| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 1 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

# STATE OF ILLINOIS
# DEPARTMENT OF TRANSPORTATION

## PLANS FOR PROPOSED

# BASSETT SCHOOL ROAD BRIDGE (TR 101C)

HARDIN COUNTY UNIT ROAD DISTRICT
SECTION NO. 12-01162-00-BR
PROJECT NO. S85C(370)
JOB NO. C-99-507-17
CONTRACT NO. 99583

FUNCTIONAL CLASS: LOCAL ROAD
ADT (2016): 350
DESIGN SPEED: 30 MPH

SCALES

PLAN HORIZ. 0 15 30
PROFILE HORIZ. 0 15 30
PROFILE VERT. 0 6 12
CROSS SECTIONS 0 5 10

STANDARDS IN SPECIAL PROVISIONS

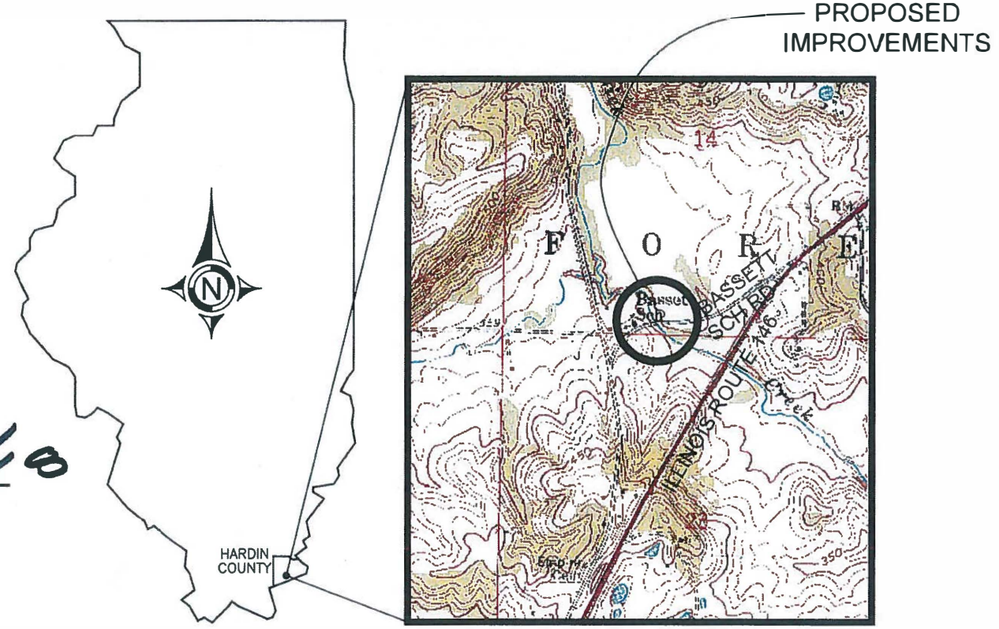
| | |
|---|---|
| 280001-07 | TEMP EROSION CONTROL SYSTEMS |
| 515001-03 | NAME PLATE FOR BRIDGES |
| 701901-07 | TRAFFIC CONTROL DEVICES |
| 725001-01 | OBJECT AND TERMINAL MARKERS |
| BLR 21-9 | TYPICAL TRAFFIC CONTROL DEVICES |

ALL EXISTING UTILITIES AND LOCATIONS TO BE CONFIRMED BY J.U.L.I.E. 800-892-0123

REGISTERED PROFESSIONAL CORPORATION ILLINOIS J.W. BROWN PRESIDENT 184-002518

Jim W. Brown 3/15/18

Jim W. Brown as President of Brown & Roberts, Inc. Date:
Illinois Professional Design Firm
Land Survey & Prof. Eng. Corp
Number 184-002518
Expires April 30, 2019




LOCATION MAP
Scale 1 inch = 2,000 ft
Length Of Improvements = 400 ft (0.076 mi)

## INDEX TO SHEETS



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED Justin Hardin 3/16/18
HARDIN COUNTY ENGINEER

PASSED 03-26-18
DISTRICT 9 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW Jeffrey L Keirn 03-26-18
JEFFREY L. KEIRN, P.E.
REGION FIVE ENGINEER


BROWN & ROBERTS, INC.
CONSULTING ENGINEERS LAND SURVEYORS
1 WESTRIDGE ROAD HARRISBURG, IL 62946 (618) 252-8111


BRI Job No. 16-087

15 Mar 2018 - 10:26am X:\2016\16087\ACI\16087 Cover Sheet.dwg: Layout Tab 'Model'

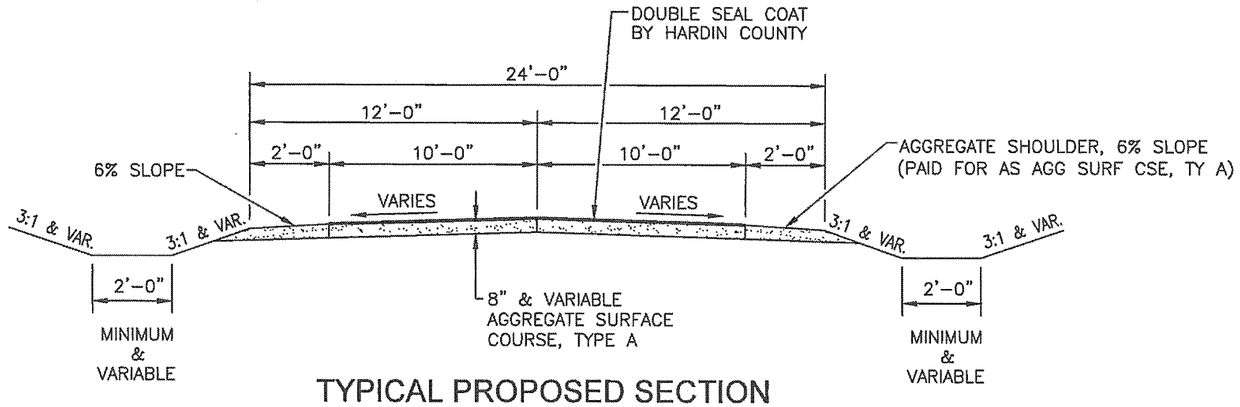
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR101C | 12-01162-00-BR | HARDIN | 11 | 2 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

## SUMMARY OF QUANTITIES

| | ITEM NUMBER | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY |
|---|---|---|---|---|
| * | X2501000 | SEEDING, CLASS 2 (SPECIAL) | ACRE | 0.3 |
| * | Z0065000 | SETTING PILES IN ROCK | EACH | 5 |
| * | 20200100 | EARTH EXCAVATION | CU YD | 310 |
| | 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 30 |
| | 28000305 | TEMPORARY DITCH CHECKS | FOOT | 120 |
| | 28000400 | PERIMETER EROSION BARRIER | FOOT | 150 |
| * | 28100807 | STONE DUMPED RIPRAP, CLASS A4 | TON | 263 |
| * | 40200100 | AGGREGATE SURFACE COURSE, TYPE A | TON | 445 |
| * | 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| | 50300225 | CONCRETE STRUCTURES | CU YD | 24.4 |
| | 50300280 | CONCRETE ENCASEMENT | CU YD | 8.8 |
| | 50400605 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH) | SQ FT | 1680 |
| | 50800105 | REINFORCEMENT BARS | POUND | 2680 |
| △ | 50900205 | STEEL RAILING, TYPE S1 | FOOT | 140 |
| | 51201400 | FURNISHING STEEL PILES HP 10X42 | FOOT | 185 |
| | 51202305 | DRIVING PILES | FOOT | 95 |
| | 51500100 | NAME PLATES | EACH | 1 |
| △ | 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |
| | 67100100 | MOBILIZATION | L SUM | 1 |

