

| | | | | |
|---------------------|----------------|----------|--------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 16 | 1 |
| FEDERAL AID PROJECT | | ILLINOIS | CONTRACT NO. 97359 | |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM**

CH 3 (KEMPER RD)
SECTION 06-00052-00-BR
PROJECT NO. BROS-0083(045)

JERSEY COUNTY
OVER TRIBUTARY TO MACOUPIN CREEK
JOB NUMBER C-98-346-08

INDEX OF SHEETS

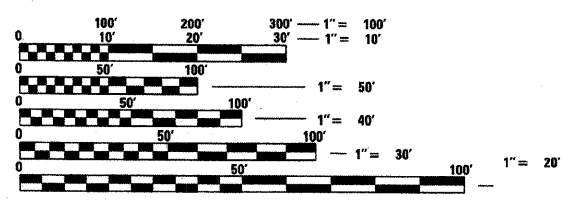
| SHEET NO. | TITLE |
|-----------|--|
| 1. | COVER SHEET |
| 2. | SUMMARY OF QUANTITIES, GENERAL NOTES, TYPICAL CROSS SECTIONS |
| 3. | PLAN AND PROFILE SHEET |
| 4. | GUARDRAIL DETAILS |
| 5. | SIGN LOCATION MAP, SIDE ROAD & ENTRANCE DETAILS |
| 6.-11. | BRIDGE PLANS |
| 12.-18. | STATION CROSS SECTIONS |

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

- 515001-03
- 630301-05
- 635006-03
- 701901-01
- BLR 21-9
- BLR 26-1
- BLR 27-1

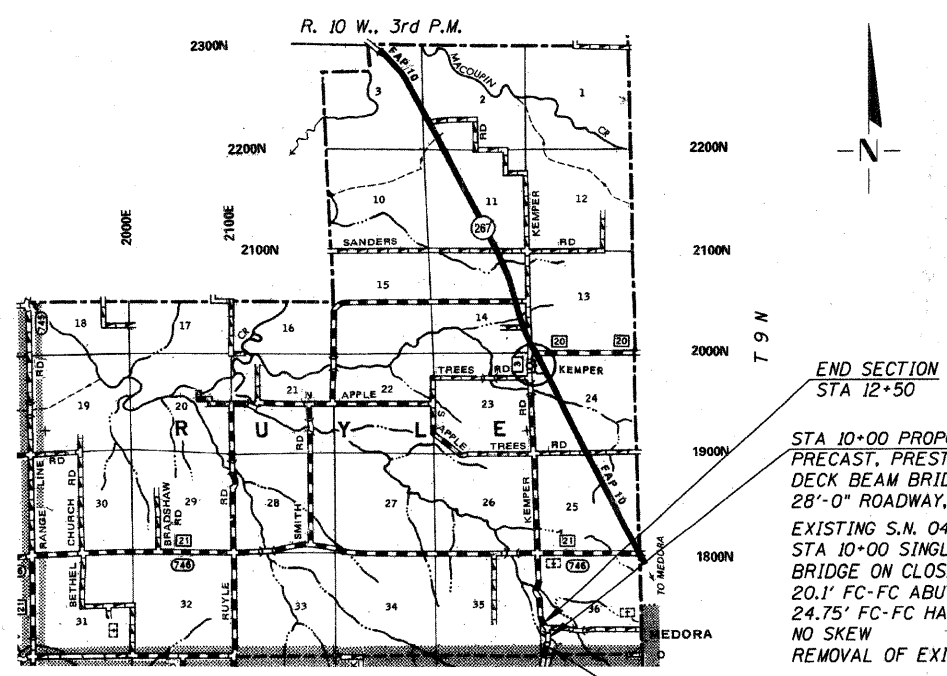
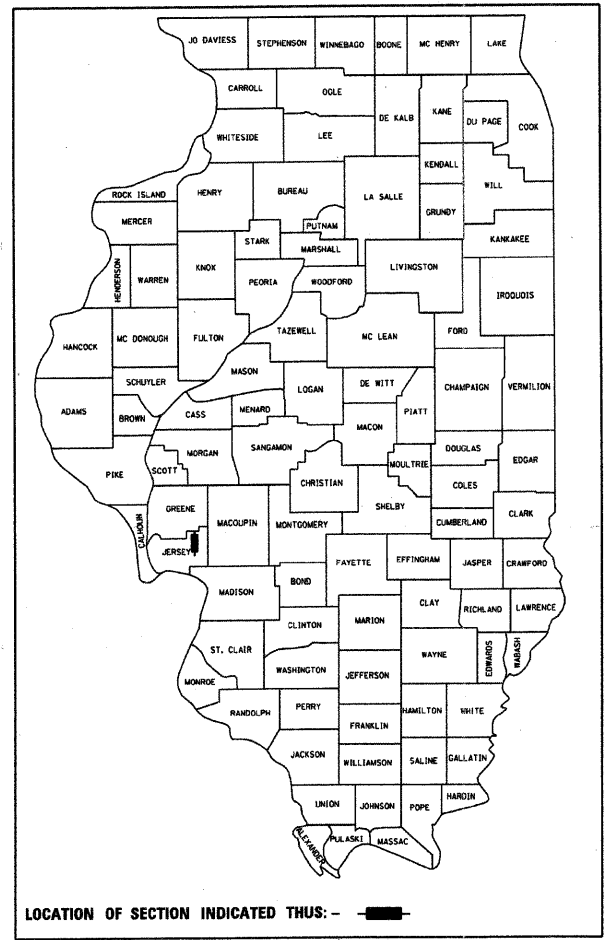
UTILITY CONTACTS:

| | |
|---|---|
| UTILITY TYPE: | UTILITY TYPE: |
| GAS | FIBER OPTIC |
| AMEREN CIPS (217) 323-6438 ATTN: JOHN BOZARTH | FRONTIER COMMUNICATIONS (402) 250-1095 ATTN: BILL DANIEL |
| UTILITY TYPE: | UTILITY TYPE: |
| ELECTRIC | WATER |
| M.J.M. ELECTRIC COOP (217) 854-3137 ATTN: CHARLIE BAKER | JERSEY COUNTY RURAL WATER CO. (618) 498-9534 ATTN: GREG BATES |



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.

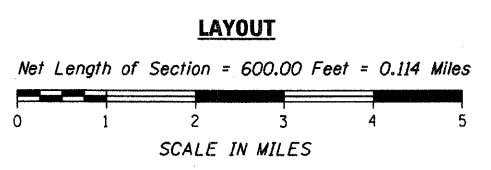
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811



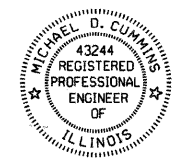
END SECTION
STA 12+50

STA 10+00 PROPOSED S.N. 042-3147
PRECAST, PRESTRESSED CONCRETE
DECK BEAM BRIDGE, ONE SPAN AT 30'-0"
28'-0" ROADWAY, SKEW 0°

EXISTING S.N. 042-4011
STA 10+00 SINGLE SPAN CONCRETE SLAB
BRIDGE ON CLOSED CONCRETE ABUTMENTS
20.1' FC-FC ABUTMENTS
24.75' FC-FC HANDRAILS
NO SKEW
REMOVAL OF EXISTING STRUCTURES = 1 EACH



FUNCTIONAL CLASSIFICATION : COLLECTOR
DESIGN SPEED 40 MPH
CURRENT ADT= 225



Michael D. Cummins 10/16/2008
ILLINOIS PROFESSIONAL NO. 43244
(Expires 11/30/09)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED October 20 2008

Thomas E. Kasper
JERSEY COUNTY ENGINEER

PASSEL 11-7 2008

[Signature]
DISTRICT EIGHT ENGINEER OF
LOCAL ROADS AND STREETS

RELEASED FOR
BID BASED ON
LIMITED REVIEW 11-7 2008

Michael J. [Signature]
DEPUTY DIRECTOR OF HIGHWAYS,
REGION FIVE ENGINEER

SUMMARY OF QUANTITIES

| CODE | ITEM | UNIT | QUANTITY |
|------------|---|-------|----------|
| 20200100 | EARTH EXCAVATION | CU YD | 120 |
| 20300100 | CHANNEL EXCAVATION | CU YD | 140 |
| 20400800 | FURNISHED EXCAVATION | CU YD | 455 |
| 20700400 | * POROUS GRANULAR EMBANKMENT, SPECIAL | CU YD | 106 |
| 25001000 | * SEEDING, CLASS 2 (SPECIAL) | ACRE | 0.3 |
| 28100807 | STONE DUMPED RIPRAP, CLASS A4 | TON | 220 |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 460 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 118.2 |
| 50400305 | * PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SQ FT | 840 |
| 50800105 | * REINFORCEMENT BARS | POUND | 8,480 |
| 50800205 | * REINFORCEMENT BARS, EPOXY COATED | POUND | 1,980 |
| △ 50900205 | STEEL RAILING, TYPE SI | FOOT | 60 |
| 51500100 | NAME PLATES | EACH | 1 |
| 59100100 | GEOCOMPOSITE WALL DRAIN | SQ YD | 60 |
| △ 63100075 | TRAFFIC BARRIER TERMINAL, TYPE 5A | EACH | 4 |
| △ 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT) | EACH | 4 |
| 67100100 | * MOBILIZATION | L SUM | 1 |
| 70101830 | * TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 | L SUM | 1 |
| △ 78201000 | * TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |
| X5020501 | * UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1 | EACH | 1 |
| X5020502 | * UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2 | EACH | 1 |

* SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS

CONSTRUCTION TYPE CODE: X080-2A

EARTHWORK

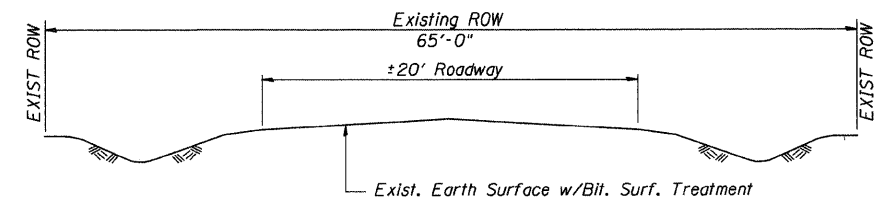
| OPERATION | EXCAVATION CU YD | EXCAVATION ADJUSTED FOR SHRINKAGE CU YD | REQUIRED EMBANKMENT CU YD | BALANCE EARTHWORK CU YD |
|-----------------------------|---------------------|--|---------------------------------|-------------------------------|
| EARTH EXCAVATION | | | | |
| STA 6+50 TO STA 9+84.25 | 80 | 60 | 285 | -225 |
| STA 10+15.75 TO STA 12+50 | 40 | 30 | 255 | -225 |
| ENTRANCES | | | | |
| LT STA 11+24 | | | 5 | -5 |
| TOTAL | 120 | 90 | 545 | -455 |
| STRUCTURE EXCAVATION | 460 | 345 | | |
| RIPRAP | | | | |
| STA 9+75 TO STA 10+25 | 145 | 110 | | |
| CHANNEL EXCAVATION | | | | |
| STA 9+84.25 TO STA 10+15.75 | 140 | 105 | | |
| TOTAL | 865 | 650 | | |

SHRINKAGE FACTOR = 25%
EXCAVATION FOR RIPRAP IS INCLUDED IN THE COST FOR STONE RIPRAP, CLASS A4
EARTH EXCAVATION - 120 CU YD
FURNISHED EXCAVATION - 455 CU YD
CHANNEL EXCAVATION - 140 CU YD

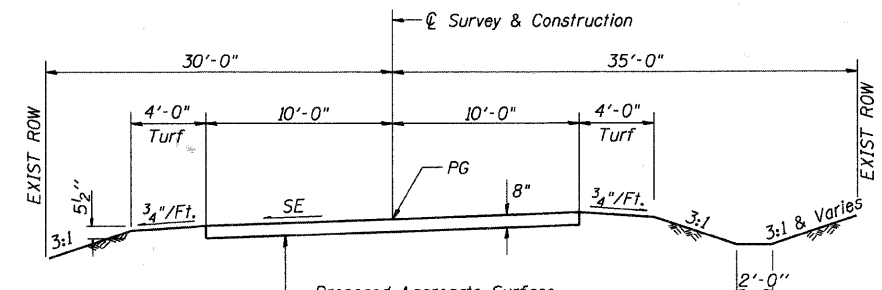
SUITABLE EXCAVATED MATERIAL SHALL BE USED IN THE PROPOSED EMBANKMENT

APPLICATION RATES USED IN QUANTITY CALCULATIONS

Riprap ----- 1.5 Tons/Cu. Yd.



TYPICAL EXISTING ROADWAY CROSS SECTION



Fill Section-Construct as Shown on Station Cross Sections

Proposed Aggregate Surface Course Type B (By Others) **

Cut Section-Construct as Shown on Station Cross Sections

BRIDGE OMISSION
STA. 9+84.25 TO STA. 10+15.75

TYPICAL PROPOSED ROADWAY CROSS SECTION

STA 6+50 TO STA 9+84.25
STA 10+15.75 TO STA 12+50

** ESTIMATED QUANTITY OF AGGREGATE SURFACE COURSE TYPE B = 575 TON (BY OTHERS)

GENERAL NOTES

1. THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER. FERTILIZER NUTRIENTS SHALL BE APPLIED AT A RATIO OF 1:1:1 AND AT A RATE OF 90 POUNDS PER ACRE PER NUTRIENT. MULCH AND AGRICULTURAL GROUND LIMESTONE SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE.

SEEDING CLASS 2 (SPECIAL) = 0.3 ACRE
2. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES, AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES, MUNICIPALITIES AND FIELD INSPECTION. SEE STANDARD SPECIFICATIONS.

