MATERIAL HAS BEEN ESTIMATED BASED ON THE ASSUMPTION OF AN 8" THICK WORKING PLATFORM FOR THE AREA OF THE STRUCTURE AND A 10% AREA OF THE TRAIL'S CONSTRUCTION AREA AS A CONTINGENCY.

| SCHEDULE OF STORM SEWER PIPES | | | | |
|-------------------------------|--|---|---|---|
| PIPE # | (5421D015) PIPE CULVERTS, CLASS D, TYPE 1 15" (TEMPORARY) | (550A0050) STORM SEWERS, CLASS A, TYPE 1 12" | (550A0070) STORM SEWERS, CLASS A, TYPE 1 15" | (550A0090) STORM SEWERS, CLASS A, TYPE 1 18" |
| | (FOOT) | (FOOT) | (FOOT) | (FOOT) |
| 1 | | 32 | | |
| 2 | | 27 | | |
| 3 | | 49 | | |
| 4 | | | 138 | |
| 5 | | 46 | | |
| 6 | | 27 | | |
| 7 | | | | 107 |
| Temporary | 24 | | | |
| Temporary | 34 | | | |
| Temporary | 152 | | | |
| PROJECT TOTAL: | 210 | 181 | 138 | 107 |

| SCHEDULE OF REMOVAL ITEMS | | | | |
|---------------------------|----------|--------------------------------|------------|-----------------------------|
| STATION | | (44000100) PAVEMENT REMOVAL | | (Z0022800) FENCE REMOVAL |
| | | (SQ FT) | (SQ YD) | (FOOT) |
| GILMER ROAD | | | | |
| 265+42.4 | 279+00.0 | 4,526 | 503 | 0 |
| 279+00.0 | 284+40.1 | 0 | 0 | 0 |
| Subtotal: | | | 503 | 0 |
| BIKE PATH | | | | |
| 114+68.8 | 125+75.0 | 0 | 0 | 1,092 |
| Subtotal: | | | | 1,092 |
| PROJECT TOTAL: | | | 503 | 1,092 |

| SCHEDULE OF AGGREGATE QUANTITIES | | | | | | | |
|----------------------------------|----------|--|--------------|--------------------------------------|------------|---|------------|
| STATION | | (35101800) AGGREGATE BASE COURSE, TYPE B 6" | | (Z0001050) AGGREGATE SUBGRADE 12" | | (48101200) AGGREGATE SHOULDERS, TYPE B | |
| | | (SQ FT) | (SQ YD) | (SQ FT) | (SQ YD) | (SQ FT) | (TON) |
| GILMER ROAD | | | | | | | |
| 265+42.4 | 279+00.0 | 0 | 0 | 5,178 | 576 | 11,685 | 433 |
| 279+00.0 | 284+40.1 | 0 | 0 | 0 | 0 | 2,425 | 90 |
| Subtotal: | | | 0 | | 576 | | 523 |
| BIKE PATH | | | | | | | |
| 114+68.8 | 125+75.0 | 15,201 | 1,689 | 0 | 0 | 0 | 0 |
| Subtotal: | | | 1,689 | | 0 | | 0 |
| PROJECT TOTAL: | | | 1,689 | | 576 | | 523 |

| SCHEDULE OF PAVEMENT MARKING ITEMS | | | | | | | | | | |
|------------------------------------|----------|---|--|--|--|--|--|--|--|--|
| STATION | | (70300100) SHORT-TERM PAVEMENT MARKING | (70300220) TEMPORARY PAVEMENT MARKING - LINE 4" | (70300230) TEMPORARY PAVEMENT MARKING - LINE 5" | (70300520) PAVEMENT MARKING TAPE, TYPE III 4" | (70300530) PAVEMENT MARKING TAPE, TYPE III 5" | (70301000) WORK ZONE PAVEMENT MARKING REMOVAL | (78000200) THERMOPLASTIC PAVEMENT MARKING - LINE 4" | (78000300) THERMOPLASTIC PAVEMENT MARKING - LINE 5" | (78300100) PAVEMENT MARKING REMOVAL |
| | | (FOOT) | (FOOT) | (FOOT) | (FOOT) | (FOOT) | (SQ FT) | (FOOT) | (FOOT) | (FOOT) |
| GILMER ROAD | | | | | | | | | | |
| 265+42.4 | 279+00.0 | 652 | 2,194 | 2,073 | 3,247 | 3,367 | 2,486 | 2,716 | 2,716 | 1,915 |
| 279+00.0 | 284+40.1 | 0 | 0 | 304 | 2,157 | 1,854 | 1,492 | 1,081 | 1,081 | 811 |
| Subtotal: | | 652 | 2,194 | 2,377 | 5,404 | 5,221 | 3,978 | 3,797 | 3,797 | 2,726 |
| BIKE PATH | | | | | | | | | | |
| 114+68.8 | 125+75.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subtotal: | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PROJECT TOTAL: | | 652 | 2,194 | 2,377 | 5,404 | 5,221 | 3,978 | 3,797 | 3,797 | 2,726 |

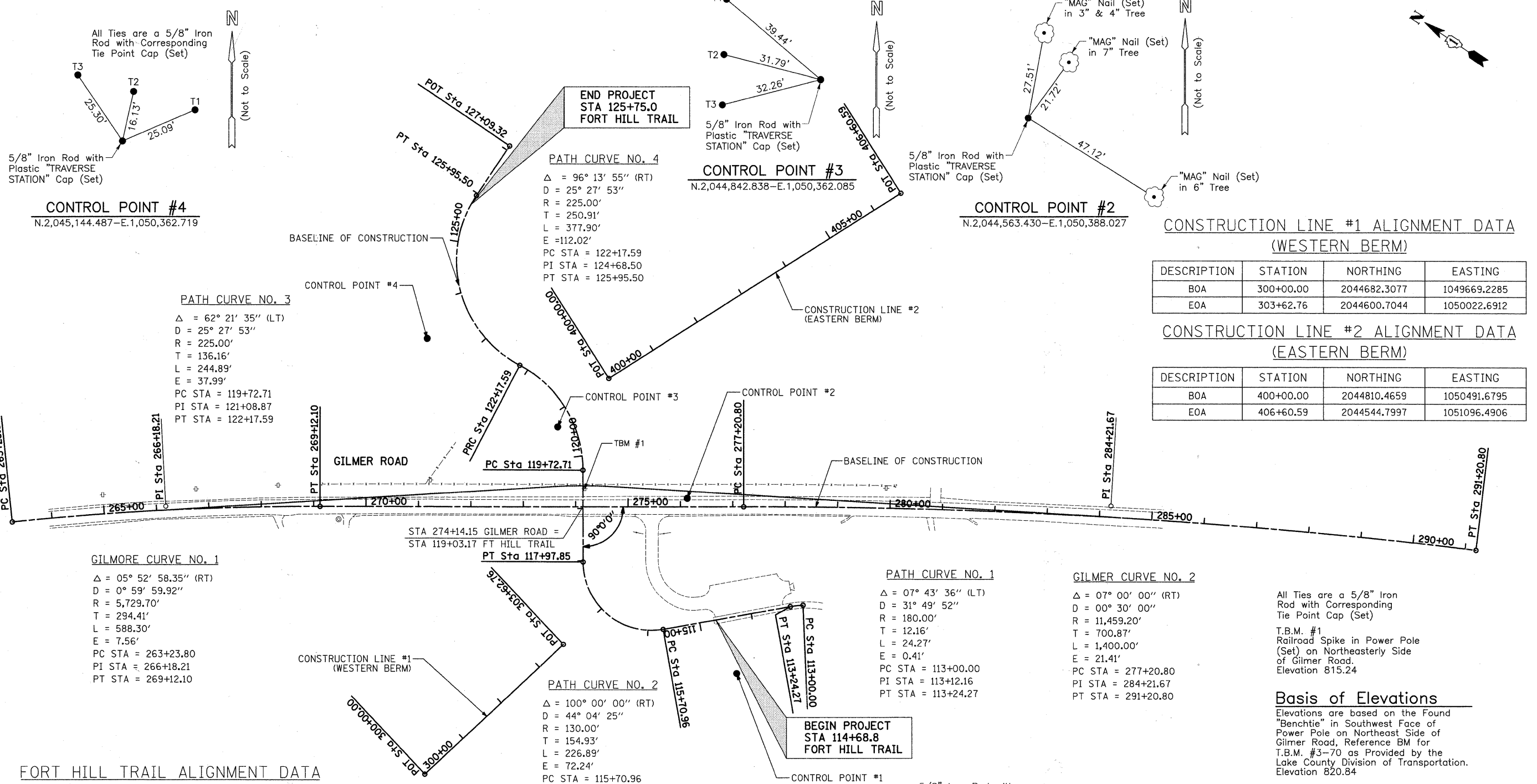
| SCHEDULE OF PAVING QUANTITIES | | | | | | | |
|-------------------------------|----------|--|------------|--|---------|----------------------------------|---------|
| STATION | | (40603310) HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | | (40701921) HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 12" | | (Z0062456) TEMPORARY PAVEMENT | |
| | | (SQ FT) | (TON) | (SQ FT) | (SQ YD) | (SQ FT) | (SQ YD) |
| GILMER ROAD | | | | | | | |
| 265+42.4 | 279+00.0 | 0 | 0 | 4,526 | 503 | 19,768 | 2,197 |
| 279+00.0 | 284+40.1 | 0 | 0 | 0 | 0 | 1,334 | 149 |
| Subtotal: | | | | 503 | | 2,346 | |
| BIKE PATH | | | | | | | |
| 114+68.8 | 125+75.0 | 14,096 | 264 | 0 | 0 | 0 | 0 |
| Subtotal: | | 14,096 | 264 | 0 | 0 | 0 | 0 |
| PROJECT TOTAL: | | 14,096 | 264 | 503 | | 2,346 | |

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 TEMPLATE _____
 AREAS CHECKED _____
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FORT HILL TRAIL ALIGNMENT DATA

| DESCRIPTION | STATION | NORTHING | EASTING |
|-------------|-----------|--------------|--------------|
| BOA/PC | 113+00.00 | 2044262.4561 | 1050339.6413 |
| PI | 113+12.16 | 2044272.2718 | 1050332.4715 |
| PT | 113+24.27 | 2044281.0344 | 1050324.0472 |
| PC | 115+70.96 | 2044458.8692 | 1050153.0805 |
| PI | 117+25.89 | 2044570.5553 | 1050045.7078 |
| PT | 117+97.85 | 2044656.9027 | 1050174.3423 |
| PC | 119+72.71 | 2044754.3560 | 1050319.5216 |
| PI | 121+08.87 | 2044830.2413 | 1050432.5703 |
| PRC | 122+17.59 | 2044965.5933 | 1050417.7909 |
| PI | 124+68.50 | 2045215.0176 | 1050390.5557 |
| PT | 125+95.50 | 2045215.0165 | 1050641.4625 |
| EOA | 127+09.32 | 2045215.0165 | 1050755.2815 |

GILMER ROAD ALIGNMENT DATA

| DESCRIPTION | STATION | NORTHING | EASTING |
|-------------|-----------|--------------|--------------|
| BOA/PC | 263+23.80 | 2045603.7396 | 1049630.2972 |
| PI | 266+18.21 | 2045377.1288 | 1049818.2440 |
| PT | 269+12.10 | 2045132.4478 | 1049981.9745 |
| PC | 277+20.80 | 2044460.9961 | 1050432.6943 |
| PI | 284+21.67 | 2043879.4701 | 1050823.9092 |
| EOA/PT | 291+20.80 | 2043254.6018 | 1051141.3381 |

CONSTRUCTION LINE #1 ALIGNMENT DATA (WESTERN BERM)

| DESCRIPTION | STATION | NORTHING | EASTING |
|-------------|-----------|--------------|--------------|
| BOA | 300+00.00 | 2044682.3077 | 1049669.2285 |
| EOA | 303+62.76 | 2044600.7044 | 1050022.6912 |

CONSTRUCTION LINE #2 ALIGNMENT DATA (EASTERN BERM)

| DESCRIPTION | STATION | NORTHING | EASTING |
|-------------|-----------|--------------|--------------|
| BOA | 400+00.00 | 2044810.4659 | 1050491.6795 |
| EOA | 406+60.59 | 2044544.7997 | 1051096.4906 |

All Ties are a 5/8" Iron Rod with Corresponding Tie Point Cap (Set)

T.B.M. #1
Railroad Spike in Power Pole (Set) on Northeastly Side of Gilmer Road.
Elevation 815.24

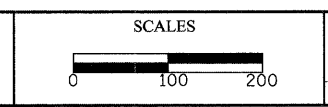
Basis of Elevations
Elevations are based on the Found "Benchtie" in Southwest Face of Power Pole on Northeast Side of Gilmer Road, Reference BM for T.B.M. #3-70 as Provided by the Lake County Division of Transportation. Elevation 820.84

Bearings and Coordinates are referenced to the Illinois Coordinate System NAD83, East Zone, as broadcast by the Regional Illinois Global Positioning Network from Reference Station 0020 on May 20, 2008 and on May 22, 2008.

NOTES:
EXISTING ROADWAY CONFIGURATION SHOWN
BOA = BEGINNING OF ALIGNMENT
BOP = BEGINNING OF PROJECT
PC = POINT OF CURVATURE
PRC = POINT OF REVERSE CURVATURE
PT = POINT OF TANGENT
PI = POINT OF INTERSECTION
EOA = END OF ALIGNMENT
EOP = END OF PROJECT
CP = CONTROL POINT
BM = BENCH MARK

| | | |
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| FILE NAME = ...sheet03 AT\2130_Algm_Tie.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE = 100.0000' / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



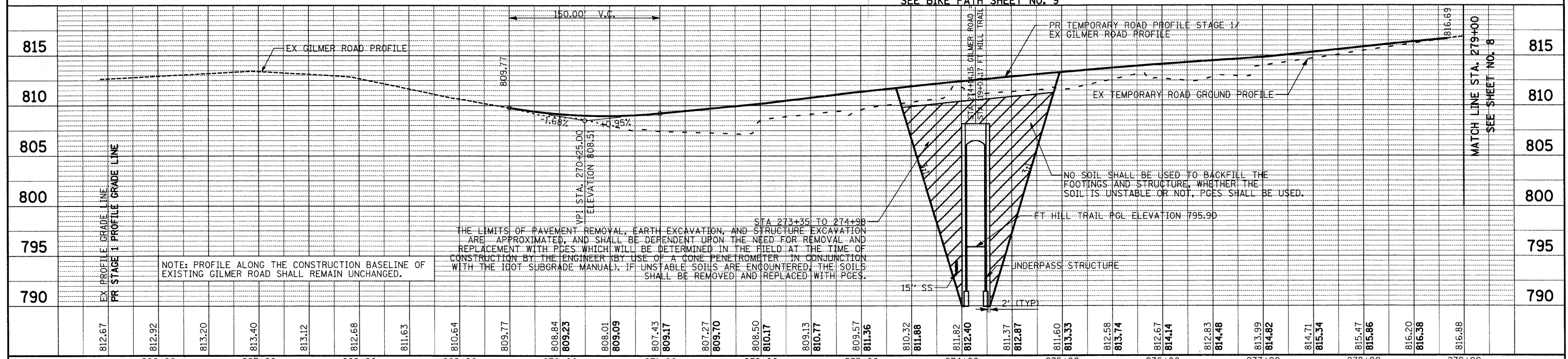
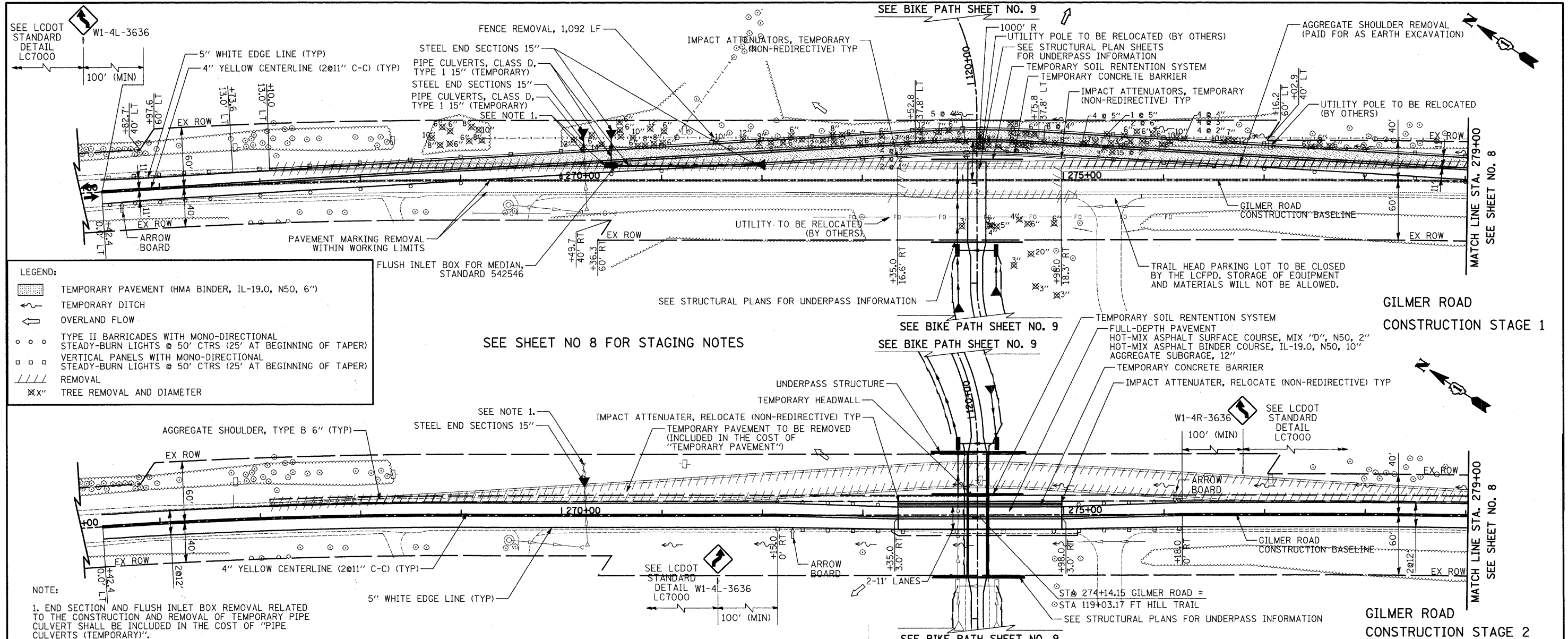
ALIGNMENT, TIES AND BENCHMARKS
FORT HILL TRAIL BIKE PATH UNDERPASS

SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 6 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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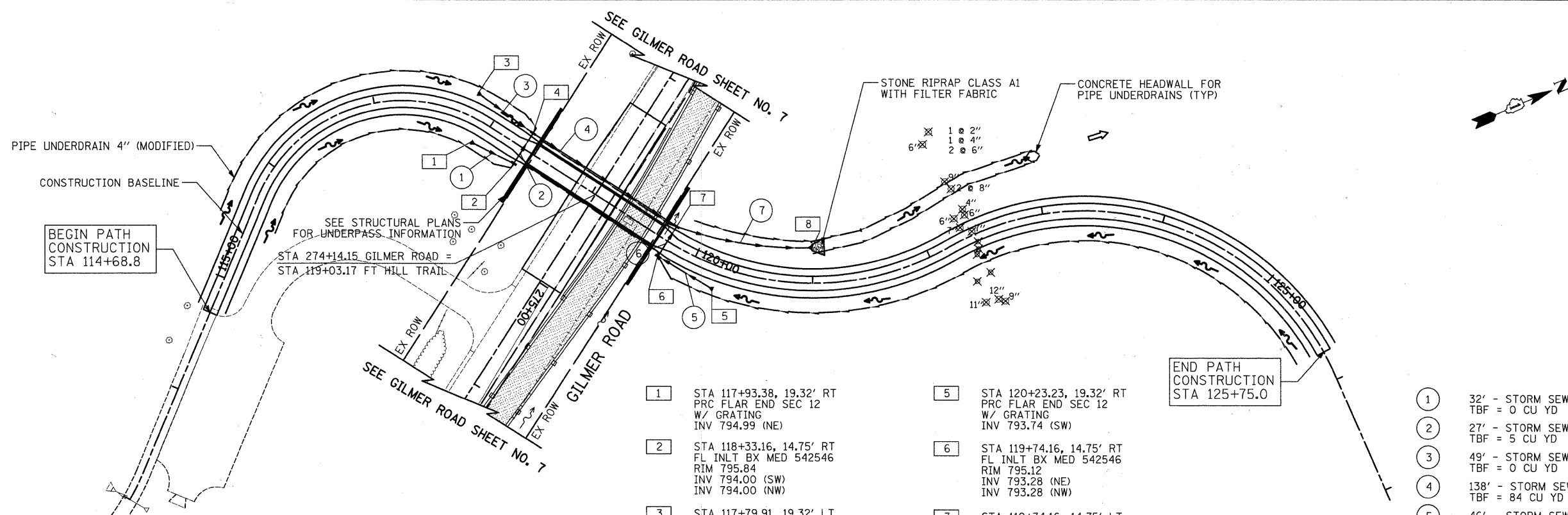


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|--|-------------------|-----------|---|---------------------|--------------------------|---|---|
| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 HORIZ. 0 | SCALES 5 10 50 100 | GILMER ROAD - ROADWAY PLAN & PROFILE FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. SECTION COUNTY TOTAL SHEETS SHEET NO. |
| FILE NAME ...cad\sheet\04 PP\2130_RP_1.dgn | DRAWN - JRR | REVISED - | | | | | 3602 08-F3000-07-BT LAKE 60 7 |
| PLOT SCALE 50.0000' / IN. | CHECKED - RTM | REVISED - | | | | | CONTRACT NO. 63422 |
| PLOT DATE = 12/16/2018 | DATE - 12/17/2010 | REVISED - | | | | | FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT |

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| DESIGNED | |
| DRAWN | |
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| DATE | |

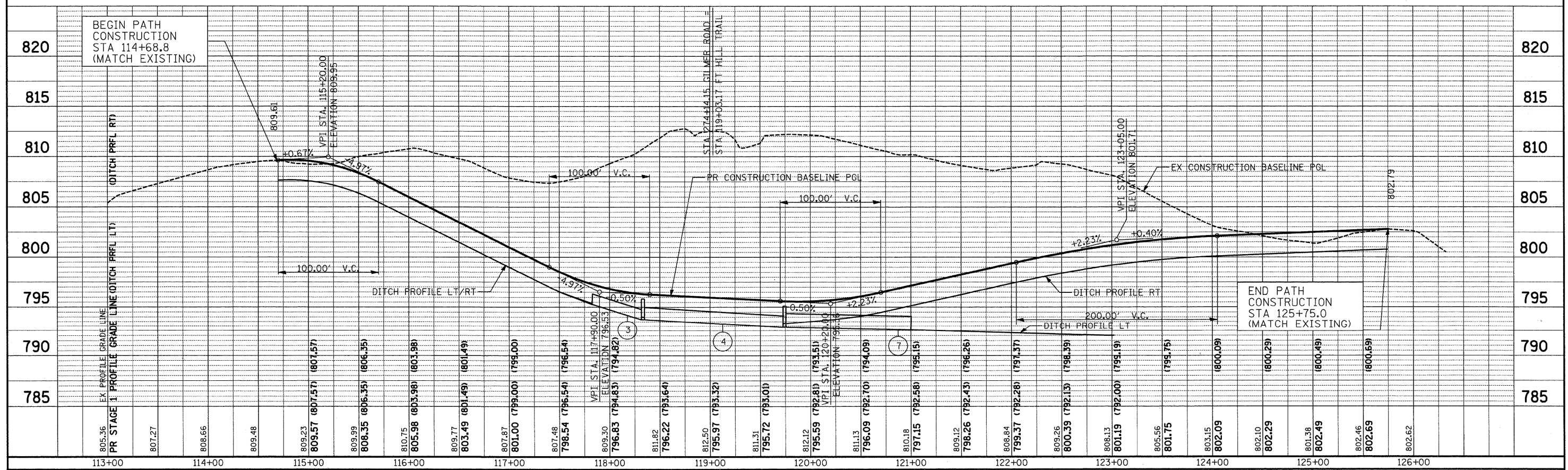
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| DATE | |



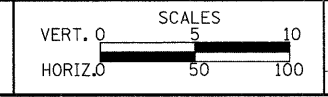
- LEGEND:**
- TEMPORARY PAVEMENT (HMA BINDER, IL-19.0, N50, 6")
 - PERMANENT DITCH
 - OVERLAND FLOW
 - REMOVAL
 - TREE REMOVAL AND DIAMETER

- | | | |
|---|---|--|
| <p>1 STA 117+93.38, 19.32' RT PRC FLAR END SEC 12 W/ GRATING INV 794.99 (NE)</p> <p>2 STA 118+33.16, 14.75' RT FL INLT BX MED 542546 RIM 795.84 INV 794.00 (SW) INV 794.00 (NW)</p> <p>3 STA 117+79.91, 19.32' LT PRC FLAR END SEC 12 W/ GRATING INV 795.38 (NE)</p> <p>4 STA 118+33.16, 14.75' LT FL INLT BX MED 542546 RIM 795.84 INV 793.73 (SW) INV 793.73 (SE) INV 793.73 (NE)</p> | <p>5 STA 120+23.23, 19.32' RT PRC FLAR END SEC 12 W/ GRATING INV 793.74 (SW)</p> <p>6 STA 119+74.16, 14.75' RT FL INLT BX MED 542546 RIM 795.12 INV 793.28 (NE) INV 793.28 (NW)</p> <p>7 STA 119+74.16, 14.75' LT FL INLT BX MED 542546 RIM 795.12 INV 792.87 (SW) INV 792.87 (SE) INV 792.87 (NE)</p> <p>8 STA 121+00, 29.58' LT PRC FLAR END SEC 18 INV 792.58 (SW)</p> | <p>1 32' - STORM SEW CL A 1, 12" @ 2.60% TBF = 0 CU YD</p> <p>2 27' - STORM SEW CL A 1, 12" @ 1.00% TBF = 5 CU YD</p> <p>3 49' - STORM SEW CL A 1, 12" @ 3.00% TBF = 0 CU YD</p> <p>4 138' - STORM SEW CL A 1, 15" @ 0.62% TBF = 84 CU YD</p> <p>5 46' - STORM SEW CL A 1, 12" @ 0.88% TBF = 0 CU YD</p> <p>6 27' - STORM SEW CL A 1, 12" @ 1.52% TBF = 5 CU YD</p> <p>7 107' - STORM SEW CL A 1, 18" @ 0.27% TBF = 0 CU YD</p> |
|---|---|--|



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|--|-------------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - |
| FILE NAME = ...\cd\sheet\04 PP\2130_PP_2.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE = 58.0000 / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



**BIKE PATH - PLAN & PROFILE
FORT HILL TRAIL BIKE PATH UNDERPASS**

SCALE: 1" = 50' SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| | | | | |
|--------------------|----------------|--------|---|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 9 |
| CONTRACT NO. 63422 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | |

| | |
|---------------|--|
| DATE | |
| BY | |
| SURVEYED | |
| PLOTTED | |
| TEMPLATE | |
| NOTE BOOK | |
| AREAS CHECKED | |
| NO. | |

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|---------------|--|
| DATE | |
| BY | |
| SURVEYED | |
| PLOTTED | |
| TEMPLATE | |
| NOTE BOOK | |
| AREAS CHECKED | |
| NO. | |

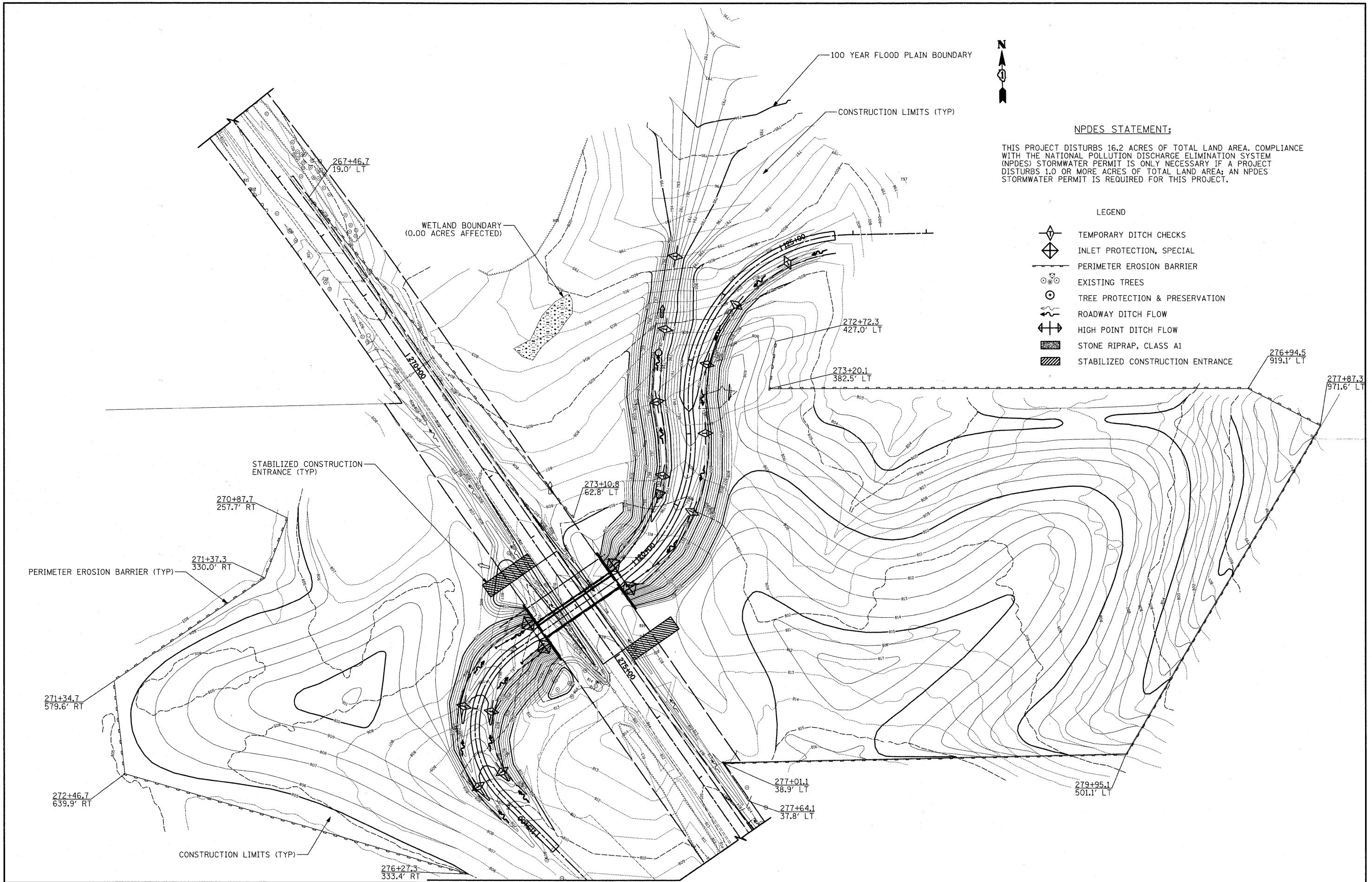


NPDES STATEMENT:

THIS PROJECT DISTURBS 16.2 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS ONLY NECESSARY IF A PROJECT DISTURBS 1.0 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT IS REQUIRED FOR THIS PROJECT.

LEGEND

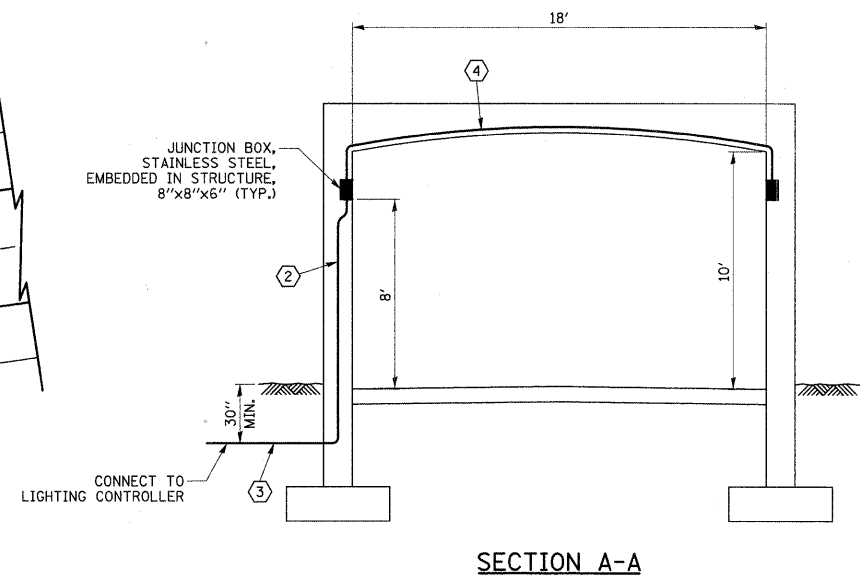
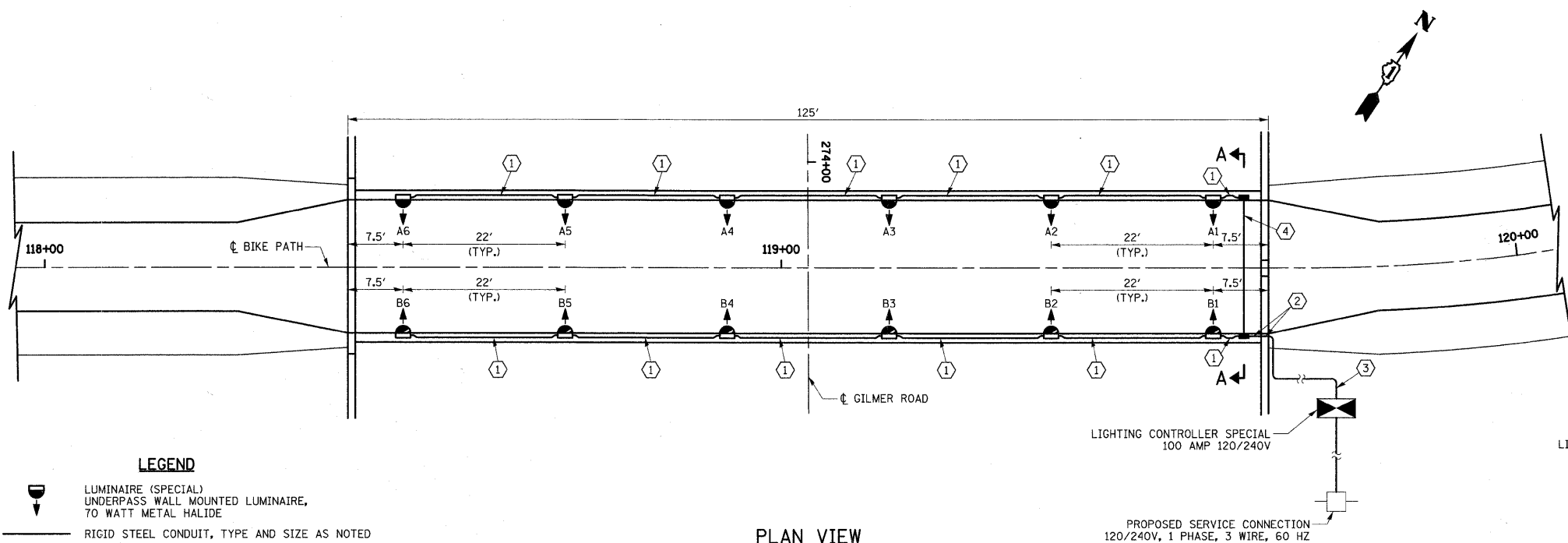
- TEMPORARY DITCH CHECKS
- INLET PROTECTION, SPECIAL
- PERIMETER EROSION BARRIER
- EXISTING TREES
- TREE PROTECTION & PRESERVATION
- ROADWAY DITCH FLOW
- HIGH POINT DITCH FLOW
- STONE RIPRAP, CLASS A1
- STABILIZED CONSTRUCTION ENTRANCE



| | | | | | | | | | | |
|--|-------------------|-----------|---|------------|--|---|----------------|--------|--------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SCALES | LANDSCAPING AND EROSION CONTROL FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\\ced\sheet\05 EC\2130_EC.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 10 |
| PLOT SCALE 60.00' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| SURVEYED | |
| ED | |
| NOTE BOOK | |
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| AREAS CHECKED | |

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| DATE | |
| BY | |
| SURVEYED | |
| ED | |
| NOTE BOOK | |
| NO. | |
| AREAS CHECKED | |



LEGEND

- LUMINAIRE (SPECIAL) UNDERPASS WALL MOUNTED LUMINAIRE, 70 WATT METAL HALIDE
- RIGID STEEL CONDUIT, TYPE AND SIZE AS NOTED
- JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 8"x8"x6"
- PROPOSED LIGHTING CONTROLLER, SPECIAL
- EXISTING POWER POLE

NOTES:

1. ALL WALL MOUNTED LUMINAIRES ARE MOUNTED 8' FROM THE BOTTOM OF THE LUMINAIRE TO THE FINISHED SURFACE OF THE BIKE PATH.

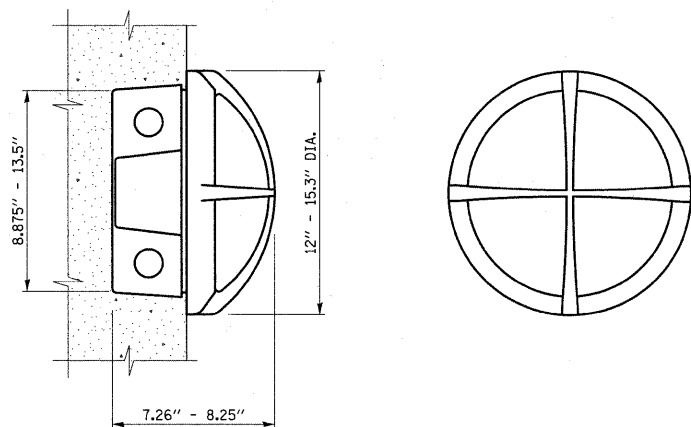
PLAN VIEW

WIRE AND CONDUIT TABLE

| TAG | WIRE | CONDUIT |
|-----|------------------------------------|--|
| ① | 2-1/C NO. 10 AND 1/C NO. 10 GROUND | CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., GALVANIZED STEEL |
| ② | 3-1/C NO. 10 AND 1/C NO. 10 GROUND | CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., GALVANIZED STEEL |
| ③ | 3-1/C NO. 10 AND 1/C NO. 10 GROUND | CONDUIT IN TRENCH 1" DIA., GALVANIZED STEEL |
| ④ | 2-1/C NO. 10 AND 1/C NO. 10 GROUND | CONDUIT EMBEDDED IN STRUCTURE 1" DIA., GALVANIZED STEEL |

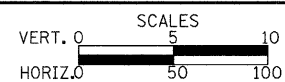
UNDERPASS LUMINAIRE LOCATIONS

| LUMINAIRE NO. | STATION | OFFSET |
|---------------|---------|----------|
| A1 | 119+59 | 9.0' LT. |
| A2 | 119+37 | 9.0' LT. |
| A3 | 119+15 | 9.0' LT. |
| A4 | 118+93 | 9.0' LT. |
| A5 | 118+71 | 9.0' LT. |
| A6 | 118+49 | 9.0' LT. |
| B1 | 119+59 | 9.0' RT. |
| B2 | 119+37 | 9.0' RT. |
| B3 | 119+15 | 9.0' RT. |
| B4 | 118+93 | 9.0' RT. |
| B5 | 118+71 | 9.0' RT. |
| B6 | 118+49 | 9.0' RT. |



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| USER NAME = jrr | DESIGNED - PK | REVISED - |
| FILE NAME J:\2130\Phase 2\road\sheet\06 LIGHTING\2130_Light_Plan.dwg | DRAWN - JRR | REVISED - |
| PLOT SCALE 10.0000' / in. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/15/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



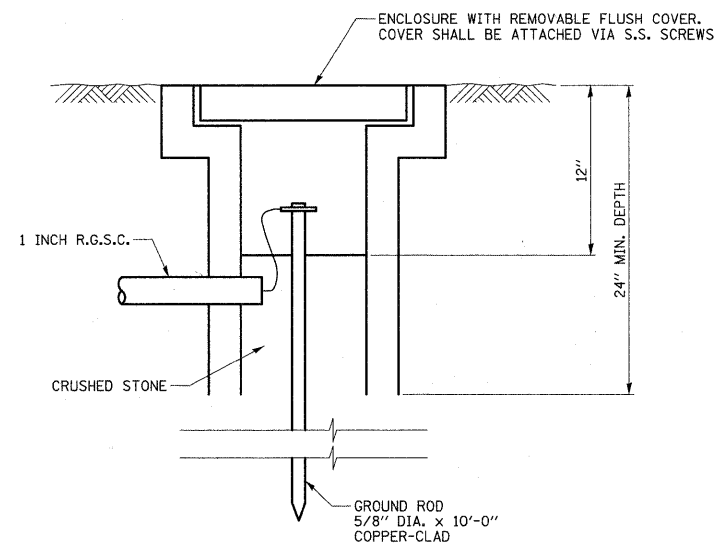
**LIGHTING PLAN
FORT HILL TRAIL BIKE PATH UNDERPASS**

SHEET NO. 1 OF 3 SHEETS

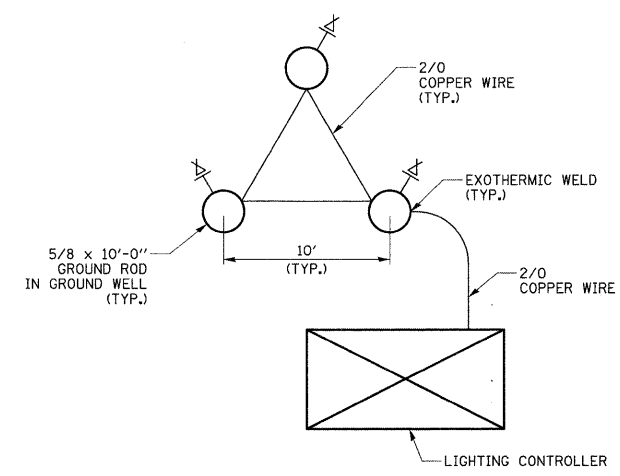
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 11 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| NOTE BOOK | |
| AREAS CHECKED | |
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| DATE | |
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| PLOTTED | |
| TEMPLATE | |
| NOTE BOOK | |
| AREAS CHECKED | |
| NO. | |



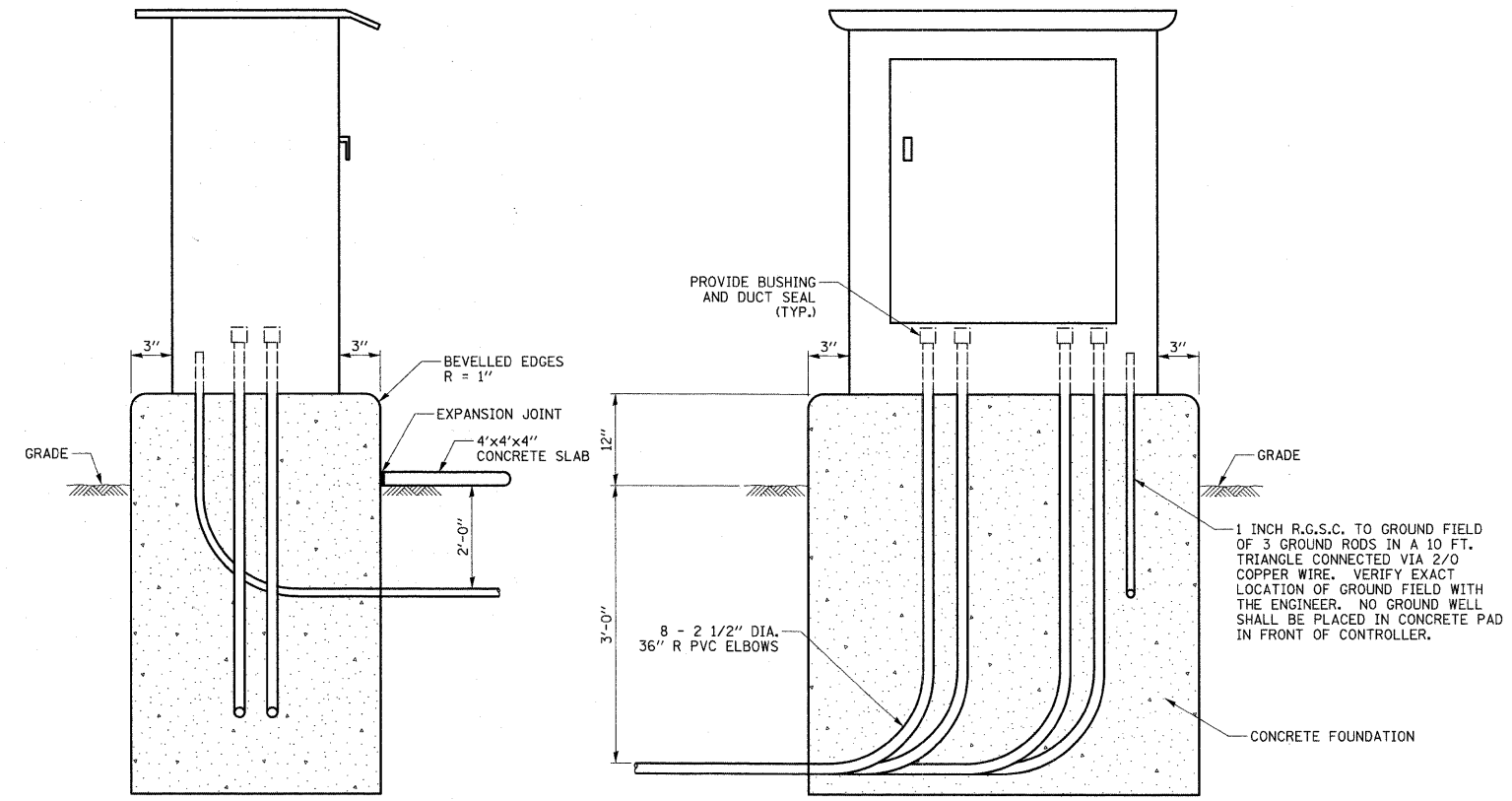
LEFT SIDE ELEVATION



GROUND FIELD DETAIL

GENERAL NOTES:

- COORDINATE PLACEMENT OF RACEWAYS WITH CONTROLLER MANUFACTURER TO ASSURE DOOR LATCH DOES NOT INTERFERE WITH CABLES OR OTHER DEVICES.
- THE CONTRACTOR SHALL PROVIDE A GROUND FIELD AT CABINET LOCATION. THE GROUND RODS, ANCHOR BOLTS AND REINFORCEMENT STEEL SHALL ALL BE INTERCONNECTED.
- GROUND FIELD INSTALLATION AT CONTROLLER LOCATION, INCLUDING ALL LABOR AND MATERIAL SHALL BE CONSIDERED INCLUDED IN THE LIGHTING CONTROLLER PAY ITEM. NO SEPARATE PAYMENT WILL BE MADE.
- THE CONTRACTOR SHALL VERIFY EXACT LOCATION GROUND FIELD WITH THE ENGINEER.
- CABINET SHALL BE FABRICATED FROM 0.125 INCH SHEET ALUMINUM #3003H14 FORMED AND ARC WELDED ASSEMBLY.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL.
- NAME PLATE SHALL HAVE ENGRAVED 0.75 INCH HIGH LETTERS FILLED IN BLACK: "LAKE COUNTY FOREST PRESERVE DISTRICT LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALLED AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- METAL MOUNTING PANEL SHALL BE #10 GAUGE GALVANIZED SHEET STEEL FLANGED BACK 0.75 INCHES I.D. ON 4 SIDES.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL CONTROL WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- CIRCUIT BREAKERS, CONTACTOR AND OTHER COMPONENTS SHALL BE PANEL MOUNTED ON 0.125 INCH THICK GLASTIC INSULATION BACK PANEL.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- ALL 120 VOLT SYSTEM AND ALL CONTROL WIRING SHALL BE #12 AWG STRANDED UNLESS OTHERWISE INDICATED.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- SEE LIGHTING CONTROLLER WIRING DIAGRAM FOR WIRING SCHEMATIC.



