

INDIANA DEPARTMENT OF TRANSPORTATION



| | |
|------------------|--------------------------------------|
| PROJECT CONTRACT | DESIGNATION |
| B-39957 | CULVERT ASSET I.D. CV 234-023-018.14 |

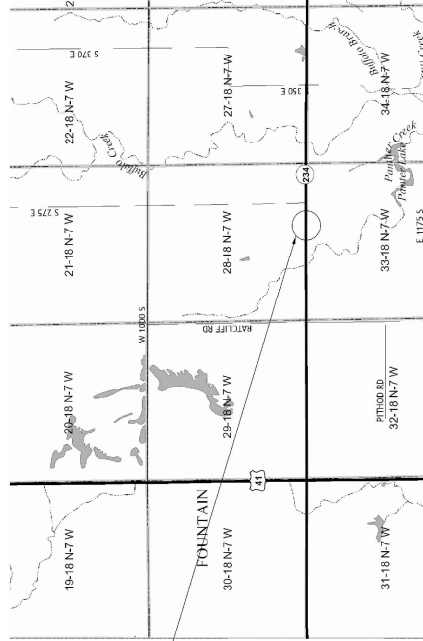
| STRUCTURE INFORMATION | |
|------------------------------|-----------------------------------|
| CULVERT ASSET I.D. | STATION |
| CV 234-023-18.14 | 50+08 |
| TYPE | SPAN AND SKEW |
| Precast Concrete Box Culvert | Span: 13'-0" Rise: 7'-0" Skew: 0° |
| OVER | |
| | UNT Panther Creek |

ROAD PLANS

ROUTE: SR 234 AT: 18+14
 PROJECT NO. 1600886 P.E.
 1600886 R/W
 1600886 CONST.

| KIN DES. NUMBERS - B-39957 | | | |
|--------------------------------------|--------------------|------------------------------|-----------|
| Bridge Structure No. (136)34-23-1027 | Design No. 1601095 | Work Type Bridge Replacement | Str. # 01 |
| CV 234-023-018.14 | 1600886 | Small Structure Replacement | 02 |
| CV 047-023-10.04 | 1600957 | Small Structure Replacement | 03 |

Small Structure Replacement on SR 234 over UNT Panther Creek
 Located 1.56 Miles East of US 41
 Section 28 & 33, T-18-N, R-7-W, Mill Creek Township, Fountain County, Indiana



Small Structure Replacement
 File No. CV 234-023-018.14

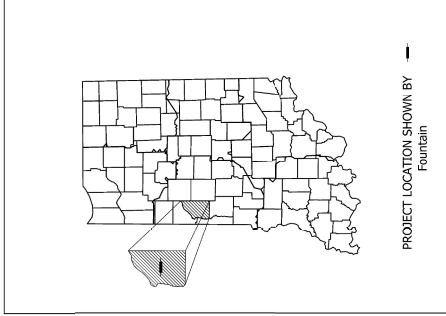
SCALE: 1" = 200'

TRAFFIC DATA

| | |
|--------------------------|----------------|
| A.A.S.T. | 467 / P.D. |
| A.A.S.T. | (5530) |
| D.A.V. | 518 / P.D. |
| D.A.V. | 51 / P.P.H. |
| DIRECTIONAL DISTRIBUTION | 90.8 % A.A.T. |
| | 10.21 % S.A.T. |
| | 10.21 % T.H.V. |

DESIGN DATA

| | |
|---------------------------|-----------------|
| DESIGN SPEED | 55 M.P.H. |
| DESIGN VEHICLE | SR (COMMERCE) |
| FUNCTIONAL CLASSIFICATION | MAJOR COLLECTOR |
| RURAL/URBAN | RURAL |
| TYPE OF ROADWAY | 2-LANE |
| ACCESS CONTROL | NONE |



LATITUDE: N 39°58'3" LONGITUDE: W 87°12'17"

GROSS LENGTH: 0.09 MIL
 NET LENGTH: 0.09 MIL
 MAX. GRADE: 2.02%

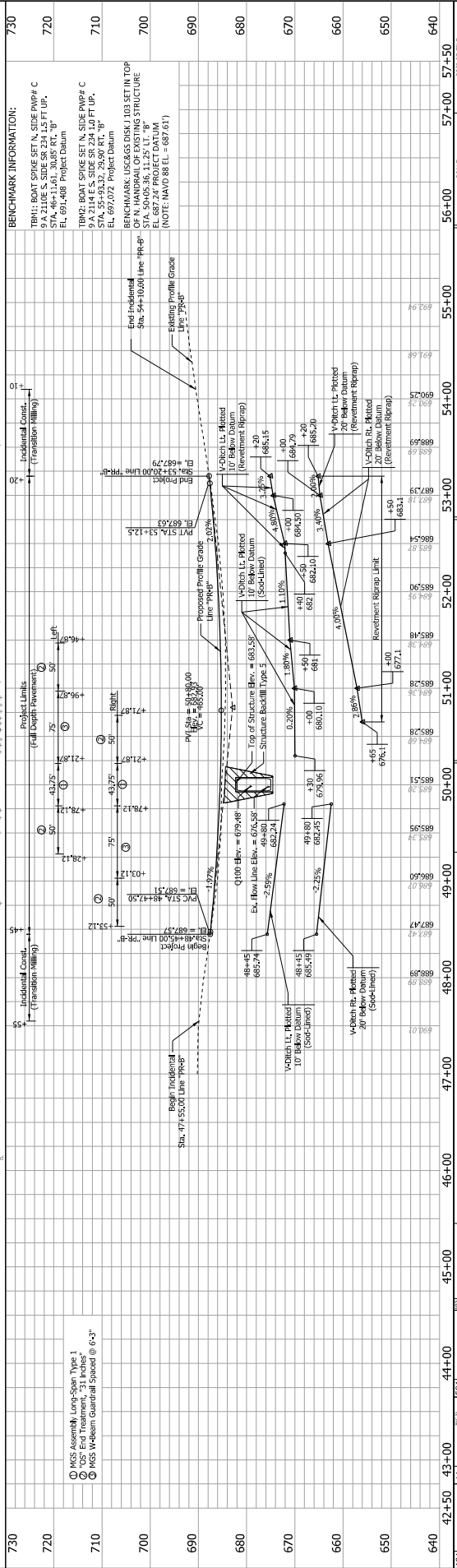
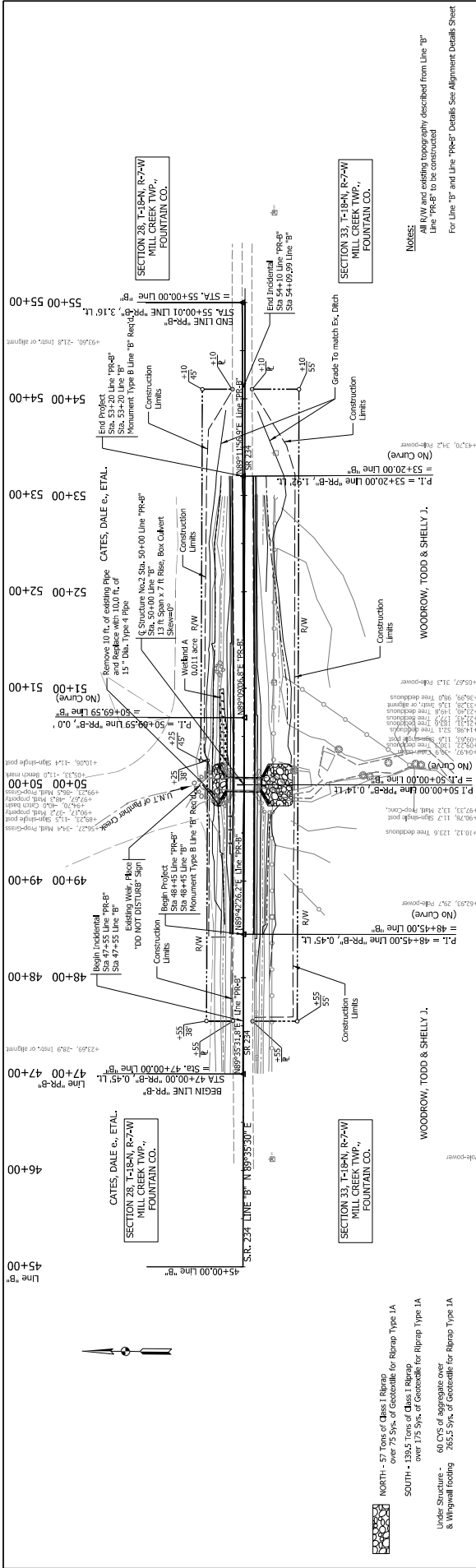
STAGE 3 PLAN
 4/20/2020