COMMITMENTS

NONE

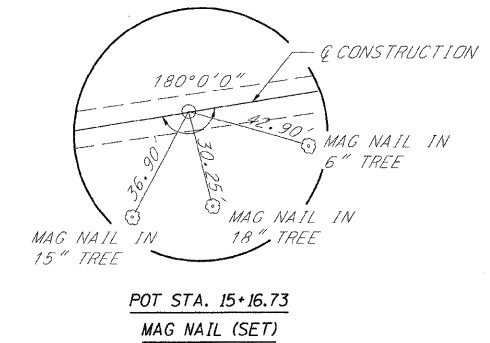
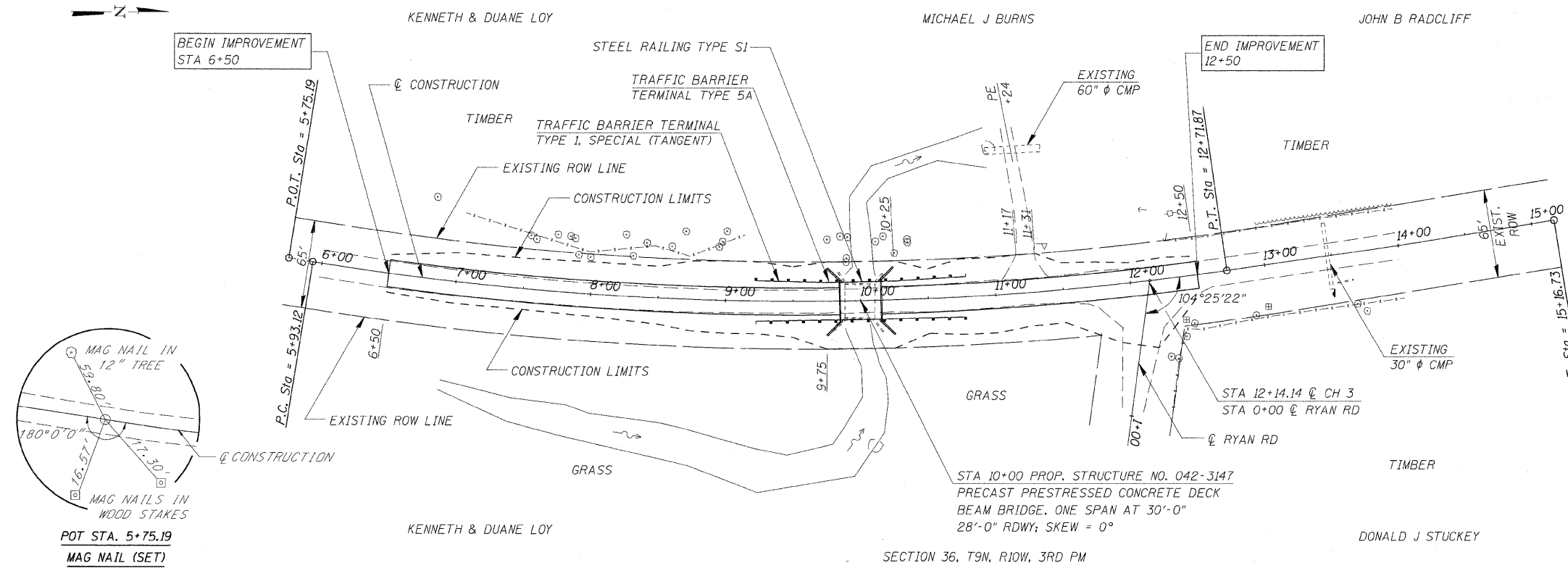
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|---------------------------------------|------------------------|-------------------|-----------|--|---|---|----------------|--------|--------------|-----------|
| CUMMINS ENGINEERING CORPORATION | JOB = 2202 | DESIGNED - NAK | REVISED - | JERSEY COUNTY KEMPER RD. IMPROVEMENTS | TYPICAL CROSS SECTIONS, GENERAL NOTES, SUMMARY OF QUANTITIES | F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | FILE NAME = .FILES. | DRAWN - AJH | REVISED - | | | CH 3 | 06-00052-00-BR | JERSEY | 18 | 2 |
| | PLOT SCALE = .SCALE. | CHECKED - MDC | REVISED - | | | CONTRACT NO. 97359 | | | | |
| | PLOT DATE = 10/24/2008 | DATE - 10/15/2008 | REVISED - | | | FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

CURVE DATA

PI STA = 9+35.17
 $\Delta = 17^{\circ}32'00.7''$
 D = 02°35'00"
 T = 342.05
 R = 2218.00
 L = 678.75
 E = 26.22
 SE = 3.5%
 PC STA = 5+93.12
 PT STA = 12+71.87

COORDINATES FOR ALIGNMENT - @ CH 3

| STATION | NORTH | EAST |
|--------------|---------|---------|
| POT 5+75.19 | 577.57 | 968.67 |
| PC 5+93.12 | 595.27 | 971.54 |
| PT 9+35.17 | 932.90 | 1026.35 |
| PT 12+71.87 | 1271.35 | 976.90 |
| POT 15+16.73 | 1513.40 | 939.94 |

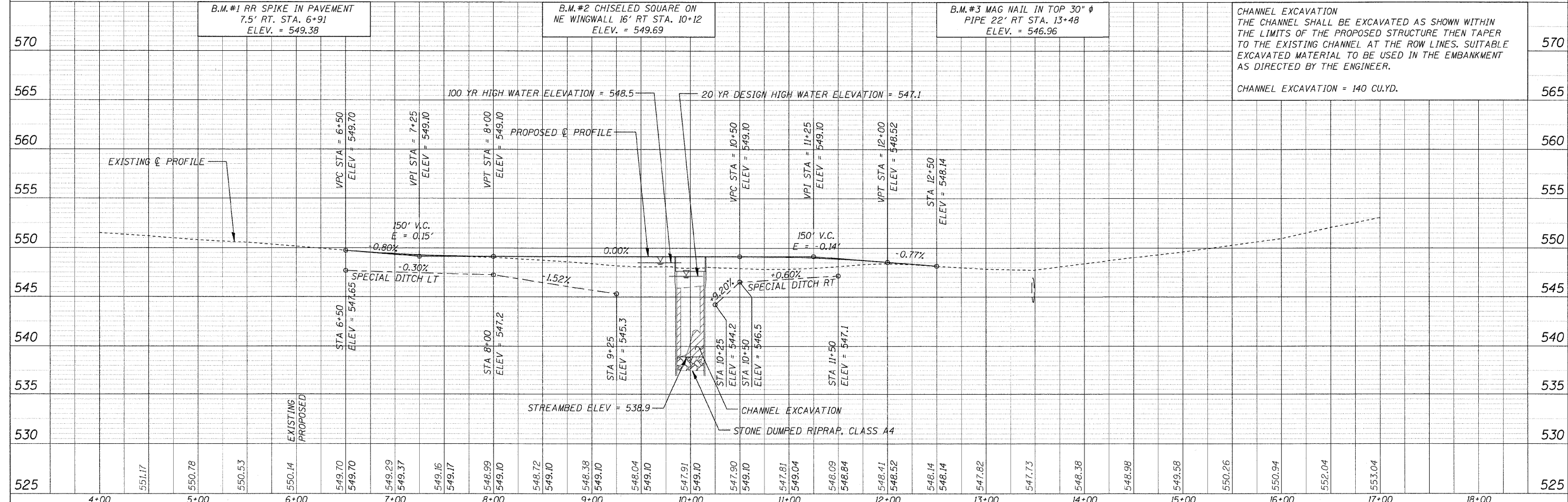


PLAN

| | |
|-----------|-------------|
| DATE | BY |
| REVISIONS | |
| NO. | DESCRIPTION |
| 1 | AS SHOWN |

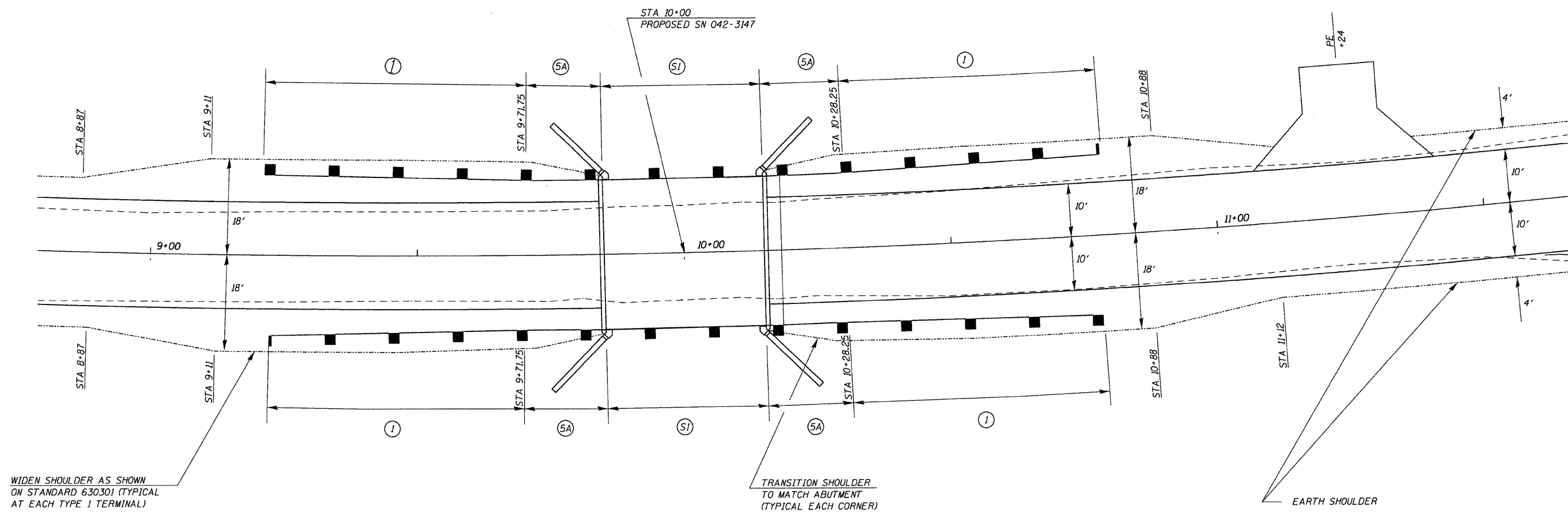
PROFILE

| | |
|-----------|-------------|
| DATE | BY |
| REVISIONS | |
| NO. | DESCRIPTION |
| 1 | AS SHOWN |



CHANNEL EXCAVATION
 THE CHANNEL SHALL BE EXCAVATED AS SHOWN WITHIN THE LIMITS OF THE PROPOSED STRUCTURE THEN TAPER TO THE EXISTING CHANNEL AT THE ROW LINES. SUITABLE EXCAVATED MATERIAL TO BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.

CHANNEL EXCAVATION = 140 CU.YD.



LEGEND

| | |
|------|---|
| (SI) | STEEL RAILING TYPE SI |
| (5A) | TRAFFIC BARRIER TERMINAL TYPE 5A |
| (1) | TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT) |

CUMMINS ENGINEERING CORPORATION

JOB = 2202
 FILE NAME = .FILES.
 PLOT SCALE = .SCALE.
 PLOT DATE = 10/24/2008

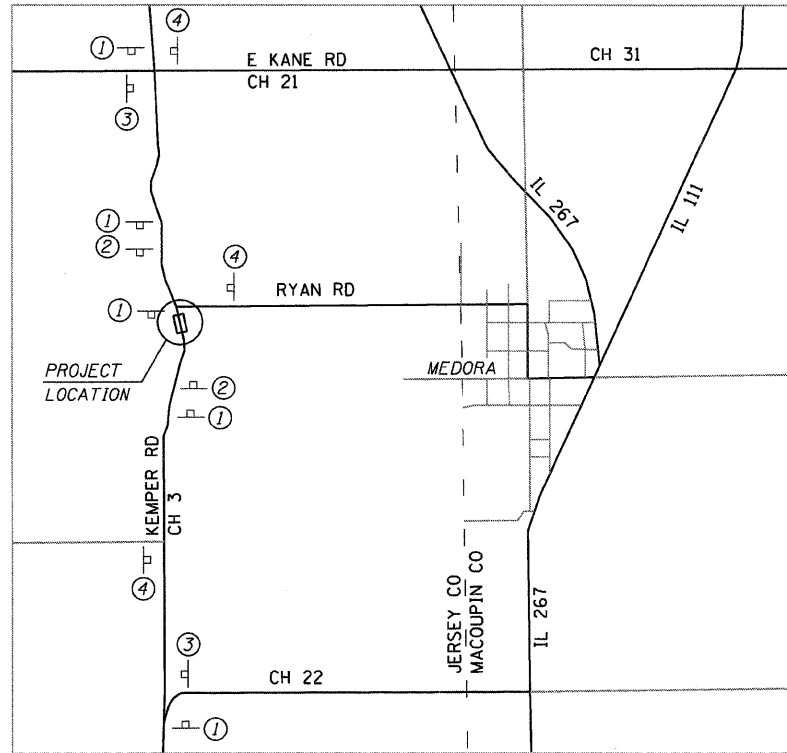
DESIGNED - NAK
 DRAWN - AJH
 CHECKED - MDC
 DATE - 10/15/2008

REVISED -
 REVISED -
 REVISED -
 REVISED -

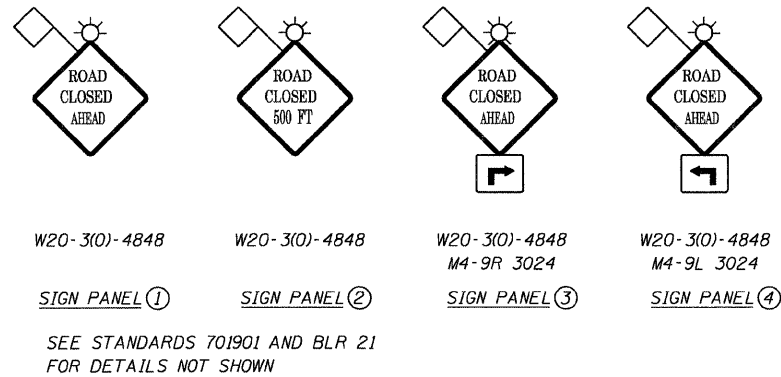
**JERSEY COUNTY
 KEMPER RD. IMPROVEMENTS**

GUARDRAIL DETAILS

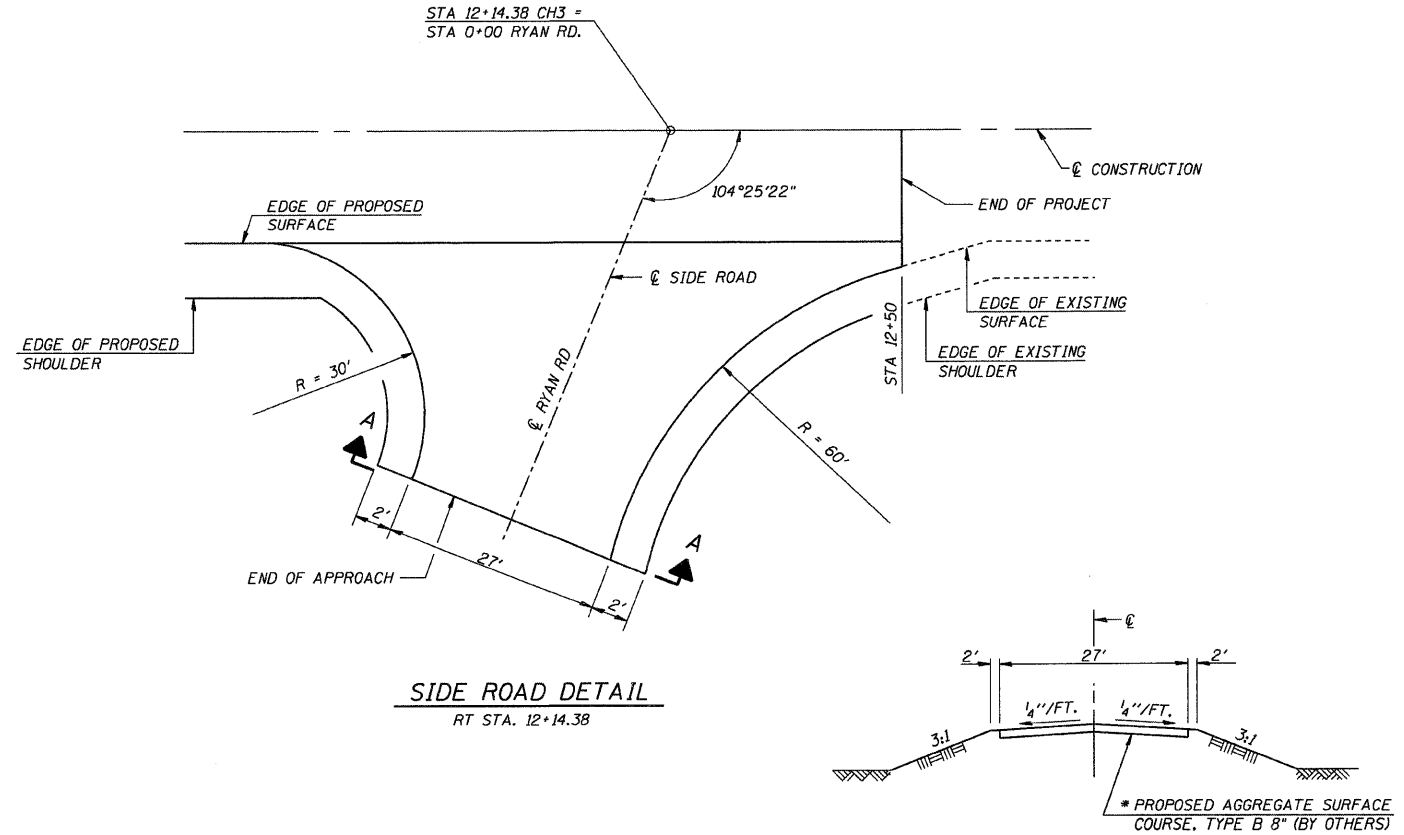
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| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 4 |
| CONTRACT NO. 97359 | | | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |



SIGN LOCATION PLAN

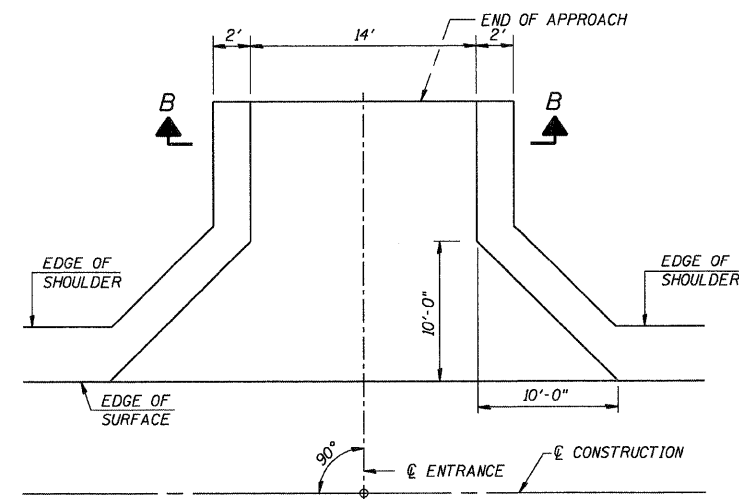


- CH 3 (KEMPER ROAD) IN THE VICINITY OF THE NEW STRUCTURE SHALL BE CLOSED TO ALL TRAFFIC DURING THE CONSTRUCTION PERIOD. THE PRIVATE ENTRANCE AT STA. 11+24 SHALL HAVE ACCESS TO CH 3 THROUGHOUT THE DURATION OF THE PROJECT. THE BARRICADES AT THE NORTH END OF THE WORK AREA SHALL BE LOCATED JUST SOUTH OF THE PRIVATE ENTRANCE AT STA. 11+24 TO MAINTAIN ACCESS. LOCAL RESIDENTS SHALL BE ALLOWED ACCESS AS SPECIFIED IN ARTICLE 107.09 OF THE STANDARD SPECIFICATIONS.
- THE INTERSECTION OF RYAN ROAD AND CH 3, LOCATED JUST NORTH OF THE PROJECT, SHALL BE KEPT OPEN TO TRAFFIC DURING THE CONSTRUCTION OF THE PROPOSED BRIDGE. THE CONTRACTOR MAY ONLY CLOSE RYAN ROAD AND CH 3, NORTH OF RYAN ROAD, TO ALLOW COMPLETION OF THE EARTHWORK REQUIRED FOR CONSTRUCTION OF THE AGGREGATE BASE IN THIS INTERSECTION. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE COUNTY TO MINIMIZE THE TIME THAT THIS INTERSECTION IS CLOSED TO TRAFFIC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING ALL NECESSARY TRAFFIC CONTROL DEVICES AS SPECIFIED IN ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS. PRIOR TO CLOSING THIS INTERSECTION, THE CONTRACTOR SHALL ERECT ADDITIONAL SIGNS AND BARRICADES AS DIRECTED BY THE ENGINEER. AN ADDITIONAL SIGN PANEL 1 SHALL BE ERECTED AT THE WEST EDGE OF MEDORA AND ADDITIONAL SIGN PANELS 1 AND 2 SHALL BE ERECTED EAST OF CH 3 (KEMPER ROAD) PRIOR TO CLOSING RYAN ROAD.

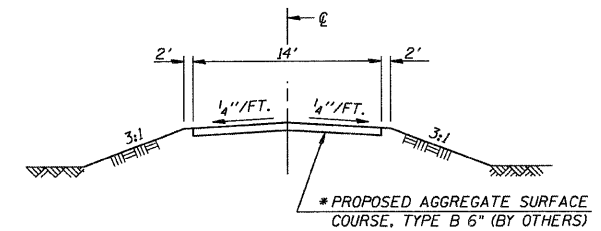


SIDE ROAD DETAIL
RT STA. 12+14.38

SECTION A-A



PRIVATE ENTRANCE DETAIL
LT STA. 11+24



SECTION B-B

* ESTIMATED QUANTITY OF AGGREGATE SURFACE COURSE, TYPE B =
RT STA 12+14.83 88 TON
LT STA 11+24.00 14 TON
(BY OTHERS)

CUMMINS ENGINEERING CORPORATION

| | | |
|------------------------|-------------------|-----------|
| JOB = 2202 | DESIGNED - NAK | REVISED - |
| FILE NAME = .FILES. | DRAWN - AJH | REVISED - |
| PLOT SCALE = .SCALE. | CHECKED - MDC | REVISED - |
| PLOT DATE = 10/24/2008 | DATE - 10/15/2008 | REVISED - |

**JERSEY COUNTY
KEMPER RD. IMPROVEMENTS**

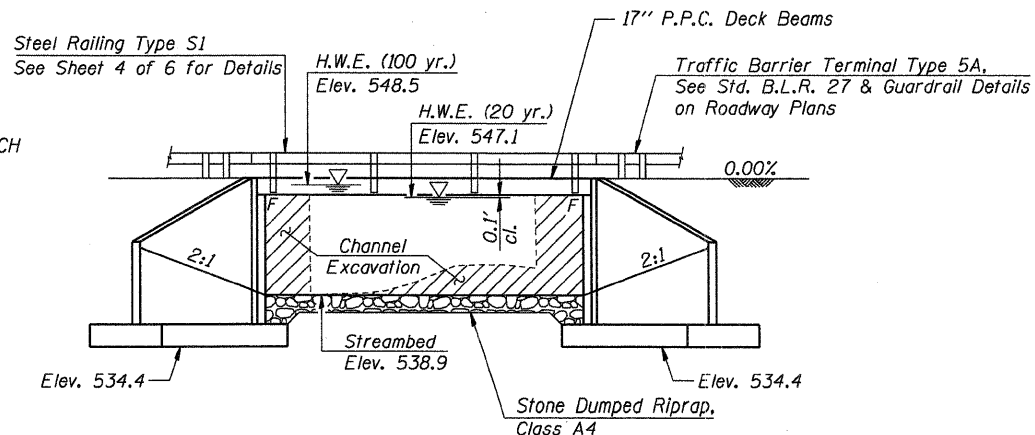
**SIGN LOCATION MAP
SIDE ROAD & ENTRANCE DETAILS**

| | | | | |
|---------------------|----------------|--------|---------------------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 5 |
| FED. ROAD DIST. NO. | | | ILLINOIS FED. AID PROJECT | |
| | | | CONTRACT NO. 97359 | |

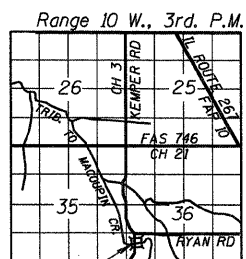
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|----------------|--------|--------------|-----------|
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 6 |

SHEET 1 OF 6 CONTRACT NO. 97359

EXISTING STRUCTURE NO. 042-4011
 STA 10+00 SINGLE SPAN CONCRETE SLAB
 BRIDGE ON CLOSED CONCRETE ABUTMENTS
 20.1' FC-FC ABUTMENTS
 24.75' FC-FC HANDRAILS
 NO SKEW
 REMOVAL OF EXISTING STRUCTURES = 1 EACH



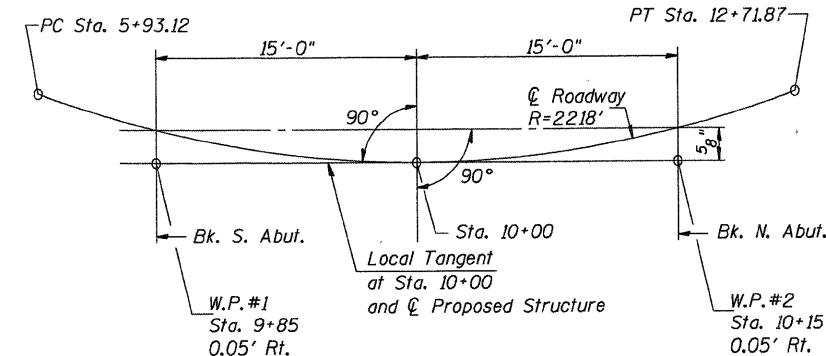
ELEVATION



TRIBUTARY TO MACOUPIN CREEK
 BUILT 20__ BY
 JERSEY COUNTY
 SEC. 06-00052-00-BR
 COUNTY HIGHWAY 3
 F.A. PROJ. BROS-0083(045)
 STR. NO. 042-3147 LOADING HL93

LETTERING FOR NAME PLATE

See Std. 515001



OFFSET LAYOUT SKETCH

GENERAL NOTES

See Special Provisions for Boring data.

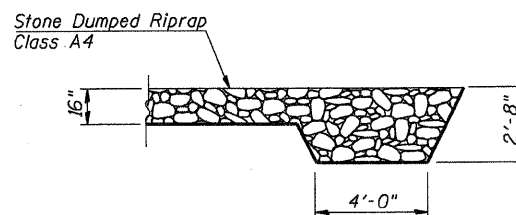
Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60 (IL Modified). See Special Provisions.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

No backfill or embankment shall be placed behind the abutments until the deck beams are in place, dowels are grouted and backwalls are poured. See Article 502.10 of the Standard Specifications.

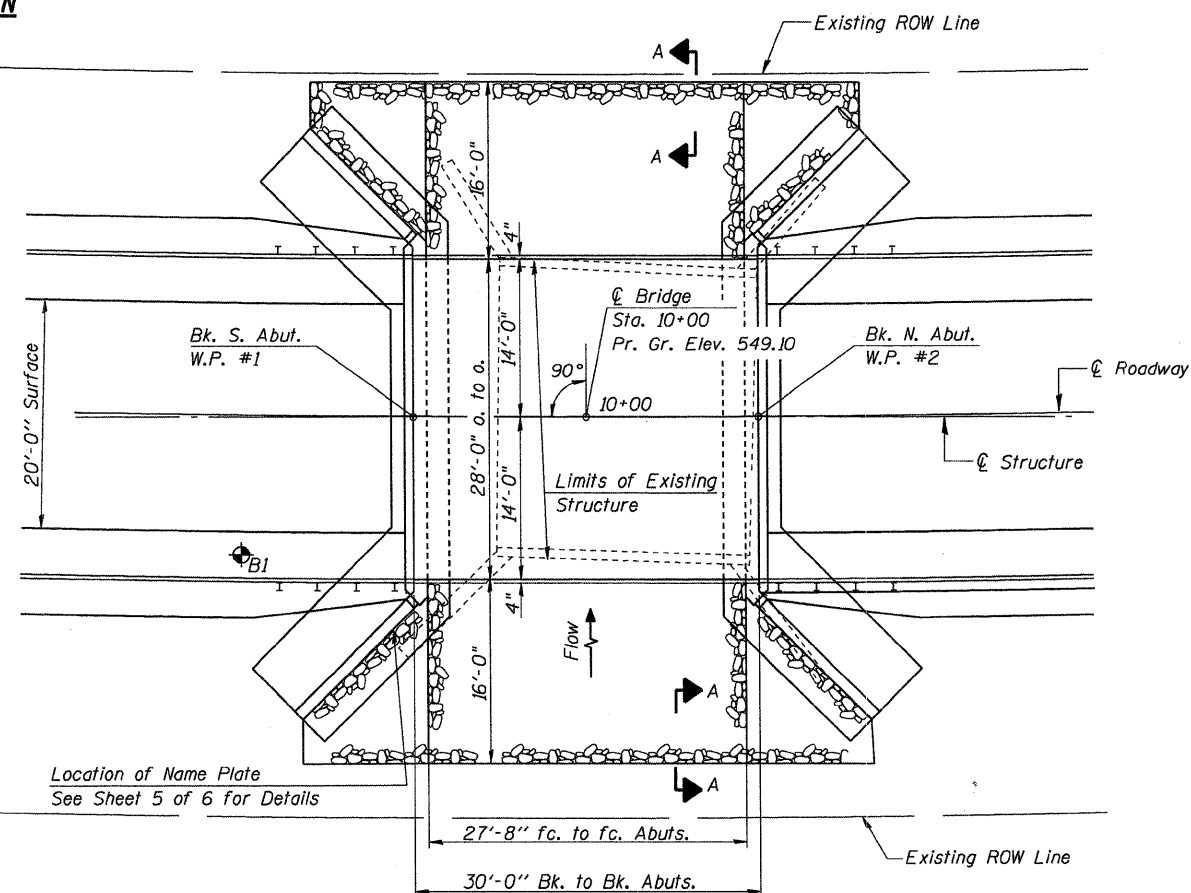
The back face of abutments and wingwalls shall be waterproofed according to Article 503.18 of the Standard Specifications.

Maximum Soil Pressure Under Footing Q Max = 4,000 psf



SECTION A-A

FLANK STONE RIPRAP DETAIL



PLAN

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_y = 60,000$ psi (Reinforcement)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD
 with 2008 Interims
 Allow 50#/Sq. Ft. for future wearing surface.

WATERWAY INFORMATION

| | |
|----------------------------|-------------|
| Drainage Area | 1.1 Sq. Mi. |
| Existing Opening (20 Yr.) | 112 Sq. Ft. |
| Proposed Opening (20 Yr.) | 227 Sq. Ft. |
| Existing Opening (100 Yr.) | 112 Sq. Ft. |
| Approach Opening (100 Yr.) | 138 Sq. Ft. |
| Proposed Opening (100 Yr.) | 227 Sq. Ft. |
| Design Discharge (20 Yr.) | 1050 C.F.S. |
| Created Head (20 Yr.) | 0.0 Ft. |
| 100 Year Discharge | 1600 C.F.S. |
| 100 Yr. Created Head | 0.3 Ft. |

| | |
|----------|--------|
| DESIGNED | A.A.N. |
| CHECKED | T.S.H. |
| DRAWN | A.J.H. |
| CHECKED | M.D.C. |

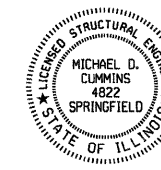
TOTAL BILL OF MATERIAL

| ITEM | UNIT | SUPER | SUB | TOTAL |
|--|---------|-------|-------|-------|
| * Precast Prestressed Concrete Deck Beams (17" Depth) | Sq. Ft. | 840 | | 840 |
| Concrete Structures | Cu. Yd. | | 118.2 | 118.2 |
| * Reinforcement Bars | Pound | | 8480 | 8480 |
| * Reinforcement Bars, Epoxy Coated | Pound | | 1980 | 1980 |
| Steel Railing, Type S1 | Foot | 60 | | 60 |
| Name Plates | Each | | 1 | 1 |
| Stone Dumped Riprap, Class A4 | Ton | | 220 | 220 |
| Structure Excavation | Cu. Yd. | | 460 | 460 |
| * Porous Granular Embankment, Special Geocomposite Wall Drain | Sq. Yd. | | 60 | 60 |
| * Underwater Structure Excavation Protection - Location 1 (S. Abut.) | Each | | 1 | 1 |
| * Underwater Structure Excavation Protection - Location 2 (N. Abut.) | Each | | 1 | 1 |

* See Special Provisions

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'AASHTO Standard Specifications for Highway Bridges'."

