

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 698 (IL 89)
SECTION (101 BR)BR
PROJECT F-0698(032)
STRUCTURE REPLACEMENT
BUREAU COUNTY

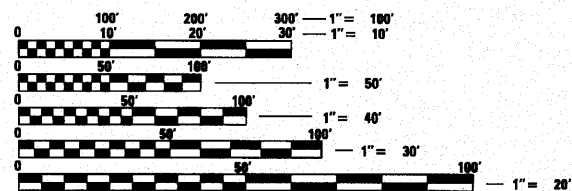
C-93-101-10

| | | | | |
|-----------------------------|-----------------------|------------------|--------------------|----------------|
| F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 1 |
| ILLINOIS CONTRACT NO. 66910 | | | | |

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| | |
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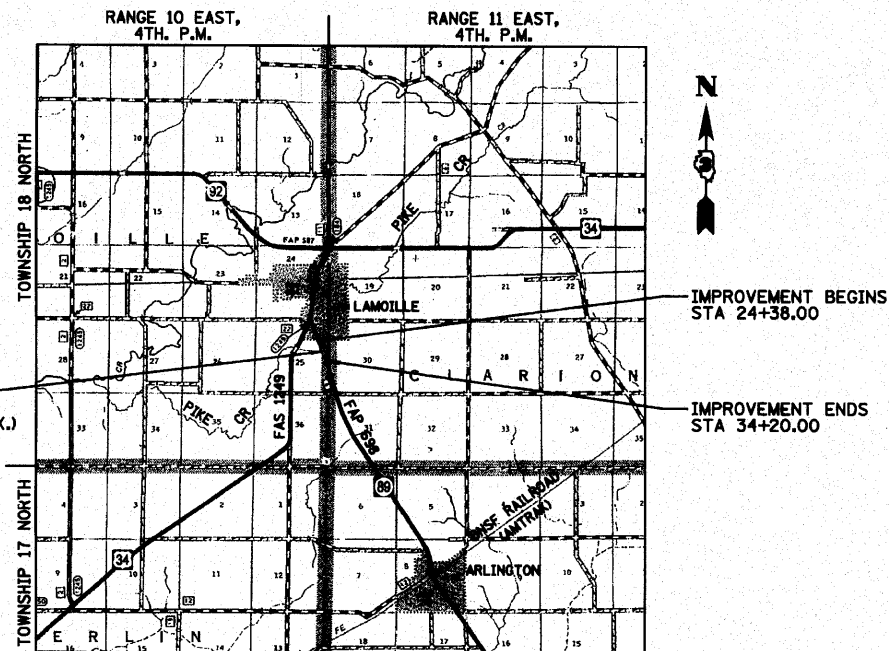
FOR LIST OF STANDARDS, SEE SHEET NO. 2



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

DISTRICT 3 NO. (815) 434-6131
 PROJECT ENGINEER: CRAIG REED
 UNIT CHIEF: MARK JONES
 CONTRACT NO. 66910

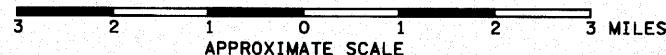


STATION 29+41.00
 S.N. 006-0181 (PR.)/006-0104 (EX.)
 145'-0" LONG TWO SPAN STEEL
 BEAM BRIDGE OVER PIKE CREEK
 (STRUCTURE REPLACEMENT)

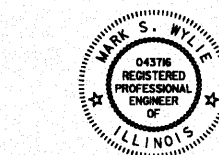
IMPROVEMENT BEGINS
 STA 24+38.00

IMPROVEMENT ENDS
 STA 34+20.00

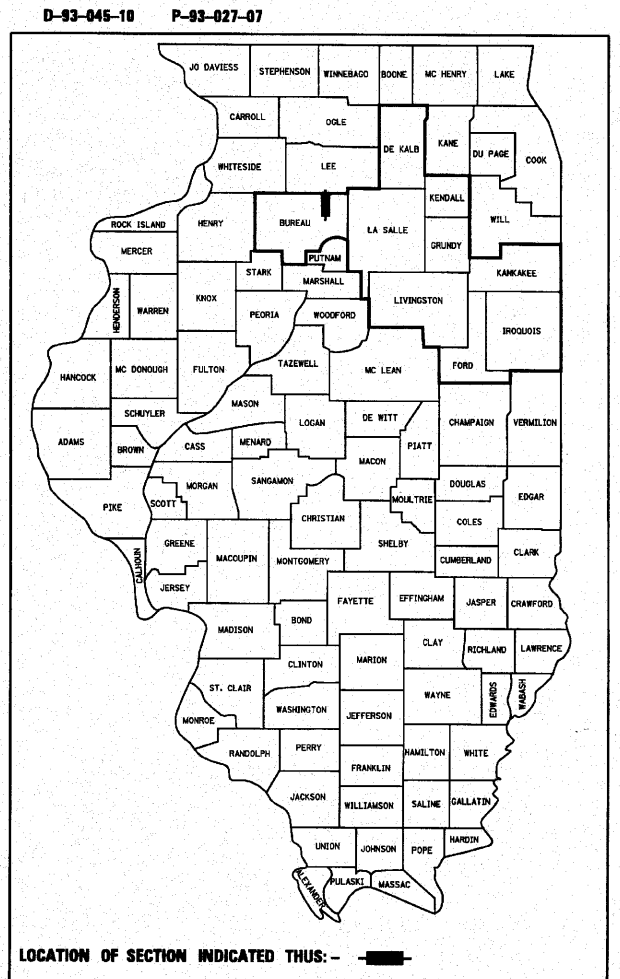
LOCATION MAP



GROSS LENGTH = 982.0 FT. = 0.19 MILE
 NET LENGTH = 982.0 FT. = 0.19 MILE



Mark S. Wylie Date 10/8/10
 MARK S. WYLIE
 ILLINOIS PROFESSIONAL ENGINEER
 NO. 062-04376
 EXPIRATION 11/30/11



LOCATION OF SECTION INDICATED THUS: -

FUNCTIONAL CLASSIFICATION
RURAL MINOR ARTERIAL
(CLASS III TRUCK ROUTE)

2012 ADT = 1600
 P.V. = 87% S.U. = 6% M.U. = 7%

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED *October 21 2010*
George Ryan
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

December 10 2010
Scott E. Stitt P.E.
 acting ENGINEER OF DESIGN AND ENVIRONMENT

December 10 2010
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

GENERAL NOTES

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTH.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF "FURNISHED EXCAVATION".

ON EXISTING PAVEMENT WHICH MAY BE SUPERELEVATED, THE NEW HMA PAVEMENT SHALL BE BUILT WITH THE SAME SUPERELEVATION UNLESS NEW SUPERELEVATION RATES ARE GIVEN ON THE PLANS.

ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.

ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

| | | |
|---|--------|---------------------------|
| GRANULAR MATERIALS | 2.05 | TONS / CU YD |
| BIT MATERIALS (PRIME COAT) ON AGGREGATE BASES | 0.375 | GAL / SQ YD |
| BITUMINOUS MATERIALS (PRIME COAT) | 0.08 | GAL / SQ YD |
| FOR ADDITIONAL HMA LIFTS "FOG COAT" | 0.05 | GAL / SQ YD |
| AGGREGATE PRIME COAT | 0.002 | TONS / SQ YD |
| HMA RESURFACING | 112 | LBS / SQ YD / IN |
| SHORT TERM PAVEMENT MARKING | 10 | FT /100 FT OF APPLICATION |
| MIX FOR CRACKS, JTS & FLGWYS | 0.0003 | TONS / SQ YD |
| LEVEL BINDER (HAND METHOD) | 0.0005 | TONS / SQ YD |
| SUPPLEMENTAL WATERING | 3 | GAL / SQ YD / APPLICATION |
| CALCIUM CHLORIDE | 2 | LB / SQ YD / APPLICATION |
| TEMPORARY DITCH CHECKS | 5 | TONS AGGREGATE |

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

1. AMEREN - OVERHEAD ELECTRIC
2. AMEREN - BURIED GAS
3. VERIZON - BURIED TELEPHONE
4. VILLAGE OF LAMOILLE

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

1. PLACE SILT FENCE AROUND THE PERIMETER OF JURISDICTIONAL WETLAND #2 IN THE NORTHWEST QUADRANT OF THE PROJECT TO AVOID ANY DISTURBANCE OF THIS AREA.

HIGHWAY STANDARDS

| | |
|-----------|--|
| 000001-06 | STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS |
| 001001-02 | AREAS OF REINFORCEMENT BARS |
| 001006 | DECIMAL OF AN INCH AND OF A FOOT |
| 280001-05 | TEMPORARY EROSION CONTROL SYSTEMS |
| 406201-01 | MAILBOX TURNOUT |
| 420401-08 | BRIDGE APPROACH PAVEMENT CONNECTOR |
| 515001-03 | NAME PLATE FOR BRIDGES |
| 542401-01 | METAL END SECTION FOR PIPE CULVERTS |
| 601101-01 | CONCRETE HEADWALL FOR PIPE DRAIN |
| 630001-09 | STEEL PLATE BEAM GUARDRAIL |
| 630201-06 | PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL |
| 630301-05 | SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS |
| 631031-09 | TRAFFIC BARRIER TERMINAL, TYPE 6 |
| 635001-01 | DELINEATORS |
| 635006-03 | REFLECTOR AND TERMINAL MARKER PLACEMENT |
| 635011-02 | REFLECTOR MARKER AND MOUNTING DETAILS |
| 701001-02 | OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY |
| 701006-03 | OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 2' (600 mm) FROM PAVEMENT EDGE |
| 701011-02 | OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY |
| 701301-04 | LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS |
| 701306-03 | LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS ≥ 45 MPH |
| 701311-03 | LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY |
| 701321-11 | LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER |
| 701326-04 | LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH |
| 701901-01 | TRAFFIC CONTROL DEVICES |
| 704001-06 | TEMPORARY CONCRETE BARRIER |
| 781001-03 | TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS |

| | |
|---|---|
| STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT THREE | |
| REVIEWED BY: | <u>Dino Baroni</u> DISTRICT STUDIES & PLANS ENGINEER |
| DATE: | <u>October 20, 2010</u> |
| EXAMINED BY: | <u>Herbert K. Jung, Jr.</u> DISTRICT CONSTRUCTION ENGINEER |
| | <u>Wayne J. Phillips</u> DISTRICT MATERIALS ENGINEER |
| | <u>Bruce C. Ancker</u> DISTRICT OPERATIONS ENGINEER |

| | | | | | | | | | | | |
|-------------|----------------------|-----------------|-----------|---|---|---|------------|--------------------|-----------------|--------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | HIGHWAY STANDARDS, GENERAL NOTES AND COMMITMENTS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| #FILE# | PLOT SCALE = #SCALE# | DRAWN - JJO | REVISED - | | | 698 | (101 BR)BR | BUREAU | 47 | 2 | |
| | PLOT DATE = #DATE# | CHECKED - MSW | REVISED - | | | SCALE: SHEET NO. OF SHEETS STA. TO STA. | | CONTRACT NO. 66910 | | | |
| | | DATE - 10/08/10 | REVISED - | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | |

| CODE NUMBER | ITEM | UNIT | TOTAL | 80% FEDERAL 20% STATE | |
|-------------|--|--------|-------|--------------------------|--|
| | | | | ROADWAY 0004 | STRUCTURE NO. 006-0104 (EX) 006-0181 (PR) 011 |
| 20100110 | TREE REMOVAL (6 TO 15 UNITS DIAMETER) | UNIT | 10 | 10 | |
| 20100210 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 16 | 16 | |
| 20101000 | TEMPORARY FENCE | FOOT | 139 | 139 | |
| 20200100 | EARTH EXCAVATION | CU YD | 935 | 935 | |
| 20300100 | CHANNEL EXCAVATION | CU YD | 3,204 | 3,204 | |
| X2070304 | POROUS GRANULAR EMBANKMENT, SPECIAL | CU YD | 116 | | 116 |
| * 25000100 | SEEDING, CLASS 1 | ACRE | 0.25 | 0.25 | |
| * 25000300 | SEEDING, CLASS 3 | ACRE | 1.25 | 1.25 | |
| * 25000400 | NITROGEN FERTILIZER NUTRIENT | POUND | 137 | 137 | |
| * 25000500 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 137 | 137 | |
| * 25000600 | POTASSIUM FERTILIZER NUTRIENT | POUND | 137 | 137 | |
| * 25100630 | EROSION CONTROL BLANKET | SO YD | 5,369 | 5,369 | |
| 25100635 | HEAVY DUTY EROSION CONTROL BLANKET | SO YD | 477 | 477 | |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 450 | 450 | |
| 28000305 | TEMPORARY DITCH CHECKS | FOOT | 105 | 105 | |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 554 | 554 | |
| 28000500 | INLET AND PIPE PROTECTION | EACH | 2 | 2 | |
| 28100107 | STONE RIPRAP, CLASS A4 | SO YD | 1,733 | | 1,733 |
| 28200200 | FILTER FABRIC | SO YD | 1,733 | | 1,733 |
| 35600712 | HOT-MIX ASPHALT BASE COURSE WIDENING, 9" | SO YD | 352 | 352 | |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 643 | 643 | |
| 40600625 | LEVELING BINDER (MACHINE METHOD), N50 | TON | 84 | 84 | |

* SPECIALTY ITEM

| CODE NUMBER | ITEM | UNIT | TOTAL | 80% FEDERAL 20% STATE | |
|-------------|---|-------|--------|--------------------------|---|
| | | | | ROADWAY 0004 | STRUCTURE NO. 006-0104 (EX) 006-0181 (PR) 0011 |
| 40600990 | TEMPORARY RAMP | SO YD | 60 | 60 | |
| 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 232 | 232 | |
| 40800050 | INCIDENTAL HOT-MIX ASPHALT SURFACING | TON | 4 | 4 | |
| 42001420 | BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) | SO YD | 37 | 37 | |
| 42001430 | BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE) | SO YD | 22 | 22 | |
| 44000100 | PAVEMENT REMOVAL | SO YD | 748 | 748 | |
| 44000155 | HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2" | SO YD | 1,117 | 1,117 | |
| X4401198 | HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH | SO YD | 868 | 868 | |
| 48203033 | HOT-MIX ASPHALT SHOULDERS, 9" | SO YD | 761 | 761 | |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 | | 1 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 209 | | 209 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 101.0 | | 101.0 |
| 50300255 | CONCRETE SUPERSTRUCTURE | CU YD | 293.9 | | 293.9 |
| 50300260 | BRIDGE DECK GROOVING | SO YD | 683 | | 683 |
| 50300280 | CONCRETE ENCASEMENT | CU YD | 12.1 | | 12.1 |
| 50300300 | PROTECTIVE COAT | SO YD | 885 | | 885 |
| 50500105 | FURNISHING AND ERECTING STRUCTURAL STEEL | L SUM | 1 | | 1 |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 2,160 | | 2,160 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 82,220 | | 82,220 |
| 50800515 | BAR SPLICERS | EACH | 785 | | 785 |
| 51201800 | FURNISHING STEEL PILES HP14x73 | FOOT | 645 | | 645 |

* SPECIALTY ITEM

| | | | | | | | | | | | | |
|--|--------------------------------------|--|-----------|---|------------------------------|-------------------------------------|------------------------|------------------|--------------------|---------------------|---------------------------|------------------------|
| FILE NAME = | USER NAME = schwenkerg | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | F.A.P. RTE. 698 | SECTION (101 BRIBR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 3 | | |
| or\pwwork\pwwdot\schwenkerg\d8114884\066910-eh-t-S00.dgn | PLOT SCALE = 1.0000 / IN. | CHECKED - MSW | REVISED - | | | SCALE: | SHEET NO. OF SHEETS | STA. | TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 |
| | PLOT DATE = Oct 21, 2010 04:17:37 PM | DATE - 10/08/10 | REVISED - | | | | | | | | | REVISED: 10/21/10 IDOT |
| FARNSWORTH GROUP, INC. | | CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 | | | | (309) 663-8435 / (309) 663-1571 FAX | | | 24-8371 | | | |

80% FEDERAL
20% STATE

| CODE NUMBER | ITEM | UNIT | TOTAL | ROADWAY 0004 | STRUCTURE NO. 006-0104 (EX) 006-0181 (PR) 0011 |
|-------------|---|--------|-------|--------------|--|
| 51202305 | DRIVING PILES | FOOT | 645 | | 645 |
| 51203800 | TEST PILE STEEL HP14x73 | EACH | 2 | | 2 |
| 51500100 | NAME PLATES | EACH | 1 | | 1 |
| 52100520 | ANCHOR BOLTS, 1" | EACH | 36 | | 36 |
| 54213447 | END SECTIONS 12" | EACH | 2 | 2 | |
| 59100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 66 | | 66 |
| 60100945 | PIPE DRAINS 12" | FOOT | 55 | 55 | |
| Z0046304 | PIPE UNDERDRAINS FOR STRUCTURES 4" | FOOT | 138 | | 138 |
| X6090150 | TYPE B INLET BOX, STANDARD 609006 (SPECIAL) | EACH | 2 | 2 | |
| 60900515 | CONCRETE THRUST BLOCKS | EACH | 2 | 2 | |
| 63000001 | STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS | FOOT | 350 | 350 | |
| 63100085 | TRAFFIC BARRIER TERMINAL, TYPE 6 | EACH | 4 | 4 | |
| 63100169 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED | EACH | 4 | 4 | |
| 63200310 | GUARDRAIL REMOVAL | FOOT | 1,094 | 1,094 | |
| 63500105 | DELINEATORS | EACH | 10 | 10 | |
| 67000400 | ENGINEER'S FIELD OFFICE, TYPE A | CAL MO | 6 | 6 | |
| 67100100 | MOBILIZATION | L SUM | 1 | 1 | |
| 70100405 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 | EACH | 1 | 1 | |
| 70100460 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701306 | L SUM | 1 | 1 | |
| 70100500 | TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 | L SUM | 1 | 1 | |
| 70103815 | TRAFFIC CONTROL SURVEILLANCE | CAL DA | 86 | 86 | |
| 70106500 | TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 1 | 1 | |

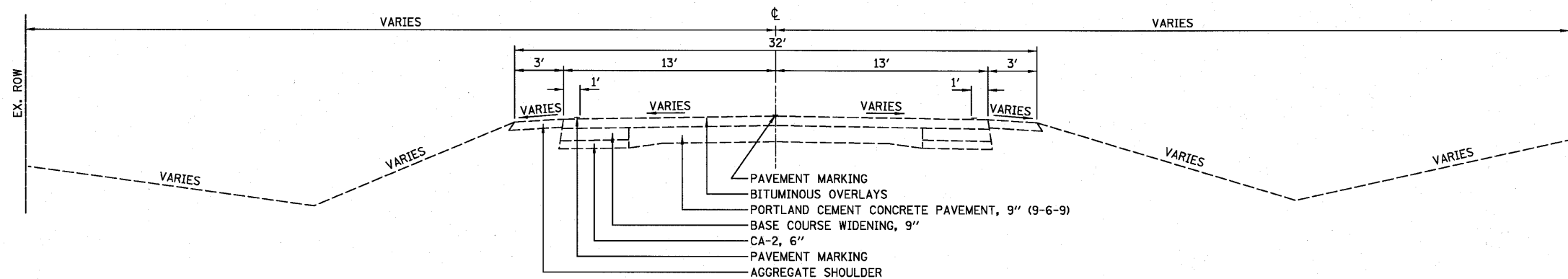
• SPECIALTY ITEM

80% FEDERAL
20% STATE

| CODE NUMBER | ITEM | UNIT | TOTAL | ROADWAY 0004 | STRUCTURE NO. 006-0104 (EX) 006-0181 (PR) 0011 |
|-------------|---|-------|-------|--------------|--|
| 70300100 | SHORT TERM PAVEMENT MARKING | FOOT | 780 | 780 | |
| 70300220 | TEMPORARY PAVEMENT MARKING - LINE 4" | FOOT | 8,344 | 8,344 | |
| 70300280 | TEMPORARY PAVEMENT MARKING - LINE 24" | FOOT | 26 | 26 | |
| 70301000 | WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 3,093 | 3,093 | |
| 70400100 | TEMPORARY CONCRETE BARRIER | FOOT | 850 | 850 | |
| 70400200 | RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 825 | 825 | |
| 78005110 | EPOXY PAVEMENT MARKING - LINE 4" | FOOT | 2,799 | 2,799 | |
| 78005130 | EPOXY PAVEMENT MARKING - LINE 6" | FOOT | 250 | 250 | |
| 78100100 | RAISED REFLECTIVE PAVEMENT MARKER | EACH | 14 | 14 | |
| 78200410 | GUARDRAIL MARKERS, TYPE A | EACH | 14 | 14 | |
| 78201000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 | 4 | |
| 78300200 | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | EACH | 14 | 14 | |
| Z0001900 | ASBESTOS BEARING PAD REMOVAL | EACH | 22 | | 22 |
| Z0030250 | IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 | 2 | |
| Z0030350 | IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 | 2 | |
| X0322584 | REVTMENT MAT REMOVAL | SQ YD | 204 | 204 | |
| X0323265 | REMOVE EXISTING RIPRAP | SQ YD | 212 | 212 | |
| Z0073002 | TEMPORARY SOIL RETENTION SYSTEM | SQ FT | 1,149 | | 1,149 |
| X5020501 | UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 | EACH | 1 | | 1 |

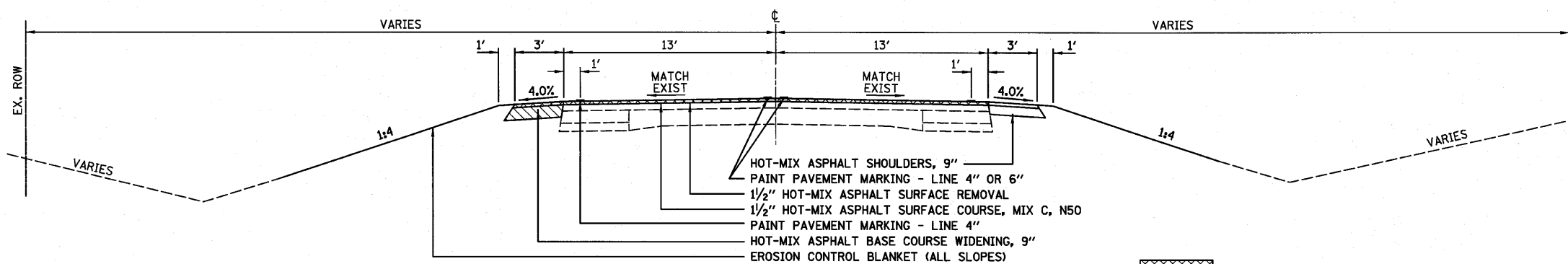
• SPECIALTY ITEM

| | | | | | | | | | | | | | |
|--|---------------------------|-----------------|-----------|---|------------------------------|-----------|-----------|------|---|--------------------------------|--------|--------------|-----------|
| FILE NAME = | USER NAME = schwenkerg | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | SUMMARY OF QUANTITIES | | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| ci\p\work\p\dot\schwenkerg\d0114884\066910-sht-500.dgn | PLT SCALE = 1:8000' / IN. | DRAWN - JJO | REVISED - | | | | | | 698 | (101 BR)BR | BUREAU | 47 | 4 |
| PLT DATE = Oct 21, 2010 - 04:17:09 PM | DATE - 10/08/10 | CHECKED - MSW | REVISED - | | CONTRACT NO. 66910 | | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |
| | | DATE - 10/08/10 | REVISED - | | SCALE: | SHEET NO. | OF SHEETS | STA. | TO STA. | REVISIO: 10/21/10 IDOT 24-8371 | | | |



EXISTING TYPICAL CROSS SECTION

F.A.P. 698 (IL 89)



PROPOSED TYPICAL CROSS SECTION ①

F.A.P. 698 (IL 89)

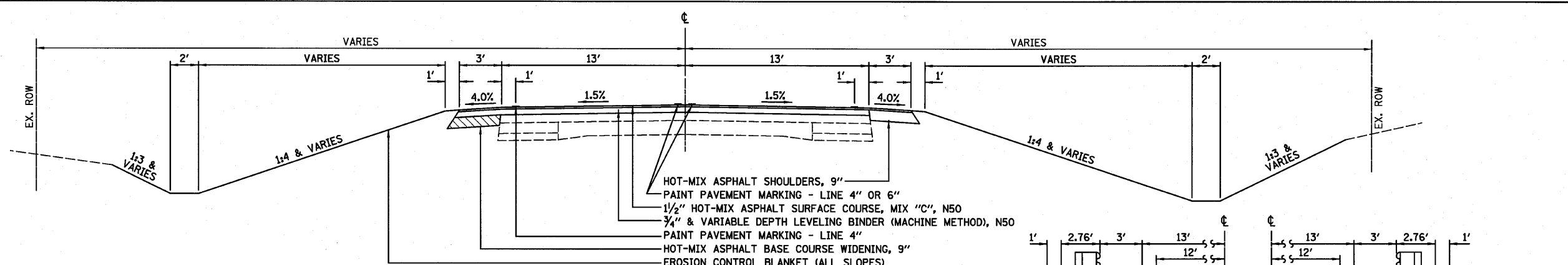
STA 24+38.00 TO STA 25+85.00

1/2" HMA SURFACE REMOVAL

| | HMA LEVEL BINDER | HMA SURFACE | HMA SHOULDERS | HMA BASE COURSE WIDENING | HMA FLEXIBLE CONNECTOR |
|------------------------|------------------------------|-------------|---------------|--------------------------|------------------------|
| PG GRADES ** | PG64-22 | PG64-22 | PG58-22 | PG64-22 | PG64-22 |
| DESIGN AIR VOIDS | 4.0% @ N50 | 4.0% @ N50 | 2.0% @ N30 | 4.0% @ N50 | 4.0% @ N50 |
| MIXTURE COMPOSITION | IL 9.5 | IL 9.5 | IL 19.0 | IL 19.0 | IL 19.0 |
| FRICITION AGGREGATE | - | MIXTURE C | - | - | - |
| DENSITY CONTROL METHOD | SATISFACTION OF THE ENGINEER | CORES | CORES • | CORES • | CORES |

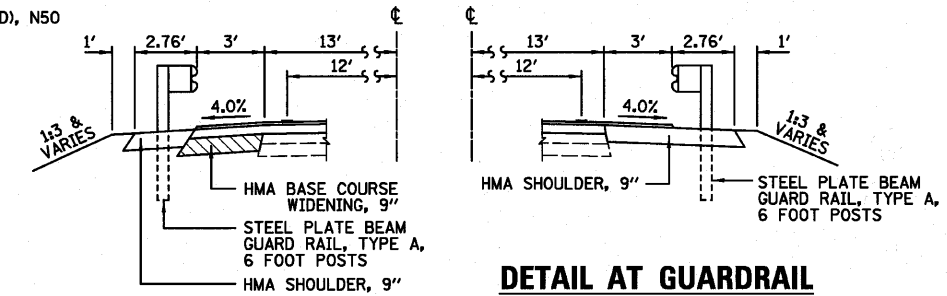
- IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.
- ** MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE, THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.

| | | | | | | | | | | | | |
|----------------------|--------------------|----------------|-----------|---|-------------------------|---------------------|---------------------------|---------------------|---------------------|--------------------|-----------------|-------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TYPICAL SECTIONS | | | F.A.P. RTE. 698 | SECTION (101 BR/BR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 5 |
| #FILE# | DRAWN - JJO | REVISD - | SCALE: | | | | | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT NO. 66910 | | |
| PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | | | |
| PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | | | | | | | | |



PROPOSED TYPICAL CROSS SECTION (2)
F.A.P. 698 (IL 89)

STA 25+85.00 TO STA 28+28.50
SEE STATE STANDARD 420401 BRIDGE APPROACH PAVEMENT CONNECTOR
STA 28+28.50 TO STA 28+38.50
STA 30+43.50 TO STA 30+49.50

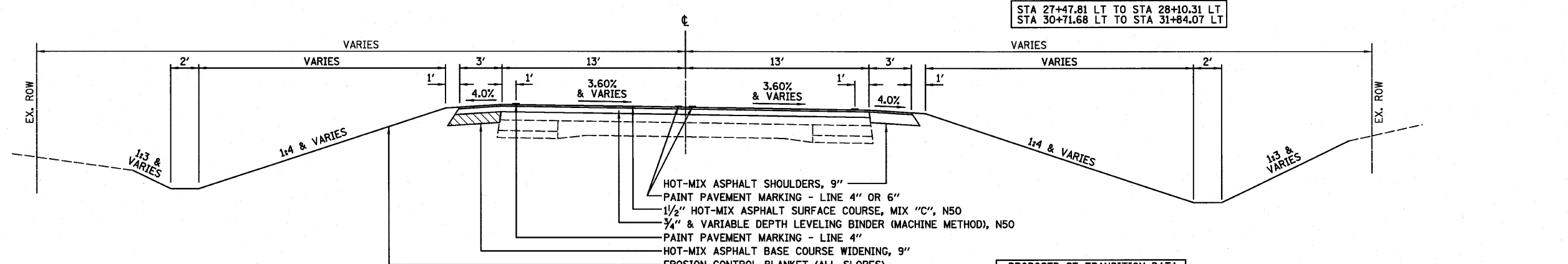


DETAIL AT GUARDRAIL

STA 27+47.81 LT TO STA 28+10.31 LT
STA 30+71.68 LT TO STA 31+84.07 LT

DETAIL AT GUARDRAIL

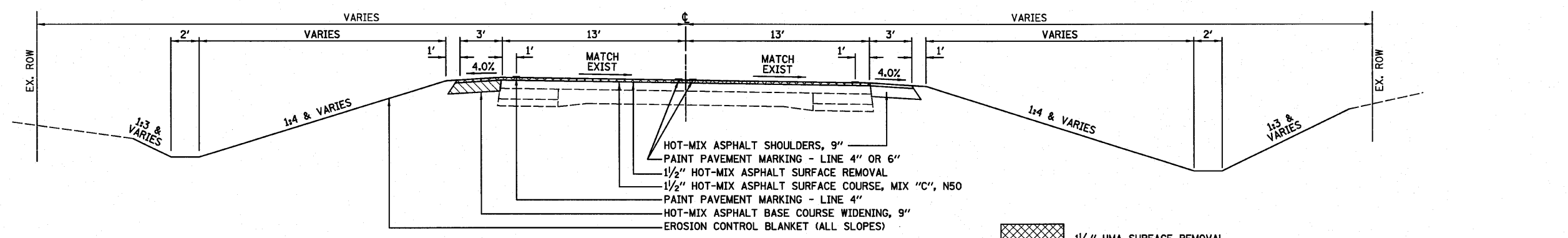
STA 26+99.72 RT TO STA 28+10.31 RT
STA 30+71.68 RT TO STA 31+34.19 RT



PROPOSED TYPICAL CROSS SECTION (3)
F.A.P. 698 (IL 89)

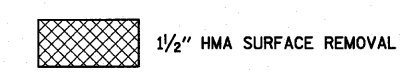
STA 30+49.50 TO STA 32+00.00

| PROPOSED SE TRANSITION DATA | |
|-----------------------------|------------------------------|
| TAN RUNOUT: | STA 30+48.70 TO STA 30+90.23 |
| SE RUNOFF: | STA 30+90.23 TO STA 31+89.91 |
| FULL SE: | ATTAINED AT STA 31+89+91 |



PROPOSED TYPICAL CROSS SECTION (4)
F.A.P. 698 (IL 89)