INDIANA DEPARTMENT OF TRANSPORTATION
 STANDARD SPECIFICATIONS DATED 2020
 TO BE USED WITH THESE PLANS

| | | | |
|--------------------|------------|---------------|----------------|
| PLANS PREPARED BY: | David Nyad | PHONE NUMBER: | (317) 232-6692 |
| CERTIFIED BY: | | APPROVED: | |
| FOR LETTING: | | DATE: | |

| | |
|---------------------|---------|
| CULVERT ASSET I.D. | 1600886 |
| DESIGNATION | 1600886 |
| SURVEY BOOK | |
| ELECTRONIC CONTRACT | |
| PROJECT CONTRACT | B-39957 |
| SHEETS | 1 of 20 |
| DATE | |

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| INDIANA DEPARTMENT OF TRANSPORTATION |
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|--------------------------------------|------------------|------------|-------|-------|
| 730 | | | | |
| 720 | | | | |
| 710 | | | | |
| 700 | | | | |
| 690 | | | | |
| 680 | | | | |
| 670 | | | | |
| 660 | | | | |
| 650 | | | | |
| 640 | | | | |
| 560+00 | 57+00 | 57+50 | 57+50 | 57+50 |
| INDIANA DEPARTMENT OF TRANSPORTATION | | | | |
| PLAN AND PROFILE LINE "PR-B" | | | | |
| RECOMMENDED FOR APPROVAL | DESIGN ENGINEERS | DATE | | |
| DESIGNED BY | DRAWN BY | CHECKED BY | | |
| CHECKED BY | CHECKED BY | CHECKED BY | | |

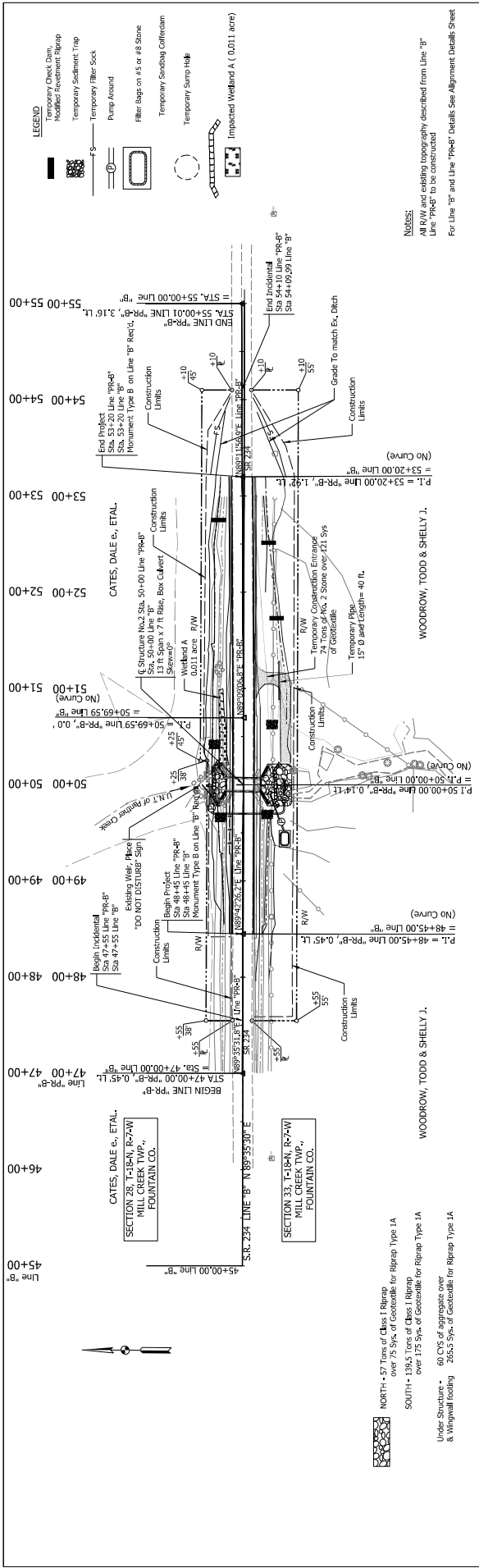
NORTH - 57 Tons of Class I Riprap
over 75 %s, of Geotextile for Riprap Type 1A

SOUTH - 138.5 Tons of Class I Riprap
over 75 %s, of Geotextile for Riprap Type 1A