* SEE SPECIAL PROVISIONS

△ SPECIALTY ITEMS



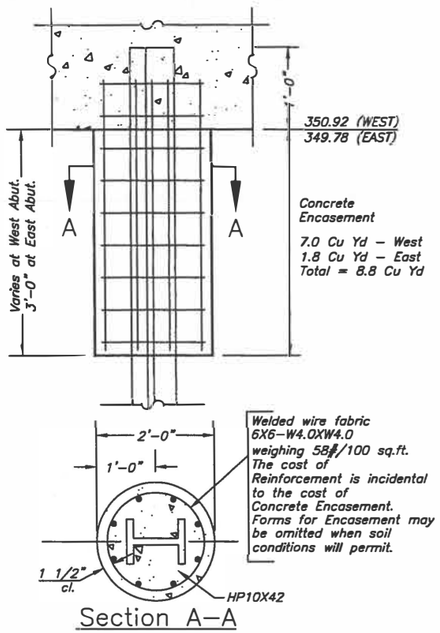

## TYPICAL PROPOSED SECTION

NO SCALE

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 3 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

Salvage– No Salvage

## DETAIL OF HP PILE ENCASEMENT




Section A–A

## QUANTITIES/LIN. FT. OF ENCASEMENT

(STEEL PILES)

| PILE SIZE | ITEM | QUANTITY |
|---|---|---|
| HP 10 | CONCRETE ENCASEMENT | 0.116 C.Y. |

## DESIGN SPECIFICATIONS

2014 LRFD Specification – 7th ed.

## SEISMIC DATA

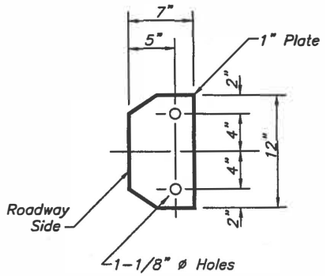
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. ($S_{D1}$) = 0.255
Design Spectral Acceleration at 0.2 sec ($S_{DS}$) = 0.704
Site Soil Class = C

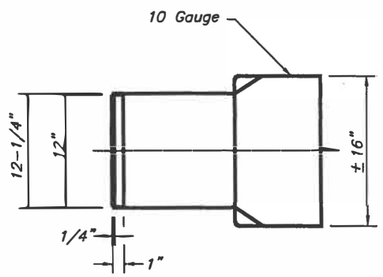
## PILE DATA (2–ABUTS.)

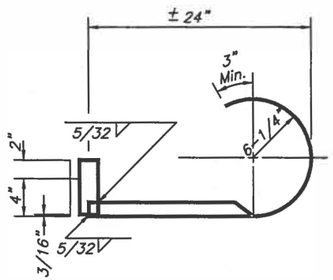
| | |
|---|---|
| Type | STEEL HP 10X42 |
| Estimated Length | 18 Feet (West Abut.) |
| | 19 Feet (East Abut.) |
| Number Required | 5 (West Abut.) |
| | 5 (East Abut.) |
| Nominal Required Bearing | 335 KIPS |
| Allowable Resistance Available | 184 KIPS |

## CURLED END SECTION DETAILS

Note: Curled End Sections Shall Be Incidental To The Contract Price.

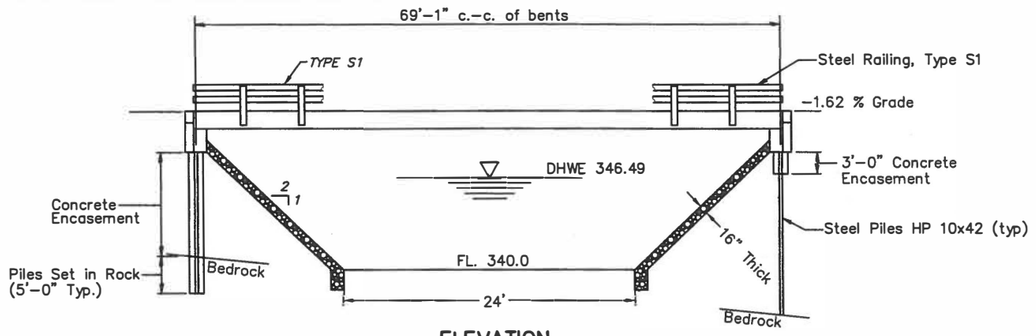


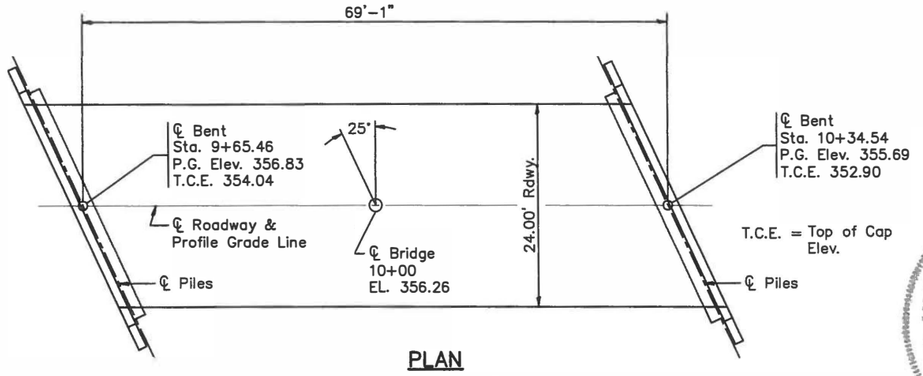




## GENERAL NOTES

1. The Contractor shall drive 0 test piles, as specified, in a permanent location as directed by the Engineer before ordering the remaining piles.
2. See Special Provisions for boring logs.
3. A Corrosion inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
4. The Steel H–piles shall be according to AASHTO M270 Grade 50.




ELEVATION



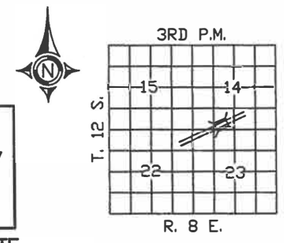

PLAN

## LOADING HL–93

ALLOW 50#/SQ.FT. FOR FUTURE WEARING SURFACE

## TOTAL BILL OF MATERIAL

| Item | Unit | Super | Sub. | | Total |
|---|---|---|---|---|---|
| | | | Piers | Abuts. | |
| Removal of Existing Structures | Each | | | | 1 |
| Concrete Structures | Cu. Yd. | | | 24.4 | 24.4 |
| Precast Prestressed Concrete Deck Beams (33" Depth) | Sq. Ft. | 1680 | | | 1680 |
| Steel Railing, Type S–1 | Foot | 140 | | | 140 |
| Reinforcement Bars | Pound | | | 2680 | 2680 |
| Furnishing Steel Piles HP 10X42 | Foot | | | 185 | 185 |
| Driving Piles | Foot | | | 95 | 95 |
| Name Plates | Each | | | | 1 |
| Concrete Encasement | Cu. Yd. | | | 8.8 | 8.8 |
| Setting Piles in Rock | Each | | | 5 | 5 |




LOCATION SKETCH

STATION 10+00
HOSICK CREEK
SEC. 12–01162–00–BR BUILT 2017
HARDIN COUNTY
LOADING HL93
STR. NO. 035–3057

## LETTERING FOR NAME PLATE

Locate Name Plate at SOUTHWEST Corner of Bridge

LICENSED STRUCTURAL ENGINEER
ZEYN UZMAN
4745
STATE OF ILLINOIS

I certify that to the best of knowledge, information and belief, this bridge/box culvert 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.