STA 32+00.00 TO STA 34+20.00



| | | | | | | | | | | | | |
|-------------|--------------------|-----------------|-----------|---|---|--|--|---|--------------------|---------------|--------------------|-------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | TYPICAL SECTIONS | | | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 6 |
| #FILE# | | DRAWN - JJO | REVISED - | | | | | SCALE: SHEET NO. OF SHEETS STA. TO STA. | | | CONTRACT NO. 66910 | |
| | | CHECKED - MSW | REVISED - | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | | |

| TREE REMOVAL | | |
|------------------|------------------------|------------------------|
| LOCATION | 6 TO 15 UNITS DIAMETER | OVER 15 UNITS DIAMETER |
| STA 29+95 63' LT | | 16 |
| STA 30+08 64' LT | 10 | |
| TOTAL | 10 | 16 |

| TEMPORARY FENCE | |
|---------------------------------------|-------|
| LOCATION | CU YD |
| STA 28+50 51' RT TO STA 29+50 100' RT | 139 |
| TOTAL | 139 |

| EARTHWORK | | | | |
|------------------------|------------------|---|------------|--------------------------------|
| LOCATION | EARTH EXCAVATION | TOTAL EXCAVATION ADJUSTED FOR 25% SHRINKAGE | EMBANKMENT | BALANCE WASTE (+) SHORTAGE (-) |
| | CU YD | CU YD | CU YD | CU YD |
| STA 24+38 TO STA 34+20 | 935 | 700 | 160 | 540 |

| CHANNEL EXCAVATION | |
|------------------------|-------|
| LOCATION | CU YD |
| STRUCTURE NO. 006-0181 | 3,204 |
| TOTAL | 3,204 |

| SEEDING/FERTILIZING | | | | | | | | |
|------------------------------|------------------|------------------|------------------------------|---------------------------------|-------------------------------|-------------------------|------------------------------------|-----------------------------------|
| LOCATION | SEEDING, CLASS 1 | SEEDING, CLASS 3 | NITROGEN FERTILIZER NUTRIENT | PHOSPHOROUS FERTILIZER NUTRIENT | POTASSIUM FERTILIZER NUTRIENT | EROSION CONTROL BLANKET | HEAVY DUTY EROSION CONTROL BLANKET | TEMPORARY EROSION CONTROL SEEDING |
| | ACRE | ACRE | POUND | POUND | POUND | SQ YD | SQ YD | POUND |
| STA 24+33 LT TO STA 29+29 LT | | 0.25 | 23 | 23 | 23 | 1,264 | | 75 |
| STA 24+33 RT TO STA 29+43 RT | | 0.25 | 23 | 23 | 23 | 1,407 | | 75 |
| STA 29+04 LT TO STA 34+28 LT | | 0.50 | 45 | 45 | 45 | 1,573 | | 150 |
| STA 30+18 RT TO STA 33+06 RT | | 0.25 | 23 | 23 | 23 | 991 | | 75 |
| STA 30+23 LT TO STA 33+63 LT | | | | | | | 265 | |
| STA 30+23 RT TO STA 33+00 RT | | | | | | | 212 | |
| STA 33+06 RT TO STA 34+27 RT | 0.25 | | 23 | 23 | 23 | 134 | | 75 |
| TOTAL | 0.25 | 1.25 | 137 | 137 | 137 | 5,369 | 477 | 450 |

| EROSION CONTROL | | |
|---------------------------------------|------------------------|---------------------------|
| LOCATION | TEMPORARY DITCH CHECKS | PERIMETER EROSION BARRIER |
| | FOOT | FOOT |
| STA 24+28 22' LT TO STA 25+00 29' LT | | 73 |
| STA 25+60 29' LT | 5 | |
| STA 25+76 50' LT TO STA 28+58 55' LT | | 284 |
| STA 25+85 33' RT | 5 | |
| STA 27+90 40' RT | 5 | |
| STA 28+50 51' RT TO STA 29+50 100' RT | | 139 |
| STA 30+50 33' LT | 5 | |
| STA 30+54 33' RT | 5 | |
| STA 30+85 32' LT | 5 | |
| STA 30+89 32' RT | 5 | |
| STA 31+20 32' LT | 5 | |
| STA 31+24 33' RT | 5 | |
| STA 31+55 33' LT | 5 | |
| STA 31+59 35' RT | 5 | |
| STA 31+89 35' LT | 5 | |
| STA 31+94 36' RT | 5 | |
| STA 32+24 36' LT | 5 | |
| STA 32+29 35' RT | 5 | |
| STA 32+59 36' LT | 5 | |
| STA 32+64 33' RT | 5 | |
| STA 32+94 36' LT | 5 | |
| STA 33+00 32' RT | 5 | |
| STA 33+29 36' LT | 5 | |
| STA 33+51 29' RT TO STA 33+66 29' RT | | 15 |
| STA 33+63 37' LT | 5 | |
| STA 33+90 29' RT TO STA 34+33 28' RT | | 43 |
| TOTAL | 105 | 554 |

| PAVING MATERIALS | | | | | | | | | |
|------------------------------------|----------------------|---------------------------------------|----------------------------|-----------------------|-----------------------|--------------|---------------------------|----------------|-------|
| LOCATION | BIT MATLS PRIME COAT | LEVELING BINDER (MACHINE METHOD), N50 | HMA SURF CSE, MIX "C", N50 | BR APPR PVT CON (FLX) | BR APPR PVT CON (PCC) | HMA SHLD, 9" | HMA BASE CSE WIDENING, 9" | TEMPORARY RAMP | |
| | GALLON | TON | TON | SQ YD | SQ YD | SQ YD | SQ YD | SQ YD | SQ YD |
| STA 24+38 TO STA 28+28.50 | 180 | | 120 | | | | | | |
| STA 24+38 LT TO STA 29+14.42 LT | | | | | | | 188 | | |
| STA 24+38 RT TO STA 28+65.18 RT | 101 | | | | | 270 | | | |
| STA 25+85 | | | | | | | | 15 | |
| STA 25+85 TO STA 28+28.50 | | 48 | | | | | | | |
| STA 26+65.50 LT TO STA 28+54.27 LT | 34 | | | | | 91 | | | |
| STA 28+28.50 TO STA 28+38.50 | | | | | 37 | | | | |
| STA 28+38.50 | | | | | | | | 15 | |
| STA 30+04.96 LT TO STA 34+20.00 LT | | | | | | | 164 | | |
| STA 30+27.38 LT TO STA 34+20 LT | 69 | | | | | 183 | | | |
| STA 30+27.85 RT TO STA 34+20 RT | 81 | | | | | 217 | | | |
| STA 30+43.50 | | | | | | | | 15 | |
| STA 30+43.50 TO STA 30+49.50 | | | | 22 | | | | | |
| STA 30+43.50 TO STA 32+00 | | 36 | | | | | | | |
| STA 30+43.50 TO STA 34+20 | 174 | | 112 | | | | | | |
| STA 32+00 | | | | | | | | 15 | |
| TOTAL | 639 | 84 | 232 | 22 | 37 | 761 | 352 | 60 | |

| REMOVAL OF PAVING MATERIALS | | | |
|------------------------------|------------------|-------------------------------------|-----------------------------|
| LOCATION | PAVEMENT REMOVAL | HMA SURFACE REMOVAL, VARIABLE DEPTH | HMA SURFACE REMOVAL, 1 1/2" |
| | SQ YD | SQ YD | EACH |
| STA 24+38 TO STA 25+85 | | | 425 |
| STA 25+85 TO STA 27+35 | | 433 | |
| STA 28+28.50 TO STA 29+33.50 | 455 | | |
| STA 29+86.75 TO STA 30+49.50 | 270 | | |
| STA 30+49.50 TO STA 32+00 | | 435 | |
| STA 32+00 TO STA 34+20 | | | 636 |
| STA 32+99 RT TO STA 33+58 RT | 23 | | |
| STA 33+54 RT TO STA 34+03 RT | | | 56 |
| TOTAL | 748 | 868 | 1,117 |

| INCIDENTAL PAVING MATERIALS | | |
|-----------------------------|----------------------|--------------------------|
| LOCATION | BIT MATLS PRIME COAT | INCIDENTAL HMA SURFACING |
| | GALLON | TON |
| STA 33+77.50 RT | 4 | 4 |
| TOTAL | 4 | 4 |

| DRAINAGE | | | | | |
|--|---------------------------|---|-----------------|------------------------|------------------|
| LOCATION | INLET AND PIPE PROTECTION | TY B INLET BOX, STANDARD 609006 (SPECIAL) | PIPE DRAINS 12" | CONCRETE THRUST BLOCKS | END SECTIONS 12" |
| | EACH | EACH | FOOT | EACH | EACH |
| STA 28+33.50 15' LT | 1 | 1 | | | |
| STA 28+33.50 15' LT TO STA 28+33.50 46' LT | | | 28 | | |
| STA 28+33.50 46' LT | | | | 1 | 1 |
| STA 28+33.50 15' RT | 1 | 1 | | | |
| STA 28+33.50 15' RT TO STA 28+33.50 43' RT | | | 27 | | |
| STA 28+33.50 43' RT | | | | 1 | 1 |
| TOTAL | 2 | 2 | 55 | 2 | 2 |

| TRAFFIC CONTROL - ALL STAGES | | |
|---|--------|-------|
| ITEM | UNIT | TOTAL |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 | EACH | 1 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701306 | L SUM | 1 |
| TRAFFIC CONTROL AND PROTECTION, STANDARD 701326 | L SUM | 1 |
| TRAFFIC CONTROL SURVEILLANCE | CAL DA | 86 |
| TEMPORARY BRIDGE TRAFFIC SIGNALS | EACH | 1 |
| SHORT-TERM PAVEMENT MARKING | FOOT | 780 |
| TEMPORARY PAVEMENT MARKING - LINE 4" | FOOT | 8,344 |
| TEMPORARY PAVEMENT MARKING - LINE 24" | FOOT | 26 |
| WORK ZONE PAVEMENT MARKING REMOVAL | SQ FT | 3,093 |
| TEMPORARY CONCRETE BARRIER | FOOT | 850 |
| RELOCATE TEMPORARY CONCRETE BARRIER | FOOT | 825 |
| IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |
| IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 | EACH | 2 |

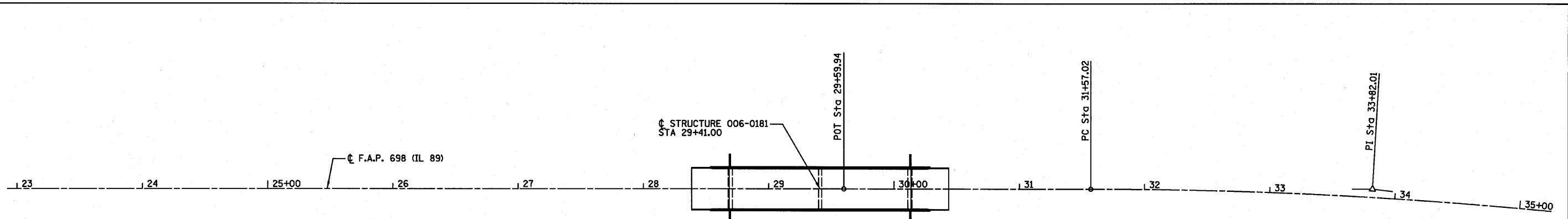
| REFLECTORS/MARKERS | | | | | |
|------------------------------------|---|-----------------------------------|-------------|-------------------|----------------------------------|
| LOCATION | RAISED REFLECTIVE PAVEMENT MARKER REMOVAL | RAISED REFLECTIVE PAVEMENT MARKER | DELINEATORS | GUARDRAIL MARKERS | TERMINAL MARKER - DIRECT APPLIED |
| | EACH | EACH | EACH | EACH | EACH |
| STA 24+38 TO STA 34+20 | 14 | 14 | | | |
| STA 24+38 LT TO STA 34+20 LT | | | 5 | | |
| STA 24+38 RT TO STA 34+20 RT | | | 5 | | |
| STA 26+49.93 RT | | | | | 1 |
| STA 26+49.93 RT TO STA 28+54.27 RT | | | | 4 | |
| STA 26+98.02 LT | | | | | 1 |
| STA 26+98.02 LT TO STA 28+54.27 LT | | | | 3 | |
| STA 30+27.85 LT TO STA 32+33.63 LT | | | | 4 | |
| STA 30+27.85 RT TO STA 31+84.10 RT | | | | 3 | |
| STA 31+84.10 RT | | | | | 1 |
| STA 32+33.63 LT | | | | | 1 |
| TOTAL | 14 | 14 | 10 | 14 | 4 |

| GUARDRAIL | | | | |
|------------------------------------|-------------------|---------------------------|--------------------|----------------------------|
| LOCATION | GUARDRAIL REMOVAL | SPBGR, TYPE A, 6 FT POSTS | TRAF BAR TERM TY 6 | TRAF BAR TERM TY 1 SPL FLR |
| | FOOT | FOOT | EACH | EACH |
| STA 26+11 RT TO STA 29+14 RT | 304 | | | |
| STA 26+49.93 RT TO STA 26+99.93 RT | | | | 1 |
| STA 26+84 LT TO STA 29+14 LT | 231 | | | |
| STA 26+98.02 LT TO STA 27+48.02 LT | | | | 1 |
| STA 26+99.93 RT TO STA 28+10.52 RT | | 112.5 | | |
| STA 27+48.02 LT TO STA 28+10.52 LT | | 62.5 | | |
| STA 28+10.52 LT TO STA 28+54.27 LT | | | 1 | |
| STA 28+10.52 RT TO STA 28+54.27 RT | | | 1 | |
| STA 30+05 LT TO STA 33+21 LT | 317 | | | |
| STA 30+05 RT TO STA 32+47 RT | 242 | | | |
| STA 30+71.60 LT TO STA 31+83.63 LT | | 112.5 | | |
| STA 30+71.60 RT TO STA 31+34.10 RT | | 62.5 | | |
| STA 30+27.85 LT TO STA 30+71.60 LT | | | 1 | |
| STA 30+27.85 RT TO STA 30+71.60 RT | | | 1 | |
| STA 31+34.10 RT TO STA 31+84.10 RT | | | | 1 |
| STA 31+83.63 LT TO STA 32+33.63 LT | | | | 1 |
| TOTAL | 1,094 | 350 | 4 | 4 |

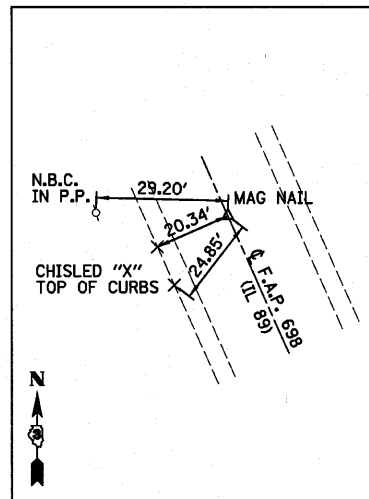
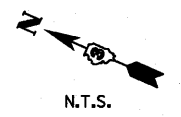
| EPOXY PAVEMENT MARKING - LINE | | |
|-------------------------------|-------|------|
| LOCATION | 4" | 6" |
| | FOOT | FOOT |
| STA 24+38 TO STA 34+20 | | 250 |
| STA 24+38 LT TO STA 34+20 LT | 982 | |
| STA 24+38 RT TO STA 34+20 RT | 982 | |
| STA 25+85 TO STA 34+20 | 835 | |
| TOTAL | 2,799 | 250 |

| MATERIAL REMOVAL | | |
|------------------------------|----------------------|------------------------|
| LOCATION | REVTMENT MAT REMOVAL | REMOVE EXISTING RIPRAP |
| | SQ YD | SQ YD |
| STA 29+04 LT TO STA 29+97 LT | 61 | |
| STA 29+80 RT TO STA 30+17 RT | 143 | |
| STA 29+93 RT TO STA 30+66 RT | | 118 |
| STA 29+96 LT TO STA 30+60 LT | | 94 |
| TOTAL | 204 | 212 |

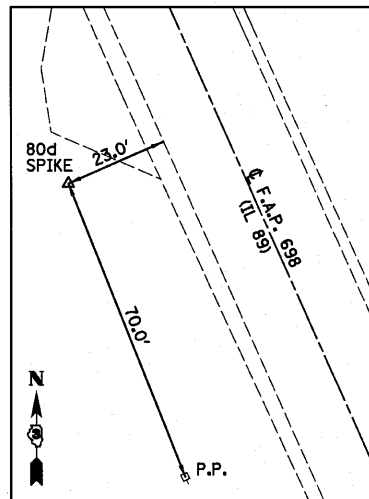
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| #FILE# | | DRAWN - JJO | REVISED - | | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 |
| | | CHECKED - MSW | REVISED - | | | | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | |



CURVE DATA
 PI STA. = 33+82.01
 Δ = 6° 44' 30" (RT)
 D = 1° 30' 00"
 R = 3,819.81'
 T = 224.99'
 L = 449.46'
 E = 6.62'
 e = 3.60%
 T.R. = 41.53'
 S.E. RUN = 99.68'
 P.C. STA. = 31+57.02
 P.T. STA. = 36+06.48



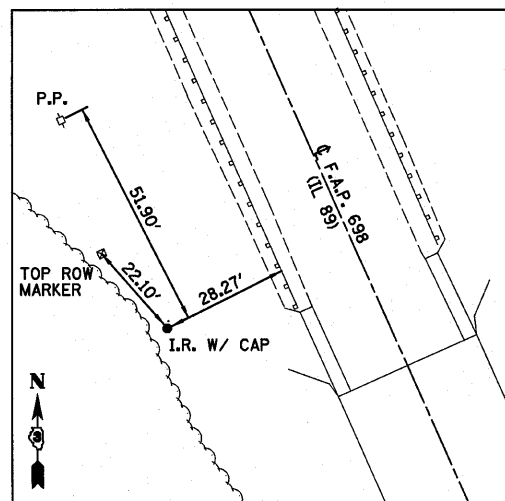
IL 89
 STA 17+70.24
 N = 1769349.254
 E = 2539588.449



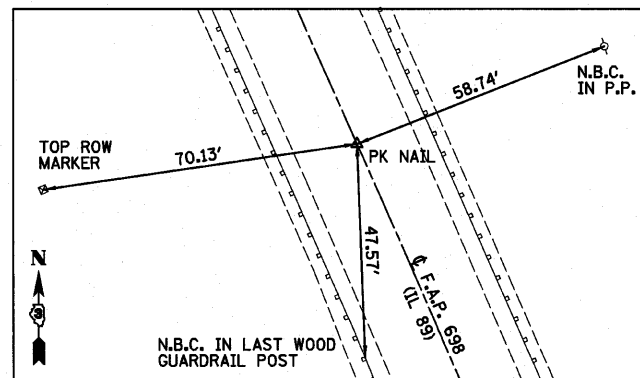
CONTROL POINT #531
 STA 23+79.92, 36.69' RT
 N = 1768776.953
 E = 2539801.810
 ELEV = 767.42

BENCHMARK #1
 STA 29+90, 17' LT
 CHISELED "X" ON
 S.E. WINGWALL
 ELEV=770.49

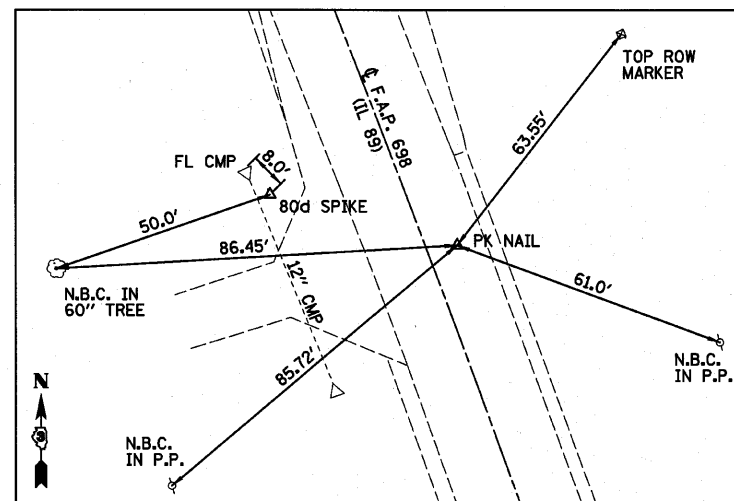
BENCHMARK #2
 STA 28+84, 51' RT
 TOP OF ROW
 MARKER
 ELEV=763.57



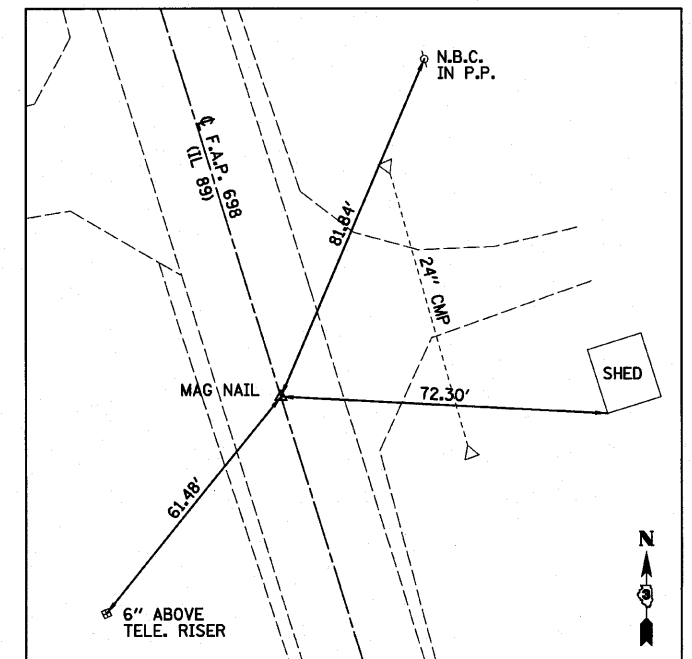
CONTROL POINT #11
 STA 29+04.41, 43.60' RT
 N = 1768294.597
 E = 2540007.891
 ELEV = 762.24



IL 89
 STA 31+57.02
 N = 1768081.272
 E = 2540150.048



CONTROL POINT #530
 STA 33+59.34, 26.87' RT
 N = 1767884.635
 E = 2540201.924
 ELEV = 783.91

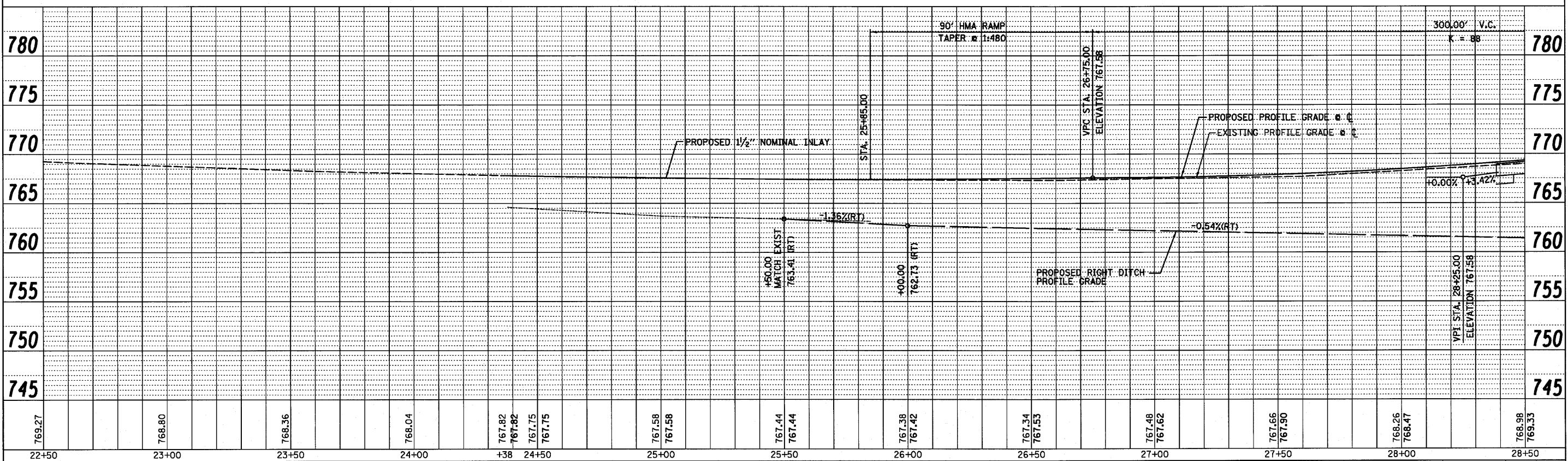
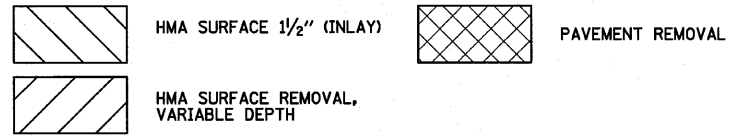
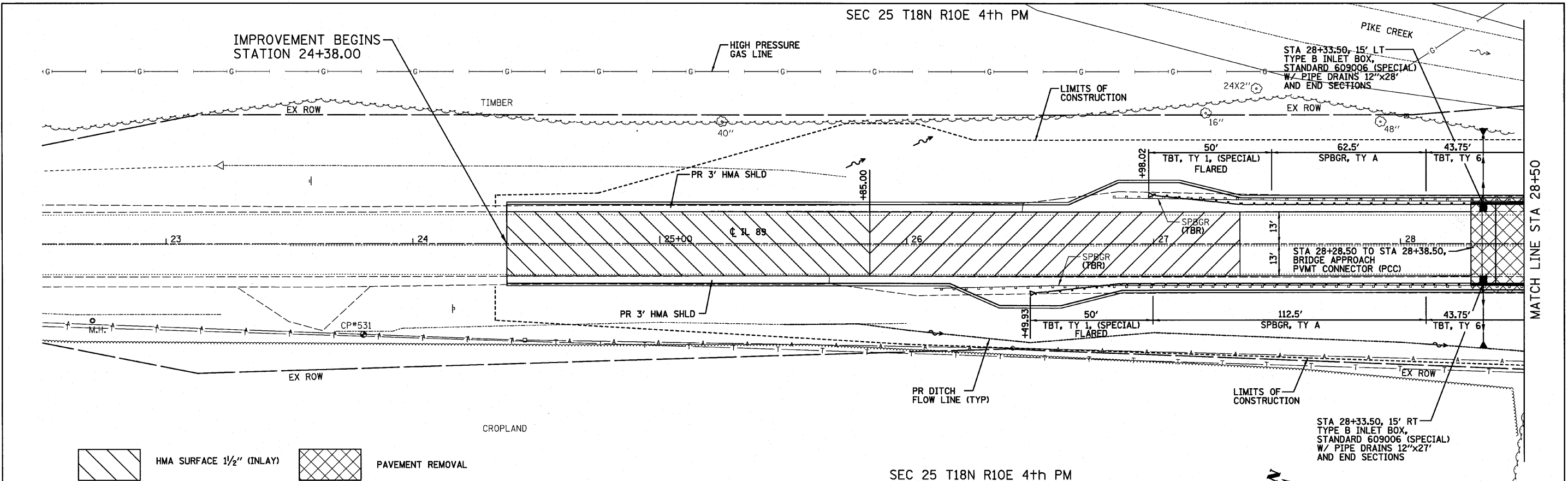


IL 89
 STA 36+79.54
 N = 1767590.745
 E = 2540328.999

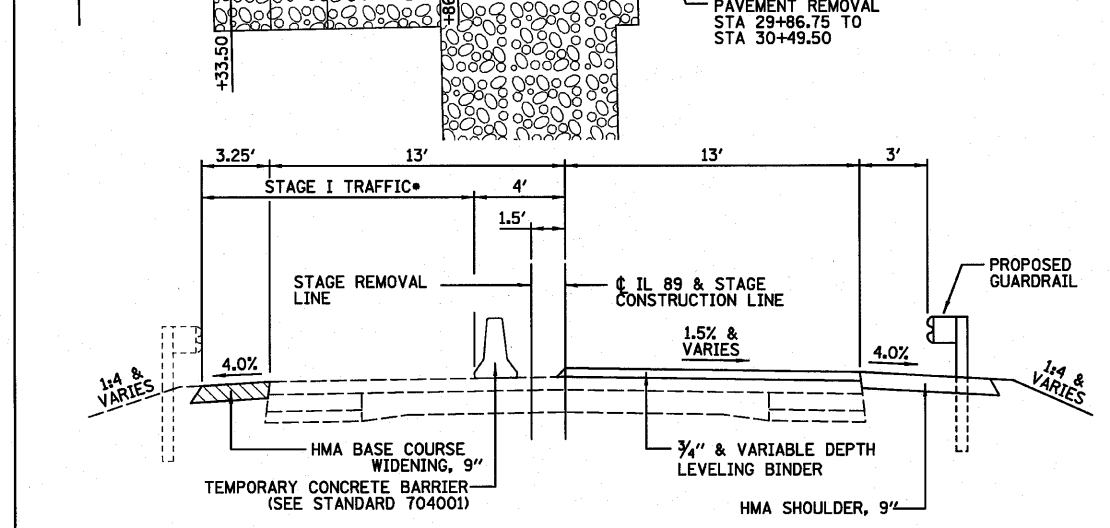
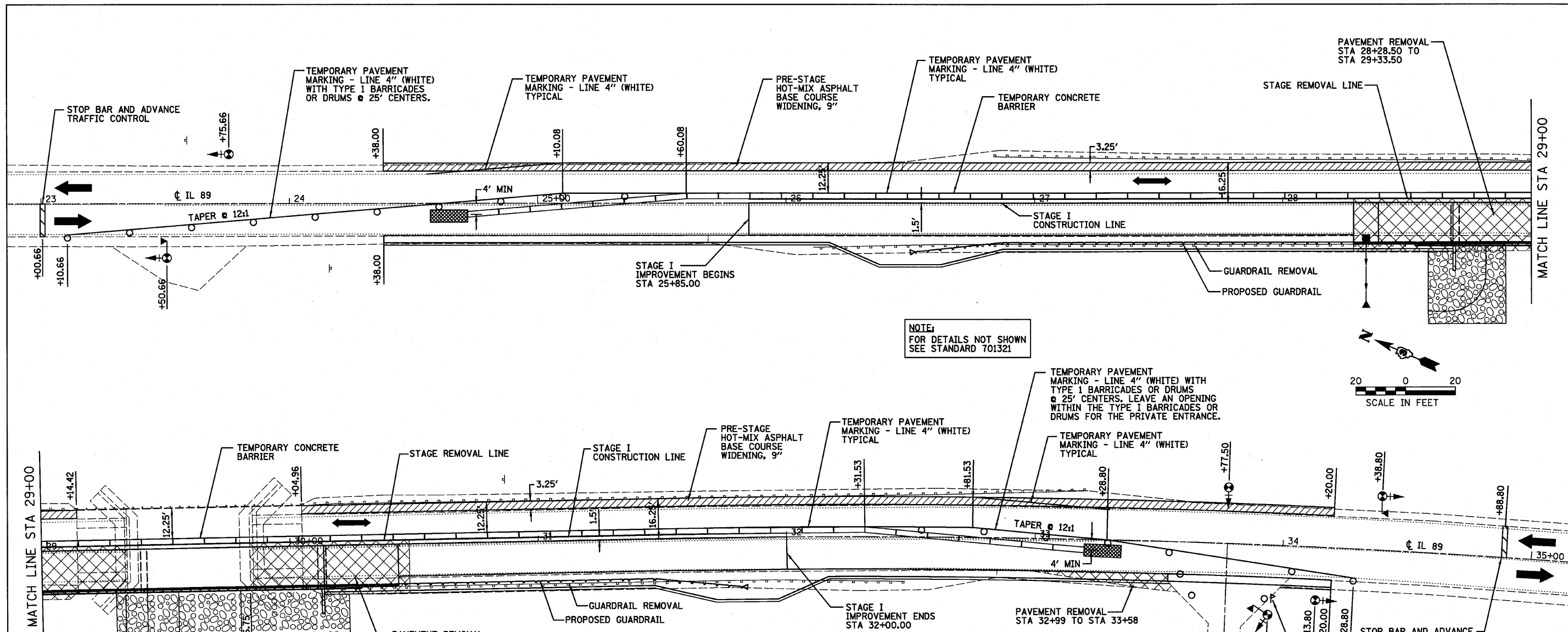
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| #FILE# | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | | CONTRACT NO. 66910 | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | | | | |
| <p>FARNSWORTH GROUP, INC. CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX 24-8371</p> | | | | | | | | | | | | |

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| | PLOT DATE = #DATE* | DATE - 10/08/10 | REVISED - | | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT |
| | | | | | | | | | | |



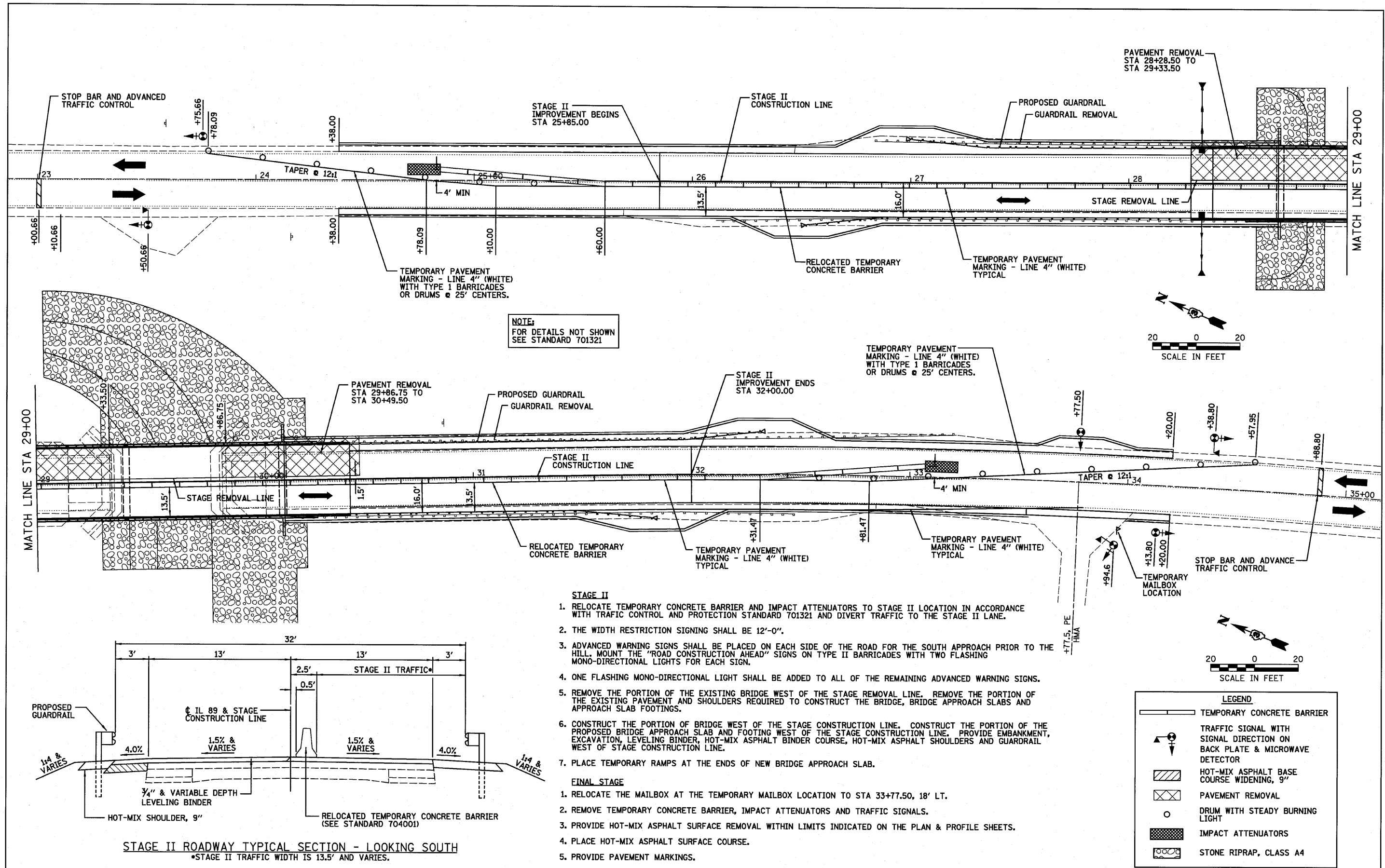
- PRE-STAGE**
1. REMOVE LEFT SHOULDER FROM STA. 24+38.00 TO STA. 29+14.42 AND STA. 30+04.96 TO STA. 34+20.00. REPLACE WITH HOT-MIX ASPHALT BASE COURSE WIDENING, 9" AT STATIONS SHOWN ABOVE USING STANDARD 701326. THE EXCAVATION REQUIRED TO PLACE THE HOT-MIX ASPHALT BASE COURSE WIDENING, 9" SHALL BE INCLUDED WITH "EARTH EXCAVATION".
- STAGE I**
1. RELOCATE MAILBOX AT STA. 33+77.50/LT TO TEMPORARY MAILBOX LOCATION SOUTH OF PRIVATE ENTRANCE.
 2. TRAFFIC CONTROL SHALL BE PROVIDED AS SHOWN HEREIN AND IN ACCORDANCE WITH TRAFFIC CONTROL STANDARD 701321. THE COST OF TYPE III BARRICADES AND DRUMS WITH STEADY BURNING LIGHTS SHALL BE INCLUDED WITH STANDARD 701321.
 3. THE WIDTH RESTRICTION SIGNING SHALL BE 10'-9".
 4. ADVANCED WARNING SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROAD FOR THE SOUTH APPROACH PRIOR TO THE HILL. MOUNT THE "ROAD CONSTRUCTION AHEAD" SIGNS ON TYPE II BARRICADES WITH TWO FLASHING MONO-DIRECTIONAL LIGHTS FOR EACH SIGN.
 5. ONE FLASHING MONO-DIRECTIONAL LIGHT SHALL BE ADDED TO ALL OF THE REMAINING ADVANCED WARNING SIGNS.
 6. PROVIDE TEMPORARY BRIDGE TRAFFIC SIGNALS.
 7. PROVIDE TEMPORARY CONCRETE BARRIER.
 8. ACTIVATE TEMPORARY BRIDGE TRAFFIC SIGNALS AND DIVERT TRAFFIC TO THE STAGE I LANE.
 9. REMOVE THE PORTION OF THE EXISTING BRIDGE WEST OF STAGE REMOVAL LINE. REMOVE THE PORTION OF THE EXISTING PAVEMENT REQUIRED TO CONSTRUCT THE BRIDGE, APPROACH SLABS AND APPROACH SLAB FOOTINGS.
 10. CONSTRUCT THE PORTION OF BRIDGE WEST OF STAGE CONSTRUCTION LINE. CONSTRUCT THE PORTION OF BRIDGE APPROACH SLAB AND FOOTING WEST OF STAGE CONSTRUCTION LINE. PROVIDE EMBANKMENT, EXCAVATION, LEVELING BINDER, HOT-MIX ASPHALT SHOULDERS AND GUARDRAIL WEST OF STAGE CONSTRUCTION LINE.
 11. PLACE TEMPORARY RAMPS AT THE ENDS OF NEW BRIDGE APPROACH SLAB PRIOR TO SWITCHING TO STAGE II.