Under Structure -
60 CYS of aggregate over
& Wingwall footing 265.5 %s, of Geotextile for Riprap Type 1A

① MCS Assembl. Long-Span Type 1
② MCS Assembl. Long-Span Type 2
③ 60" End Treatment, "31 Inches"
④ MSW Wide-Beam Groutfill Speed @ 6-3"

BRIDGE FILE
PROJECT
SHEETS
CONTRACT
PROJECT



| ITEM | QUANTITY | UNIT |
|---|----------|------|
| Pump Around | 1 | IS |
| Mobilization and Demobilization for Surface Stabilization | 2 | Each |
| Sediment, Remove | 1 | Cy |
| Temporary Sediment Trap | 190 | Ton |
| Fertilizer | 1 | Ton |
| Temporary Check Dam, Revetment Riprap | 22.5 | Sys |
| Temporary Geotextile | 755 | Sys |
| No. 2 Stone | 74 | Ton |
| Temporary Pipe | 40 | Lf |
| Temporary Filter Stone (15 or #8) | 8.5 | Ton |
| Temporary Filter Sock | 180 | Lf |
| Temporary Muck Stabilization, Type A | 4,560 | Sys |
| Cofferdam (Sand Bag) | 100 | LFT |
| Temporary Seed Mixture | 141 | Lbs |
| * For information only, not a pay item. | | |

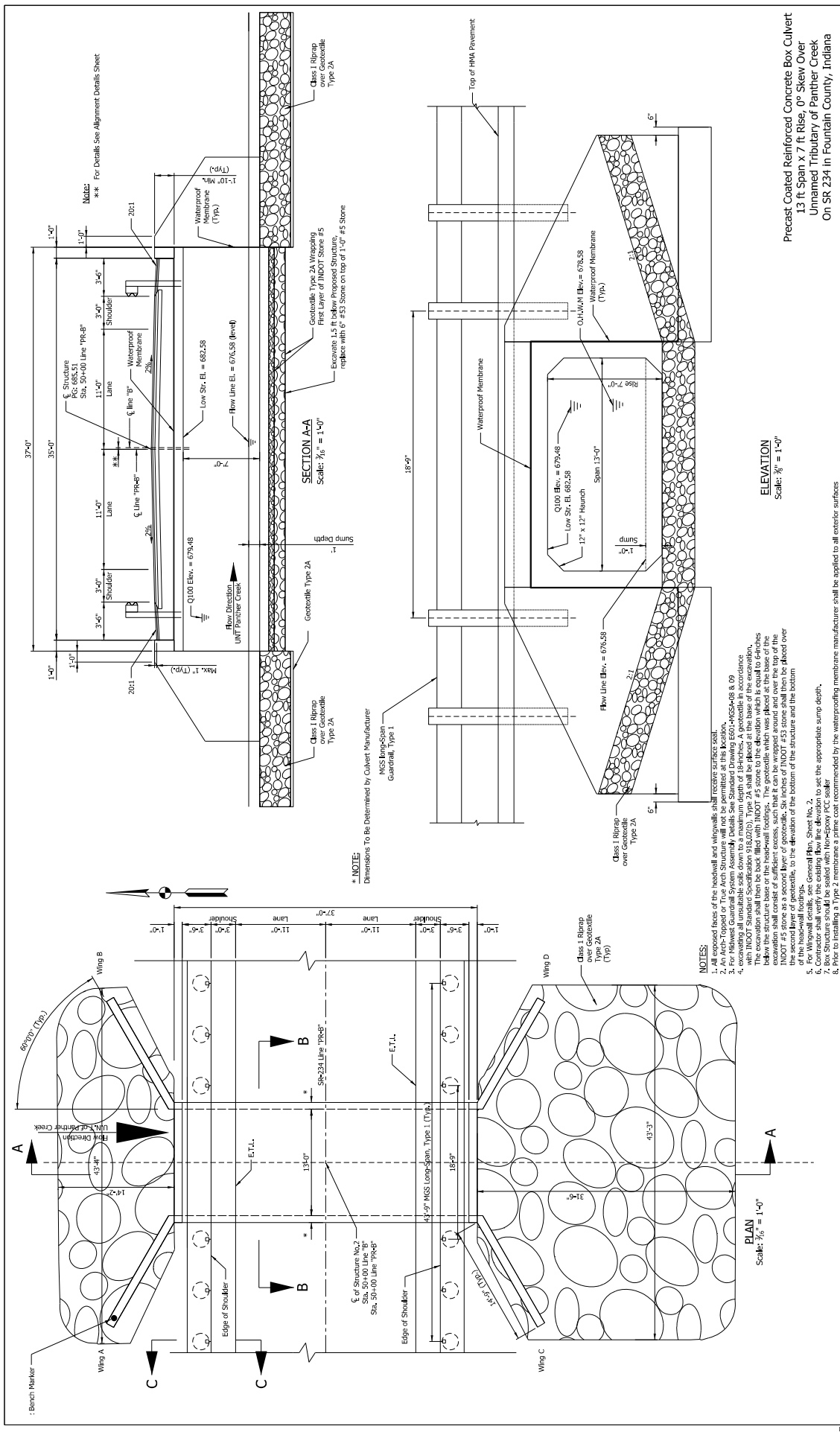
| ITEM | QUANTITY | UNIT |
|---|----------|------|
| Riprap, Class 1 | 196 | Ton |
| Geotextile For Riprap, Type 2A | 1081 | Syd |
| Riprap Revetment | 354 | Ton |
| Sodding | 326 | Sys |
| Mulched Seeding R | 3040 | Sys |
| Erosion Control Blanket | 3040 | Sys |
| Mobilization and demobilization for Shielding | 2 | Each |

TEMPORARY EROSION CONTROL QUANTITIES

PERMANENT EROSION CONTROL QUANTITIES

Notes:
 For Temporary Sediment Traps & Check Dams See Std Dwg E-205-TECO-01, 02, & 03
 Once three-sided culvert and wingwalls are installed, Cofferdams and pump around should be removed, site should be restored by permanent erosion control measures
 Mulched Seeding R should be placed.
 The expected time for temporary erosion control measure to stay in place is approximately 90 days

COFFERDAM DETAILS
 Scale = None



NOTE: ** For Details see alignment Details Sheet

* NOTE: Dimensions to be Determined by Culvert Manufacturer

NOTES:

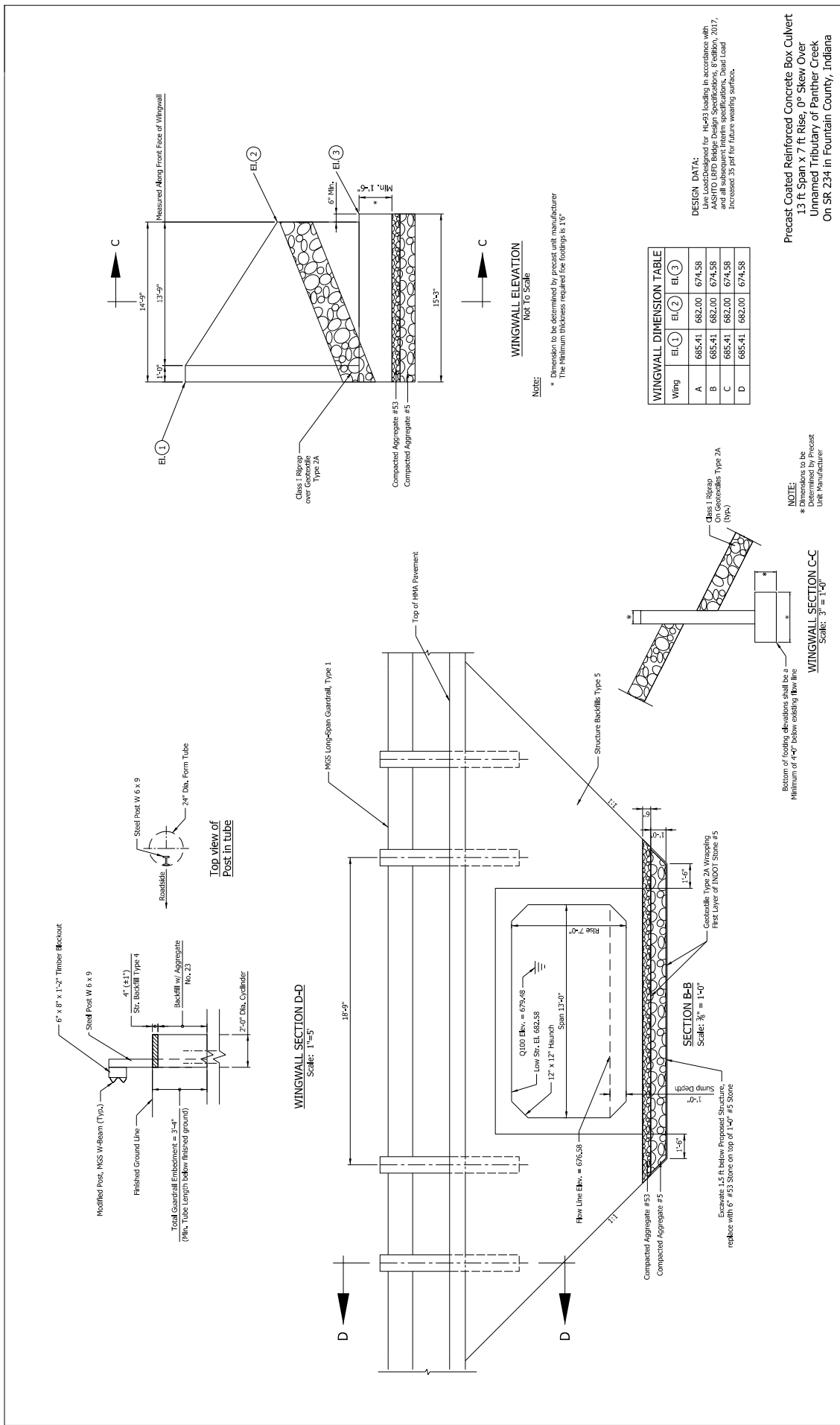
1. Excavation shall be backfilled with 1/2" crushed stone to a maximum depth of 6 inches.
2. An Arch-Topped or True Arch Structure will not be permitted at this location.
3. For Midwest Groutless System Assembly Details See Standard Drawing E601-MGS-A08 & 09
4. Excavating all unsuitable soils down to a maximum depth of 6 inches. A geotextile in accordance with the manufacturer's specifications shall be placed over the excavation.
5. The excavation shall then be back-filled with 1/2" crushed stone to the elevation which is equal to 6 inches below the structure base on the heel-wall footings. The geotextile which is placed at the base of the excavation shall consist of sufficient excess, so that it can be turned around and over the top of the structure and secured with 1/2" x 1/2" galvanized steel wire ties. The geotextile shall be placed over the second layer of geotextile, to the elevation of the bottom of the structure and the bottom of the heel-wall footings.
6. Contractor shall verify the existing flow line elevation to set the appropriate sump depth.
7. Box Structure should be sealed with Neo-Epoxy FCC sealer
8. Prior to installing a Type 2 membrane a prime coat recommended by the waterproofing membrane manufacturer shall be applied to all exterior surfaces

ELEVATION

Scale: 3/8" = 1'-0"

Precast Coated Reinforced Concrete Box Culvert
13 ft Span x 7 ft Rise, 0° Skew Over
Unnamed Tributary of Panther Creek
On SR 234 in Fountain County, Indiana

| | | | | |
|------|----------|---|--------------|--------------------|
| DATE | REVISION | INDIANA DEPARTMENT OF TRANSPORTATION | SCALE | CULVERT ASSET I.D. |
| | | | AS NOTED | |
| | | | DESIGNER | DESIGNATION |
| | | | SURVEY BOOK | LOOSE |
| | | | ELECTRONIC | SHEETS |
| | | | PROJECT | 10 of 20 |
| | | | CONTRACT | PROJECT |
| | | | NO. 234 | CONTRACT |
| | | | SR 234 | NO. 234 |
| | | | INDIANA | NO. 234 |
| | | | GENERAL PLAN | NO. 234 |
| | | | SHEET NO. 01 | NO. 234 |



| | | | | | | | | | |
|--|----------|--|--|--|--|--|--|--|--|
| DATE | REVISION | | | | | | | | |
| 4/20/2020 | | | | | | | | | |
| <p>File Path: \\wvnet\wvnet\proj\2020\DOT\RoadDocuments\Convo\ss\401500886\pape\PS\New\RS 1202 192SR General Plan 102.dwg Model: 0 - Detail Sheet</p> | | | | | | | | | |

| | | |
|--------------------------|-----------------|--------|
| RECOMMENDED FOR APPROVAL | DESIGN ENGINEER | DATE |
| DESIGNED BY | DRAWN BY | 7/2018 |
| CHECKED BY | CHECKED BY | 7/2018 |

| | |
|--------------|------------------------------|
| INDIANA | DEPARTMENT OF TRANSPORTATION |
| GENERAL PLAN | |
| SHEET NO. 02 | |

| | |
|----------------|------------------|
| SCALE | AS NOTED |
| CIVIL ENGINEER | REGISTRATION NO. |
| PROJECT | 11 |
| CONTRACT | 4 |
| SHEETS | 20 |
| PROJECT | 100886 |

WINGWALL SECTION C-C
 Scale: 3" = 1'-0"
 Section of existing elevations shall be a minimum of 4'-0" below existing flow line.