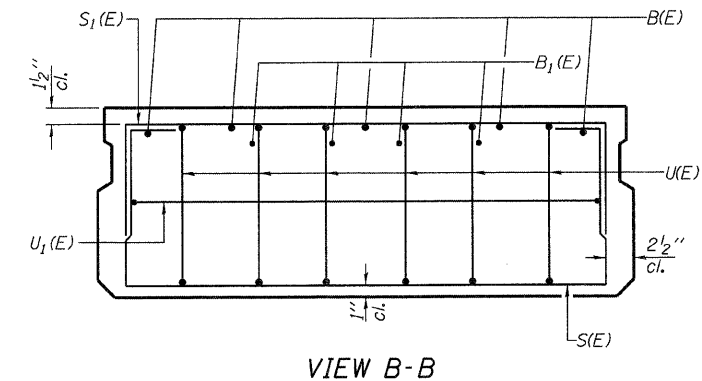
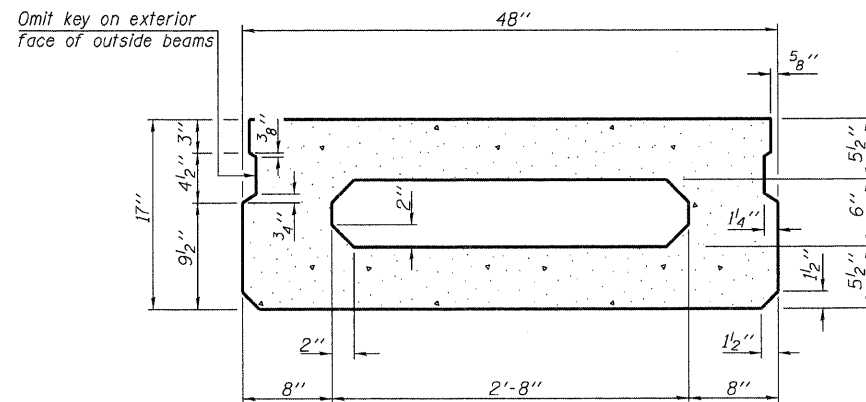
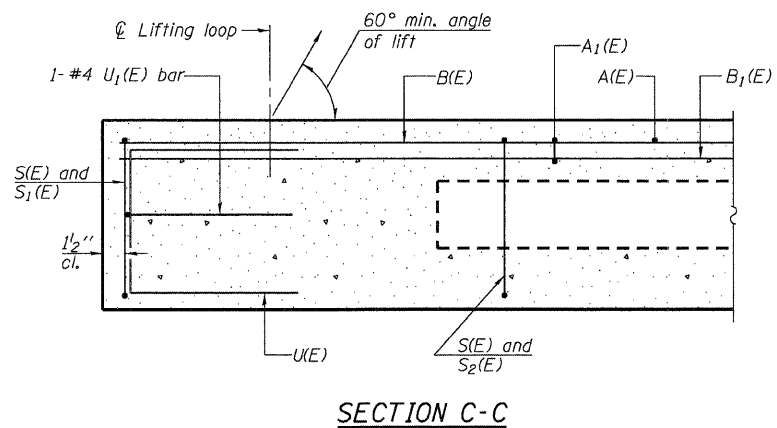
Michael D. Cummins (10-16-2008)
 ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/10)



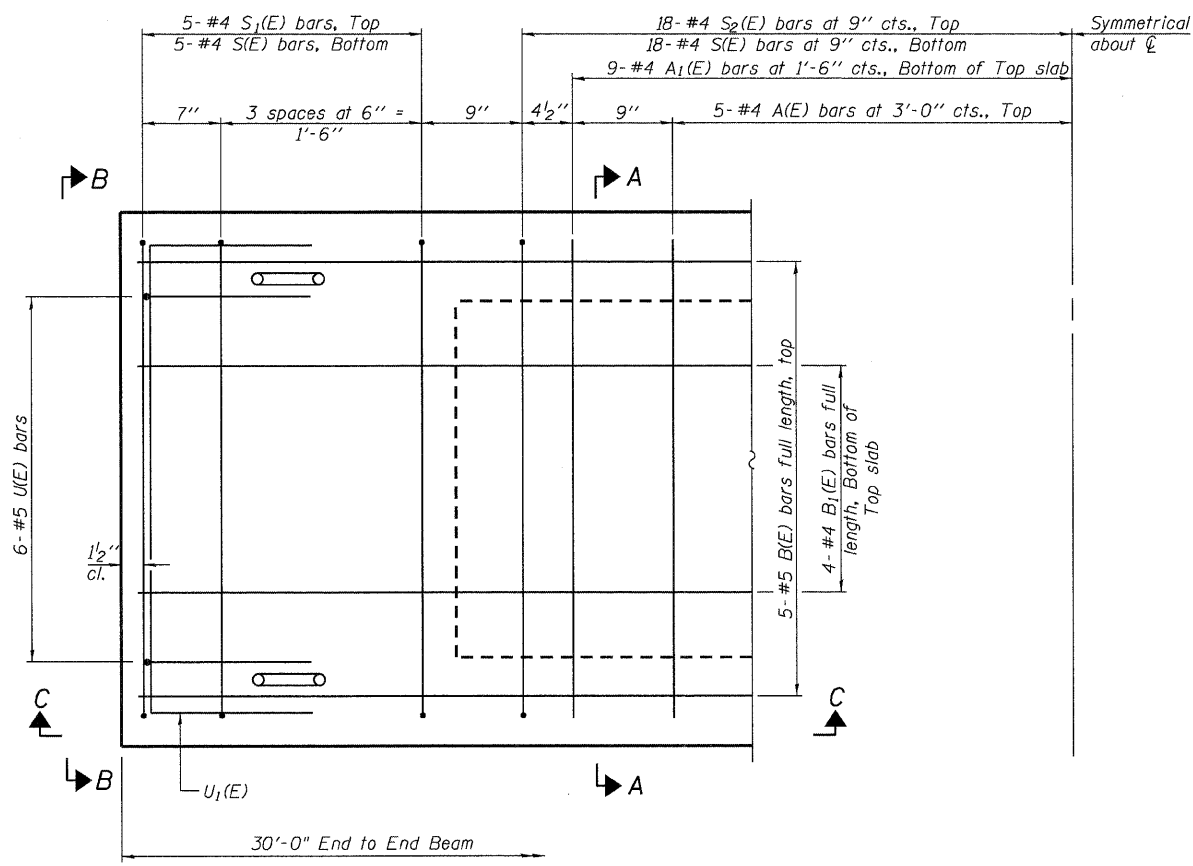
GENERAL PLAN & ELEVATION
 CH 3 (KEMPER ROAD)
 OVER TRIBUTARY TO MACOUPIN CREEK
 SECTION 06-00052-00-BR
 JERSEY COUNTY
 STA. 10+00
 S.N. 042-3147

CUMMINS ENGINEERING CORPORATION

JOB #: 2202
 FILE: 2202qpe.dgn
 DATE: 10/16/2008

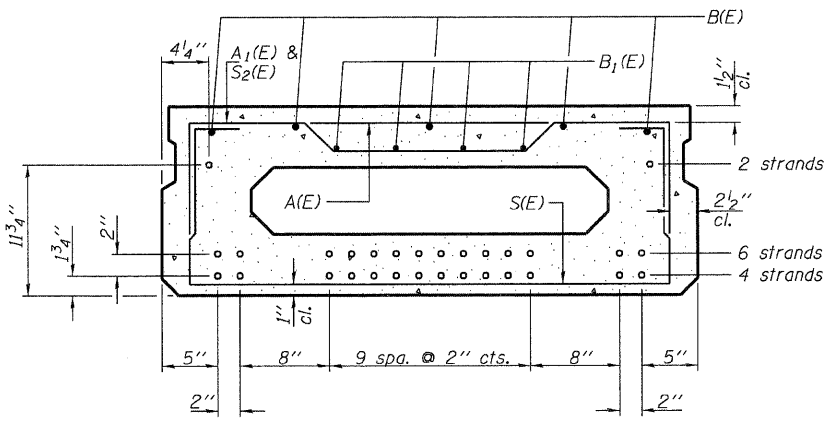


SECTION A-A
(Showing dimensions)



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION A-A
(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| A(E) | 9 | #4 | 3'-7" | — |
| A1(E) | 18 | #4 | 3'-10" | — |
| B(E) | 5 | #5 | 29'-9" | — |
| B1(E) | 4 | #4 | 29'-9" | — |
| S(E) | 46 | #4 | 6'-9" | □ |
| S1(E) | 10 | #4 | 5'-3" | □ |
| S2(E) | 36 | #4 | 5'-6" | □ |
| U(E) | 12 | #5 | 3'-8" | □ |
| U1(E) | 2 | #4 | 6'-0" | □ |

Note: See sheet 3 of 6 for additional details and Bill of Material.

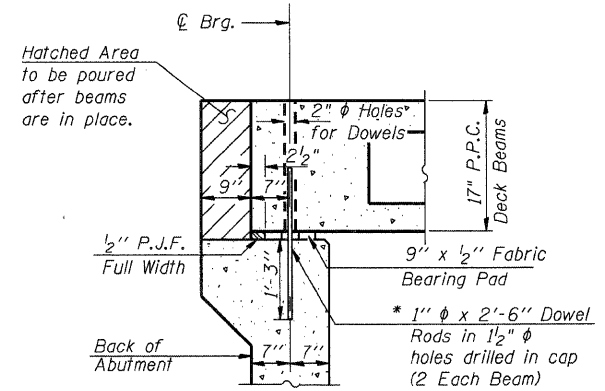
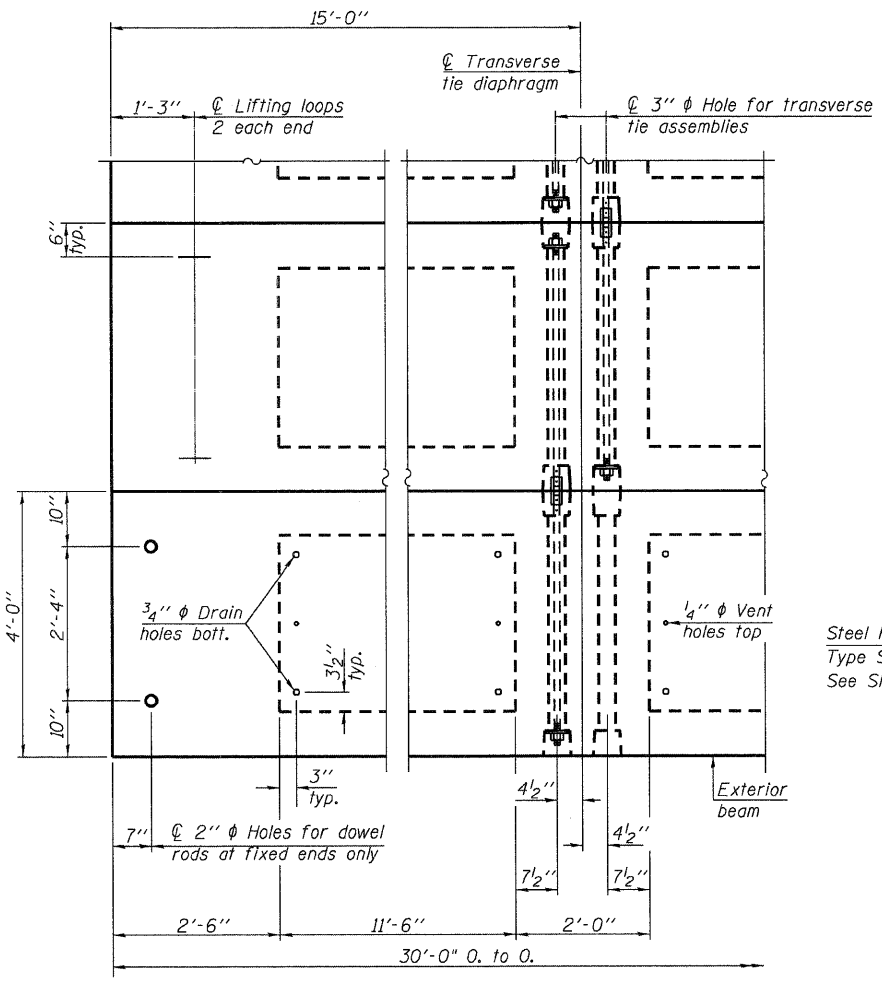
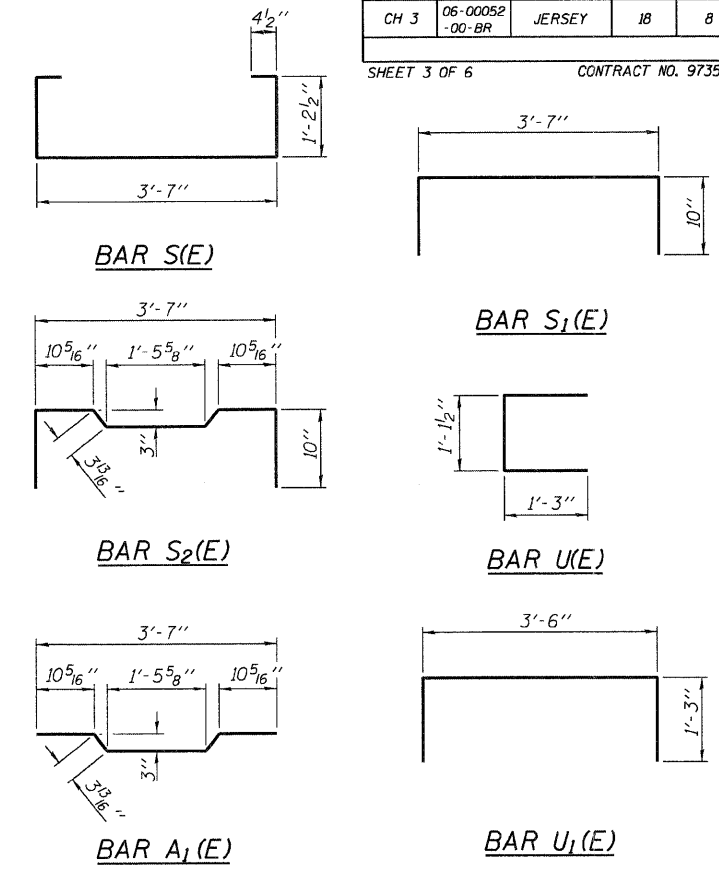
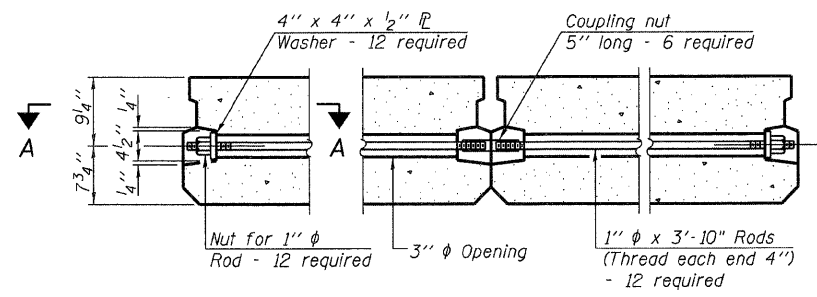
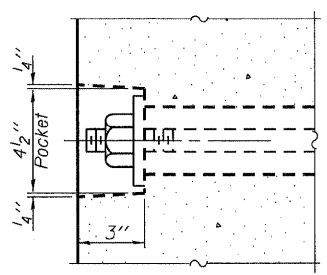
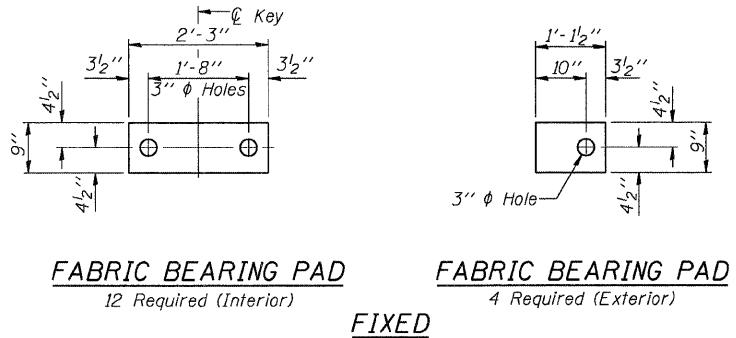
| | |
|----------|--------|
| DESIGNED | A.A.N. |
| CHECKED | T.S.H. |
| DRAWN | A.J.H. |
| CHECKED | M.D.C. |