2/3/17

Illinois Structural No. 4745
Expires 11/30/2018

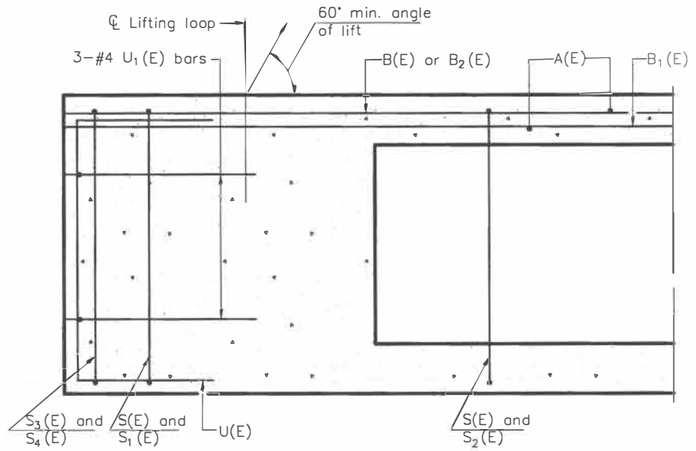
## WATERWAY INFORMATION

Drainage Area = 2.51 S.M. Low Grade Elev. = 352.45 @ Sta. 10+35

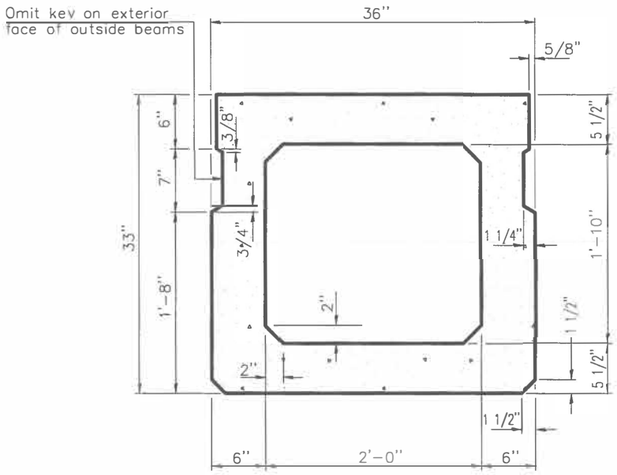
| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. Exist. | Opening Sq. Ft. Prop. | Nat. H.W.E. | Head – Ft. Exist. | Head – Ft. Prop. | Headwater El Exist. | Headwater El Prop. |
|---|---|---|---|---|---|---|---|---|---|
| Design | 25 | 1980 | 216 | 238 | 346.5 | 0.56 | 0.56 | 347.06 | 347.06 |
| Base | 100 | 2750 | 253 | 291 | 347.6 | 1.79 | 1.61 | 349.39 | 349.21 |
| Overtopping | | | | | | | | | |
| Max. Calc. | 500 | 3740 | 286 | 341 | 348.5 | 3.54 | 3.01 | 352.04 | 351.51 |

GENERAL PLAN & ELEVATION
TR 101C OVER
HOSICK CREEK
SECTION 12–01162–00–BR
HARDIN COUNTY
STATION 10+00

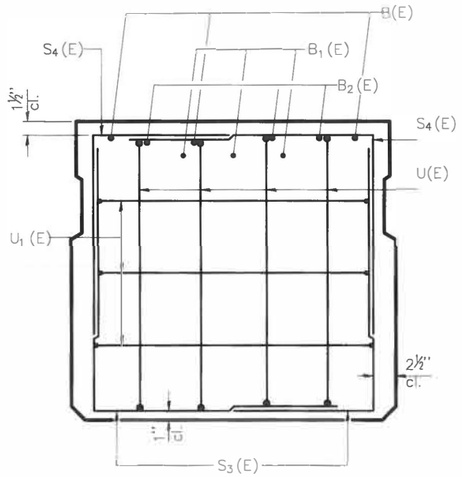
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 4 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |



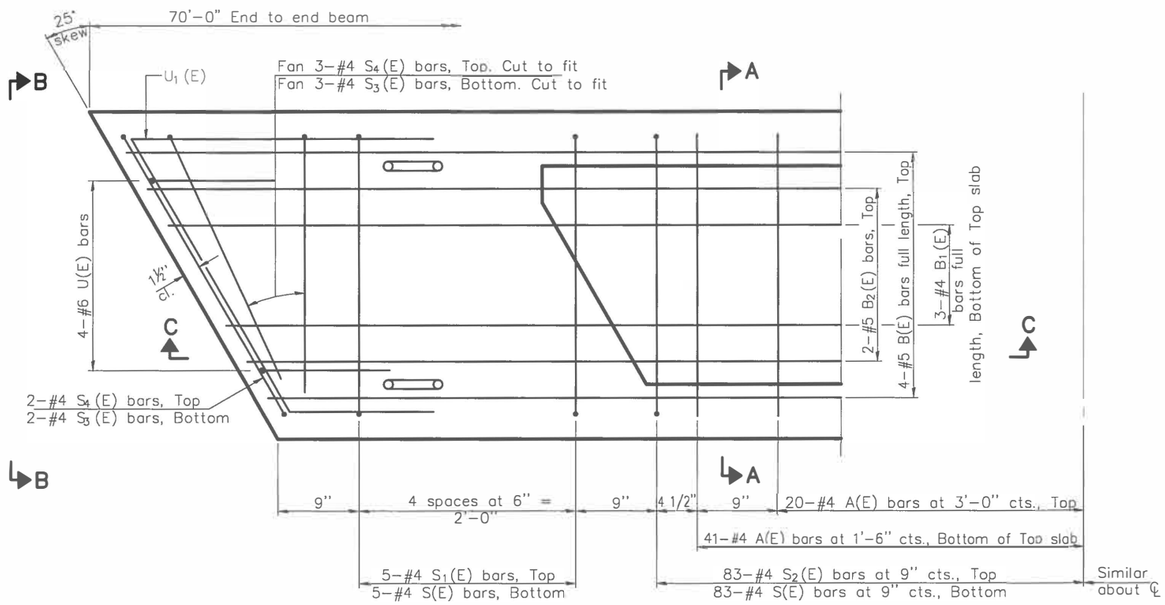

SECTION C–C




SECTION A–A
(Showing dimensions)

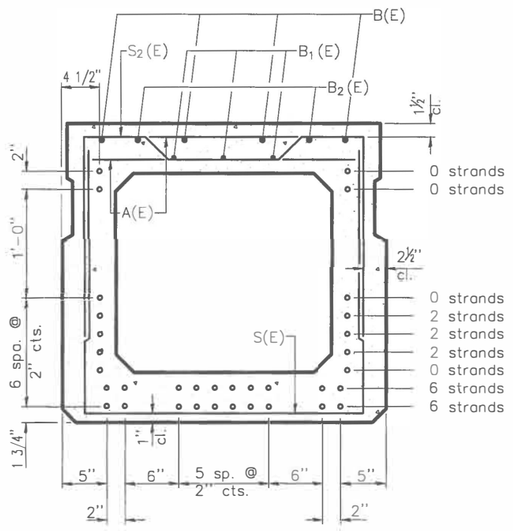



VIEW B–B




PLAN VIEW

Note: Spacing of S(E) and $S_2$(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) | 61 | #4 | 2'-7" | — |
| B(E) | 12 | #5 | 25'-0" | — |
| $B_1$(E) | 9 | #4 | 24'-8" | — |
| $B_2$(E) | 4 | #5 | 10'-0" | — |
| S(E) | 93 | #4 | 7'-8" | — |
| $S_1$(E) | 10 | #4 | 6'-5" | — |
| $S_2$(E) | 83 | #4 | 6'-8" | — |
| $S_3$(E) | 6 | #4 | 4'-6" cut | — |
| $S_4$(E) | 6 | #4 | 4'-6" cut | — |
| U(E) | 8 | #6 | 5'-0" | — |
| $U_1$(E) | 6 | #4 | 6'-4" | — |

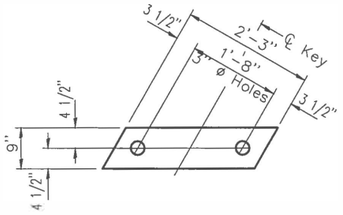
Note: See sheet 3 of 11 for additional details and Bill of Material.