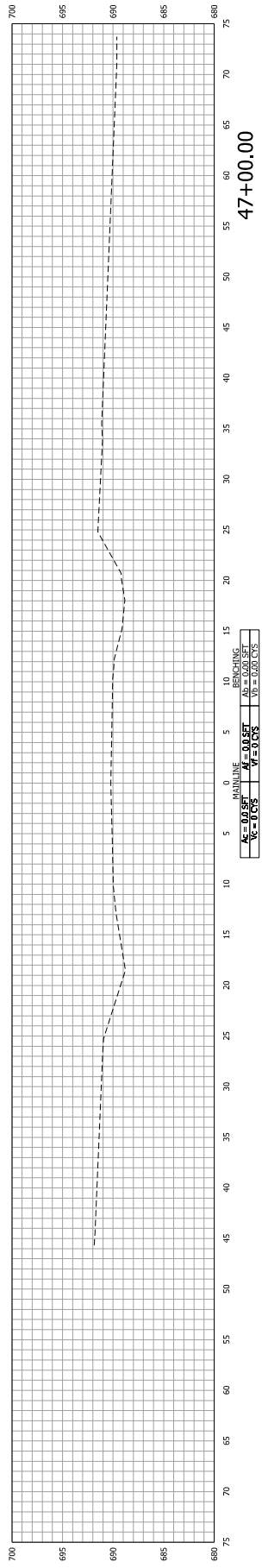
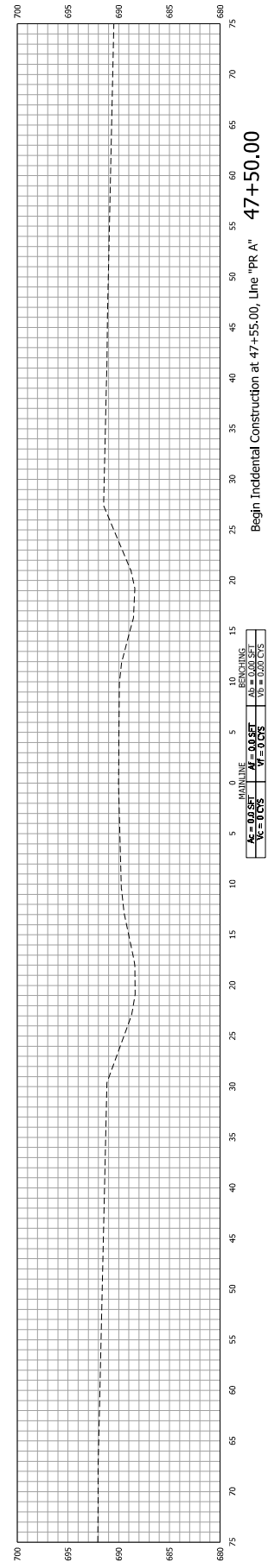
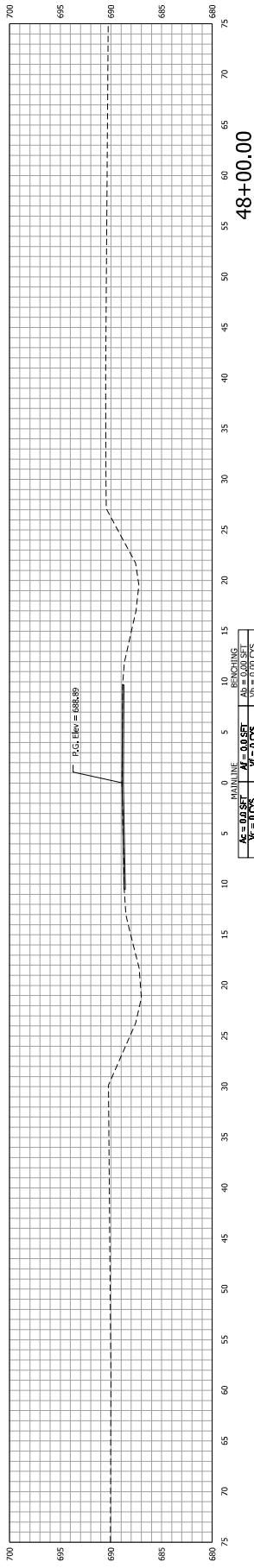
WINGWALL DIMENSION TABLE

| Wing | EI (1) | EI (2) | EI (3) |
|------|--------|--------|--------|
| A | 685.41 | 682.00 | 674.58 |
| B | 685.41 | 682.00 | 674.58 |
| C | 685.41 | 682.00 | 674.58 |
| D | 685.41 | 682.00 | 674.58 |