LEGEND

| | |
|--|---|
| | TEMPORARY CONCRETE BARRIER |
| | TRAFFIC SIGNAL WITH SIGNAL DIRECTION ON BACK PLATE & MICROWAVE DETECTOR |
| | HOT-MIX ASPHALT BASE COURSE WIDENING, 9" |
| | PAVEMENT REMOVAL |
| | DRUM WITH STEADY BURNING LIGHT |
| | IMPACT ATTENUATORS |
| | STONE RIPRAP, CLASS A4 |

| | | | | | | | | | | | | |
|-------------|--------------------|-----------------|-----------|---|-----------------------------|---------------------|--------------|--------------------|--------------------|---------------------------|-----------------|--------------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | STAGE I CONSTRUCTION | | | F.A.P. RTE. 698 | SECTION (101 BRBR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 12 |
| #FILE# | | DRAWN - JJO | REVISED - | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | CONTRACT NO. 66910 | | ILLINOIS FED. AID PROJECT | | |
| | | CHECKED - MSW | REVISED - | | | | | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | | |

FARNSWORTH GROUP, INC. CONSULTING ENGINEERS - 2709 MCGRAW DRIVE BLOOMINGTON, ILLINOIS 61704 (309) 663-8435 / (309) 663-1571 FAX 24-8371



LEGEND

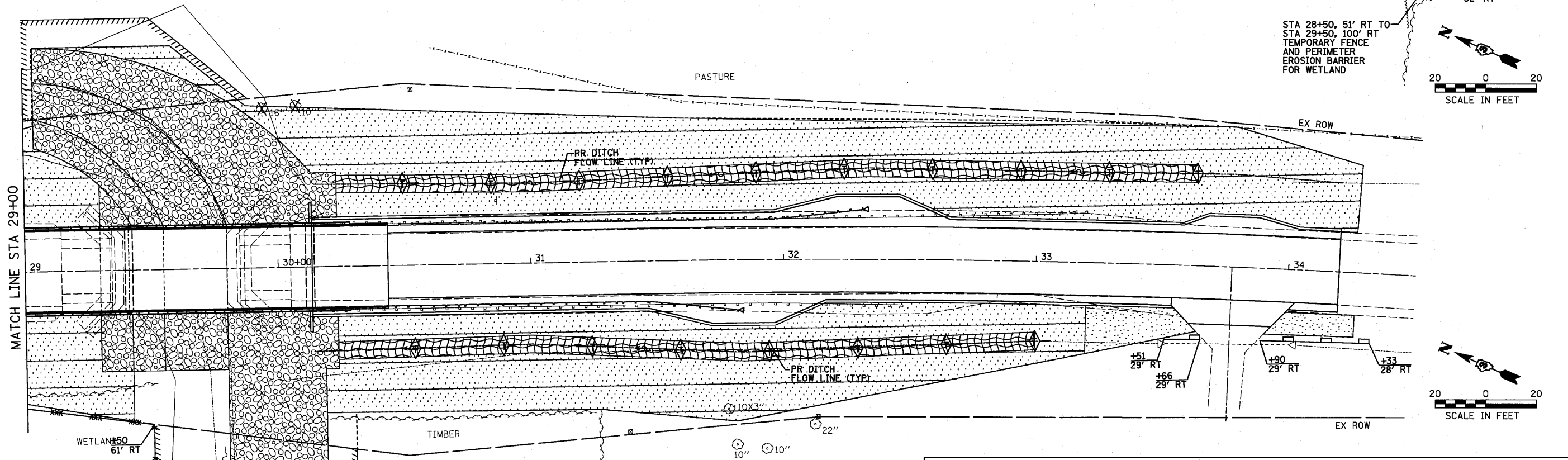
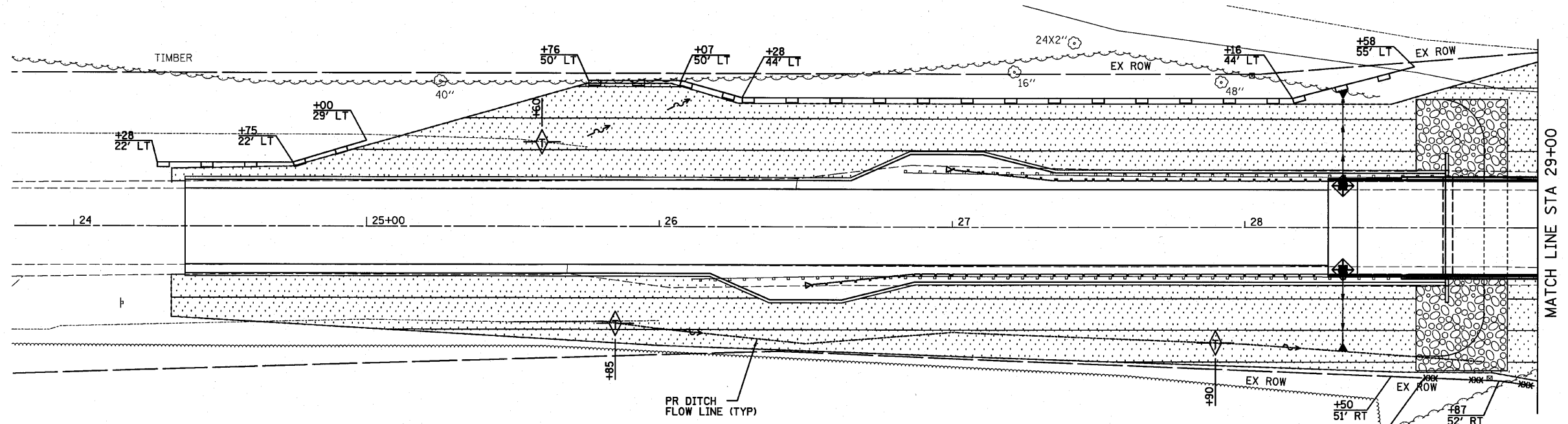
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|--|---|
| | TEMPORARY CONCRETE BARRIER |
| | TRAFFIC SIGNAL WITH SIGNAL DIRECTION ON BACK PLATE & MICROWAVE DETECTOR |
| | HOT-MIX ASPHALT BASE COURSE WIDENING, 9" |
| | PAVEMENT REMOVAL |
| | DRUM WITH STEADY BURNING LIGHT |
| | IMPACT ATTENUATORS |
| | STONE RIPRAP, CLASS A4 |

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|-------------|----------------------|-----------------|-----------|
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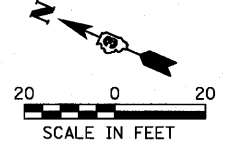
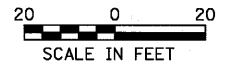
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

| | | | |
|------------------------------|-----------|-----------|--------------|
| STAGE II CONSTRUCTION | | | |
| SCALE | SHEET NO. | OF SHEETS | STA. TO STA. |

| | | | | |
|---------------------|---------------------------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (01) BR/BR | BUREAU | 47 | 13 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |



STA 28+50, 51' RT TO
STA 29+50, 100' RT
TEMPORARY FENCE
AND PERIMETER
EROSION BARRIER
FOR WETLAND



STA 28+50, 51' RT TO
STA 29+50, 100' RT
TEMPORARY FENCE
AND PERIMETER
EROSION BARRIER
FOR WETLAND

- NOTES:**
1. TEMPORARY FENCE SHALL BE A HIGH VISIBILITY FENCE TO PROTECT WETLAND AREA.
 2. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE CONSTRUCTED WITHIN THE RIGHT-OF-WAY OR TEMPORARY EASEMENT.
 3. ALL SEDIMENT AND EROSION CONTROL SYSTEMS SHALL BE INSPECTED WEEKLY AND WITHIN 24 HOURS AFTER EACH 1/2" OR GREATER RAIN EVENT.

| LEGEND | |
|--------|--|
| | TEMPORARY DITCH CHECK @ 35' SPACING UNLESS OTHERWISE NOTED |
| | INLET AND PIPE PROTECTION |
| | PERIMETER EROSION BARRIER |
| | TEMPORARY FENCE AND PERIMETER EROSION BARRIER |
| | TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 1 |
| | TEMPORARY EROSION CONTROL SEEDING, EROSION CONTROL BLANKET & SEEDING, CLASS 3 |
| | TEMPORARY EROSION CONTROL SEEDING, HEAVY DUTY EROSION CONTROL BLANKET (7' WIDTH) AND SEEDING CLASS 3 |
| | STONE RIPRAP, CLASS A4 & FILTER FABRIC |
| | LIMITS OF CONSTRUCTION |
| | (SIZE) TREE REMOVAL |

| | | | | | | | | | | | | |
|-------------|----------------------|-----------------|-----------|---|------------------------|--------------------|----------------------------------|---------------------|---------------------------|--------------|--|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | EROSION CONTROL | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 14 | | |
| #FILE# | PLOT SCALE = #SCALE# | DRAWN - JJO | REVISED - | | | CONTRACT NO. 66910 | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |
| | PLOT DATE = #DATE# | CHECKED - MSW | REVISED - | | | SCALE: | SHEET NO. OF SHEETS STA. TO STA. | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | | |

Benchmarks: BM #1 Chiseled "□" on top of Southeast wingwall of bridge S.N. 006-0104, Station 29+90/17' LT., Elevation = 770.49.
 BM #2 Top of ROW marker on Northwest quadrant of bridge S.N. 006-0104, Station 28+84/51' RT., Elevation = 763.57.

Existing Structure: Structure No. 006-0104, originally built in 1927 as Section 101-B. The original construction consisted of a reinforced concrete T-grider superstructure supported by reinforced concrete closed abutments. In 1980 under Section 101BR the superstructure was replaced with precast prestressed concrete deck beams. The back-to-back of abutments dimension measures 53'-3" and the out-to-out dimension measures 33'-0". One lane of traffic will be maintained utilizing stage construction.

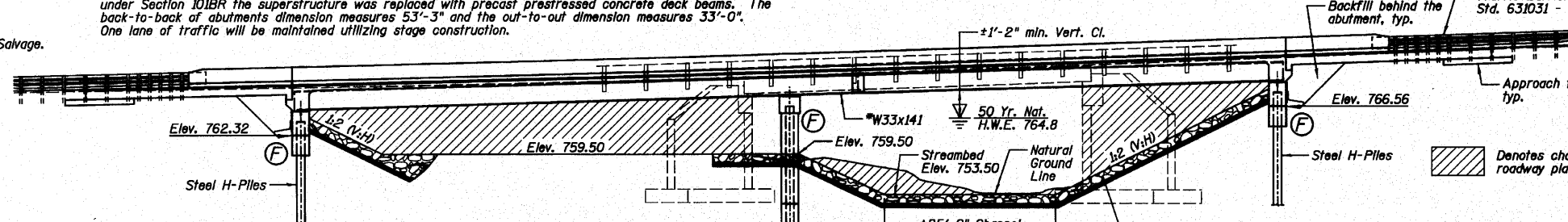
No Salvage.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WATERWAY INFORMATION

| Drainage Area = 23.89 Sq. Mi. | | Existing Low Grade Elev. 767.34 @ Sta. 26+50.00 Proposed Low Grade Elev. 767.43 @ Sta. 25+85.00 | | | | | |
|-------------------------------|-----------|--|-----|-----------------|-------------|------------------------|---------------------------|
| Flood | Freq. Yr. | C.F.S. | Q | Opening Sq. Ft. | Nat. H.W.E. | Head - Ft. Exst. Prop. | Headwater El. Exst. Prop. |
| | 10 | 2060 | 400 | 580 | 763.50 | 0.49 | 0.11 763.99 763.61 |
| Design | 50 | 3290 | 470 | 740 | 764.83 | 1.04 | 0.25 765.87 765.08 |
| Base | 100 | 3830 | 490 | 800 | 765.33 | 1.30 | 0.31 766.63 765.64 |
| Overtopping | | | | | | | |
| Max. Calc. | 500 | 5160 | 550 | 860 | 766.42 | 1.46 | 0.48 767.88 766.90 |

10 Yr. Velocity = 5.2 ft/sec. (Existing)
 10 Yr. Velocity = 3.6 ft/sec. (Proposed)



ELEVATION

*Composite in positive moment region only.

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition (2008 and 2009 Interim Revisions)

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Grade 50W)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.07 g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.12 g
 Soil Site Class = C

SCOUR INFORMATION

| Design Scour Elevation | North Abutment | Pier | South Abutment |
|------------------------|----------------|--------|----------------|
| | 762.32 | 749.50 | 766.56 |

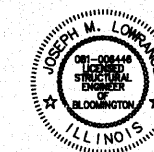
INDEX OF SHEETS

| SHEET NO. | TITLE |
|-----------|---|
| B1 | GENERAL PLAN AND ELEVATION |
| B2 | GENERAL DATA |
| B3 | STAGE CONSTRUCTION |
| B4 | TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION |
| B5 | TOP OF SLAB ELEVATION LOCATIONS |
| B6-B7 | TOP OF SLAB ELEVATIONS |
| B8 | TOP OF APPROACH SLAB ELEVATIONS |
| B9 | SUPERSTRUCTURE DECK |
| B10 | SUPERSTRUCTURE DETAILS |
| B11 | DIAPHRAGM DETAILS |
| B12-B13 | BRIDGE APPROACH SLAB DETAILS |
| B14-B15 | STRUCTURAL STEEL |
| B16 | FIXED BEARING DETAILS |
| B17 | NORTH ABUTMENT |
| B18 | SOUTH ABUTMENT |
| B19 | PIER |
| B20 | HP PILE DETAILS |
| B21 | BAR SPLICER ASSEMBLY AND MECHANICAL |
| B22-B23 | SOIL BORING LOGS |

STONE RIPRAP LOCATION

| Location | Station | Offset |
|----------|---------|---------|
| A | 28+59 | 20' LT. |
| B | 28+59 | 44' LT. |
| C | 28+90 | 44' LT. |
| D | 29+30 | 34' LT. |
| E | 29+04 | 49' LT. |
| F | 29+04 | 88' LT. |
| G | 30+14 | 38' LT. |
| H | 30+24 | 38' LT. |
| I | 30+24 | 20' LT. |
| J | 30+24 | 20' RT. |
| K | 30+24 | 40' RT. |
| L | 30+19 | 40' RT. |
| M | 30+19 | 80' RT. |
| N | 29+80 | 80' RT. |
| O | 29+80 | 40' RT. |
| P | 29+30 | 40' RT. |
| Q | 28+90 | 49' RT. |
| R | 28+59 | 49' RT. |
| S | 28+59 | 20' RT. |

Note: Stations and offsets for the Stone Riprap, Class A4 are from the roadway centerline.

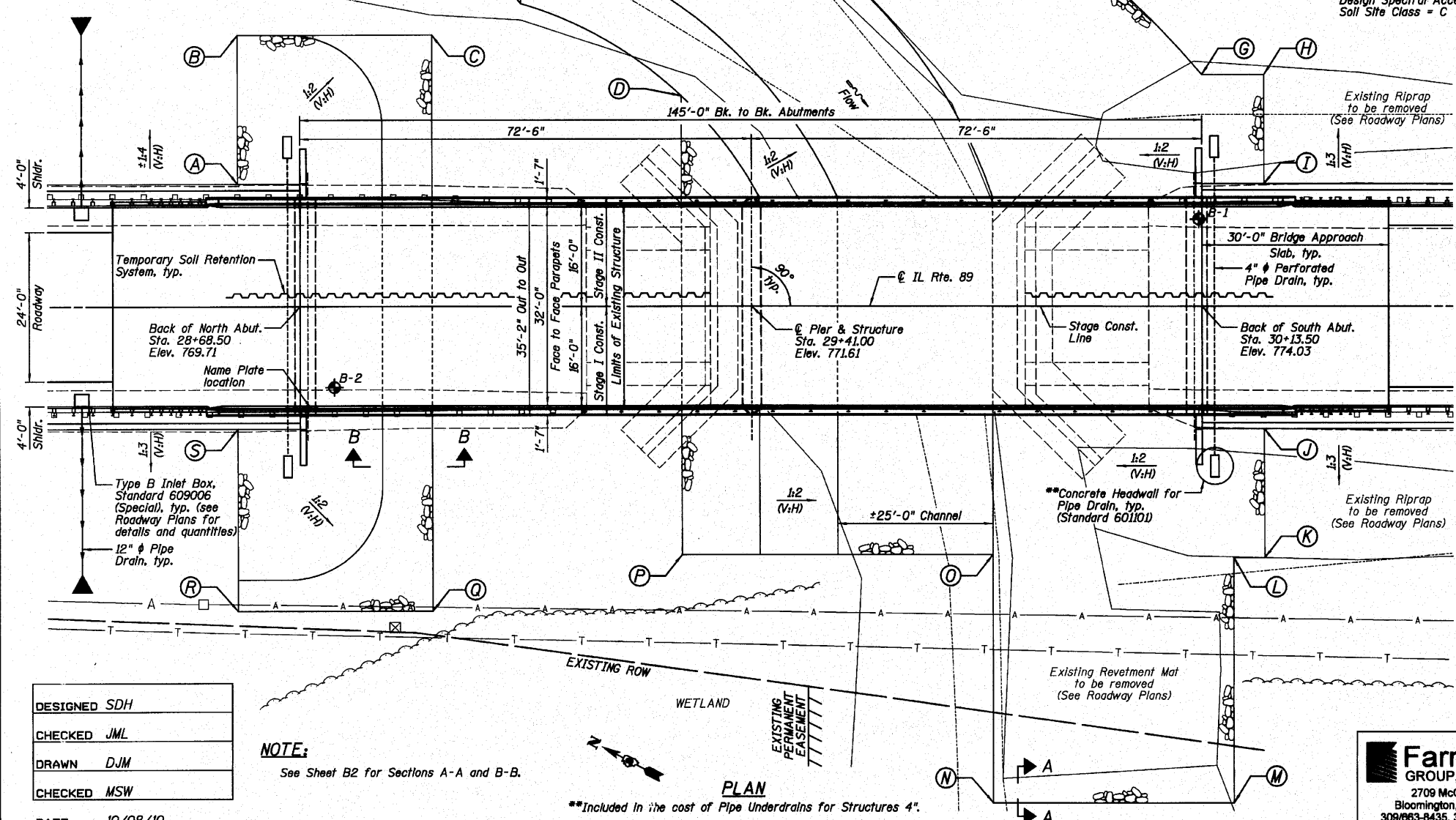
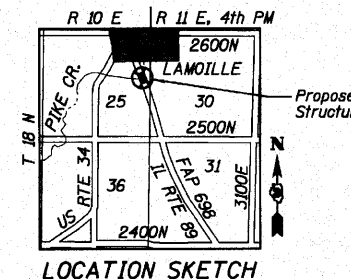


Joseph M. Lowrance
 ILLINOIS STRUCTURAL ENGINEER
 NO. 081-006446
 Exp. Date 11/30/10

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (TOP)
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION
 IL ROUTE 89 OVER PIKE CREEK
 F.A.P. 698 - SECTION (101 BR)BR
 BUREAU COUNTY
 STATION 29+41.00
 STRUCTURE NO. 006-0181



NOTE: See Sheet B2 for Sections A-A and B-B.

Included in the cost of Pipe Underdrains for Structures 4

| |
|--------------|
| DESIGNED SDH |
| CHECKED JML |
| DRAWN DJM |
| CHECKED MSW |

DATE 10/08/10

Farnsworth GROUP, INC.
 2709 McGraw Drive
 Bloomington, Illinois 61704
 309/683-8435, 309/683-1571 fax

| | | | | |
|-----------------|--------------------|---------------------------|-----------------|--------------|
| F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 15 |
| SHEET NO. B1 | | CONTRACT NO. 66910 | | |
| 23 SHEETS | | ILLINOIS FED. AID PROJECT | | |

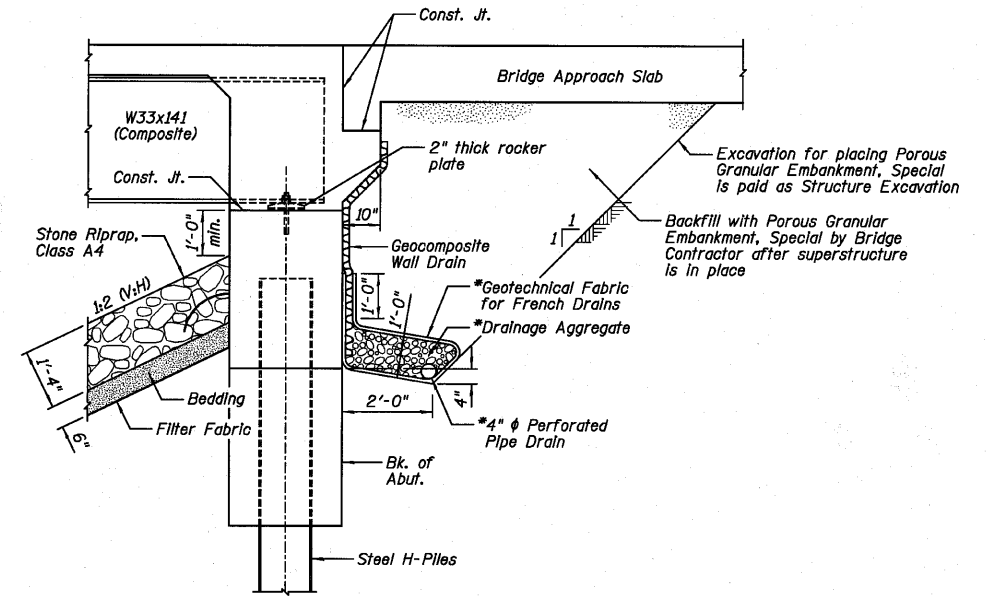
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|---|---------|--------|-------|--------|
| Porous Granular Embankment, Special | Cu. Yd. | | 116 | 116 |
| Stone Riprap, Class A4 | Sq. Yd. | | 1,733 | 1,733 |
| Filter Fabric | Sq. Yd. | | 1,733 | 1,733 |
| Removal of Existing Structures | Each | 1 | | 1 |
| Structure Excavation | Cu. Yd. | | 209 | 209 |
| Concrete Structures | Cu. Yd. | | 101.0 | 101.0 |
| Concrete Superstructure | Cu. Yd. | 293.9 | | 293.9 |
| Bridge Deck Grooving | Sq. Yd. | 683 | | 683 |
| Concrete Encasement | Cu. Yd. | | 12.1 | 12.1 |
| Protective Coat | Sq. Yd. | 885 | | 885 |
| Furnishing and Erecting Structural Steel | L. Sum | 1 | | 1 |
| Stud Shear Connectors | Each | 2,160 | | 2,160 |
| Reinforcement Bars, Epoxy Coated | Pound | 76,000 | 6,220 | 82,220 |
| Bar Splicers | Each | 737 | 48 | 785 |
| Furnishing Steel Piles HP14x73 | Foot | | 645 | 645 |
| Driving Piles | Foot | | 645 | 645 |
| Test Pile Steel HP14x73 | Each | | 2 | 2 |
| Name Plates | Each | 1 | | 1 |
| Anchor Bolts, 1" | Each | 36 | | 36 |
| Geocomposite Wall Drain | Sq. Yd. | | 66 | 66 |
| Pipe Underdrains for Structures 4" | Foot | | 138 | 138 |
| Temporary Soil Retention System | Sq. Ft. | | 1,149 | 1,149 |
| Underwater Structure Excavation Protection - Location 1 | Each | | 1 | 1 |
| Asbestos Bearing Pad Removal | Each | | 22 | 22 |

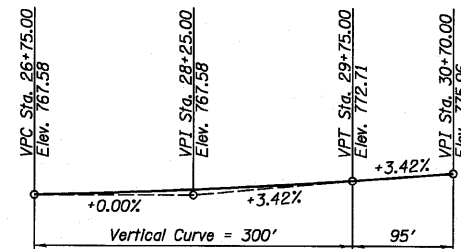
STATION 29+41.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.P. RT. 698 - SEC. (101 BR)BR
LOADING HL-93
STRUCTURE NO. 006-0181

NAME PLATE
See Std. 515001



SECTION THRU SOUTH ABUTMENT
(Similar for North Abutment)

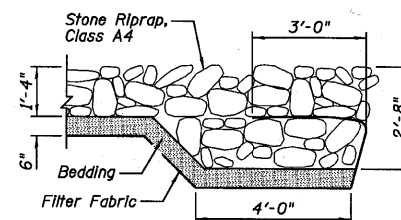
- NOTES:**
- *Included in the cost of Pipe Underdrains for Structures 4".
 - All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)



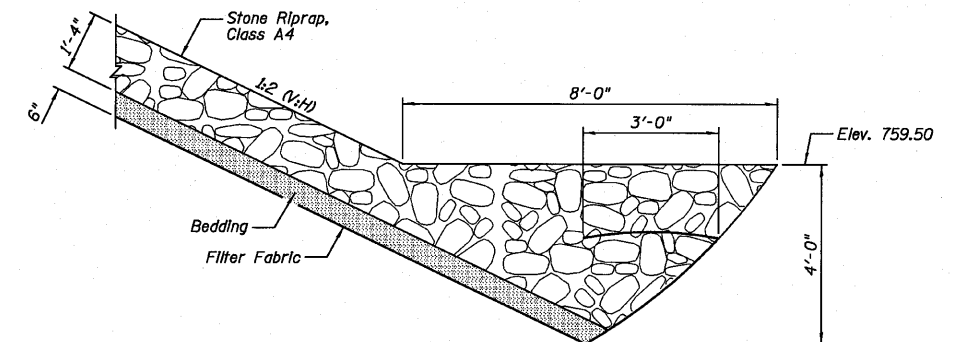
PROFILE GRADE
(Along & Roadway)

GENERAL NOTES:

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $\frac{1}{8}$ in. ϕ , holes $\frac{1}{8}$ in. ϕ , unless otherwise noted.
- Calculated weight of Structural Steel = 134,350 lb.
- All structural steel shall be AASHTO M270 Grade 50W. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 in. Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Slipforming of parapets is not allowed.
- The Contractor is advised that the existing structure contains members that are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing structure when developing construction procedures for the complete or partial removal, or replacement of the structure.



SECTION A-A



SECTION B-B

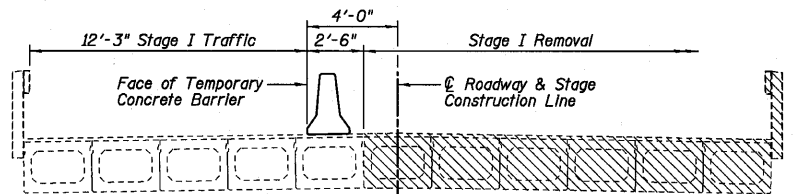
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| DESIGNED | SDH |
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| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

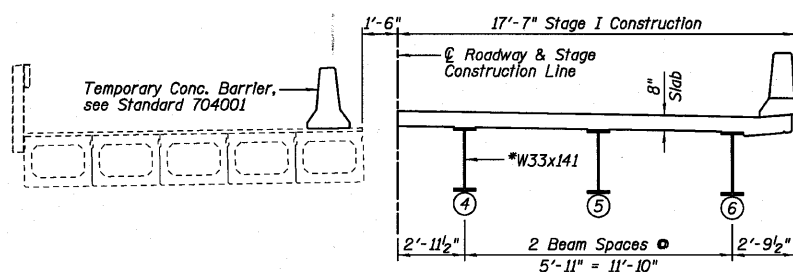
GENERAL DATA
STRUCTURE NO. 006-0181

| | | | | | | |
|---|--------------|---------------------|--------------------|------------------|-----------------|--------------|
| <p>2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p> | SHEET NO. B2 | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 16 |
| | 23 SHEETS | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

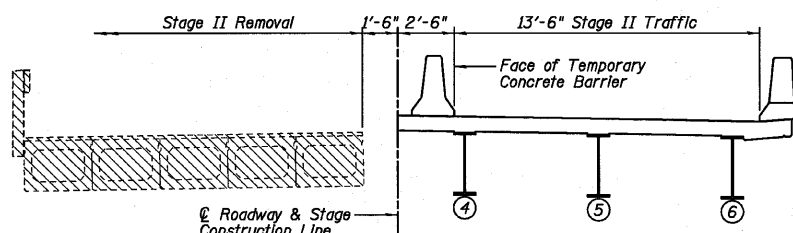
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



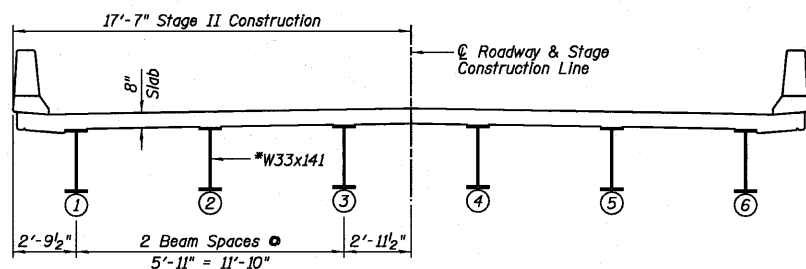
STAGE I REMOVAL
(Looking South • C of Bridge)



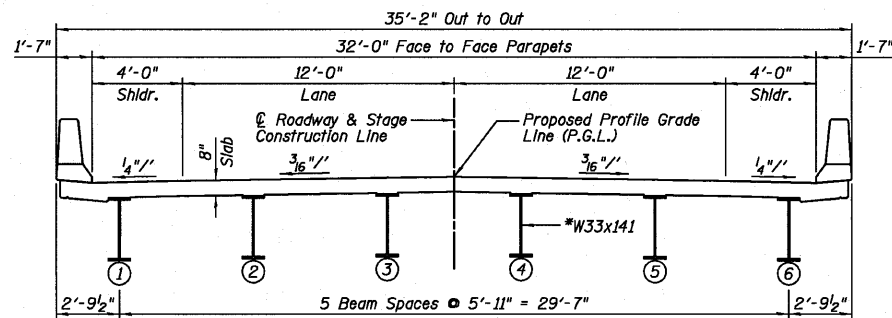
STAGE I CONSTRUCTION
(Looking South • C of Bridge)



STAGE II REMOVAL
(Looking South • C of Bridge)



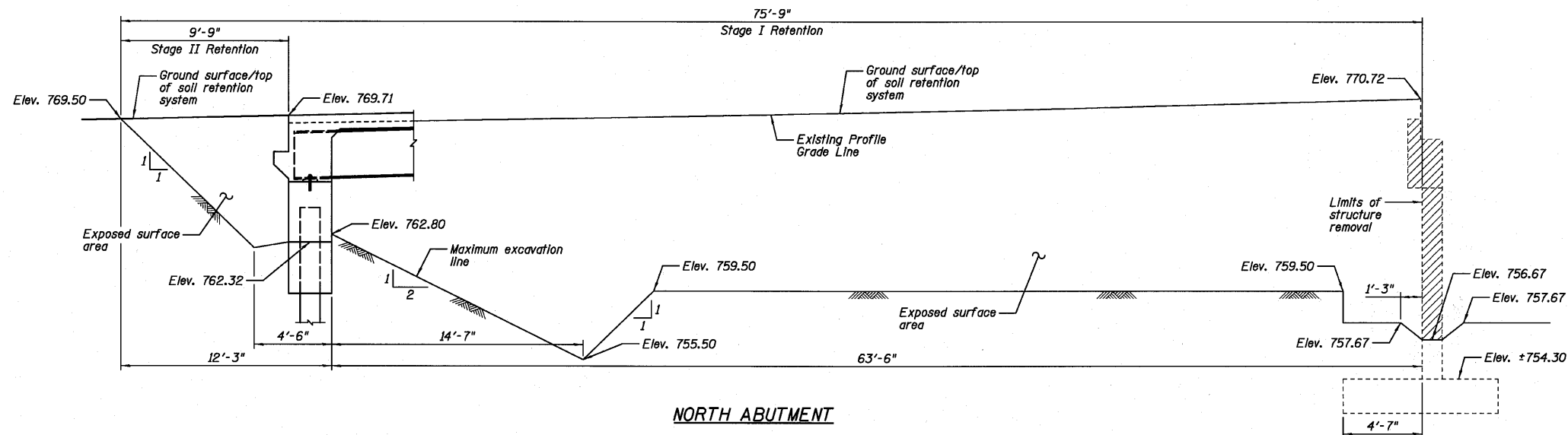
STAGE II CONSTRUCTION
(Looking South • C of Bridge)



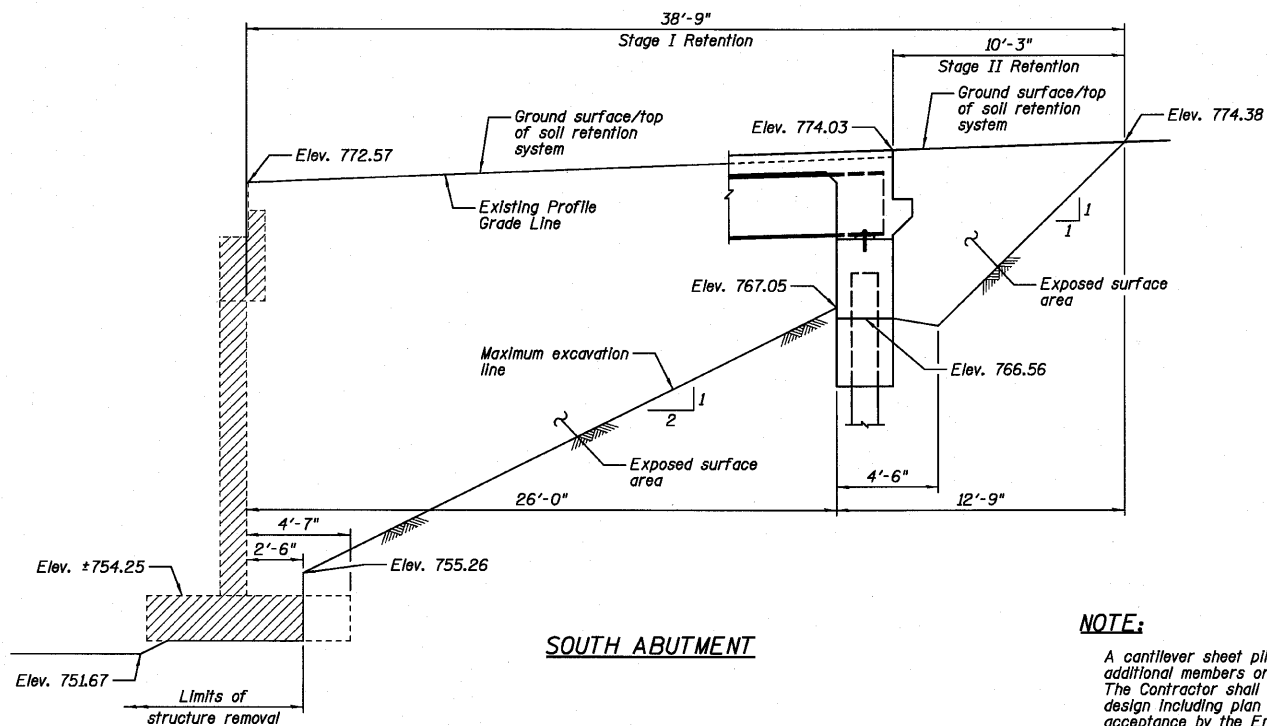
CROSS SECTION
(Looking South • C of Bridge)

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10



NORTH ABUTMENT



SOUTH ABUTMENT

TEMPORARY SOIL RETENTION SYSTEM

NOTE:

A cantilever sheet piling design 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.

BILL OF MATERIAL

| Item | Unit | Total |
|---------------------------------|---------|-------|
| Temporary Soil Retention System | Sq. Ft. | 1,149 |

NOTES:

- *Composite in positive moment region only.
- Hatched area indicates Removal of Existing PPC Deck Beam Superstructure. Removal of the existing bituminous wearing surface shall be included with Removal of Existing Structures.
- See Sheet B4 for Temporary Concrete Barrier (Standard 704001). See roadway plans for quantity.