PD-1748-0 5-16-08

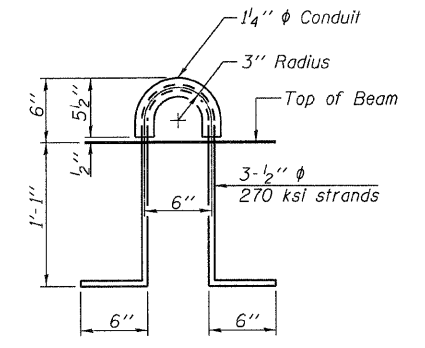
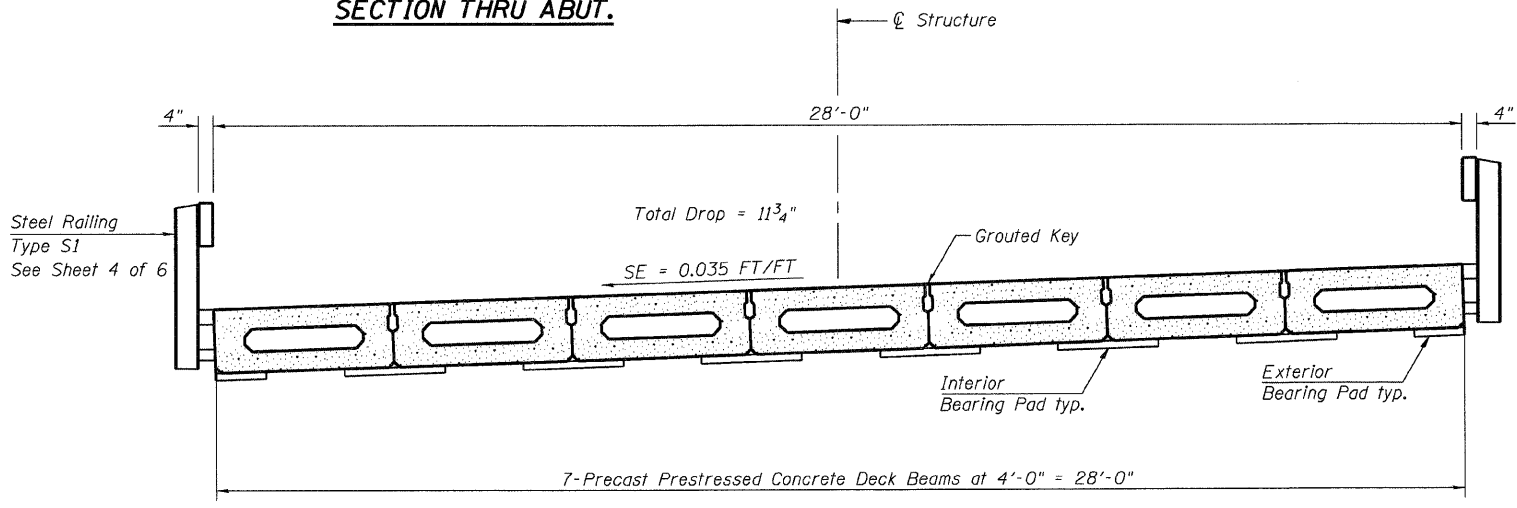
SUPERSTRUCTURE
CH 3 (KEMPER ROAD)
OVER TRIBUTARY TO MACOUPIN CREEK
SECTION 06-00052-00-BR
JERSEY COUNTY
STA. 10+00
S.N. 042-3147

CUMMINS ENGINEERING CORPORATION

| | |
|--------|------------|
| JOB#: | 2202 |
| FILE#: | 2202beam |
| DATE: | 10/16/2008 |



* After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.



BILL OF MATERIAL

| | | |
|---|---------|-----|
| Precast Prestressed Conc. Deck Bms. (17" depth) | Sq. Ft. | 840 |
|---|---------|-----|

Estimated weight per beam = 20,620 pounds

Note: Connect beams in pairs with the transverse tie configuration shown.

| | |
|----------|--------|
| DESIGNED | A.A.N. |
| CHECKED | T.S.H. |
| DRAWN | A.J.H. |
| CHECKED | M.D.C. |

PD-1748-OD 5-16-08

NOTES

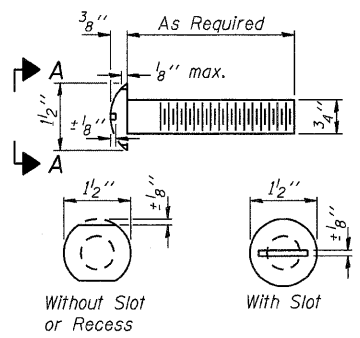
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). Two 3/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'cl, shall be 5000 psi.

SUPERSTRUCTURE
CH 3 (KEMPER ROAD)
OVER TRIBUTARY TO MACOUPIN CREEK
SECTION 06-00052-00-BR
JERSEY COUNTY
STA. 10+00
S.N. 042-3147

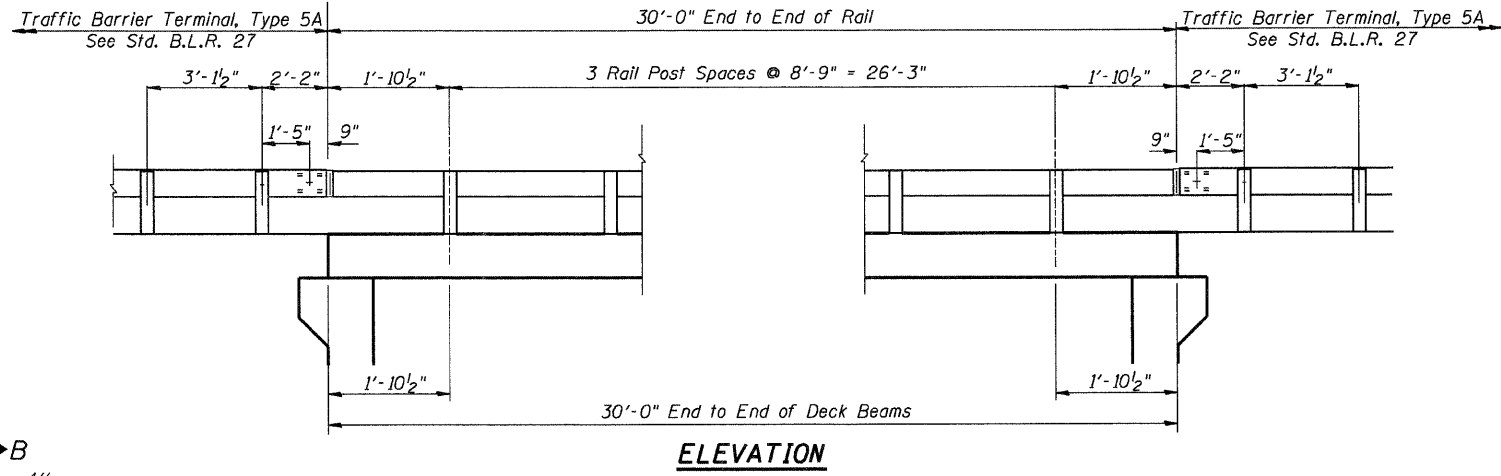
CUMMINS ENGINEERING CORPORATION

| |
|------------------|
| JOB#: 2202 |
| FILE: 2202beam |
| DATE: 10/16/2008 |

| | | | | |
|--------------|----------------|--------|--------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 9 |
| SHEET 4 OF 6 | | | CONTRACT NO. 97359 | |

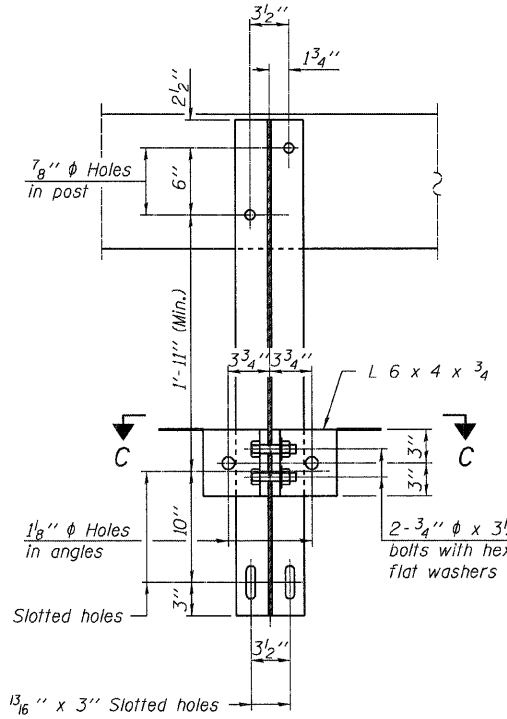


**VIEW A-A
ROUND HEAD BOLT**

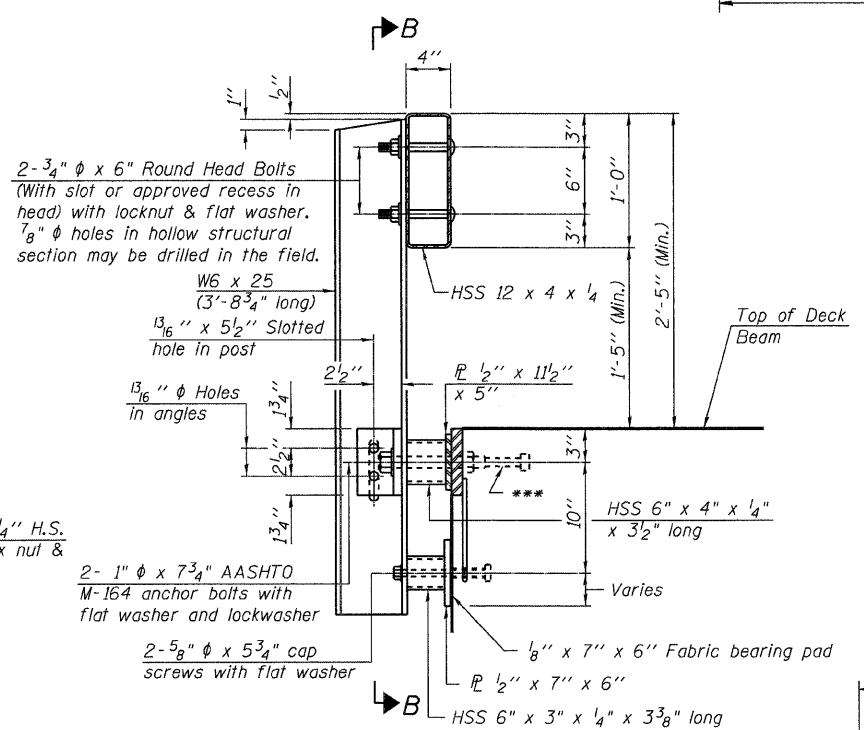


ELEVATION

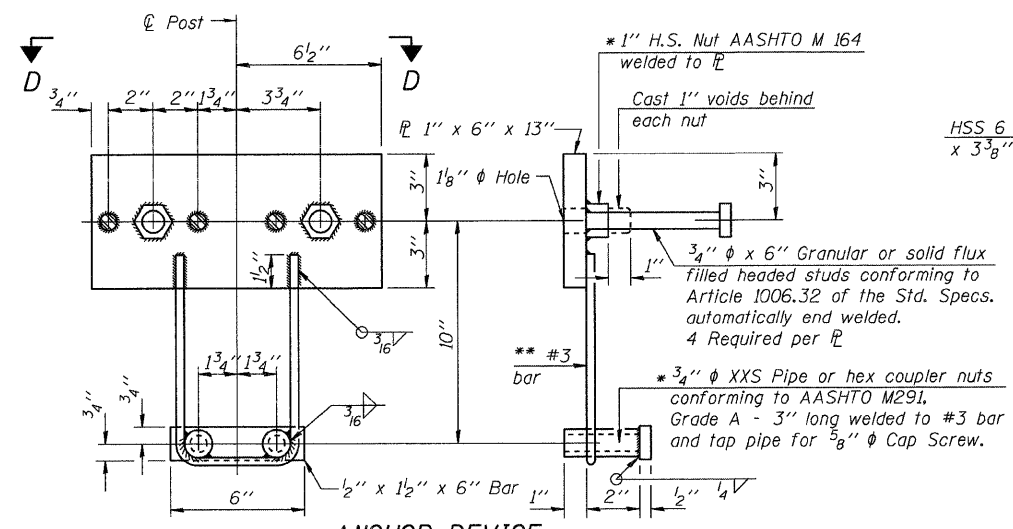
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S1.
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 *** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



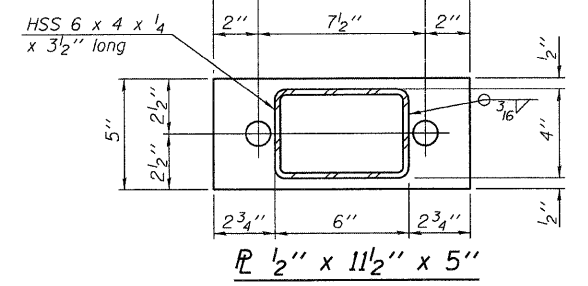
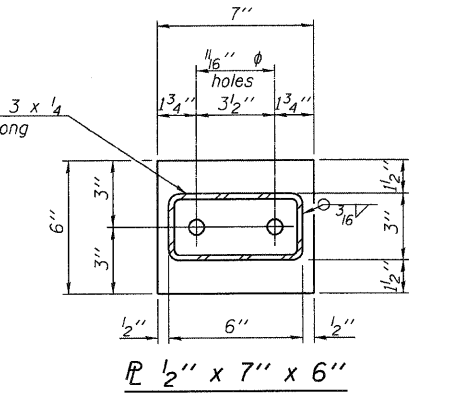
SECTION B-B