LEFT SIDE ELEVATION

RIGHT SIDE ELEVATION

LIGHTING CONTROLLER CABINET AND FOUNDATION

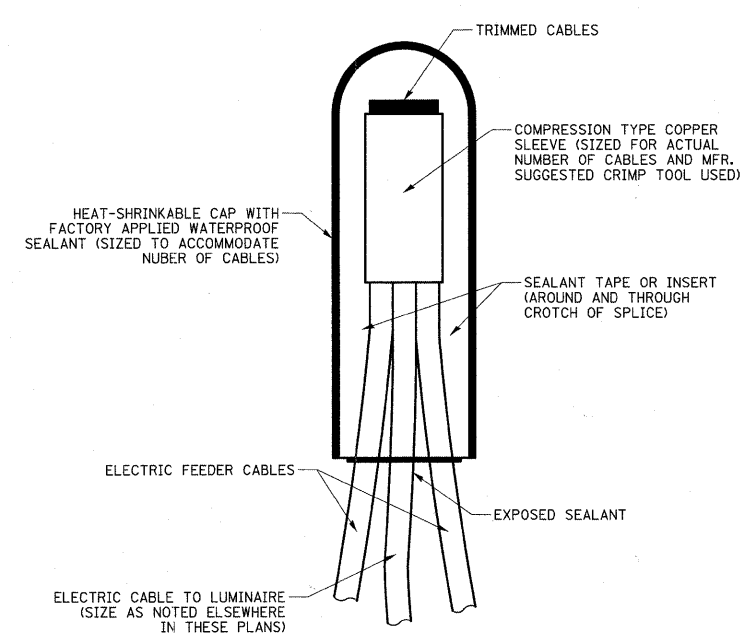
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| USER NAME = jrr | DESIGNED - PK | REVISED - |
| FILE NAME J:\2130\Phase 2\cad\sheet\06 LIGHTING\2130_Light_Details | DRAWN - JRR | REVISED - |
| PLOT SCALE 1.0000' / 1" = | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/15/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

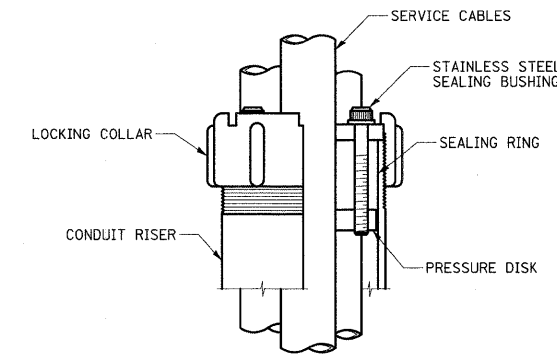
**LIGHTING DETAIL
FORT HILL TRAIL BIKE PATH UNDERPASS**

| | | | | |
|---|----------------|--------|--------------|-----------|
| F.A.J. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 12 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

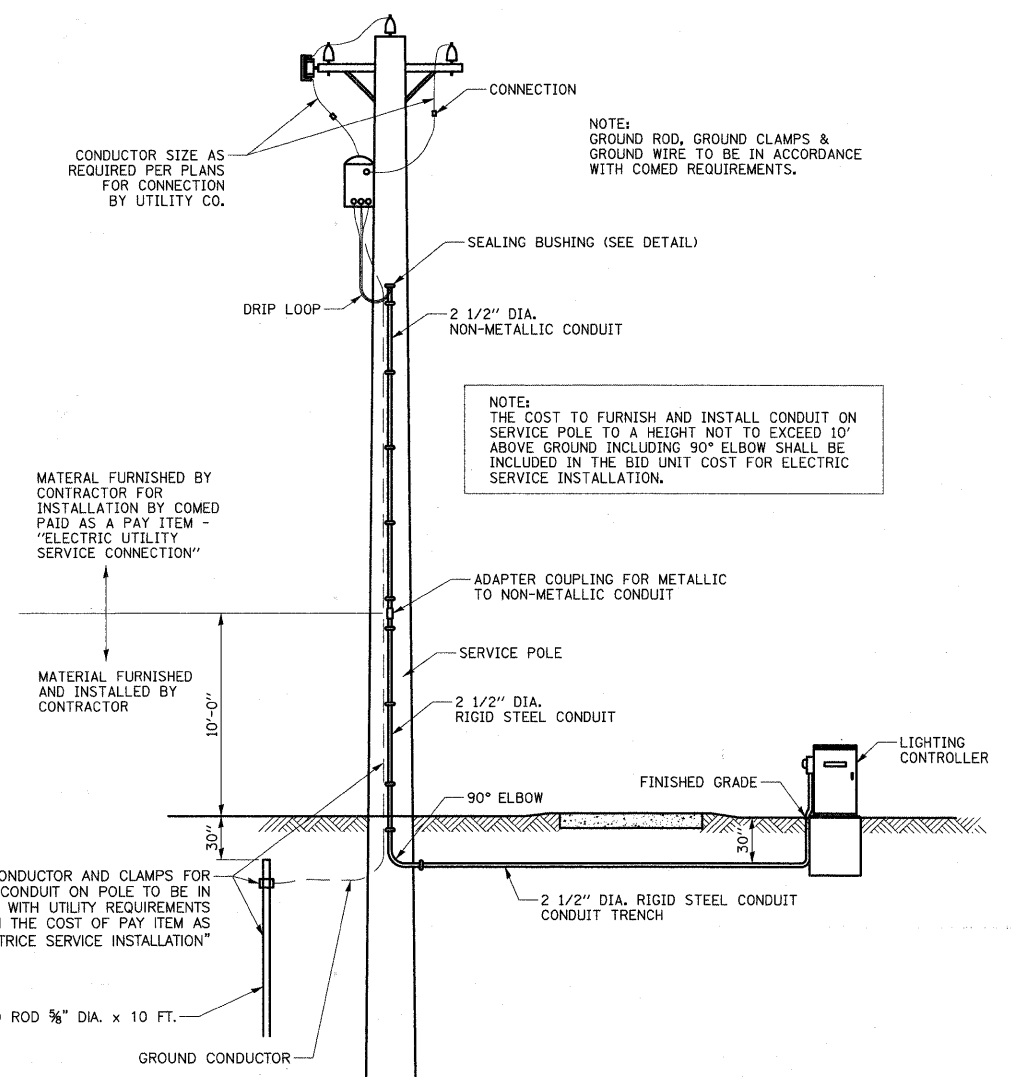
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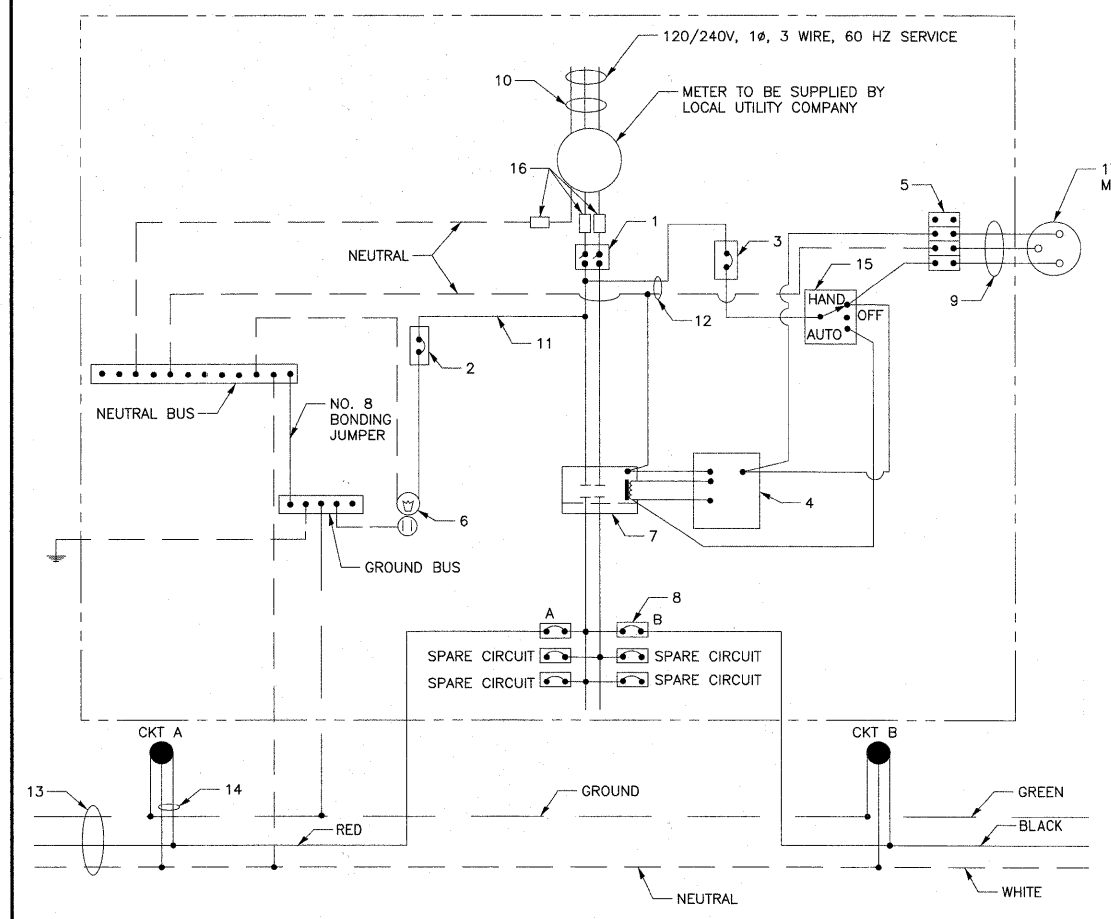
NOTE: NUMBER OF CABLES IN SPLICE MAY VARY
SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS



SEALING BUSHING DETAIL

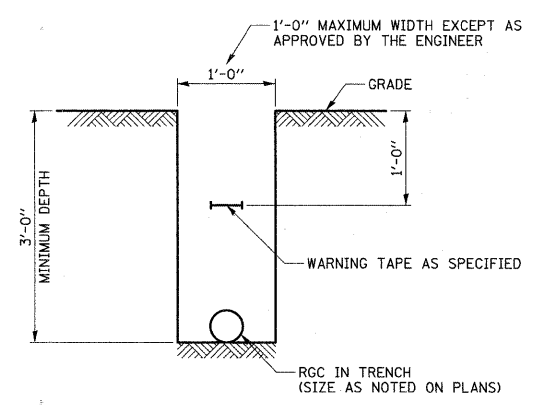


PROPOSED SERVICE INSTALLATION
POLE TOP MOUNTED TRANSFORMER



LIGHTING CONTROLLER WIRING DIAGRAM

| LIGHTING CONTROLLER COMPONENT SCHEDULE | |
|--|--|
| ITEM | SPECIFICATION OR EQUAL |
| ① MAIN CIRCUIT BREAKER | 100 AMPERE, 2 POLE, 240 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 25,000 RMS SYMMETRICAL AMPS AT 600V |
| ② LAMPHOLDER CIRCUIT BREAKER | 15 AMPERE, 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 14,000 RMS SYMMETRICAL AMPS AT 277V |
| ③ PHOTOELECTRIC CELL CIRCUIT BREAKER | 15 AMPERE, 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 14,000 RMS SYMMETRICAL AMPS AT 277V |
| ④ AUXILIARY RELAY | 120 VOLT SPST 60 HZ COIL |
| ⑤ FOUR POINT TERMINAL BLOCK | 600 VOLT |
| ⑥ LAMPHOLDER AND OUTLET | 120 VOLT SWITCHED LAMPHOLDER AND 15 AMP GFI DUPLEX RECEPTACLE |
| ⑦ REMOTE CONTROL SWITCH | 100 AMPERE, 2 POLE, 240 VOLT RATING |
| ⑧ BRANCH LINE CIRCUIT BREAKERS | CKTS A-B 20 AMP 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 10,000 RMS SYMMETRICAL AMPS AT 277V |
| ⑨ PHOTOELECTRIC CELL CONTROL WIRE | 3-600V XLP NO. 10 |
| ⑩ SERVICE CABLES | 3-600V (XLP-TYPE USE) NO. 2/0 |
| ⑪ LAMPHOLDER WIRE | 2-600V XLP NO. 10 |
| ⑫ CONTROL WIRE | 2-600V XLP NO. 10 |
| ⑬ BRANCH LINE CABLES | SEE PLANS FOR SIZE |
| ⑭ LIGHTING POLE WIRE | 2-600V XLP NO. 10 CABLES WITH POLE GROUND AND FUSING |
| ⑮ HAND-AUTO-OFF CONTROL SWITCH | 10 AMPERE, 3 POLE, 120 VOLT |
| ⑯ LIGHTING ARRESTOR | BRACKET MOUNTED SURGE ARRESTOR FOR 120/240V 3W SERVICE MICRO SWITCH (MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR OPENED) |
| ⑰ PHOTOELECTRIC CELL | 120 SECONDS OFF TIME DELAY, 120V |



TYPICAL WIRING IN TRENCH - DETAIL

| | |
|---------------|--|
| DATE | |
| BY | |
| SURVEYED | |
| PLOTTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |

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|-----------------------|----------------|-------------------|--------------|-----------|
| FED. ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 15 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

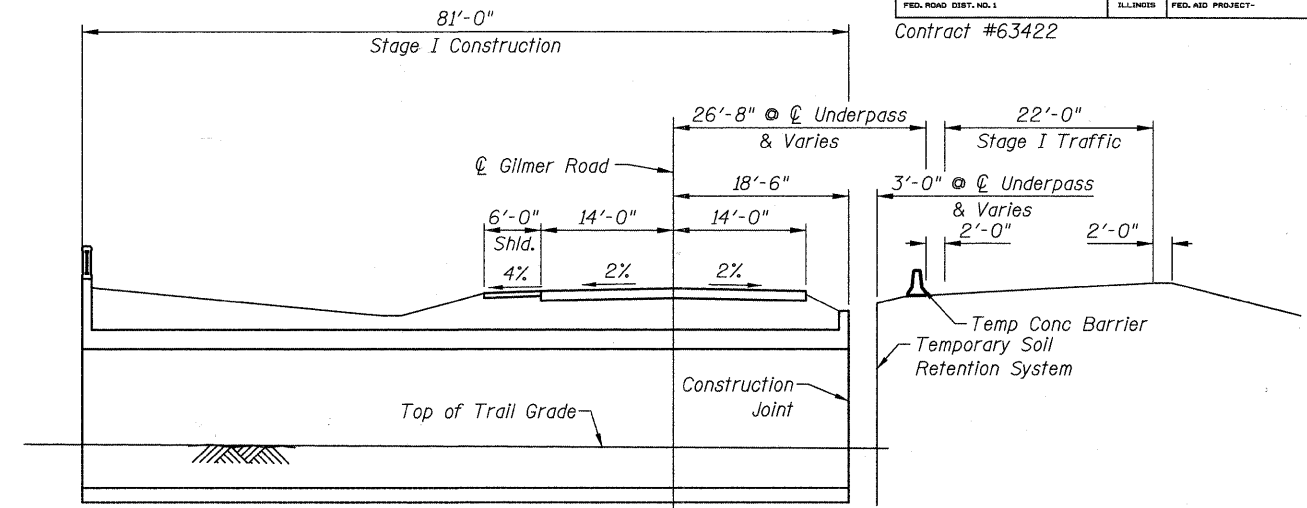
GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated
3. Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
4. A cantilevered sheet piling does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

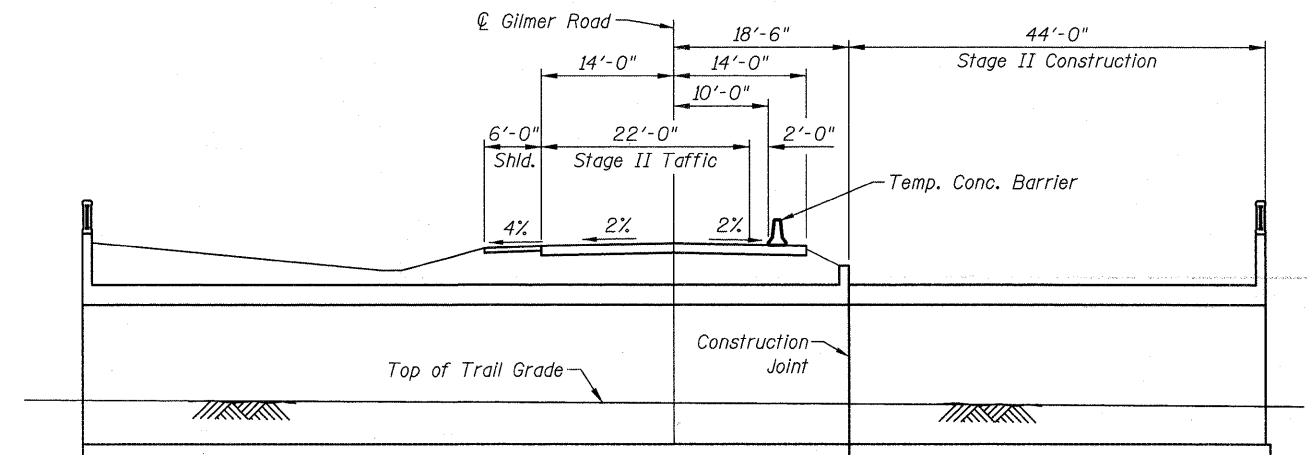
TOTAL BILL OF MATERIAL

| Item | Unit | Total |
|---------------------------------------|---------|--------|
| * Porous Granular Embankment, Special | Cu. Yd. | 1,190 |
| Structural Excavation | Cu. Yd. | 4,536 |
| Concrete Structures | Cu. Yd. | 683.6 |
| Rubbed Finish | Sq. Ft. | 5,150 |
| * Formliner Textured Surface | Sq. Ft. | 2,470 |
| Reinforcement Bars, Epoxy Coated | Pound | 96,970 |
| Bar Splicers | Each | 128 |
| Name Plates | Each | 1 |
| Membrane Waterproofing | Sq. Ft. | 2,813 |
| Geocomposite Wall Drain | Sq. Yd. | 669 |
| * Pipe Underdrains for Structures, 6" | Foot | 410 |
| * Temporary Soil Retention System | Sq. Ft. | 2,207 |
| * Ornamental Railing | Foot | 145 |
| * Staining Concrete Structures | Sq. Yd. | 275 |

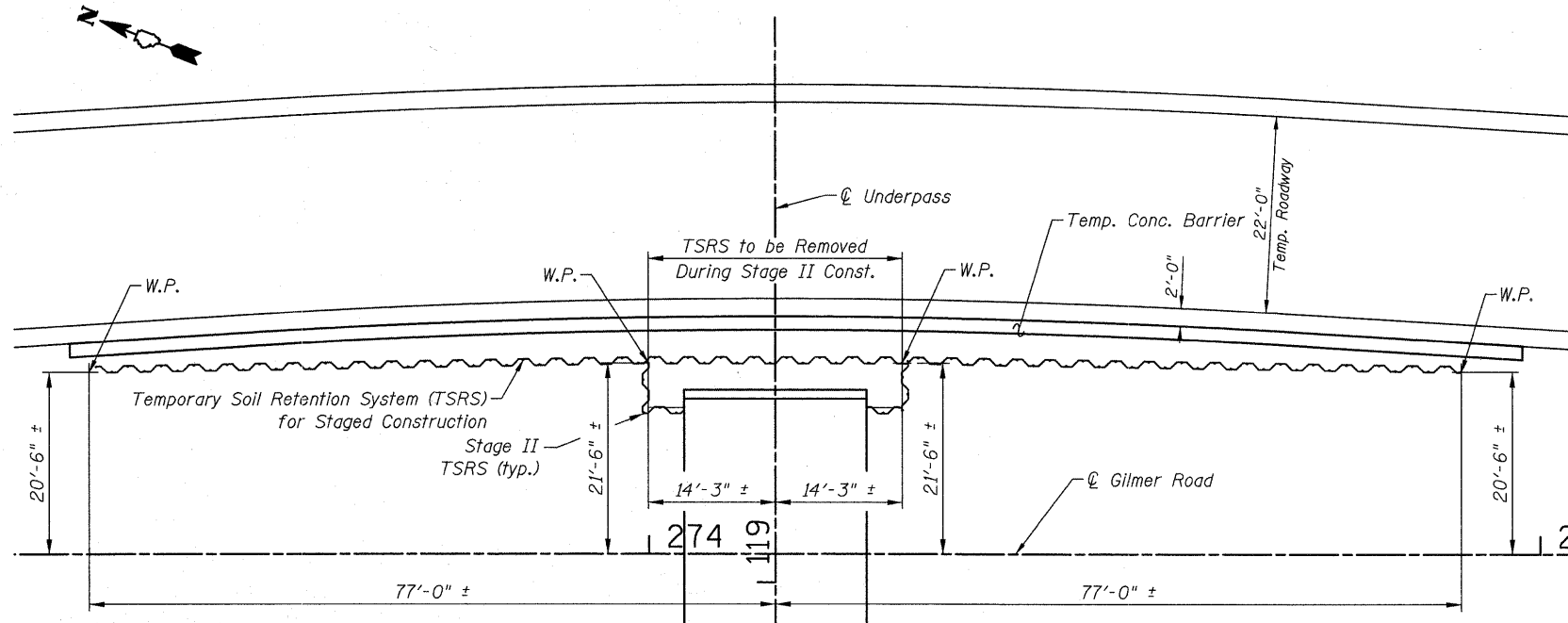
* See Special Provisions



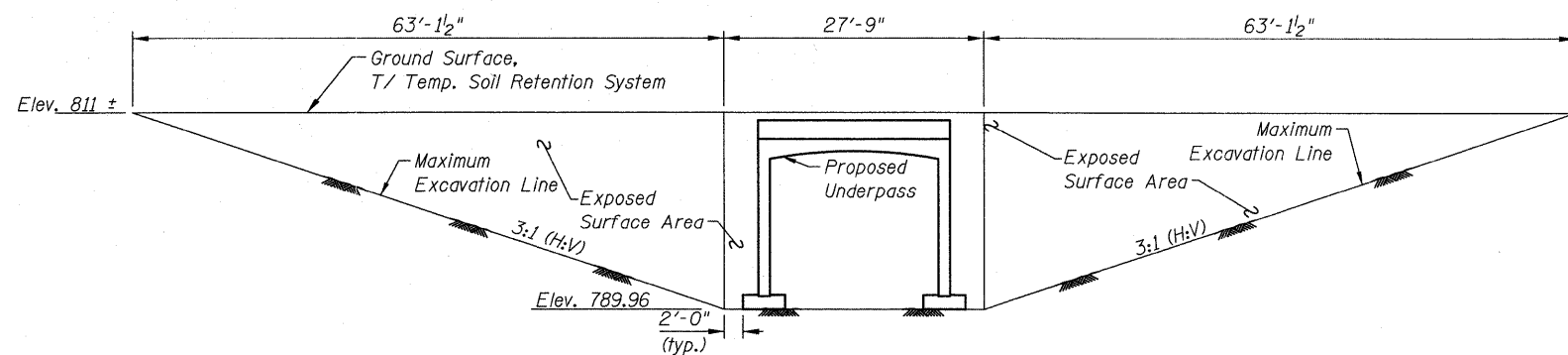
SECTION I CONSTRUCTION
(Looking North)



SECTION II CONSTRUCTION
(Looking North)



TEMPORARY SOIL RETENTION SYSTEM - PLAN



TEMPORARY SOIL RETENTION SYSTEM - ELEVATION

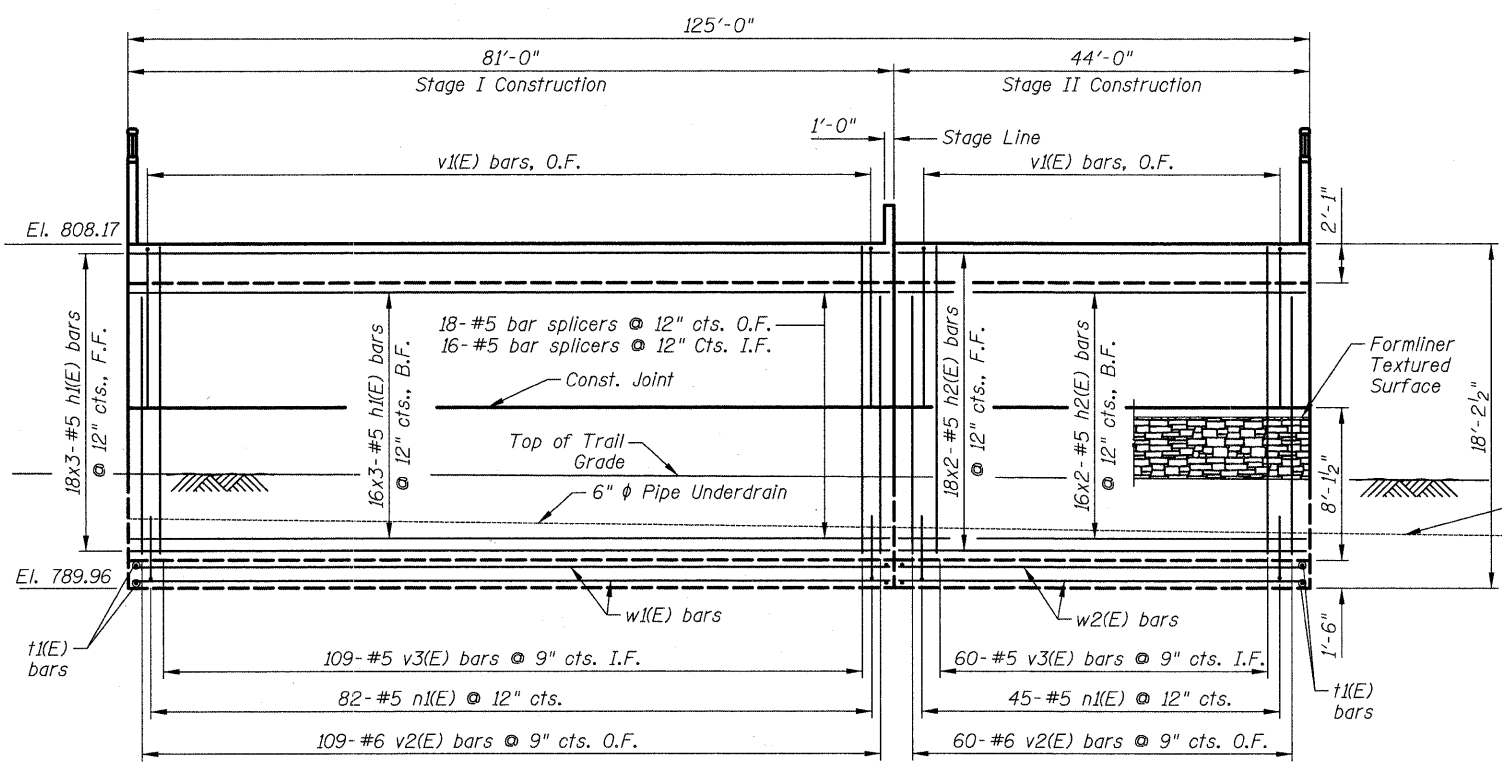
GENERAL NOTES, TOTAL BILL OF MATERIAL & STAGING DETAILS
GILMER ROAD TRAIL UNDERPASS
 SEC 08-F3000-07-BT
 STA. 274+14.15
 STRUCTURE NO. 049-N006

DRAWN BY: D. Atkins
 CHECKED BY: G. Hatlestad
 DATE: December 17, 2010

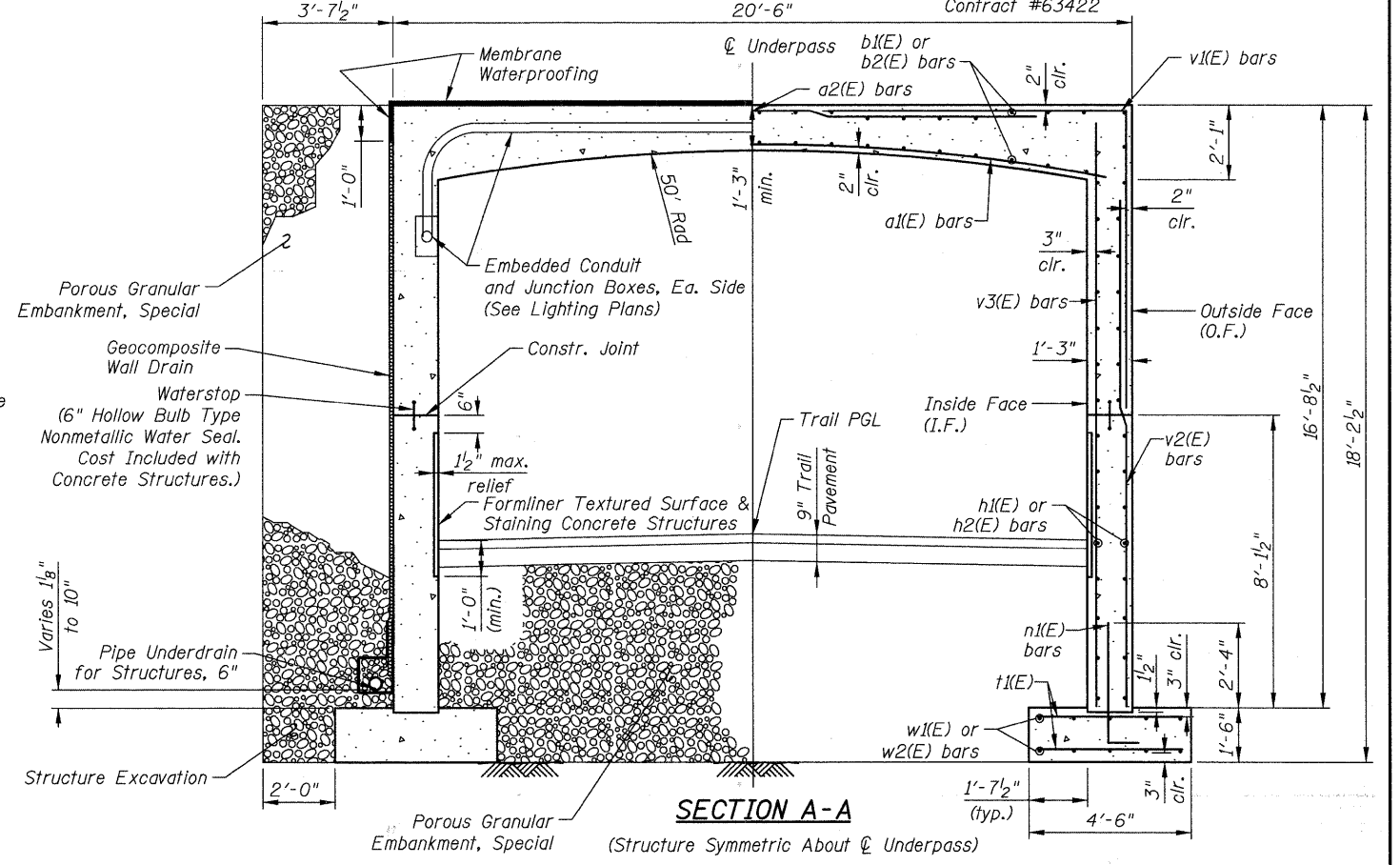
| REVISIONS | |
|-----------|------|
| NAME | DATE |
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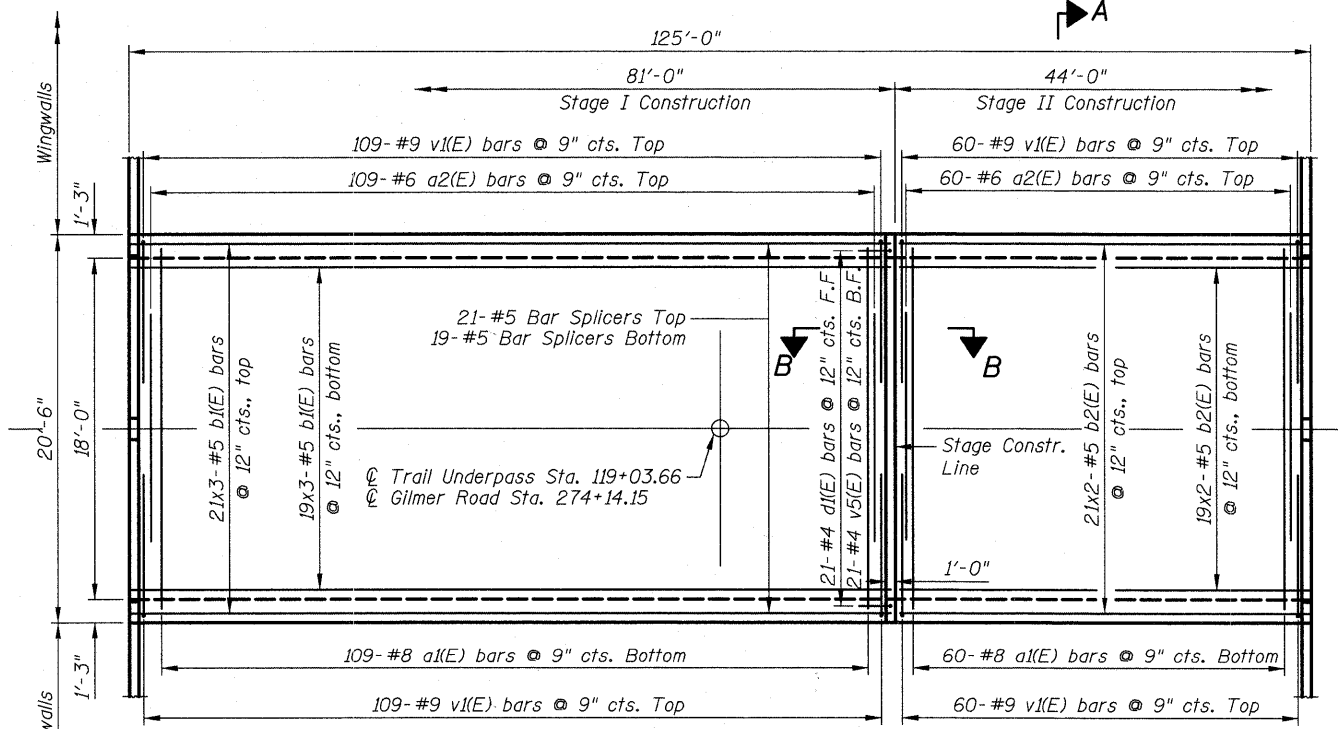
450 E Devon Ave, Suite 300
 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
 www.civiltechinc.com



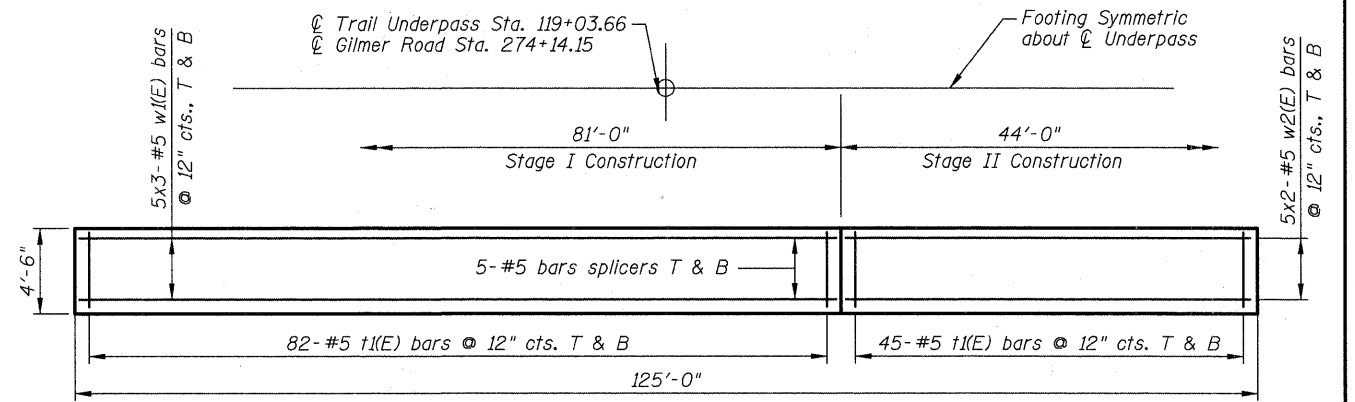
ELEVATION
(South Wall is Shown - North Wall is Similar)



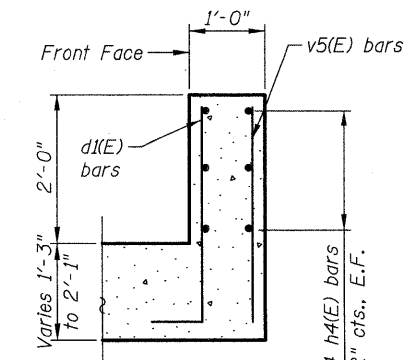
SECTION A-A
(Structure Symmetric About \bar{C} Underpass)



TOP SLAB- PLAN



FOOTING - PLAN
(South Footing is Shown)



SECTION B-B
Underpass Reinforcement Not Shown

| Bar Size | Class C |
|----------|---------|
| #4 | 1'-8" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-5" |
| #8 | 4'-6" |
| #9 | 5'-9" |

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S3 of S11
LAKE COUNTY FOREST PRESERVE DISTRICT

UNDERPASS PLAN & ELEVATION
GILMER ROAD TRAIL UNDERPASS
SEC 08-F3000-07-BT
STA. 274+14.15
STRUCTURE NO. 049-N006

DRAWN BY: D. Atkins
CHECKED BY: G. Hatlestad
DATE: December 17, 2010

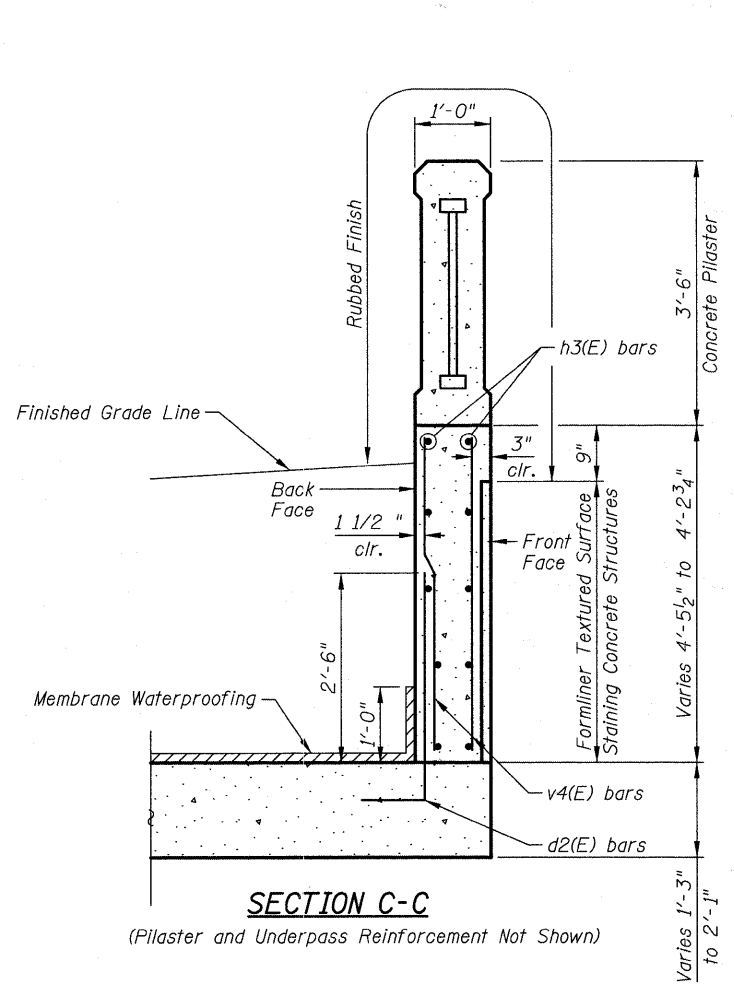
Note:
1. See Sheet S4 for Bill of Material and Bar Diagrams.
2. See Sheet S7 for Pipe Underdrain Detail.
3. See Sheet S8 for Architectural Details.