**33" x 36" PPC DECK BEAM**
**STRUCTURE NO. 035-3057**

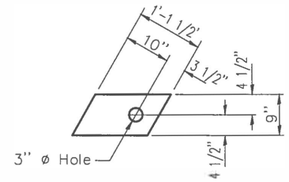
**SECTION 12-01162-00-BR**
**BASSETT SCHOOL ROAD**

PD-3336-R 10-1-08

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 5 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

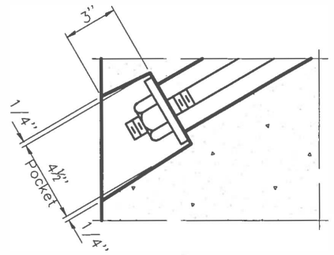



FABRIC BEARING PAD
(Interior)

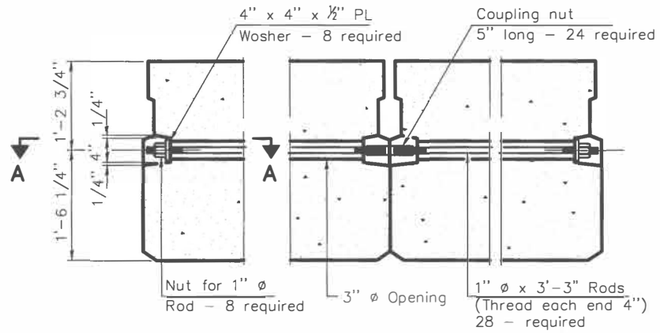



FABRIC BEARING PAD
(Exterior)

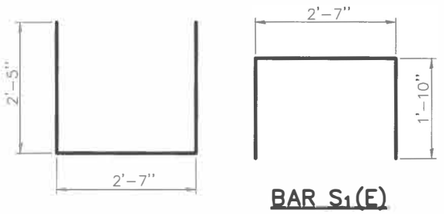
FIXED




SECTION A–A

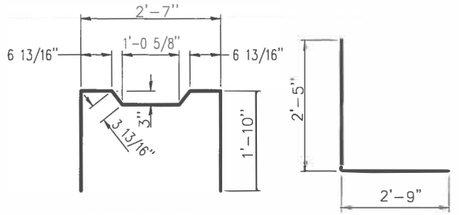



TYPICAL TRANSVERSE TIE ASSEMBLY



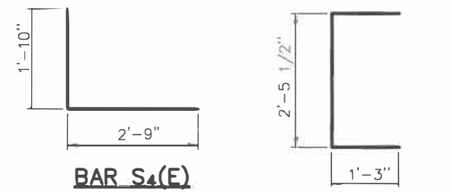

BAR S(E)

BAR S1(E)



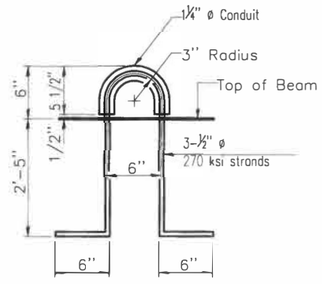

BAR S2(E)

BAR S3(E)

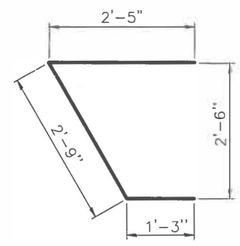



BAR S4(E)

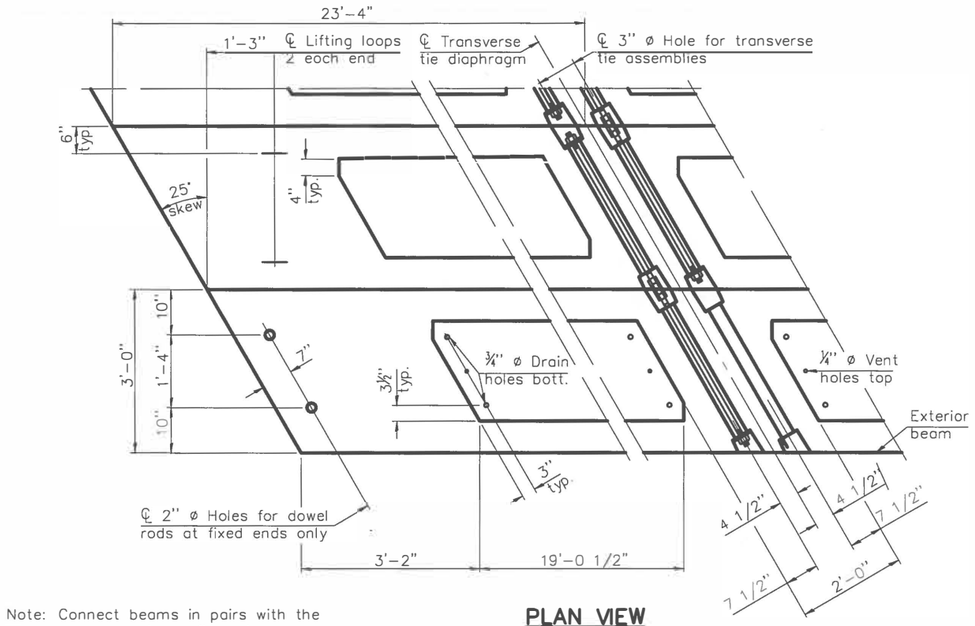
BAR U(E)




LIFTING LOOP DETAIL




BAR U1(E)




PLAN VIEW

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

## NOTES

1. Prestressing steel shall be uncoated high strength, low relaxation 7–wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross–sectional area shall be 0.153 sq. in.
2. The 1" ø 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.
3. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
4. Two ⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
5. A minimum 2½" ø lifting pin shall be used to engage the lifting loops during handling.
6. 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.
7. Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
8. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

## BILL OF MATERIAL

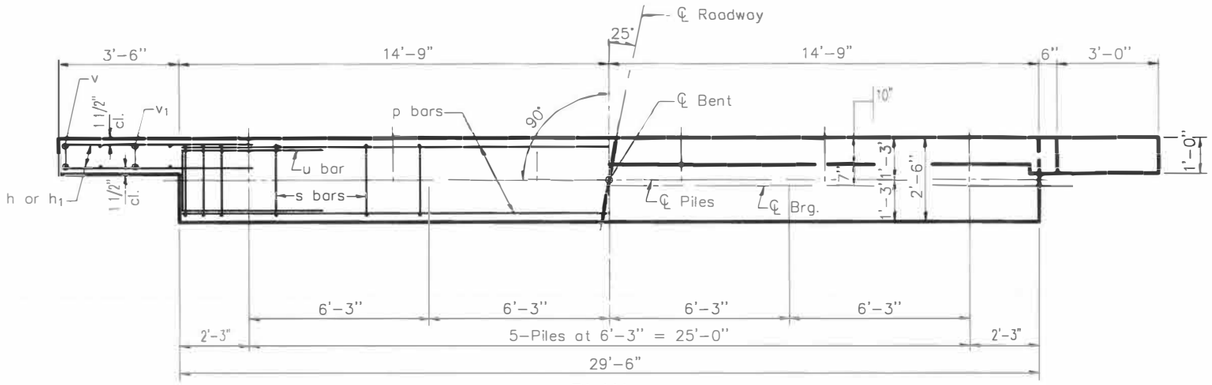
| | | |
|---|---|---|
| Precost Prestressed Conc. Deck Bms. (33" depth) | Sq. Ft. | 1680 |

# 33" X 36" PPC DECK BEAM DETAILS
# STRUCTURE NO. 035–3057

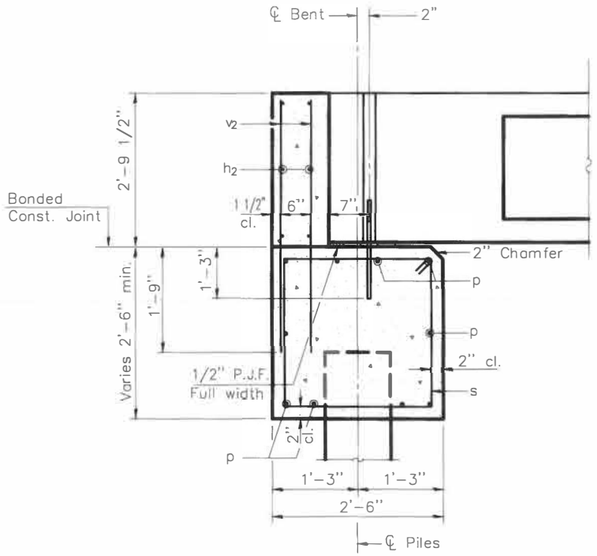
## SECTION 12–01162–00–BR
## BASSETT SCHOOL ROAD