SECTION AT RAILING POST

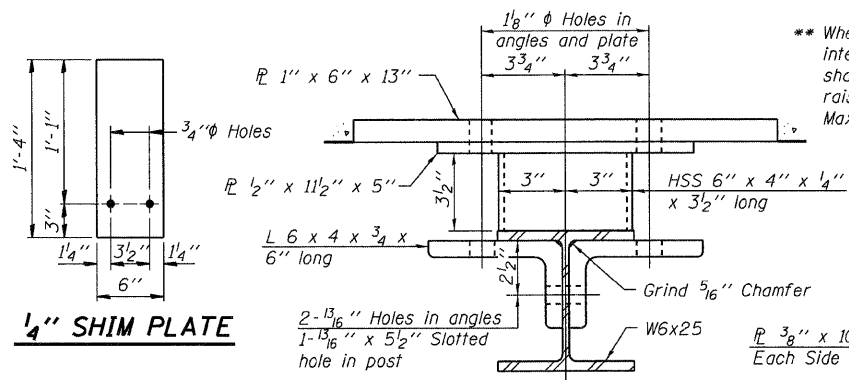


ANCHOR DEVICE

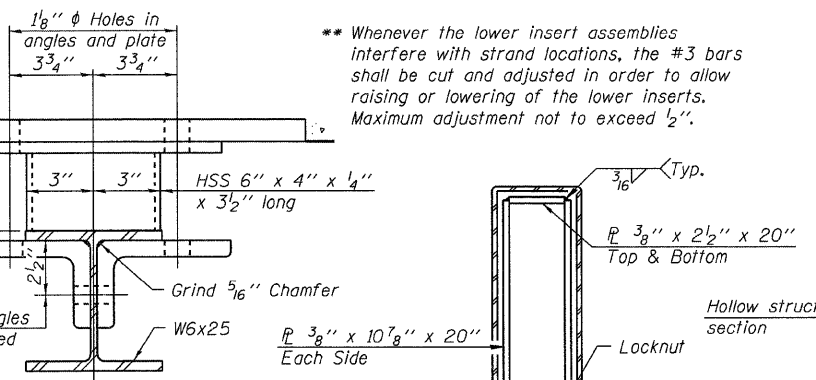


BILL OF MATERIAL

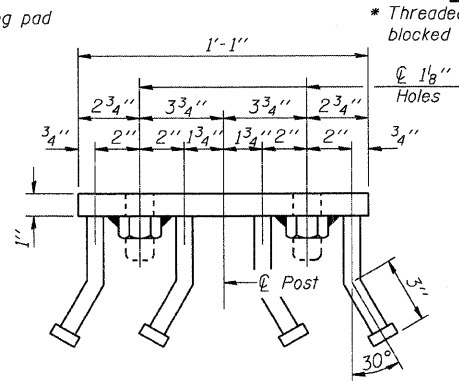
| Item | Unit | Quantity |
|-------------------------|------|----------|
| Steel Railing, Type S-1 | Foot | 60 |



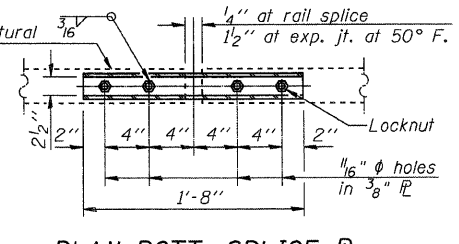
1/4" SHIM PLATE



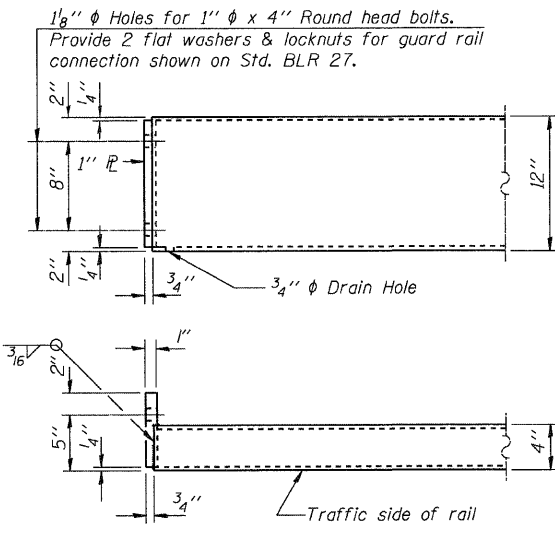
SECTION C-C



VIEW D-D

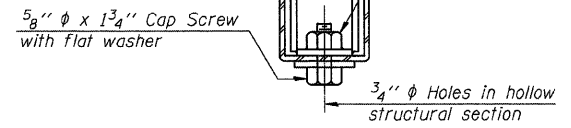


PLAN-BOTT. SPLICE TYPICAL



END OF RAIL DETAILS

** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



SECTIONS AT RAIL SPLICE

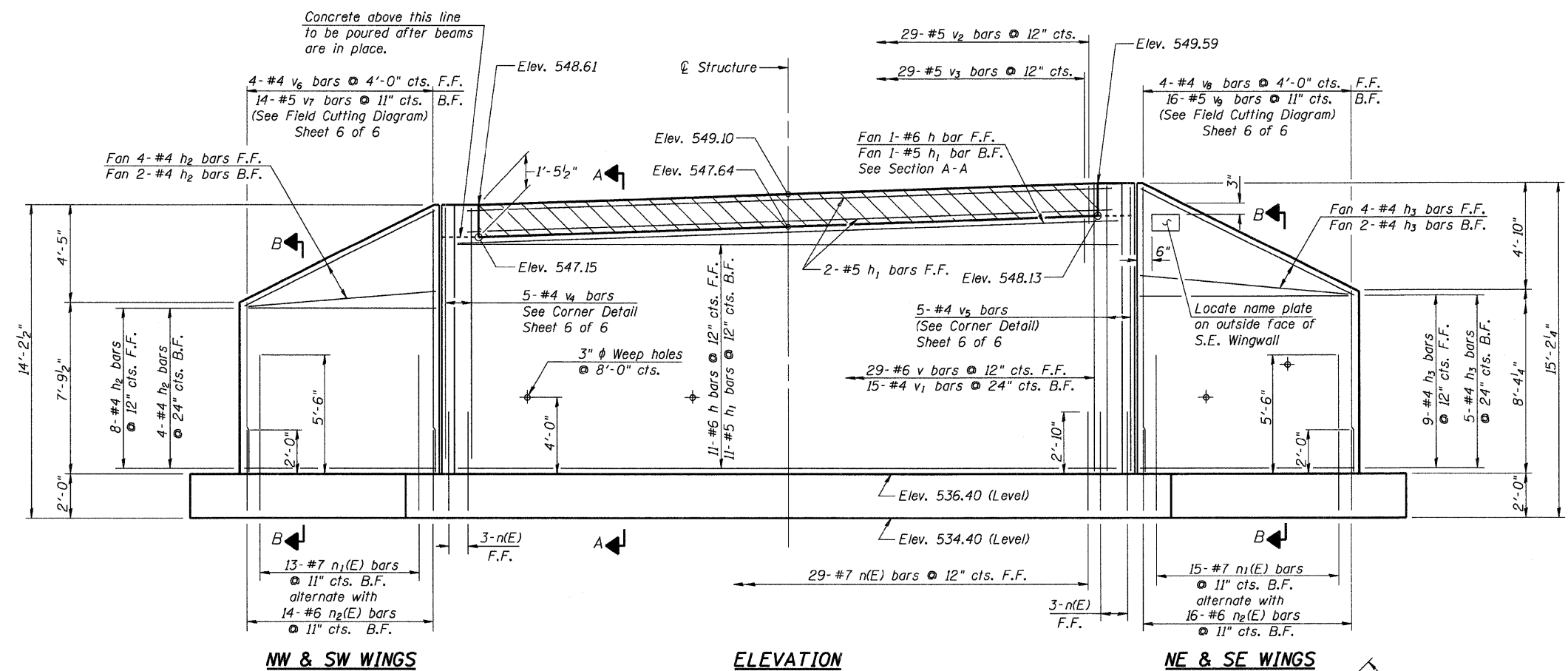
| | |
|----------|--------|
| DESIGNED | A.A.N. |
| CHECKED | T.S.H. |
| DRAWN | A.J.H. |
| CHECKED | M.D.C. |

STEEL RAILING, TYPE S1
 CH 3 (KEMPER ROAD)
 OVER TRIBUTARY TO MACOUPIN CREEK
 SECTION 06-00052-00-BR
 JERSEY COUNTY
 STA. 10+00
 S.N. 042-3147

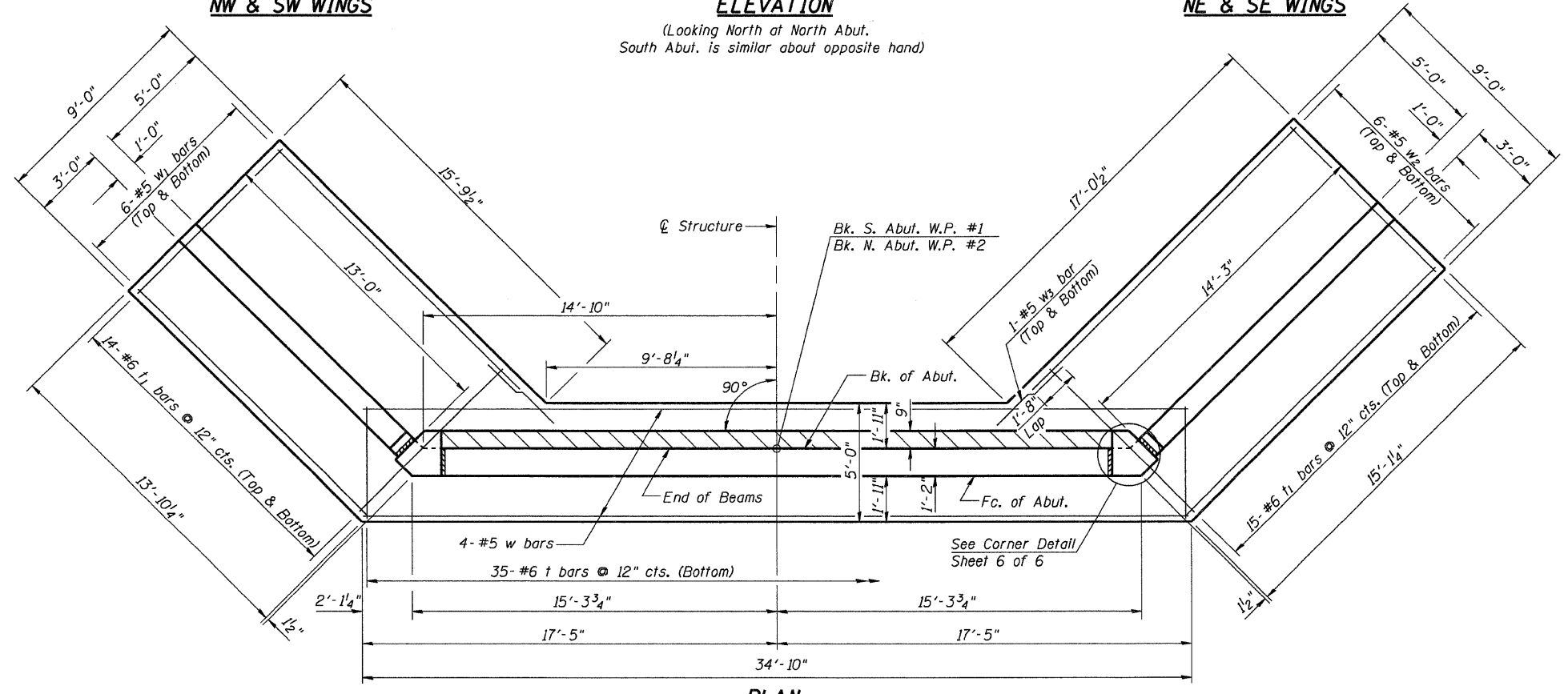
CUMMINS ENGINEERING CORPORATION
 JOB# 2202
 FILE# 2202-calls1
 DATE: 9/30/2008

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|----------------|--------|--------------|-----------|
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 10 |

SHEET 5 OF 6 CONTRACT NO. 97359



ELEVATION
(Looking North at North Abut.
South Abut. is similar about opposite hand)



PLAN
(Showing North Abut.
South Abut. is similar about opposite hand)

BILL OF MATERIAL 2-ABUTS

| BAR | NO. | SIZE | LENGTH | SHAPE |
|--|-----|------|---------|-------|
| h | 24 | #6 | 30'-3" | — |
| h1 | 28 | #5 | 29'-4" | — |
| h2 | 36 | #4 | 12'-7" | — |
| h3 | 40 | #4 | 13'-10" | — |
| n(E) | 70 | #7 | 4'-7" | — |
| n1(E) | 56 | #7 | 8'-1" | — |
| n2(E) | 60 | #6 | 4'-5" | — |
| t | 70 | #6 | 6'-1" | — |
| t1 | 116 | #6 | 8'-8" | — |
| v | 58 | #6 | 10'-5" | — |
| v1 | 30 | #4 | 10'-5" | — |
| v2 | 58 | #5 | 3'-5" | — |
| v3 | 58 | #5 | 7'-1" | — |
| v4 | 10 | #4 | 11'-11" | — |
| v5 | 10 | #4 | 12'-11" | — |
| v6 | 4 | #4 | 19'-5" | — |
| v7 | 14 | #5 | 19'-5" | — |
| v8 | 4 | #4 | 21'-0" | — |
| v9 | 16 | #5 | 21'-0" | — |
| w | 8 | #5 | 34'-6" | — |
| w1 | 24 | #5 | 13'-8" | — |
| w2 | 24 | #5 | 14'-11" | — |
| w3 | 8 | #5 | 5'-6" | — |
| Concrete Structures | | | Cu. Yd. | 118.2 |
| Reinforcement Bars, Epoxy Coated | | | Pound | 1980 |
| Reinforcement Bars | | | Pound | 8480 |
| Name Plates | | | Each | 1 |
| Structure Excavation | | | Cu. Yd. | 460 |
| Porous Granular Embankment (Special) | | | Cu. Yd. | 106 |
| Geocomposite Wall Drain | | | Sq. Yd. | 60 |
| Underwater Structure Excavation Protection - Location 1 (S. Abut.) | | | Each | 1 |
| Underwater Structure Excavation Protection - Location 2 (N. Abut.) | | | Each | 1 |

Note: Reinforcement bars designated (E) shall be Epoxy Coated
Hatched areas to be poured after beams are in place.
F.F. - Front Face
B.F. - Back Face
Maximum Soil Pressure Under Footing Q Max = 4,000 psf