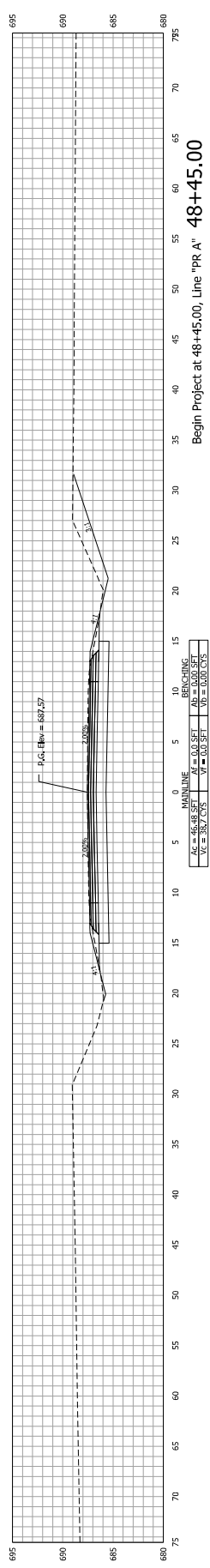
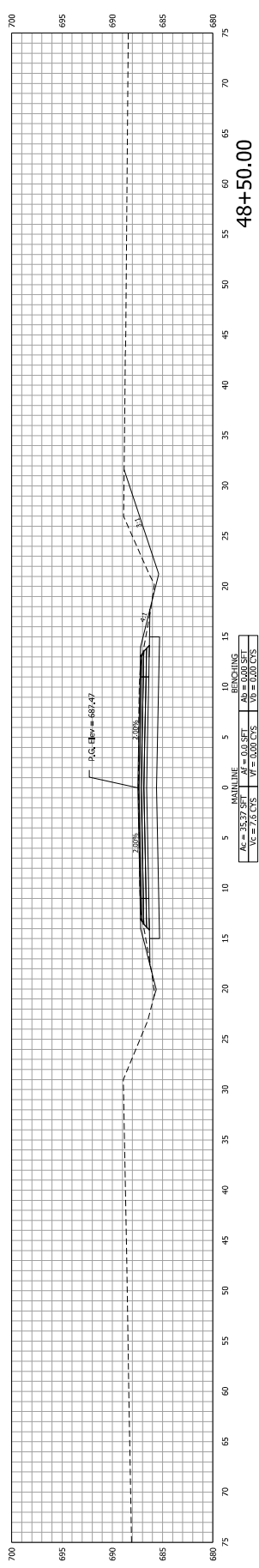
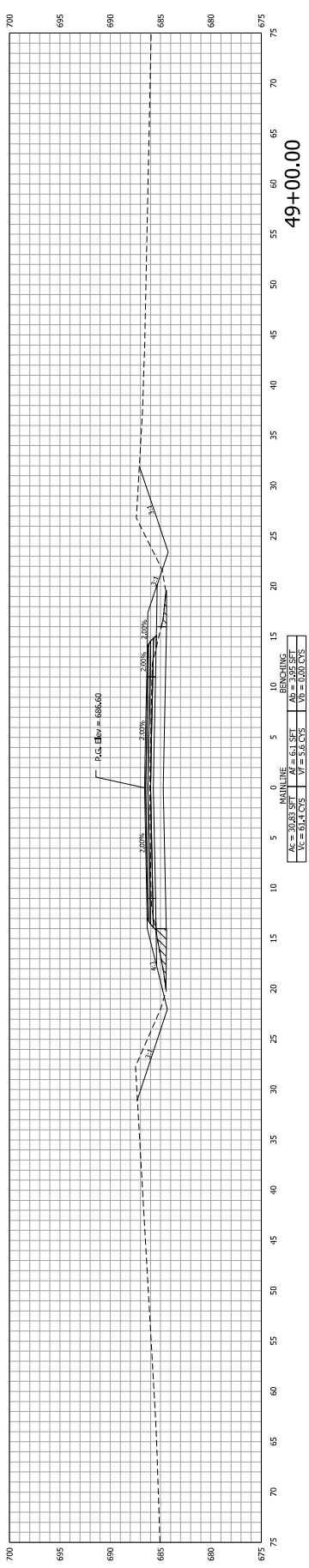
DESIGN DATA:
 Live Load: Designed for HL-93 loading in accordance with AASHTO LRFD Bridge Design Specifications, 2017, and all subsequent Interim Specifications. Dead Load increased 35 psf for future wearing surface.

WINGWALL ELEVATION
 Not To Scale
NOTE:
 * Dimension to be determined by precast unit manufacturer. The minimum thickness required for footings is 16".

Precast Coated Reinforced Concrete Box Culvert
 13 ft Span x 7 ft Rise, 0° Skew Over
 Unnamed Tributary of Panther Creek
 On SR 234 in Fountain County, Indiana

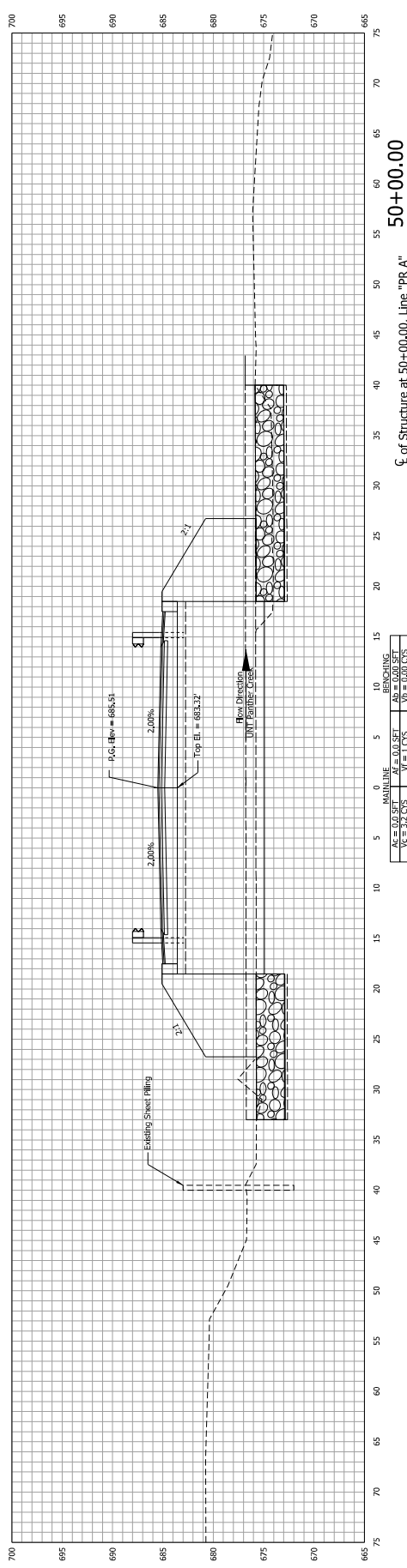


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|---------------------|--|---------------------|--|------------------------------|--|--------------------------|--|--------------------|--|--------|--|
| BRIDGE FILE | | SCALE | | INDIANA | | RECOMMENDED FOR APPROVAL | | DESIGNER ENGINEERS | | DATE | |
| CONTRACT NO. 106886 | | ELECTRONIC CONTRACT | | DEPARTMENT OF TRANSPORTATION | | DESIGNED BY: 3/2/18 | | DRAWN BY: 3/2/18 | | 3/2/18 | |
| PROJECT NO. 106886 | | B-2997 | | CROSS SECTIONS LINE 'PR-B' | | CHECKED BY: 9/2/18 | | CHECKED BY: 9/2/18 | | 9/2/18 | |
| SHEETS 13 of 20 | | | | | | | | | | | |