BILL OF MATERIAL
(For Underpass)

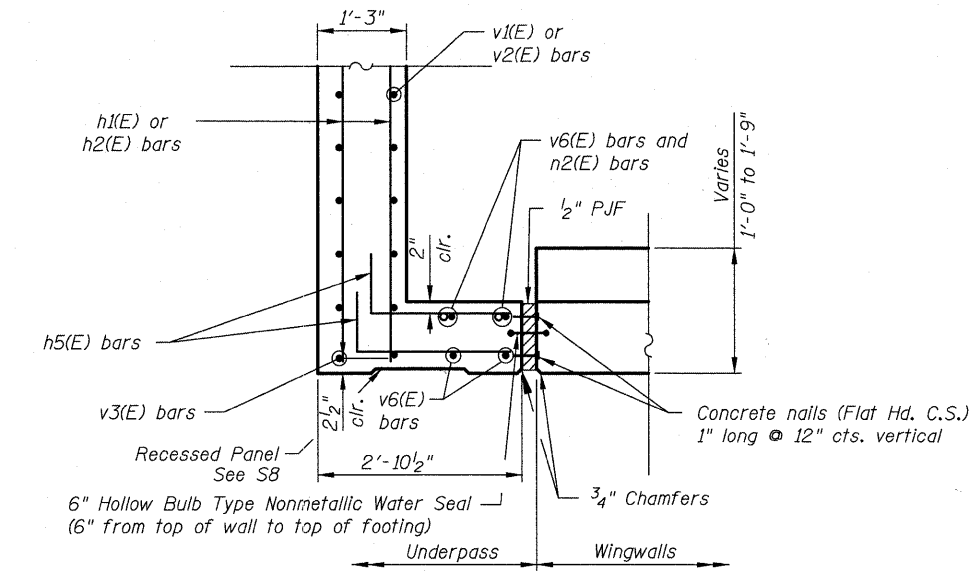
| Bar | No. | Size | Length | Shape |
|--------------------|-----|------|---------|-------|
| a ₁ (E) | 169 | #8 | 19'-2" | — |
| a ₂ (E) | 169 | #6 | 15'-9" | — |
| b ₁ (E) | 120 | #5 | 28'-4" | — |
| b ₂ (E) | 80 | #5 | 22'-11" | — |
| d ₁ (E) | 21 | #4 | 3'-6" | — |
| d ₂ (E) | 42 | #5 | 3'-10" | — |
| h ₁ (E) | 204 | #5 | 28'-4" | — |
| h ₂ (E) | 136 | #5 | 22'-11" | — |
| h ₃ (E) | 20 | #4 | 23'-5" | — |
| h ₄ (E) | 6 | #4 | 20'-0" | — |
| h ₅ (E) | 144 | #5 | 2'-10" | — |
| n ₁ (E) | 254 | #5 | 4'-1" | — |
| n ₂ (E) | 8 | #6 | 4'-10" | — |
| v ₁ (E) | 338 | #9 | 16'-6" | — |
| v ₂ (E) | 338 | #6 | 13'-8" | — |
| v ₃ (E) | 338 | #5 | 16'-2" | — |
| v ₄ (E) | 84 | #4 | 3'-11" | — |
| v ₅ (E) | 21 | #4 | 2'-10" | — |
| v ₆ (E) | 16 | #5 | 20'-7" | — |
| t ₁ (E) | 508 | #5 | 4'-0" | — |
| w ₁ (E) | 60 | #5 | 28'-4" | — |
| w ₂ (E) | 40 | #5 | 22'-11" | — |

| Item | Unit | Quantity |
|-------------------------------------|---------|----------|
| Porous Granular Embankment, Special | Cu. Yd. | 552 |
| Structural Excavation | Cu. Yd. | 2,912 |
| Concrete Structures | Cu. Yd. | 407.9 |
| Formliner Textured Surface | Sq. Ft. | 1,160 |
| Reinforcement bars Epoxy Coated | Pound | 66,980 |
| Membrane Waterproofing | Sq. Ft. | 2,813 |
| Geocomposite Wall Drain | Sq. Yd. | 430 |
| Pipe Underdrain for Structures, 6" | Foot | 272 |
| Rubbed Finish | Sq. Ft. | 4,310 |
| Staining Concrete Structures | Sq. Yd. | 129 |

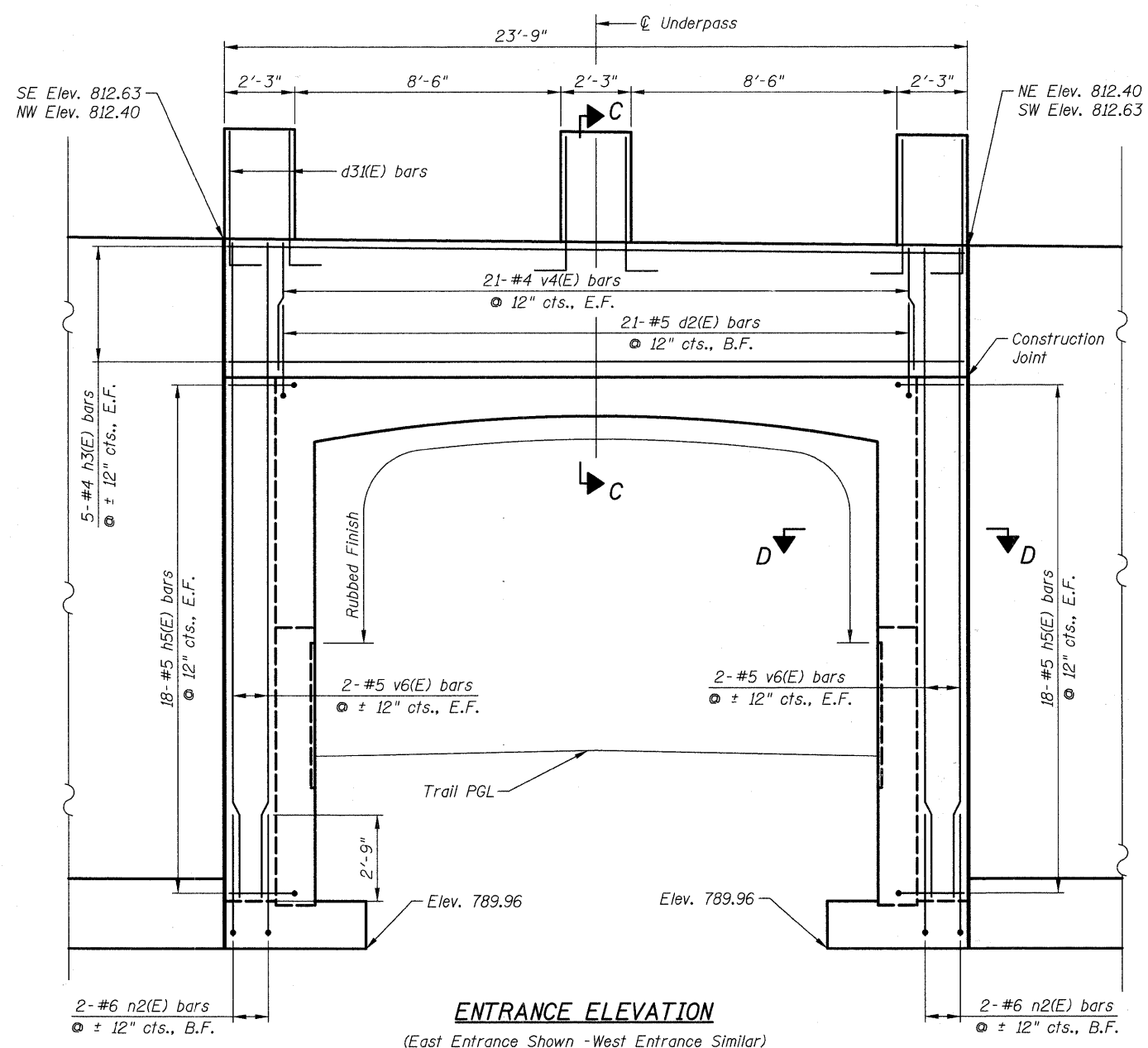
Bars indicated thus 13x3 - #6 etc. indicates 13 lines of bars with 3 lengths per line.



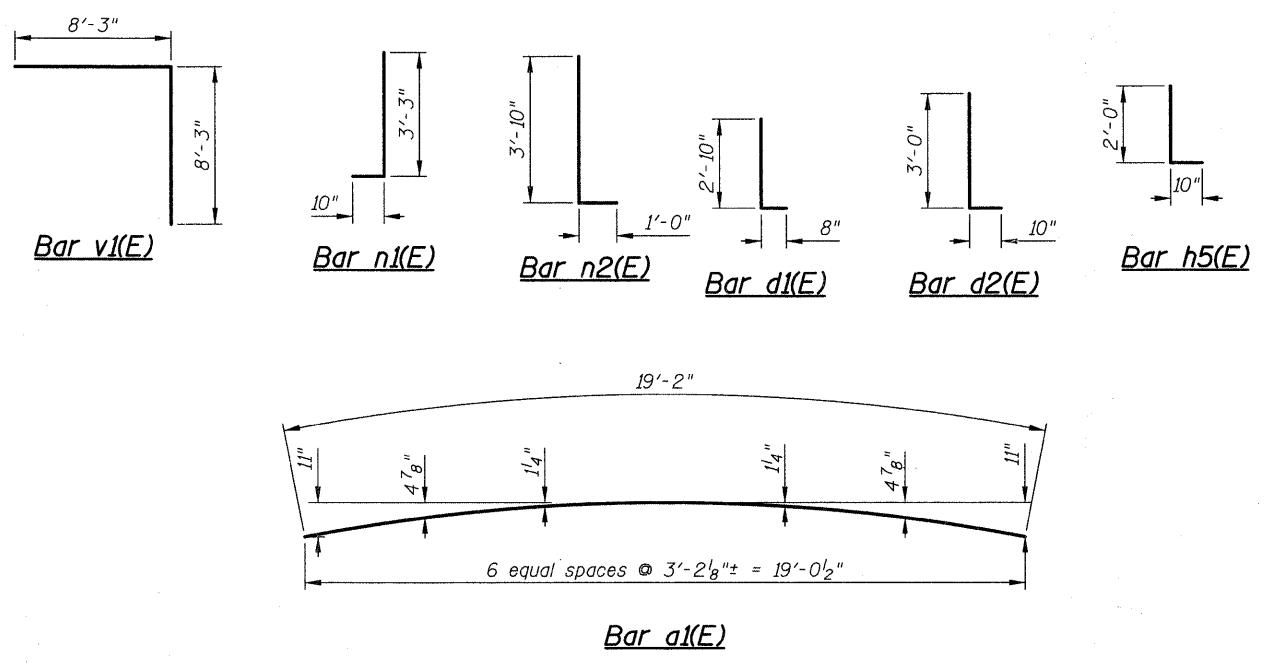
SECTION C-C
(Pilaster and Underpass Reinforcement Not Shown)



SECTION D-D



ENTRANCE ELEVATION
(East Entrance Shown - West Entrance Similar)

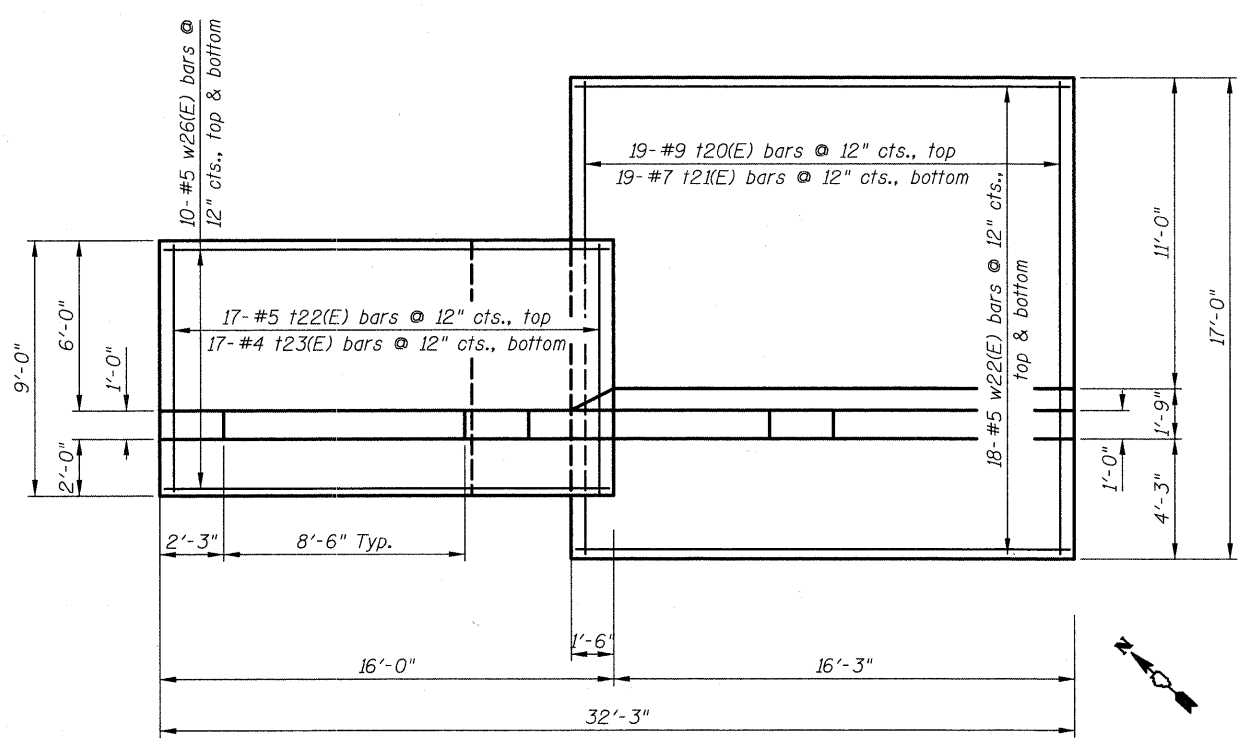


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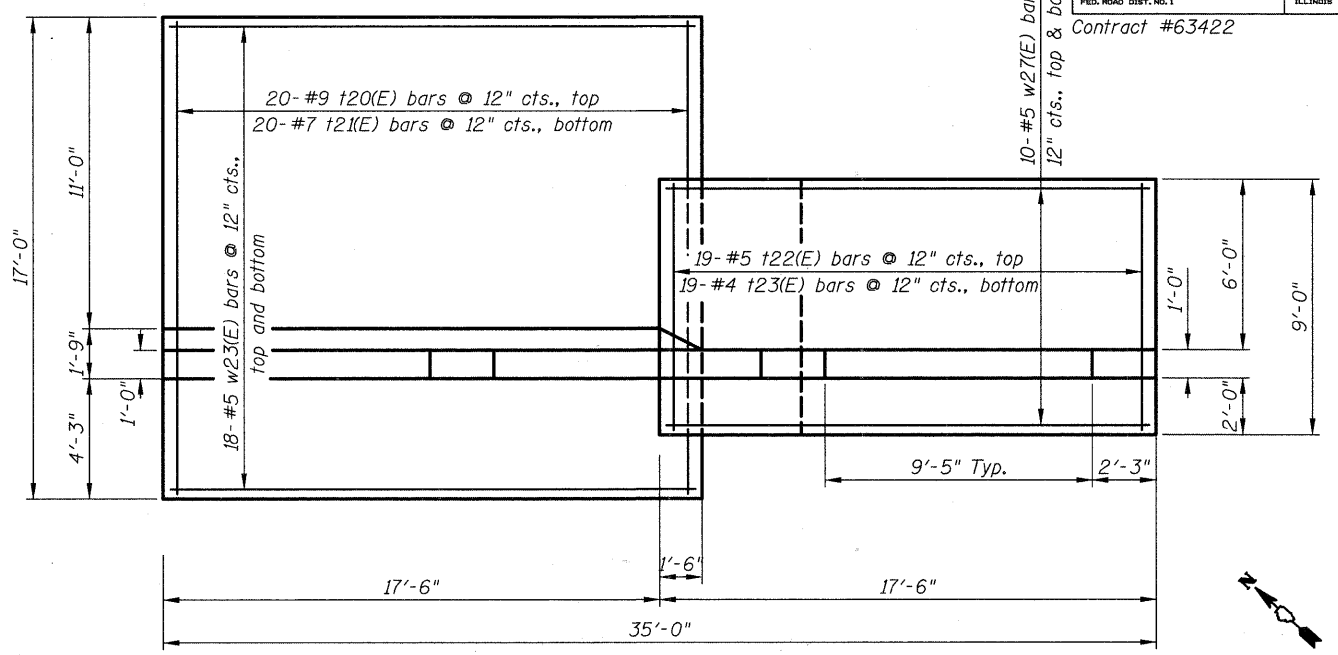
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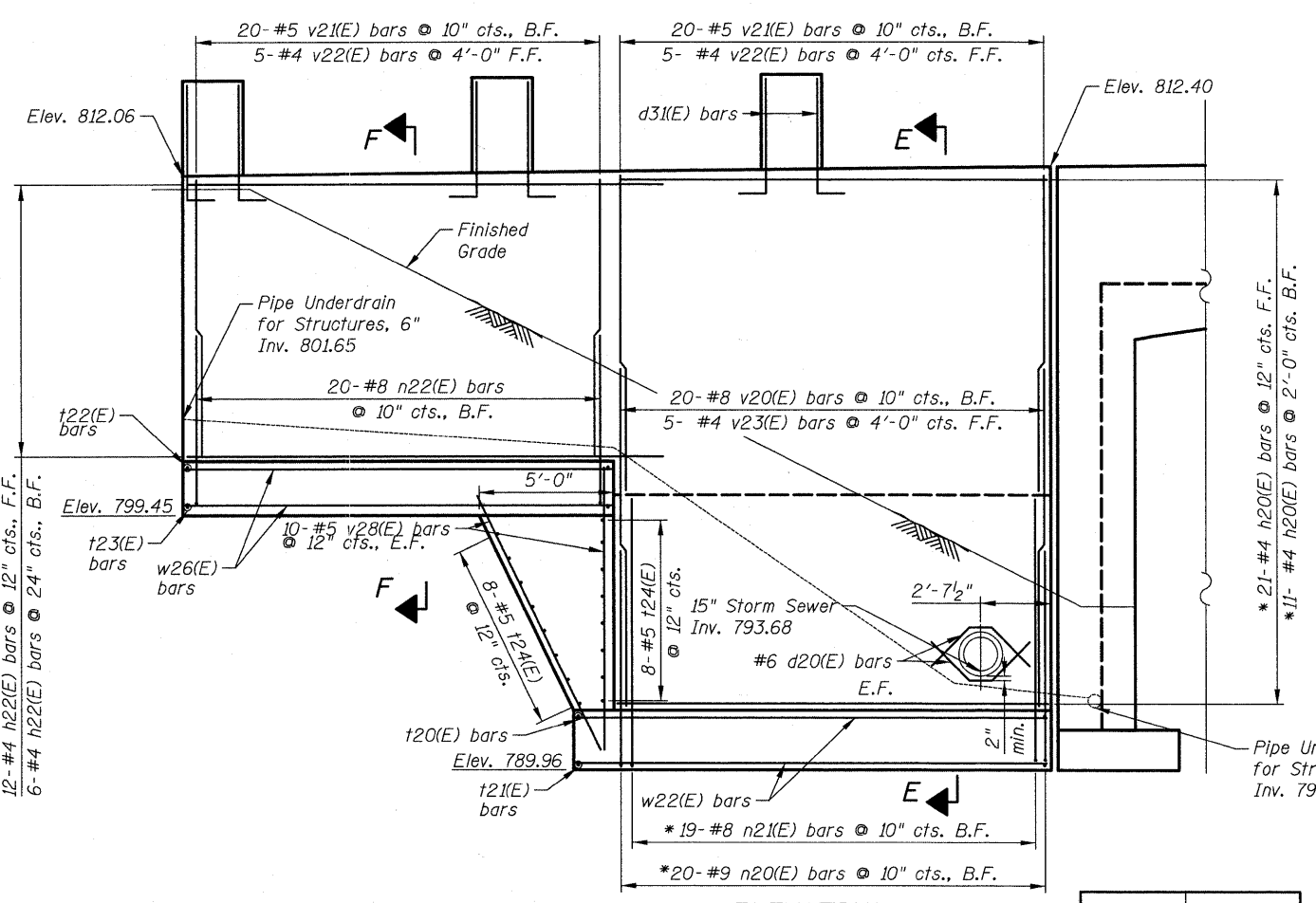
S4 of S11
LAKE COUNTY FOREST PRESERVE DISTRICT
UNDERPASS DETAILS
GILMER ROAD TRAIL UNDERPASS
SEC 08-F3000-07-BT
STA. 274+14.15
STRUCTURE NO. 049-N006
DRAWN BY: D. Atkins
CHECKED BY: G. Hatlestad DATE: December 17, 2010



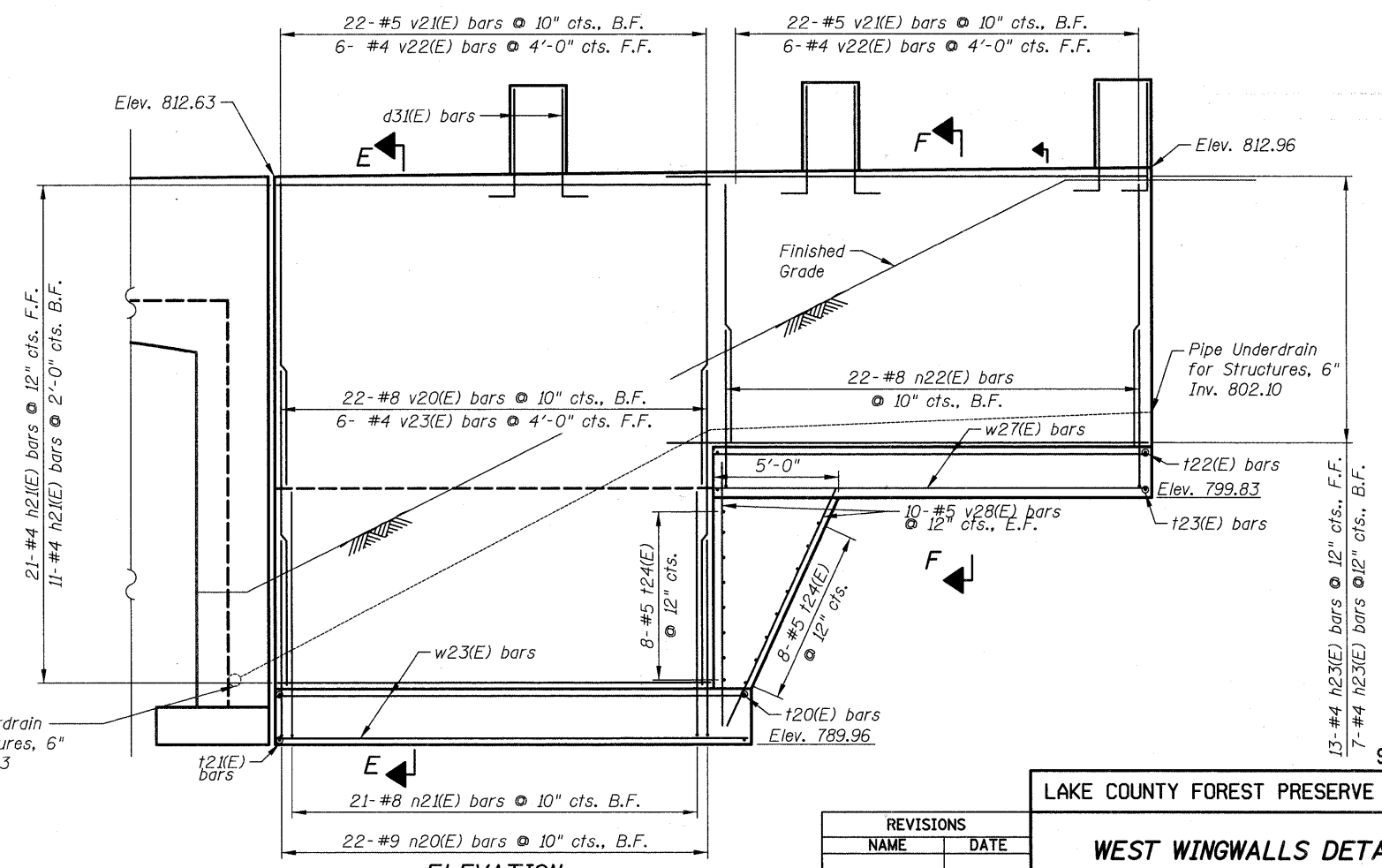
PLAN
NW Wingwall



PLAN
SW Wingwall



ELEVATION
NW Wingwall



ELEVATION
SW Wingwall

| Bar Size | Class C |
|----------|---------|
| #4 | 1'-8" |
| #5 | 2'-2" |
| #6 | 2'-7" |
| #7 | 3'-5" |
| #8 | 4'-6" |
| #9 | 5'-9" |

- Notes:
- See Sheet S7 of S11 for Bill of Material and Bar diagrams.
 - See Sheet S7 of S11 for Section A-A and B-B.
 - See Sheet s8 for pilaster details and Bill of Material.

* Cut Bars to Accommodate Storm Sewer

| REVISIONS | |
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LAKE COUNTY FOREST PRESERVE DISTRICT

WEST WINGWALLS DETAILS
GILMER ROAD TRAIL UNDERPASS
SEC 08-F3000-07-BT
STA. 274+14.15
STRUCTURE NO. 049-N006

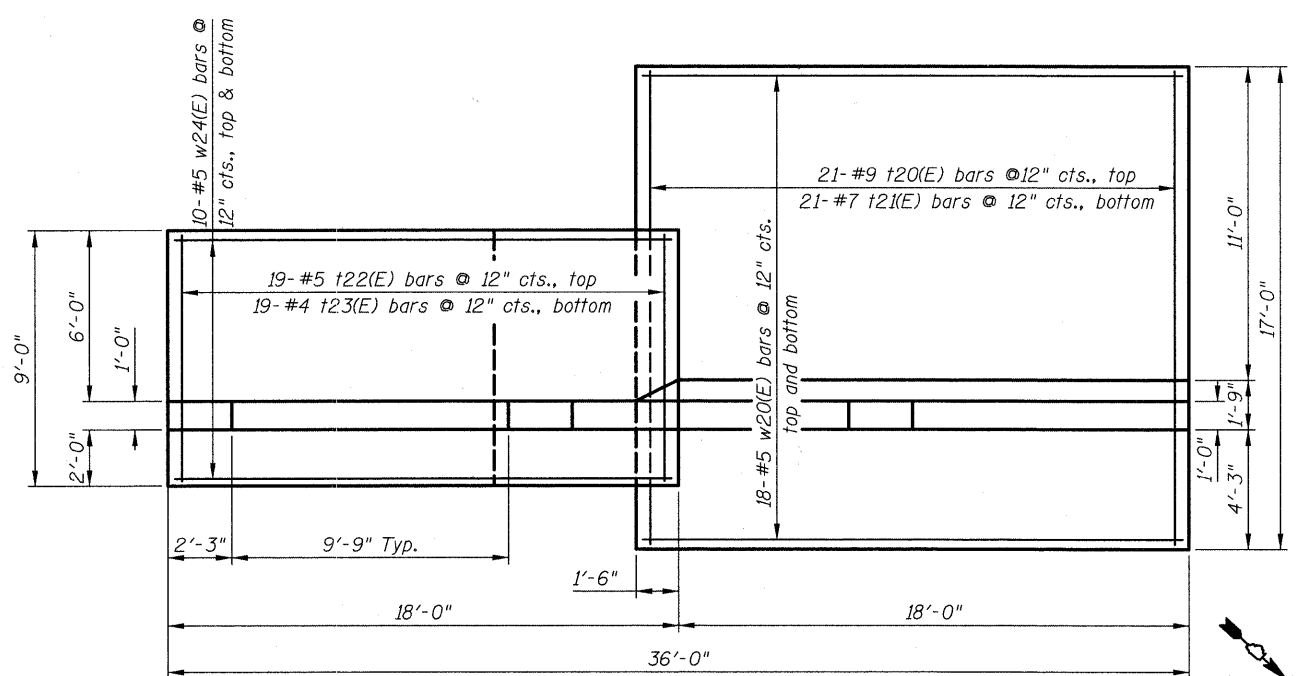
DRAWN BY: D. Atkins
 CHECKED BY: G. Hatlestad
 DATE: December 17, 2010

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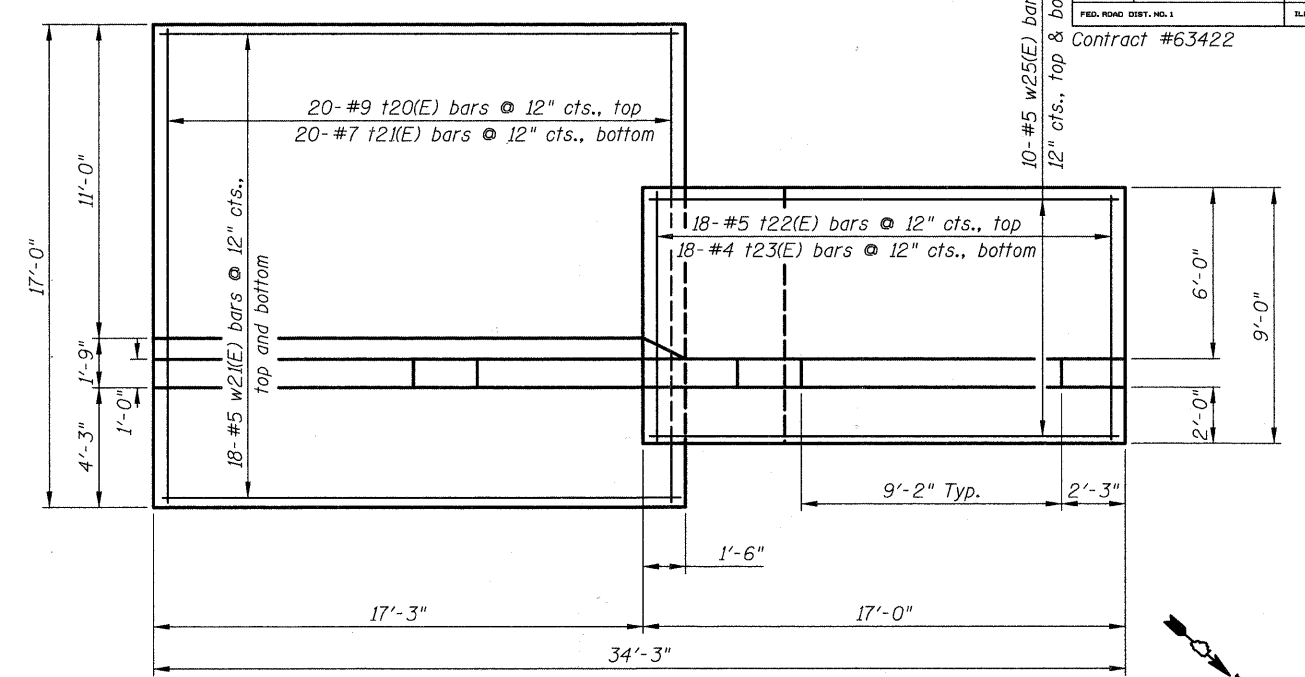
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|-----------------------|----------------|----------|-------------------|-------|
| TALE ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 19 |
| FED. ROAD DIST. NO. 1 | | ILLINOIS | FED. AID PROJECT- | |

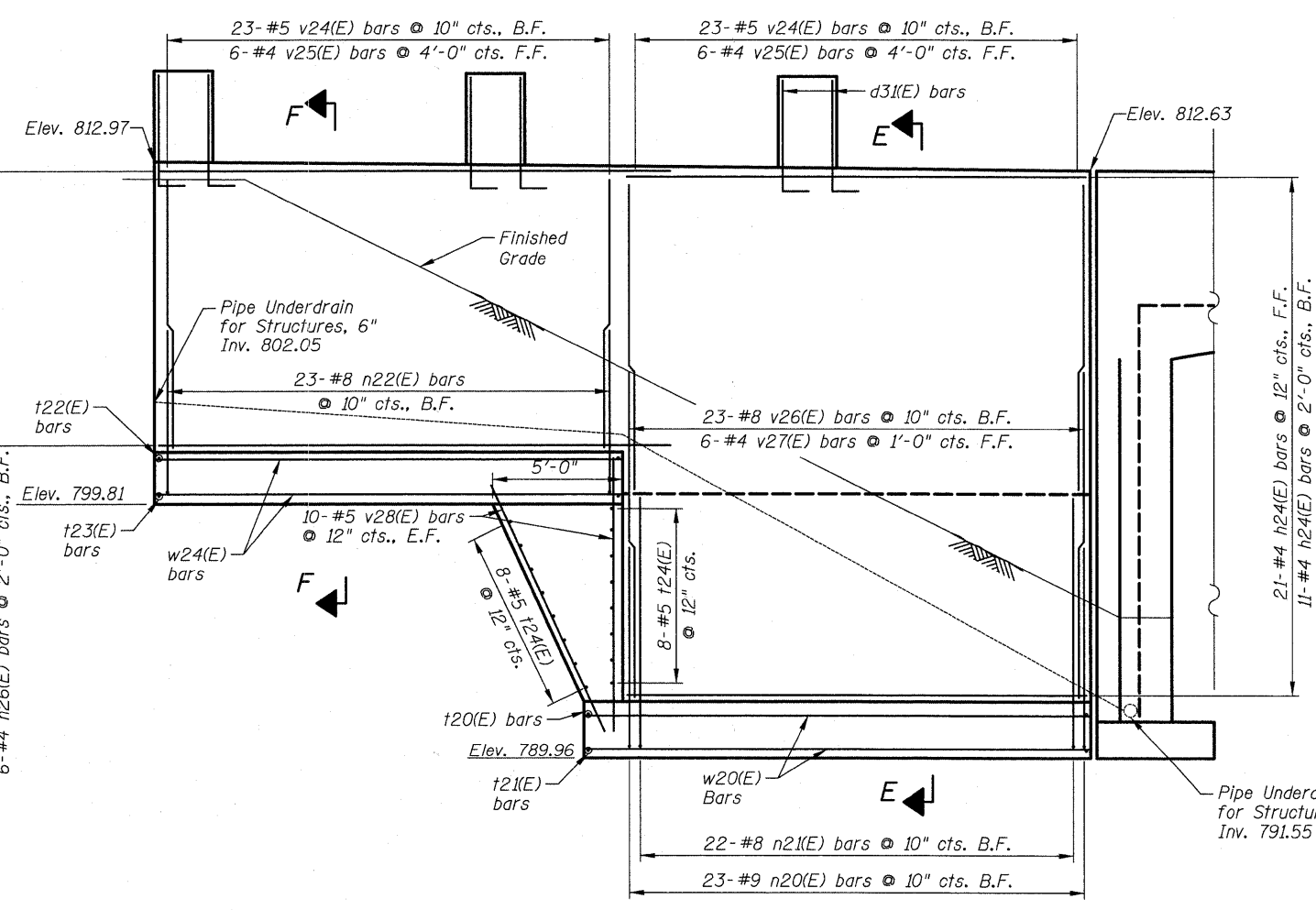
Contract #63422



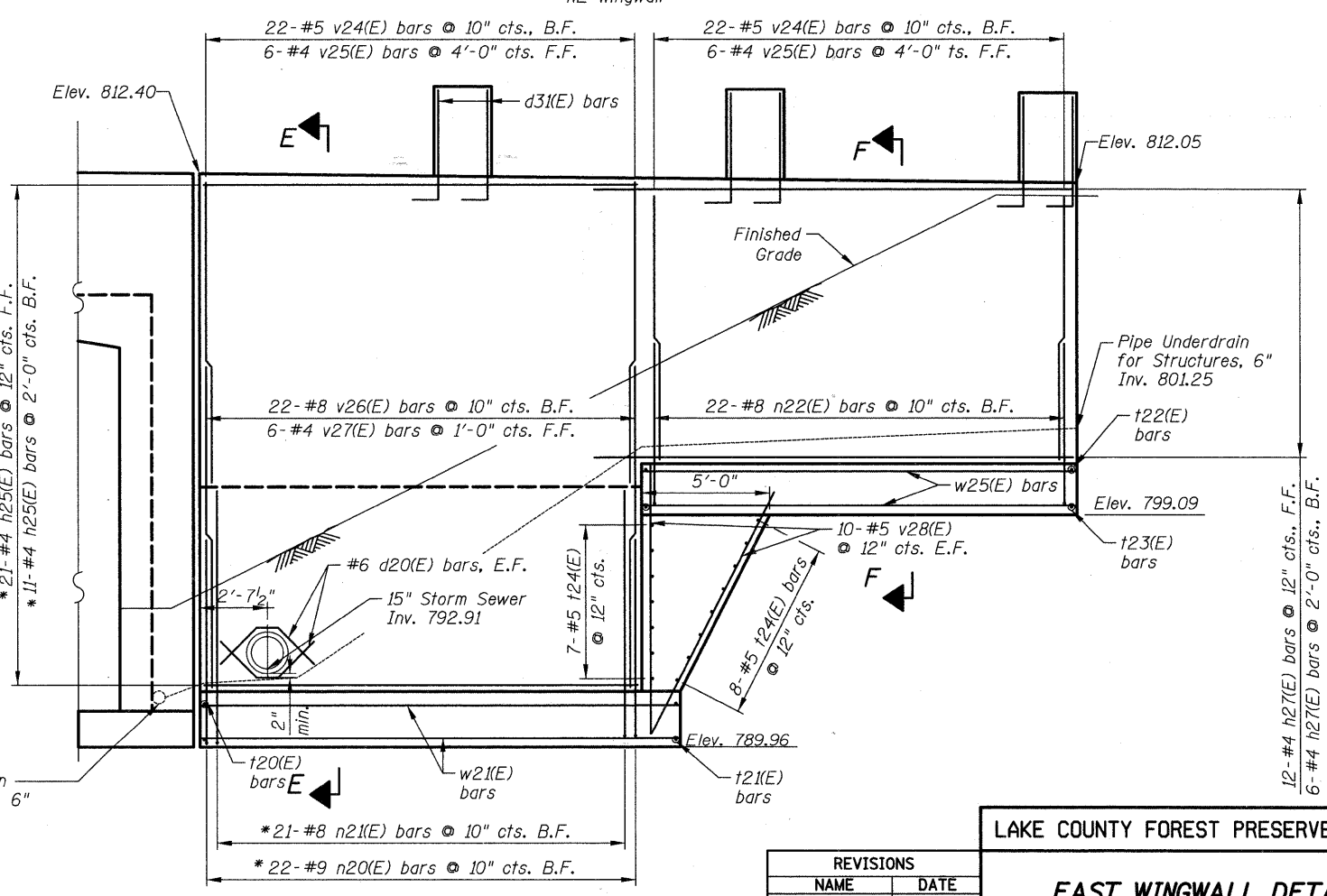
PLAN
SE Wingwall



PLAN
NE Wingwall



ELEVATION
SE Wingwall



ELEVATION
NE Wingwall

- Notes:
- See Sheet S7 of S11 for Bill of Material and Bar diagrams.
 - See Sheet S7 of S11 for Section E-E and F-F.
 - See Sheet S8 of S11 for Pilaster details and Bill of Material.