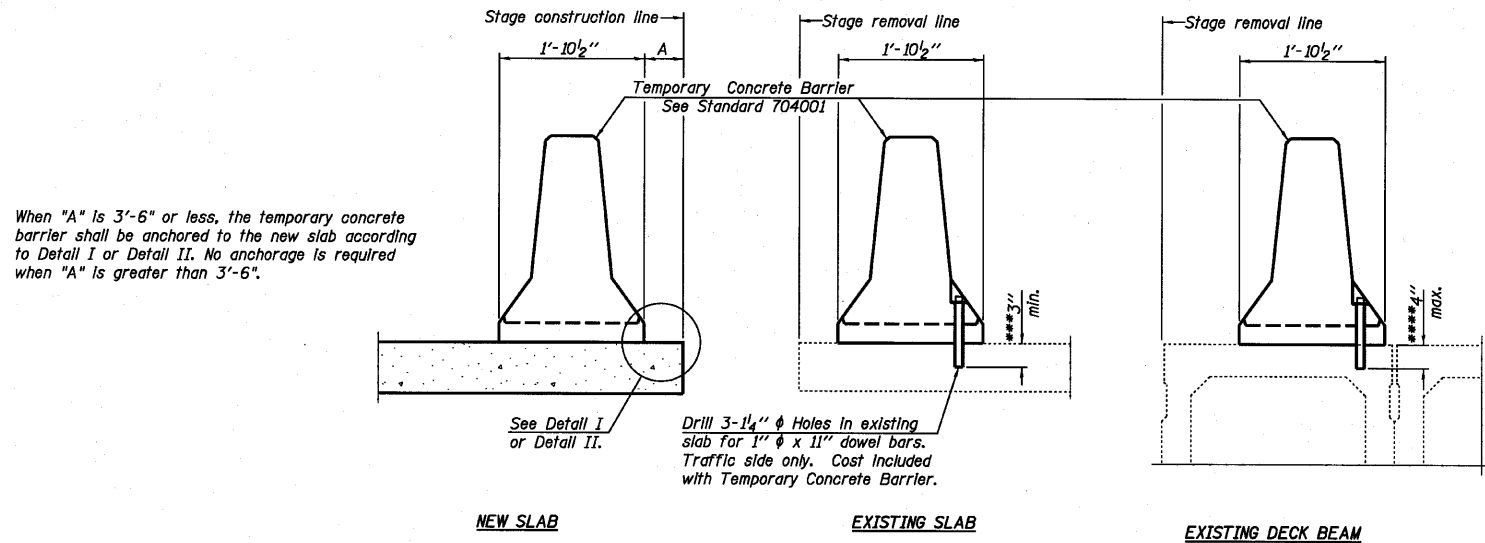
Farnsworth GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B3
23 SHEETS

| | | | | |
|---------------------|------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 17 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

**STAGE CONSTRUCTION
STRUCTURE NO. 006-0181**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NEW SLAB

EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

NOTES

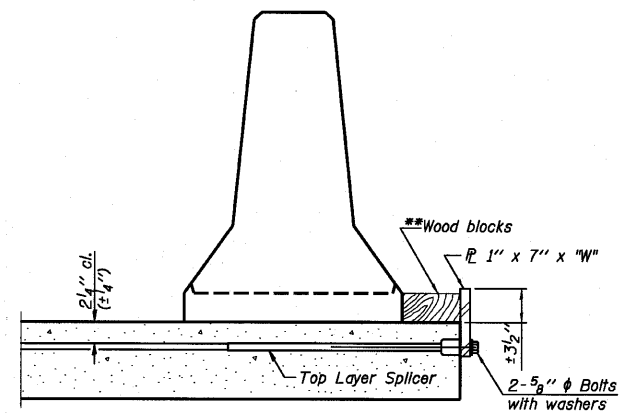
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

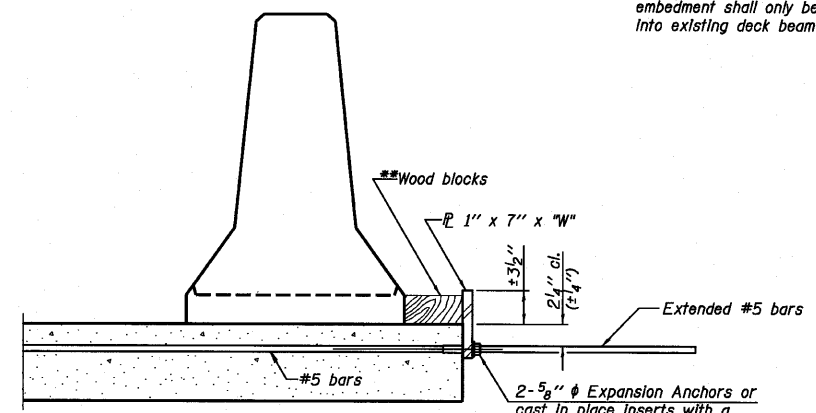
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



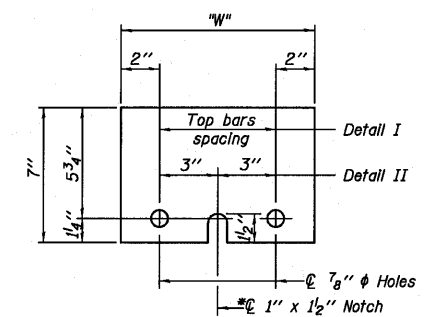
DETAIL I



DETAIL II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"



STEEL RETAINER \bar{L} 1" x 7" x "W"
* Required only with Detail II

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

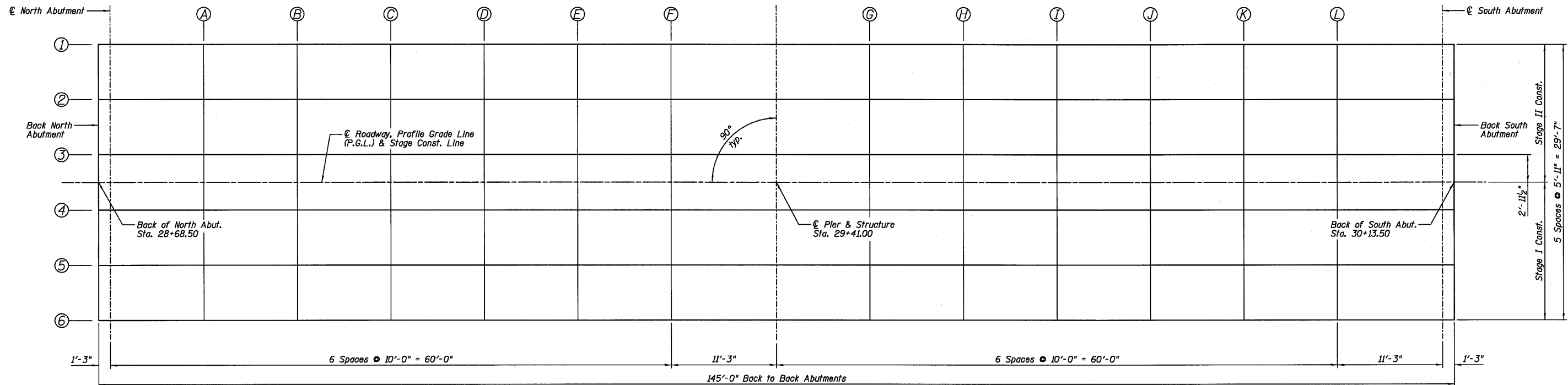
R-27

7-1-10

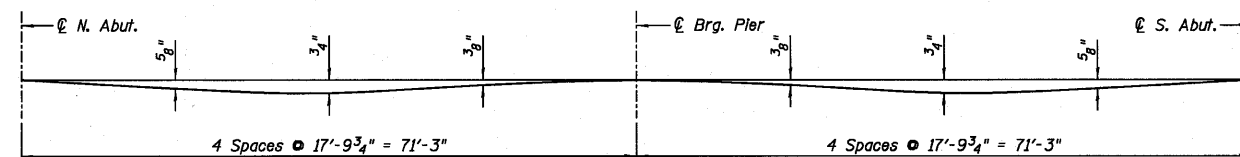
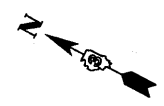
TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
STRUCTURE NO. 006-0181

| | | | | | | |
|--|--------------|---------------------|------------|------------------|--------------|-----------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B4 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 18 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



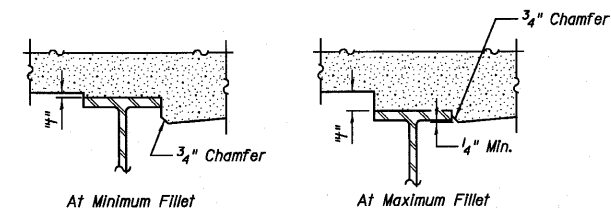
PLAN



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:
The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection".



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the plans. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on the plans, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

**TOP OF SLAB
ELEVATION LOCATIONS
STRUCTURE NO. 006-0181**

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

| | | | | | | |
|--|--------------|---|------------|--------|--------------|-----------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B5 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 19 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | -14.79 | 769.47 | 769.47 |
| ☉ North Abut. | 28+69.75 | -14.79 | 769.50 | 769.50 |
| A | 28+79.75 | -14.79 | 769.72 | 769.76 |
| B | 28+89.75 | -14.79 | 769.96 | 770.02 |
| C | 28+99.75 | -14.79 | 770.21 | 770.28 |
| D | 29+09.75 | -14.79 | 770.48 | 770.53 |
| E | 29+19.75 | -14.79 | 770.75 | 770.79 |
| F | 29+29.75 | -14.79 | 771.03 | 771.05 |
| ☉ Brg. Pler | 29+41.00 | -14.79 | 771.37 | 771.37 |
| G | 29+51.00 | -14.79 | 771.68 | 771.69 |
| H | 29+61.00 | -14.79 | 772.00 | 772.03 |
| I | 29+71.00 | -14.79 | 772.33 | 772.38 |
| J | 29+81.00 | -14.79 | 772.67 | 772.73 |
| K | 29+91.00 | -14.79 | 773.01 | 773.07 |
| L | 30+01.00 | -14.79 | 773.35 | 773.39 |
| ☉ South Abut. | 30+12.25 | -14.79 | 773.74 | 773.74 |
| Bk. of South Abut. | 30+13.50 | -14.79 | 773.78 | 773.78 |

BEAM 2

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | -8.88 | 769.58 | 769.58 |
| ☉ North Abut. | 28+69.75 | -8.88 | 769.60 | 769.60 |
| A | 28+79.75 | -8.88 | 769.83 | 769.86 |
| B | 28+89.75 | -8.88 | 770.07 | 770.13 |
| C | 28+99.75 | -8.88 | 770.32 | 770.38 |
| D | 29+09.75 | -8.88 | 770.58 | 770.64 |
| E | 29+19.75 | -8.88 | 770.86 | 770.89 |
| F | 29+29.75 | -8.88 | 771.14 | 771.15 |
| ☉ Brg. Pler | 29+41.00 | -8.88 | 771.47 | 771.47 |
| G | 29+51.00 | -8.88 | 771.78 | 771.80 |
| H | 29+61.00 | -8.88 | 772.10 | 772.14 |
| I | 29+71.00 | -8.88 | 772.44 | 772.49 |
| J | 29+81.00 | -8.88 | 772.78 | 772.84 |
| K | 29+91.00 | -8.88 | 773.12 | 773.18 |
| L | 30+01.00 | -8.88 | 773.46 | 773.50 |
| ☉ South Abut. | 30+12.25 | -8.88 | 773.85 | 773.85 |
| Bk. of South Abut. | 30+13.50 | -8.88 | 773.89 | 773.89 |

BEAM 3

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | -2.96 | 769.67 | 769.67 |
| ☉ North Abut. | 28+69.75 | -2.96 | 769.70 | 769.70 |
| A | 28+79.75 | -2.96 | 769.92 | 769.96 |
| B | 28+89.75 | -2.96 | 770.16 | 770.22 |
| C | 28+99.75 | -2.96 | 770.41 | 770.48 |
| D | 29+09.75 | -2.96 | 770.67 | 770.73 |
| E | 29+19.75 | -2.96 | 770.95 | 770.99 |
| F | 29+29.75 | -2.96 | 771.23 | 771.25 |
| ☉ Brg. Pler | 29+41.00 | -2.96 | 771.57 | 771.57 |
| G | 29+51.00 | -2.96 | 771.88 | 771.89 |
| H | 29+61.00 | -2.96 | 772.20 | 772.23 |
| I | 29+71.00 | -2.96 | 772.53 | 772.58 |
| J | 29+81.00 | -2.96 | 772.87 | 772.93 |
| K | 29+91.00 | -2.96 | 773.21 | 773.27 |
| L | 30+01.00 | -2.96 | 773.55 | 773.59 |
| ☉ South Abut. | 30+12.25 | -2.96 | 773.94 | 773.94 |
| Bk. of South Abut. | 30+13.50 | -2.96 | 773.98 | 773.98 |

☉ ROADWAY, PROFILE GRADE LINE (P.G.L.) &
STAGE CONSTRUCTION LINE

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | 0.00 | 769.71 | 769.71 |
| ☉ North Abut. | 28+69.75 | 0.00 | 769.74 | 769.74 |
| A | 28+79.75 | 0.00 | 769.97 | 770.00 |
| B | 28+89.75 | 0.00 | 770.21 | 770.26 |
| C | 28+99.75 | 0.00 | 770.46 | 770.52 |
| D | 29+09.75 | 0.00 | 770.72 | 770.78 |
| E | 29+19.75 | 0.00 | 770.99 | 771.03 |
| F | 29+29.75 | 0.00 | 771.28 | 771.29 |
| ☉ Brg. Pler | 29+41.00 | 0.00 | 771.61 | 771.61 |
| G | 29+51.00 | 0.00 | 771.92 | 771.93 |
| H | 29+61.00 | 0.00 | 772.24 | 772.28 |
| I | 29+71.00 | 0.00 | 772.57 | 772.63 |
| J | 29+81.00 | 0.00 | 772.92 | 772.98 |
| K | 29+91.00 | 0.00 | 773.26 | 773.32 |
| L | 30+01.00 | 0.00 | 773.60 | 773.64 |
| ☉ South Abut. | 30+12.25 | 0.00 | 773.98 | 773.98 |
| Bk. of South Abut. | 30+13.50 | 0.00 | 774.03 | 774.03 |

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0181

| |
|--------------|
| DESIGNED SDH |
| CHECKED JML |
| DRAWN DJM |
| CHECKED MSW |

DATE 10/08/10

Farnsworth
GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B6
23 SHEETS

| | | | | |
|---------------------|------------|---------------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 20 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 4

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | 2.96 | 769.67 | 769.67 |
| ☉ North Abut. | 28+69.75 | 2.96 | 769.70 | 769.70 |
| A | 28+79.75 | 2.96 | 769.92 | 769.96 |
| B | 28+89.75 | 2.96 | 770.16 | 770.22 |
| C | 28+99.75 | 2.96 | 770.41 | 770.48 |
| D | 29+09.75 | 2.96 | 770.67 | 770.73 |
| E | 29+19.75 | 2.96 | 770.95 | 770.99 |
| F | 29+29.75 | 2.96 | 771.23 | 771.25 |
| ☉ Brg. Pier | 29+41.00 | 2.96 | 771.57 | 771.57 |
| G | 29+51.00 | 2.96 | 771.88 | 771.89 |
| H | 29+61.00 | 2.96 | 772.20 | 772.23 |
| I | 29+71.00 | 2.96 | 772.53 | 772.58 |
| J | 29+81.00 | 2.96 | 772.87 | 772.93 |
| K | 29+91.00 | 2.96 | 773.21 | 773.27 |
| L | 30+01.00 | 2.96 | 773.55 | 773.59 |
| ☉ South Abut. | 30+12.25 | 2.96 | 773.94 | 773.94 |
| Bk. of South Abut. | 30+13.50 | 2.96 | 773.98 | 773.98 |

BEAM 5

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | 8.88 | 769.58 | 769.58 |
| ☉ North Abut. | 28+69.75 | 8.88 | 769.60 | 769.60 |
| A | 28+79.75 | 8.88 | 769.83 | 769.86 |
| B | 28+89.75 | 8.88 | 770.07 | 770.13 |
| C | 28+99.75 | 8.88 | 770.32 | 770.38 |
| D | 29+09.75 | 8.88 | 770.58 | 770.64 |
| E | 29+19.75 | 8.88 | 770.86 | 770.89 |
| F | 29+29.75 | 8.88 | 771.14 | 771.15 |
| ☉ Brg. Pier | 29+41.00 | 8.88 | 771.47 | 771.47 |
| G | 29+51.00 | 8.88 | 771.78 | 771.80 |
| H | 29+61.00 | 8.88 | 772.10 | 772.14 |
| I | 29+71.00 | 8.88 | 772.44 | 772.49 |
| J | 29+81.00 | 8.88 | 772.78 | 772.84 |
| K | 29+91.00 | 8.88 | 773.12 | 773.18 |
| L | 30+01.00 | 8.88 | 773.46 | 773.50 |
| ☉ South Abut. | 30+12.25 | 8.88 | 773.85 | 773.85 |
| Bk. of South Abut. | 30+13.50 | 8.88 | 773.89 | 773.89 |


BEAM 6

| Location | Station | Offset | Theoretical Grade Elevations | Theoretical Grade Elevation Adjusted for Dead Load Deflection |
|--------------------|----------|--------|------------------------------|---|
| Bk. of North Abut. | 28+68.50 | 14.79 | 769.47 | 769.47 |
| ☉ North Abut. | 28+69.75 | 14.79 | 769.50 | 769.50 |
| A | 28+79.75 | 14.79 | 769.72 | 769.76 |
| B | 28+89.75 | 14.79 | 769.96 | 770.02 |
| C | 28+99.75 | 14.79 | 770.21 | 770.28 |
| D | 29+09.75 | 14.79 | 770.48 | 770.53 |
| E | 29+19.75 | 14.79 | 770.75 | 770.79 |
| F | 29+29.75 | 14.79 | 771.03 | 771.05 |
| ☉ Brg. Pier | 29+41.00 | 14.79 | 771.37 | 771.37 |
| G | 29+51.00 | 14.79 | 771.68 | 771.69 |
| H | 29+61.00 | 14.79 | 772.00 | 772.03 |
| I | 29+71.00 | 14.79 | 772.33 | 772.38 |
| J | 29+81.00 | 14.79 | 772.67 | 772.73 |
| K | 29+91.00 | 14.79 | 773.01 | 773.07 |
| L | 30+01.00 | 14.79 | 773.35 | 773.39 |
| ☉ South Abut. | 30+12.25 | 14.79 | 773.74 | 773.74 |
| Bk. of South Abut. | 30+13.50 | 14.79 | 773.78 | 773.78 |

| |
|--------------|
| DESIGNED SDH |
| CHECKED JML |
| DRAWN DJM |
| CHECKED MSW |

DATE 10/08/10

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 006-0181

| | | | | | | |
|---|--------------|---------------------|------------|------------------|--------------|-----------|
|  Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B7 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 21 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EAST CURB LINE/EAST FACE OF PARAPET

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of North Appr. | 28+38.50 | -16.42 | 768.82 |
| A | 28+48.50 | -16.42 | 769.02 |
| B | 28+58.50 | -16.00 | 769.23 |
| S. End of North Appr. | 28+68.50 | -16.00 | 769.44 |

EAST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of North Appr. | 28+38.50 | -12.00 | 768.92 |
| A | 28+48.50 | -12.00 | 769.11 |
| B | 28+58.50 | -12.00 | 769.31 |
| S. End of North Appr. | 28+68.50 | -12.00 | 769.53 |

⊘ ROADWAY, PROFILE GRADE LINE (P.G.L.) & STAGE CONSTRUCTION LINE

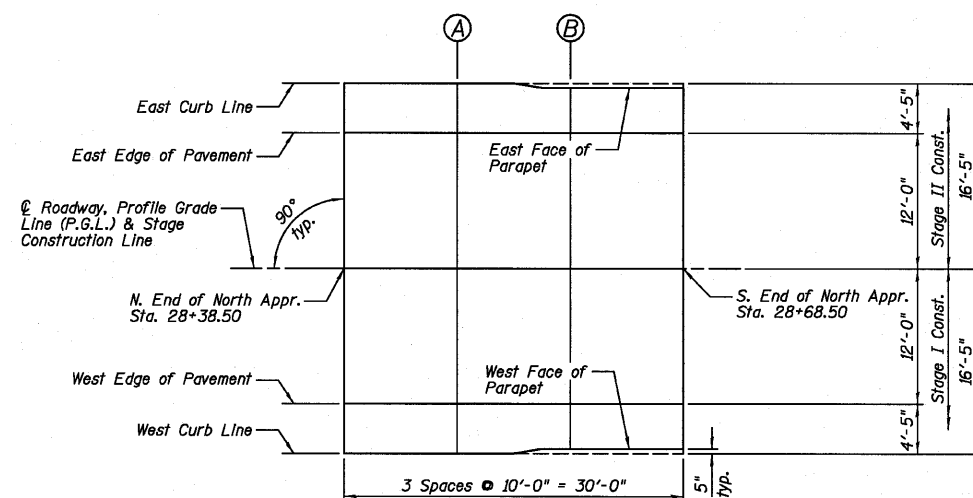
| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of North Appr. | 28+38.50 | 0.00 | 769.10 |
| A | 28+48.50 | 0.00 | 769.30 |
| B | 28+58.50 | 0.00 | 769.50 |
| S. End of North Appr. | 28+68.50 | 0.00 | 769.71 |

WEST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of North Appr. | 28+38.50 | 12.00 | 768.92 |
| A | 28+48.50 | 12.00 | 769.11 |
| B | 28+58.50 | 12.00 | 769.31 |
| S. End of North Appr. | 28+68.50 | 12.00 | 769.53 |

WEST CURB LINE/WEST FACE OF PARAPET

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of North Appr. | 28+38.50 | 16.42 | 768.82 |
| A | 28+48.50 | 16.42 | 769.02 |
| B | 28+58.50 | 16.00 | 769.23 |
| S. End of North Appr. | 28+68.50 | 16.00 | 769.44 |



NORTH APPROACH SLAB PLAN

EAST CURB LINE/EAST FACE OF PARAPET

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of South Appr. | 30+13.50 | -16.00 | 773.76 |
| A | 30+23.50 | -16.00 | 774.10 |
| B | 30+33.50 | -16.42 | 774.43 |
| S. End of South Appr. | 30+43.50 | -16.42 | 774.77 |

EAST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of South Appr. | 30+13.50 | -12.00 | 773.84 |
| A | 30+23.50 | -12.00 | 774.18 |
| B | 30+33.50 | -12.00 | 774.52 |
| S. End of South Appr. | 30+43.50 | -12.00 | 774.87 |

⊘ ROADWAY, PROFILE GRADE LINE (P.G.L.) & STAGE CONSTRUCTION LINE

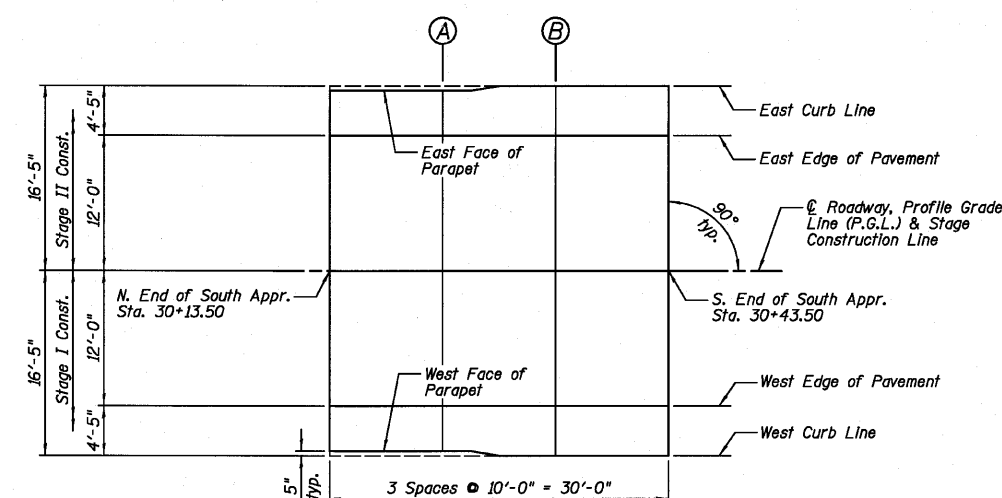
| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of South Appr. | 30+13.50 | 0.00 | 774.03 |
| A | 30+23.50 | 0.00 | 774.37 |
| B | 30+33.50 | 0.00 | 774.71 |
| S. End of South Appr. | 30+43.50 | 0.00 | 775.05 |

WEST EDGE OF PAVEMENT

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of South Appr. | 30+13.50 | 12.00 | 773.84 |
| A | 30+23.50 | 12.00 | 774.18 |
| B | 30+33.50 | 12.00 | 774.52 |
| S. End of South Appr. | 30+43.50 | 12.00 | 774.87 |

WEST CURB LINE/WEST FACE OF PARAPET

| Location | Station | Offset | Theoretical Grade Elevations |
|-----------------------|----------|--------|------------------------------|
| N. End of South Appr. | 30+13.50 | 16.00 | 773.76 |
| A | 30+23.50 | 16.00 | 774.10 |
| B | 30+33.50 | 16.42 | 774.43 |
| S. End of South Appr. | 30+43.50 | 16.42 | 774.77 |



SOUTH APPROACH SLAB PLAN

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 006-0181

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

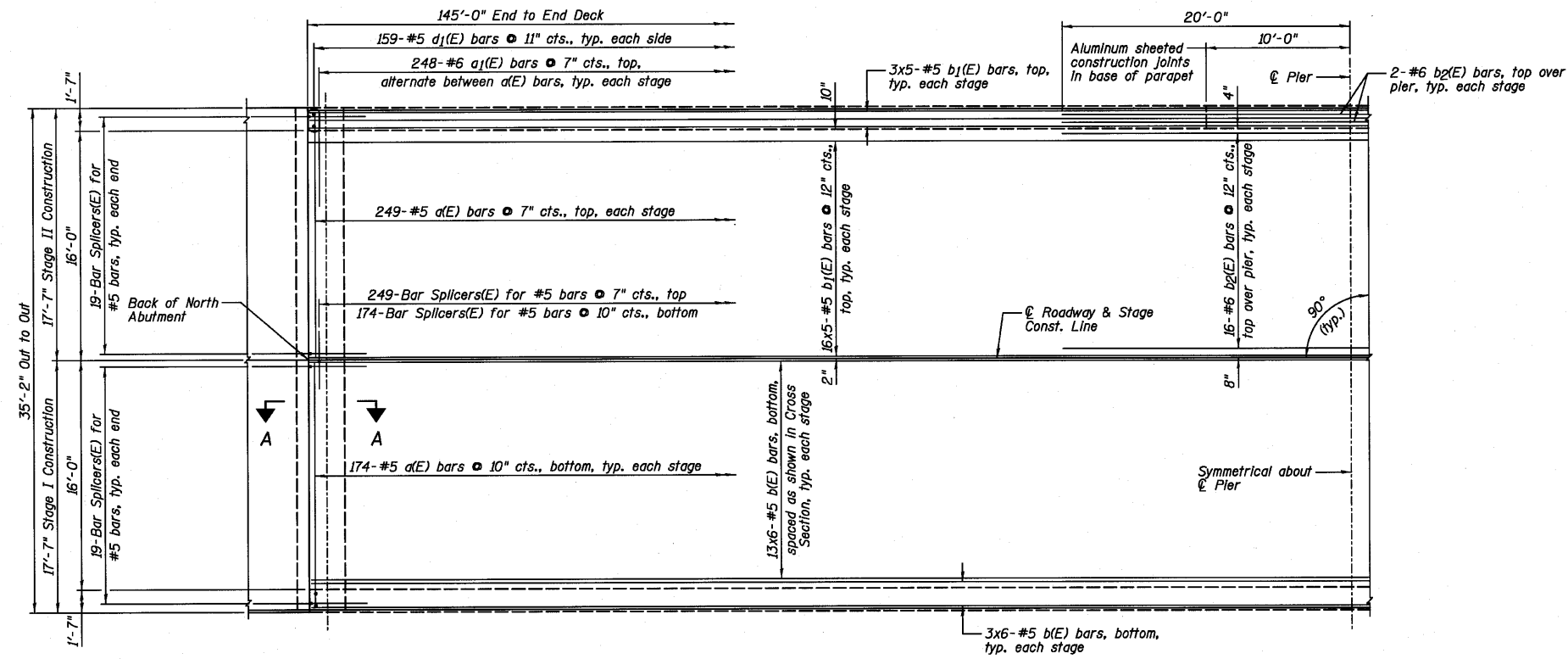
DATE 10/08/10

Farnsworth
GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. BR
23 SHEETS

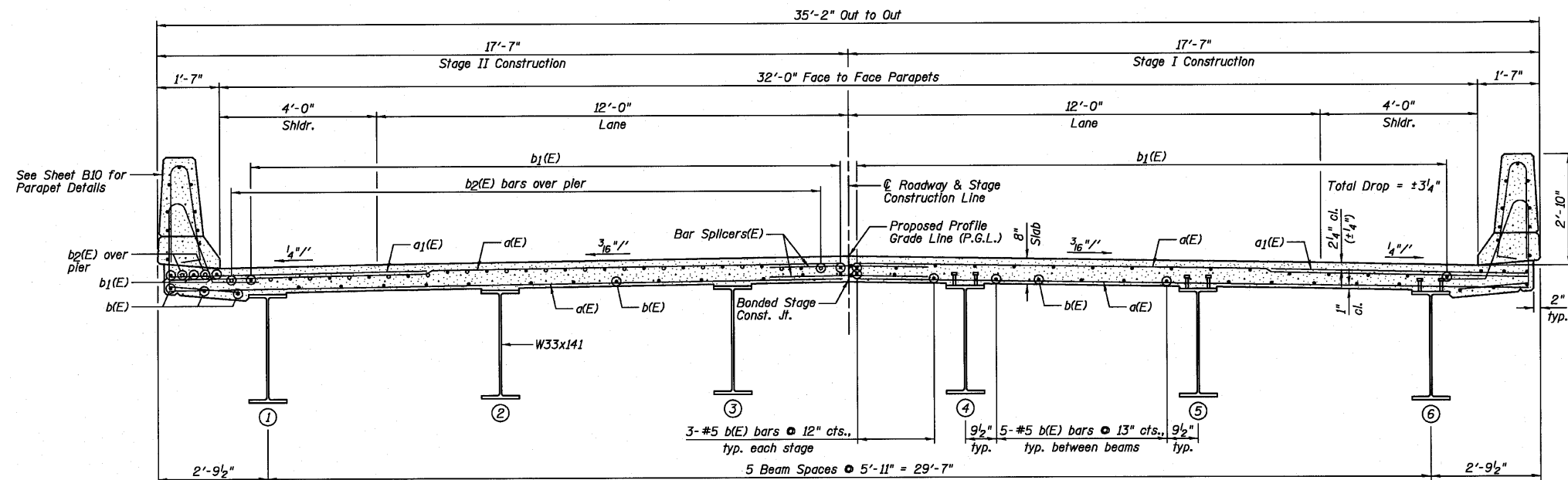
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|---------------------------|--------------|-----------|
| 698 | (101 BR)BR | BUREAU | 47 | 22 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



HALF PLAN

BAR LAP
#5 - 2'-7"



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking South • ϕ of Bridge)

NOTES:

- 1.) See Sheet B10 for Superstructure Details and Bill of Material.
- 2.) Bars Indicated thus 3x6-#5 etc. Indicates 3 lines of bars with 6 lengths per line.
- 3.) See Sheet B21 for Bar Splicer Details.
- 4.) For Section A-A and Diaphragm Details, see Sheet B11.