Work this Sheet with Sheet 6 of 6

ABUTMENT
CH 3 (KEMPER RD)
OVER TRIBUTARY TO MACOUPIN CREEK
SECTION 06-00052-00-BR
JERSEY COUNTY
STA. 10+00
S.N. 042-3147

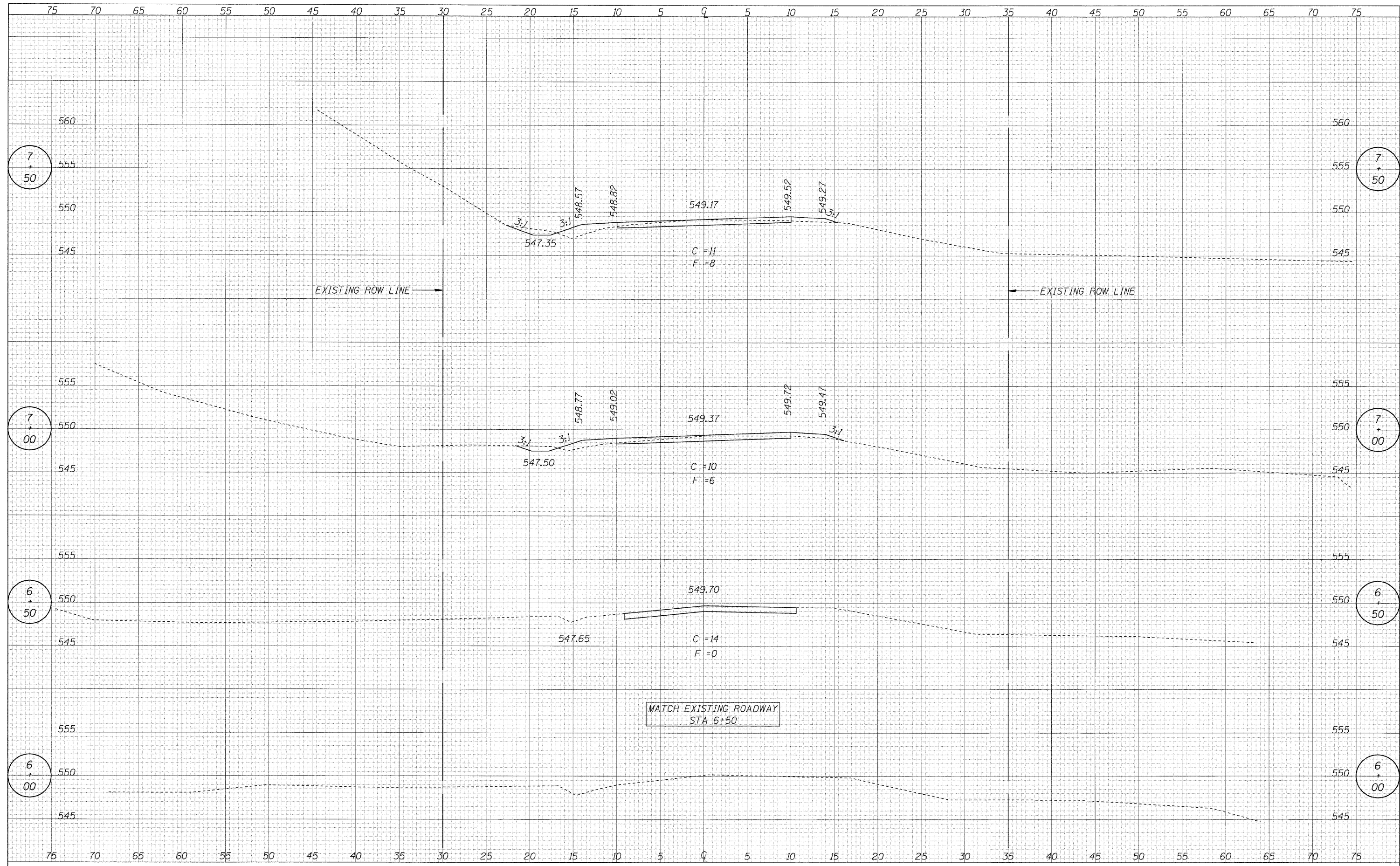
CUMMINS ENGINEERING CORPORATION

JOB#: 2202
FILE#: 2202abut
DATE: 10/16/2008

| | |
|----------|--------|
| DESIGNED | A.A.N. |
| CHECKED | T.S.H. |
| DRAWN | A.J.H. |
| CHECKED | M.D.C. |

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| DATE | |
| BY | |
| NO. OF SHEETS | |
| NO. OF BOOK | |
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| FINAL SURVEY | |
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| PLOTTED | |
| TEMPLATE | |
| AREAS | |
| CHECKED | |

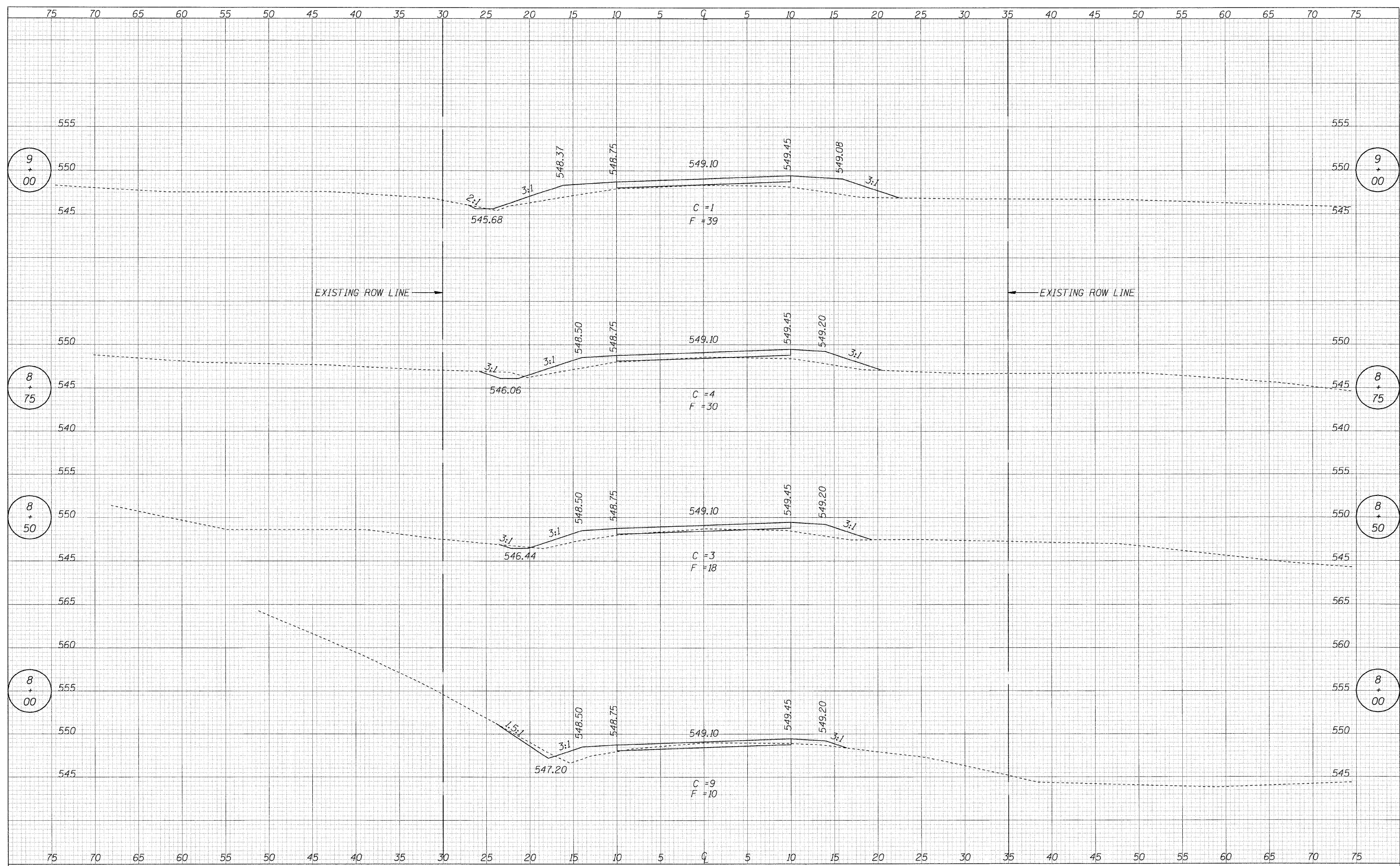
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| ORIGINAL SURVEY | |
| REVISIONS | |
| PLOTTED | |
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| CHECKED | |



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| | | | | | | STA. 6+00 TO STA. 7+50 | | | | | |

DATE _____ BY _____
 ORIGINAL SURVEY _____
 CHECKED _____
 PLOTTED _____
 TEMPLATE _____
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 CHECKED _____

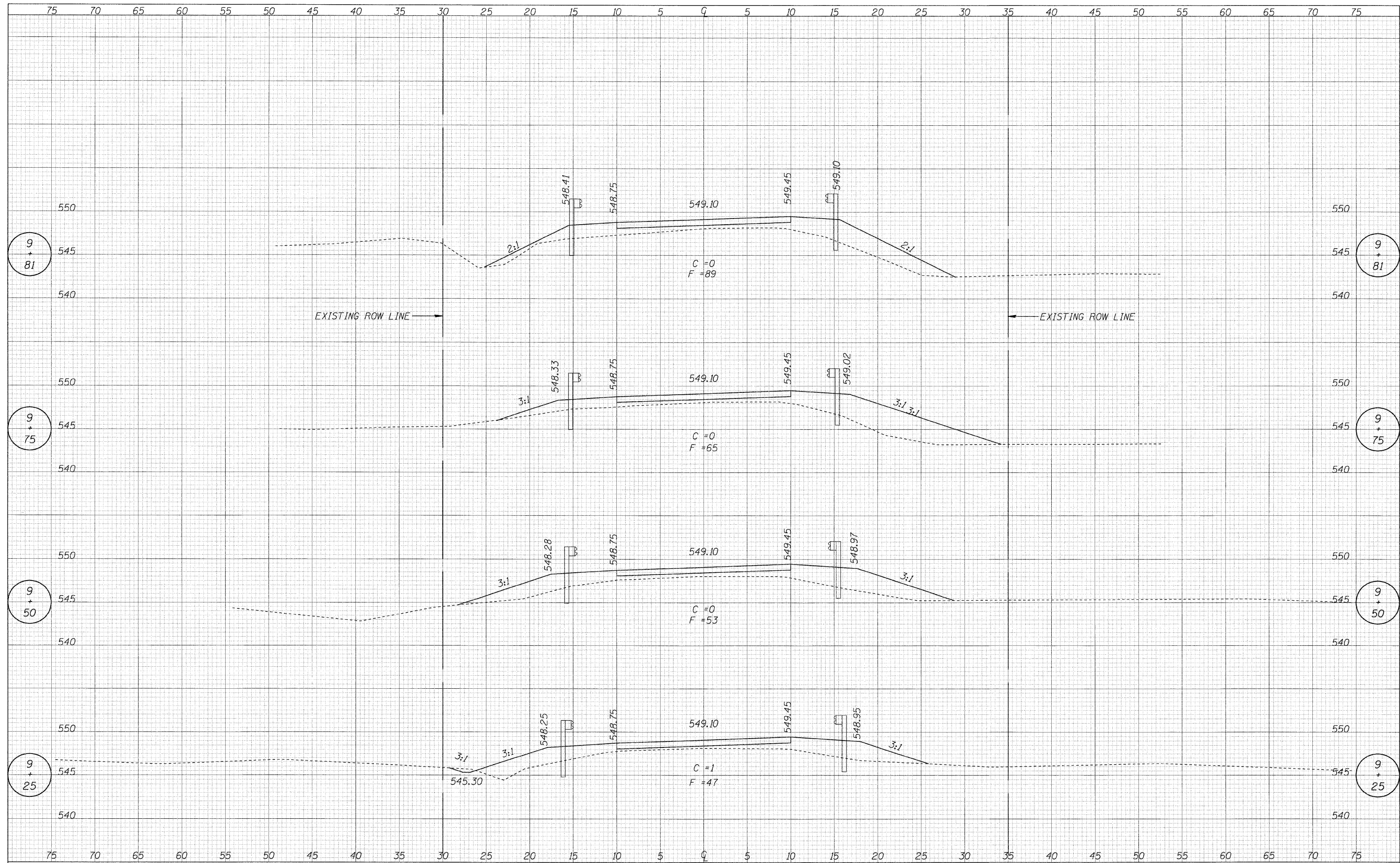
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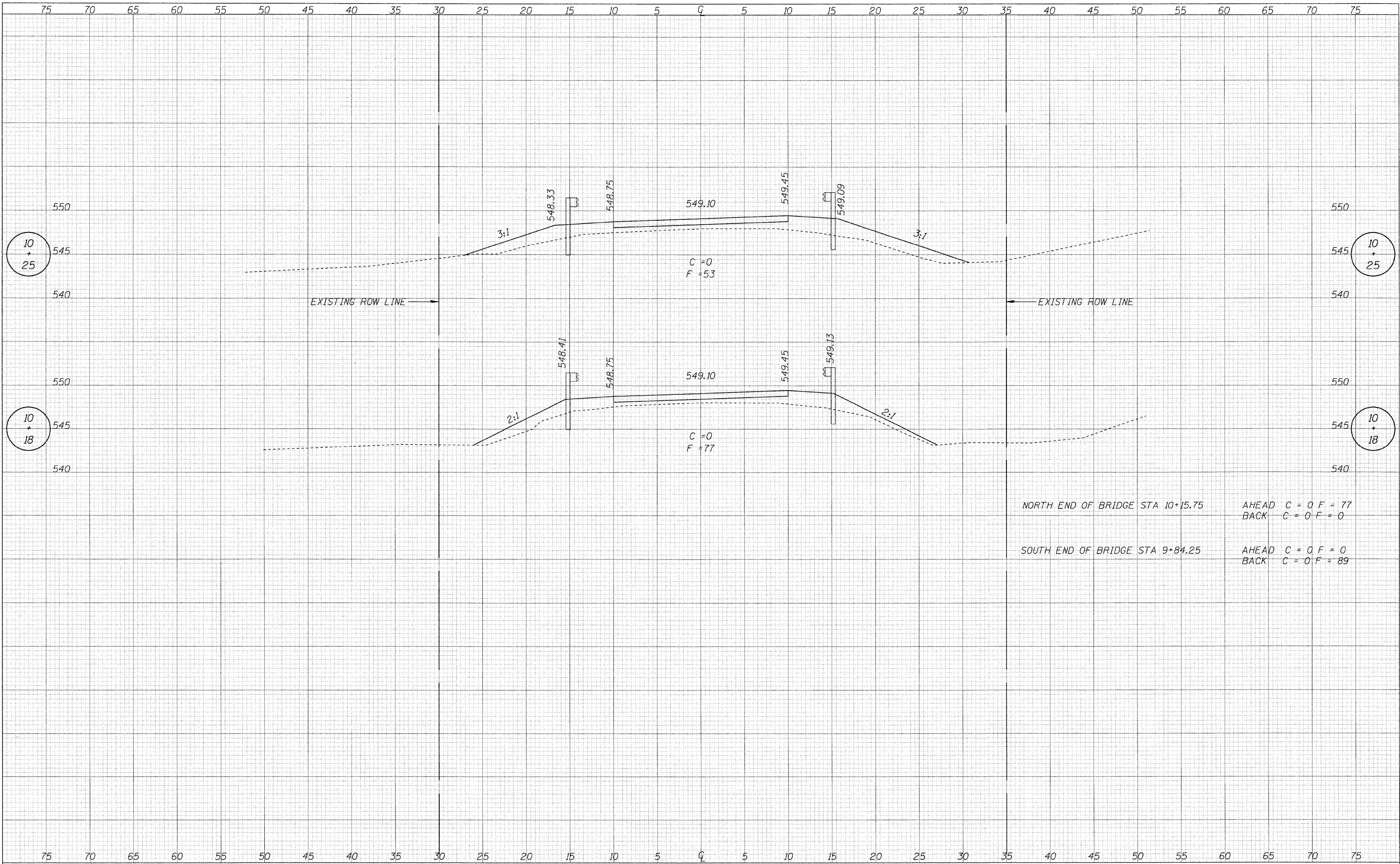
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| | | | | | | STA. 8+00 TO STA. 9+00 | | | | | |