* Cut Bars to Accommodate Storm Sewer.

| REVISIONS | |
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| NAME | DATE |
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LAKE COUNTY FOREST PRESERVE DISTRICT

EAST WINGWALL DETAILS
GILMER ROAD TRAIL UNDERPASS
SEC 08-F3000-07-BT
STA. 274+14.15
STRUCTURE NO. 049-N006

DRAWN BY: D. Atkins
 CHECKED BY: G. Hatlestad
 DATE: December 17, 2010

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| FED. ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 20 |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT- | | |

Contract #63422

BILL OF MATERIAL
(For Wingwalls)

| Bar No. | Size | Length | Shape |
|-------------------------------------|---------|----------|-------|
| d20(E) | #6 | 4'-10" | ^ |
| h20(E) | #4 | 16'-0" | — |
| h21(E) | #4 | 17'-3" | — |
| h22(E) | #4 | 17'-8" | — |
| h23(E) | #4 | 19'-2" | — |
| h24(E) | #4 | 17'-8" | — |
| h25(E) | #4 | 16'-11" | — |
| h26(E) | #4 | 19'-8" | — |
| h27(E) | #4 | 18'-8" | — |
| n20(E) | #9 | 9'-0" | U |
| n21(E) | #8 | 10'-9" | U |
| n22(E) | #8 | 7'-7" | U |
| t20(E) | #9 | 16'-8" | — |
| t21(E) | #7 | 16'-8" | — |
| t22(E) | #5 | 8'-8" | — |
| t23(E) | #4 | 8'-8" | — |
| t24(E) | #5 | 8'-8" | — |
| v20(E) | #8 | 14'-6" | — |
| v21(E) | #5 | 10'-3" | — |
| v22(E) | #4 | 10'-3" | — |
| v23(E) | #4 | 11'-8" | — |
| v24(E) | #5 | 10'-8" | — |
| v25(E) | #4 | 10'-8" | — |
| v26(E) | #8 | 14'-1" | — |
| v27(E) | #4 | 11'-3" | — |
| v28(E) | #5 | 10'-6" | — |
| w20(E) | #5 | 19'-2" | — |
| w21(E) | #5 | 18'-5" | — |
| w22(E) | #5 | 17'-5" | — |
| w23(E) | #5 | 18'-8" | — |
| w24(E) | #5 | 17'-8" | — |
| w25(E) | #5 | 16'-8" | — |
| w26(E) | #5 | 15'-8" | — |
| w27(E) | #5 | 17'-2" | — |
| w28(E) | #5 | 17'-2" | — |
| Item | Unit | Quantity | |
| Porous Granular Embankment, Special | Cu. Yd. | 211 | |
| Structure Excavation | Cu. Yd. | 1,625 | |
| Concrete Structures | Cu. Yd. | 271.1 | |
| Formliner Textured Surface | Sq. Ft. | 1,310 | |
| Reinforcement Bars, Epoxy Coated | Pound | 29,130 | |
| Geocomposite Wall Drain | Sq. Yd. | 238 | |
| Pipe Underdrain For Structures, 6" | Foot | 138 | |
| Rubbed Finish | Sq. Ft. | 390 | |
| Anti-Graffiti Coating | Sq. Ft. | 1,323 | |
| Staining Concrete Structures | Sq. Yd. | 146 | |

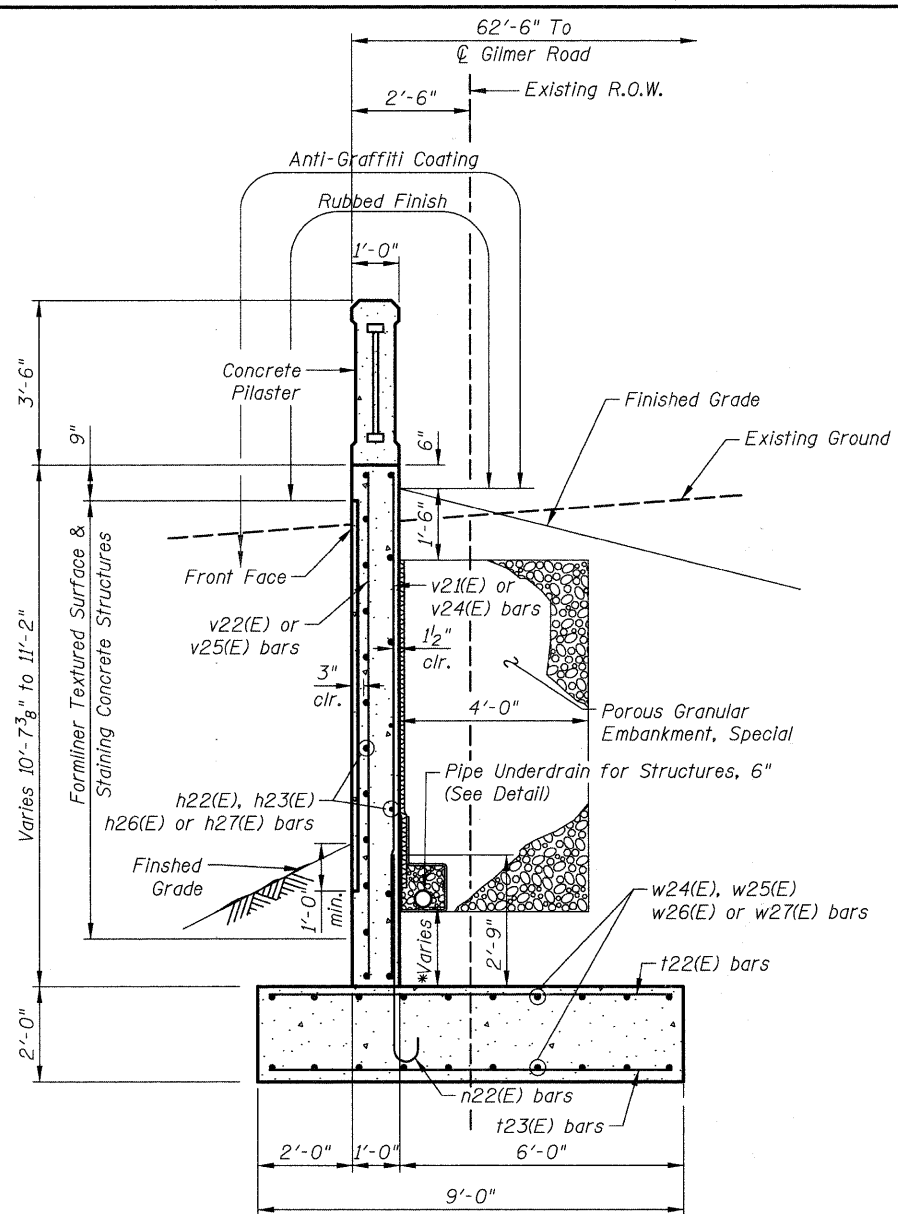
Note: See Sheet S8 for Concrete Pilasters Details
S7 of S11

LAKE COUNTY FOREST PRESERVE DISTRICT

WINGWALL DETAILS
GILMER ROAD TRAIL UNDERPASS
SEC 08-F3000-07-BT
STA. 274+14.15
STRUCTURE NO. 049-N006

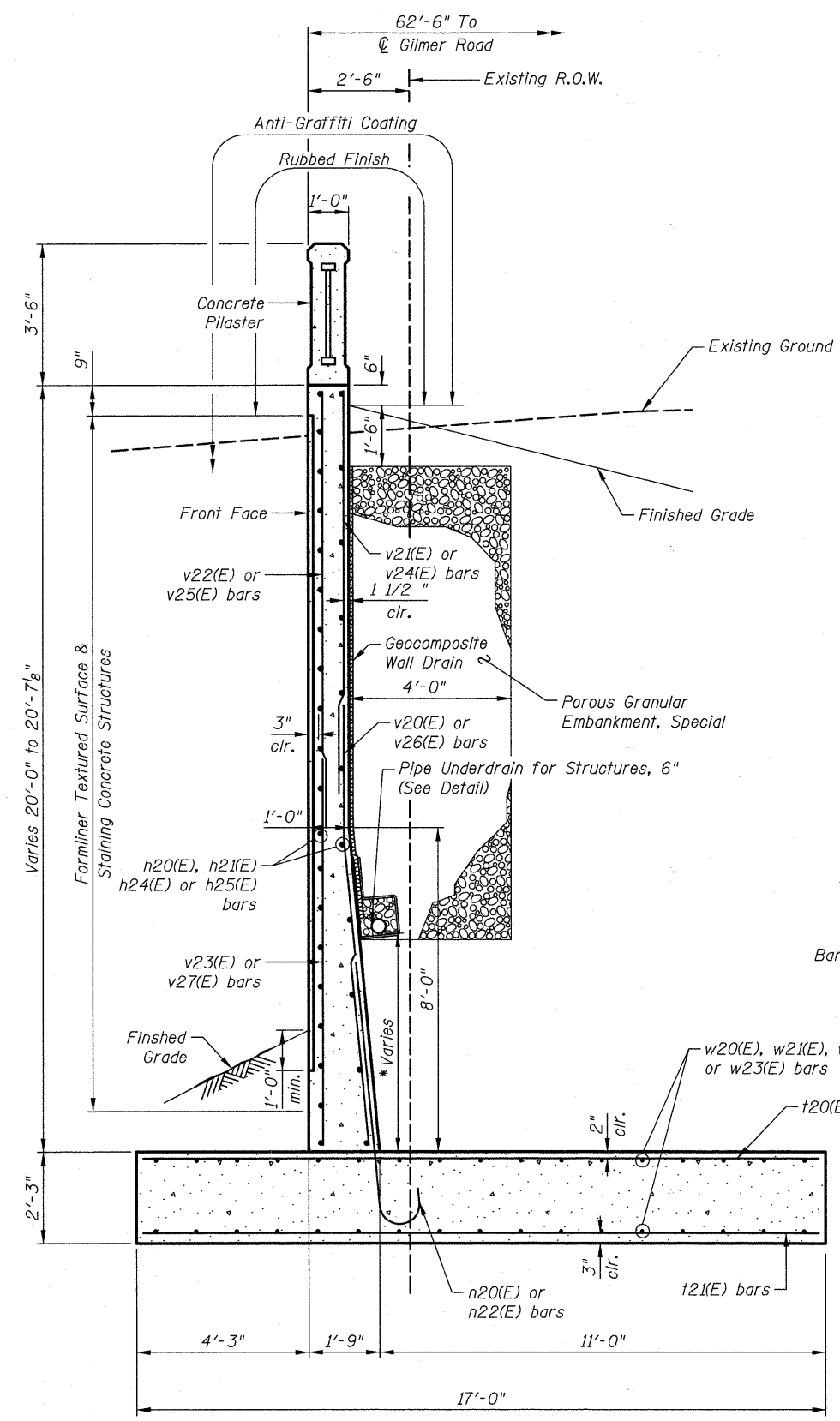
DRAWN BY: D. Atkins
CHECKED BY: G. Hatlestad
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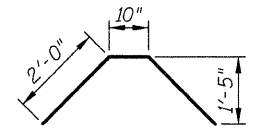
SECTION F-F

* See Sheets S6 & S7 for Pipe Underdrain Invert Elevations

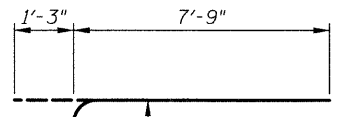


SECTION E-E

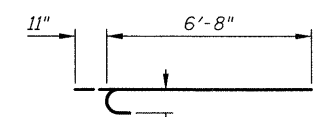
* See Sheets S6 & S7 for Pipe Underdrain Invert Elevations



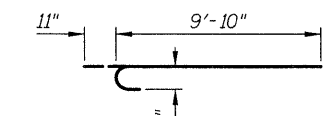
BAR d20(E)
Bar is symmetrical about center



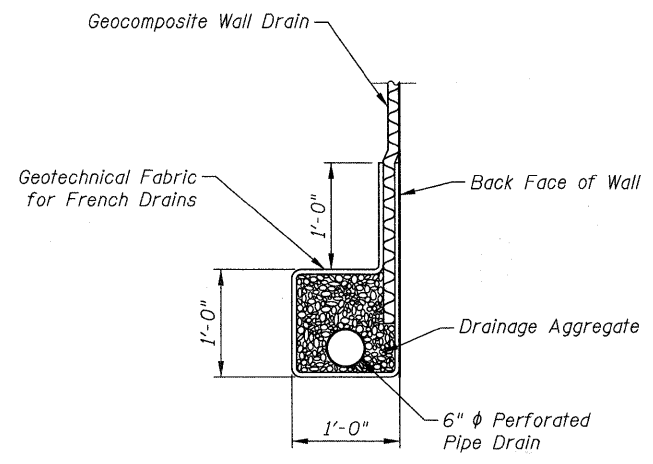
BAR n20(E)



BAR n22(E)



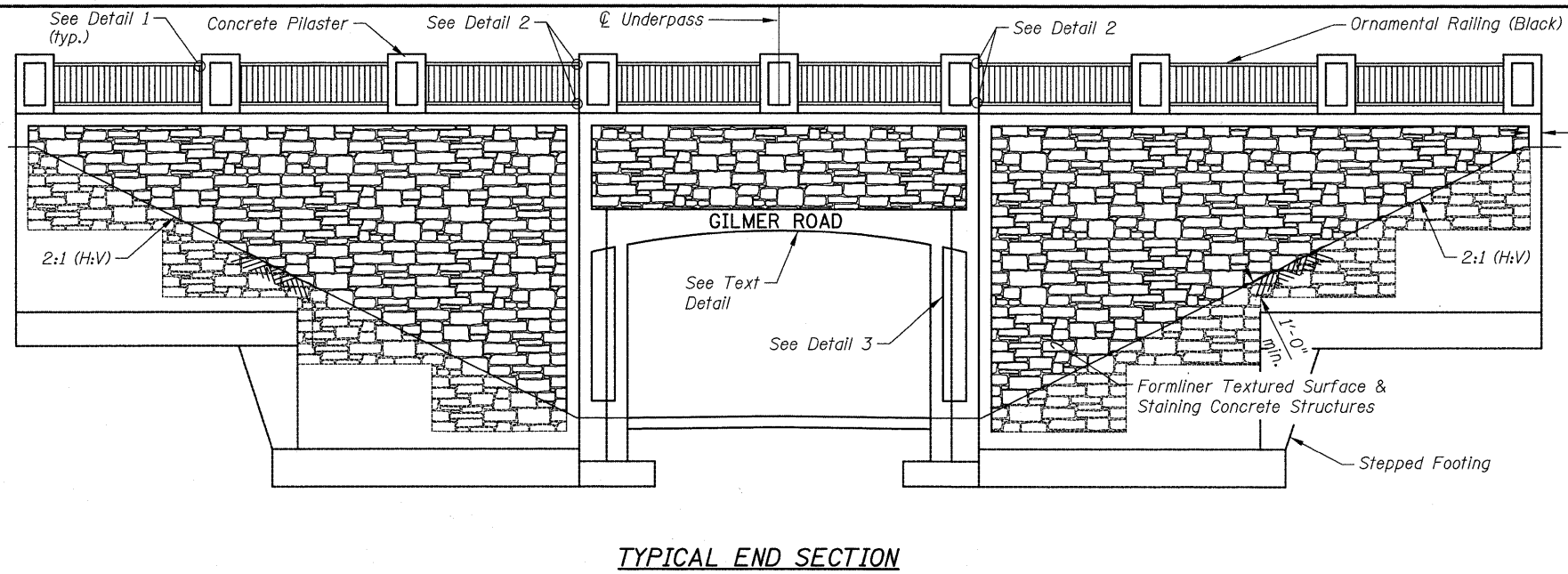
BAR n21(E)



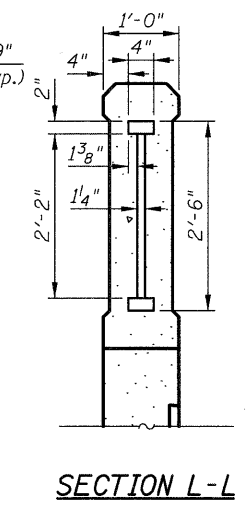
PIPE UNDERDRAIN DETAIL

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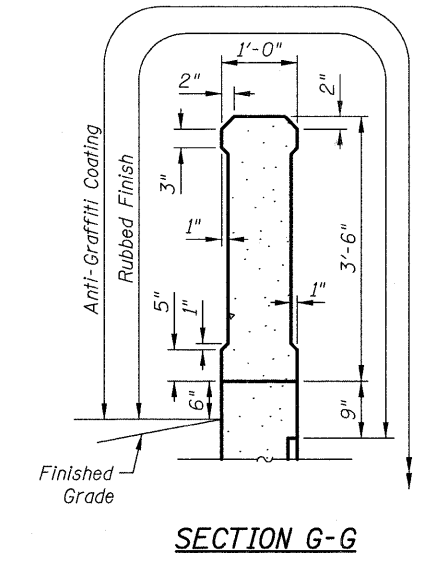
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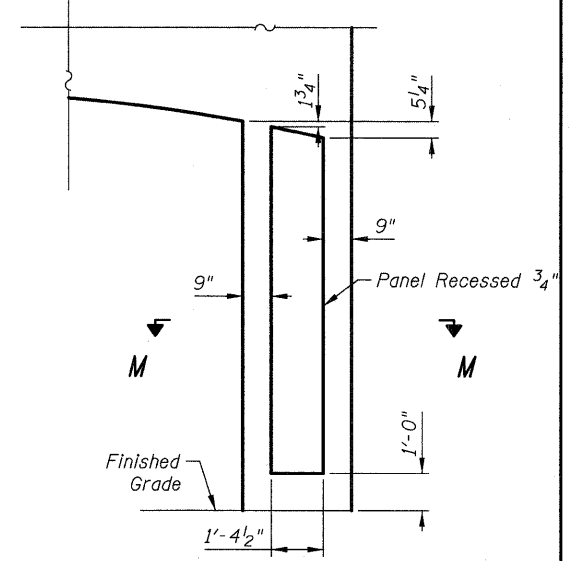
TYPICAL END SECTION



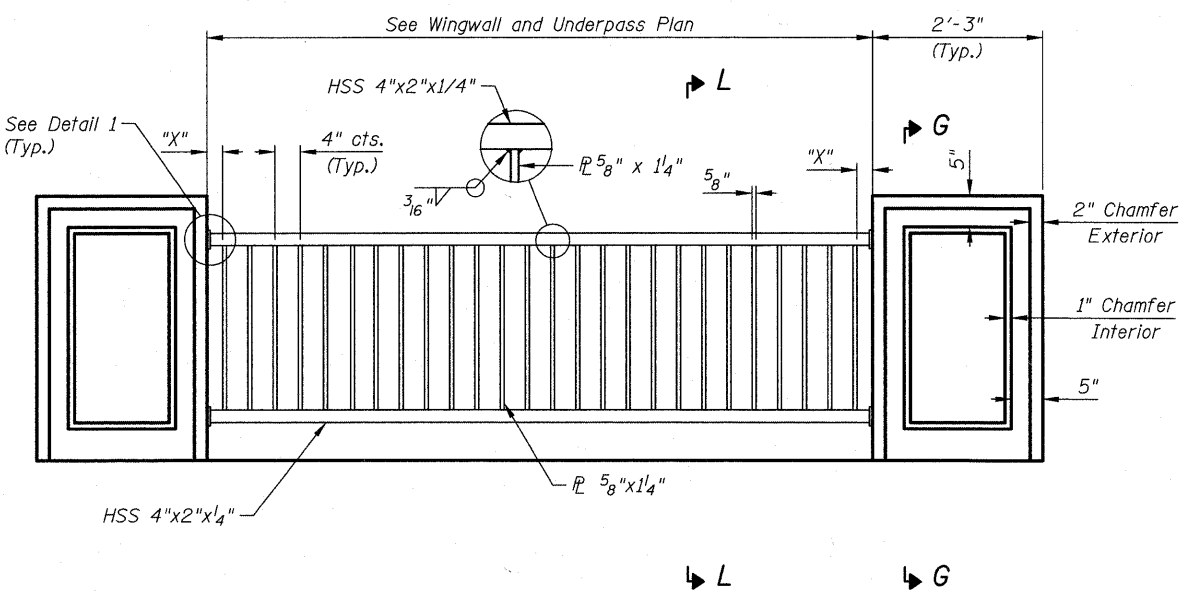
SECTION L-L



SECTION G-G

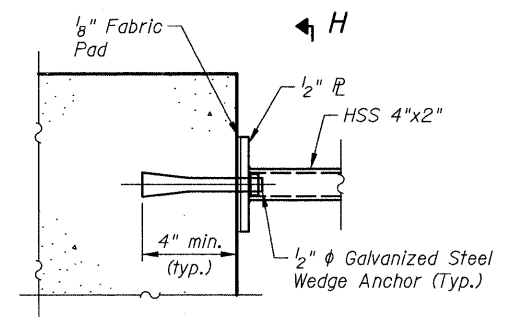


DETAIL 3
Recessed Panel Detail

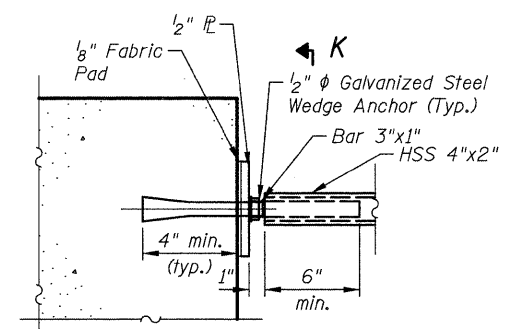


TYPICAL RAILING ELEVATION

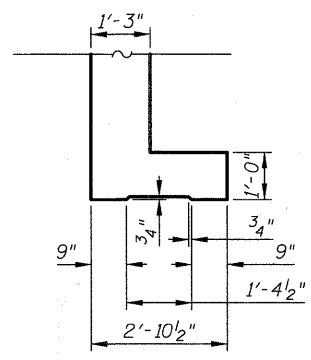
Dimension "X" Equals Remaining Distance After Even Plate Spacing



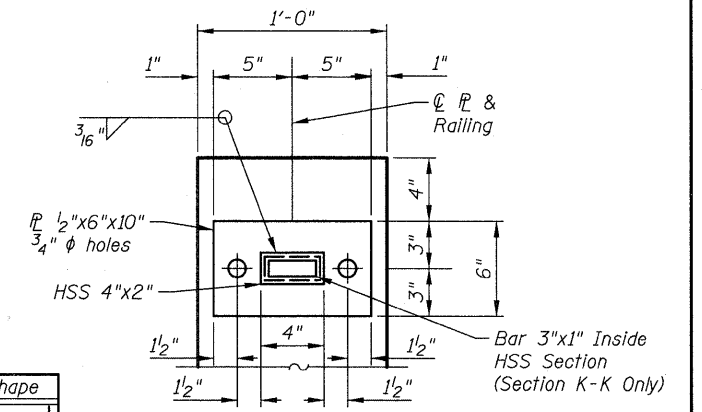
DETAIL 1



DETAIL 2
Railing Expansion Joint Detail



SECTION M-M

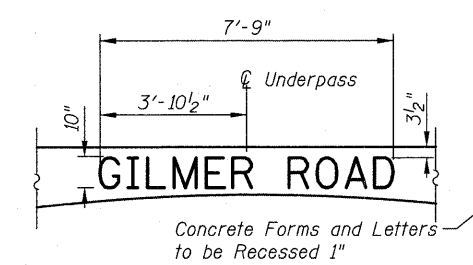


SECTION H-H
SECTION K-K

BILL OF MATERIAL
(For Pilasters)

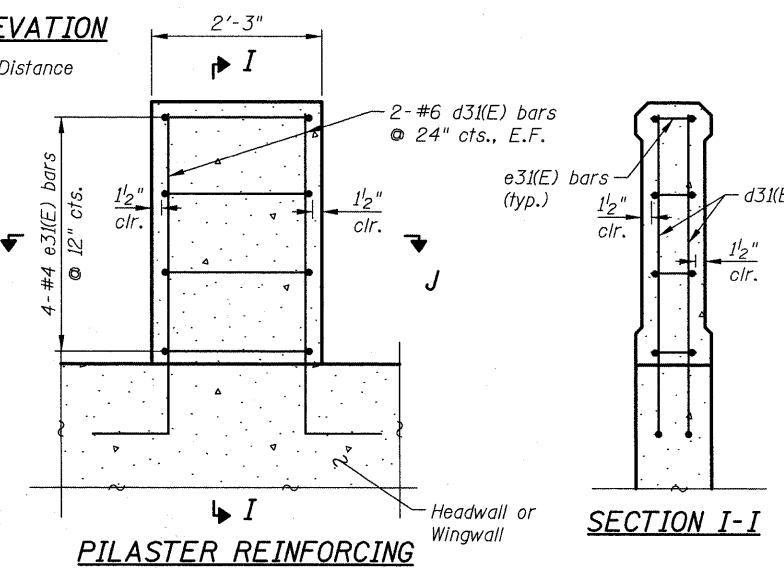
| Bar | No. | Size | Length | Shape |
|----------------------------------|---------|----------|--------|-------|
| d ₃₁ (E) | 72 | #6 | 5'-3" | |
| e ₃₁ (E) | 72 | #4 | 5'-11" | |
| Item | Unit | Quantity | | |
| Concrete Structures | Cu. Yd. | 4.6 | | |
| Reinforcement Bars, Epoxy Coated | Pound | 860 | | |
| Rubbed Finish | Sq. Ft | 450 | | |
| Anti-Grffiti Coating | Sq. Ft | 450 | | |
| * Ornamental Railing | Foot | 145 | | |

* Special Provision

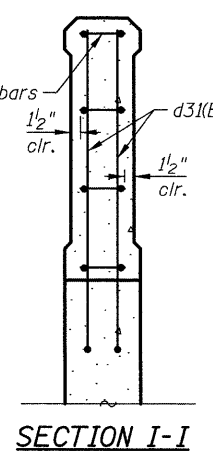


TEXT DETAIL
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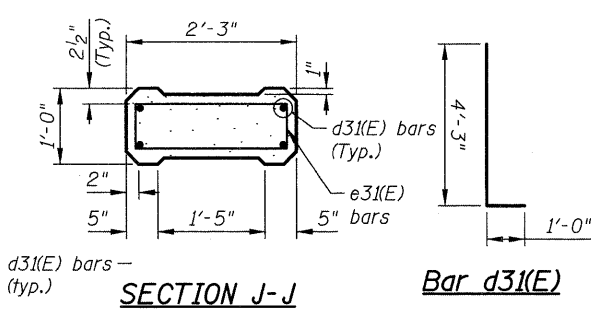
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PILASTER REINFORCING

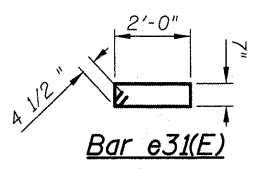


SECTION I-I



SECTION J-J

Bar d₃₁(E)



Bar e₃₁(E)

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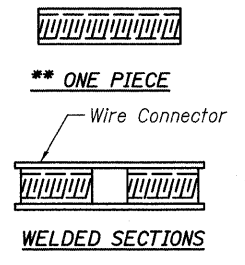
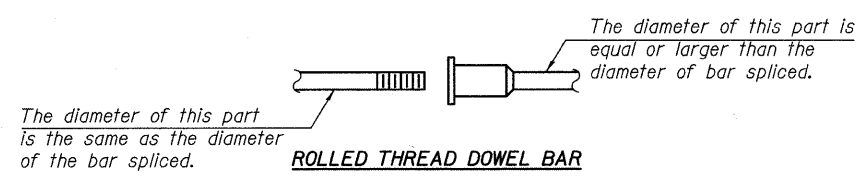
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NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

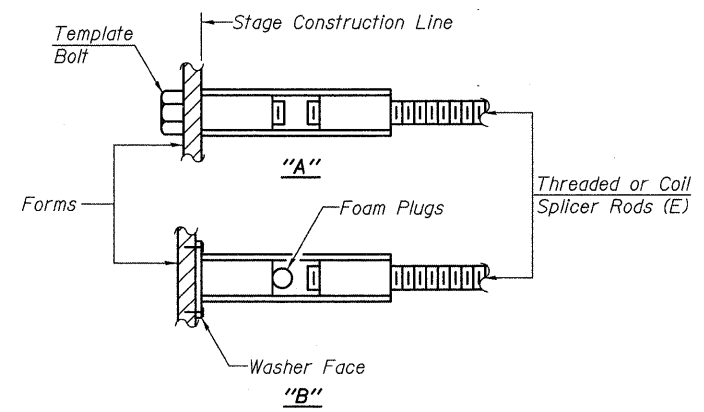
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

| BAR SPLICER ASSEMBLIES | | | |
|------------------------|---------------------------------|------------------------------|---------------------------------------|
| Bar Size to be Spliced | Splicer Rod or Dowel Bar Length | Strength Requirements | |
| | | Min. Capacity kips - tension | Min. Pull-Out Strength kips - tension |
| #4 | 1'-8" | 14.7 | 7.9 |
| #5 | 2'-0" | 23.0 | 12.3 |
| #6 | 2'-7" | 33.1 | 17.4 |
| #7 | 3'-5" | 45.1 | 23.8 |
| #8 | 4'-6" | 58.9 | 31.3 |
| #9 | 5'-9" | 75.0 | 39.6 |
| #10 | 7'-3" | 95.0 | 50.3 |
| #11 | 9'-0" | 117.4 | 61.8 |



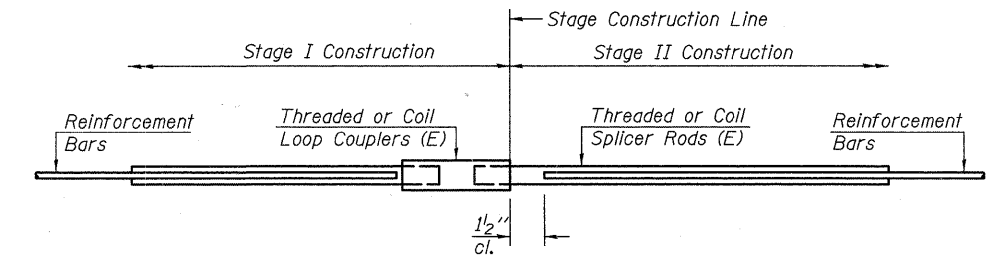
BAR SPLICER ASSEMBLY ALTERNATIVES

**Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" :Set bar splicer assembly by means of a template bolt.
 "B" :Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD

| Bar Size | No. Assemblies Required | Location |
|----------|-------------------------|--------------------|
| #5 | 20 | Underpass Ftg. |
| #5 | 40 | Top Slab |
| #5 | 68 | Underpass Sidewall |

| |
|--|
| Bar Splicer for #5 bar |
| Min. Capacity = 23.0 kips - tension |
| Min. Pull-out Strength = 12.3 kips - tension |
| No. Required = 128 |

| REVISIONS | |
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| NAME | DATE |
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BAR SPLICER ASSEMBLY DETAILS

GILMER ROAD TRAIL UNDERPASS
 SEC 08-F3000-07-BT
 STA. 274+14.15
 STRUCTURE NO. 049-N006

DRAWN BY: D. Atkins
 CHECKED BY: G. Hatlestad DATE: December 17, 2010

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Contract #63422

| MSET PROJECT NO.: 89205 | | LOG OF BORING NO. B-1 | | Page 1 of 2 | | |
|-------------------------------------|-----------|---|-----------|---------------------------|-------|--------------------|
| PROJECT: Gilmer Road Underpass | | CLIENT: Civitech Engineering, Inc. | | | | |
| LOCATION: Lake County, Illinois | | | | | | |
| DEPTH (feet) | SOIL TYPE | MATERIAL DESCRIPTION | Elevation | SAMPLE TYPE/ INTERVAL | TESTS | REMARKS |
| | | Ground Surface | 812.1 | | | |
| 2" | | Shoulder Gravel | 811.9 | | | |
| | | Brown SAND and GRAVEL mixed with Grey, little Black Silty CLAY: FILL | | | | |
| | | Brown and Grey Silty CLAY, A-6 | 810.1 | SS 1 | 9 8 | 4.0 C _p |
| | | | | SS 2 | 9 17 | 3.26 |
| | | Brown-Grey | | SS 3 | 15 15 | 3.57 |
| | | | | SS 4 | 23 21 | 7.09 |
| | | Grey Silty CLAY, A-6 | 801.6 | SS 5 | 16 20 | 3.49 |
| | | | | SS 6 | 16 20 | 3.91 |
| | | | | SS 7 | 12 20 | 2.52 |
| | | | | SS 8 | 13 18 | 2.21 |
| | | continued | 792.1 | | | |
| WATER LEVEL OBSERVATIONS, ft. | | BORING STARTED: 3/20/09 | | BORING COMPLETED: 3/20/09 | | |
| During Drilling: 10.5' | | LOGGED BY: SPE | | BORING METHOD: HSA | | |
| Immediately After Drilling: 4.2' | | MSET | | | | |
| Delayed Reading After 2 Hours: 1.7' | | Midland Standard Engineering & Testing, Inc. 2675 West Commerce Drive Unit 607 Volo, IL 60073 (847) 270-8832 (847) 270-8836 | | | | |

| MSET PROJECT NO.: 89205 | | LOG OF BORING NO. B-1 | | Page 2 of 2 | | |
|-------------------------------------|-----------|---|-----------|---------------------------|-------|---------|
| PROJECT: Gilmer Road Underpass | | CLIENT: Civitech Engineering, Inc. | | | | |
| LOCATION: Lake County, Illinois | | | | | | |
| DEPTH (feet) | SOIL TYPE | MATERIAL DESCRIPTION | Elevation | SAMPLE TYPE/ INTERVAL | TESTS | REMARKS |
| | | Continued | 792.1 | | | |
| | | Grey Silty CLAY, A-6 | | SS 9 | 9 20 | 2.60 |
| | | | | SS 10 | 22 14 | 2.17 |
| | | | | SS 11 | 22 14 | 2.25 |
| | | Grey SAND, A-2 | 784.1 | | | |
| | | Grey Silty CLAY, A-6 | 783.1 | SS 12 | 10 15 | 3.02 |
| | | End of Boring @ 30.0' | 782.1 | | | |
| WATER LEVEL OBSERVATIONS, ft. | | BORING STARTED: 3/20/09 | | BORING COMPLETED: 3/20/09 | | |
| During Drilling: 10.5' | | LOGGED BY: SPE | | BORING METHOD: HSA | | |
| Immediately After Drilling: 4.2' | | MSET | | | | |
| Delayed Reading After 2 Hours: 1.7' | | Midland Standard Engineering & Testing, Inc. 2675 West Commerce Drive Unit 607 Volo, IL 60073 (847) 270-8832 (847) 270-8836 | | | | |

| MSET PROJECT NO.: 89205 | | LOG OF BORING NO. B-2 | | Page 1 of 2 | | |
|------------------------------------|-----------|---|-----------|---------------------------|-------|---------------------|
| PROJECT: Gilmer Road Underpass | | CLIENT: Civitech Engineering, Inc. | | | | |
| LOCATION: Lake County, Illinois | | | | | | |
| DEPTH (feet) | SOIL TYPE | MATERIAL DESCRIPTION | Elevation | SAMPLE TYPE/ INTERVAL | TESTS | REMARKS |
| | | Ground Surface | 812.3 | | | |
| | | Dark Brown and Brown GRAVEL and SAND, mixed with little Clay: FILL | | | | |
| | | Yellow-Brown Silty Clay LOAM, A-6 | 810.7 | SS 1 | 6 12 | 2.25 C _p |
| | | | | SS 2 | 9 12 | 1.55 |
| | | Brown and Grey Silty CLAY, A-6 | 806.8 | SS 3 | 9 17 | 3.37 |
| | | | | SS 4 | 13 13 | - |
| | | Brown Clay LOAM to LOAM, A-4, wet | 804.3 | | | |
| | | | | SS 5 | 10 12 | - |
| | | Grey Silty CLAY, A-6 | 799.3 | SS 6 | 12 21 | 3.18 |
| | | | | SS 7 | 15 21 | 2.94 |
| | | | | SS 8 | 17 20 | 3.10 |
| | | continued | 792.3 | | | |
| WATER LEVEL OBSERVATIONS, ft. | | BORING STARTED: 3/20/09 | | BORING COMPLETED: 3/20/09 | | |
| During Drilling: 8.0' | | LOGGED BY: SPE | | BORING METHOD: HSA | | |
| Immediately After Drilling: 11.3' | | MSET | | | | |
| Delayed Reading After 1 Hour: 2.4' | | Midland Standard Engineering & Testing, Inc. 2675 West Commerce Drive Unit 607 Volo, IL 60073 (847) 270-8832 (847) 270-8836 | | | | |

| MSET PROJECT NO.: 89205 | | LOG OF BORING NO. B-2 | | Page 2 of 2 | | |
|------------------------------------|-----------|---|-----------|---------------------------|-------|---------|
| PROJECT: Gilmer Road Underpass | | CLIENT: Civitech Engineering, Inc. | | | | |
| LOCATION: Lake County, Illinois | | | | | | |
| DEPTH (feet) | SOIL TYPE | MATERIAL DESCRIPTION | Elevation | SAMPLE TYPE/ INTERVAL | TESTS | REMARKS |
| | | Continued | 792.3 | | | |
| | | Grey Silty CLAY, A-6 | | SS 9 | 14 21 | 1.86 |
| | | | | SS 10 | 16 21 | 3.22 |
| | | | | SS 11 | 15 15 | 2.07 |
| | | | | SS 12 | 17 14 | 2.25 |
| | | End of Boring @ 30.0' | 782.3 | | | |
| WATER LEVEL OBSERVATIONS, ft. | | BORING STARTED: 3/20/09 | | BORING COMPLETED: 3/20/09 | | |
| During Drilling: 8.0' | | LOGGED BY: SPE | | BORING METHOD: HSA | | |
| Immediately After Drilling: 11.3' | | MSET | | | | |
| Delayed Reading After 1 Hour: 2.4' | | Midland Standard Engineering & Testing, Inc. 2675 West Commerce Drive Unit 607 Volo, IL 60073 (847) 270-8832 (847) 270-8836 | | | | |

LAKE COUNTY FOREST PRESERVE DISTRICT

SOIL BORING LOGS

GILMER ROAD TRAIL UNDERPASS
 SEC 08-F3000-07-BT
 STA. 274+14.15
 STRUCTURE NO. 049-N006

DRAWN BY: D. Atkins
 CHECKED BY: G. Hatlestad DATE: December 17, 2010

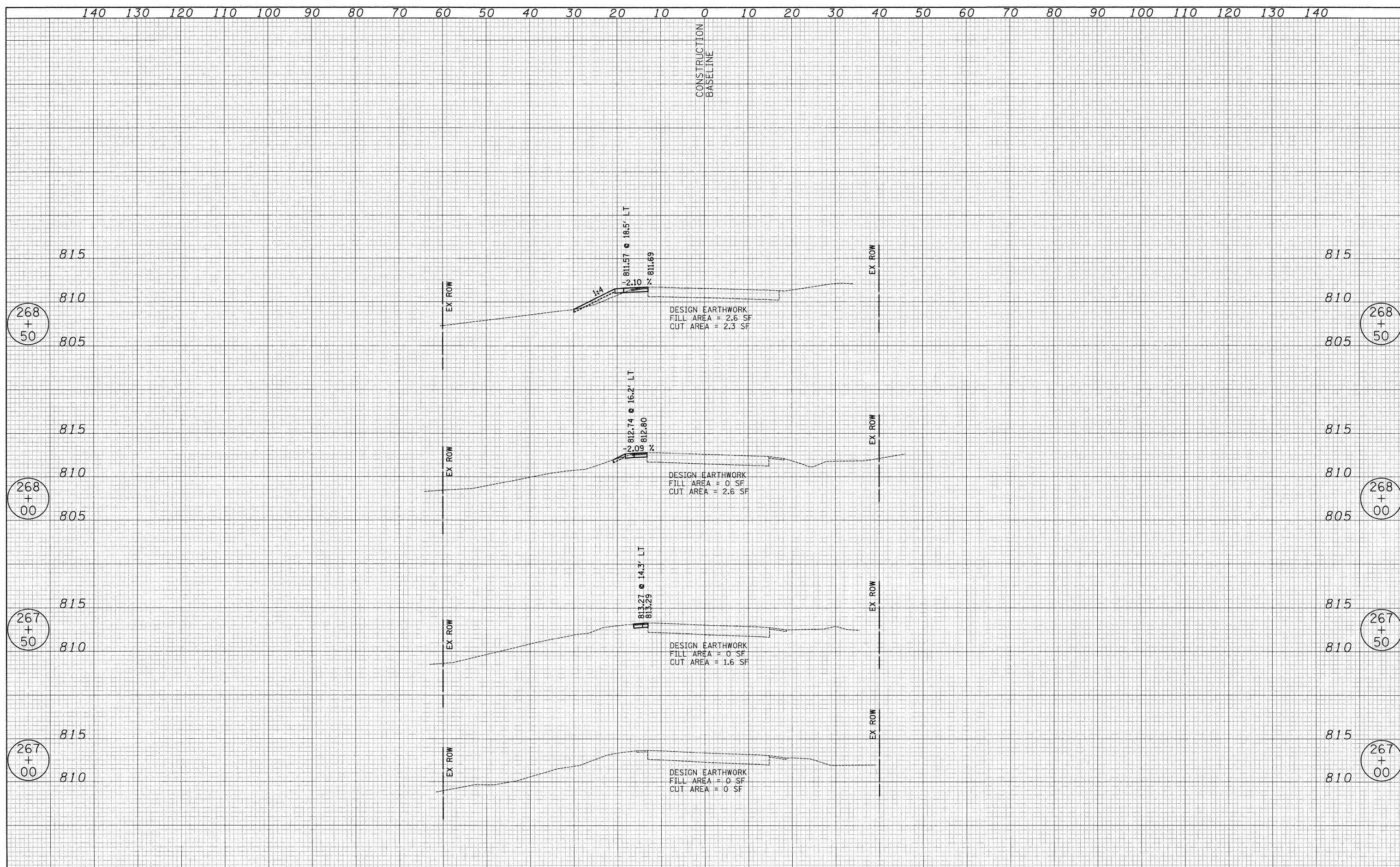
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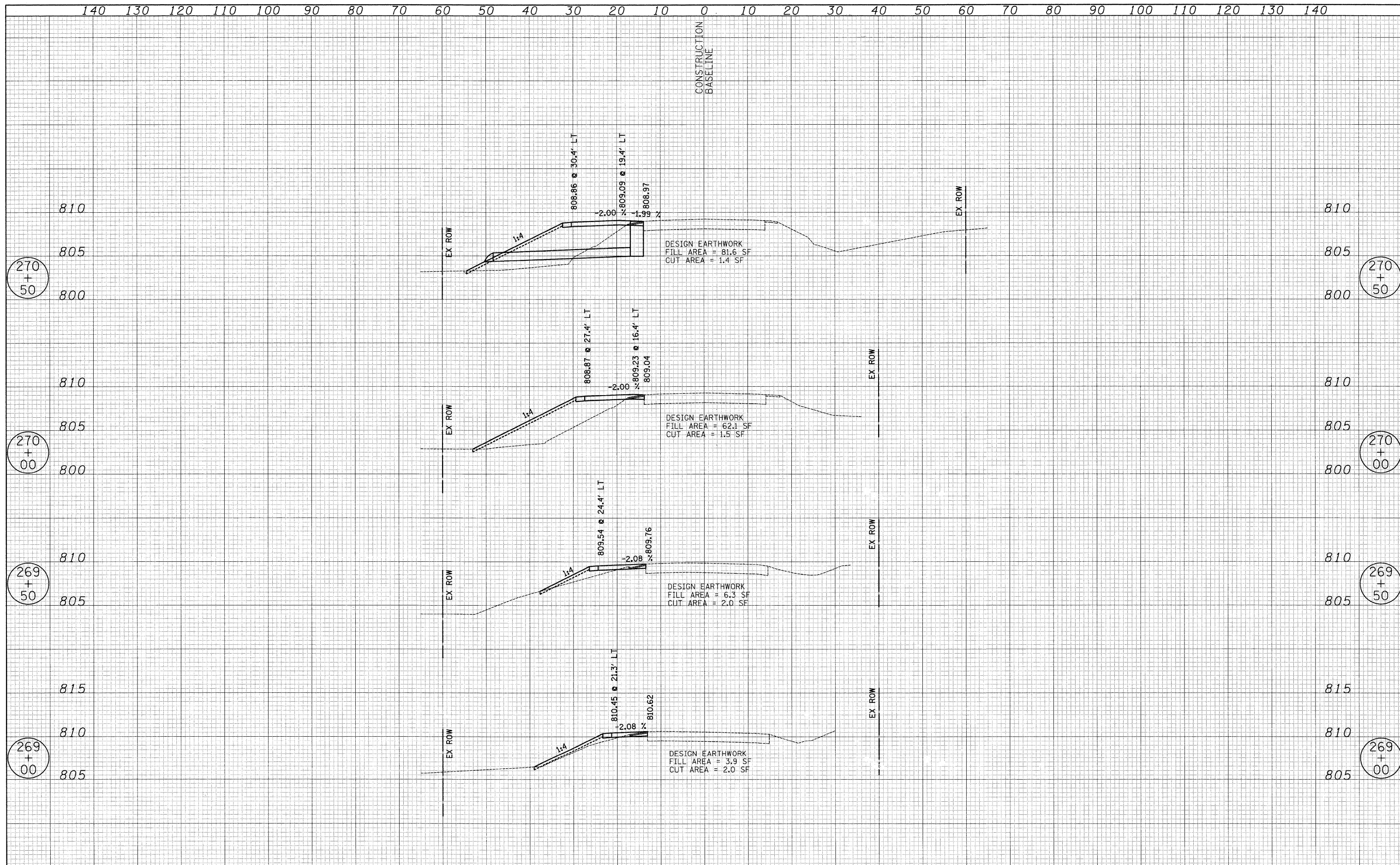
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 1 OF 8 SHEETS STA. 267+00.00 TO STA. 268+50.00 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XSV\Gilmer_Stage1_xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 25 |
| PLOT SCALE 10.0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