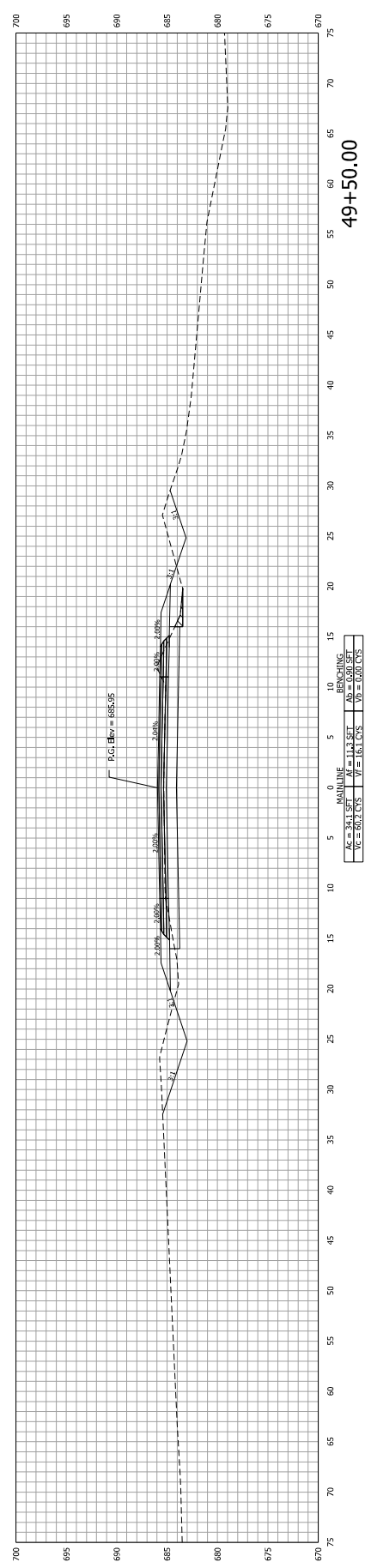


Begin Project at 48+45.00, Line "PR A"

| | | | | | |
|--|-----------------------------------|---|-----------------------------|-----------------------|--------------------|
| BRIDGE FILE CONTRACT NO. DISPOSITION 10/28/86 | SCALE | INDIANA DEPARTMENT OF TRANSPORTATION | RECOMMENDED FOR APPROVAL | DESIGN ENGINEERS | DATE |
| SHEETS 14 of 20 | ELECTRONIC CONTRACT P-22927 | | | DESIGNED BY 9/2/18 | DRAWN BY 9/2/18 |
| PROJECT 10/28/86 | | CROSS SECTIONS LINE "PR-B" | CHECKED BY 9/2/18 | CHECKED BY 9/2/18 | |

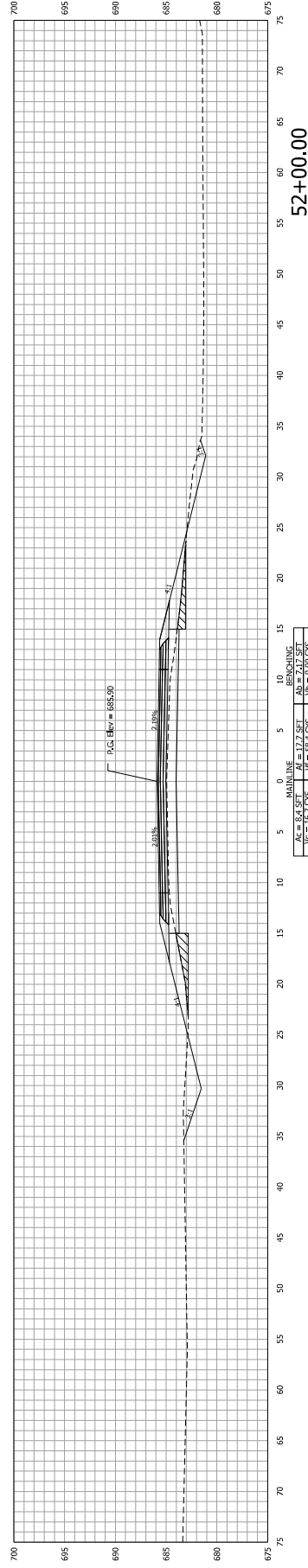


50+00.00
 § of Structure at 50+00.00, Line "PR A"

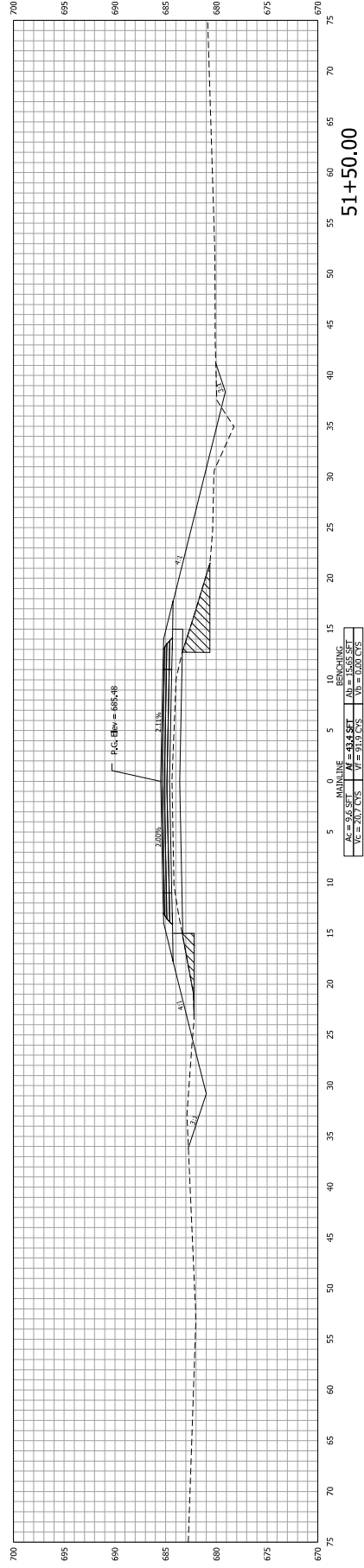


49+50.00

| | | | | | | | |
|---|---|---|---------------|--|---|---|---|
| RECOMMENDED FOR APPROVAL DESIGNER: DR. [Signature] CHECKED: MHI | DESIGNEE: DR. [Signature] CHECKED: MHI | DESIGNER: ENGINEER [Signature] DATE: 9/20/18 | DATE: 9/20/18 | INDIANA DEPARTMENT OF TRANSPORTATION CROSS SECTIONS LINE "PR-B" | SCALE ELECTRONIC CONTRACT B-29997 | BRIDGE FILE NO. COUNTY DESIGNATION 100886 | SHEETS 15 of 20 PROJECT 100886 |
| | | | | | | | |