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| DATE | |
| BY | |
| DESIGNED | |
| DRAWN | |
| CHECKED | |
| DATE | |
| REVISIONS | |
| NO. | |
| ORIGINAL SURVEY | |
| NOTE BOOK | |
| NO. | |
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| DATE | |
| BY | |
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| ORIGINAL SURVEY | |
| NOTE BOOK | |
| NO. | |
| AREAS CHECKED | |



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| CUMMINS ENGINEERING CORPORATION | JOB = 2202 | DESIGNED - NAK | REVISED - | JERSEY COUNTY KEMPER RD. IMPROVEMENTS | CROSS SECTIONS - CH 3 | F.A.S. RTE. CH 3 | SECTION 06-00052-00-BR | COUNTY JERSEY | TOTAL SHEETS 18 | SHEET NO. 14 |
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| | PLDT DATE = *DATE* | DATE - 9/30/2008 | REVISED - | | | STA. 9+25 TO STA. 9+81 | | | | |



NORTH END OF BRIDGE STA 10+15.75
 AHEAD C = 0 F = 77
 BACK C = 0 F = 0

SOUTH END OF BRIDGE STA 9+84.25
 AHEAD C = 0 F = 0
 BACK C = 0 F = 89

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

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

CUMMINS
 ENGINEERING
 CORPORATION

JOB = 2202
 FILE NAME = \$FILEL\$
 PLOT SCALE = \$SCALE\$
 PLOT DATE = \$DATE\$

DESIGNED - NAK
 DRAWN - AJH
 CHECKED - NAK
 DATE - 9/30/2008

REVISED -
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JERSEY COUNTY
 KEMPER RD. IMPROVEMENTS

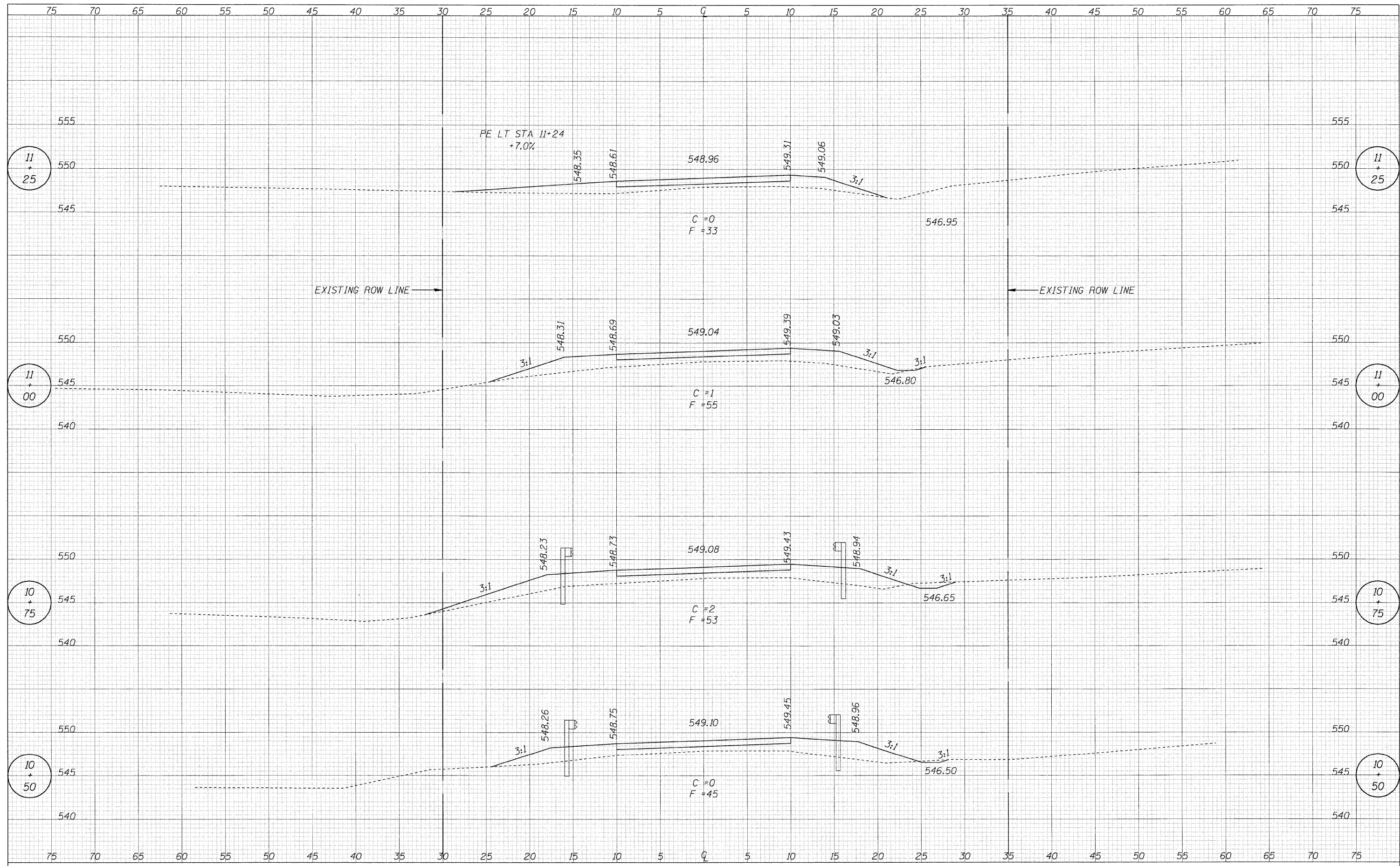
CROSS SECTIONS - CH 3

STA. 9+89 TO STA. 10+25

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| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 15 |
| FED. ROAD DIST. NO. | | | ILLINOIS FED. AID PROJECT | |
| | | | CONTRACT NO. 97359 | |

| | |
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| DATE | |
| BY | |
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| SURVEY PLOTTED | |
| NOTE BOOK | |
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| DATE | |
| BY | |
| ORIGINAL SURVEY | |
| SURVEY PLOTTED | |
| NOTE BOOK | |
| AREAS CHECKED | |
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CUMMINS
ENGINEERING
CORPORATION

JOB = 2202
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PLOT SCALE = #SCALE#
PLOT DATE = #DATE#

DESIGNED - NAK
DRAWN - AJH
CHECKED - NAK
DATE - 9/30/2008

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REVISED -
REVISED -

**JERSEY COUNTY
KEMPER RD. IMPROVEMENTS**

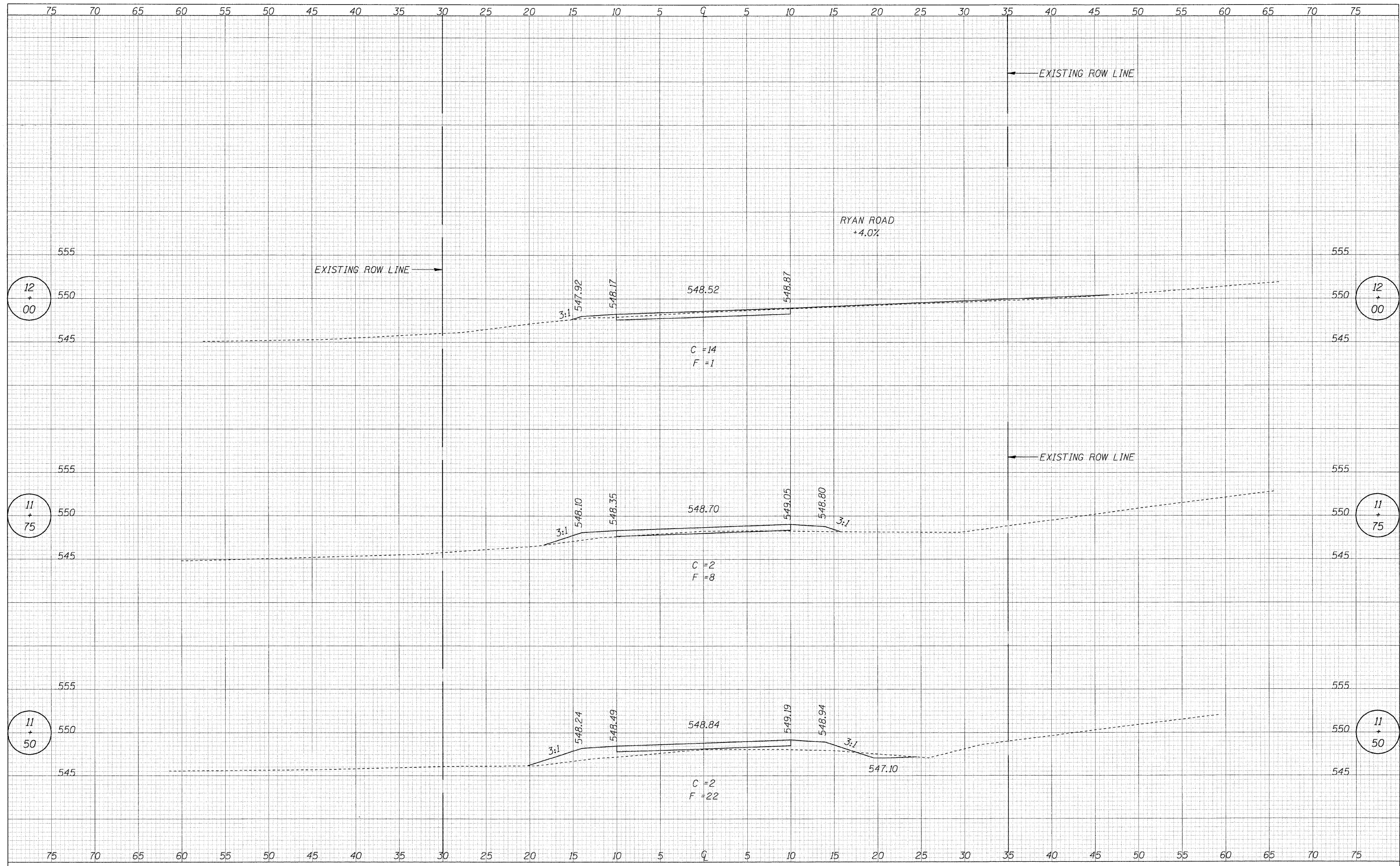
CROSS SECTIONS - CH 3

STA. 10+50 TO STA. 11+25

| | | | | |
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| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 16 |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |
| | | CONTRACT NO. 97359 | | |

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

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



CUMMINS
ENGINEERING
CORPORATION

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DESIGNED - NAK
DRAWN - AJH
CHECKED - NAK
DATE - 9/30/2008

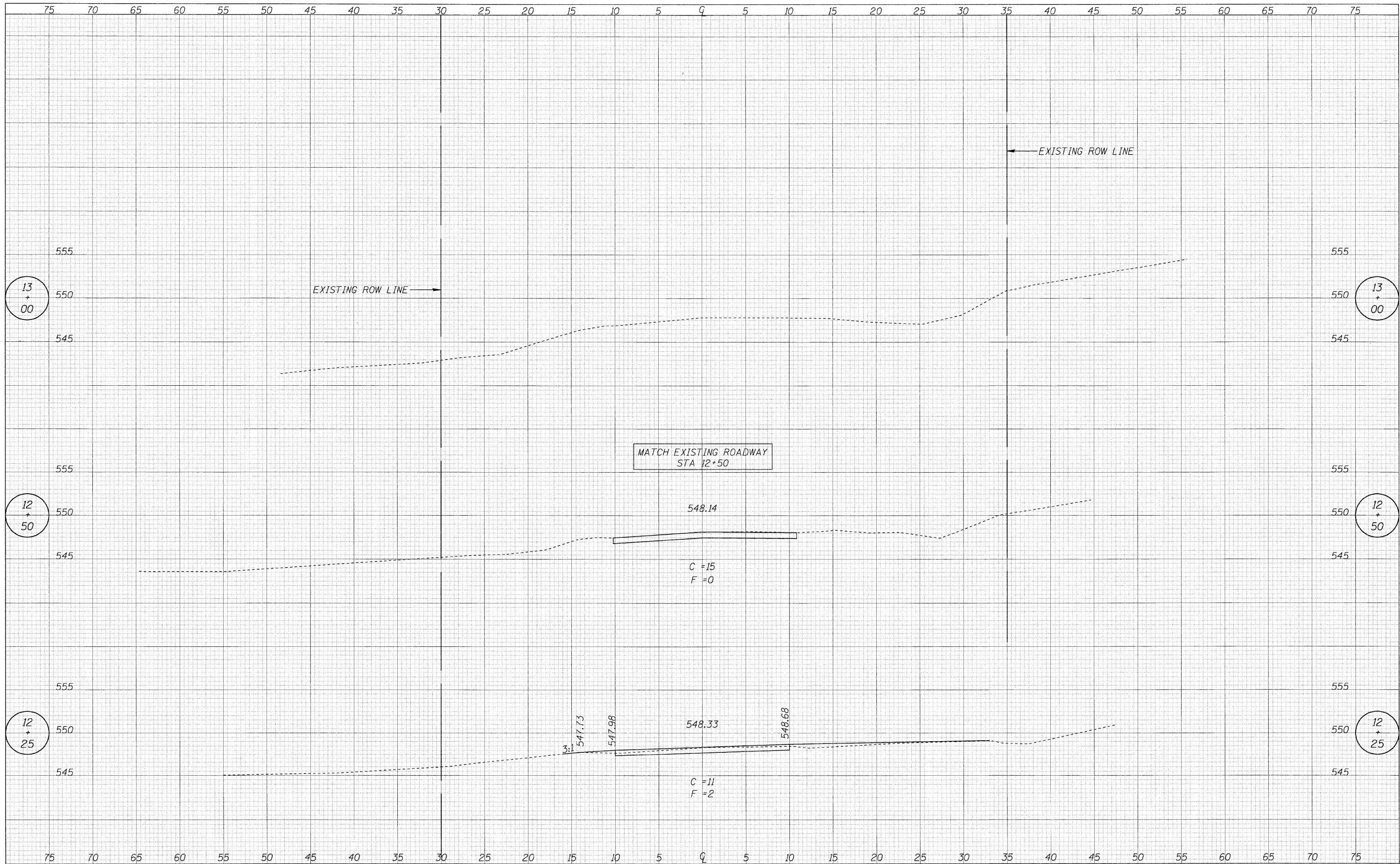
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**JERSEY COUNTY
KEMPER RD. IMPROVEMENTS**

CROSS SECTIONS - CH 3

STA. 11+50 TO STA. 12+00

| | | | | |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 17 |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |
| | | CONTRACT NO. 97359 | | |



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| DATE | |
| BY | |
| FINAL SURVEY | |
| NOTED | |
| NO. CHECKED | |

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|-----------------|--|
| DATE | |
| BY | |
| ORIGINAL SURVEY | |
| NOTED | |
| NO. CHECKED | |

CUMMINS
ENGINEERING
CORPORATION

JOB = 2202
FILE NAME = *FILEL*
PLOT SCALE = *SCALE*
PLOT DATE = *DATE*

DESIGNED - NAK
DRAWN - AJH
CHECKED - NAK
DATE - 9/30/2008

REVISED -
REVISED -
REVISED -
REVISED -

**JERSEY COUNTY
KEMPER RD. IMPROVEMENTS**

CROSS SECTIONS - CH 3

STA. 12+25 TO STA. 13+00

| | | | | |
|---------------------|----------------|---------------------------|--------------|-----------|
| F.A.S. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| CH 3 | 06-00052-00-BR | JERSEY | 18 | 18 |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |
| | | CONTRACT NO. 97359 | | |