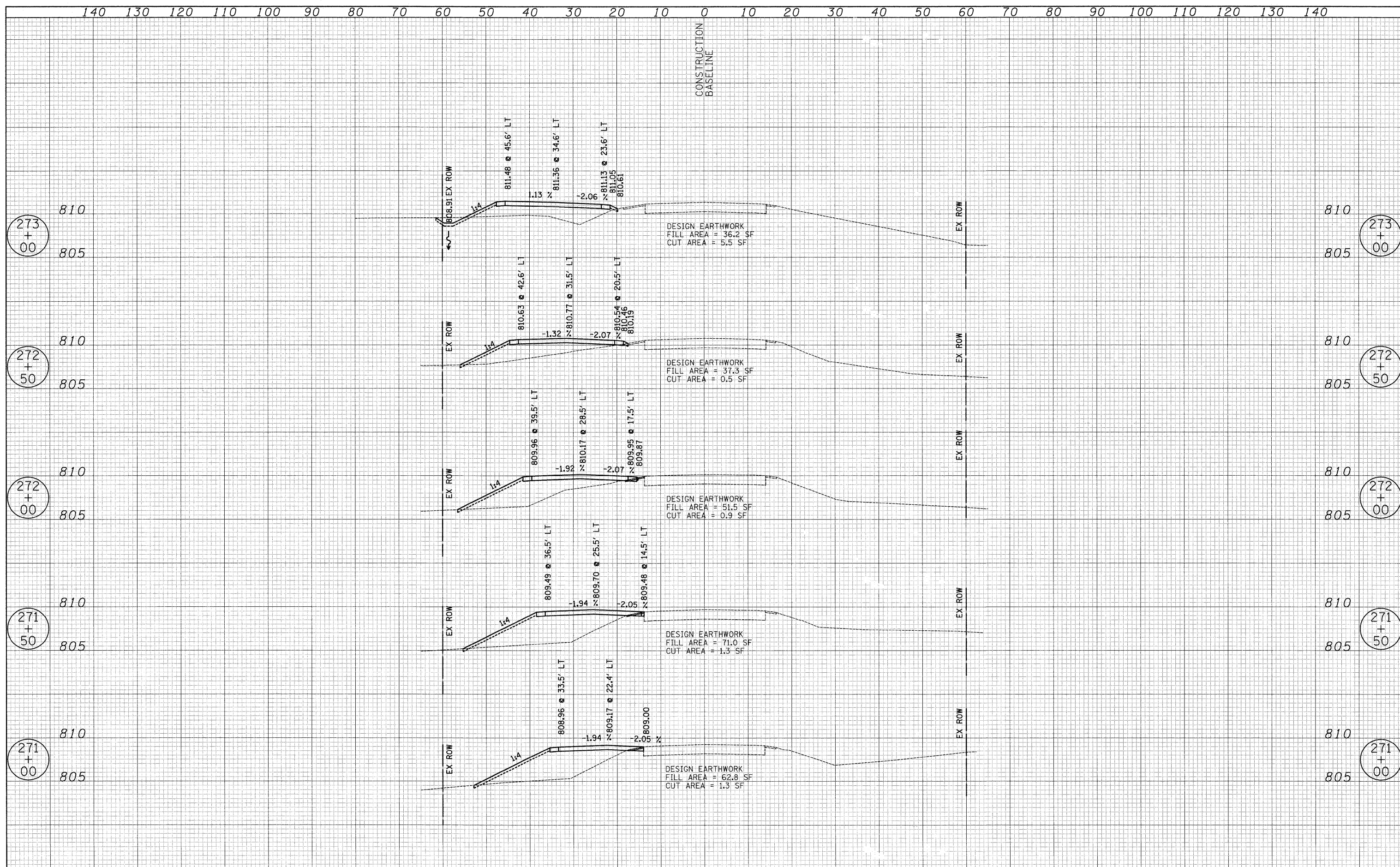
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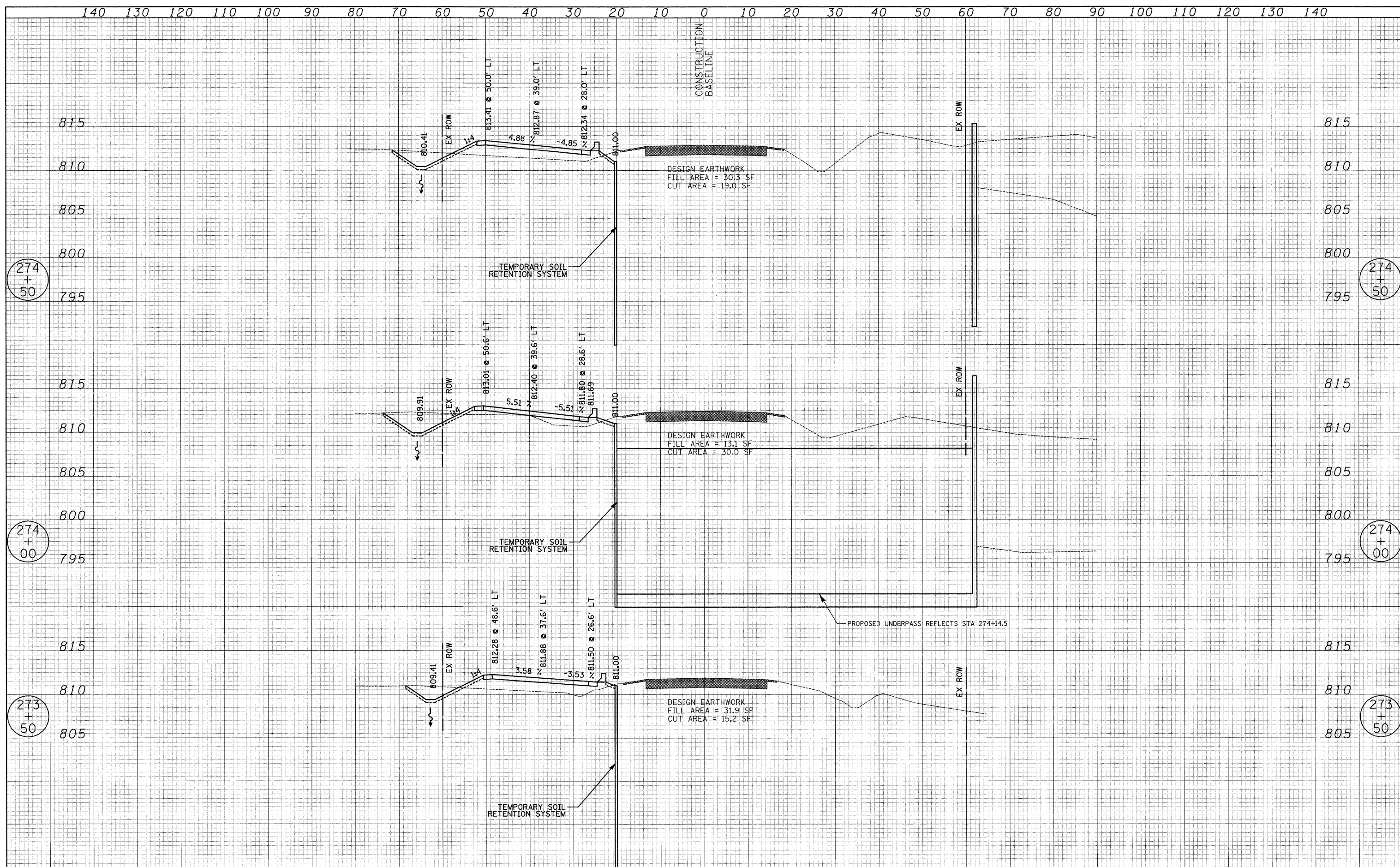
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 27 | | |
| FILE NAME ...\08 XS\Gilmer_Stage1_xseo.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 3 OF 8 SHEETS | | STA. 271+00.00 TO STA. 273+00.00 | | CONTRACT NO. 63422 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |
| PLOT SCALE 10,0000' / IN. | CHECKED - RTM | REVISED - | | | | | | | | | | |
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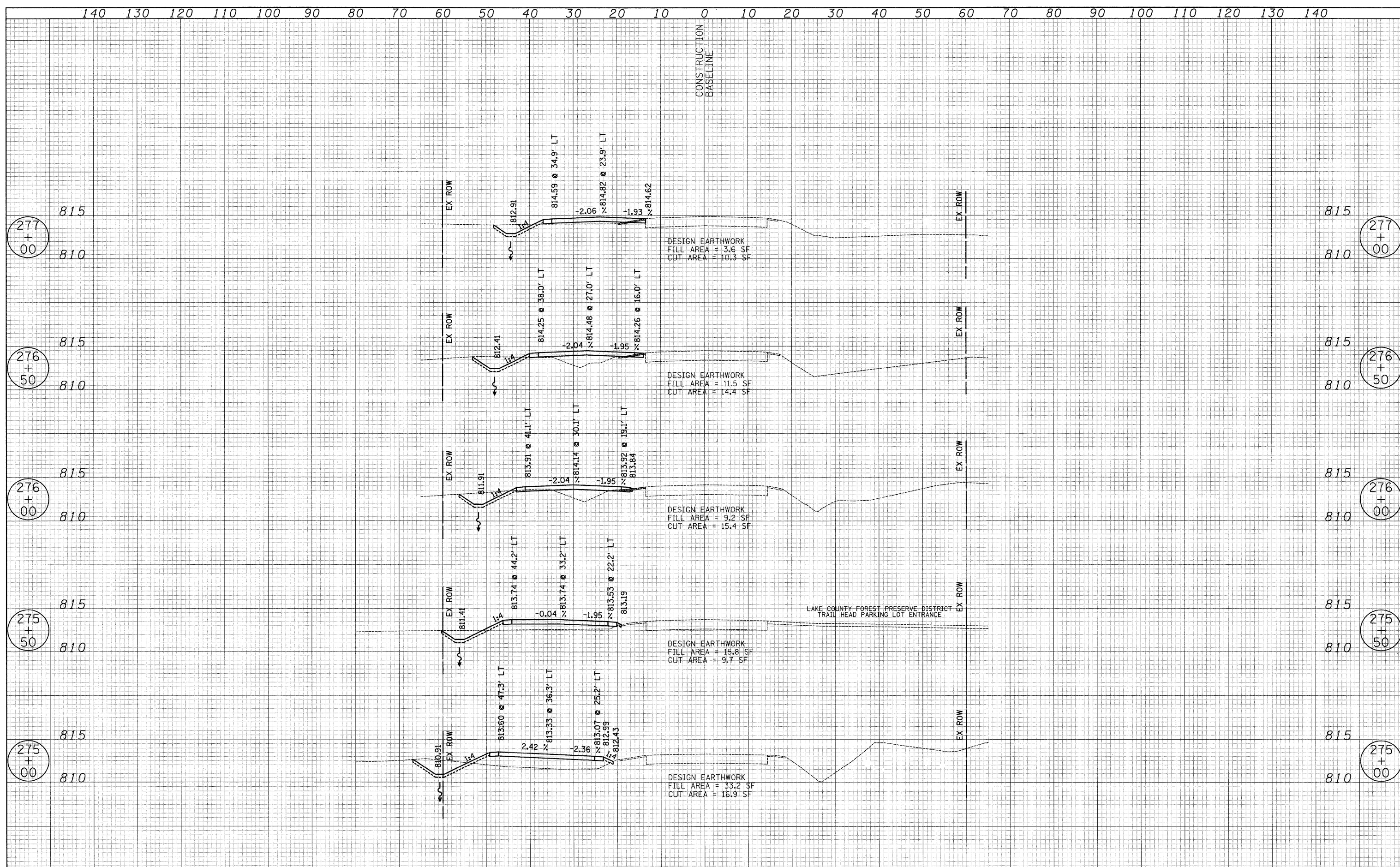
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 4 OF 8 SHEETS STA. 273+50.00 TO STA. 274+50.00 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XS\Gilmer_Stagel.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 28 |
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| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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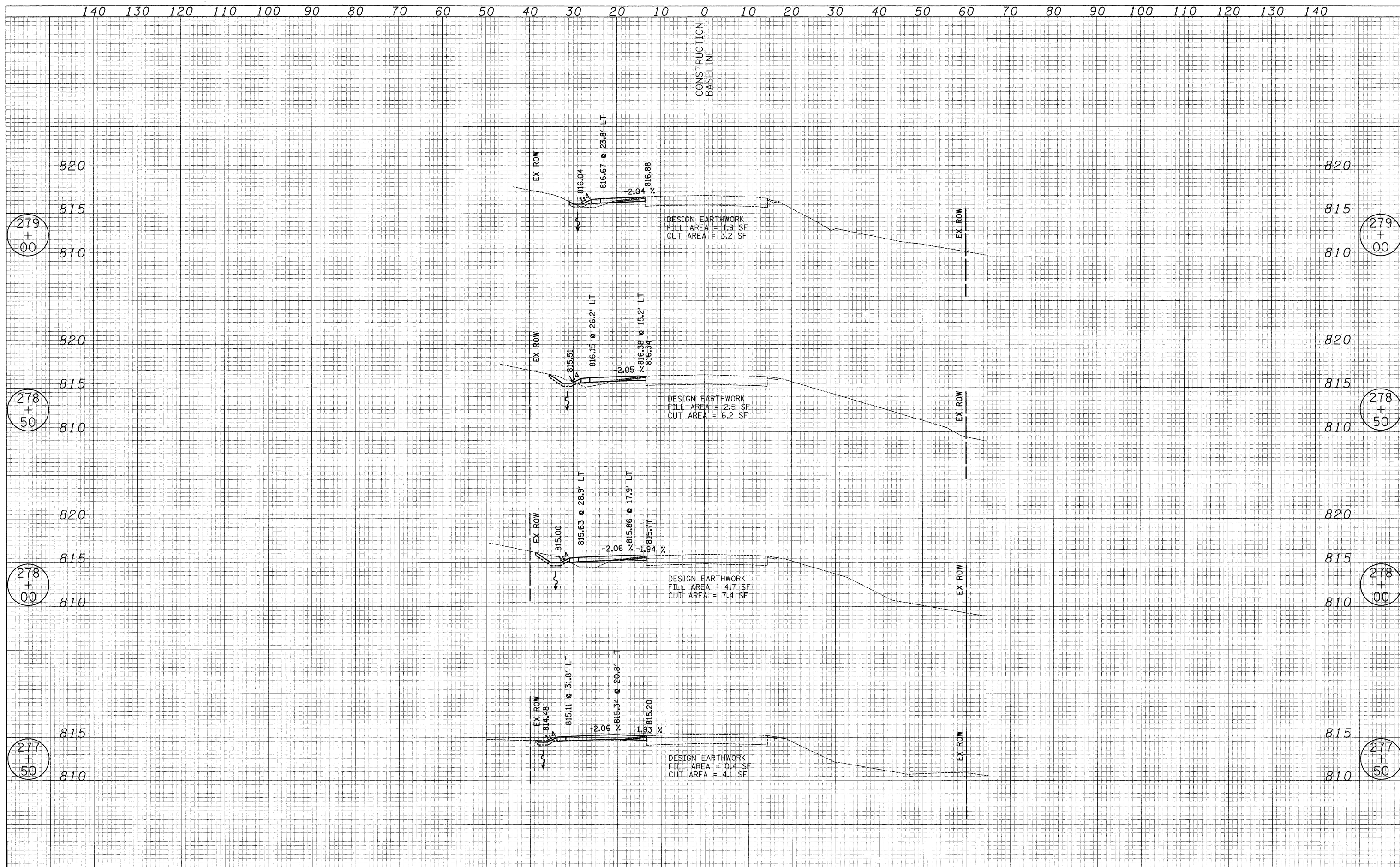
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 5 OF 8 SHEETS STA. 275+00.00 TO STA. 277+00.00 | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 29 | CONTRACT NO. 63422 |
| FILE NAME ...\08 X5\Gimer_Stage1.xsec.dgn | DRAWN - JRR | REVISED - | | | | FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | | |
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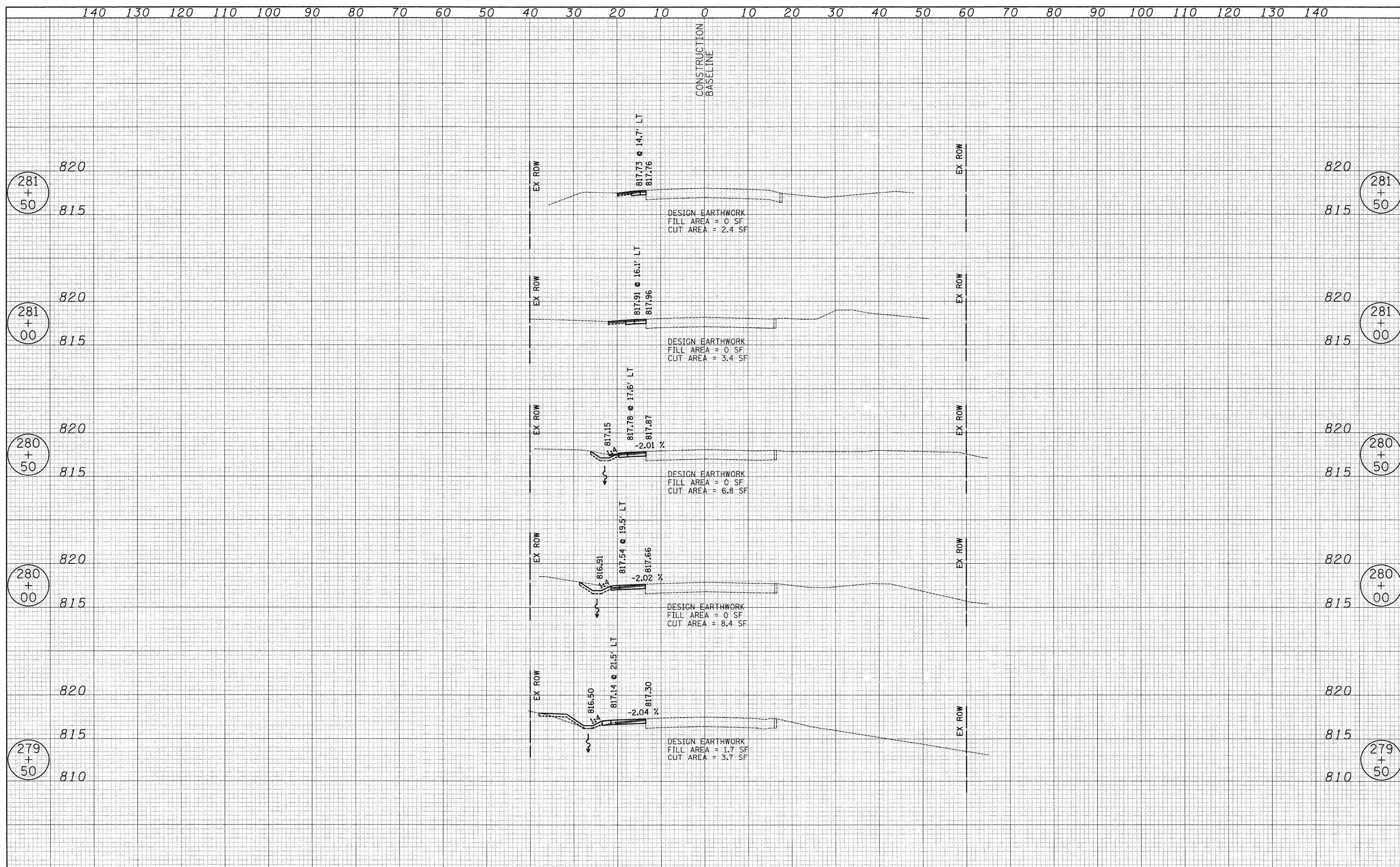
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 6 OF 8 SHEETS STA. 277+50.00 TO STA. 279+00.00 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XS\Gilmer_Stage1.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 30 |
| PLOT SCALE 1/8" = 1' IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2018 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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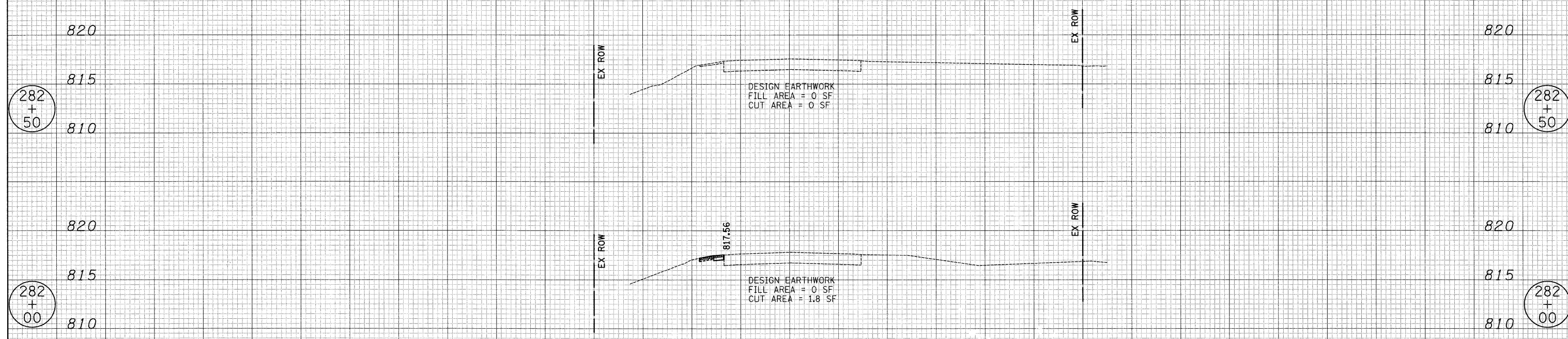
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 7 OF 8 SHEETS STA. 279+50.00 TO STA. 281+50.00 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XSVG\lmar_Stage1.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 31 |
| PLOT SCALE 18,0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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CONSTRUCTION
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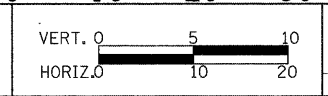
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



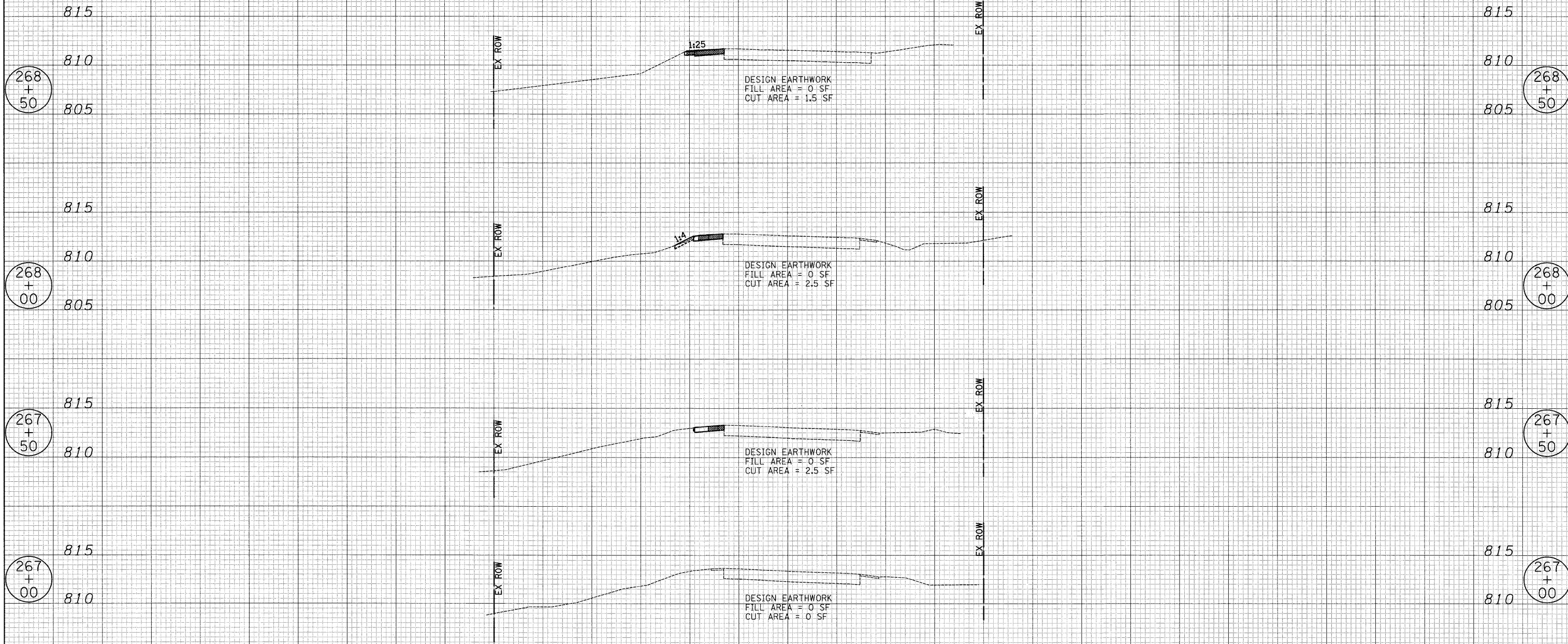
GILMER ROAD - STAGE 1 CONSTRUCTION - CROSS SECTIONS
FORT HILL TRAIL BIKE PATH UNDERPASS

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| F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 32 |
| SHEET NO. 8 OF 8 SHEETS | | | CONTRACT NO. 63422 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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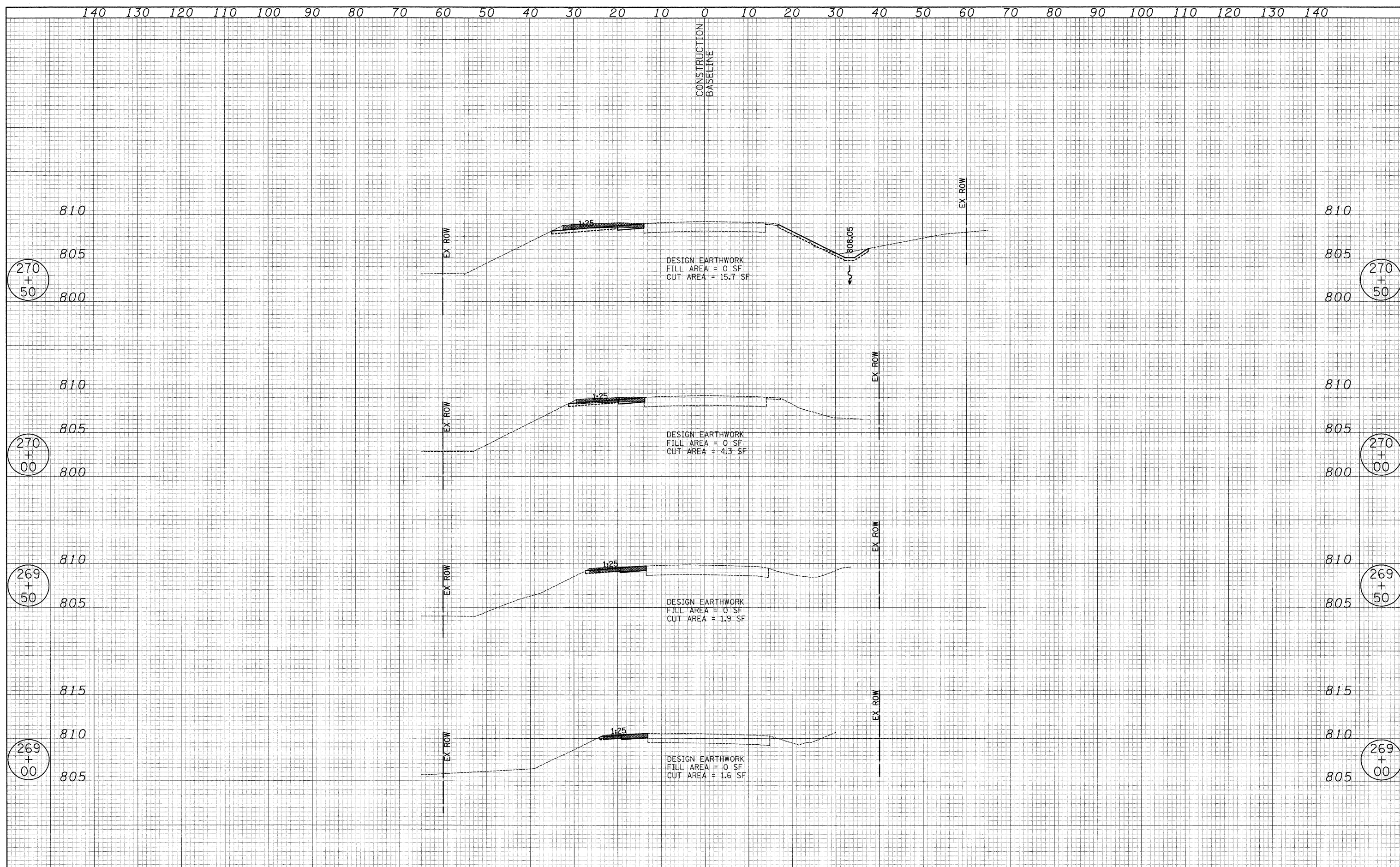
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| FILE NAME ...\08 X5\Gilmer_Stage2.xsee.dgn | DRAWN - JRR | REVISED - | | | SHEET NO. 1 OF 8 SHEETS STA. 267+00.00 TO STA. 268+50.00 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| PLOT SCALE 12.0000" / IN. | CHECKED - RTM | REVISED - | | | CONTRACT NO. 63422 | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | |

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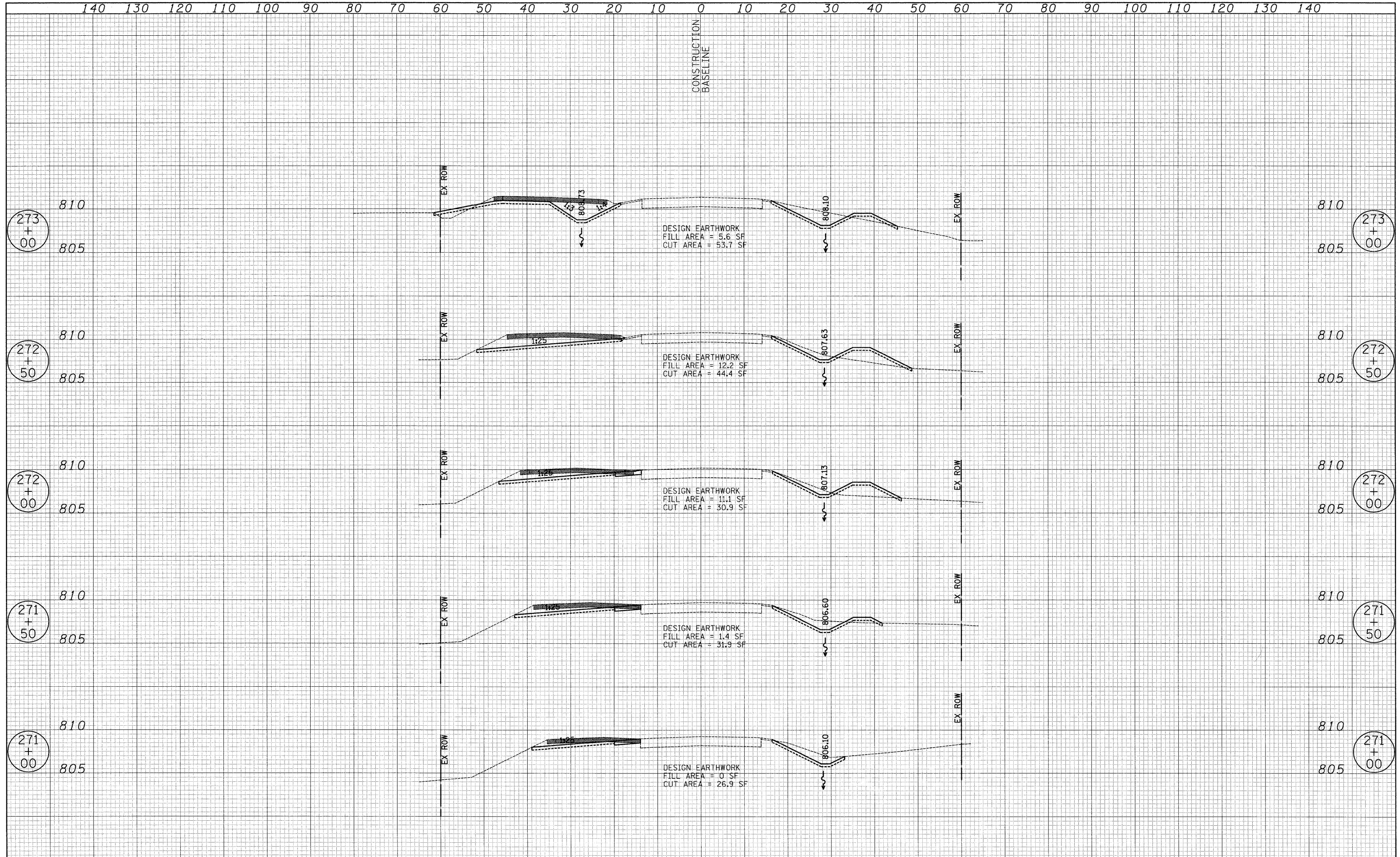
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| FILE NAME ...\08 XSV\Gilmer_Stage2.xsee.dgn | DRAWN - JRR | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 18,0000' / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | SHEET NO. 2 OF 8 SHEETS STA. 269+00.00 TO STA. 270+50.00 | | | | |

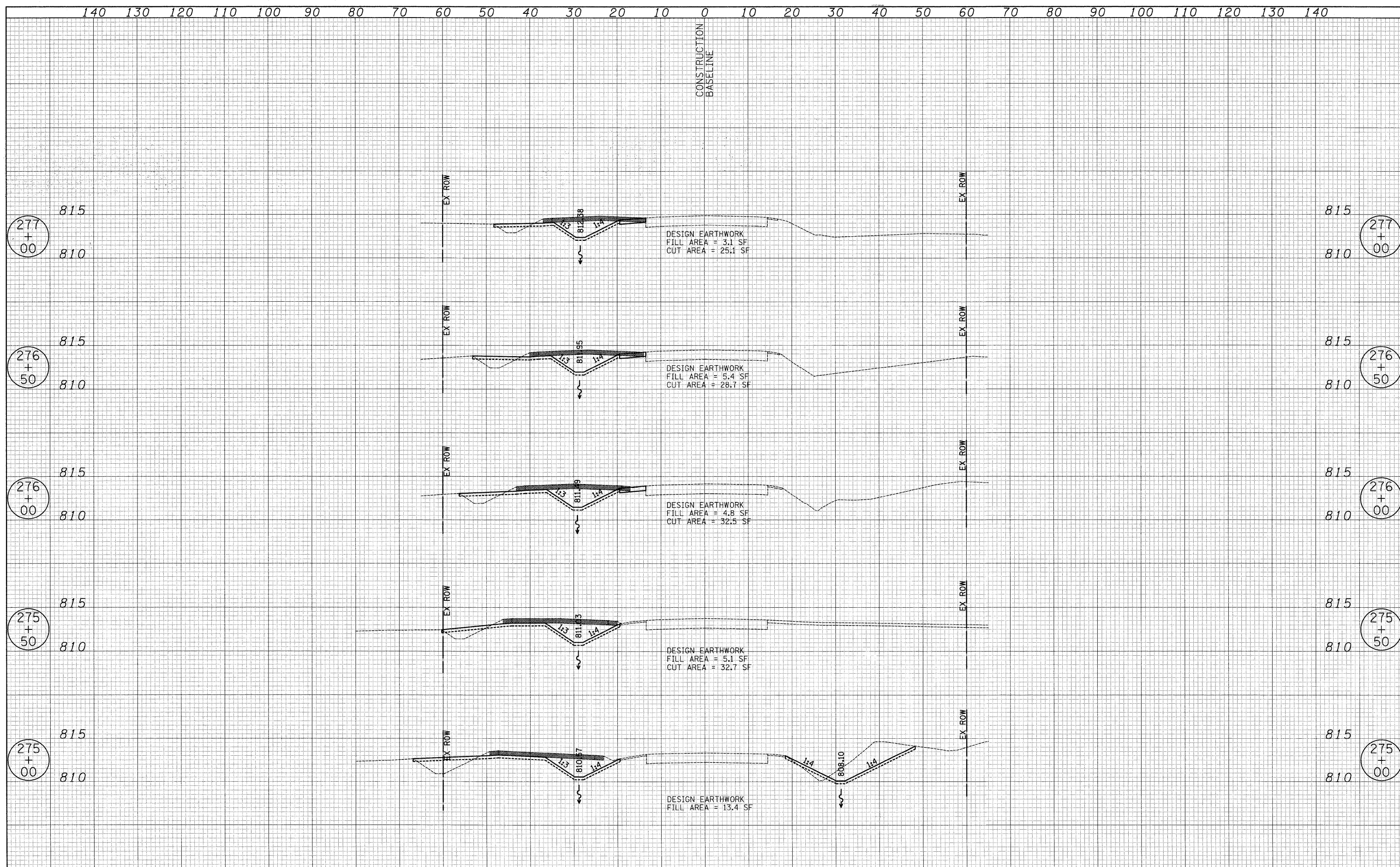
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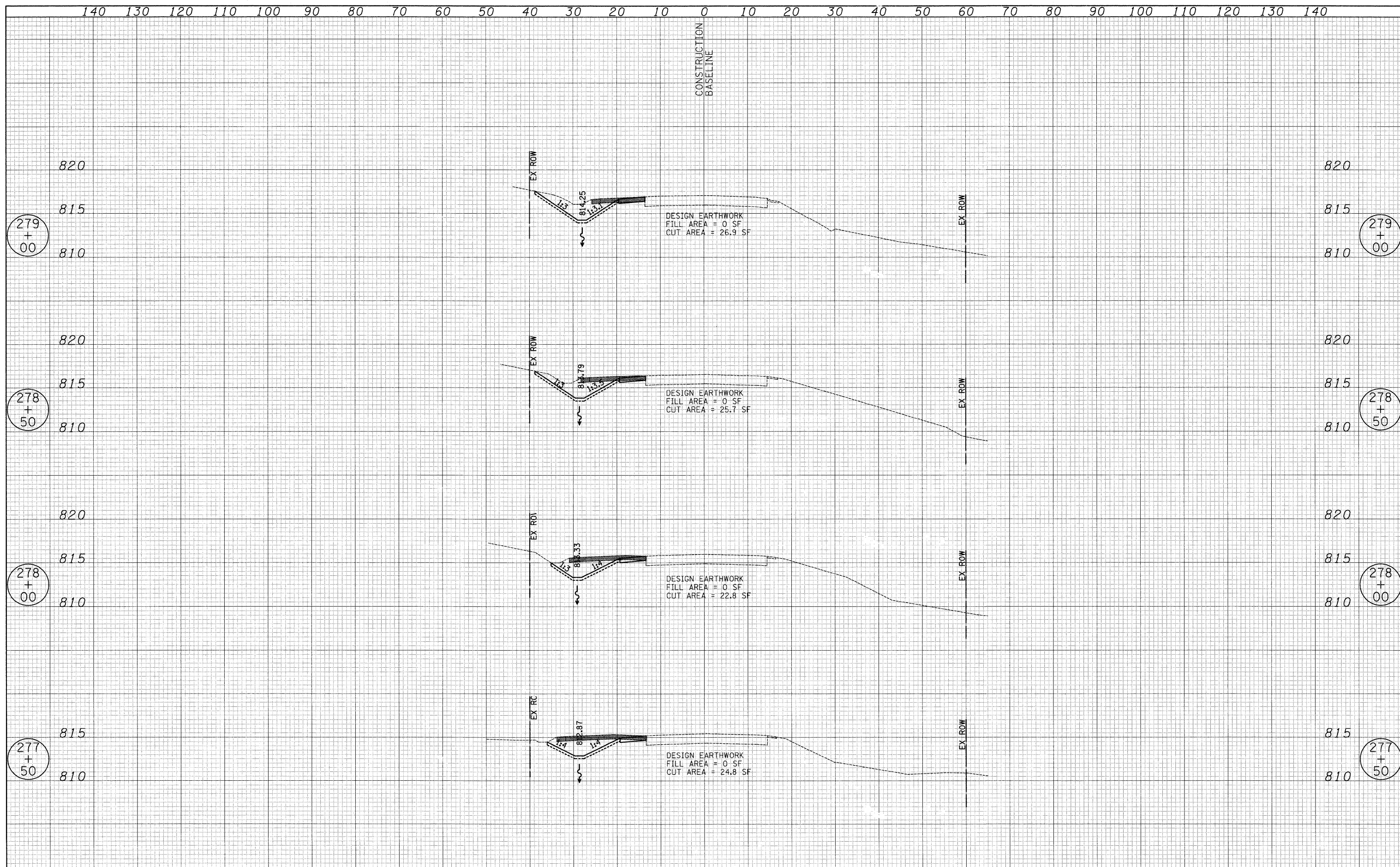
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 2 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS SHEET NO. 5 OF 8 SHEETS STA. 275+00.00 TO STA. 277+00.00 | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XSV\Gilmer_Stage2.xsee.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 37 |
| PLOT SCALE 10,0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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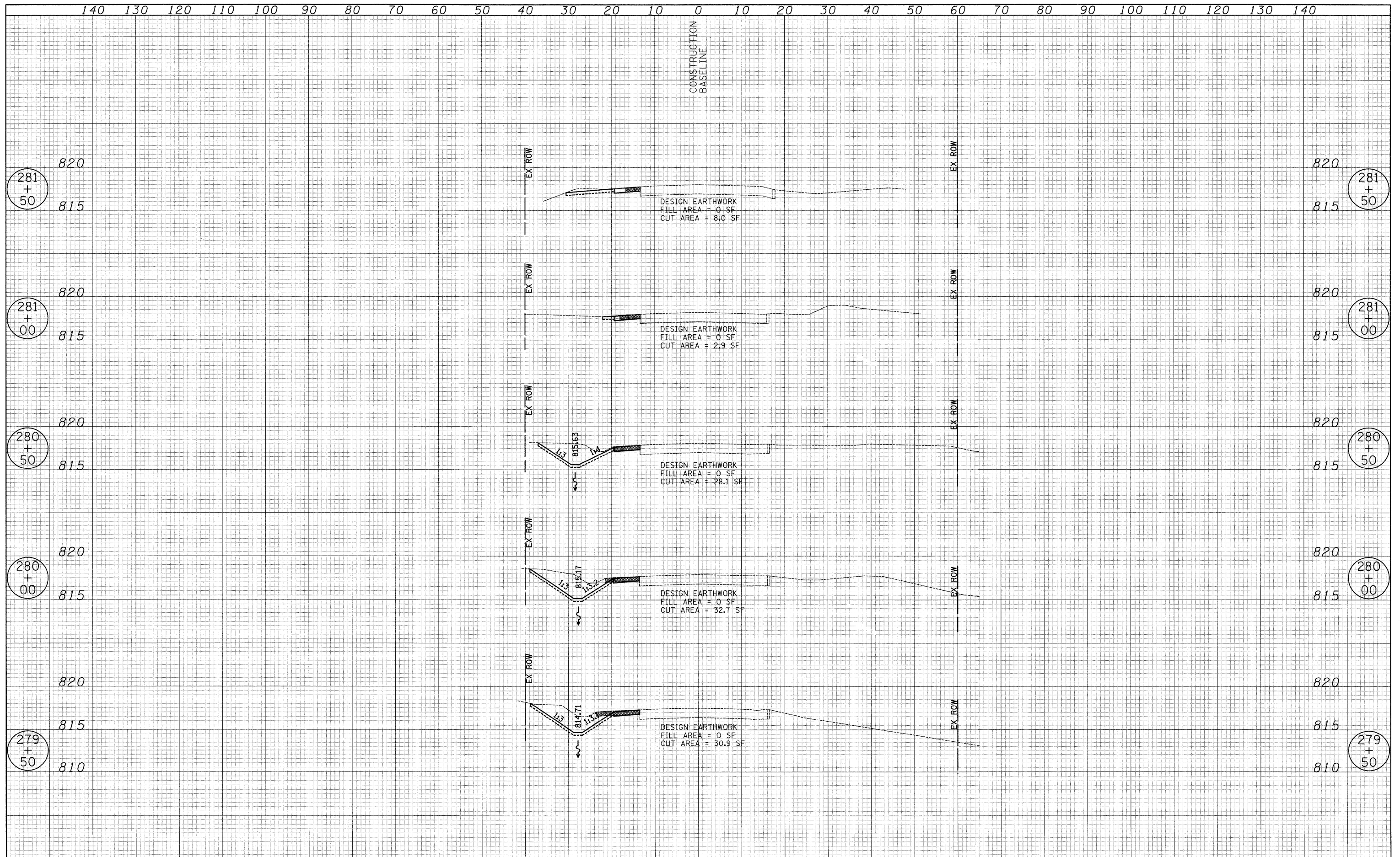
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 10 20 | GILMER ROAD - STAGE 2 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XS\Gilmer_Stage2_xseo.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 38 |
| PLOT SCALE 12,0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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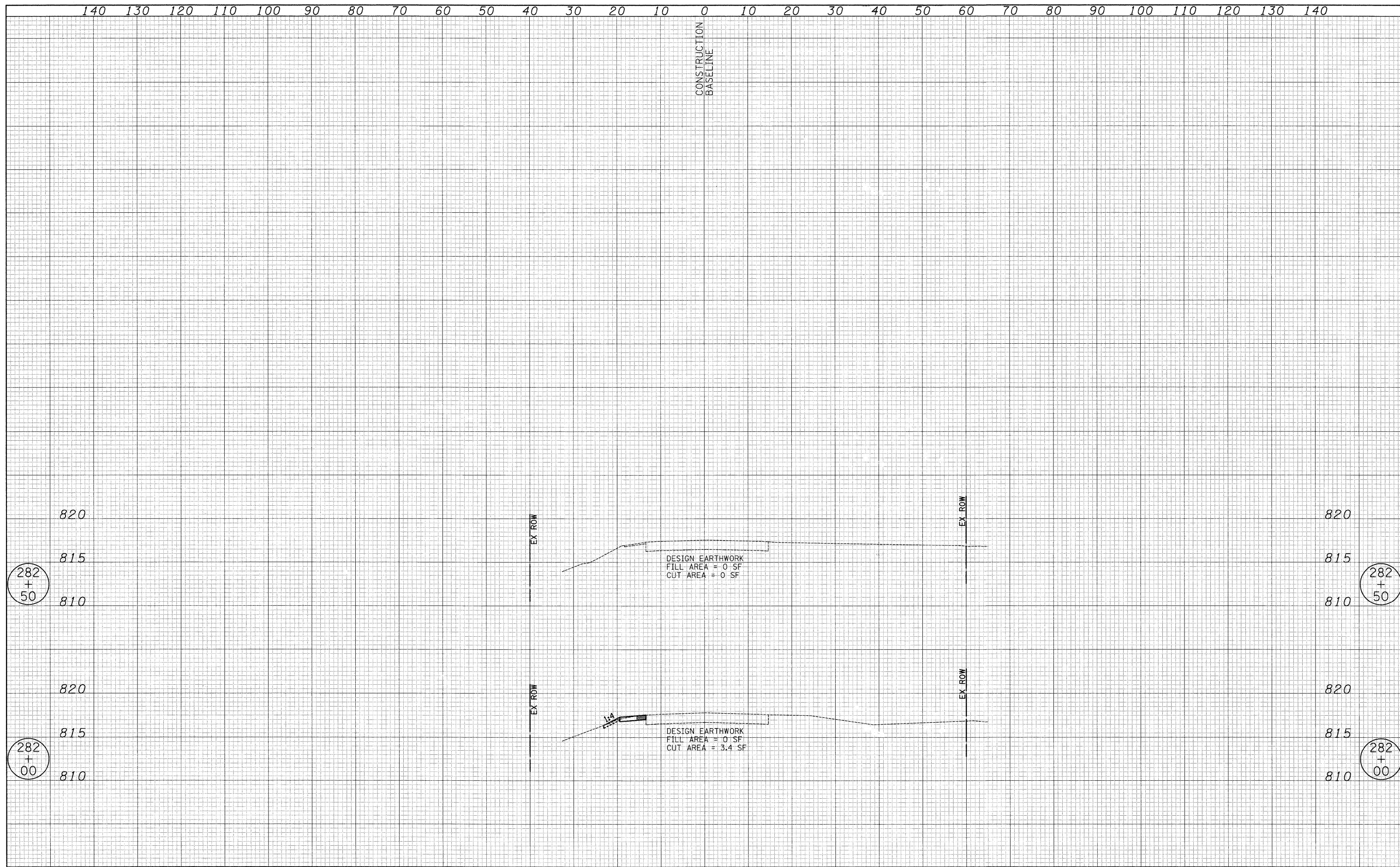
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| DATE | |
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 10 20 | GILMER ROAD - STAGE 2 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 39 | | | |
| FILE NAME ...\08 XS\Gilmer_Stage2.xscc.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 7 OF 8 SHEETS | | STA. 279+50.00 TO STA. 281+50.00 | | CONTRACT NO. 63422 | | | |
| PLOT SCALE 10.0000' / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