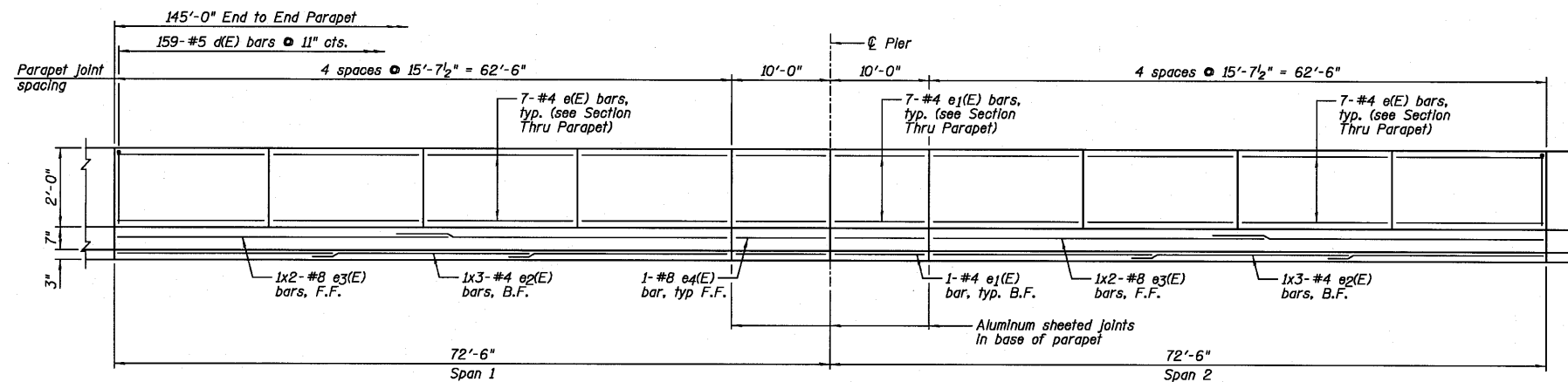
| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

SUPERSTRUCTURE DECK
STRUCTURE NO. 006-0181

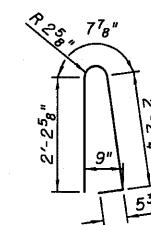
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|--|--------------|---------------------|--------------------|------------------|--------------|-----------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B9 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 23 |
| | | | CONTRACT NO. 66910 | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

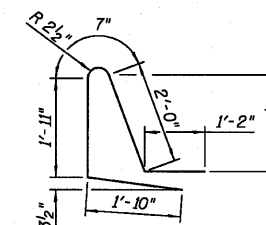


INSIDE ELEVATION OF PARAPET

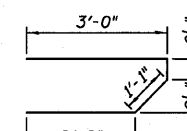
| BAR LAP | |
|---------|---------|
| #4 | - 2'-0" |
| #8 | - 5'-2" |



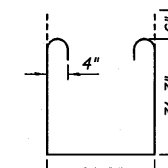
d(E) BAR



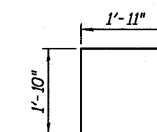
d1(E) BAR



s(E) BAR



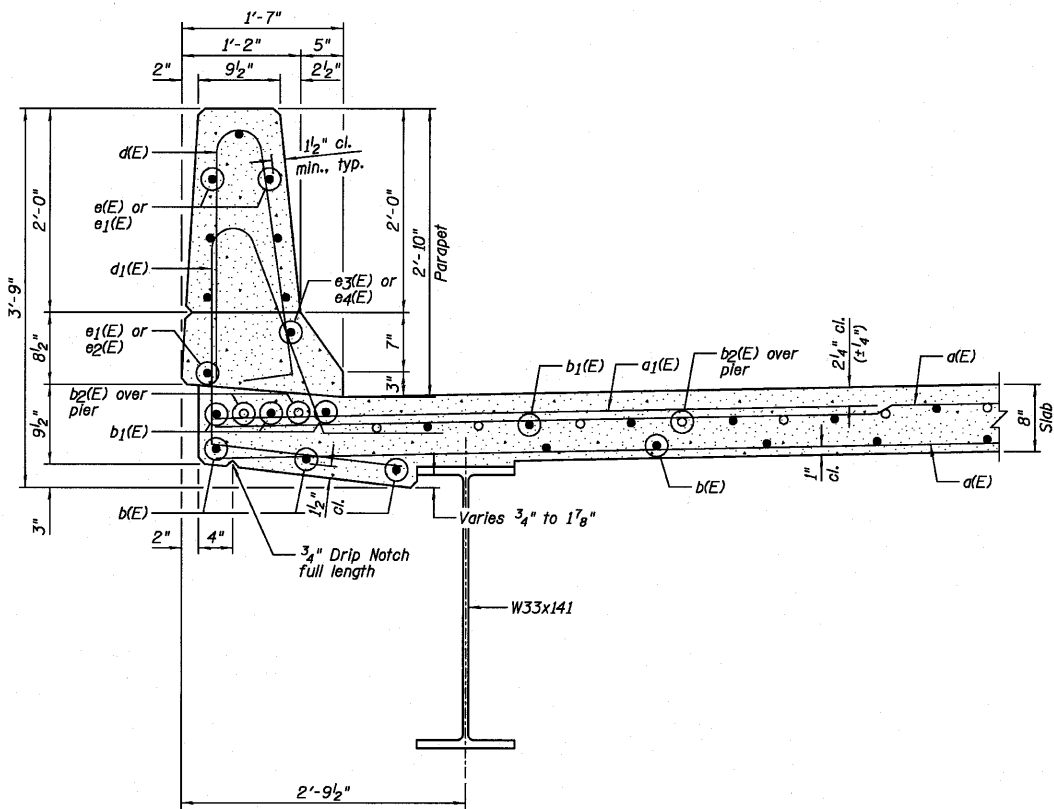
s1(E) BAR



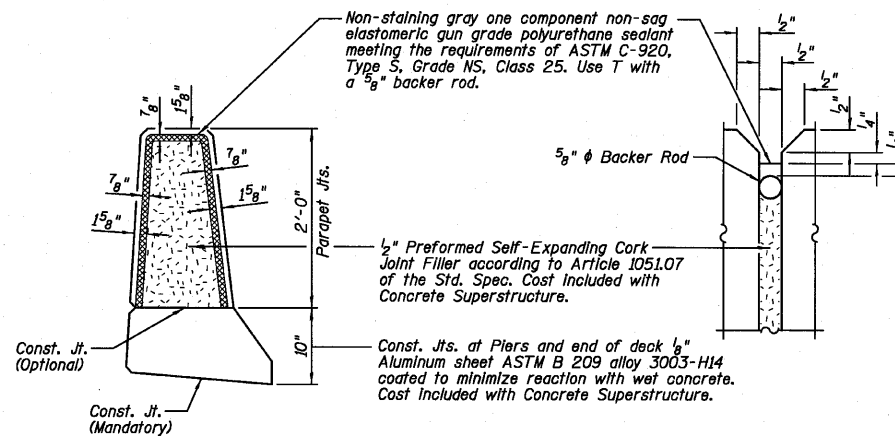
v(E) BAR

SUPERSTRUCTURE
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|-----|---------|----------|-------|
| a(E) | 846 | #5 | 17'-1" | — |
| a1(E) | 496 | #6 | 6'-6" | — |
| b(E) | 192 | #5 | 26'-3" | — |
| b1(E) | 190 | #5 | 31'-0" | — |
| b2(E) | 36 | #6 | 40'-0" | — |
| d(E) | 318 | #5 | 5'-7" | U |
| d1(E) | 318 | #5 | 7'-6" | U |
| e(E) | 112 | #4 | 15'-3" | — |
| e1(E) | 32 | #4 | 9'-8" | — |
| e2(E) | 12 | #4 | 22'-1" | — |
| e3(E) | 8 | #8 | 33'-8" | — |
| e4(E) | 4 | #8 | 9'-8" | — |
| m(E) | 8 | #6 | 2'-5" | — |
| m1(E) | 8 | #6 | 5'-7" | — |
| m2(E) | 24 | #6 | 8'-0" | — |
| m3(E) | 20 | #6 | 17'-3" | — |
| s(E) | 72 | #5 | 6'-10" | U |
| s1(E) | 64 | #4 | 9'-8" | U |
| v(E) | 72 | #5 | 3'-9" | U |
| Item | | Unit | Quantity | |
| Concrete Superstructure | | Cu. Yd. | 186.0 | |
| Reinforcement Bars, Epoxy Coated | | Pound | 48,910 | |



SECTION THRU PARAPET



PARAPET JOINT DETAILS

NOTES:

- 1.) B.F. denotes Back Face and F.F. denotes Front Face.
- 2.) Inside elevation of parapet view is exaggerated vertically to show reinforcement.
- 3.) Bars indicated thus 1x2-#8 etc. indicates 1 line of bars with 2 lengths per line.

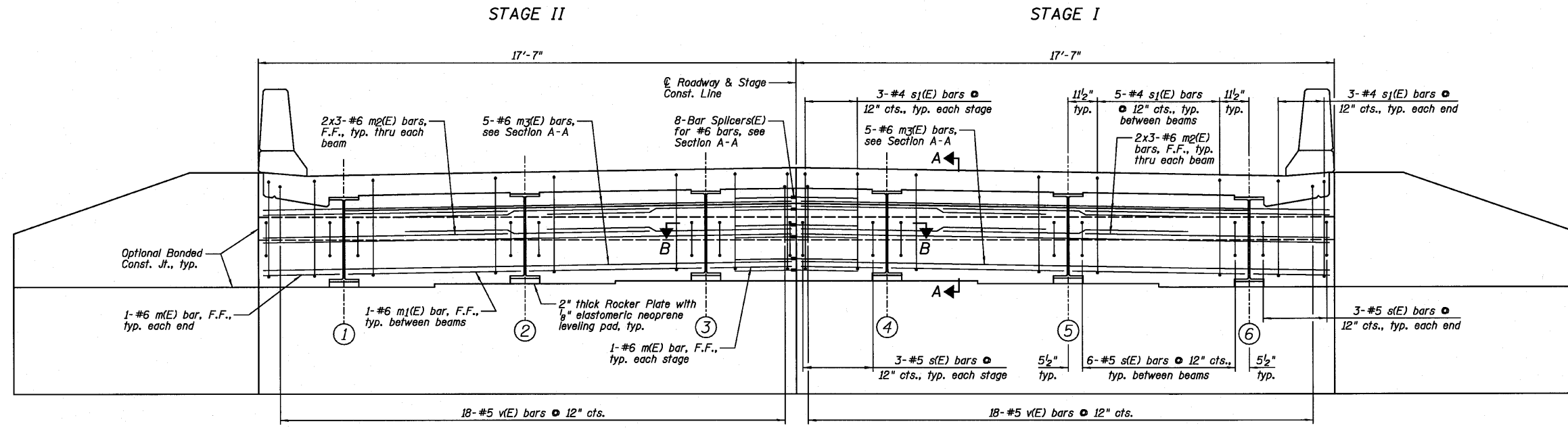
| | |
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| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 006-0181

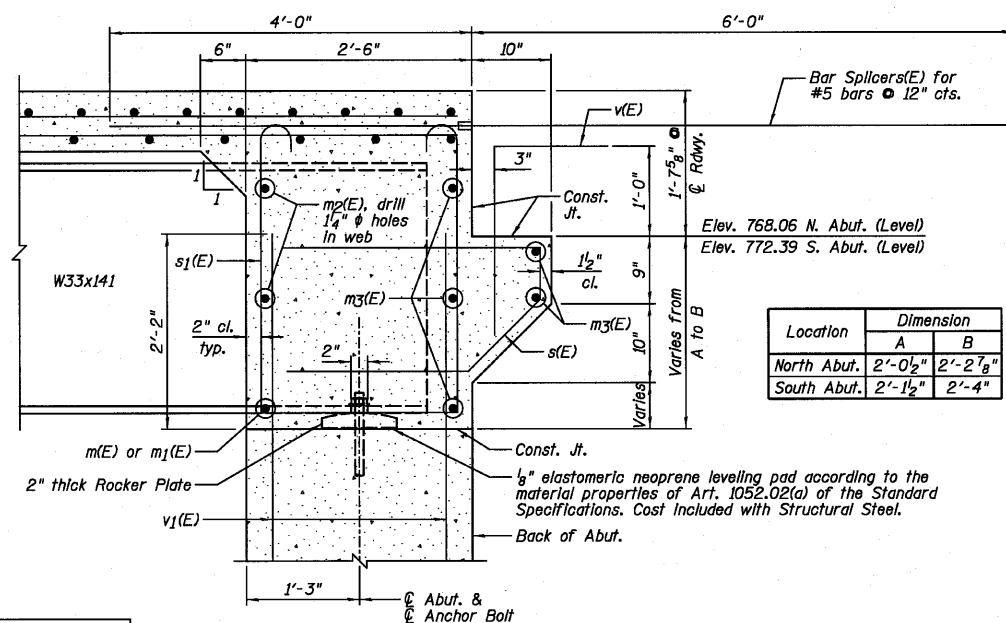
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| | SHEET NO. B10 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 24 | |
| | | CONTRACT NO. 66910 | | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ELEVATION OF DIAPHRAGM AT SOUTH ABUTMENT
(Similar for North Abutment)

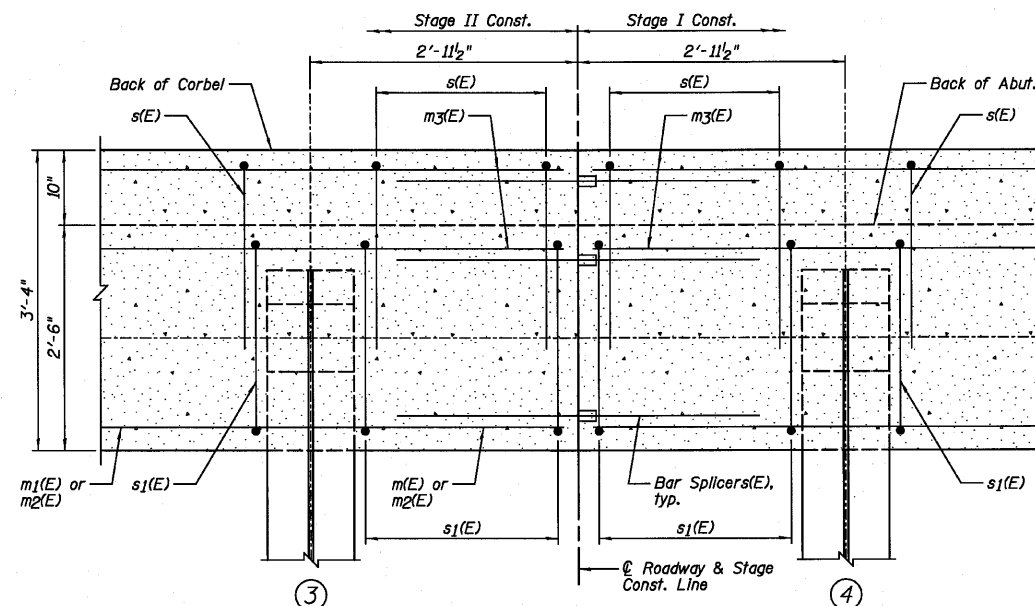
BAR LAP
#6 - 3'-4"



SECTION A-A

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10



SECTION B-B

NOTES:

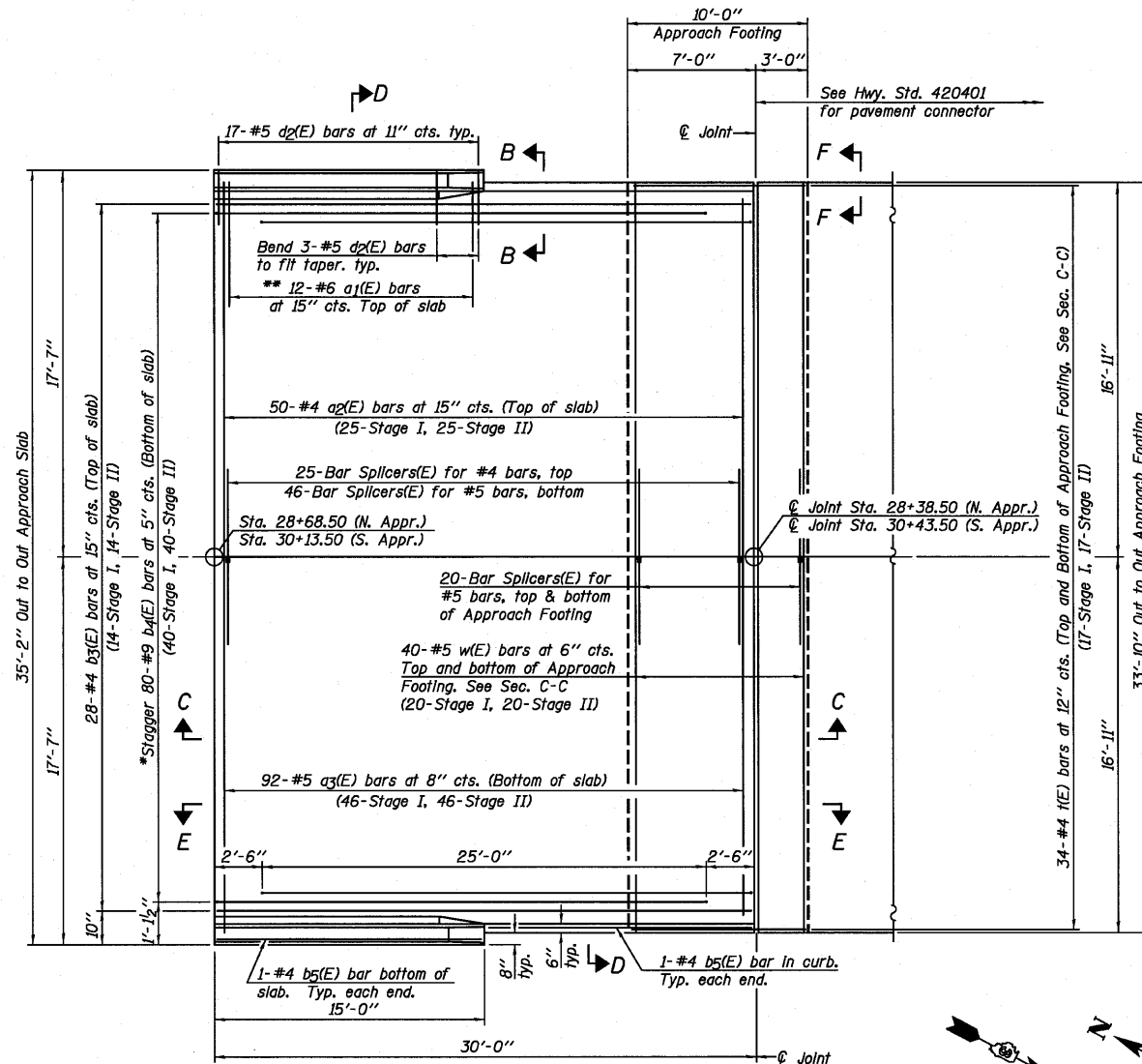
- 1.) Reinforcement bars in diaphragm are billed with Superstructure on Sheet B10.
- 2.) Concrete in diaphragm is included with Concrete Superstructure on Sheet B10.
- 3.) For details of bars s(E) and s1(E), see Sheet B10.
- 4.) See Sheet B16 for Fixed Bearing Details.
- 5.) F.F. denotes Front Face.
- 6.) See Sheet B21 for Bar Splicer Details.
- 7.) Bars Indicated thus 2x3-#6 Indicates 2 lines of bars with 3 lengths per line.

DIAPHRAGM DETAILS
STRUCTURE NO. 006-0181

| | | | | | | |
|--|--------------------------------|---------------------|------------|------------------|--------------|-----------|
| <p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p> | SHEET NO. B11 23 SHEETS | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | | 698 | (101 BR)BR | BUREAU | 47 | 25 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

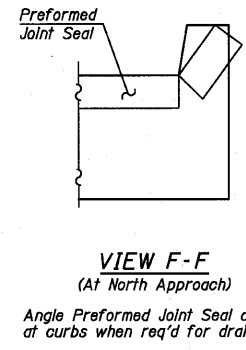
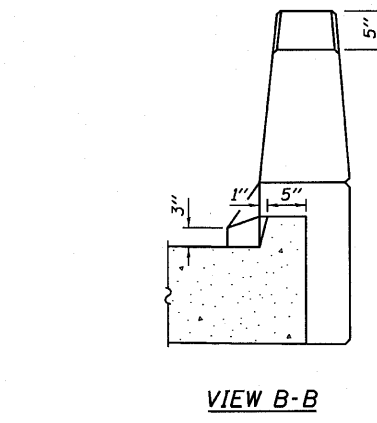
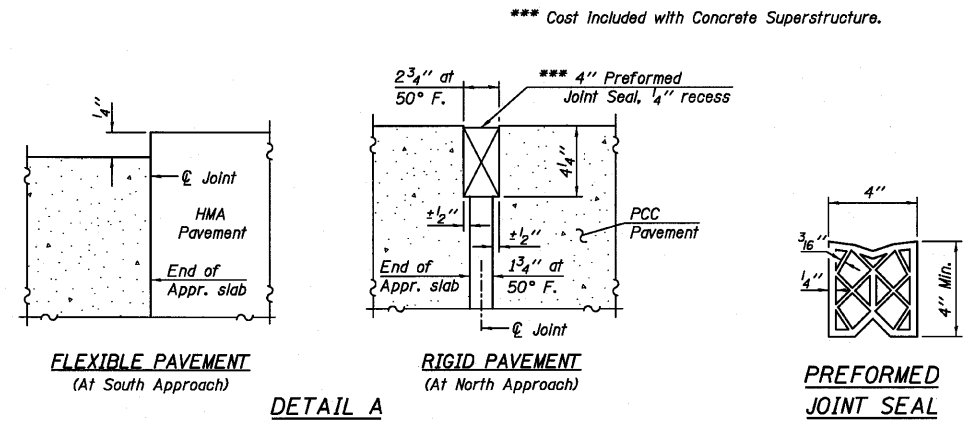
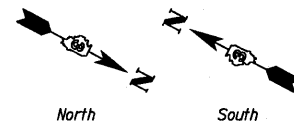
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See Sheet B13 for Sections C-C & D-D and View E-E.
a2(E) and a3(E) bar spacings measured along ϕ Rdwy.



PLAN

- * Tilt #9 b4(E) bars as required to maintain clearance.
- ** Space between a2(E) bars, typ. ea. parapet.



| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

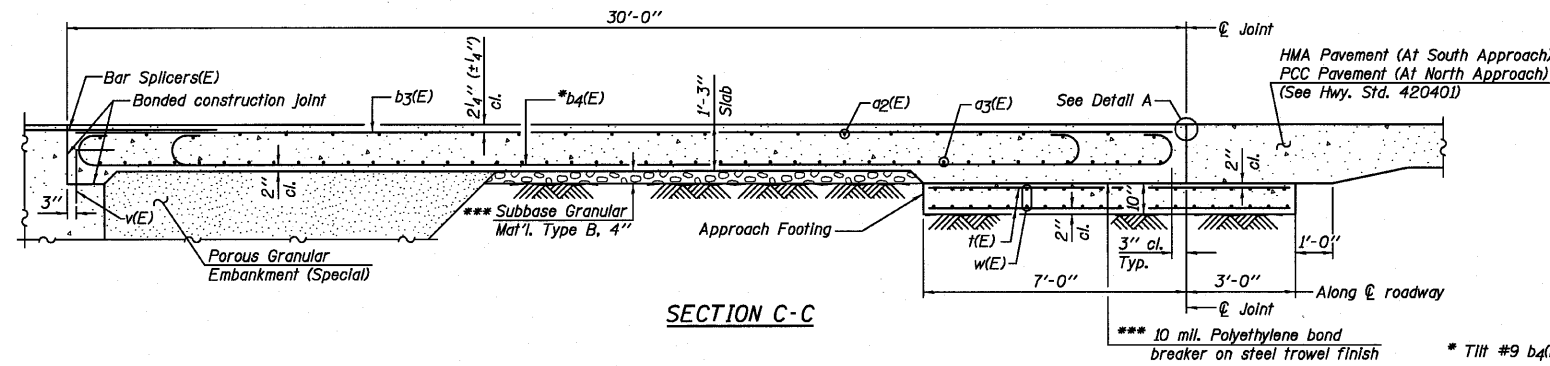
DATE 10/08/10 BA-0 7-1-10

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0181

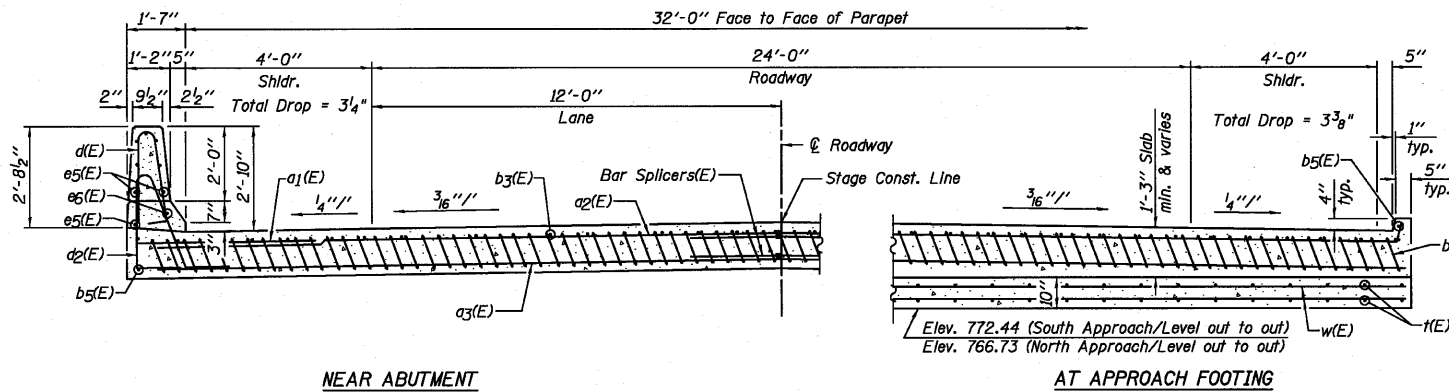
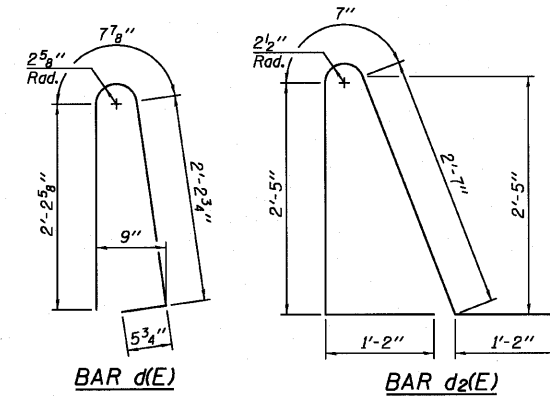
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|--|---------------|---------------------|------------|------------------|--------------|-----------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B12 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 26 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See Sheet B12 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see Sheet B11.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see Sheet B21.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see Sheet B2.
For additional parapet details, see Sheet B10.



* Tilt #9 b4(E) bars as required to maintain clearance.
*** Cost included with Concrete Superstructure.



NEAR ABUTMENT

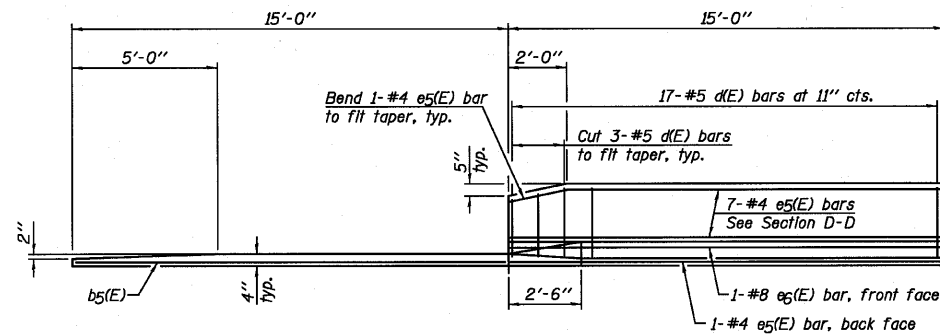
SECTION D-D

(See Plan for dimensions not shown)

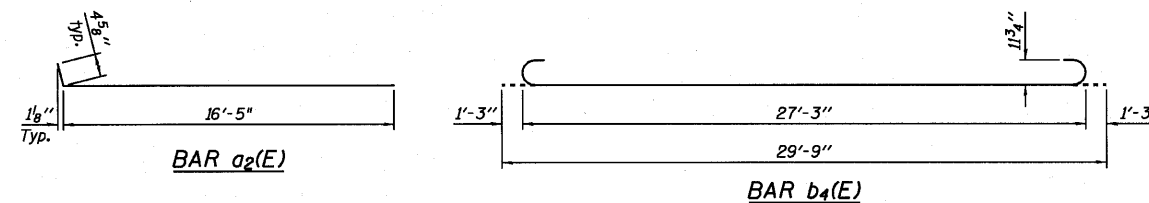
AT APPROACH FOOTING

TWO APPROACHES
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|----------------------------------|---------|----------|---------|-------|
| a1(E) | 48 | #6 | 6'-6" | — |
| a2(E) | 100 | #4 | 16'-9" | — |
| a3(E) | 184 | #5 | 15'-11" | — |
| b3(E) | 56 | #4 | 29'-8" | — |
| b4(E) | 160 | #9 | 29'-9" | — |
| b5(E) | 8 | #4 | 14'-8" | — |
| d(E) | 68 | #5 | 5'-7" | U |
| d2(E) | 68 | #5 | 7'-11" | U |
| e5(E) | 32 | #4 | 14'-8" | — |
| e6(E) | 4 | #8 | 14'-8" | — |
| k(E) | 136 | #4 | 9'-8" | — |
| w(E) | 160 | #5 | 16'-7" | — |
| Item | Unit | Quantity | | |
| Concrete Superstructure | Cu. Yd. | 107.9 | | |
| Concrete Structures | Cu. Yd. | 20.9 | | |
| Reinforcement Bars, Epoxy Coated | Pound | 27,090 | | |



VIEW E-E



| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

BA-0

7-1-10

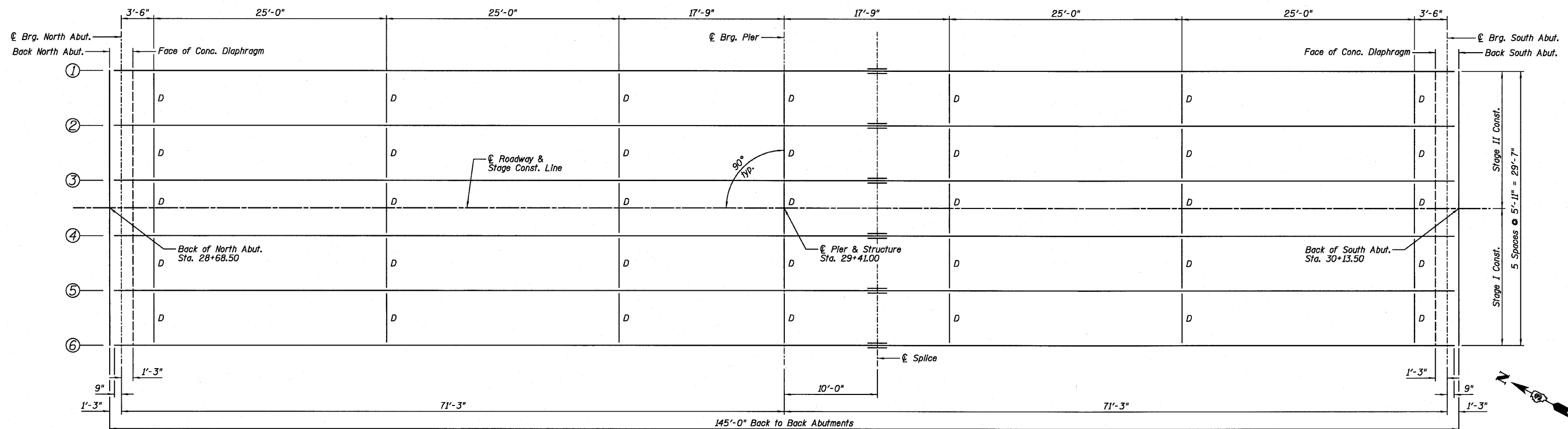
Farnsworth
GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B13
23 SHEETS

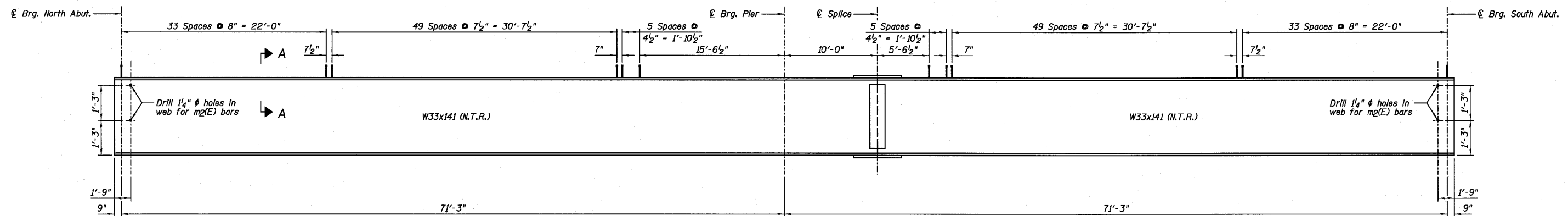
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|------------|------------------|--------------|-----------|
| 698 | (101 BR)BR | BUREAU | 47 | 27 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 006-0181

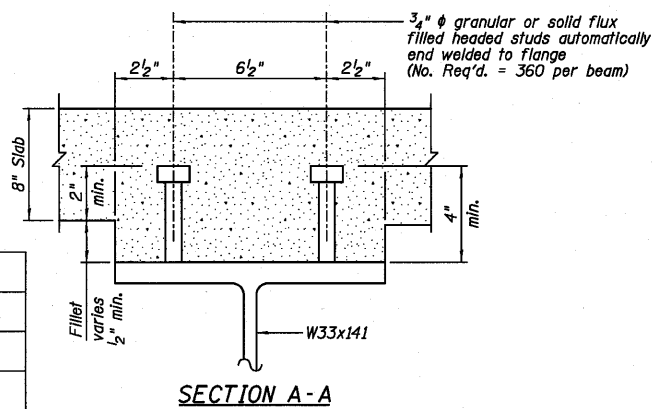
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PLAN



ELEVATION



| FABRICATED TOP OF BEAM ELEVATION TABLE | | | | | | |
|--|------------|------------|------------|------------|------------|------------|
| Location | Beam No. 1 | Beam No. 2 | Beam No. 3 | Beam No. 4 | Beam No. 5 | Beam No. 6 |
| C Brg. N. Abut. | 768.77 | 768.88 | 768.97 | 768.97 | 768.88 | 768.77 |
| C Pier | 770.63 | 770.74 | 770.83 | 770.83 | 770.74 | 770.63 |
| C Splice | 770.89 | 771.00 | 771.09 | 771.09 | 771.00 | 770.89 |
| C Brg. S. Abut. | 773.02 | 773.12 | 773.22 | 773.22 | 773.12 | 773.02 |

For fabrication use only.

NOTES:

- See Sheet B15 for Splice Details and Diaphragm Details.
- Load carrying components designated N.T.R. shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

STRUCTURAL STEEL
STRUCTURE NO. 006-0181

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

Farnsworth
GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B14
23 SHEETS

| | | | | |
|---------------------|------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 28 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| INTERIOR BEAM MOMENT TABLE | | | |
|-----------------------------|--------------------|------------------------|-------|
| | | 0.4 Sp. 1 or 0.6 Sp. 2 | Pier |
| I_s | (in ⁴) | 7450 | 7450 |
| $I_e(n)$ | (in ⁴) | 19002 | |
| $I_e(3n)$ | (in ⁴) | 13812 | |
| S_s | (in ³) | 448 | 448 |
| $S_e(n)$ | (in ³) | 646 | |
| $S_e(3n)$ | (in ³) | 581 | |
| Z | (in ³) | | 514 |
| DC1 | (k/ft) | 0.760 | 0.760 |
| MDC1 | (k) | 272 | 478 |
| DC2 | (k/ft) | 0.150 | 0.150 |
| MDC2 | (k) | 60 | 78 |
| DW | (k/ft) | 0.267 | 0.267 |
| MDW | (k) | 107 | 139 |
| $M_k + IM$ | (k) | 798 | 541 |
| M_u (Strength I) | (k) | 1972 | 1850 |
| $\phi_r M_n, \phi_r M_{nc}$ | (k) | 3241 | 2142 |
| f_s DC1 | (ksi) | 7.3 | 12.8 |
| f_s DC2 | (ksi) | 1.2 | 2.1 |
| f_s DW | (ksi) | 2.2 | 3.7 |
| f_s 1.3(k+IM) | (ksi) | 19.3 | 18.8 |
| f_s (Service II) | (ksi) | 30.0 | 37.5 |
| f_s (Total Strength I) | (ksi) | | |
| V_r | (k) | 22.6 | |

* Compact Sections
** Non-Compact and Slender Sections

| INTERIOR BEAM REACTION TABLE | | |
|------------------------------|-------|-------|
| | Abut. | Pier |
| RDC1 | (k) | 28.8 |
| RDC2 | (k) | 24.4 |
| RDW | (k) | 7.6 |
| $R_k + IM$ | (k) | 67.8 |
| RTotal | (k) | 128.6 |

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_e(n), S_e(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in⁴ and in³).

$I_e(3n), S_e(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in⁴ and in³).

Z: Plastic Section Modulus of the steel section in non-composite areas. Omit line in Moment Table if not used in design calculations (in³).

DC1: Un-factored non-composite dead load (klps/ft.).

MDC1: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (klps/ft.).

MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (klps/ft.).

MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

$M_k + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$

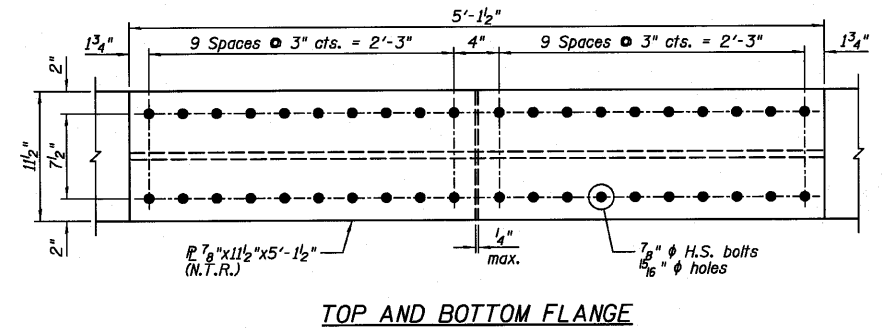
$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_r M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

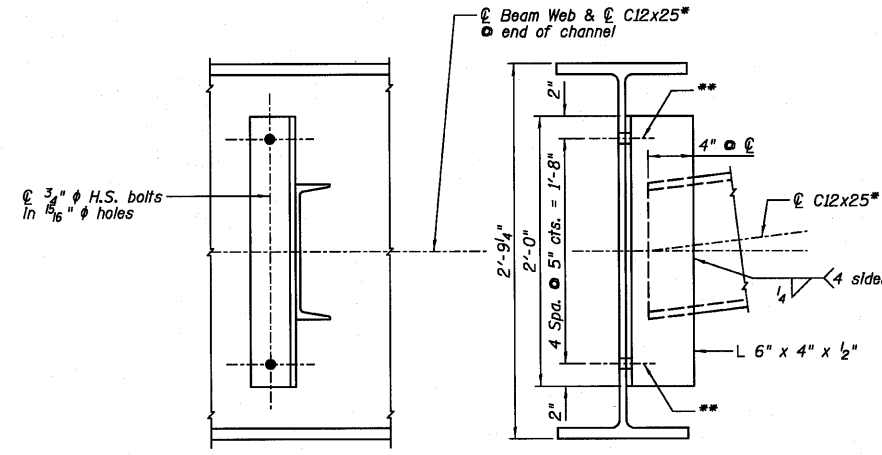
f_s (Service II): Sum of stresses as computed from the moments below (ksi).
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_k + IM$

f_s (Total Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$

V_r : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



TOP AND BOTTOM FLANGE

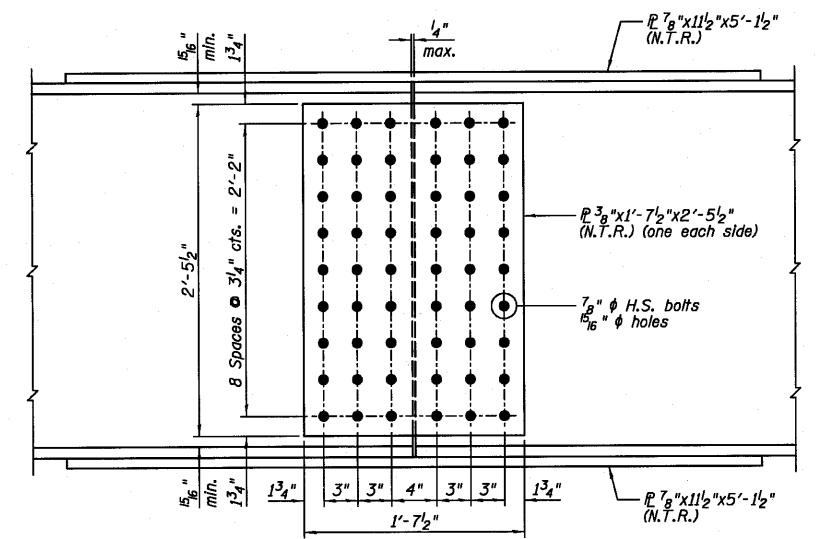


DIAPHRAGM D
(35 - Required)

Note:
Two hardened washers required for each set of oversized holes.

*Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C12x25 section. The C12x30, if utilized, shall be provided at no extra cost to the department.

**The connection angles on Beam 3 near the Stage Construction Line shall have 5/8 inch x 1 1/8 inch vertical slotted holes. The bolts in the slotted holes shall be finger tight until the Stage II deck pour is completed. The slotted holes in the connection angles shall be positioned to allow the bolts to move from one end of the slotted hole to the opposite end under deck load. The holes shall be positioned allowing maximum bolt displacement without laterally stressing the beams. No slotted holes are allowed on the beams.



WEB

SPLICE DETAILS
(6 - Required)

NOTES:

- See Sheet B14 for Splice and Diaphragm Locations.
- Load carrying components designated N.T.R. shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

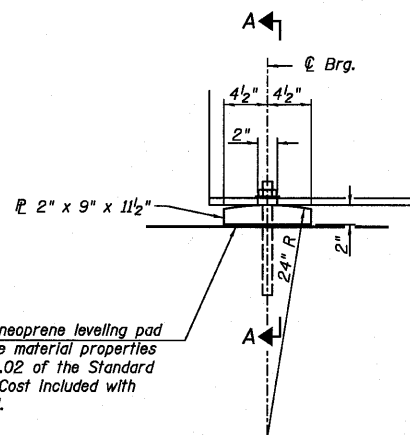
| | |
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| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

STRUCTURAL STEEL
STRUCTURE NO. 006-0181

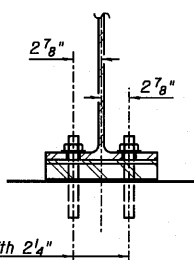
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| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B15 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 29 |
| | | CONTRACT NO. 66910 | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



1/2" elastomeric neoprene leveling pad according to the material properties of Article 1052.02 of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT ABUTMENTS

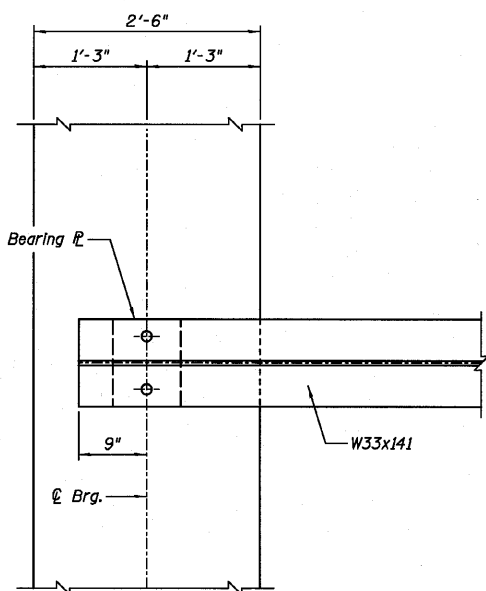


1" ϕ x 12" anchor bolts with 2 1/4" x 2 1/4" x 5/16" ϕ washer under nut. 1 3/8" x 2" slotted hole in flange. 1/2" ϕ holes in bearing plate.

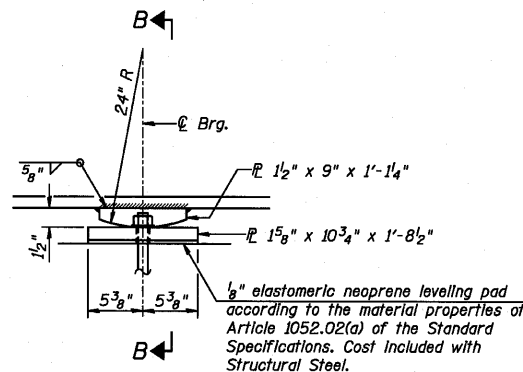
SECTION A-A

FIXED BEARING

(At North Abutment - 6 Required)
(At South Abutment - 6 Required)



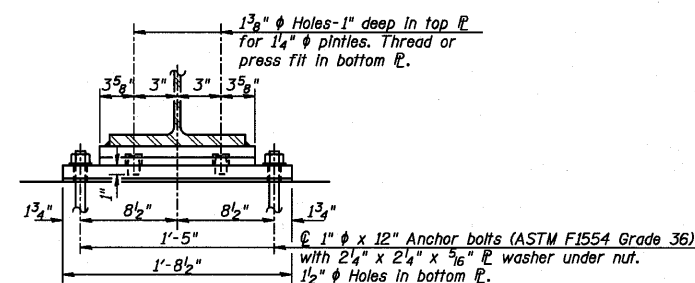
BEARING PLAN AT ABUTMENTS



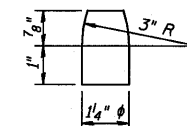
ELEVATION AT PIER

FIXED BEARING

(At Pier - 6 Required)



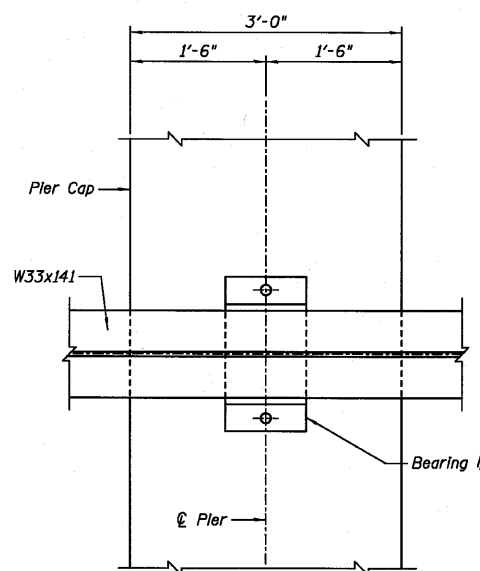
SECTION B-B



PINTLE

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



BEARING PLAN AT PIERS

BILL OF MATERIAL

| Item | Unit | Total |
|------------------|------|-------|
| Anchor Bolts, 1" | Each | 36 |

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

NOTE:

Two 1/2 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Farnsworth GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B16
23 SHEETS

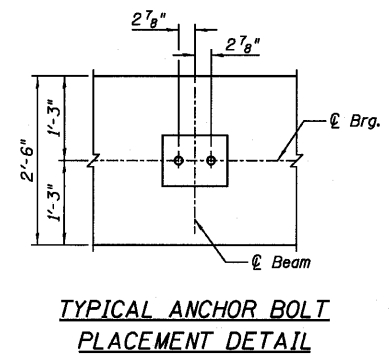
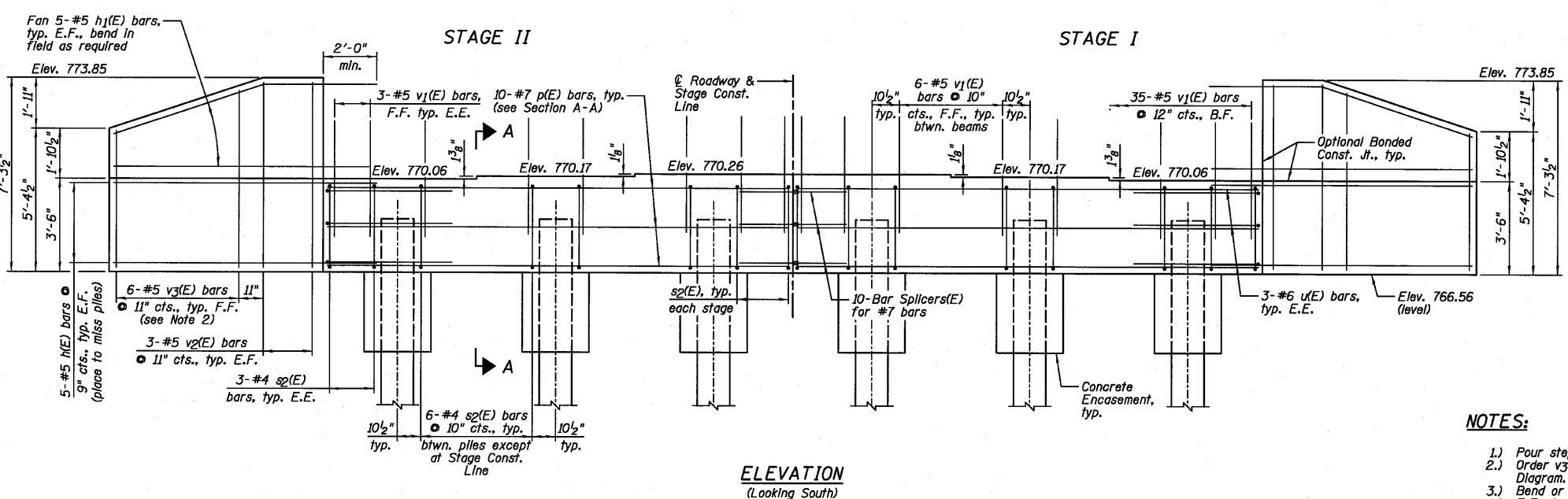
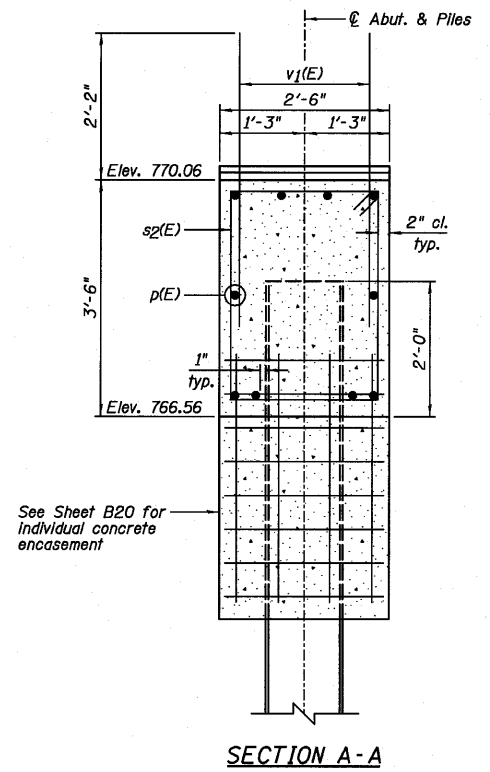
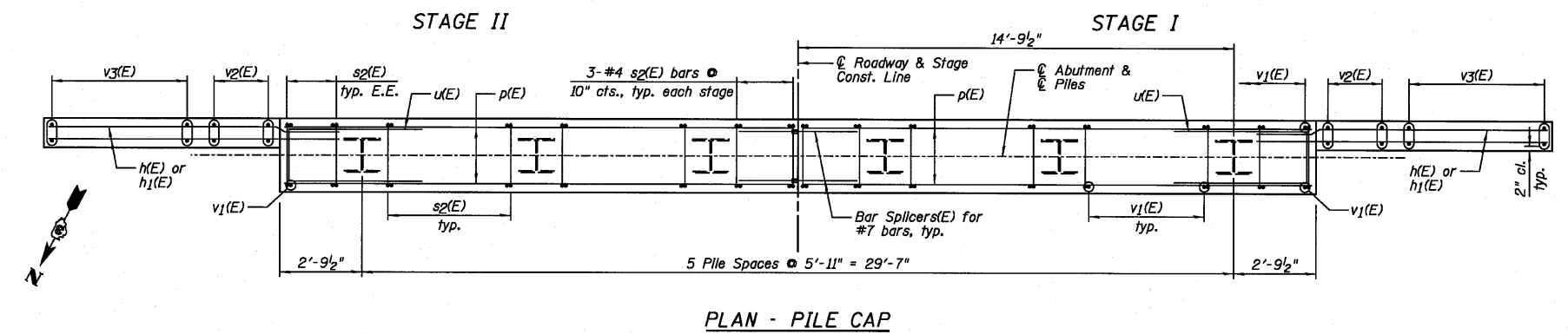
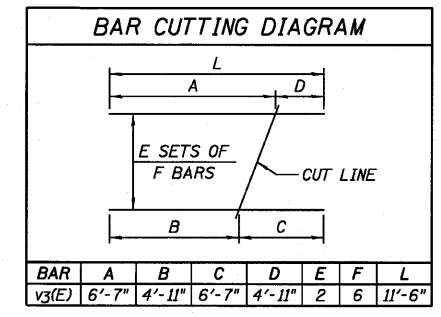
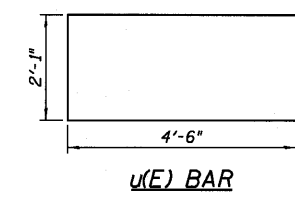
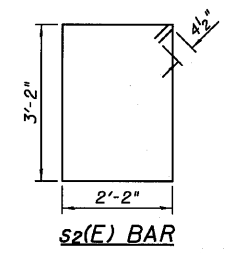
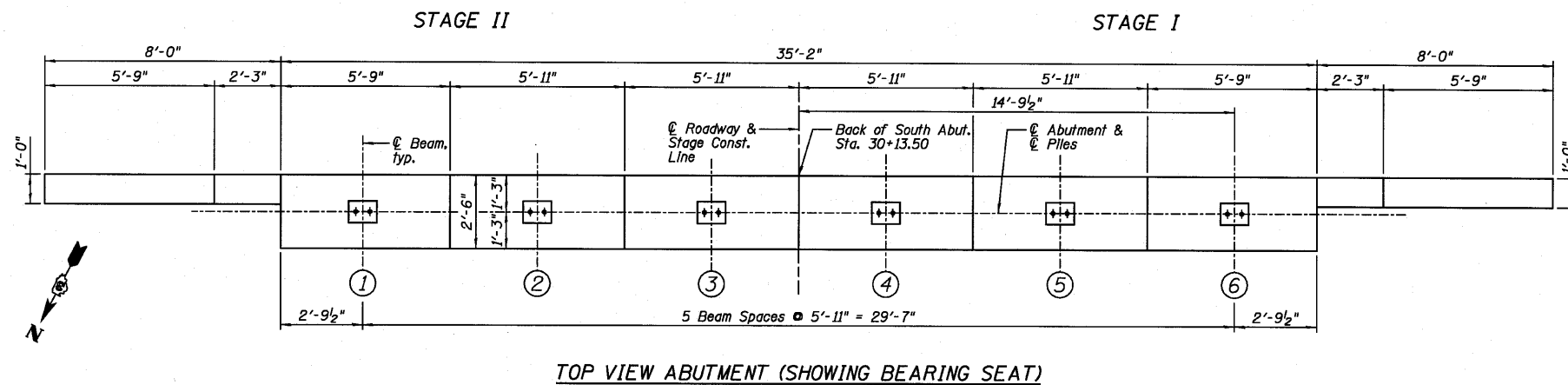
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|---------------------|------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 30 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

**FIXED BEARING DETAILS
STRUCTURE NO. 006-0181**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**SOUTH ABUTMENT
BILL OF MATERIAL**

| Bar | No. | Size | Length | Shape |
|-------------------------------------|---------|----------|--------|-------|
| h(E) | 20 | #5 | 9'-10" | — |
| h1(E) | 20 | #5 | 10'-1" | — |
| p(E) | 20 | #7 | 17'-3" | — |
| sp(E) | 36 | #4 | 11'-5" | □ |
| u(E) | 6 | #6 | 11'-1" | □ |
| v1(E) | 71 | #5 | 4'-4" | — |
| v2(E) | 12 | #5 | 6'-11" | — |
| v3(E) | 12 | #5 | 11'-6" | — |
| Item | Unit | Quantity | | |
| Porous Granular Embankment, Special | Cu. Yd. | 58 | | |
| Structure Excavation | Cu. Yd. | 73 | | |
| Concrete Structures | Cu. Yd. | 15.7 | | |
| Concrete Encasement | Cu. Yd. | 3.3 | | |
| Reinforcement Bars, Epoxy Coated | Pound | 2,050 | | |
| Furnishing Steel Piles HP14x73 | Foot | 150 | | |
| Driving Piles | Foot | 150 | | |
| Geocomposite Wall Drain | Sq. Yd. | 33 | | |
| Pipe Underdrains for Structures 4" | Foot | 69 | | |



- NOTES:**
- 1.) Four steps monolithically with cap.
 - 2.) Order v3(E) bars full length. Cut according to Bar Cutting Diagram. Use remainder of bars in opposite face of wingwall.
 - 3.) Bend or cut h(E) bars to miss piles.
 - 4.) E.E. denotes Each End, F.F. denotes Front Face, B.F. denotes Back Face and E.F. denotes Each Face.
 - 5.) See Sheet B21 for Bar Splicer Details.

PILE DATA:

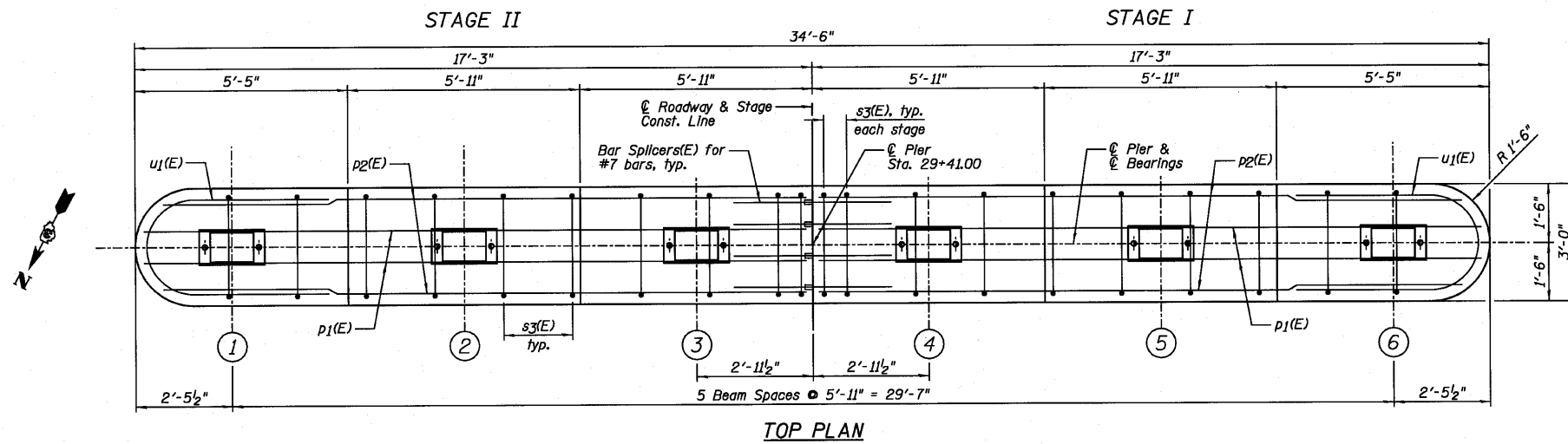
| | |
|-------------------------------|-----------------|
| Pile Type and Size | Steel - HP14x73 |
| Nominal Required Bearing | 267 kips |
| Factored Resistance Available | 147 kips |
| Estimated Pile Length | 25 Feet |
| Number of Production Piles | 6 |
| Number of Test Piles | 0 |

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

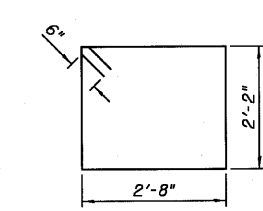
DATE 10/08/10

| | | | | | | |
|---|---------------|-------------|------------|--------|--------------|-----------|
| <p>2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p> | SHEET NO. B18 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 32 |
| CONTRACT NO. 66910 | | | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | | | |

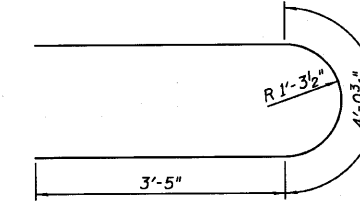
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TOP PLAN



s3(E) BAR

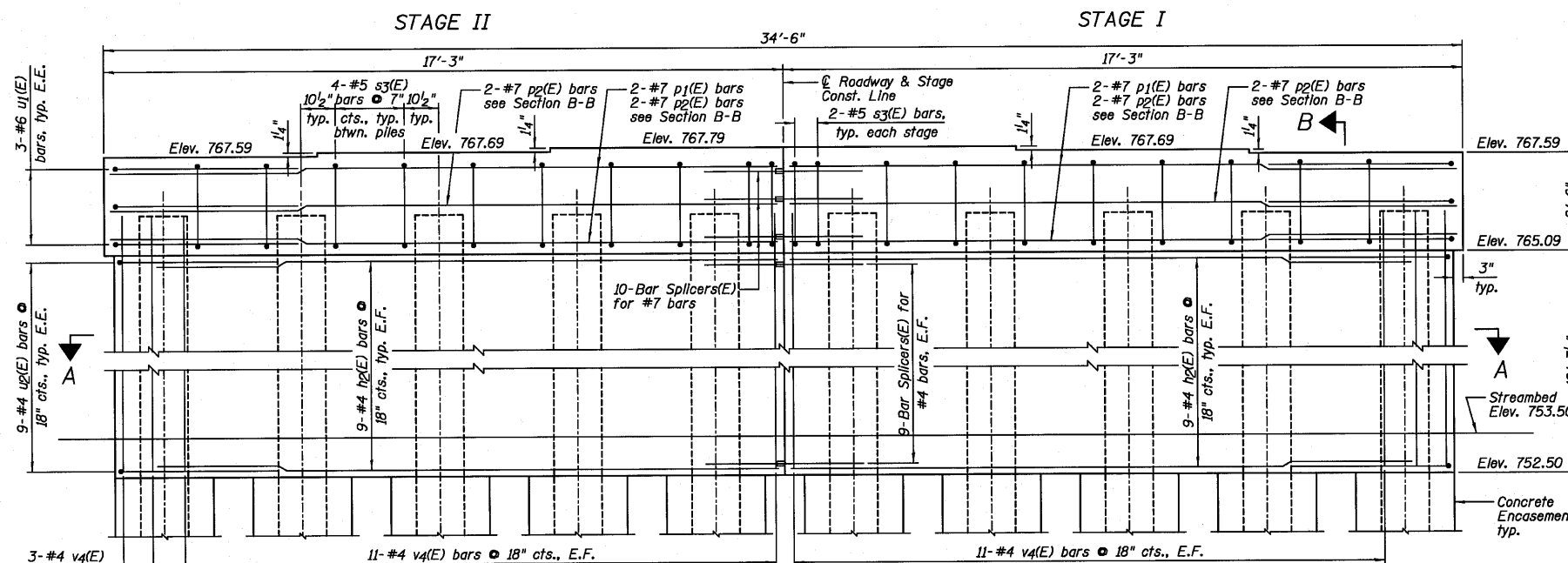


u1(E) BAR

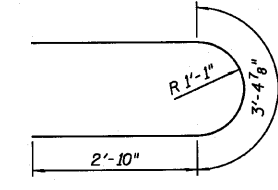
PIER
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|-------|-----|------|---------|-------|
| h2(E) | 36 | #4 | 15'-9" | — |
| p1(E) | 8 | #7 | 16'-10" | — |
| p2(E) | 12 | #7 | 16'-4" | — |
| s3(E) | 36 | #5 | 10'-8" | □ |
| u1(E) | 6 | #6 | 10'-11" | C |
| u2(E) | 18 | #4 | 9'-1" | C |
| v4(E) | 50 | #4 | 13'-9" | — |

| Item | Unit | Quantity |
|---|---------|----------|
| Structure Excavation | Cu. Yd. | 63 |
| Concrete Structures | Cu. Yd. | 48.8 |
| Concrete Encasement | Cu. Yd. | 5.5 |
| Reinforcement Bars, Epoxy Coated | Pound | 2,120 |
| Furnishing Steel Piles HP14x73 | Foot | 360 |
| Driving Piles | Foot | 360 |
| Test Pile Steel HP14x73 | Each | 1 |
| Underwater Structure Excavation Protection - Location 1 | Each | 1 |



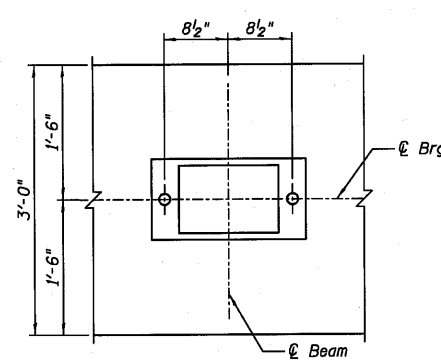
ELEVATION
(Looking South)



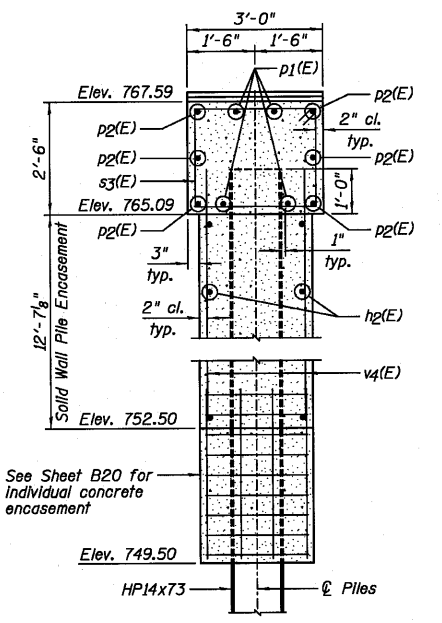
u2(E) BAR

PILE DATA:

| Pile Type and Size | Steel - HP14x73 |
|-------------------------------|-----------------|
| Nominal Required Bearing | 369 klps |
| Factored Resistance Available | 203 klps |
| Estimated Pile Length | 40 Feet |
| Number of Production Piles | 9 |
| Number of Test Piles | 1 |



TYPICAL ANCHOR BOLT
PLACEMENT DETAIL



SECTION B-B

NOTES:

- 1.) Pour steps monolithically with cap.
- 2.) If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed under water into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation 1'-0" above the water line at the time of construction.
- 3.) E.F. denotes Each Face and E.E. denotes Each End.
- 4.) See Sheet B21 for Bar Splicer Details.

PIER
STRUCTURE NO. 006-0181

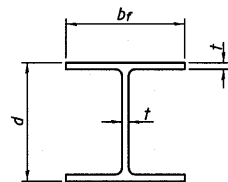
| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

SECTION A-A

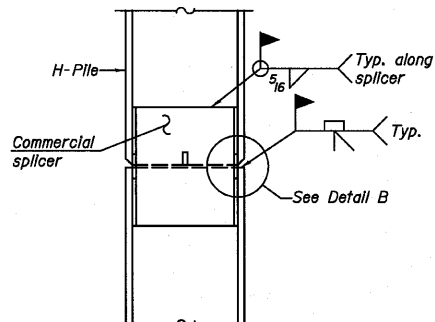
| | | | | | | |
|--|---------------|--------------------|--------------------|---|-----------------|--------------|
| <p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p> | SHEET NO. B19 | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 33 |
| | 23 SHEETS | CONTRACT NO. 66910 | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

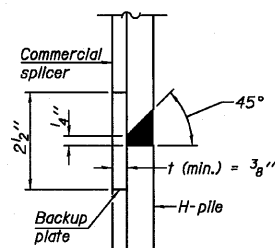


STEEL PILE TABLE

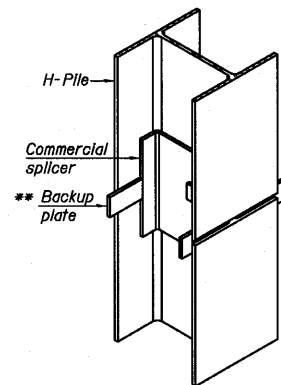
| Designation | Depth d | Flange width br | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------|----------------------------|-----------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 1 1/8" | 30" |
| x102 | 14" | 14 3/4" | 1 1/8" | 30" |
| x89 | 13 7/8" | 14 3/4" | 5/8" | 30" |
| x73 | 13 5/8" | 14 5/8" | 1/2" | 30" |
| HP 12x84 | 12 1/4" | 12 1/4" | 1 1/8" | 24" |
| x74 | 12 1/8" | 12 1/4" | 5/8" | 24" |
| x63 | 12" | 12 1/8" | 1/2" | 24" |
| x53 | 11 3/4" | 12" | 7/16" | 24" |
| HP 10x57 | 10" | 10 1/4" | 9/16" | 24" |
| x42 | 9 3/4" | 10 1/8" | 7/16" | 24" |
| HP 8x36 | 8" | 8 1/8" | 7/16" | 18" |



ELEVATION

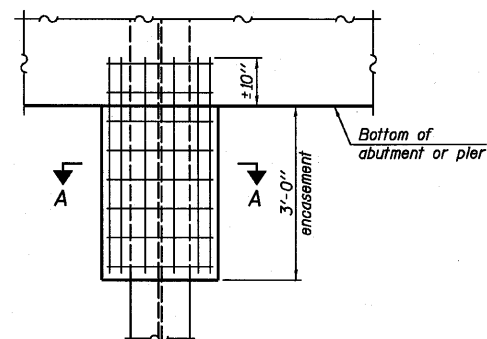


DETAIL "B"



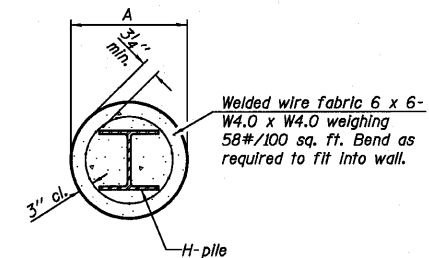
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



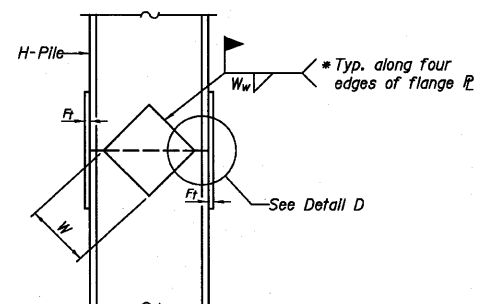
ELEVATION

PILE ENCASEMENT

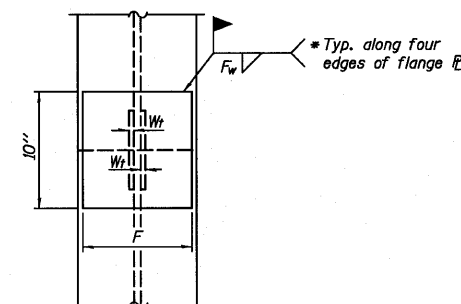


SECTION A-A

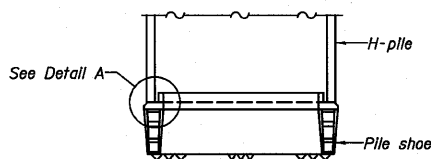
Note:
Forms for encasement may be omitted when soil conditions permit.