PD–3336–RD 10–1–08

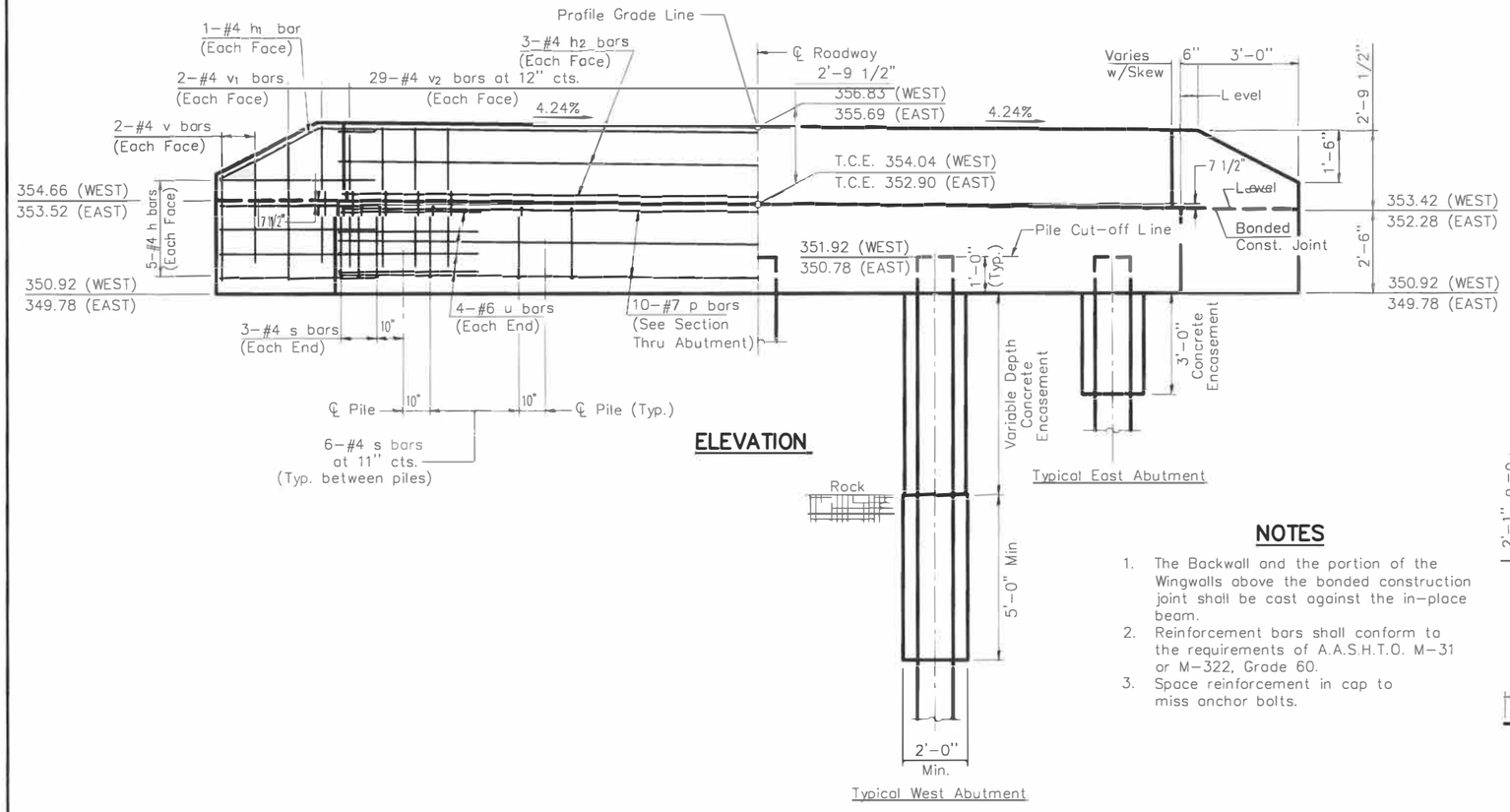
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 6 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |




**PLAN**
'D'=25°



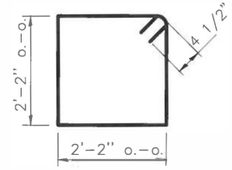

**SECTION THRU ABUTMENT**
(At Right Angles)



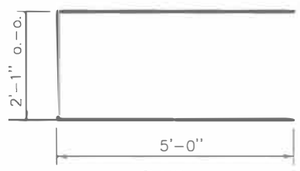

**ELEVATION**

## NOTES

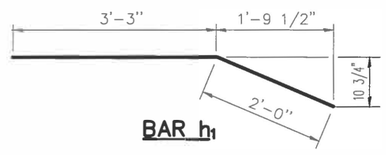
1. The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
2. Reinforcement bars shall conform to the requirements of A.A.S.H.T.O. M-31 or M-322, Grade 60.
3. Space reinforcement in cap to miss anchor bolts.




**BAR s**




**BAR u**




**BAR $h_1$**

## BILL OF MATERIAL FOR ONE ABUTMENT

| Bar | No. | Size | Length | Shape |
|---|---|---|---|---|
| h | 20 | #4 | 5'-0" | |
| h1 | 4 | #4 | 5'-3" | |
| h2 | 6 | #4 | 29'-2" | |
| | | | | |
| p | 10 | #7 | 29'-2" | |
| | | | | |
| | | | | |
| s | 30 | #4 | 9'-5" | |
| | | | | |
| u | 8 | #6 | 12'-1" | |
| | | | | |
| v | 8 | #4 | 3'-8" | |
| v1 | 8 | #4 | 4'-8" | |
| v2 | 58 | #4 | 4'-5" | |
| | | | | |
| Concrete Structures | | | 12.2 Cu. Yds. | |
| Reinforcement Bars | | | 1340 Lb. | |

## DESIGN STRESSES

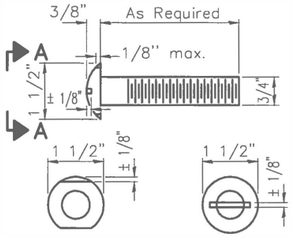
f'c = 3,500 psi
fy = 60,000 psi

**P.P.C. DECK BEAMS**
**PILE BENT ABUTMENT**

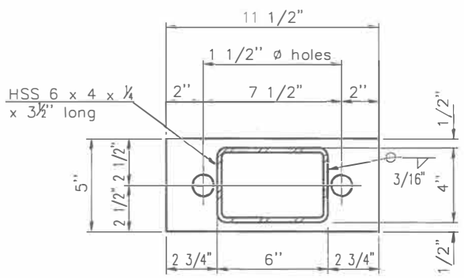
| 24' RDWY. | 33" BMS. | 'D'=25° |
|---|---|---|

**SECTION 12-01162-00-BR**
**BASSETT SCHOOL ROAD**

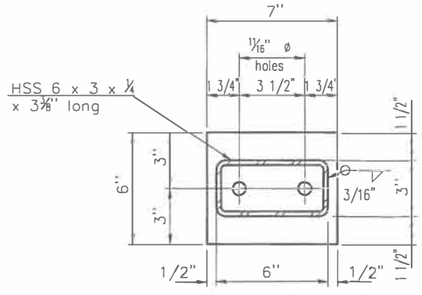
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 7 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |



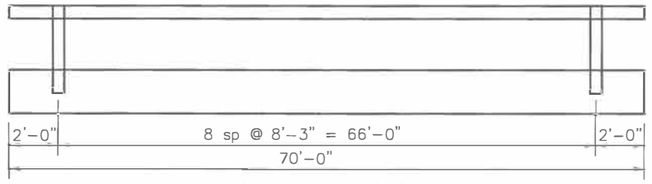

## VIEW A–A ROUND HEAD BOLT



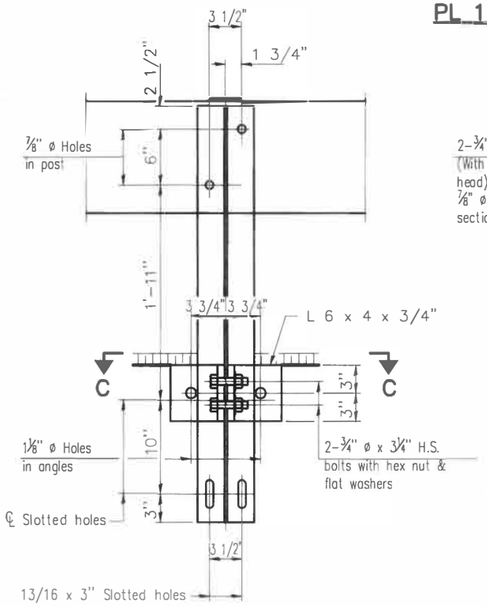

## PL 1/2" x 11 1/2" x 5"



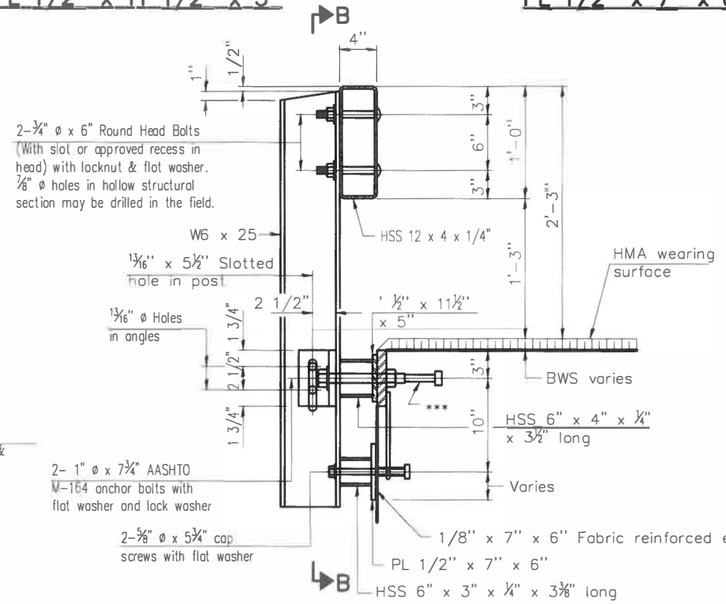

## PL 1/2" x 7" x 6"



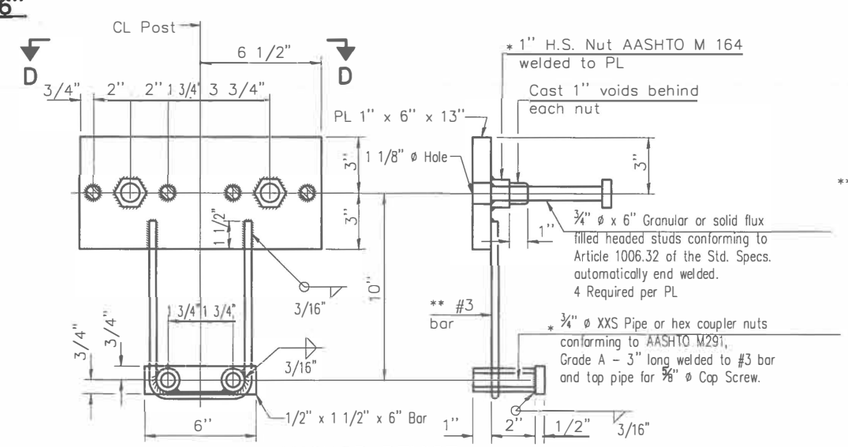

## ELEVATION OF RAILING




## SECTION B–B




## SECTION AT RAILING POST




## ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.

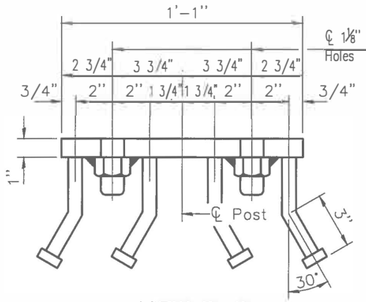
Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

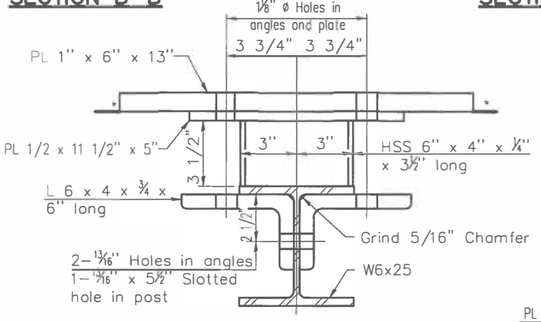
For multi–span bridges, sufficient ¼" x 6" x 1'–2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S–1.

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.

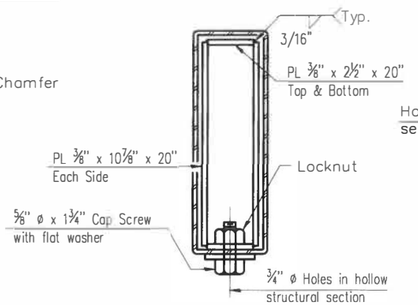



## VIEW D–D

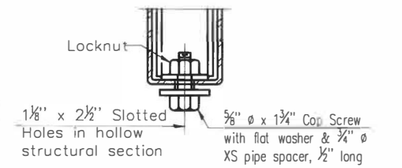



## SECTION C–C

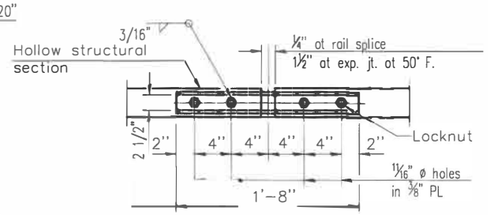
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed ½".



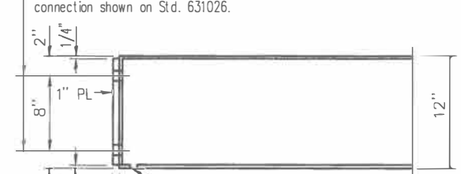

## SECTIONS AT RAIL SPLICE

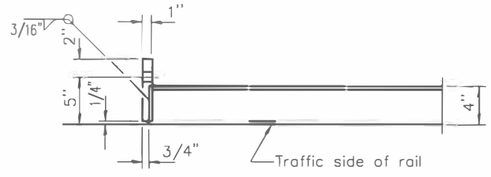



## RAIL SPLICE CONNECTION AT EXPANSION JT.




## PLAN–BOTT. SPLICE TYPICAL




## END OF RAIL DETAILS

## BILL OF MATERIAL

| Item | Unit | Quantity |
|---|---|---|
| Steel Railing, Type S–1 | Foot | 140 |

STEEL RAILING, TYPE S–1
STRUCTURE NO. 035–3057

SECTION 12–01162–00–BR
BASSETT SCHOOL ROAD

R–23A 10–1–08 (10'–9" Maximum Post Spacing)

09 Feb 2017 – 9:27am X:\2016\16087\AC\16087 S-1 Railing R-23A.dwg: Layout Tab 'Model'

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 8 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

PROPOSED SINGLE SPAN STRUCTURE 035-3057
℄ STRUCTURE STA. 10+00
BRIDGE LENGTH 70'-0" ℄ TO ℄ ABUTS.
25° SKEW, HL-93 LOADING

EXISTING/PROPOSED FLOWLINE

25°0'0"

EXISTING ROW

EXISTING FLOWLINE

PR CONST LIMITS

BEGIN PROJECT
STA 8+00.00

8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00

℄ BASSETT SCHOOL ROAD

BK OF ABUT
STA 9+64.08

BK OF ABUT
STA 10+35.92

END PROJECT
STA 12+00.00

90' 100' 80'

2' 10' 10' 2'

PR STONE DUMPED
RIPRAP, CLASS A4

EXISTING STRUCTURE
TO BE REMOVED

VERTICAL CURVE #1 g1= -4.37%
L = 100.00' g2= -1.62%
VPC STA. 8+50 ELEV. 360.06
VPI STA. 9+00 ELEV. 357.88
VPT STA. 9+50 ELEV. 357.07

VERTICAL CURVE #2 g2= -1.62%
L = 100.00' g3= -0.50%
VPC STA. 10+40 ELEV. 355.61
VPI STA. 10+90 ELEV. 354.80
VPT STA. 11+40 ELEV. 354.55