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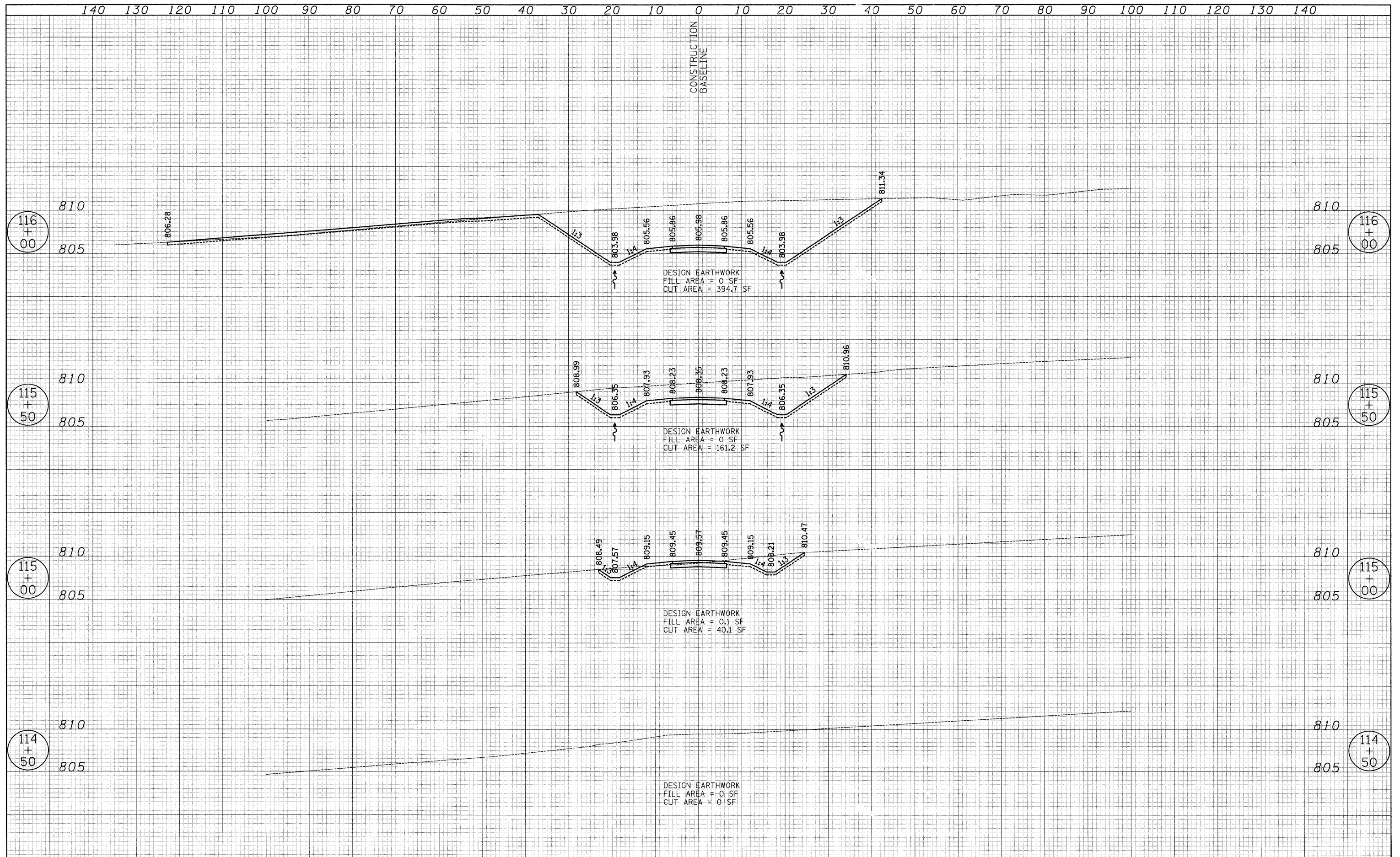
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | GILMER ROAD - STAGE 2 CONSTRUCTION - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\08 XS\Gilmer_Stage2_xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 40 |
| PLOT SCALE 10.0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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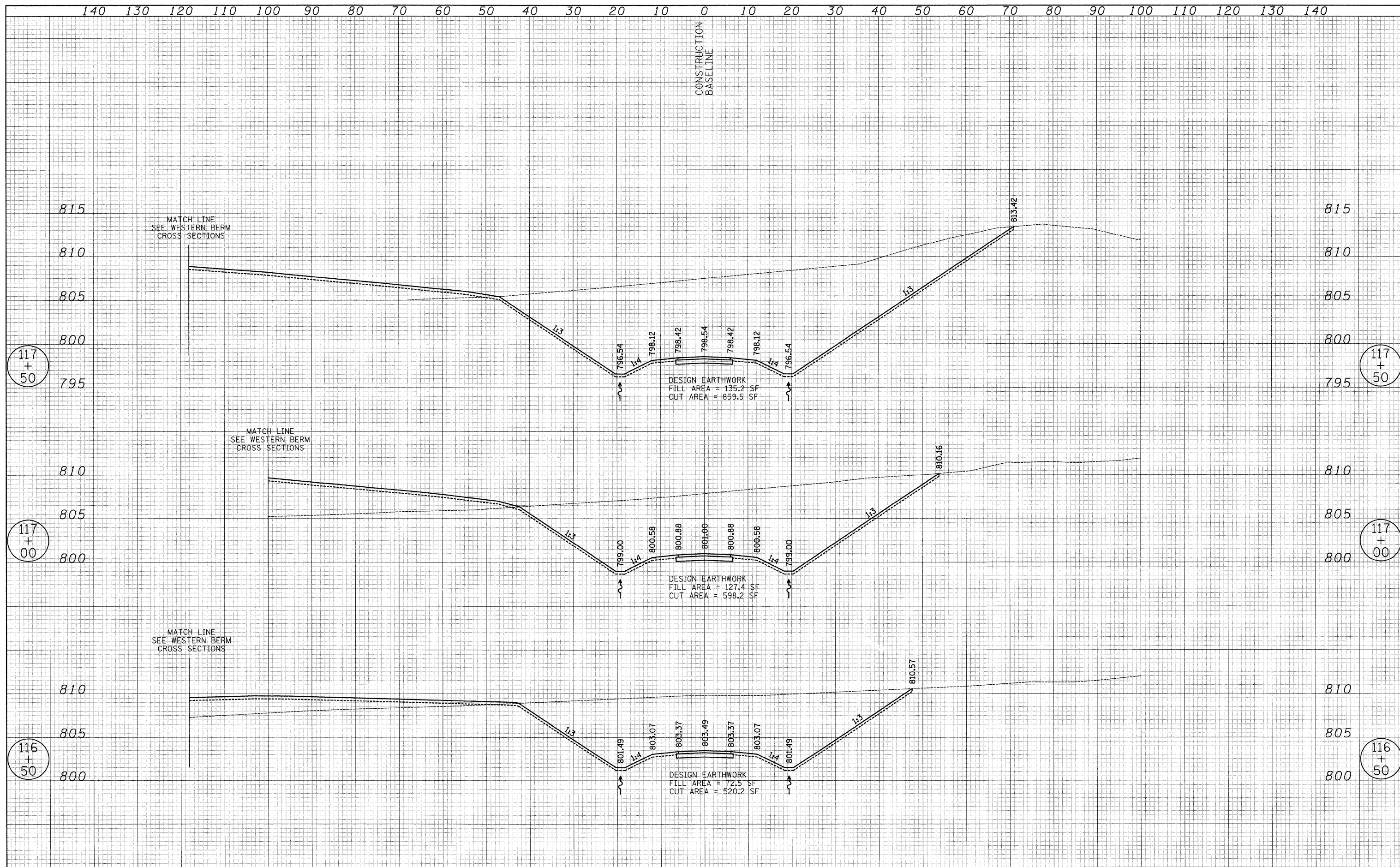
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 41 | | | |
| FILE NAME ...\cad\sheet\08 XS\BIKE.xsec.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 1 OF 10 SHEETS STA. 114+50.00 TO STA. 116+00.00 | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 1/8" = 1' IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

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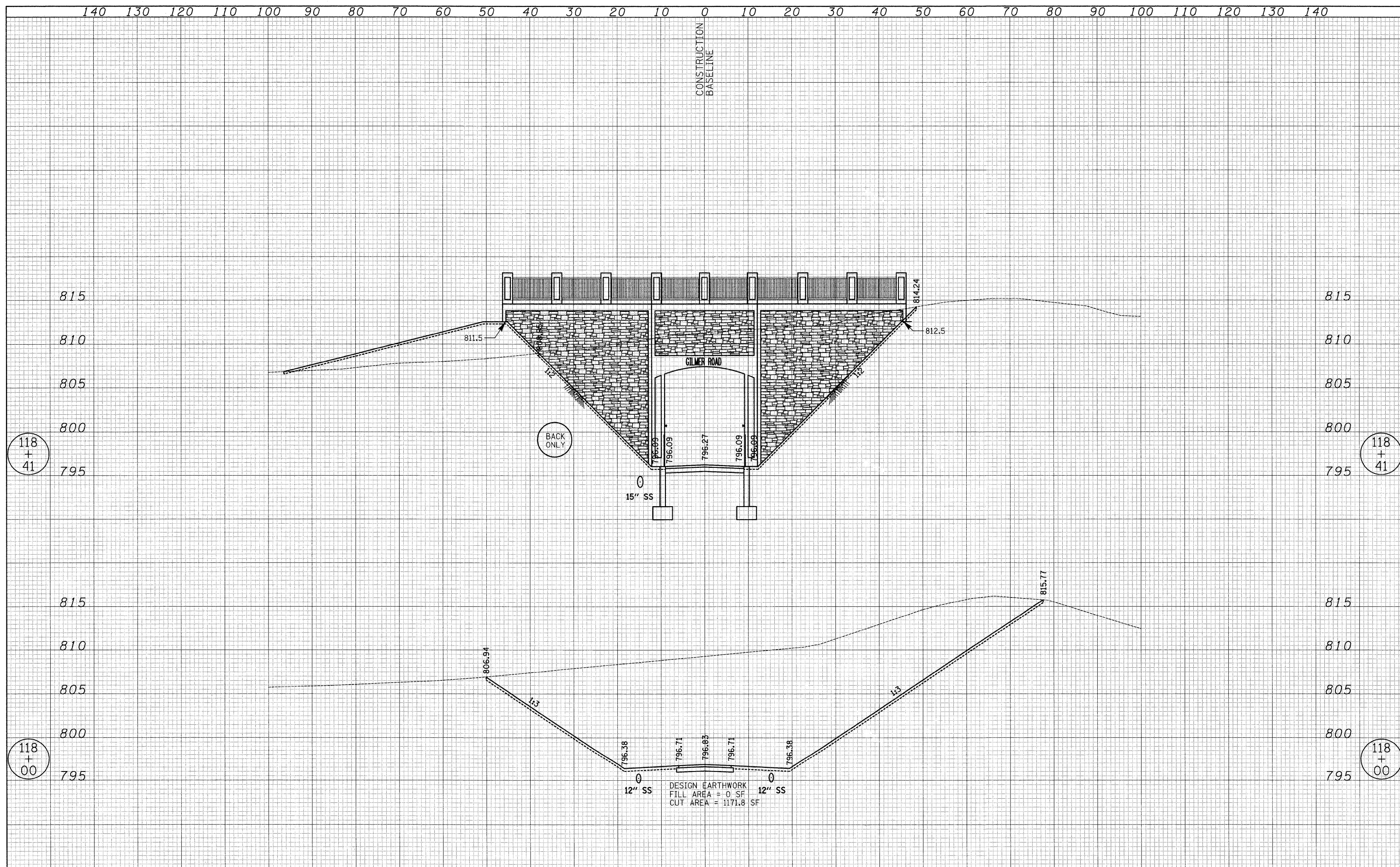
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 42 |
| FILE NAME ...\oad\sheet\08 XS\BIKE_xsec.dgn | DRAWN - JRR | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 18,00000' / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | SHEET NO. 2 OF 10 SHEETS STA. 116+50.00 TO STA. 117+50.00 | | | | |

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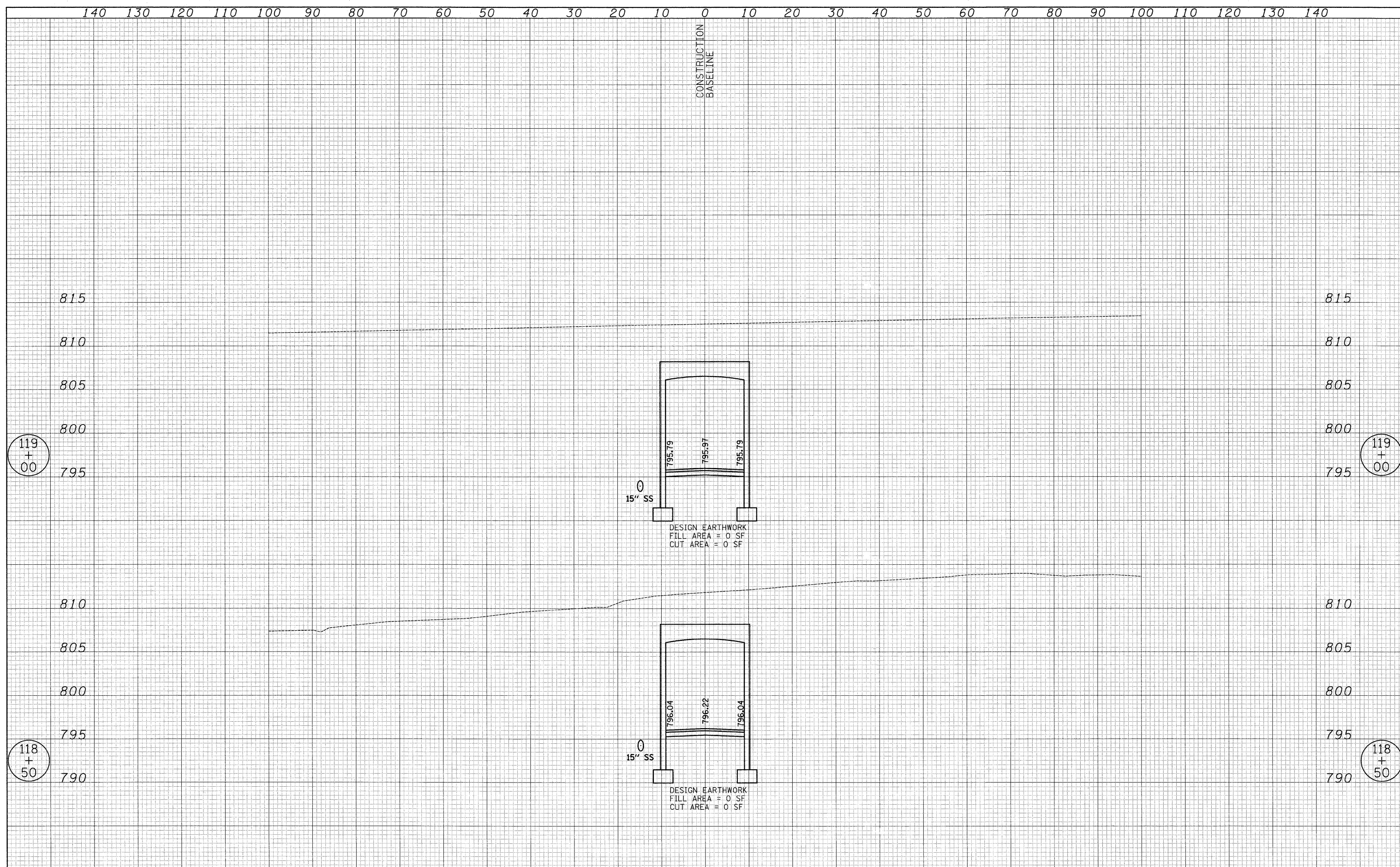
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 43 |
| FILE NAME ...\\cad\sheet\08 XS\BIKE.xsec.dgn | DRAWN - JRR | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 10,0000 1/ IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | SHEET NO. 3 OF 10 SHEETS STA. 118+00.00 TO STA. 118+41.16 | | | | |

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| TEMPLATE | |
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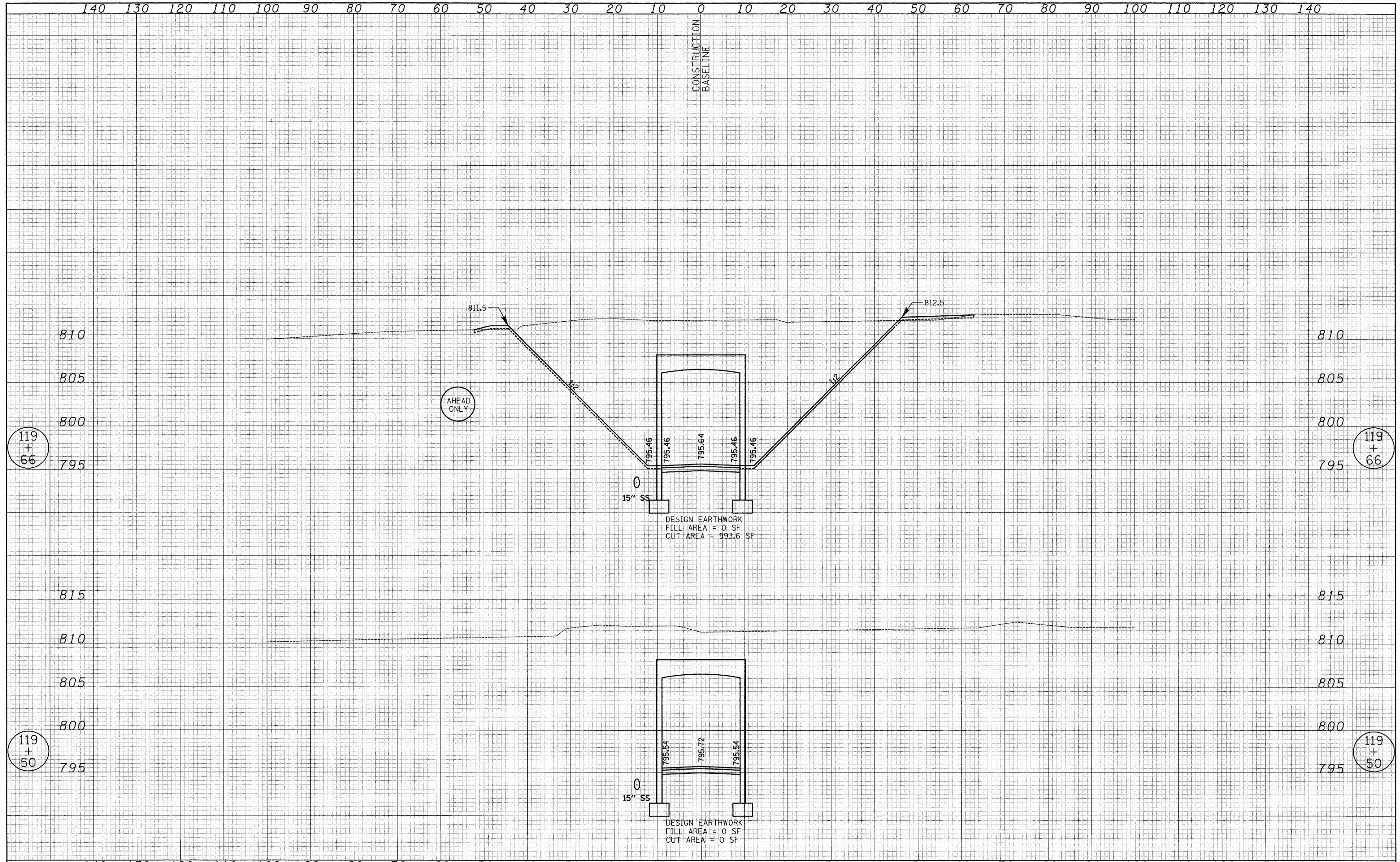
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 44 | | | |
| FILE NAME ...\\cad\sheet\08 XS\BIKE_xsec.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 4 OF 10 SHEETS | | STA. 118+50.00 TO STA. 119+00.00 | | CONTRACT NO. 63422 | | | |
| PLOT SCALE 10,0000 ' / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

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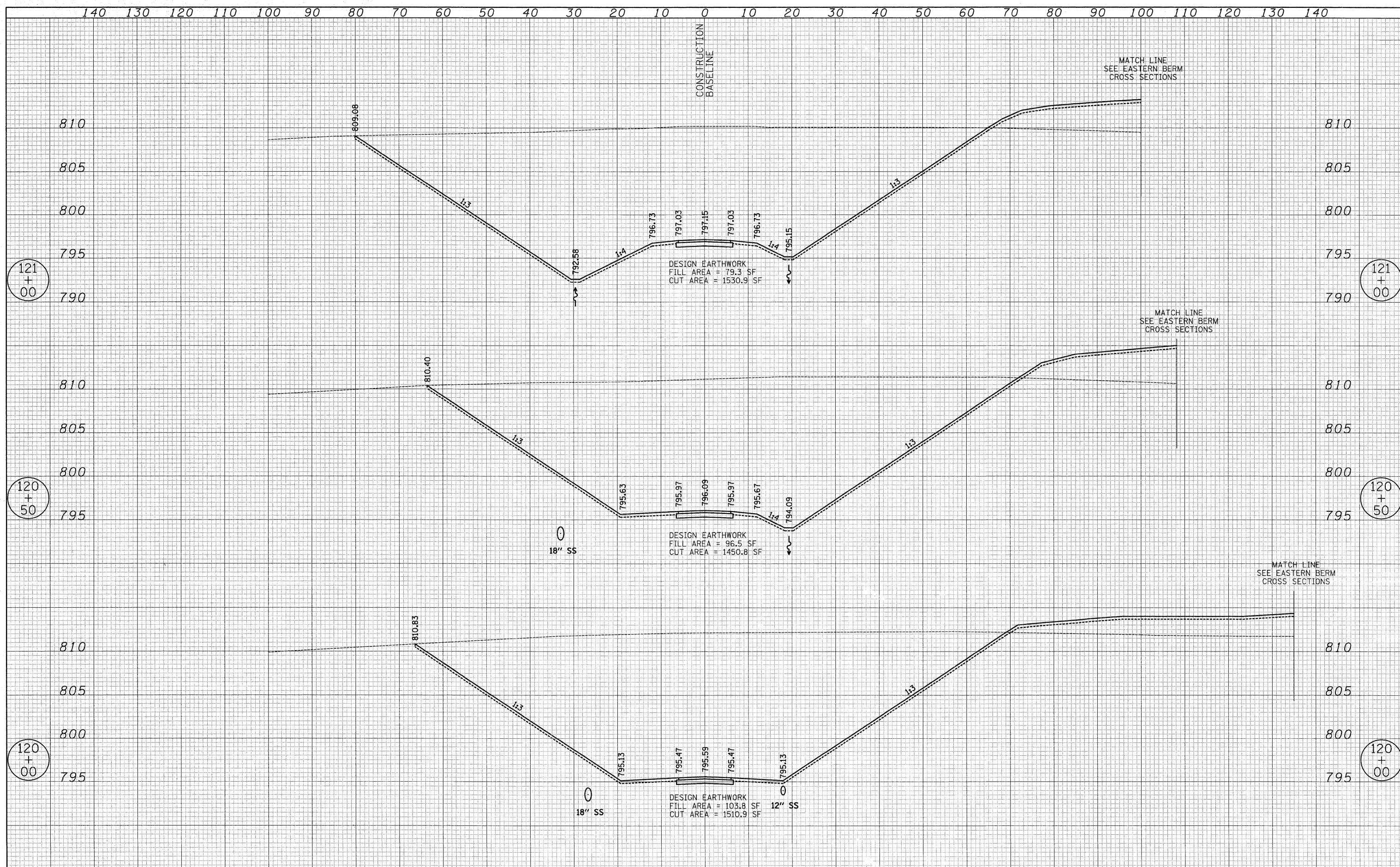
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| USER NAME = pk FILE NAME = ...\\cad\sheet\08 XS\BIKE.xsec.dgn PLOT SCALE = 10.0000' / IN. PLOT DATE = 12/13/2010 | DESIGNED - PK DRAWN - JRR CHECKED - RTM DATE - 12/17/2010 | REVISED - REVISED - REVISED - REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 SECTION 08-F3000-07-BT COUNTY LAKE TOTAL SHEETS 60 SHEET NO. 45 CONTRACT NO. 63422 | SHEET NO. 5 OF 10 SHEETS STA. 119+50.00 TO STA. 119+66.16 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT |
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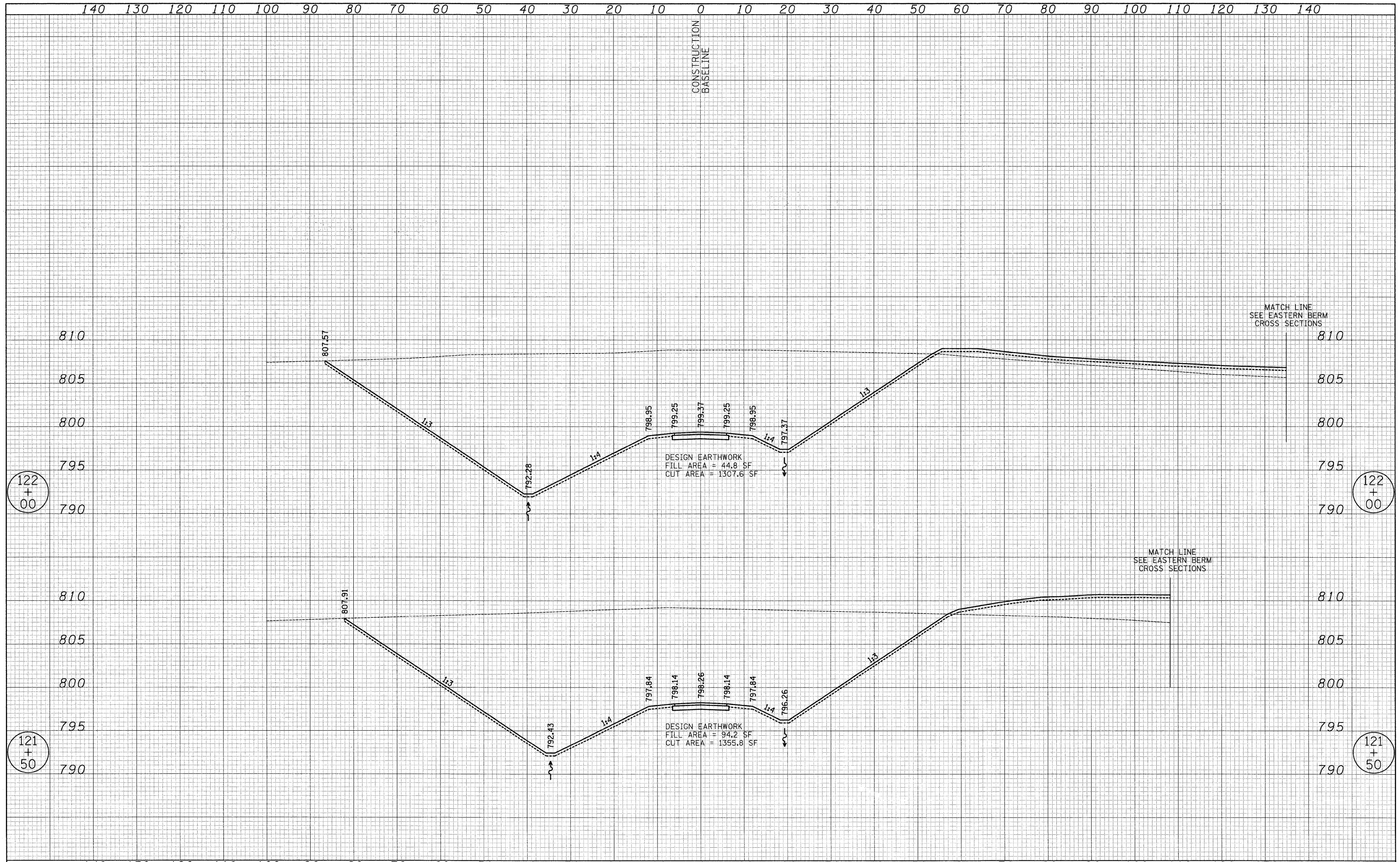
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...cod\sheet\08 XS\BIKE.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 46 |
| PLOT SCALE 18.0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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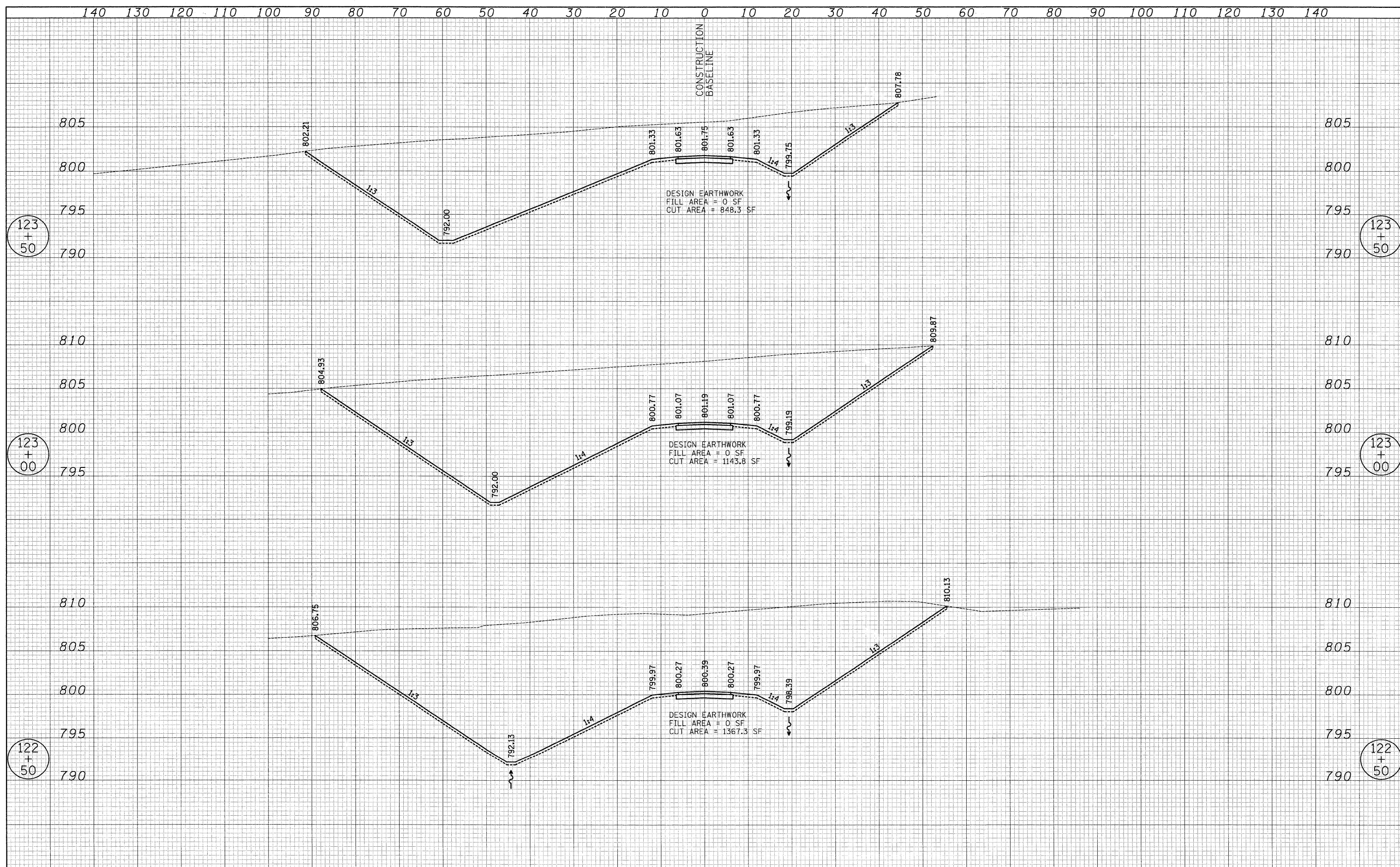
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 0 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 47 | | | |
| FILE NAME ...\\cod\sheet\08 XS\BIKE_xsec.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 7 OF 10 SHEETS STA. 121+50.00 TO STA. 122+00.00 | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 12.0000' / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

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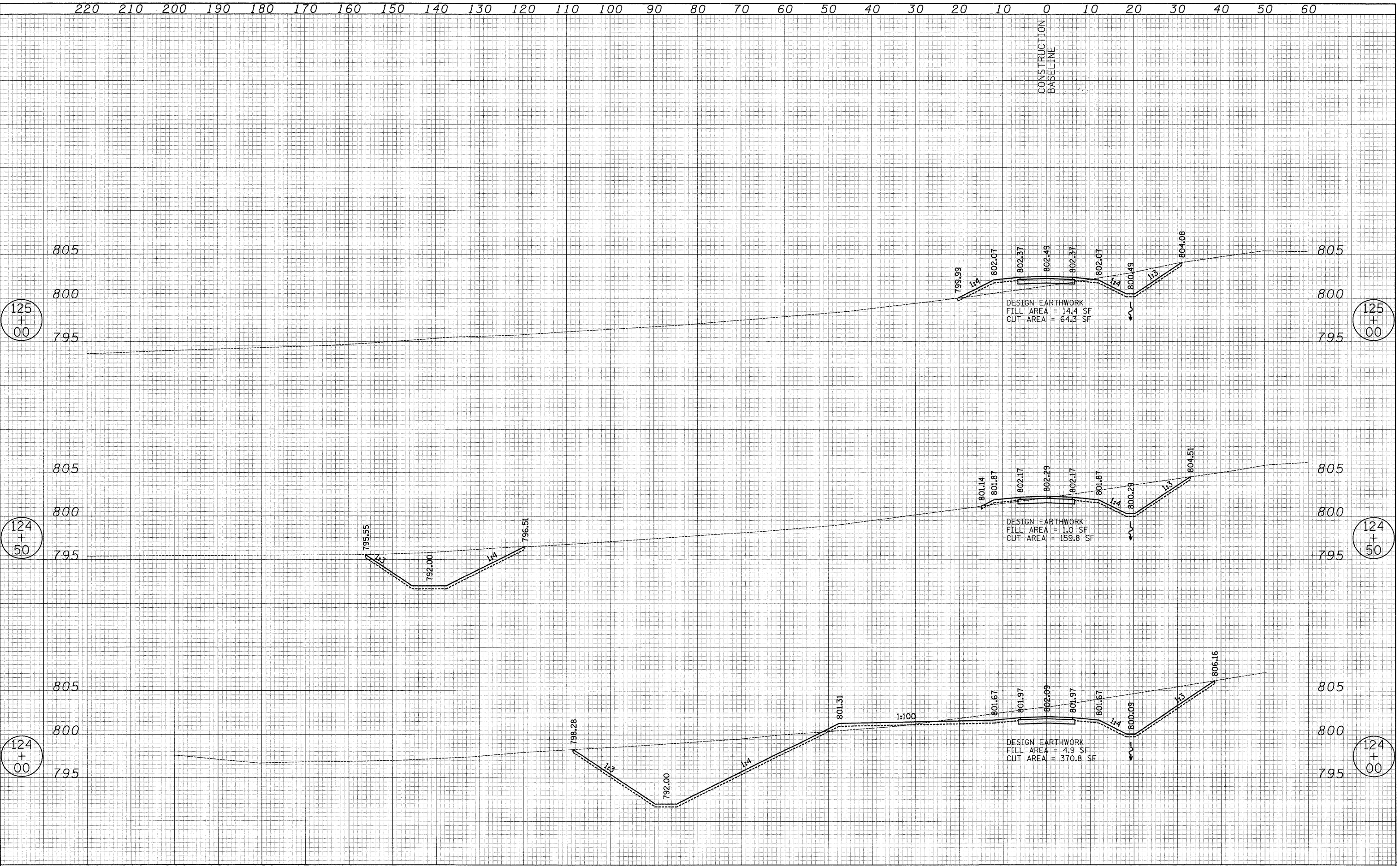


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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 5 10 HORIZ. 10 20 | BIKE PATH - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 48 | | | |
| FILE NAME ...cad\sheet\08 XS\BIKE_xsec.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 8 OF 10 SHEETS STA. 122+50.00 TO STA. 123+50.00 | | CONTRACT NO. 63422 | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | |
| PLOT SCALE 18.0000' / IN. | CHECKED - RTM | REVISED - | | | | | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60

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CONSTRUCTION
BASELINE

DESIGN EARTHWORK
FILL AREA = 14.4 SF
CUT AREA = 64.3 SF

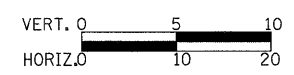
DESIGN EARTHWORK
FILL AREA = 1.0 SF
CUT AREA = 159.8 SF

DESIGN EARTHWORK
FILL AREA = 4.9 SF
CUT AREA = 370.8 SF

220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60

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| USER NAME = pk | DESIGNED - PK | REVISED - |
| FILE NAME ...cod\sheet\08 XS\BIKE_xsec.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE 1/8" = 1' IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BIKE PATH - CROSS SECTIONS
FORT HILL TRAIL BIKE PATH UNDERPASS

SHEET NO. 9 OF 10 SHEETS STA. 124+00.00 TO STA. 125+00.00

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| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 3602 | 08-F3000-07-BT | LAKE | 60 | 49 |
| CONTRACT NO. 63422 | | | | |

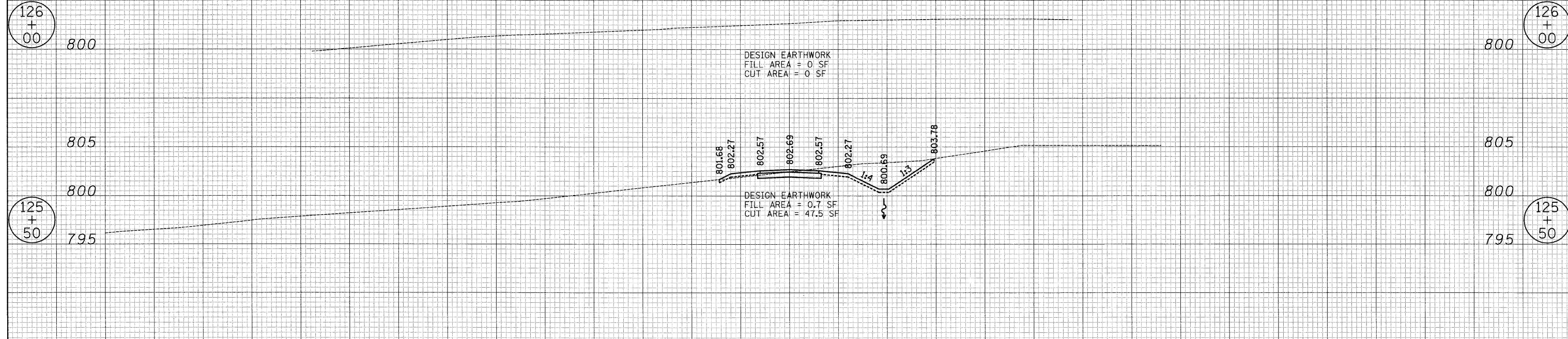
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

CONSTRUCTION
BASELINE

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| USER NAME = pk | DESIGNED - PK | REVISED - |
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| PLOT SCALE 12.0000' / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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HORIZ. 0 10 20

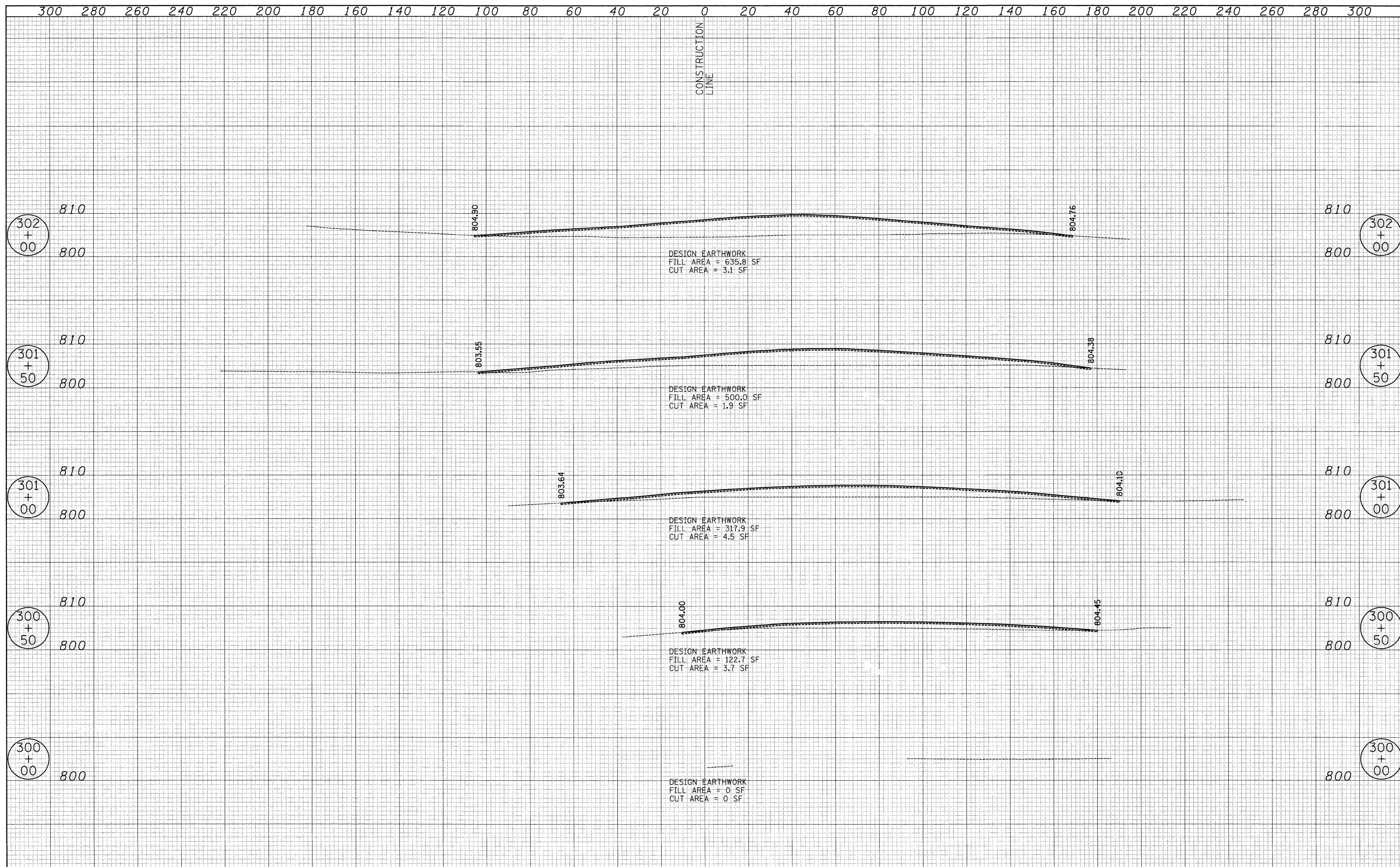
**BIKE PATH - CROSS SECTIONS
FORT HILL TRAIL BIKE PATH UNDERPASS**

SHEET NO. 10 OF 10 SHEETS STA. 125+50.00 TO STA. 126+00.00

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| F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 50 |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 63422 | |