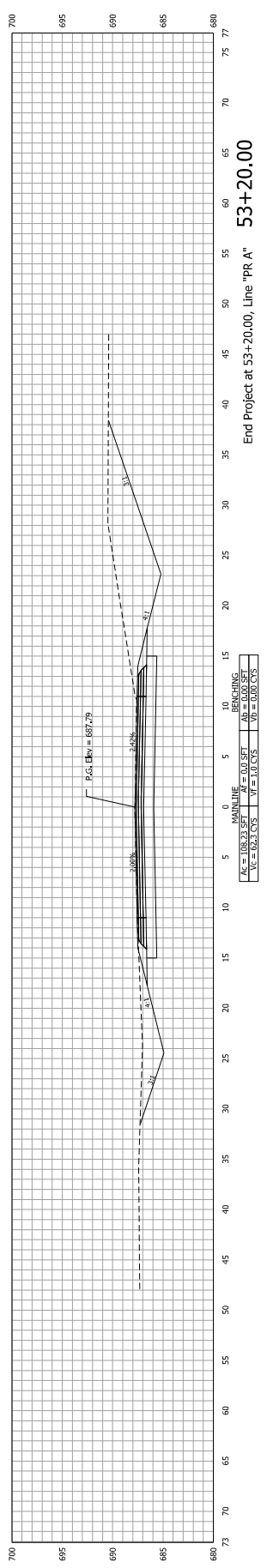
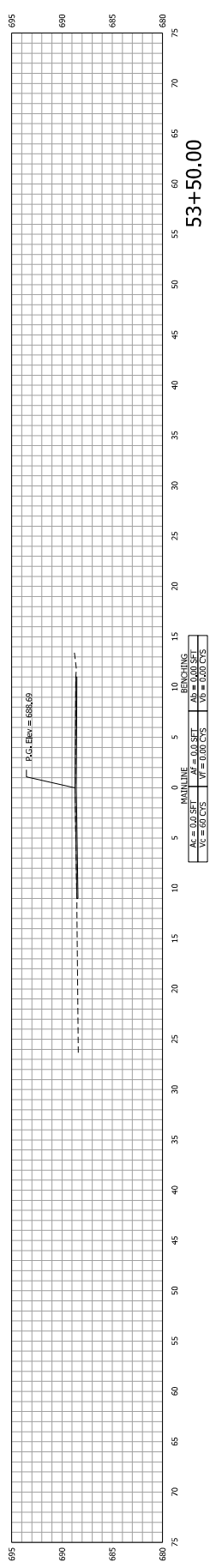
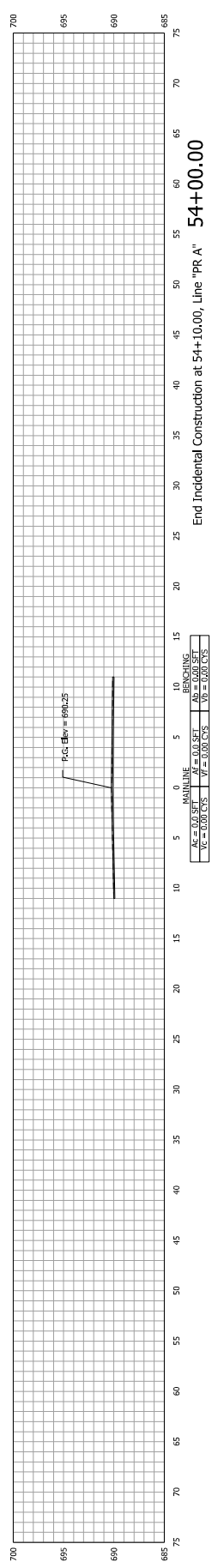


52+00.00

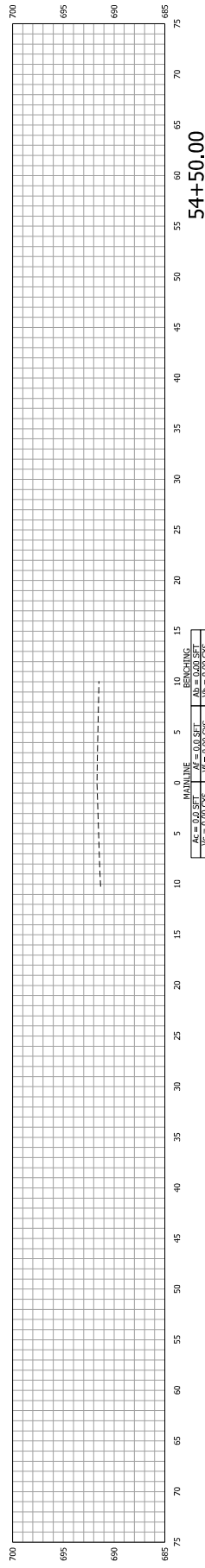


51+50.00

| RECOMMENDED FOR APPROVAL | DESIGNER ENGINEER | DATE | INDIANA DEPARTMENT OF TRANSPORTATION | SCALE | BRIDGE FILE NUMBER |
|--------------------------|-------------------|--------|---|-------------------------------|-----------------------|
| DESIGNED BY: JR | DRAWN BY: R | 9/2/18 | INDIANA DEPARTMENT OF TRANSPORTATION CROSS SECTIONS LINE "PR-B" | ELECTRONIC CONTRACT P22897 | DISPOSITION 102866 |
| CHECKED BY: MH | CHECKED BY: MH | 9/2/18 | | | |
| | | | | | SHEETS |
| | | | | | PROJECT |
| | | | | | 102866 |



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|-----------------|--------------------------------------|-------------------|---------------------|
| BRIDGE FILE NO. | INDIANA DEPARTMENT OF TRANSPORTATION | SCALE | ELECTRONIC CONTRACT |
| CONTRACT NO. | 106886 | PROJECT NO. | 8-20097 |
| SHEETS | 19 of 20 | CROSS SECTIONS | LINE "PR-B" |
| DESIGNED BY | DATE | DESIGNER ENGINEER | DATE |
| CHECKED BY | DATE | DRAWN BY | DATE |
| CHECKED BY | DATE | CHECKED BY | DATE |
| CHECKED BY | DATE | CHECKED BY | DATE |



54+50.00

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|---------------------------|--------------------------------------|
| BRIDGE FILE NO. | INDIANA DEPARTMENT OF TRANSPORTATION |
| CROSS SECTION DESIGNATION | 162886 |
| SCALE | ELECTRONIC CONTRACT |
| SHEETS | 20 of 20 |
| PROJECT | 839997 |
| DATE | 9/2/18 |
| DESIGNED BY | PAWNER |
| CHECKED BY | PHI |
| DATE | 9/2/18 |
| CHECKED BY | PHI |