HORIZONTAL 0 25 50
VERTICAL 0 10 20

-4.42% -4.37% -1.62% -0.50%

100.00VC
339.13SD

100.00VC
1000.00SD

PR ℄ PROFILE

EX ℄ PROFILE

BEDROCK

PVC STA.8+50.00
PVC ELEV.360.06

PVI STA.9+00.00
PVI ELEV.357.88

PVT STA.9+50.00
PVT ELEV.357.07

PVC STA.10+40.00
PVC ELEV.355.61

PVI STA.10+90.00
PVI ELEV.354.80

PVT STA.11+40.00
PVT ELEV.354.55

| | 8+00 | 8+50 | 9+00 | 9+50 | 10+00 | 10+50 | 11+00 | 11+50 | 12+00 |
|---|---|---|---|---|---|---|---|---|---|
| EX | 362.2 | 360.2 | 357.9 | 356.1 | 354.6 | 354.2 | 354.3 | 354.5 | 354.2 |
| PR | 362.25 | 360.06 | 358.22 | 357.07 | 356.26 | 355.45 | 354.84 | 354.50 | 354.25 |

365 360 355 350 345 340 335 330 325

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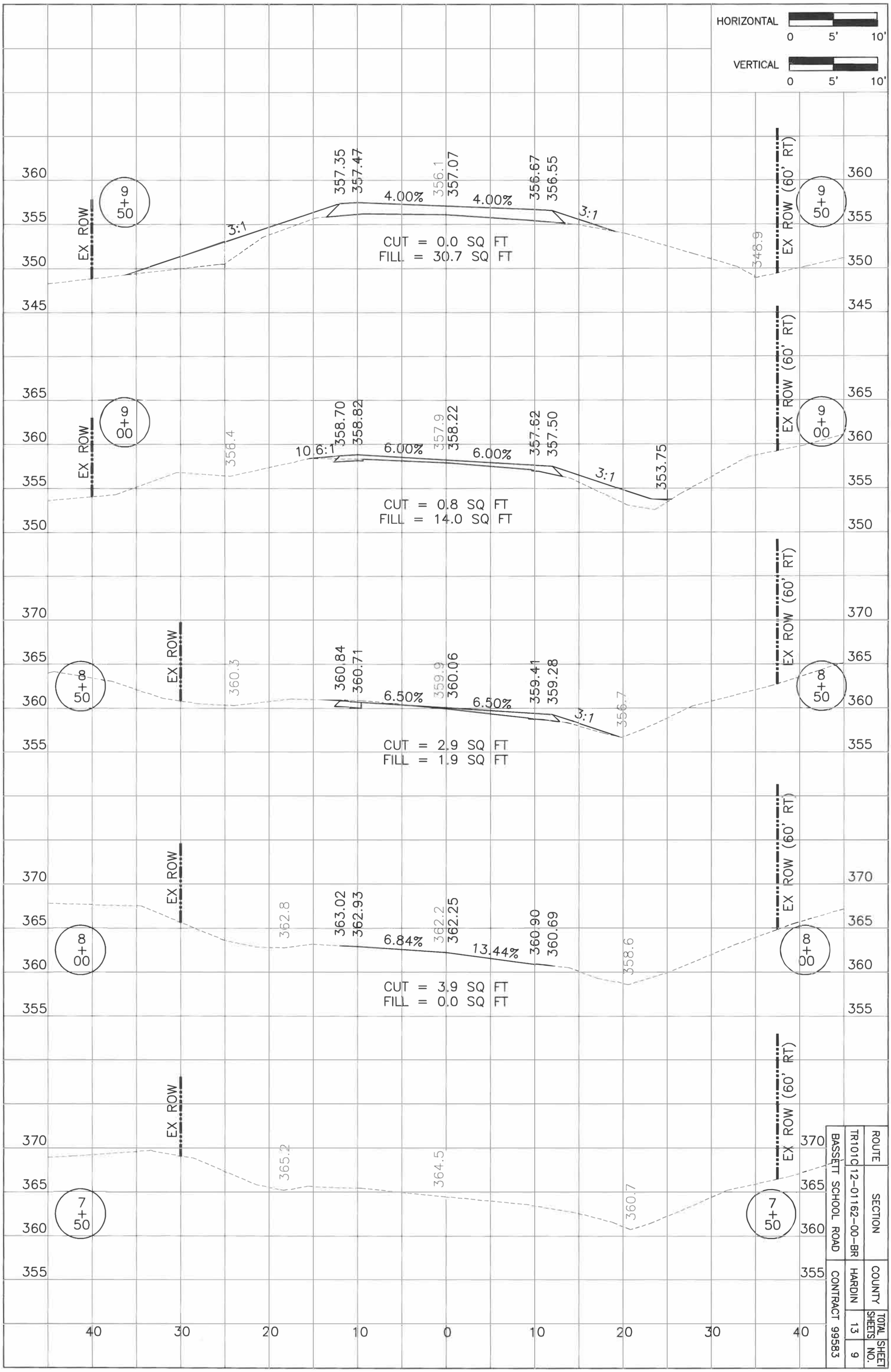
BROWN & ROBERTS, INC




| ROUTE | SECTION |
|---|---|
| TR1010 | 12-01162-00-BR |
| BASSETT SCHOOL ROAD | COUNTY: HARDIN |
| CONTRACT 99583 | TOTAL SHEETS: 13 |
| | SHEET NO.: 9 |

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR101C | 12-01162-00-BR | HARDIN | 13 | 10 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

HORIZONTAL 0 5' 10'

VERTICAL 0 5' 10'