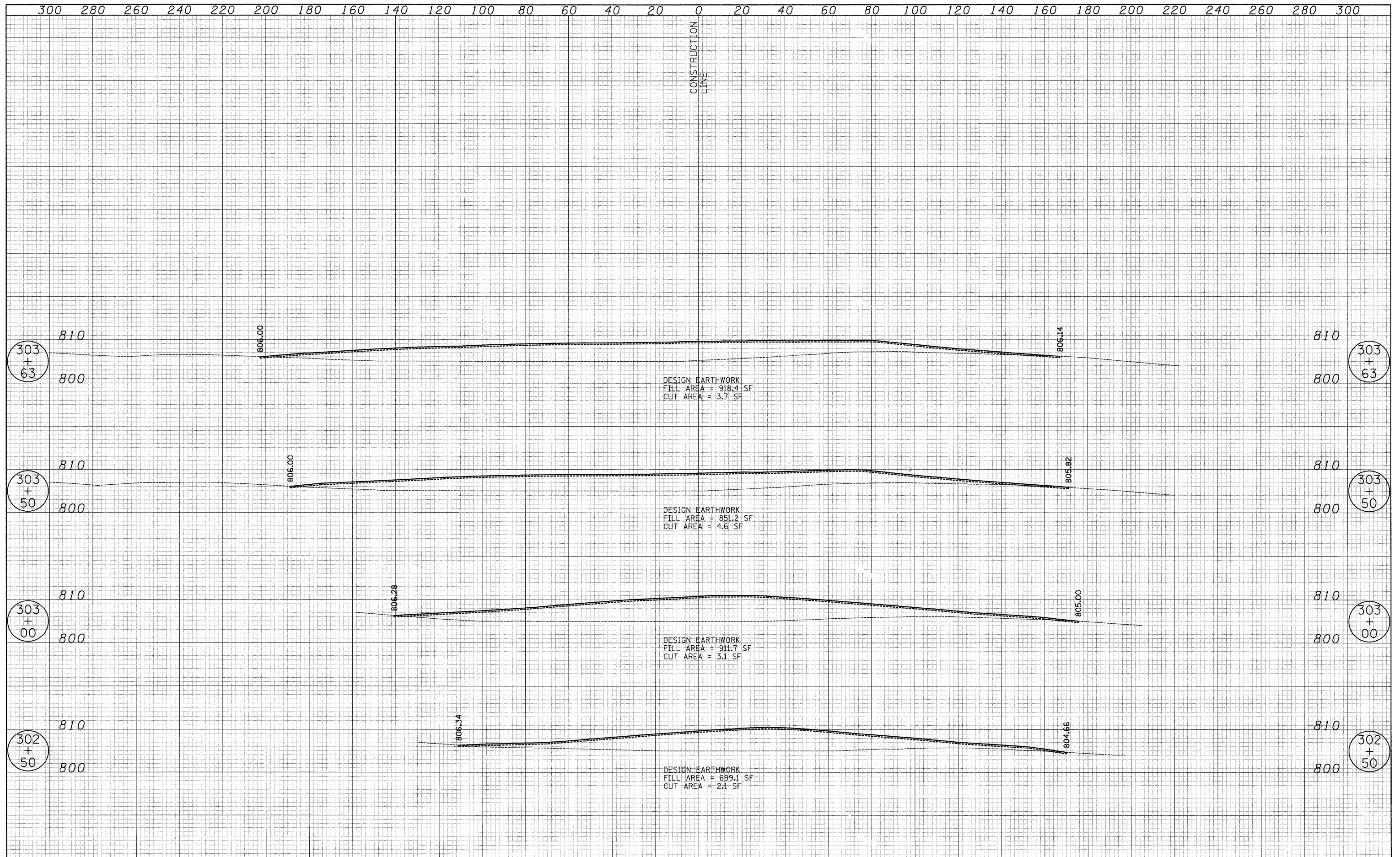
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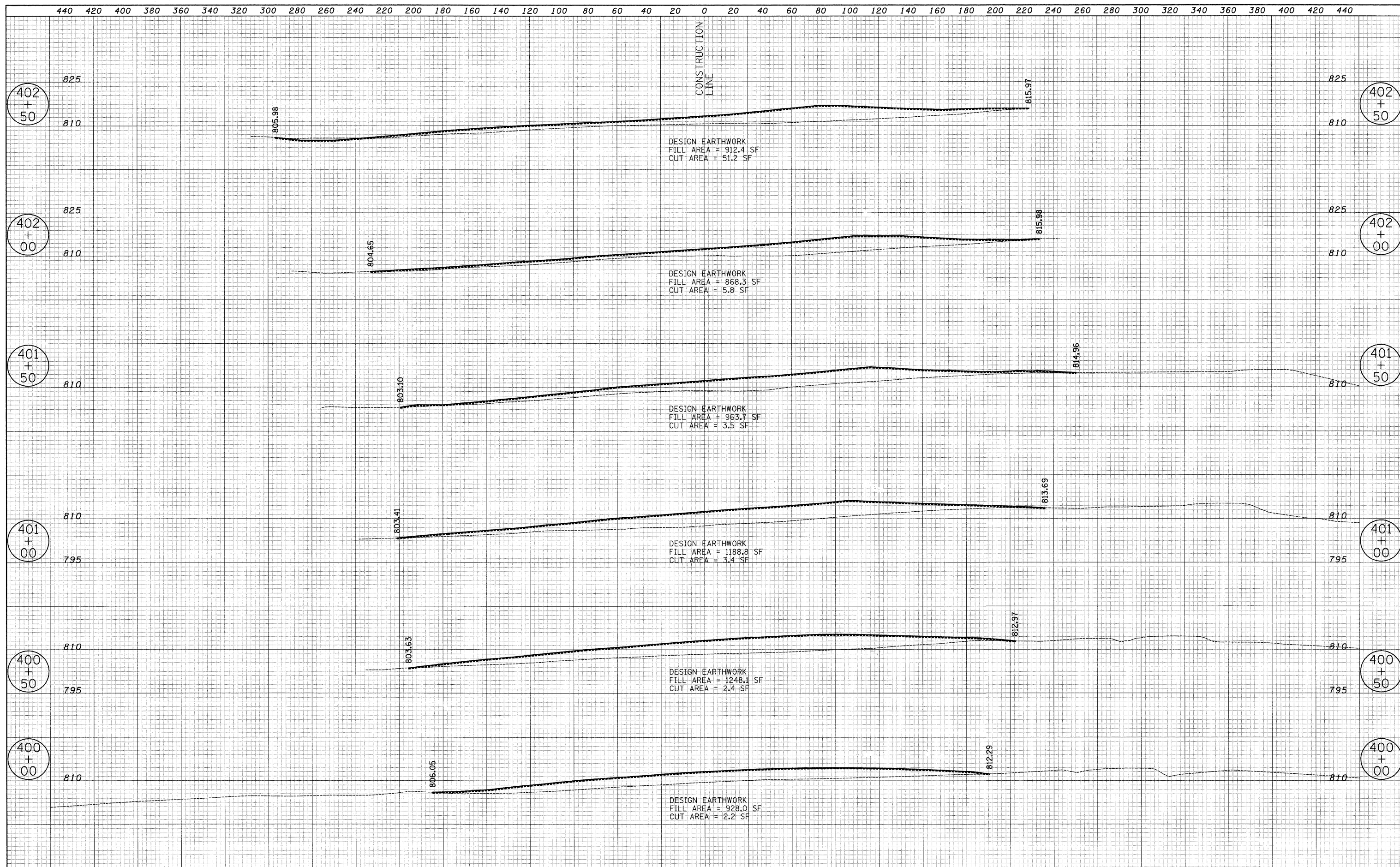
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| ORIGINAL SURVEY | |
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| PLOTTED | |
| TEMPLATE | |
| NOTE BOOK | |
| AREAS CHECKED | |
| NO. | |



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|--|-------------------|-----------|---|-------------------------------|--|---|----------------|--------|--------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 10 20 HORIZ. 20 30 | WESTERN BERM - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\cad\sheet\08 XS\BermW_xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 51A |
| PLOT SCALE 20,0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

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| DATE | |
| BY | |
| FINAL SURVEY | SURVEYED |
| NOTE BOOK | PLOTTED |
| NO. | TEMPLATE |
| | AREAS CHECKED |

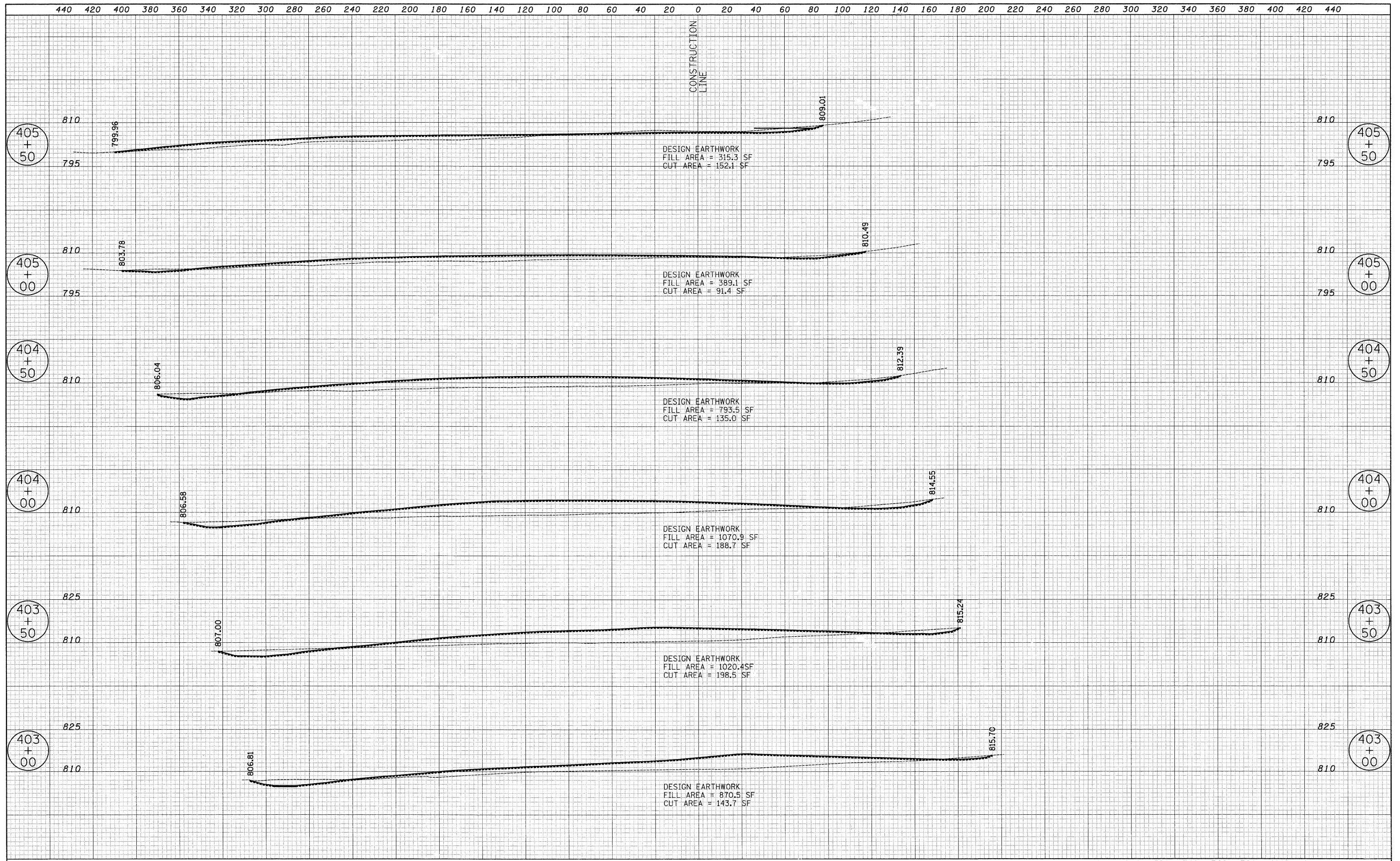
| | |
|-----------------|---------------|
| DATE | |
| BY | |
| ORIGINAL SURVEY | SURVEYED |
| NOTE BOOK | PLOTTED |
| NO. | TEMPLATE |
| | AREAS CHECKED |



| | | | | | | | | | | |
|---|-------------------|-----------|---|---------------------------------|--|---|----------------|--------|--------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 15 30 HORIZ. 0 30 60 | EASTERN BERM - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...ced\sheet\08 XS\BermE.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 51B |
| PLOT SCALE 30.0000' / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2018 | DATE - 12/17/2010 | REVISED - | SHEET NO. 1 OF 3 SHEETS STA. 400+00.00 TO STA. 402+50.00 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 AREAS CHECKED _____
 ORIGINAL SURVEY NOTE BOOK NO. _____

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 AREAS CHECKED _____
 ORIGINAL SURVEY NOTE BOOK NO. _____



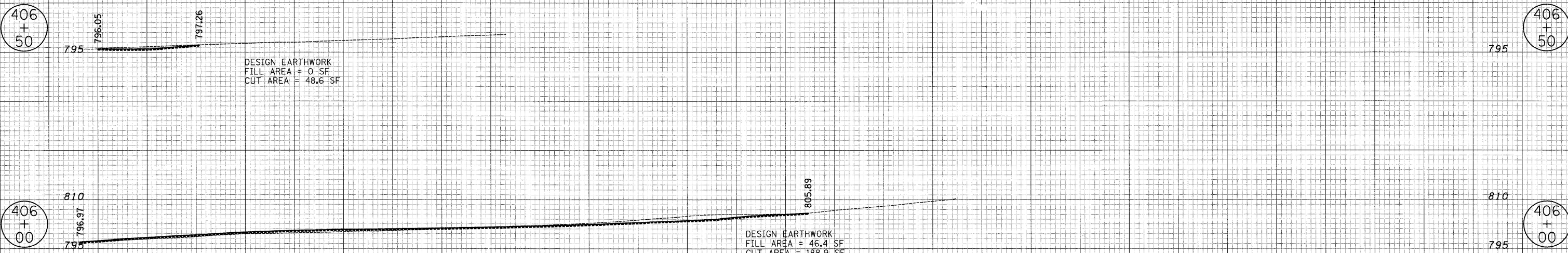
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| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 15 30 HORIZ. 0 30 60 | EASTERN BERM - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. 3602 | SECTION 08-F3000-07-BT | COUNTY LAKE | TOTAL SHEETS 60 | SHEET NO. 51C | | | |
| FILE NAME ...ced\sheet\08 XS\BermE.xsed.dgn | DRAWN - JRR | REVISED - | | | | SHEET NO. 2 OF 3 SHEETS STA. 403+00.00 TO STA. 405+50.00 | | | CONTRACT NO. 63422 | | | | |
| PLOT SCALE 38.8888" / IN. | CHECKED - RTM | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | | | | | | | | |

440 420 400 380 360 340 320 300 280 260 240 220 200 180 160 140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300 320 340 360 380 400 420 440

CONSTRUCTION
LINE

| | | |
|--------------|---------------|------|
| FINAL SURVEY | SURVEYED | DATE |
| NOTE BOOK | PLOTTED | |
| NO. | TEMPLATE | |
| | AREAS CHECKED | |

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| ORIGINAL SURVEY | SURVEYED | DATE |
| NOTE BOOK | PLOTTED | |
| NO. | TEMPLATE | |
| | AREAS CHECKED | |



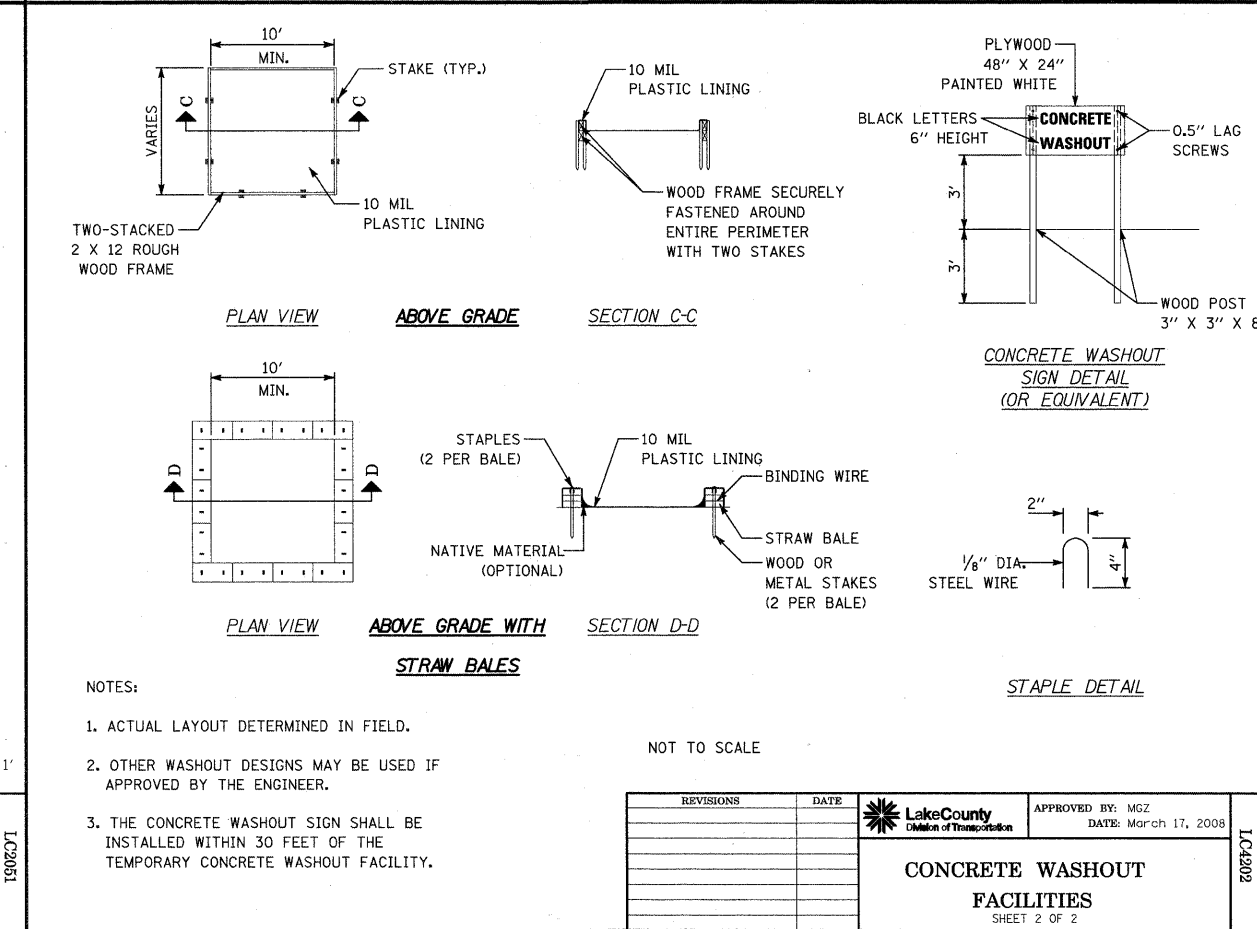
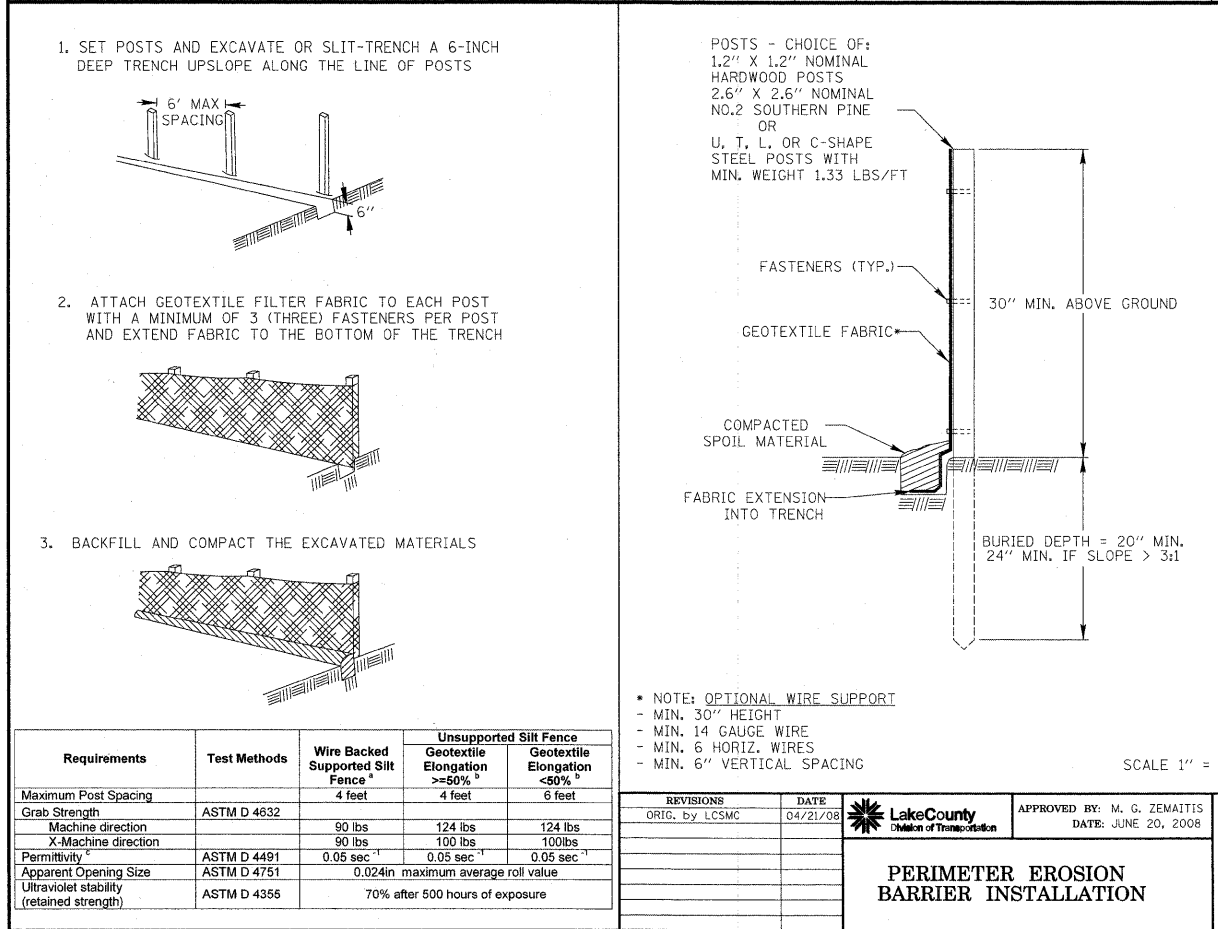
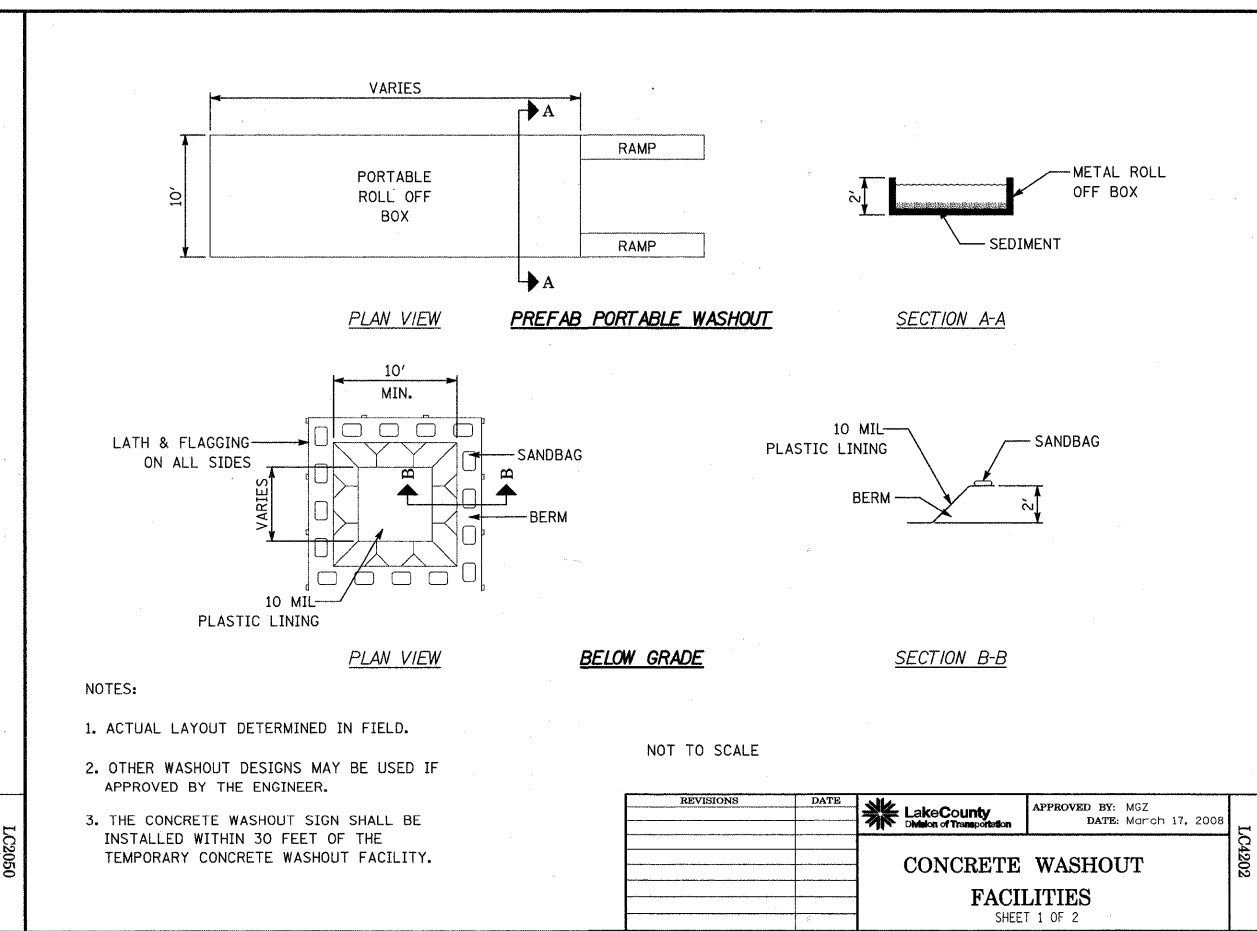
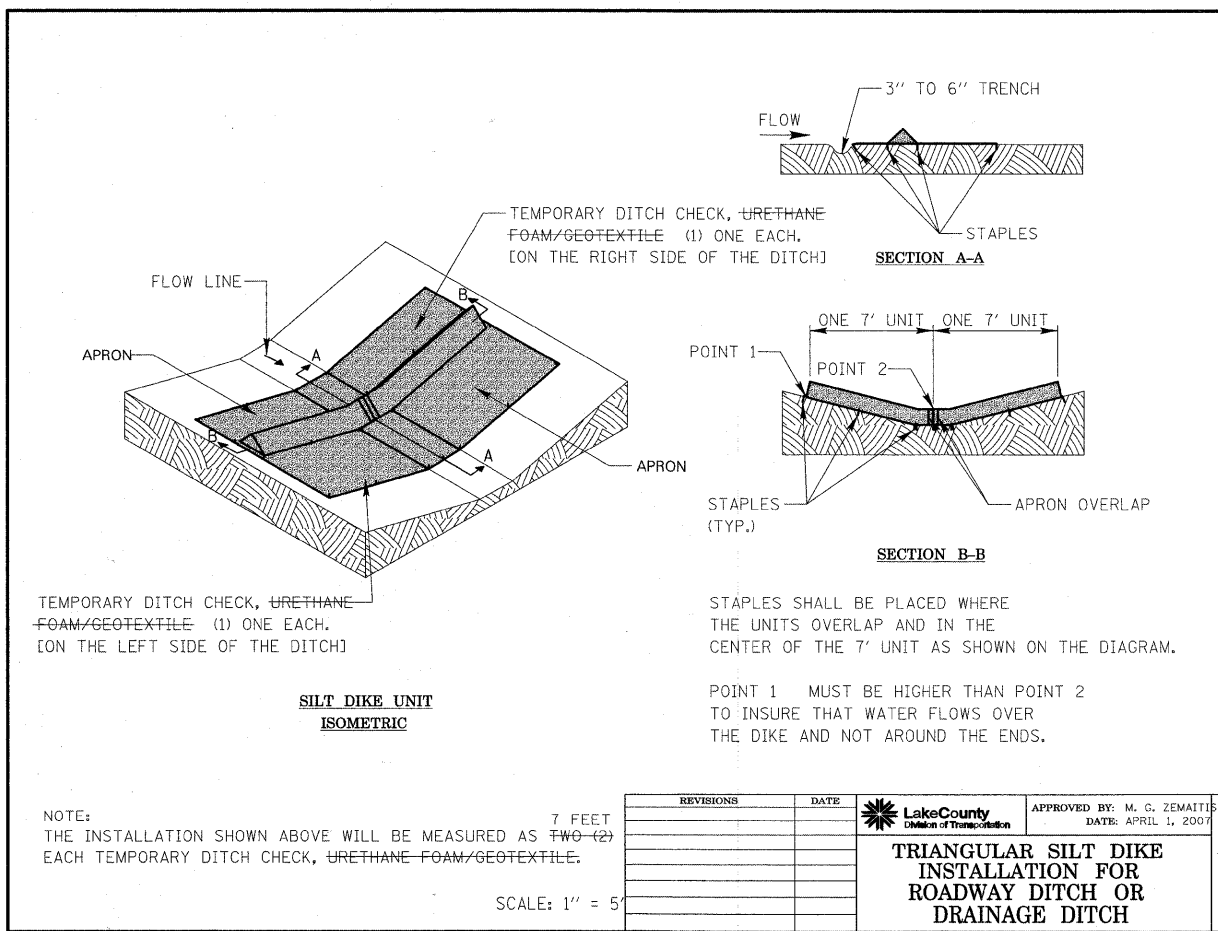
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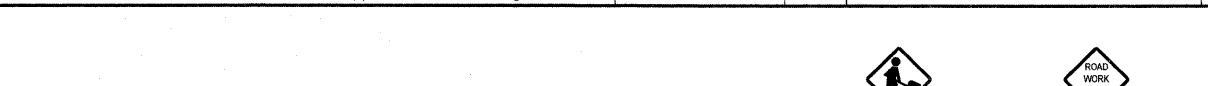
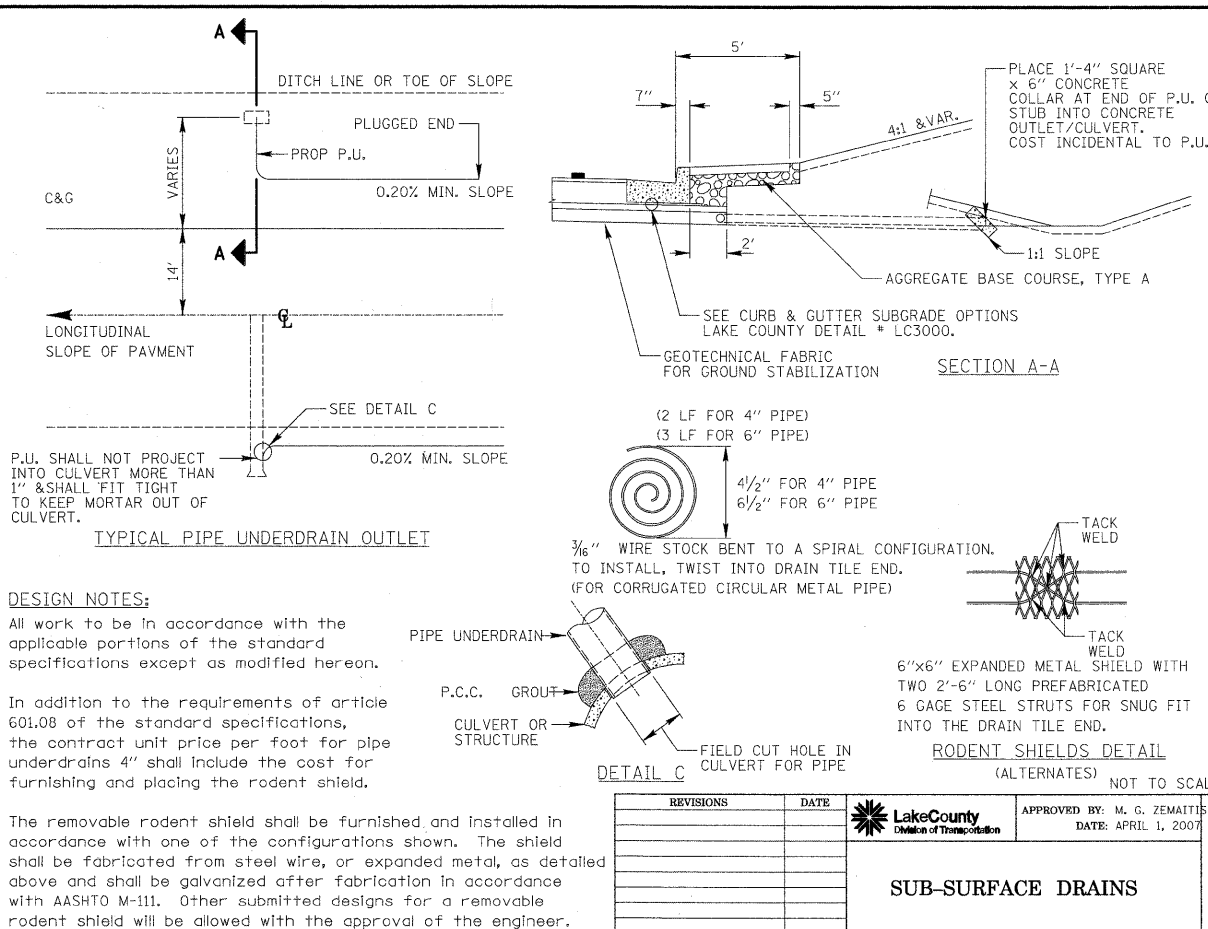
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|--|-------------------|-----------|---|---------------------------------|--|---|----------------|--------|--------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | VERT. 0 15 30 HORIZ. 0 30 60 | EASTERN BERM - CROSS SECTIONS FORT HILL TRAIL BIKE PATH UNDERPASS | F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| FILE NAME ...\oad\sheet\08 XS\BermE.xsec.dgn | DRAWN - JRR | REVISED - | | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 51D |
| PLOT SCALE 30,0001 / IN. | CHECKED - RTM | REVISED - | | | | CONTRACT NO. 63422 | | | | |
| PLOT DATE = 12/13/2010 | DATE - 12/17/2010 | REVISED - | | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

SHEET NO. 3 OF 3 SHEETS STA. 406+00.00 TO STA. 406+50.00

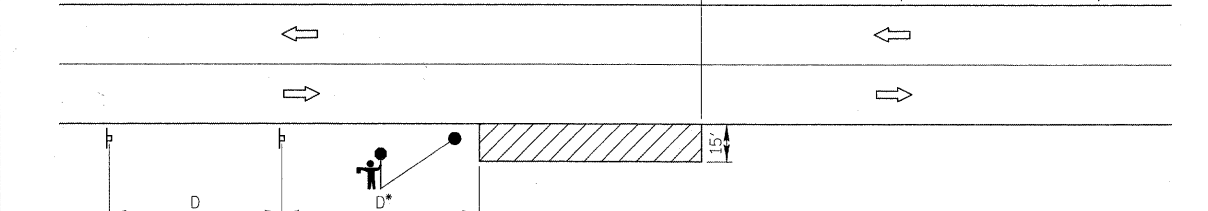
| | |
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| DATE | |
| BY | |
| SURVEY | |
| NOTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |

| | |
|---------------|--|
| DATE | |
| BY | |
| SURVEY | |
| NOTED | |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |

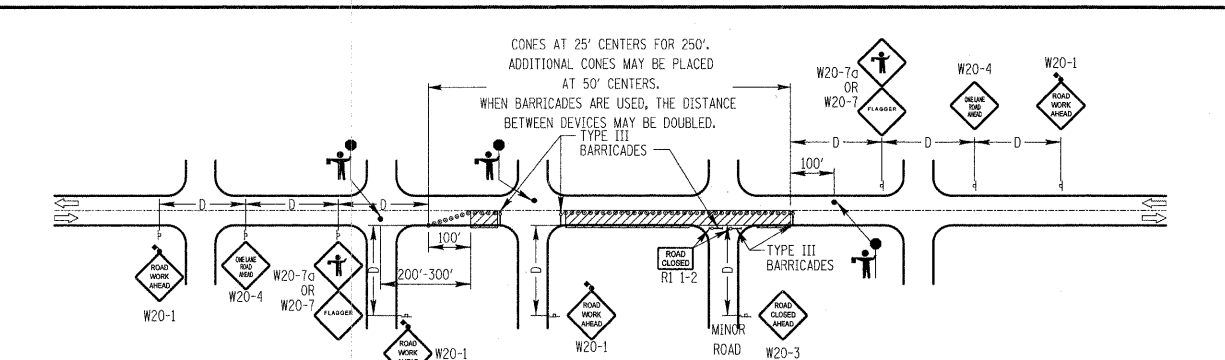




| REVISIONS | DATE | APPROVED BY: M. G. ZEMAITIS |
|-----------|------|-----------------------------|
| | | DATE: APRIL 1, 2007 |

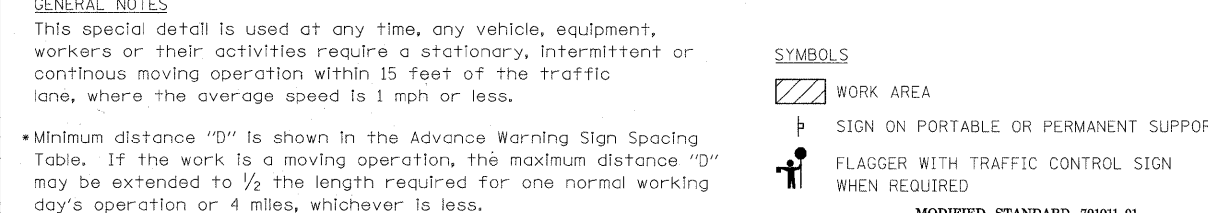


| REVISIONS | DATE | APPROVED BY: M. G. ZEMAITIS |
|-----------|------|-----------------------------|
| | | DATE: APRIL 1, 2007 |

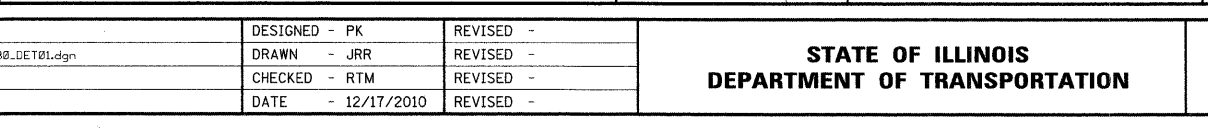


- DESIGN NOTES:
- All warning signs shall have minimum dimensions of 48"x48". The engineer may approve signs measuring 36"x36" when the posted speed limit is 30 mph or less.
 - All signs not on the traveled way shall be post mounted if the closure time exceeds four calendar days. All signs shall be posted with the bottom of the sign not less than 7' above the edge of pavement. "NO PARKING" signs shall be installed throughout the work area at the discretion of the engineer.
 - The flagger shall be in sight of each other or in direct communication at all times. When no work is being performed, the flaggers will not be required. If the flaggers are not present, the flagger sign shall be removed, covered or turned away from traffic.
 - Barricades with Type C steady burning lights shall be used in lieu of cones for night operation. All cones and barricades shall be in accordance with Standard 701301.
 - When necessary, additional flaggers shall be positioned so as to regulate side street traffic.
 - Construction operations shall be confined to one lane, leaving the opposite lane open to traffic.
 - If the work operation is performed between 9:00 am and 3:00 pm and the work does not exceed 15 minutes, the traffic protection shall be as shown for Standard 701301. Signs, when required, shall be at the spacing specified in the Advance Warning Sign Spacing Table.
 - If the work area is in the parking lane and the parking exists during work hours, a "ROAD WORK AHEAD" sign shall be installed in advance of the work area at the spacing specified in the Advance Warning Sign Spacing Table and the area protected with cones or barricades.
 - Type A flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series and the high level warning devices.
 - Longitudinal dimensions may be adjusted to fit field conditions.
 - The location of the construction warning signs shall be determined by the speed limit posted on the road or street on which the construction warning signs are installed.
 - Form BT 725 is required.

| REVISIONS | DATE | APPROVED BY: ANTHONY KHAWAJA |
|-----------|------|------------------------------|
| | | DATE: APRIL 1, 2007 |



| POSTED SPEED LIMIT | DISTANCE BETWEEN SIGNS "D" |
|--------------------|----------------------------|
| 40 MPH or less | 200 FEET |
| 45-50 MPH | 350 FEET |
| 55 MPH | 500 FEET |



| REVISIONS | DATE | APPROVED BY: ANTHONY KHAWAJA |
|-----------|------|------------------------------|
| | | DATE: APRIL 1, 2007 |

| | |
|----------------|--|
| DATE | |
| BY | |
| FINAL SURVEY | |
| SURVEY PLOTTED | |
| NOTE BOOK | |
| AREAS CHECKED | |

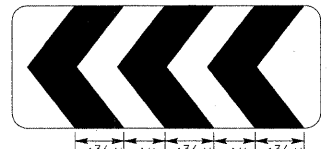
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| DATE | |
| BY | |
| ORIGINAL SURVEY | |
| SURVEY PLOTTED | |
| NOTE BOOK | |
| AREAS CHECKED | |

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| DATE | |
| BY | |
| FINAL SURVEY | |
| NOTE BOOK | |
| NO. | |
| SURVEYED | |
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| DATE | |
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| NOTE BOOK | |
| NO. | |
| SURVEYED | |
| PLOTTED | |
| TEMPLATE | |
| AREAS CHECKED | |

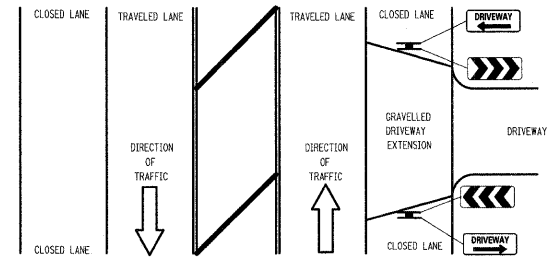


30" X 12" WHITE ON GREEN REFLECTIVE BACKGROUND, 1/2" BORDER, LETTER SIZE 4C



30" X 12" BLACK ON FLOURESCENT ORANGE CHEVRONS

EXAMPLE OF DRIVEWAY SIGN ASSEMBLY INSTALLATION



TEMPORARY CONSTRUCTION INFORMATION SIGNING NOTES:

1. The driveway and chevron signs shall be mounted back to back on the near side of the roadway where the entrance is located. There will be two sign assemblies per driveway.
2. Temporary construction information signs shall be post mounted 7' above the near edge of pavement and shall be a minimum of 6' beyond the edge of the nearest traveled lane, or as directed by the Engineer.
3. The retroreflective sign face shall be a minimum of Type "A" material.
4. The temporary construction information signs shall be removed or relocated when the Engineer determines the signs to be no longer necessary.
5. Existing traffic control signs and messages that are in conflict with the proposed maintenance of traffic shall be covered or modified with a temporary overlay as shown in the plans and/or as directed by the Engineer.
6. Install additional temporary sign panel assemblies as shown in the plans and/or directed by the Engineer.

| REVISIONS | DATE | APPROVED BY: A KHAWAJA |
|---|-------|------------------------|
| Revised Signs & Text | 11/09 | DATE: APRIL 1, 2007 |
| | | |
| TEMPORARY CONSTRUCTION INFORMATION SIGNS SHEET 1 OF 2 | | |

LC7201

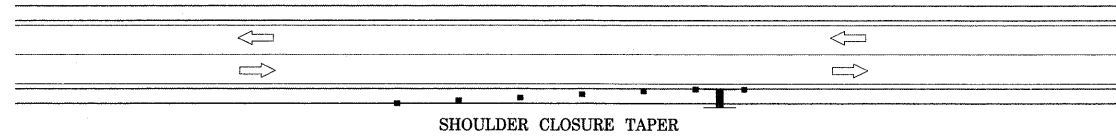


48" X 36"
BLACK ON FLUORESCENT ORANGE REFLECTIVE BACKGROUND
1" BORDER WITH 5/8" INSET
LETTER SIZE 6D
*LETTER SIZE 6E BOLD

| REVISIONS | DATE | APPROVED BY: A KHAWAJA |
|---|------|------------------------|
| | | DATE: APRIL 1, 2007 |
| | | |
| TEMPORARY CONSTRUCTION INFORMATION SIGNS SHEET 2 OF 2 | | |

LC7201

| | | | | | |
|----------------------------|----|----------|---------|----------|---------------|
| DATE | BY | SURVEYED | PLOTTED | TEMPLATE | AREAS CHECKED |
| | | | | | |
| FINAL SURVEY NOTE BOOK NO. | | | | | |



SHOULDER CLOSURE TAPER

| POSTED SPEED | TAPER LENGTH | NUMBER OF DEVICES REQUIRED |
|--------------|--------------|----------------------------|
| 30 MPH | 40 FEET | 4 |
| 35 MPH | 55 FEET | 4 |
| 40 MPH | 70 FEET | 5 |
| 45 MPH | 120 FEET | 7 |
| 50 MPH | 135 FEET | 8 |
| 55 MPH | 150 FEET | 8 |

GENERAL NOTES

This special detail is intended for use with a Changeable Message Sign and its Support trailer when located on the shoulder or within 15 feet of the edge line of a county highway without curb and gutter.