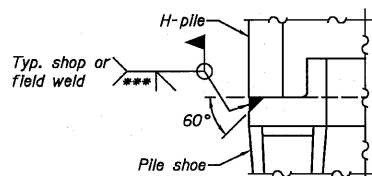
ELEVATION



END VIEW

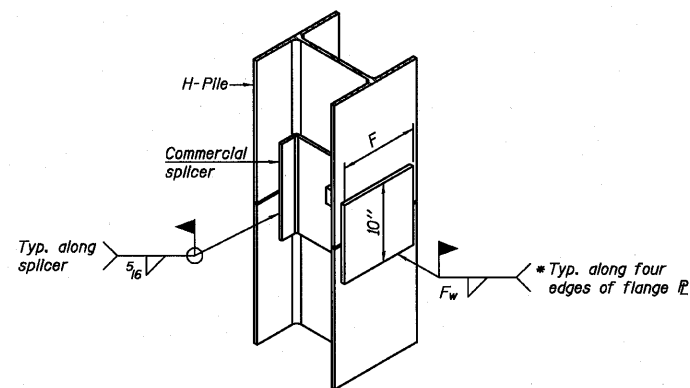


ELEVATION



DETAIL A

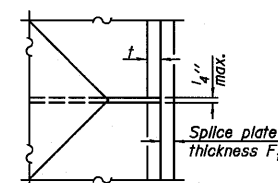
H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



DETAIL D

WELDED PLATE FIELD SPLICE

| Designation | F | F _t | F _w | W | W _t | W _w |
|-------------|---------|----------------|----------------|--------|----------------|----------------|
| HP 14x117 | 12 1/2" | 1" | 7/8" | 7 3/4" | 5 1/8" | 1/2" |
| x102 | 12 1/2" | 7/8" | 3/4" | 7 3/4" | 5 1/8" | 1/2" |
| x89 | 12 1/2" | 3/4" | 4/16" | 7 3/4" | 5 1/8" | 1/2" |
| x73 | 12 1/2" | 5/8" | 9/16" | 7 3/4" | 5 1/8" | 1/2" |
| HP 12x84 | 10" | 7/8" | 4/16" | 6 1/2" | 5 1/8" | 1/2" |
| x74 | 10" | 7/8" | 4/16" | 6 1/2" | 5 1/8" | 1/2" |
| x63 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| x53 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| HP 10x57 | 8" | 3/4" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| x42 | 8" | 5/8" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| HP 8x36 | 7" | 5/8" | 7/16" | 4 1/4" | 1/2" | 3/8" |

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

| |
|--------------|
| DESIGNED SDH |
| CHECKED JML |
| DRAWN DJM |
| CHECKED MSW |

DATE 10/08/10

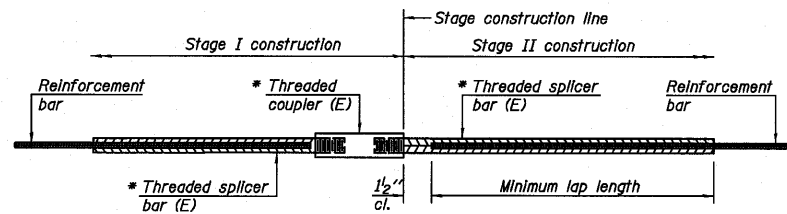
F-HP

7-1-10

HP PILE DETAILS
STRUCTURE NO. 006-0181

| | | | | | | |
|--|---------------|--------------------|-----------------------|------------------|---|-----------------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B20 | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 34 |
| | 23 SHEETS | CONTRACT NO. 66910 | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

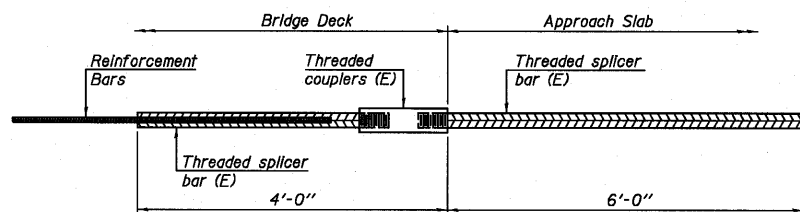
| Bar size to be spliced | Minimum Lap Lengths | | | | |
|------------------------|---------------------|---------|---------|---------|---------|
| | Table 1 | Table 2 | Table 3 | Table 4 | Table 5 |
| 3, 4 | 1'-5" | 1'-11" | 2'-1" | 2'-4" | 2'-3" |
| 5 | 1'-9" | 2'-5" | 2'-7" | 2'-11" | 2'-10" |
| 6 | 2'-1" | 2'-11" | 3'-1" | 3'-6" | 3'-4" |
| 7 | 2'-9" | 3'-10" | 4'-2" | 4'-8" | 4'-6" |
| 8 | 3'-8" | 5'-1" | 5'-5" | 6'-2" | 5'-10" |
| 9 | 4'-7" | 6'-5" | 6'-10" | 7'-9" | 7'-5" |

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

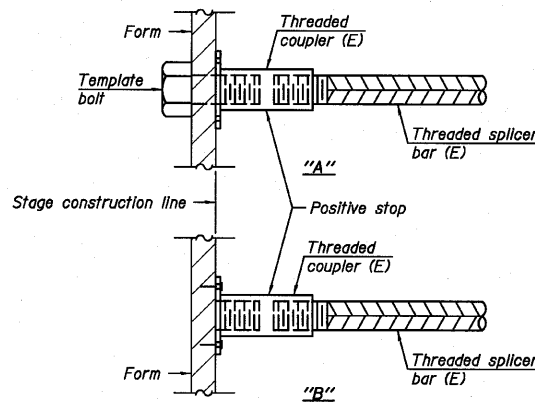
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

| Location | Bar size | No. assemblies required | Table for minimum lap length |
|-----------------|----------|-------------------------|------------------------------|
| Top of Slab | #5 | 249 | Table 3 |
| Bottom of Slab | #5 | 174 | Table 3 |
| North Diaphragm | #6 | 8 | Table 5 |
| South Diaphragm | #6 | 8 | Table 5 |
| North Approach | #4 | 25 | Table 4 |
| North Approach | #5 | 86 | Table 3 |
| South Approach | #4 | 25 | Table 4 |
| South Approach | #5 | 86 | Table 3 |
| North Abutment | #7 | 10 | Table 4 |
| Pier | #7 | 10 | Table 4 |
| Pier | #4 | 18 | Table 3 |
| South Abutment | #7 | 10 | Table 4 |



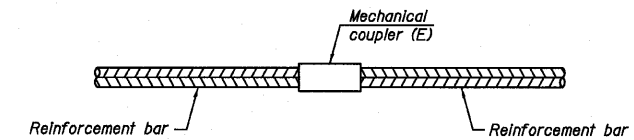
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 76



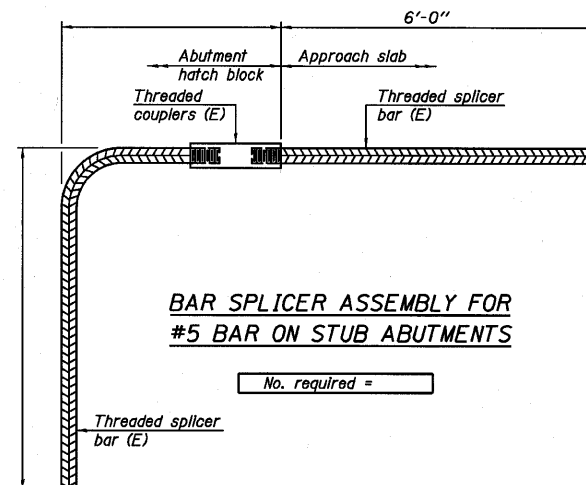
INSTALLATION AND SETTING METHODS

- "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 MECHANICAL SPLICER

| Location | Bar size | No. assemblies required |
|----------|----------|-------------------------|
| | | |
| | | |
| | | |
| | | |



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See special provision for Mechanical Splicers.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 006-0181

| | |
|----------|-----|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |

DATE 10/08/10

BSD-1

7-1-10

Farnsworth
GROUP, INC.
2709 McGraw Drive
Bloomington, Illinois 61704
309/663-8435, 309/663-1571 fax

SHEET NO. B21
23 SHEETS

| | | | | |
|---------------------|------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 35 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Page 1 of 2

SOIL BORING LOG

Date 6/24/09

ROUTE FA-698 (IL 89) DESCRIPTION IL 89 over Pike Creek, 0.5 Miles South of US 34 junction. LOGGED BY LM

SECTION 101-BR LOCATION NE 1/4, SEC. 25, TWP. 18N, RNG. 10E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 006-0104 (Exist.)
Station 29+60

BORING NO. 1 (S. Abut.)
Station 30+13
Offset 14.00R LL
Ground Surface Elev. 773.55 ft

| DEPTH H S | B L O W S | U C S Qu | M O I S T | Surface Water Elev. | | D E P T H | B L O W S | U C S | M O I S T |
|-----------------|-----------------------|-------------------|-----------------------|---------------------|-------|-----------------------|-----------------------|-------------|-----------------------|
| | | | | (ft) | (/6") | | | | |
| | | | | 755.40 | | | 2 | | |
| | | | | 753.90 | | | 3 | 2.7 | 13.9 |
| | | | | | | | 6 | S | |
| | | | | | | | 5 | | |
| | | | | | | | 6 | 3.2 | 12.1 |
| | | | | | | | 9 | S | |
| | | | | 749.55 | | | | | |
| | | | | | | | 1 | | |
| | | | | | | | 2 | | 19.0 |
| | | | | | | | 3 | | |
| | | | | 768.55 | | | | | |
| | | | | | | | 2 | | |
| | | | | | | | 3 | 3.0 | 14.9 |
| | | | | | | | 4 | P | |
| | | | | 766.55 | | | | | |
| | | | | | | | 7 | | |
| | | | | | | | 9 | 5.6 | 11.4 |
| | | | | | | | 11 | S | |
| | | | | | | | 4 | | |
| | | | | | | | 8 | 5.4 | 20.2 |
| | | | | | | | 10 | S | |
| | | | | 761.55 | | | | | |
| | | | | | | | 3 | | |
| | | | | | | | 4 | 3.4 | 11.6 |
| | | | | | | | 5 | S | |
| | | | | | | | 3 | | |
| | | | | | | | 5 | 3.2 | 11.0 |
| | | | | | | | 7 | S | |
| | | | | | | | 3 | | |
| | | | | | | | 3 | 3.0 | 12.6 |
| | | | | | | | 5 | S | |
| | | | | 734.05 | | | | | |
| | | | | | | | 12 | B | |
| | | | | | | | 6 | | |
| | | | | | | | 9 | 3.8 | 11.3 |
| | | | | | | | 6 | | |

Augered Bit. shoulder, Brown Silty Clay Loam Fill

Very Stiff Gray Silty Clay Loam Till with Silt Layers @ 21' (continued)

Stiff to Very Stiff Brown & Gray Silty Clay Loam Fill

Loose Gray Fine to Coarse Sand with Minor Fine to Coarse Gravel with free water

Very Stiff Brown Silty Clay Loam Till

Hard Brown Clay Loam with Loam Layers & Sand Layers

Stiff to Very Stiff Gray Silty Clay, Silt, Clay, minor Varved Clay @ 28'

Very Stiff Gray Silty Clay Loam Till with Silt Layers @ 21'

Stiff to Very Stiff Reddish Brown Silty Clay Loam Till

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

Page 2 of 2

SOIL BORING LOG

Date 6/24/09

ROUTE FA-698 (IL 89) DESCRIPTION IL 89 over Pike Creek, 0.5 Miles South of US 34 junction. LOGGED BY LM

SECTION 101-BR LOCATION NE 1/4, SEC. 25, TWP. 18N, RNG. 10E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 006-0104 (Exist.)
Station 29+60

BORING NO. 1 (S. Abut.)
Station 30+13
Offset 14.00R LL
Ground Surface Elev. 773.55 ft

| DEPTH H S | B L O W S | U C S Qu | M O I S T | Surface Water Elev. | | D E P T H | B L O W S | U C S | M O I S T |
|-----------------|-----------------------|-------------------|-----------------------|---------------------|-------|-----------------------|-----------------------|-------------|-----------------------|
| | | | | (ft) | (/6") | | | | |
| | | | | 755.40 | | | 11 | | |
| | | | | 753.90 | | | 13 | 7.4 | 15.8 |
| | | | | | | | 16 | S | |
| | | | | | | | 11 | | |
| | | | | | | | 13 | 7.7 | 11.4 |
| | | | | | | | 21 | S | |
| | | | | | | | 11 | | |
| | | | | | | | 13 | 7.7 | 11.0 |
| | | | | | | | 20 | S | |
| | | | | | | | 11 | | |
| | | | | | | | 13 | 7.7 | 11.8 |
| | | | | | | | 19 | S | |
| | | | | | | | 6 | | |
| | | | | | | | 13 | 7.4 | 11.4 |
| | | | | | | | 18 | S | |
| | | | | | | | 9 | | |
| | | | | | | | 13 | 7.7 | 10.7 |
| | | | | | | | 18 | S | |
| | | | | | | | 11 | | |
| | | | | | | | 13 | 7.8 | 11.5 |
| | | | | | | | 21 | S | |
| | | | | | | | 11 | | |
| | | | | | | | 16 | 8.1 | 9.3 |
| | | | | | | | 26 | S | |

Hard Reddish Brown Silty Clay Loam Till, very uniform (continued)

Hard Reddish Brown Silty Clay Loam Till, very uniform (continued)

End of Boring

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

DESIGNED SDH
CHECKED JML
DRAWN DJM
CHECKED MSW
DATE 10/08/10

SOIL BORING LOGS
STRUCTURE NO. 006-0181

| | | | | | | |
|--|--------------------|---------------------|------------|------------------|--------------|-----------|
| <p>Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax</p> | SHEET NO. B22 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 36 |
| | CONTRACT NO. 66910 | | | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 1 of 2

Date 6/25/09

ROUTE FA-698 (IL 89) DESCRIPTION IL 89 over Pike Creek, 0.5 Miles South of US 34 Junction. LOGGED BY LM

SECTION 101-BR LOCATION NE 1/4, SEC. 25, TWP. 18N, RNG. 10E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

| STRUCT. NO. | Station | BORING NO. | Station | Offset | Ground Surface Elev. | D | B | U | M | Surface Water Elev. | Stream Bed Elev. | Groundwater Elev.: | First Encounter | Upon Completion | After | Hrs. | (ft) | (/6") | (tsf) | (%) | |
|---|---------|--------------|---------|-------------|----------------------|---|---|---|---|---------------------|------------------|--------------------|-----------------|-----------------|-------|------|------|-------|-------|-----|--|
| 006-0104 (Exist.) | 29+60 | 2 (N. Abut.) | 28+74 | 13.00ft Rt. | 769.10 | | | | | 755.40 | 752.90 | 750.1 | 750.1 | 750.1 | | | | | | | |
| Augered Bit, Shoulder, Sand & Gravel Fill, Brown & Black Silty Clay Fill | | | | | | | | | | | | | | | | | | | | | |
| Loose Gray Fine to Coarse Sand with minor Fine Gravel with free water (continued) | | | | | | | | | | | | | | | | | | | | | |
| 746.60 | | | | | | | | | | | | | | | | | | | | | |
| Stiff to Very Stiff Gray Silt, Clay, Silty Clay | | | | | | | | | | | | | | | | | | | | | |
| 784.10 | | | | | | | | | | | | | | | | | | | | | |
| Stiff Black, Brown Silty Clay/Silty Clay Loam Fill | | | | | | | | | | | | | | | | | | | | | |
| 742.10 | | | | | | | | | | | | | | | | | | | | | |
| Very Stiff Reddish Brown Silty Clay Loam Till | | | | | | | | | | | | | | | | | | | | | |
| 757.10 | | | | | | | | | | | | | | | | | | | | | |
| Stiff to Very Stiff Brown & Gray Silty Clay Loam Till | | | | | | | | | | | | | | | | | | | | | |
| 732.10 | | | | | | | | | | | | | | | | | | | | | |
| Hard Reddish Brown Silty Clay Loam Till | | | | | | | | | | | | | | | | | | | | | |
| 750.10 | | | | | | | | | | | | | | | | | | | | | |

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
District #3, Ottawa

SOIL BORING LOG

Page 2 of 2

Date 6/25/09

ROUTE FA-698 (IL 89) DESCRIPTION IL 89 over Pike Creek, 0.5 Miles South of US 34 Junction. LOGGED BY LM

SECTION 101-BR LOCATION NE 1/4, SEC. 25, TWP. 18N, RNG. 10E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

| STRUCT. NO. | Station | BORING NO. | Station | Offset | Ground Surface Elev. | D | B | U | M | Surface Water Elev. | Stream Bed Elev. | Groundwater Elev.: | First Encounter | Upon Completion | After | Hrs. | (ft) | (/6") | (tsf) | (%) |
|---|---------|--------------|---------|-------------|----------------------|---|---|---|---|---------------------|------------------|--------------------|-----------------|-----------------|-------|------|------|-------|-------|-----|
| 006-0104 (Exist.) | 29+60 | 2 (N. Abut.) | 28+74 | 13.00ft Rt. | 769.10 | | | | | 755.40 | 752.90 | 750.1 | 750.1 | 750.1 | | | | | | |
| Hard Reddish Brown Silty Clay Loam Till (continued) | | | | | | | | | | | | | | | | | | | | |
| Hard Reddish Brown Silty Clay Loam Till (continued) | | | | | | | | | | | | | | | | | | | | |
| End of Boring | | | | | | | | | | | | | | | | | | | | |

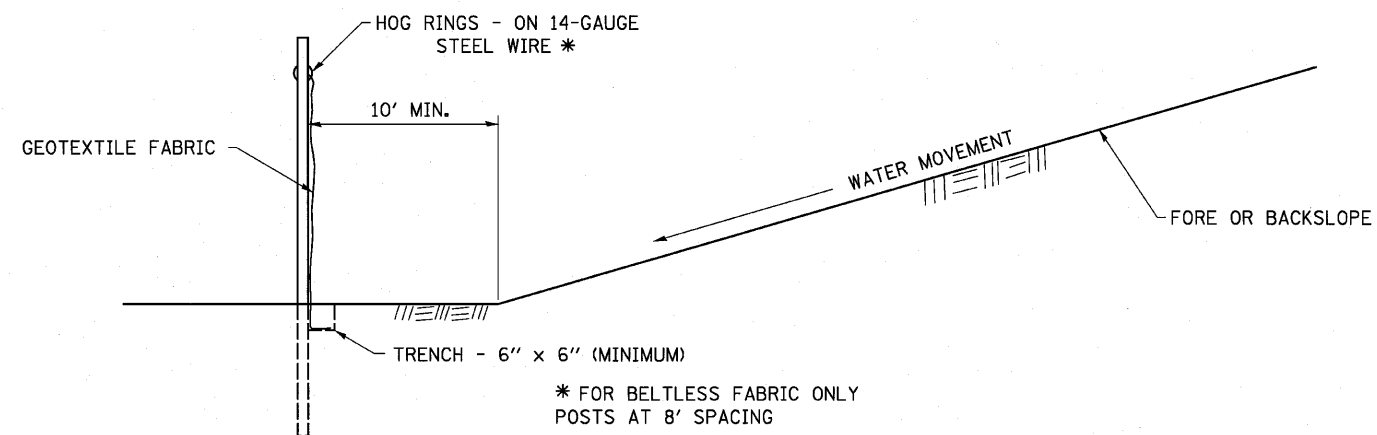
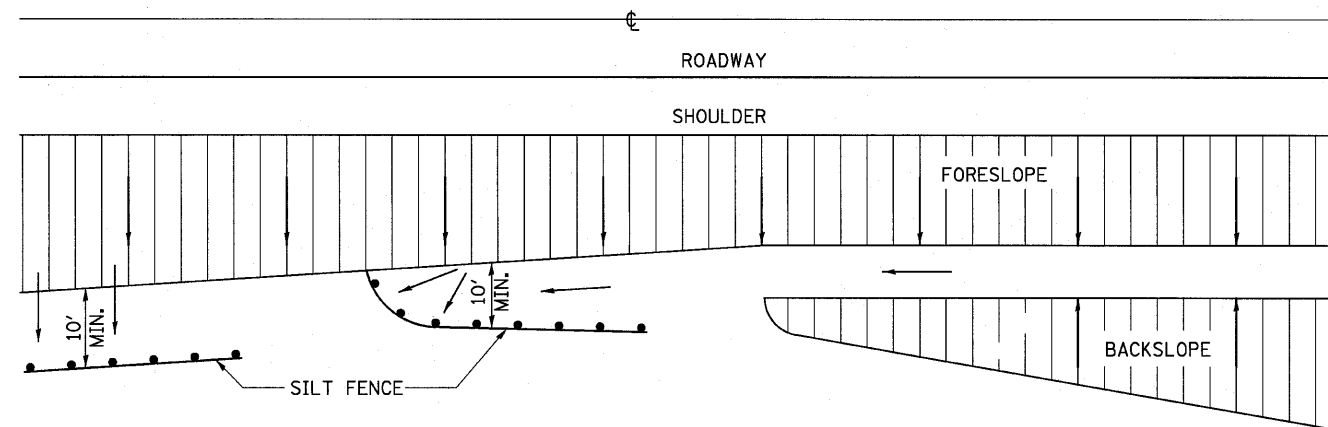
The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

| | |
|----------|----------|
| DESIGNED | SDH |
| CHECKED | JML |
| DRAWN | DJM |
| CHECKED | MSW |
| DATE | 10/08/10 |

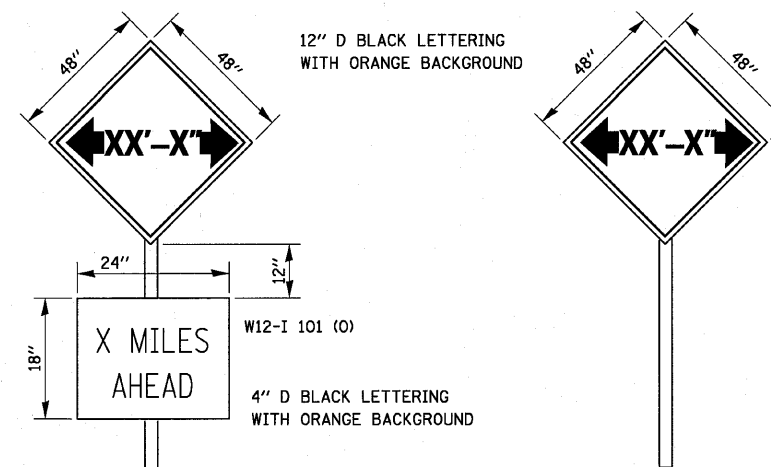
SOIL BORING LOGS
STRUCTURE NO. 006-0181

| | | | | | | |
|--|---------------|---------------------|---------------------------|--------|--------------|-----------|
| Farnsworth GROUP, INC. 2709 McGraw Drive Bloomington, Illinois 61704 309/663-8435, 309/663-1571 fax | SHEET NO. B23 | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | 23 SHEETS | 698 | (101 BR)BR | BUREAU | 47 | 37 |
| | | | CONTRACT NO. 66910 | | | |
| | | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |



DETAILS OF SILT FENCE

**EROSION CONTROL DETAILS
FOR SILT FENCE**



TO BE POST MOUNTED AS SHOWN ELSEWHERE IN THE PLANS.

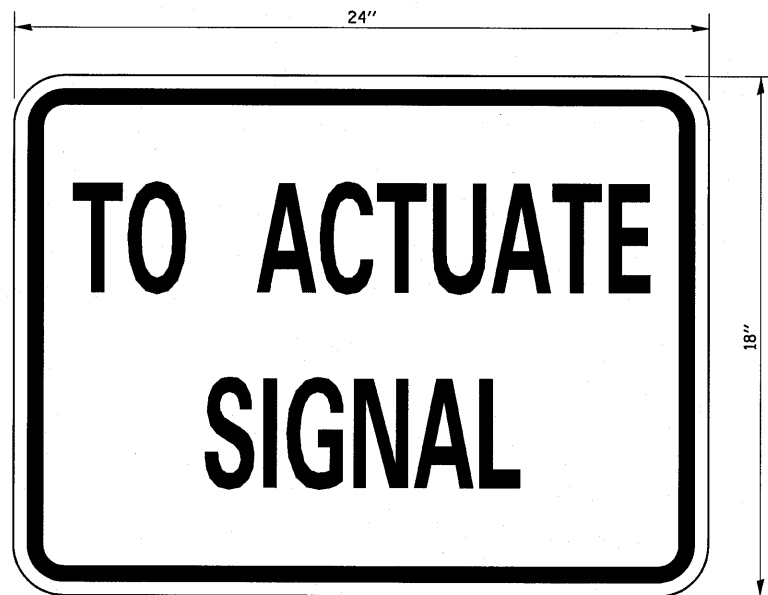
THE ENGINEER WILL NOTIFY DISTRICT 3 BUREAU OF OPERATIONS 14 CALENDAR DAYS PRIOR TO INSTALLING ANY TRAFFIC CONTROL DEVICES THAT WILL RESTRICT THE PAVEMENT WIDTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

COST OF SUPPLYING, INSTALLING, MAINTAINING AND REMOVING WIDTH RESTRICTION SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

WIDTH RESTRICTION SIGNING DETAILS

| | | | | | | | | | | | | |
|-------------|----------------------|-----------------|-----------|---|--------------------|---------------------|--------------|---------------------|---------------------------|--------|--------------|-----------|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAILS | | | F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| #FILE# | | DRAWN - JJO | REVISED - | | 698 | (101 BR)BR | BUREAU | 47 | 38 | | | |
| | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | CONTRACT NO. 66910 | | | | | | | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | SCALE: | SHEET NO. OF SHEETS | STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | | | |

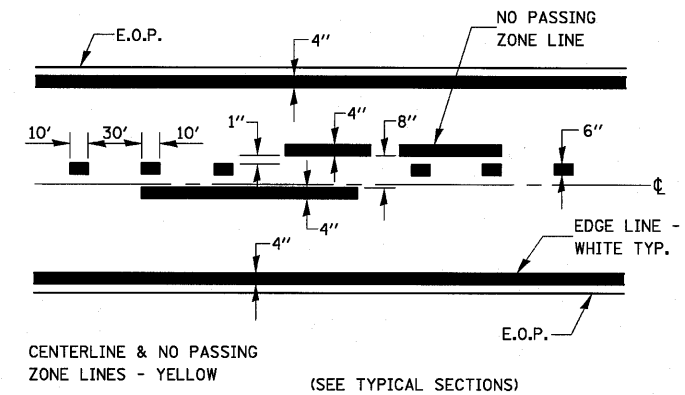


STOP LINE SIGN FOR TEMPORARY SIGNALS

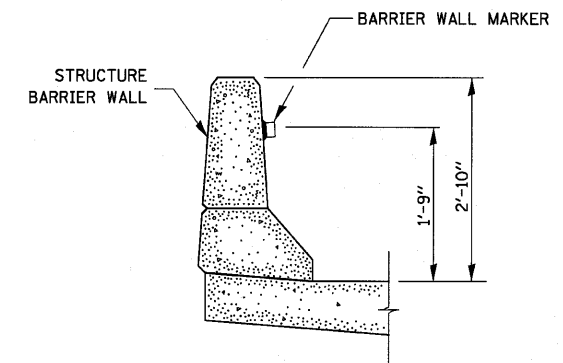
SIZE: 24" x 18"
 4" CAPITAL LETTERS - BLACK
 1/2" BORDER - BLACK
 WHITE REFLECTIVE - TYPE B
 ENGINEERING GRADE SHEETING

GENERAL NOTE:

THIS SIGN SHALL BE INSTALLED AT THE
 STOP LINE AS DIRECTED BY THE ENGINEER.

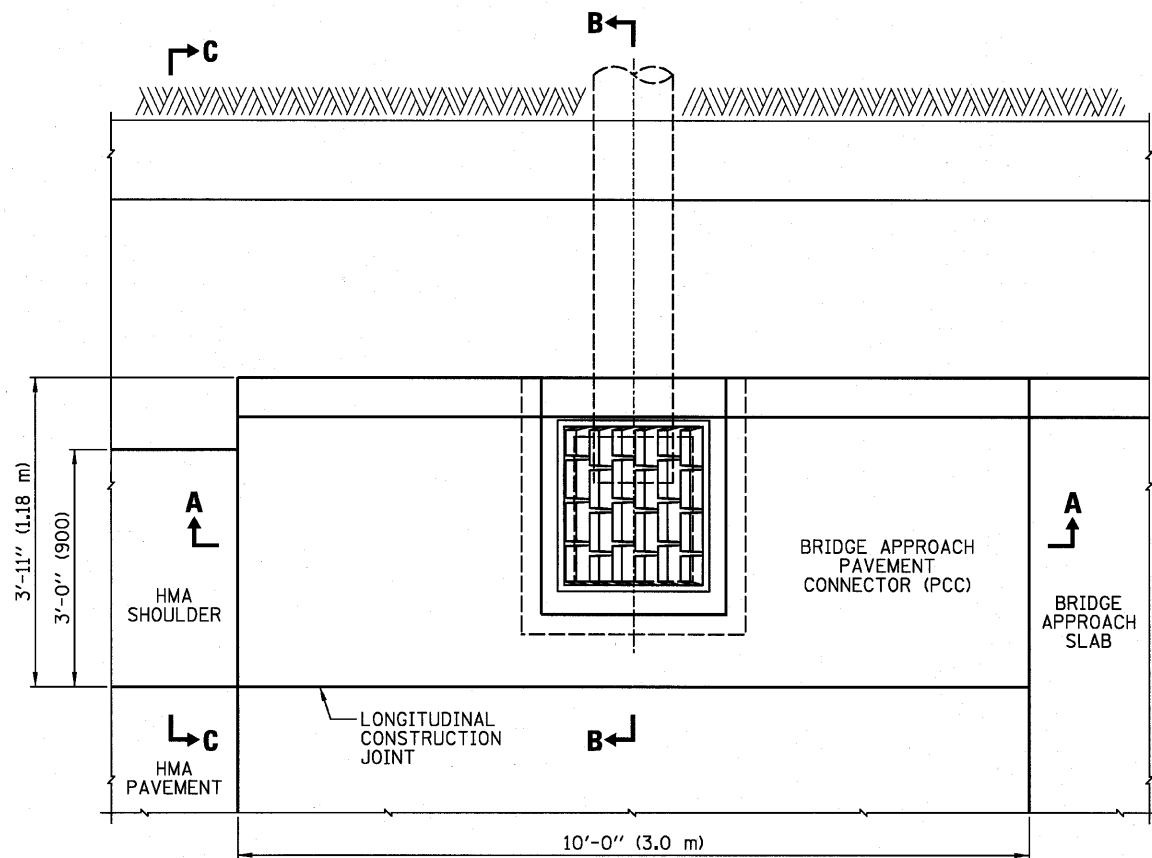


PAVEMENT MARKING

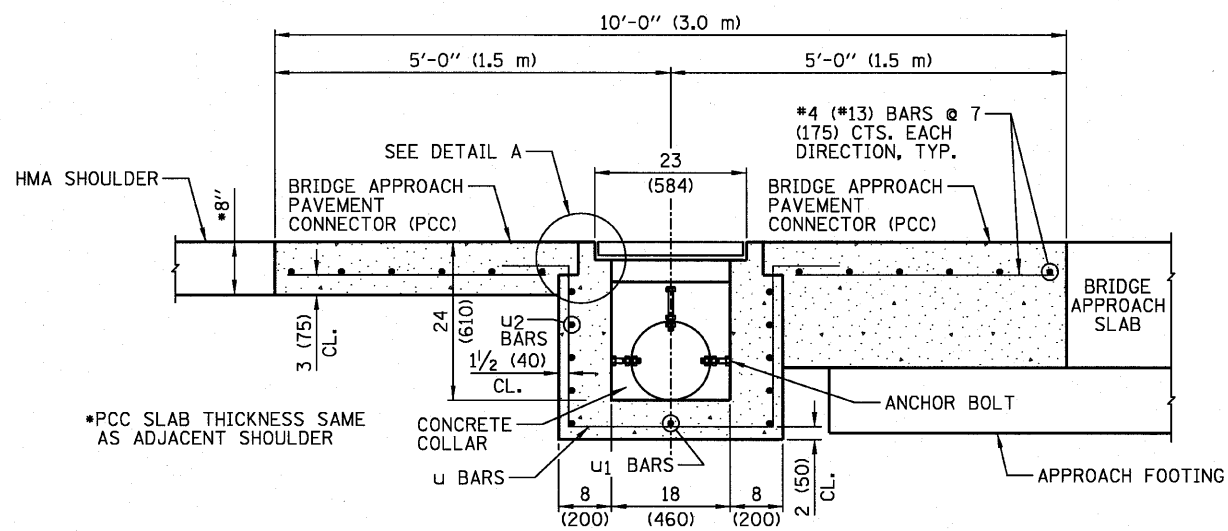


BARRIER WALL MARKER

| | | | | | | | | | | | | |
|------------------------|----------------------|-----------------|-----------|---|----------------|-----------|----|-----------------------|-----------------------|------------------|---------------------------|--------------------|
| FILE NAME = #FILEL# | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAILS | | | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 39 |
| | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | SCALE: | SHEET NO. | OF | SHEETS | STA. | TO STA. | CONTRACT NO. 66910 | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | | | | | | ILLINOIS FED. AID PROJECT | |
| | | | | | | | | | | | FED. ROAD DIST. NO. | |

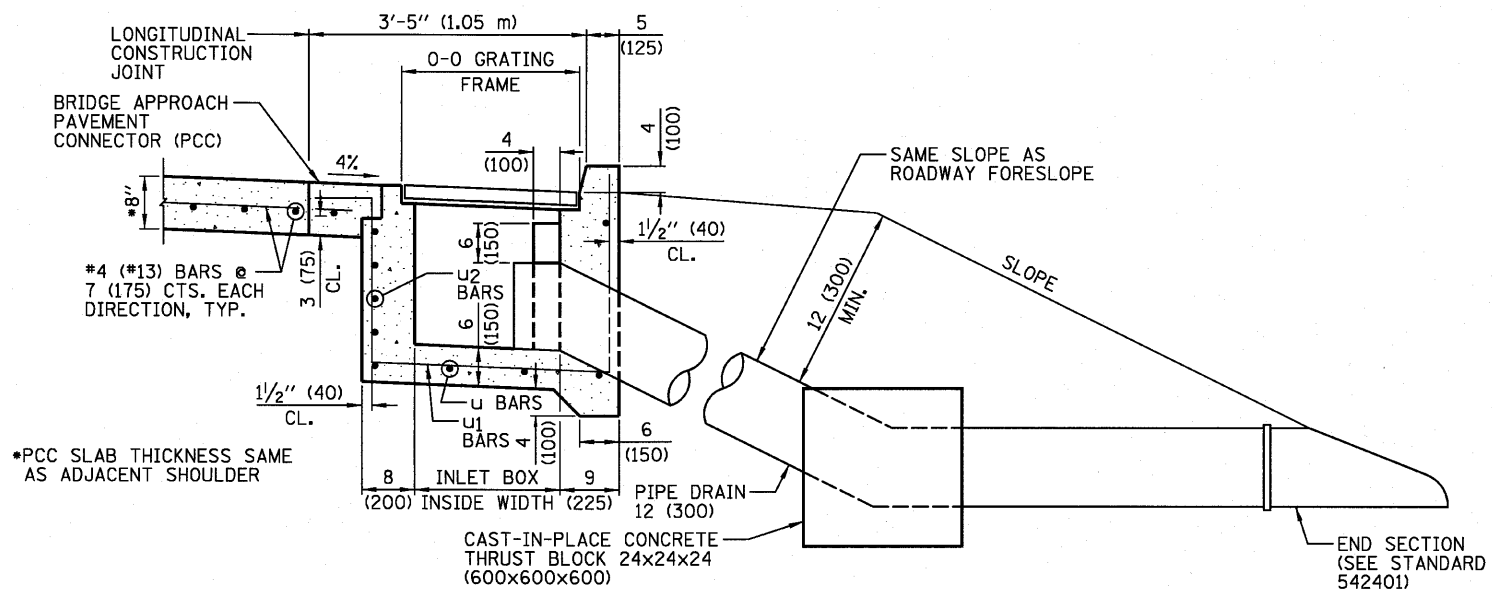


PLAN

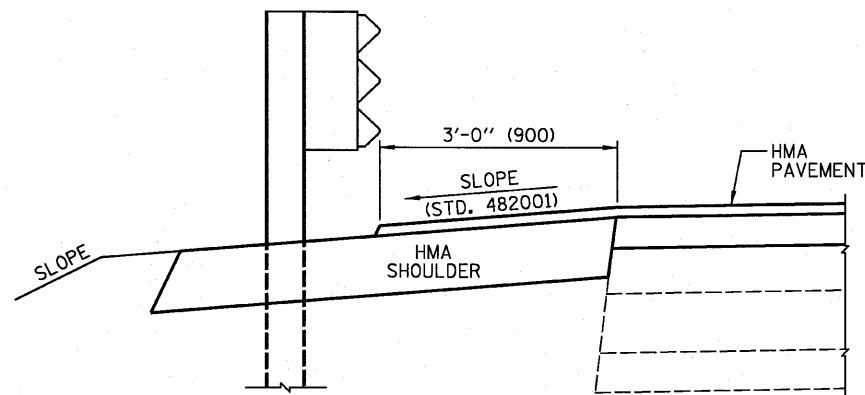


SEC. A-A

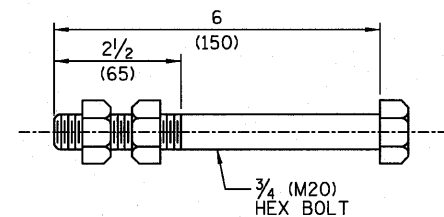
| INLET TYPE | SHOULDER WIDTH | O-O GRATING FRAME | INLET BOX INSIDE WIDTH | INLET BOX INSIDE LENGTH |
|------------|----------------------|-------------------|------------------------|-------------------------|
| Type B | Less than 5' (1.5 m) | 2'-3" (0.690 m) | 1'-10" (0.560 m) | 18 (460) |



SEC. B-B

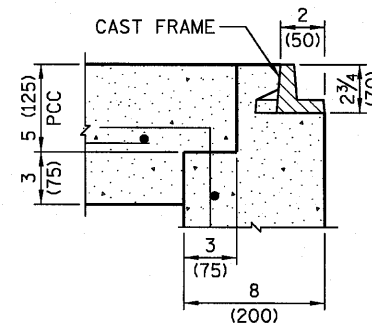


SECTION C-C

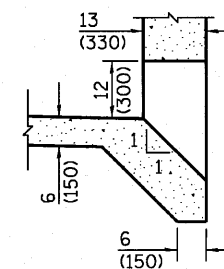


ANCHOR BOLT

(USED TO TIE PIPE TO CONCRETE COLLAR)



DETAIL A



BOX OUTLET WHEN PRECAST

GENERAL NOTES

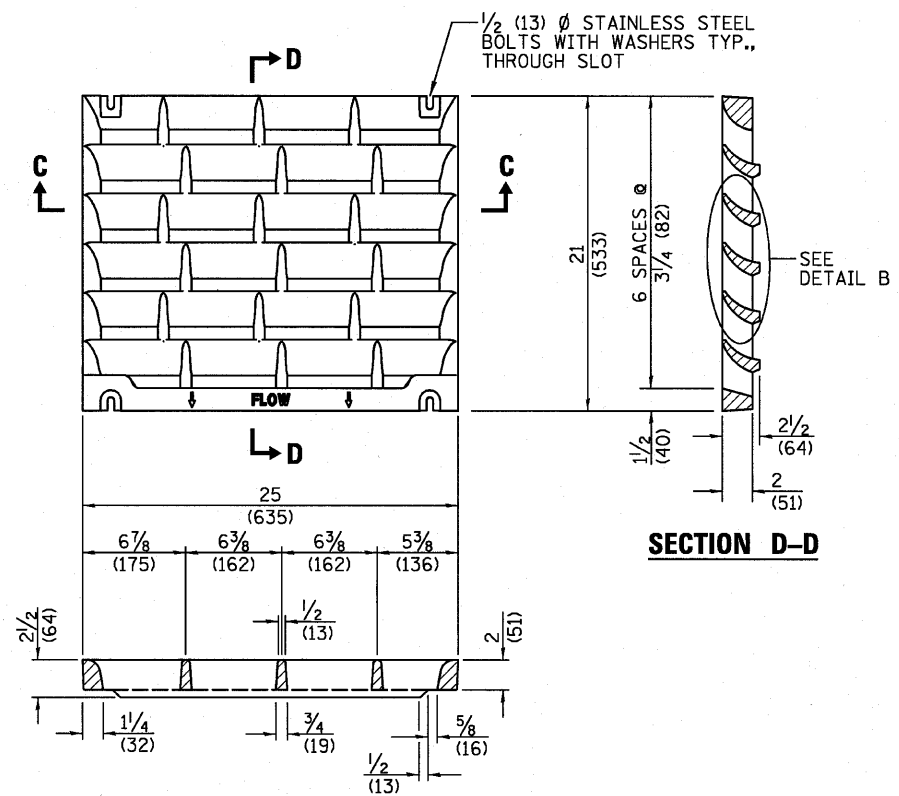
ALL EXPOSED EDGES OF THE INLET, EXCEPT THE UPPER PERIMETER, SHALL BE BEVELED 3/4 (20).