11+50

EX ROW

3:1

354.08

354.20

3.00%

354.50

CUT = 1.5 SQ FT

FILL = 32.0 SQ FT

2.00%

354.58

354.70

3:1

345.98

11+00

EX ROW

3:1

354.42

354.54

3.00%

354.84

CUT = 0.1 SQ FT

FILL = 49.0 SQ FT

3.00%

355.02

355.14

2.4:1

345.98

10+50

EX ROW

2.4:1

354.93

355.05

4.00%

355.45

CUT = 0.0 SQ FT

FILL = 36.7 SQ FT

4.00%

355.73

355.85

2.3:1

344.91

10+00

EX ROW

355.78

355.86

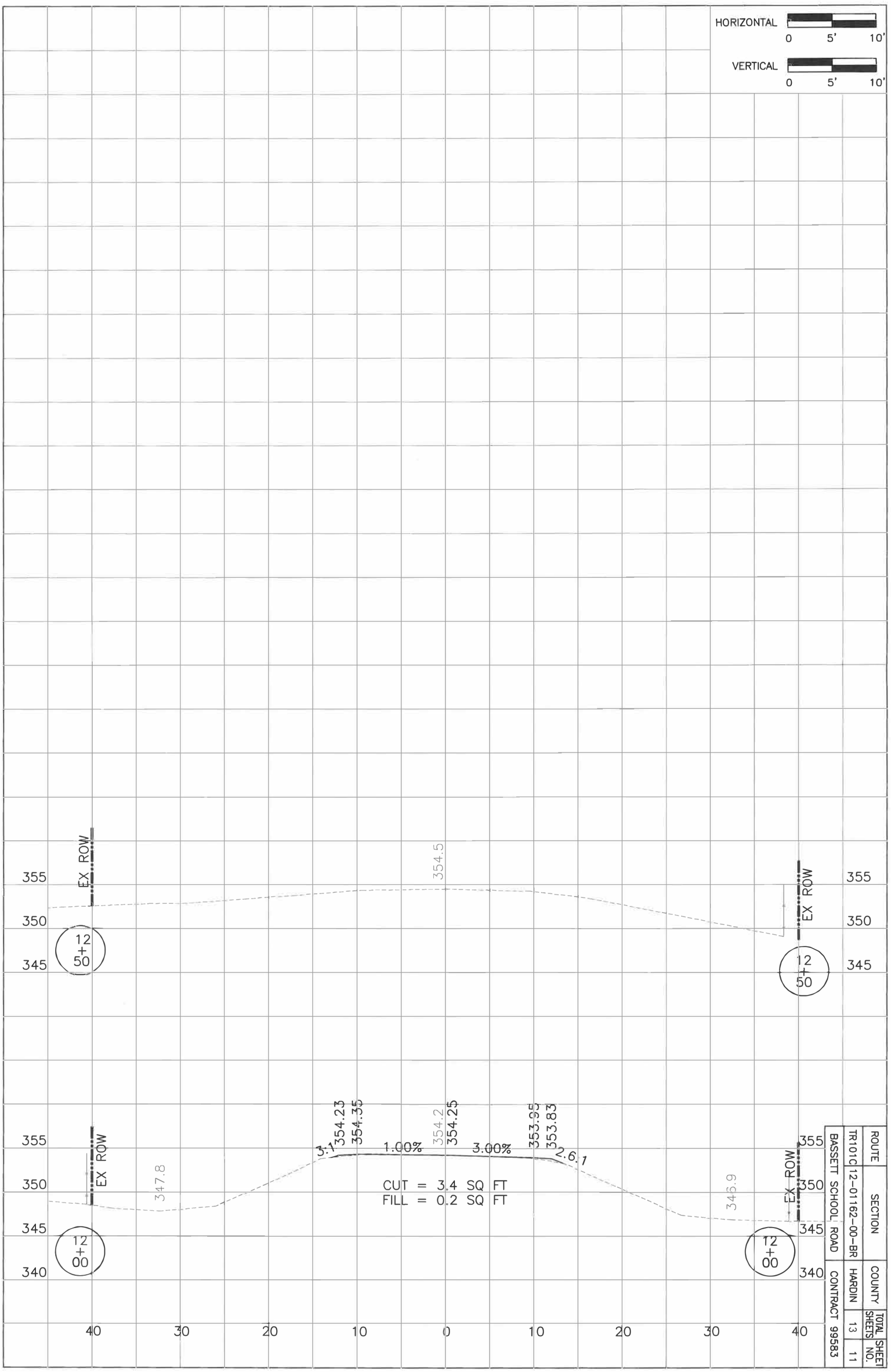
4.00%

356.26

4.00%

356.74

356.66




| ROUTE | SECTION |
|---|---|
| TR101C | 12-01162-00-BR |
| BASSETT SCHOOL ROAD | COUNTY |
| CONTRACT 99583 | HARDIN |

| TOTAL SHEETS | SHEET NO. |
|---|---|
| 13 | 11 |

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 101C | 12-01162-00-BR | HARDIN | 13 | 12 |
| BASSETT SCHOOL RD | | CONTRACT 99583 | | |

## STORM WATER POLLUTION PREVENTION PLAN

The following Plan is established and incorporated in the project to direct the Contractor in the placement of temporary erosion control systems and to provide a storm water pollution prevention plan for compliance under NPDES.

The purpose of this plan is to minimize erosion within the construction site and to limit sediments leaving the construction site by utilizing proper temporary erosion control systems and providing ground cover within a reasonable amount of time.

Certain erosion control facilities shall be installed by the Contractor at the beginning of construction. Other items shall be installed as directed by the Engineer on a case by case situation depending on the Contractor's sequence of activities, time of year and expected weather conditions.

The Contractor shall construct permanent erosion control systems and seeding within a time frame specified herein and as directed by the Engineer, therefore minimizing the amount of area susceptible to erosion and reducing the amount of temporary seeding. The engineer will determine if any temporary erosion control systems shown in the plans can be deleted and if any additional temporary erosion control systems, which are not included in the plans, shall be added. The contractor shall perform all work as directed by the Engineer and as shown in STANDARD 280001.

Section 280, Temporary Erosion Control, of the Standard Specifications additionally supplements this plan.

## DESCRIPTION OF CONSTRUCTION ACTIVITIES

1. Temporary ditch checks shall be located at every 1.5 feet of fall/rise in ditch grade.

## INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1. Brush removal. Trees to remain will be protected against damage.

2. Remove Existing Bridge.

3. Construct Abutments.

4. Place new Riprap.

5. Construct New Bridge Deck.

6. Construct roadway transitions and side slopes.

7. Seeding and permanent erosion control systems.

## AREA OF CONSTRUCTION SITE

1. The total area of the construction site is estimated to be 0.78 Acres of which approximately 0.50 Acres will be disturbed.

## OTHER REPORTS, STUDIES AND PLANS WHICH AID IN THE DEVELOPMENT OF THE SWPPP AS REFERENCED DOCUMENTS.

1. Information of the terrain was obtained from topographic maps.

2. Project plan documents, specifications and special provisions and plan drawings indicating the drainage patterns and location of existing drainage features were utilized in the preparation of the proposed placement of temporary erosion control systems.

## DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF

1. No new discharge points will be constructed.

## CONTROLS - EROSION CONTROLS AND SEDIMENT CONTROLS

1. Existing vegetation will be preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices will include temporary seeding, permanent seeding, mulching, protection of trees, preservation of mature vegetation and other appropriate measures as directed by the Engineer. Stabilization measures shall be initiated as soon as practical in those areas of the site where construction activities have ceased, but in no case more than 7 days after the construction activity for an area has temporarily or permanently ceased.

2. Areas outside the construction limits shall be protected from construction activities.

3. Dead, diseased or unsuitable vegetation within the site shall be removed as directed by the Engineer.

4. As soon as is reasonable, the temporary erosion control system shall be installed as indicated in the plans or as directed by the engineer.

This plan has been prepared with the intent to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from construction site activities.

I certify under penalty of law that this plan was prepared at my direction in accordance with a system that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Justin Hastie 3/16/18

JUSTIN HASTIE, COUNTY ENGINEER DATE:

BROWN & ROBERTS, INC.

15 Mar 2018 - 10:40am X:\2016\16087\AC\16087 SWPPP.dwg

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| TR 1010 | 12-01162-00-BR | HARDIN | 13 | 13 |
| BASSETT SCHOOL ROAD | | CONTRACT 99583 | | |

## DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION

1. During construction, areas outside the construction limits shall be protected.

2. Within the construction limits, areas which may be susceptible to erosion as determined by the Engineer shall remain undisturbed until full scale construction is underway.

3. Earth stockpiles shall be temporary seeded if they are to remain unused for more than 14 days.

4. As soon as construction proceeds, the contractor shall institute the following as directed by the Engineer:

A) Place temporary erosion control facilities at locations shown in the plans.

B) Temporarily seed erodable bare earth on a weekly basis to minimize the amount of erodable surface area within the contract limits.

C) Construct roadside ditches and provide temporary erosion control systems.

D) Temporarily divert water around proposed culvert locations.

5. Excavated areas shall be permanently seeded immediately after final grading. If not, they shall be temporarily seeded if no construction in the area is planned for 7 days.

6. All necessary measures shall be taken by the contractor to contain any fuel or pollutant in accordance with EPA water quality regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site.

7. The Resident Engineer shall inspect the project daily during construction activities. Inspection shall also be done weekly and after rains of 0.5 inches or greater or equivalent snowfall and during any winter shutdown period.

8. Sediment collected during the construction by the various temporary erosion control systems shall be disposed of on site on a regular basis as directed by the Resident Engineer. The cost of this maintenance shall be considered incidental to the erosion control system.

9. The temporary erosion control systems shall be removed as directed by the Engineer after use is no longer needed or no longer functioning. The cost of removal shall be included in the unit bid price for various temporary erosion control pay items.

## DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING

1. Temporary seeding shall be left in place with proper maintenance until permanent erosion control and all proposed turf areas seeded and established.

2. Once permanent erosion control systems as proposed in the plans are functional and established, temporary items shall be removed, cleaned up and disturbed turf areas reseeded.

## MAINTENANCE AFTER CONSTRUCTION

1. Construction is complete after FINAL acceptance by I.D.O.T. final inspection. Maintenance up to this date will be by the contractor.

## MISCELLANEOUS

1. Temporary ditch checks shall be located at every 1.5 feet of fall/rise in ditch grade.

2. Temporary erosion control seeding shall be applied at the rate of 100 lbs/acre.

3. Straw bales, hay bales, perimeter erosion control barrier and silt fences will not be permitted for temporary or permanent ditch checks. Ditch checks shall be composed of aggregate, silt panels, rolled excelsior, urethane foam geotextile (silt wedges) and/or other material approved by the erosion and sediment control coordinator.

4. All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the erosion control plan. Prior to the approval and use of the product, the contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and the physical properties required for this application are met or exceeded. The contractor shall provide manufacturer installation procedures to facilitate the Engineer in construction inspection.

5. All items shall be constructed as shown on STANDARD 280001 and as directed by the Engineer. Maintenance and cleaning of erosion control items shall be considered part of the respective erosion control pay item.