The Shoulder Taper (1/3 L) length is shown in the table for the current posted speed limit.

The Channellizing Device Spacing shall not exceed 25 feet for the Shoulder Taper.

SYMBOLS

- CHANGEABLE MESSAGE SIGN
- CHANNELIZING DEVICE

MODIFIED M.U.T.C.D. TYPICAL APPLICATION DIAGRAM TA-3

| REVISIONS | DATE | APPROVED BY: | DATE: |
|--|------|--------------|---------------|
| | | A. KHAWAJA | JAN. 28, 2008 |
| | | | |
| TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE AND UTILITY OPERATIONS | | | |
| SHOULDER CLOSURE AND TAPER FOR CHANGEABLE MESSAGE SIGNS | | | |

1.07202

| | | | | | |
|-------------------------------|----|----------|---------|----------|---------------|
| DATE | BY | SURVEYED | PLOTTED | TEMPLATE | AREAS CHECKED |
| | | | | | |
| ORIGINAL SURVEY NOTE BOOK NO. | | | | | |

| | | |
|--|-------------------|-----------|
| USER NAME = pk | DESIGNED - PK | REVISED - |
| FILE NAME = ...sheet\09_DET\2130_DET01.dgn | DRAWN - JRR | REVISED - |
| PLOT SCALE = 1.00' / IN. | CHECKED - RTM | REVISED - |
| PLOT DATE = 12/14/2010 | DATE - 12/17/2010 | REVISED - |

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION DETAILS
FORT HILL TRAIL BIKE PATH UNDERPASS**

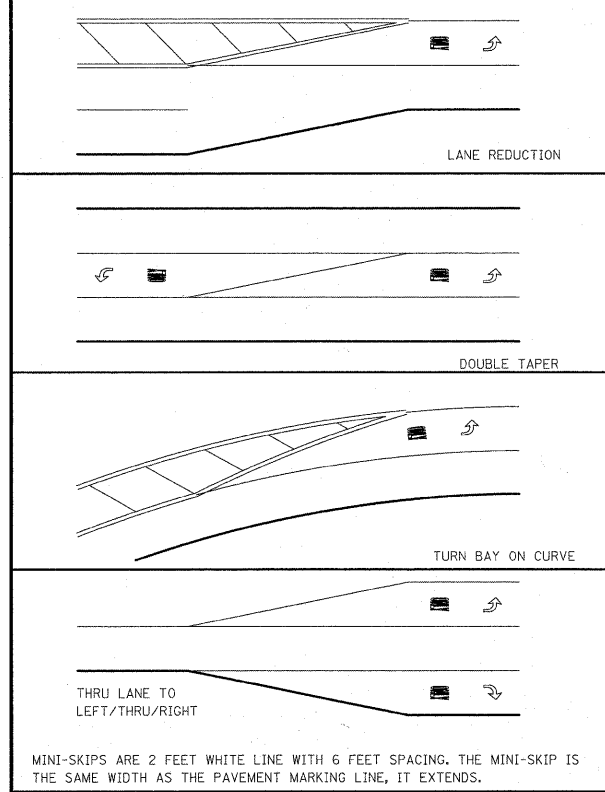
SHEET NO. OF SHEETS STA. TO STA.

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 55 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

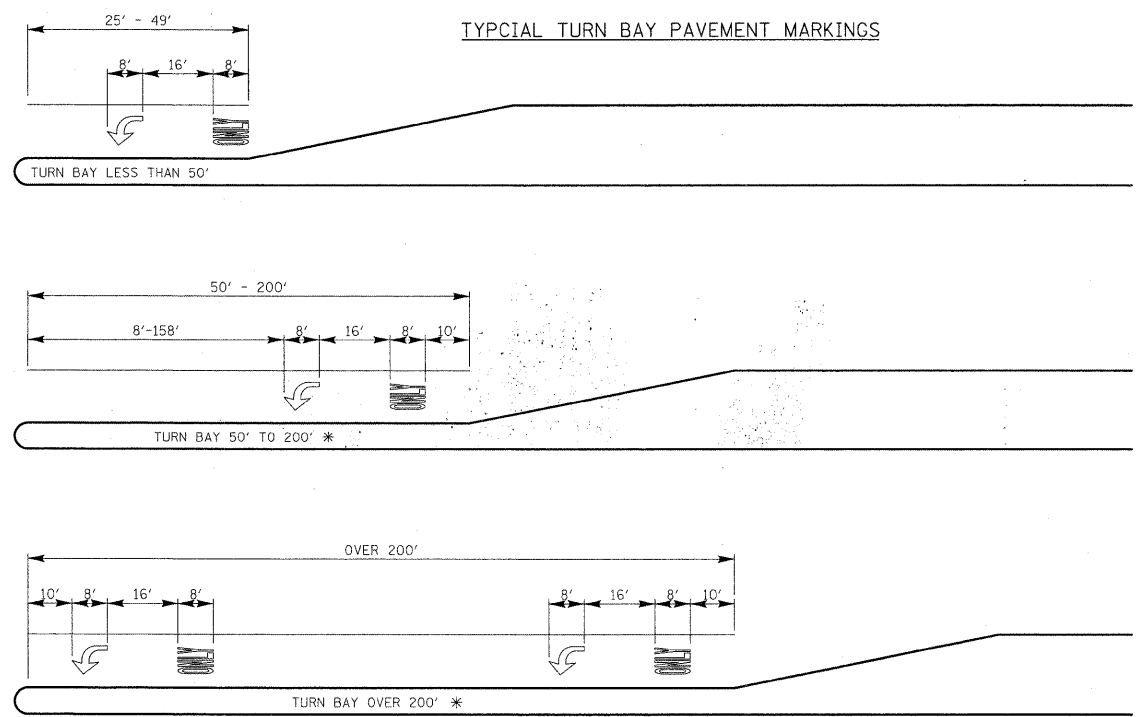
DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 NOTE BOOK: _____ TEMPLATE: _____
 AREAS CHECKED: _____

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 NOTE BOOK: _____ TEMPLATE: _____
 AREAS CHECKED: _____

TYPICAL MINI-SKIP PAVEMENT MARKINGS



TYPICAL PAVEMENT MARKINGS



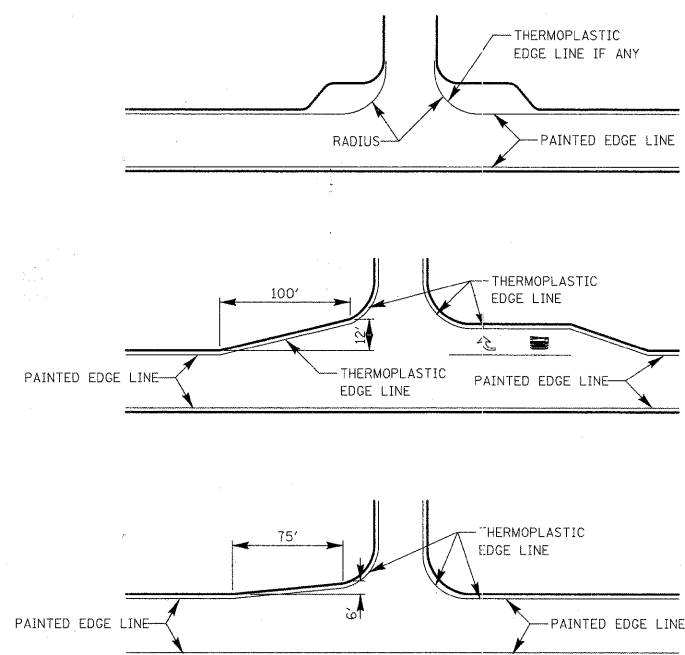
* AT INTERSECTIONS WITH VIDEO DETECTION, THE ARROW AND ONLY PAVEMENT MARKINGS SHALL BE A MINIMUM OF 30' BEHIND THE STOP BAR.

AREA = 15.6 SQ. FT.

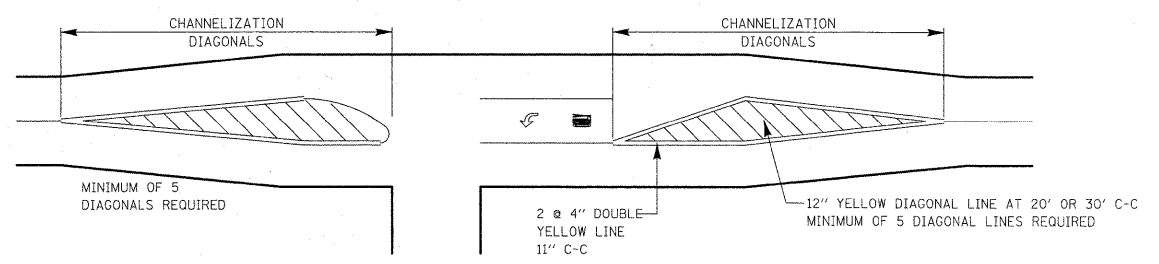
AREA = 20.8 SQ. FT.

FULL SIZE LETTERS (8") AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".

EDGE LINE RADII AT SIDE STREETS

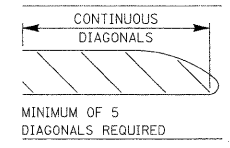


TWO LANE ROAD

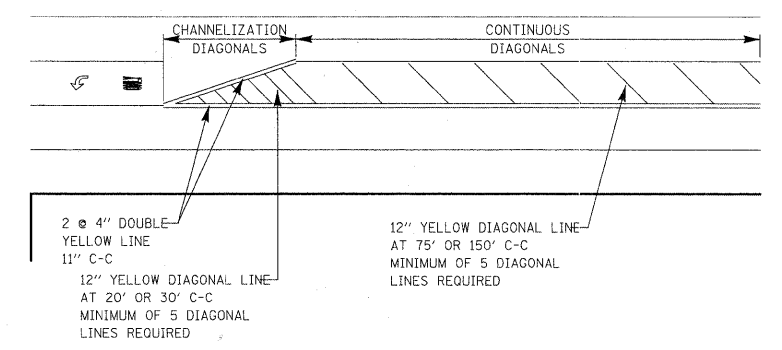


TYPICAL DIAGONAL SPACING

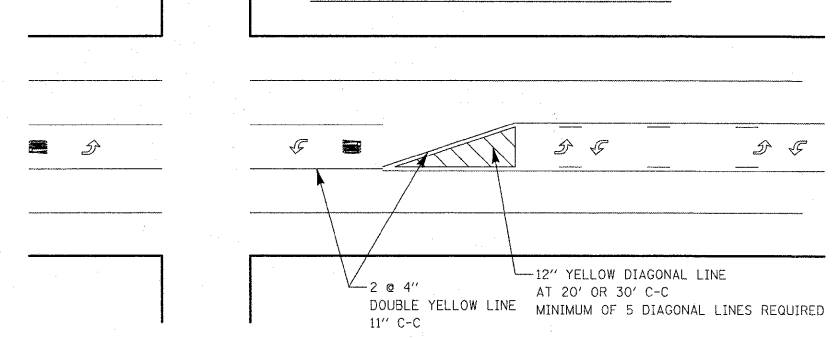
| SPEED LIMIT RANGE | CONTINUOUS | INTERSECTION CHANNELIZATION |
|-------------------|------------|-----------------------------|
| 30-45 MPH | 75 FT. | 20 FT. |
| OVER 45 MPH | 150 FT. | 30 FT. |



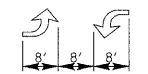
3 TO 5 LANE ROAD



TWO-WAY LEFT TO LEFT TURN BAY



DUAL LEFT TURN ARROWS



A MINIMUM OF TWO PAIRS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' AND 300'.

31.2 SQ. FT. MINIMUM OF 2 SETS REQUIRED

| REVISIONS | DATE | APPROVED BY |
|--------------------------|----------|-------------|
| Separated Railroad Sheet | 6/2/2008 | A. KHAWAJA |

Lake County
Division of Transportation

DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS

SHEET 1 OF 2

| NO. | DESCRIPTION | DATE | BY | SURVEYOR | DSGNER/LIAISON | PLOTTED BY |
|-----|-------------|------|----|----------|----------------|------------|
| | | | | | | |



LAKE COUNTY STANDARDS & DETAILS

| ROUTE | SECTION | SECTION NUMBER | SHEET | SHEETS |
|-------|---------|----------------|-------|--------|
| CHXX | XXX | XX-XXXXX-XX-XX | XXX | XXX |

| USER NAME | DESIGNED | REVISED |
|--------------------------------|--------------|---------|
| pk | - PK | - |
| FILE NAME | DRAWN | REVISED |
| ...sheet\09 DET\2130.DET01.dgn | - JRR | - |
| PLOT SCALE | CHECKED | REVISED |
| 1.00 / IN. | - RTM | - |
| PLOT DATE | DATE | REVISED |
| 12/14/2010 | - 12/17/2010 | - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
FORT HILL TRAIL BIKE PATH UNDERPASS

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 56 |

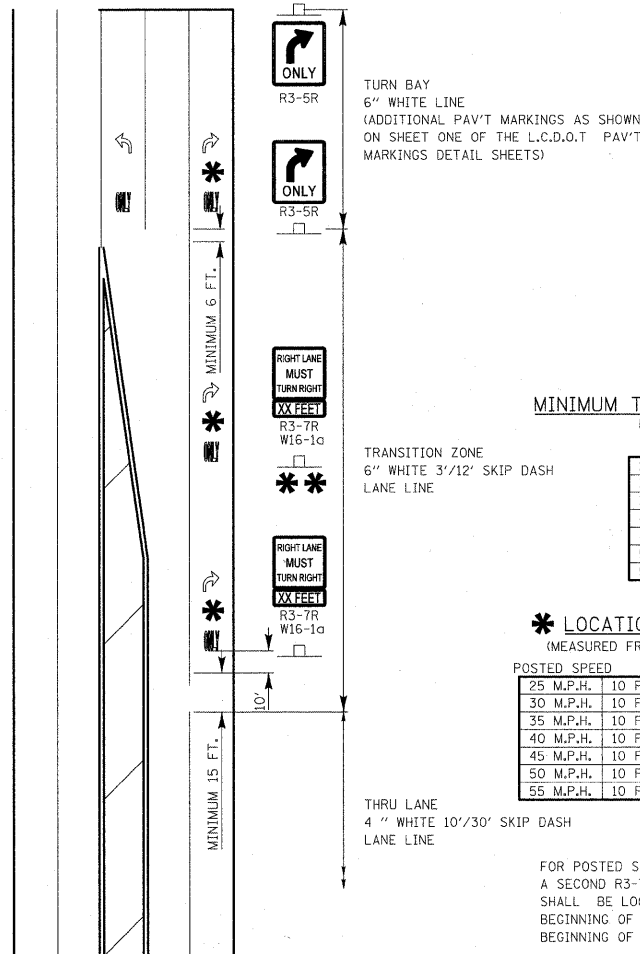
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

CONTRACT NO. 63422

L17800

THRU LANE TO
TURN LANE CONVERSION

TYPICAL PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS



TURN BAY
6" WHITE LINE
(ADDITIONAL PAV'T MARKINGS AS SHOWN ON SHEET ONE OF THE L.C.D.O.T PAV'T MARKINGS DETAIL SHEETS)

TRANSITION ZONE
6" WHITE 3'/12' SKIP DASH LANE LINE

THRU LANE
4" WHITE 10'/30' SKIP DASH LANE LINE

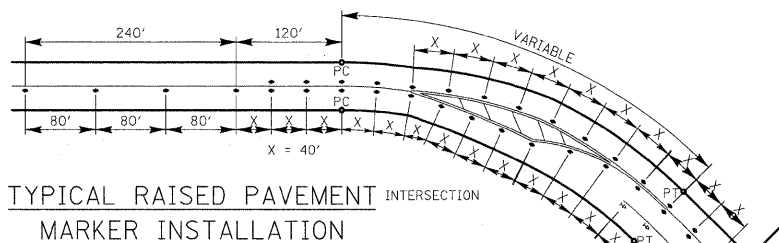
MINIMUM TRANSITION ZONE LENGTH

| POSTED SPEED | LENGTH |
|--------------|---------|
| 25 M.P.H. | 255 FT. |
| 30 M.P.H. | 330 FT. |
| 35 M.P.H. | 405 FT. |
| 40 M.P.H. | 480 FT. |
| 45 M.P.H. | 555 FT. |
| 50 M.P.H. | 630 FT. |
| 55 M.P.H. | 705 FT. |

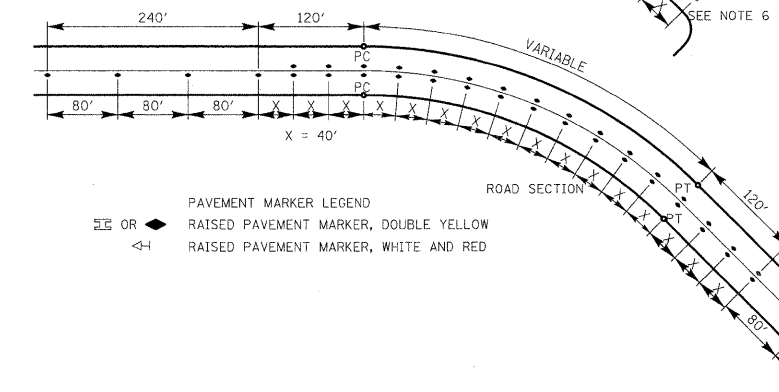
LOCATION OF PAV'T MARKINGS

| POSTED SPEED | LOCATION OF PAV'T MARKINGS |
|--------------|--|
| 25 M.P.H. | 10 FT., 260 FT. |
| 30 M.P.H. | 10 FT., 170 FT., 340 FT. |
| 35 M.P.H. | 10 FT., 210 FT., 410 FT. |
| 40 M.P.H. | 10 FT., 170 FT., 330 FT., 490 FT. |
| 45 M.P.H. | 10 FT., 190 FT., 370 FT., 560 FT. |
| 50 M.P.H. | 10 FT., 170 FT., 330 FT., 490 FT., 640 FT. |
| 55 M.P.H. | 10 FT., 180 FT., 350 FT., 520 FT., 710 FT. |

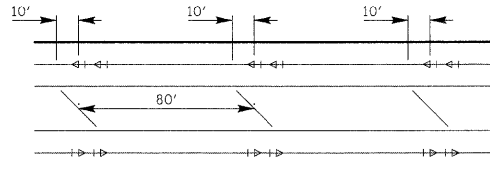
FOR POSTED SPEEDS 40 M.P.H. OR GREATER A SECOND R3-7/W16-1a SIGN INSTALLATION SHALL BE LOCATED HALFWAY BETWEEN THE BEGINNING OF THE TRANSITION ZONE AND THE BEGINNING OF THE TURN LANE



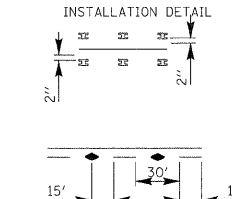
TYPICAL RAISED PAVEMENT MARKER INSTALLATION



LANE LINE PAVEMENT MARKER INSTALLATION ON MULTI-LANE ROAD SECTION

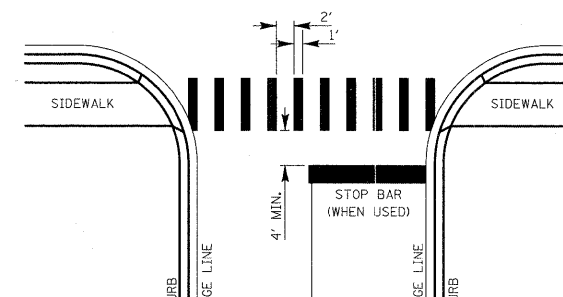


CENTER LINE PAVEMENT MARKER INSTALLATION DETAIL



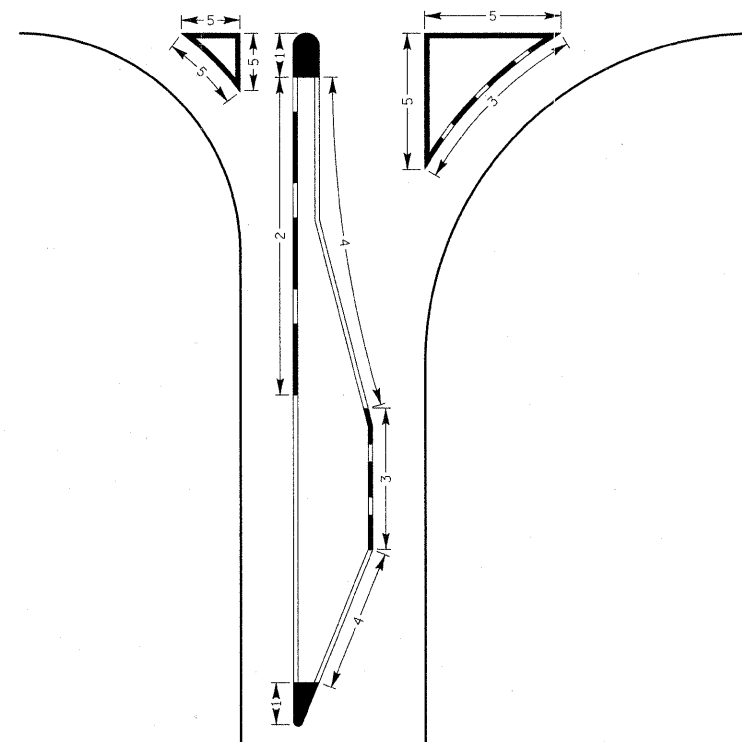
- NOTES:
- CENTERLINE RAISED PAVEMENT MARKERS (RPM'S) SHALL BE PLACED ON ALL CURVES OVER 3 1/2 DEGREES ON ALL TWO AND THREE LANE HIGHWAYS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
 - SPACING = 40' FOR CENTERLINE MARKERS.
 - ALL RPM'S ON CENTERLINE ARE 2-WAY YELLOW. LANE LINE MARKERS ARE WHITE/RED.
 - MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH F.H.W.A. MEMORANDUM HI0-21.
 - MARKERS SHALL BE FIELD ADJUSTED TO BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH CENTERLINE.
 - RPM'S WHICH ARE TO BE LOCATED WITHIN THE INTERSECTION OF A CROSS STREET, SHALL NOT BE INSTALLED.
 - A MINIMUM OF 4 WHITE/RED MARKERS SHALL BE INSTALLED ALONG THE TURN LANE LINE.
 - RPM'S INSTALLED ON MULTI-LANE ROAD SECTIONS SHALL BE INSTALLED ON THE WHITE SKIP-DASH LANE LINE ONLY. THESE RPM'S SHALL BE INSTALLED IN PAIRS AND SHALL BE 80' CENTER TO CENTER. SPACING WITHIN EACH PAIR SHALL BE 10', CENTERED WITHIN THE 30' SKIP.

CROSSWALKS

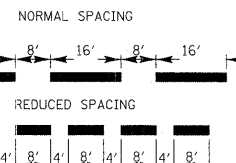


- WIDTH OF THE CROSSWALK IS GENERALLY 6' EXCEPT AT SCHOOL CROSSINGS AND BICYCLE CROSSINGS, WHICH CAN BE 8'.
- THE STOP BAR SHOULD BE INSTALLED A MINIMUM OF 4' IN ADVANCE OF THE CROSSWALK.

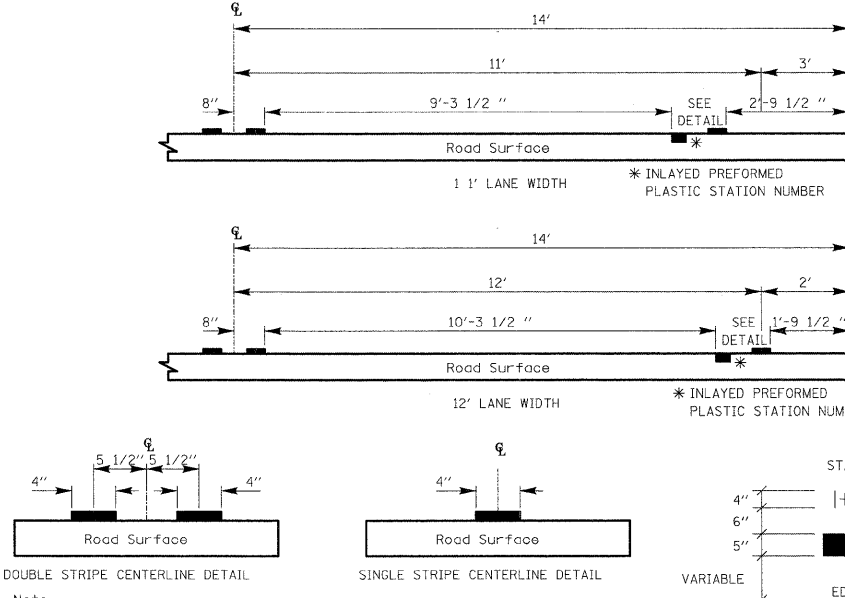
CURB MARKING



- NOTES:
- PAINT CURB AND NOSE SOLID FOR 10' OR RADIUS OF NOSE, WHICHEVER IS GREATER.
 - PAINT MINIMUM OF 3 STRIPES IN DIRECTION OF TRAFFIC.
 - REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
 - STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
 - PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.



PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)



Note: Centerline markings are 4" lines at 11' centers.

| TYPE OF MARKING | WIDTH OF LINE | PATTERN | COLOR | SPACING / REMARKS |
|---|--|------------------------|---|--|
| CENTERLINE OF 2 LANE PAVEMENT | 4 IN. | SKIP-DASH | YELLOW | 10 FT. LINE WITH 30 FT. SPACE |
| NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS | 4 IN. 2 @ 4 IN. | SOLID SOLID | YELLOW YELLOW | 5 1/2 IN. C-C FROM SKIP-DASH CENTERLINE 1 1/2 IN. C-C (OMIT SKIP-DASH CENTERLINE BETWEEN) |
| CENTERLINE ON MULTI-LANE UNDIVIDED LANE LINES | 2 @ 4 IN. | SOLID | YELLOW | 1 1/2 IN. C-C |
| LANE LINES | 4 IN. | SKIP-DASH | WHITE | 10 FT. LINE WITH 30 FT. SPACE |
| DOTTED LINES (EXTENSIONS OF CENTERLINE OR TURN LANE MARKINGS) | SAME AS LINE BEING EXTENDED | SKIP-DASH | SAME AS LINE BEING EXTENDED | 2 FT. LINE WITH 6 FT. SPACE |
| EDGE LINES | 5 IN. WHITE 4 IN. YELLOW | SOLID | WHITE - RIGHT YELLOW - LEFT | OUTLINE RAISED MEDIANS IN YELLOW TURN ARROW 156 SQ. FT. STRAIGHT ARROW 115 SQ. FT. ONLY 208 SQ. FT. COMB. ARROW 260 SQ. FT. |
| TURN LANE MARKINGS | 6 IN. LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.) | SOLID | WHITE | |
| TWO WAY LEFT TURN MARKING | 2 @ 4 IN. EACH DIRECTION | SKIP-DASH AND SOLID | YELLOW | 10 FT. LINE WITH 30 FT. SPACE FOR SKIP-DASH 5 1/2 IN. C-C BETWEEN SKIP-DASH LINE AND SOLID LINE |
| CROSSWALK | 8 FT. LEFT ARROW | IN PAIRS | WHITE | SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL |
| STOP BARS | 12 IN. @ 90 | SOLID | WHITE | 12 IN. LONGITUDINAL BAR WITH 24 IN. SPACE 6 FT. TO 12 FT. WIDE SEE TYPICAL CROSSWALK MARKING DETAIL PLACE 4 FT. IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE PLACE AT DESIRED STOPPING POINT. |
| PAINTED MEDIANS | 2 @ 4 IN. WITH 1 1/2 IN. DIAGONALS @ 45 NO DIAGONALS USED FOR 4 FT. WIDE MEDIAN | SOLID | YELLOW - 2-WAY TRAFFIC WHITE - 1-WAY TRAFFIC | 1 1/2 IN. C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS |
| GORE MARKING AND CHANNELIZING LINES | 8 IN. WITH 12 IN. DIAGONALS @ 45 | SOLID | WHITE | DIAGONALS 15 FT. C-C (LESS THAN 30 M.P.H.) 20 FT. C-C (30 TO 45 M.P.H.) 30 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS |
| R.R. CROSSING | 24 IN. TRANSVERSE LINES RR IS 6 FT. LETTER 16 IN. LINE FOR "X" | SOLID | WHITE | SEE I.D.D.T. STD. 790001 SO. FT. AREA OF: 1" - 36 SQ. FT., 1" - 1" 1" X 540 SQ. FT. |
| SHOULDER DIAGONALS | 12 IN. @ 45 | SOLID | WHITE - RIGHT YELLOW - LEFT | 50 FT. C-C (LESS THAN 30 M.P.H.) 75 FT. C-C (30 TO 45 M.P.H.) 150 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS |

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART III 'MARKINGS' IN THE 'ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES'.
THE 'STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION' AND I.D.D.T. HIGHWAY STANDARD 780001 EFFECTIVE JAN. 9, 1996.

| REVISIONS | DATE | APPROVED BY: A. KHAWAJA |
|--|-----------|-------------------------|
| Separated Railroad Sheet | 6/22/2008 | DATE: APRIL 1, 2007 |
| Lake County Division of Transportation | | |
| TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS | | |
| SHEET 2 OF 2 | | |

| ROUTE | SECTION | SECTION NUMBER | SHEET | SHEETS |
|-------|---------|----------------|-------|--------|
| CHXX | XXX | XX-XXXXX-XX-XX | XXX | XXX |

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------------|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 57 |
| CONTRACT NO. 63422 | | | | |

| REVISIONS / REMARKS | | | |
|---------------------|-------------|------|----|
| NO. | DESCRIPTION | DATE | BY |
| | | | |
| | | | |
| | | | |

FILE NAME: J:\2130\Phase 2\cad\sheet\09 DET\2130_DET01.dgn

USER NAME = pk DESIGNED - PK REVISED -
FILE NAME ...sheet\09 DET\2130_DET01.dgn DRAWN - JRR REVISED -
PLOT SCALE 1/8" = 1" CHECKED - RTM REVISED -
PLOT DATE = 12/14/2010 DATE - 12/17/2010 REVISED -

LAKE COUNTY STANDARDS & DETAILS

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DETAILS

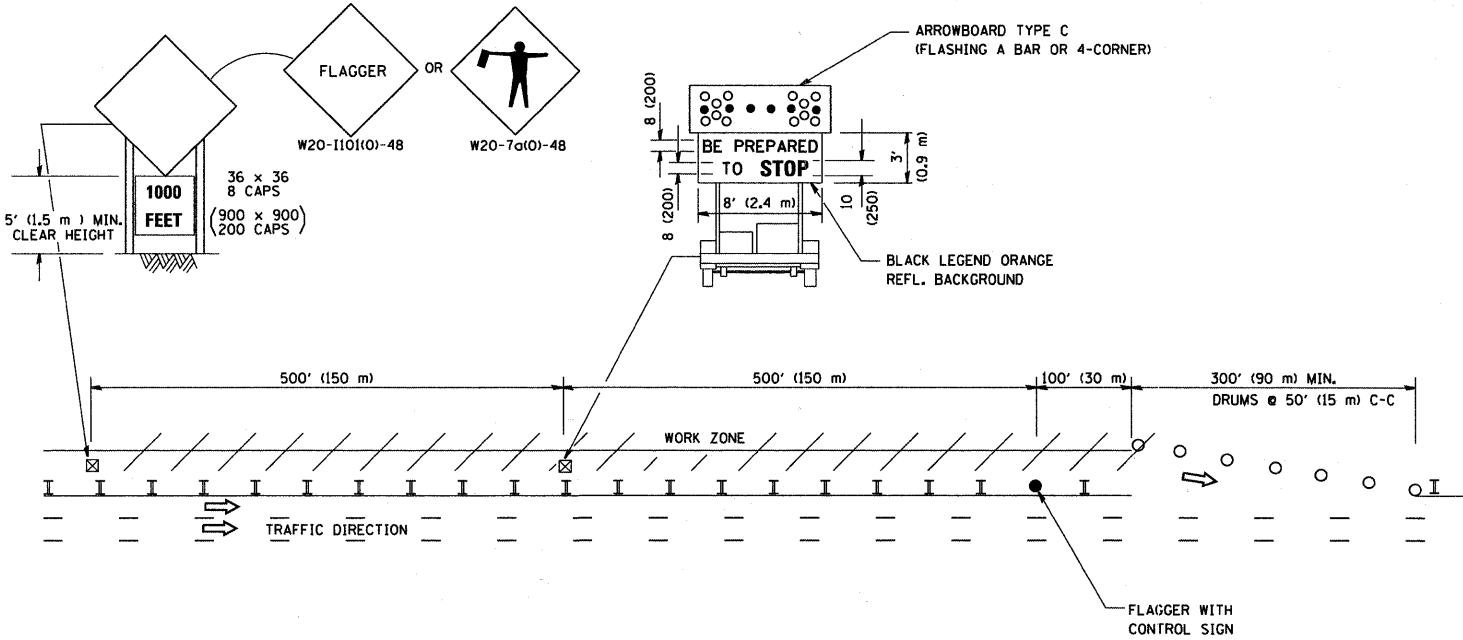
FORT HILL TRAIL BIKE PATH UNDERPASS

SHEET NO. OF SHEETS STA. TO STA.

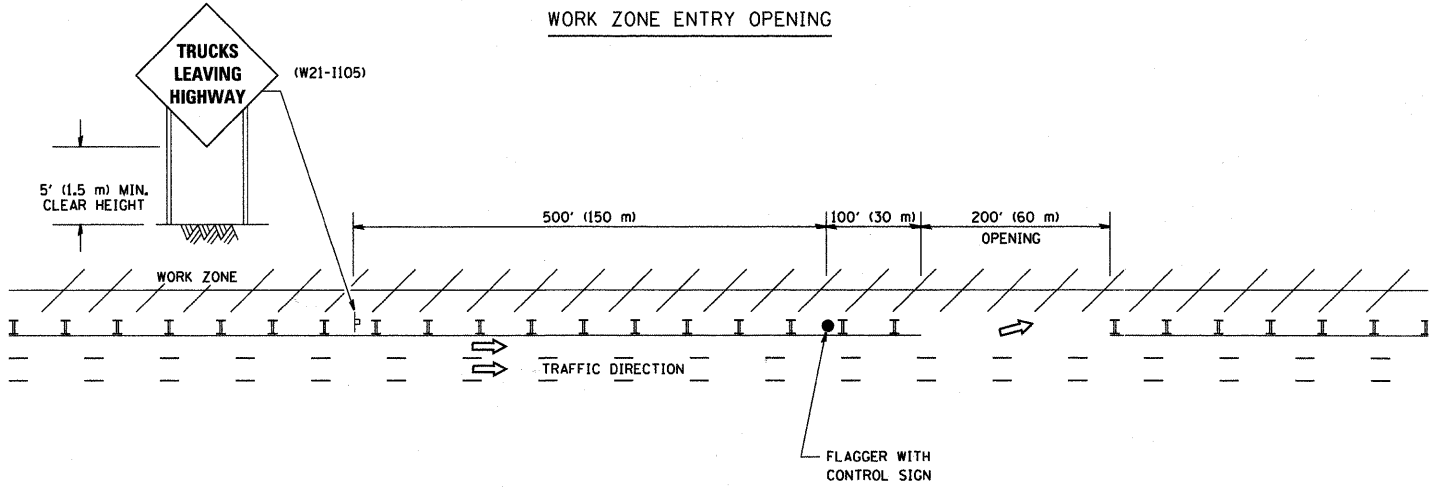
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 57 |
| CONTRACT NO. 63422 | | | | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



- NOTES:
1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
 2. Work Zone Exit Openings should be a minimum of one half mile apart.
 3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
 4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

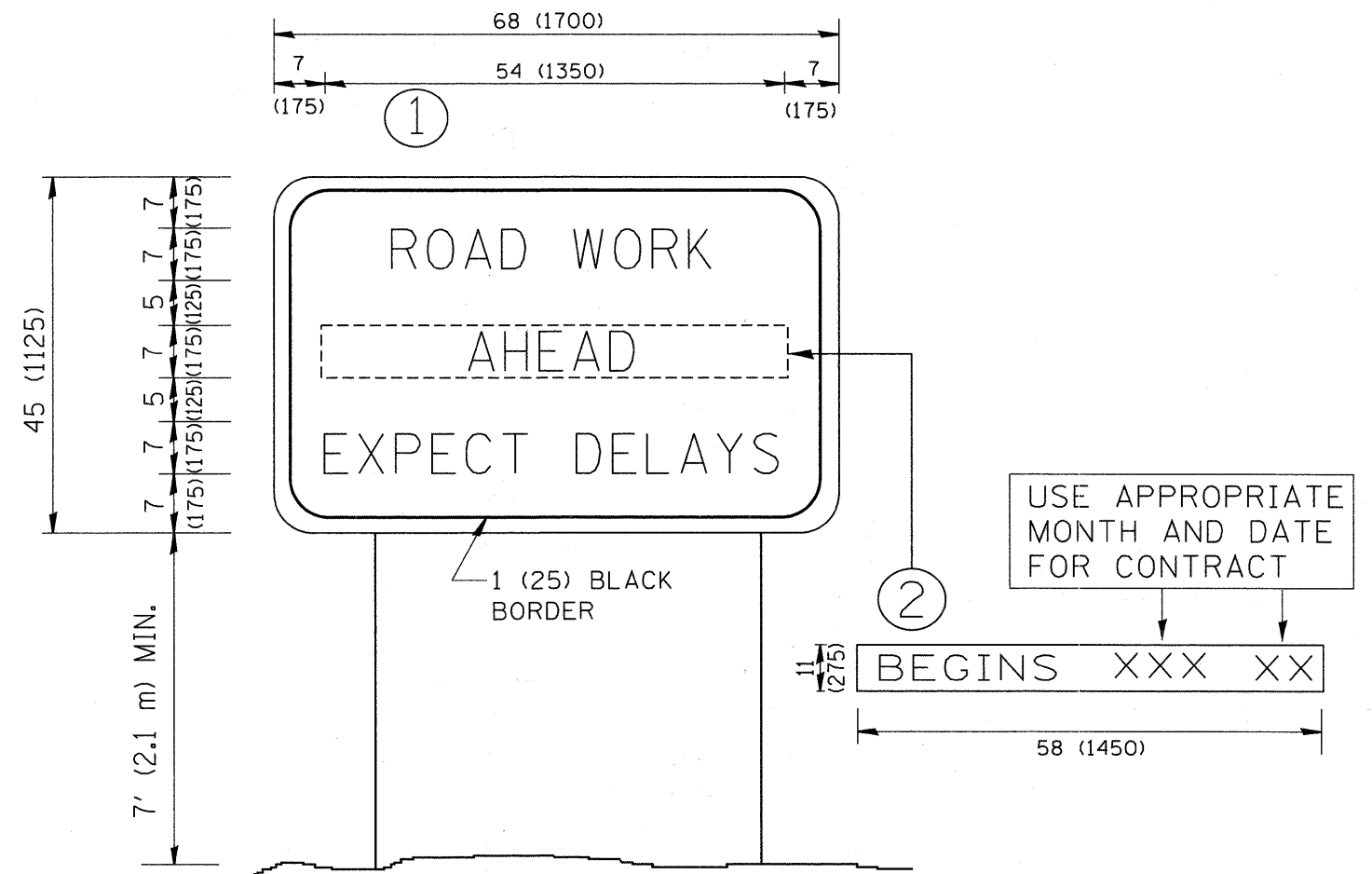
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| | | DRAWN - | REVISED - J.A.F. 04-03 |
| | PLOT SCALE = 50,000' / IN. | CHECKED - | REVISED - J.A.F. 02-06 |
| | PLOT DATE = 1/4/2008 | DATE - | REVISED - S.P.B. 01-07 |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

| F.A. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|----------------|--------|--------------------|-----------|
| 3602 | 08-F3000-07-BT | LAKE | 60 | 59 |
| TC-18 | | | CONTRACT NO. 63422 | |
| FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | |



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

| | | | | | | | | | | | |
|--|-----------------------|------------|---------------------------------|---|---|---|----------------|---------------------------|--------------|-----------|--|
| FILE NAME = W:\distatd\22x34\to22.dgn | USER NAME = geglanoht | DESIGNED - | REVISED - R. MIRS 09-15-97 | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | ARTERIAL ROAD INFORMATION SIGN | F.A. RTE. = | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | | DRAWN - | REVISED - R. MIRS 12-11-97 | | | 3602 | 08-F3000-07-BT | LAKE | 60 | 60 | |
| | | CHECKED - | REVISED - T. RAMMACHER 02-02-99 | | | TC-22 | | CONTRACT NO. 63422 | | | |
| | | DATE - | REVISED - C. JUCIUS 01-31-07 | | | FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT | | | | | |
| | | | | SCALE: NONE | | SHEET NO. 1 OF 1 SHEETS | | STA. | | TO STA. | |