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

TYPE B INLET BOX, STANDARD 609006 (SPECIAL)

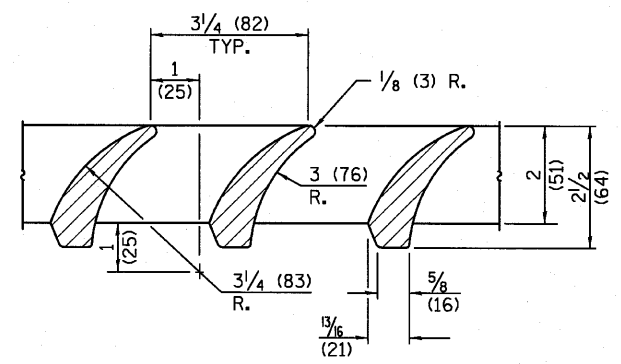
(SHEET 1 OF 2)

| | | | | | | | | | | | |
|-------------|----------------------|-----------------|-----------|---|----------------|---|---------------------|---------------------------|--------------------|--------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAILS | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 40 | |
| #FILE# | PLOT SCALE = #SCALE# | DRAWN - JJO | REVISED - | | | SCALE: SHEET NO. OF SHEETS STA. TO STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 | | |
| | PLOT DATE = #DATE# | CHECKED - MSW | REVISED - | | | | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | |
| | | | | | | | | | | | |

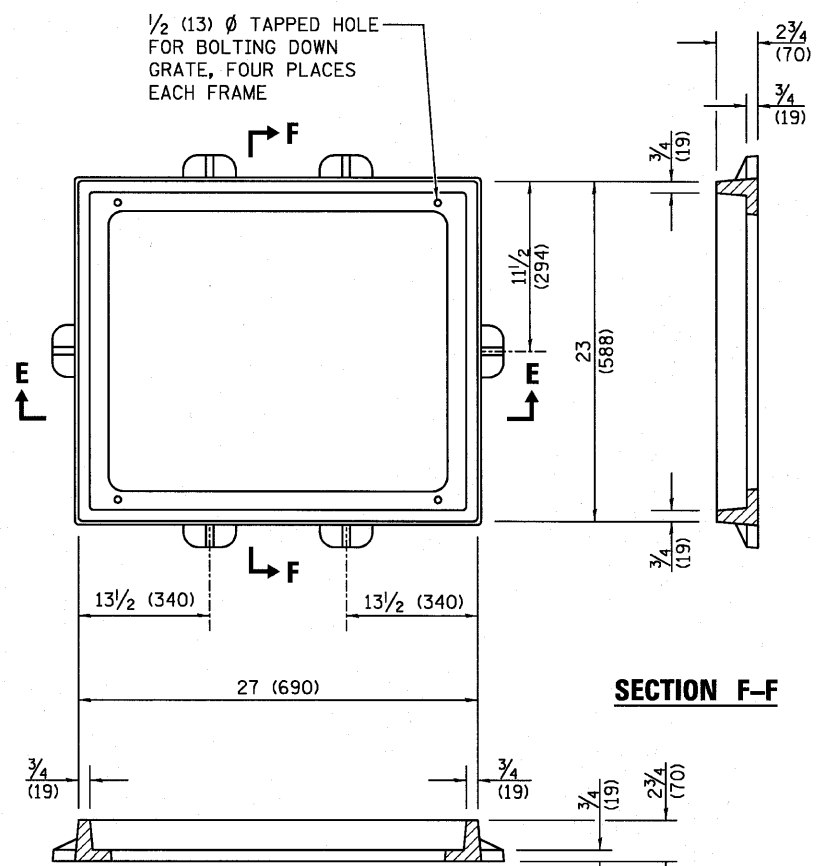


SECTION C-C

DETAIL OF CAST GRATE
TYPE B REQUIRES 1 GRATE



DETAIL B

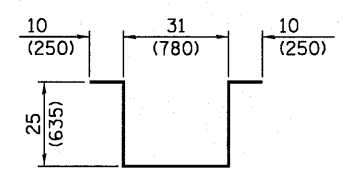


SECTION E-E

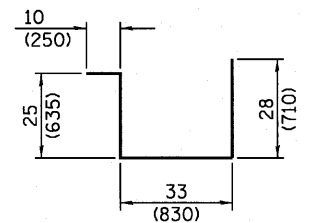
DETAIL OF CAST FRAME

INLET BOX

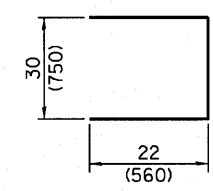
| REQUIRED MATERIAL | | | |
|-------------------|---------------------------|----------|-----------------|
| BAR | QTY. | SIZE | LENGTH |
| U | 4 | #4 (#13) | 8'-5" (2.550 m) |
| U ₁ | 3 | #4 (#13) | 8'-0" (2.425 m) |
| U ₂ | 4 | #4 (#13) | 6'-2" (1.870 m) |
| CONCRETE | CU. YD. (m ³) | | 0.5 (0.4) |
| REINF. BARS | LBS. (kg) | | 55.0 (25.0) |
| GRATING | SO. FT. (m ²) | | 3.6 (0.34) |



BAR U



BARS U₁



BARS U₂

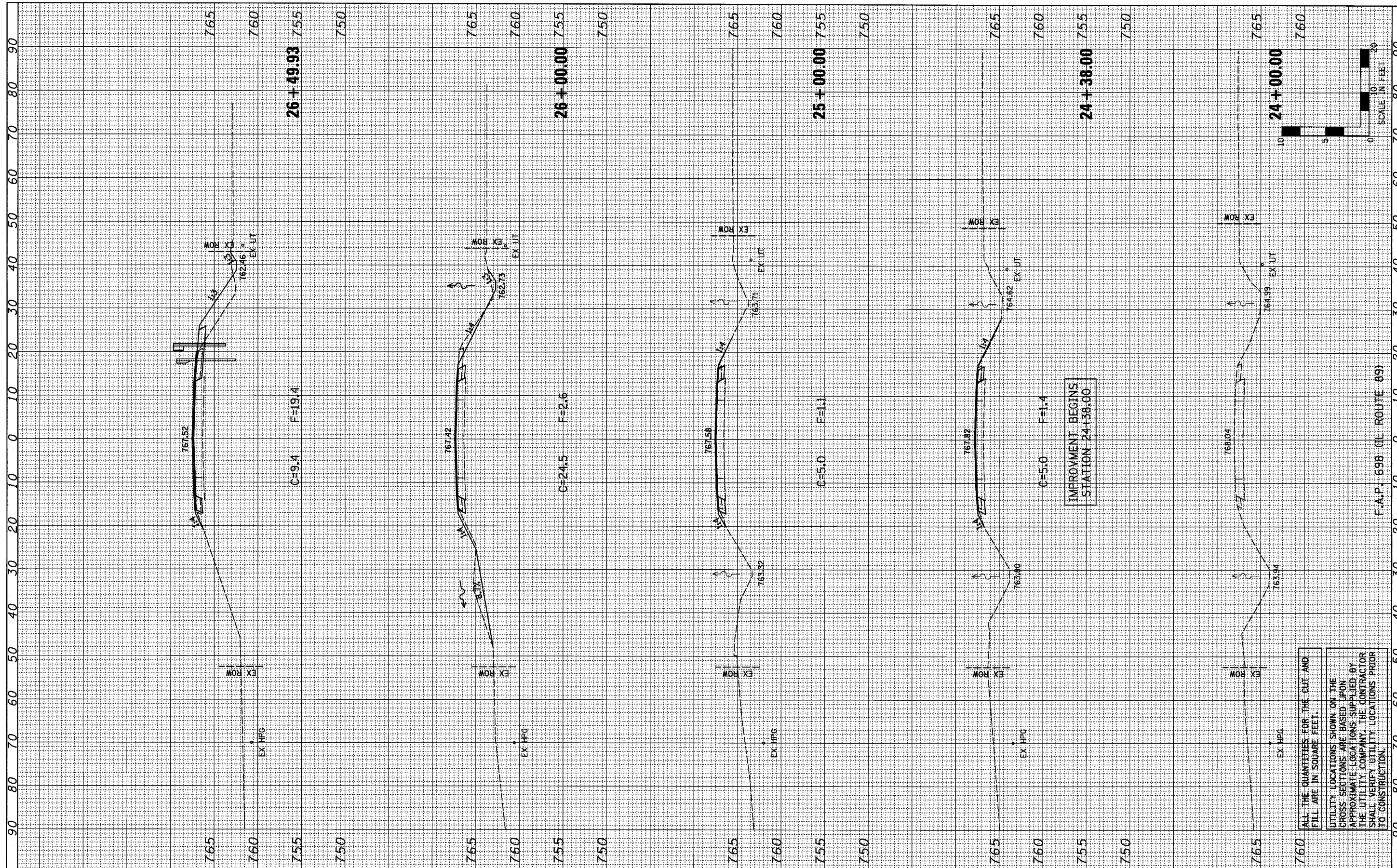
**TYPE B INLET BOX,
STANDARD 609006 (SPECIAL)**

(SHEET 2 OF 2)

| | | | | | | | | | | | |
|-------------|--------------------|-----------------|-----------|---|----------------|-----------------|--------------------------|---------------------|---------------------------|--------------------|--|
| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | DETAILS | F.A.P. RTE. 698 | SECTION (101 BR)BR | COUNTY | TOTAL SHEETS 47 | SHEET NO. 41 | |
| *FILE# | | DRAWN - JJO | REVISED - | | | SCALE: | SHEET NO. OF SHEETS STA. | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 | |
| | | CHECKED - MSW | REVISED - | | | | | | | | |
| | | DATE - 10/08/10 | REVISED - | | | | | | | | |

| | | |
|---------------|----|------|
| FINAL SURVEY | BY | DATE |
| NOTE BOOK | | |
| NO. | | |
| SURVEYED | | |
| TEMP. PLT. | | |
| AREAS CHECKED | | |

| | | |
|-----------------|----|------|
| ORIGINAL SURVEY | BY | DATE |
| NOTE BOOK | | |
| NO. | | |
| SURVEYED | | |
| TEMP. PLT. | | |
| AREAS CHECKED | | |



ALL THE QUANTITIES FOR THE CUT AND FILL ARE IN SQUARE FEET.
 UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

FILE NAME = #FILEL*
 PLOT SCALE = #SCALE*
 PLOT DATE = #DATE*

USER NAME = #USER*
 DESIGNED - JML
 DRAWN - JJO
 CHECKED - MSW
 DATE - 10/08/10

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

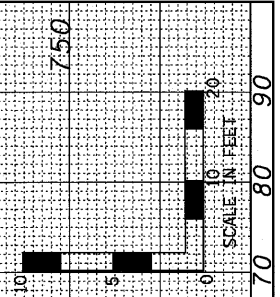
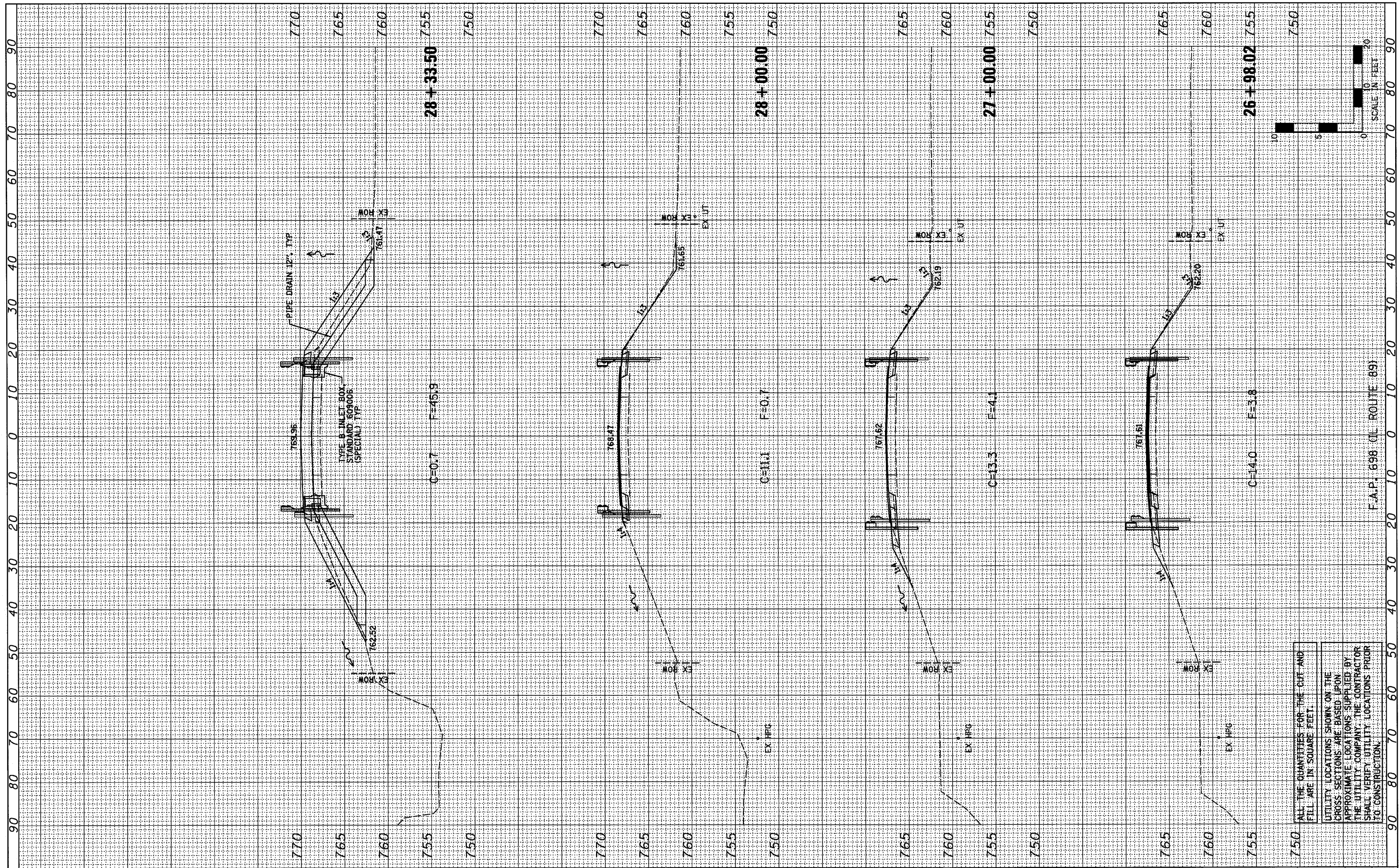
CROSS SECTIONS

SCALE: 1"=10'
 SHEET NO. OF SHEETS STA. 24+00.00 TO STA. 26+49.93

| | | | | |
|---|------------|--------|--------------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101 BR)BR | BUREAU | 47 | 42 |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | CONTRACT NO. 66910 | |

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

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



FILE NAME =
#FILE#

USER NAME = *USER*
DESIGNED - JML
DRAWN - JJO
CHECKED - MSW
DATE - 10/08/10

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

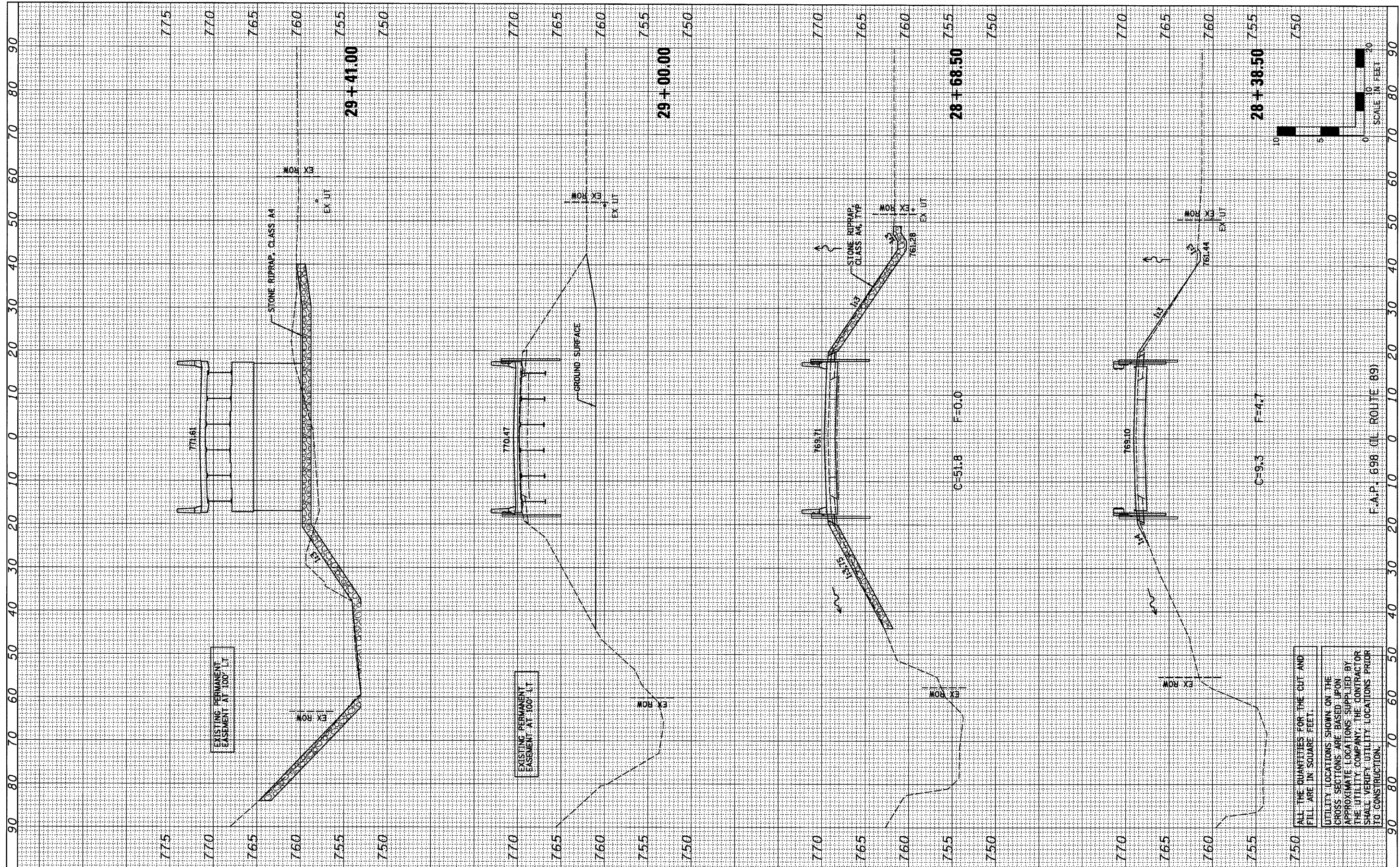
SCALE: 1"=10' SHEET NO. OF SHEETS STA. 26+98.02 TO STA. 28+33.50

| | | | | |
|---------------------|----------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (01 BRBR | BUREAU | 47 | 43 |
| CONTRACT NO. 66910 | | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

ALL THE QUANTITIES FOR THE CUT AND FILL ARE IN SQUARE FEET.
UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

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| FINAL SURVEY | BY | DATE |
| NOTE BOOK | | |
| NO. | | |
| SURVEYED | | |
| TEMP. A/C | | |
| AREAS CHECKED | | |

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



FILE NAME =
#FILE#

USER NAME = #USER#
DESIGNED - JML
DRAWN - JJO
CHECKED - MSW
DATE - 10/08/10

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

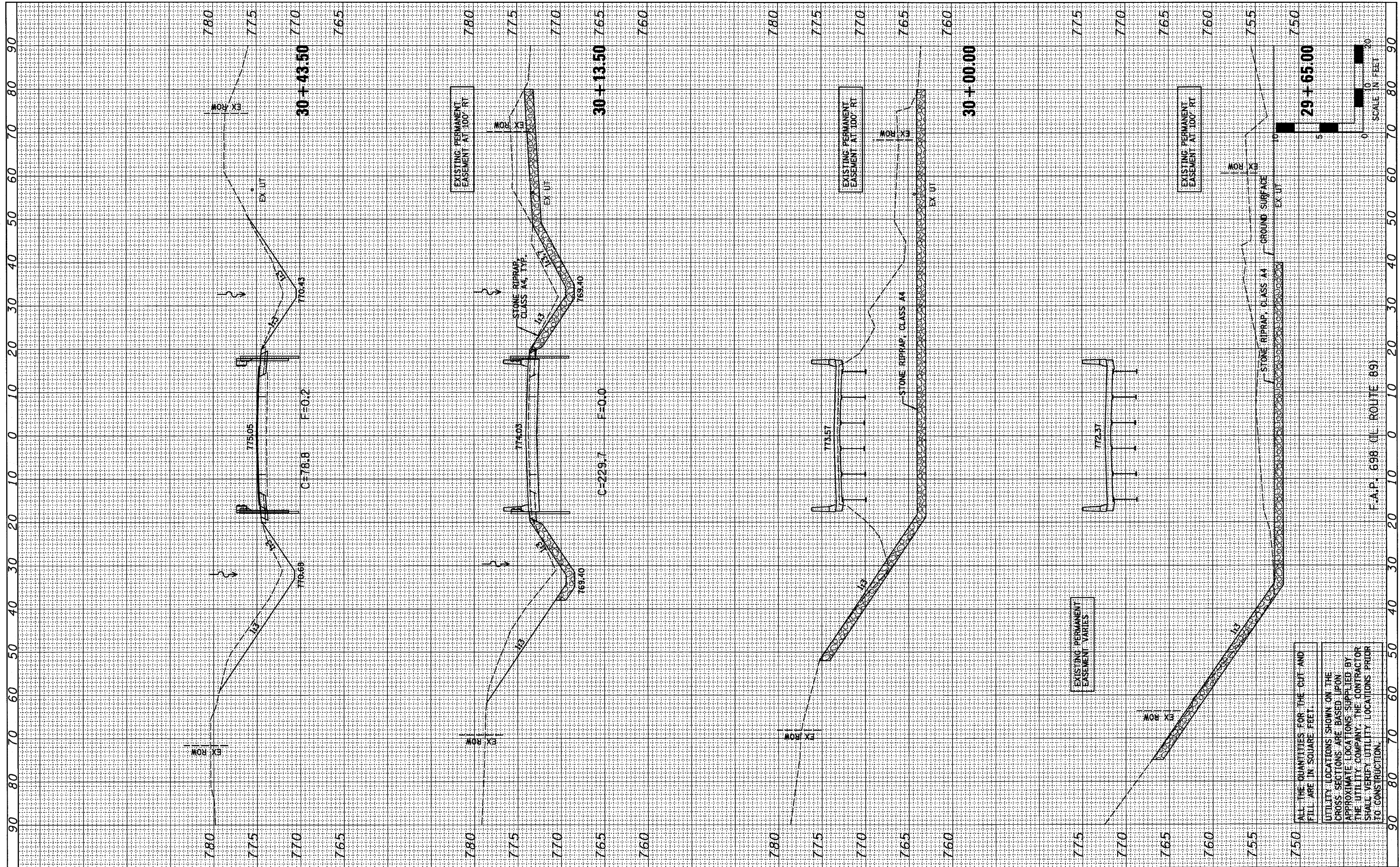
SCALE: 1"=10'
SHEET NO. OF SHEETS STA. 28+38.50 TO STA. 29+41.00

| | | | | |
|---------------------|---------------------------|--------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 698 | (101) BR/BR | BUREAU | 47 | 44 |
| FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 | | |

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

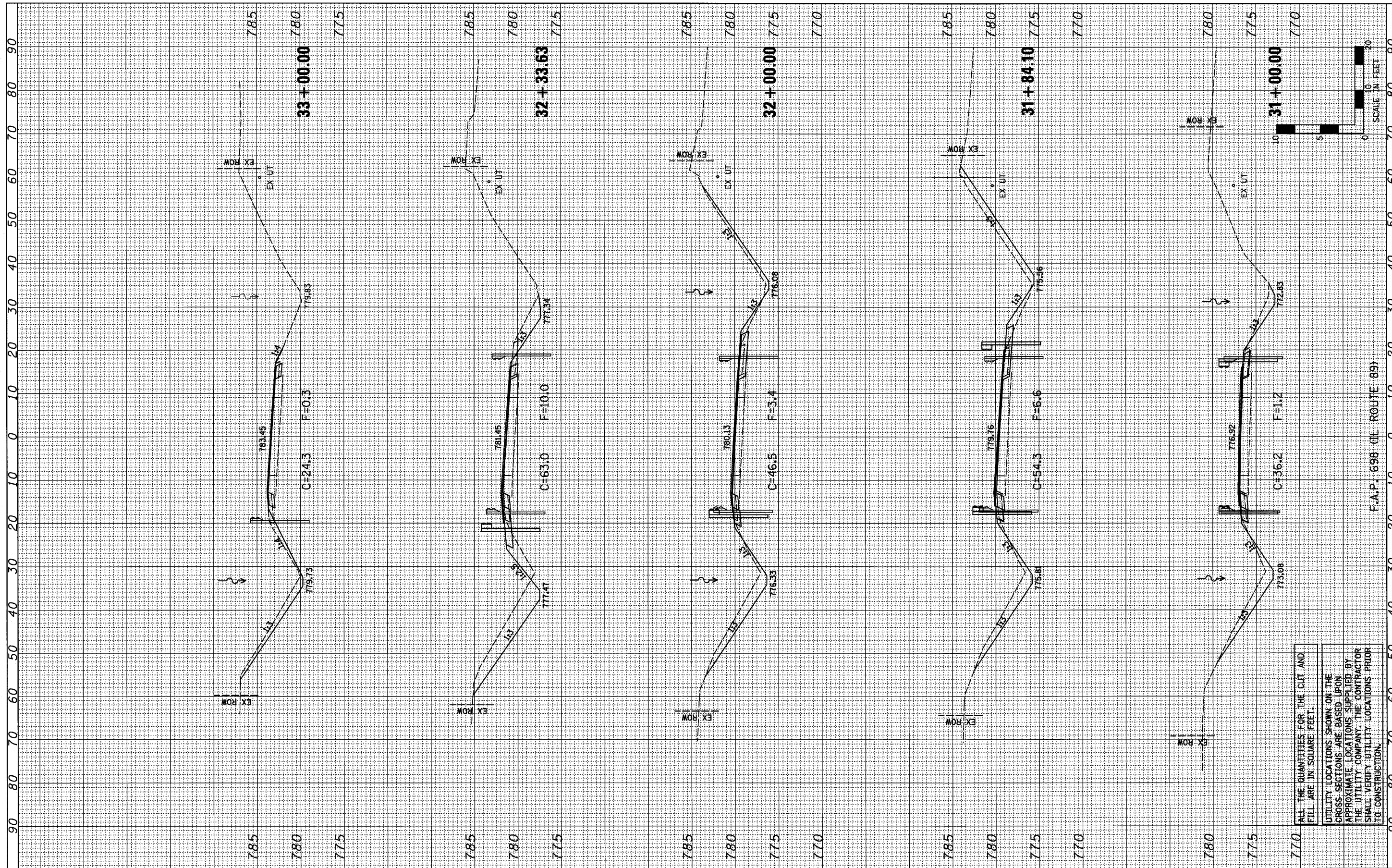
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| ORIGINAL SURVEY | DATE |
| NOTE BOOK | BY |
| TEMPLATE | |
| AREAS CHECKED | |
| NO. | |



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| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | F.A.P. RTE. 698 | SECTION (101 BRBR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 45 |
| #FILE# | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | | SCALE: 1"=10' | SHEET NO. OF SHEETS | STA. 29+65.00 TO STA. 30+43.50 | CONTRACT NO. 66910 | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | | | FED. ROAD DIST. NO. ILLINOIS | FED. AID PROJECT | |
| <p>ALL THE QUANTITIES FOR THE CUT AND FILL ARE IN SQUARE FEET.</p> <p>UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.</p> | | | | | | | | | | |

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| ORIGINAL SURVEY | BY | DATE |
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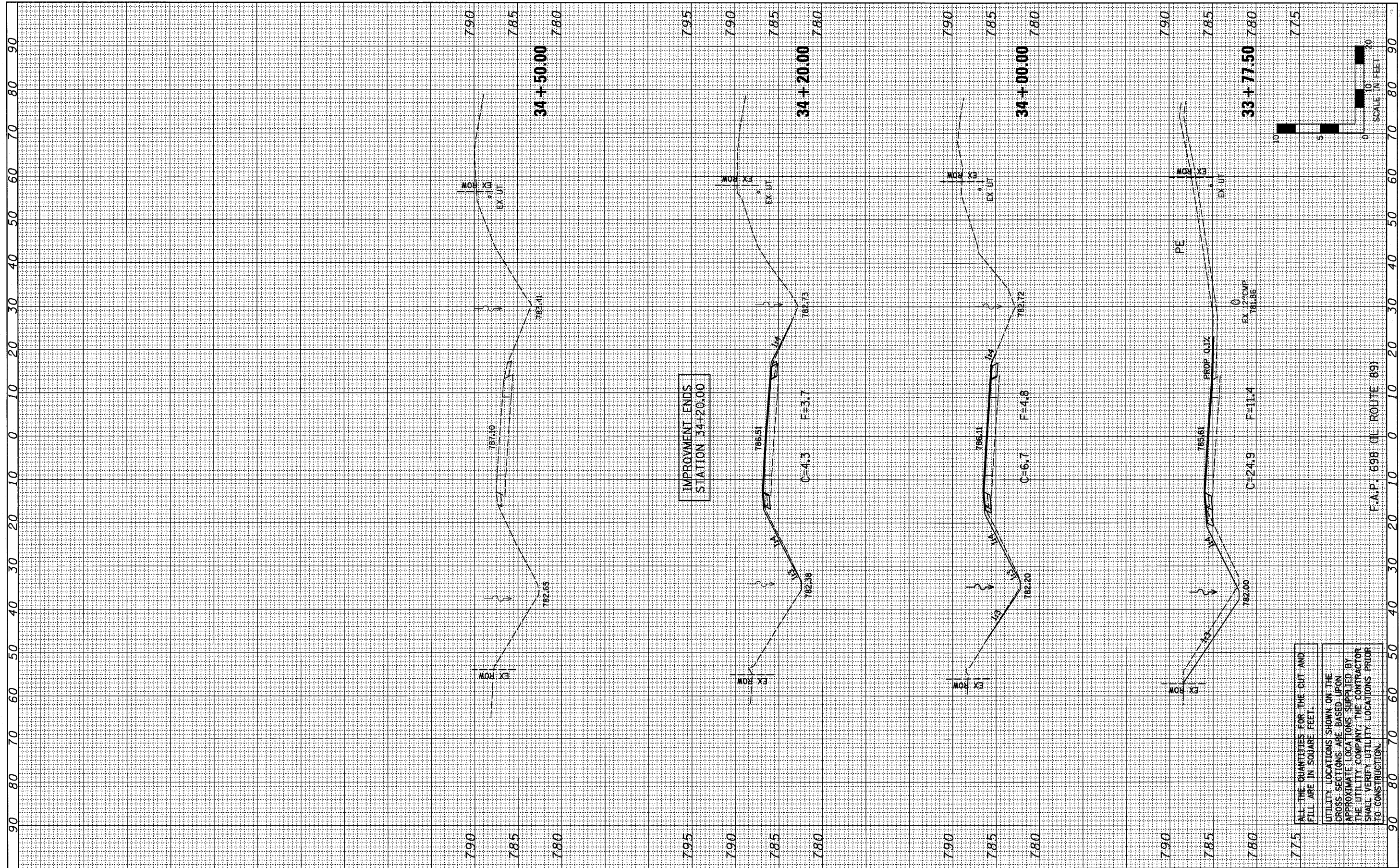
F.A.P. 698 (ILL ROUTE 69)

SCALE IN FEET
 0 10 20

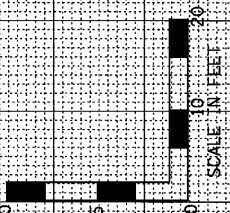
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| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 698 | SECTION (101 BR/BR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 46 | |
| #FILE# | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | SCALE: 1"=10' | SHEET NO. OF SHEETS | STA. 31+00.00 TO STA. 33+00.00 | FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | CONTRACT NO. 66910 | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | | | | | | | |
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| FINAL SURVEY | BY | DATE |
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| SURVEYED | | |
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| FILE NAME = | USER NAME = #USER# | DESIGNED - JML | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | CROSS SECTIONS | | F.A.P. RTE. 698 | SECTION (101 BRBR) | COUNTY BUREAU | TOTAL SHEETS 47 | SHEET NO. 47 | |
| #FILE# | PLOT SCALE = #SCALE# | CHECKED - MSW | REVISED - | | SCALE: 1"=10' | SHEET NO. OF SHEETS | STA. 33+77.50 TO STA. 34+50.00 | FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT | CONTRACT NO. 66910 | | |
| | PLOT DATE = #DATE# | DATE - 10/08/10 | REVISED - | | | | | | | | | |
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