

| | | | | |
|-----------------------|----------------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| --- | 99-00109-01-BT | DU PAGE | 74 | 25 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | | |

NOTE: Camber Overall Bridge Profile 1% Of The Bridge Length But At No Point Along The Bridge Shall The Deck Slope Be Greater Than 5%. Taking Into Account The Difference In Bearing Elevations. In Addition, All Truss Verticals Shall Be Plumb.

CONTRACT No. 83728

BILL OF MATERIAL (BRIDGE 2)

| ITEM | DESCRIPTION | UNIT | QUANTITY |
|------------|---|---------|----------|
| * 20700400 | Porous Granular Embankment, Special | Cu. Yd. | 135 |
| 28100107 | Stone Riprap, Class A4 | Sq. Yd. | 140 |
| 28200200 | Filter Fabric | Sq. Yd. | 140 |
| 50200100 | Structure Excavation | Cu. Yd. | 375 |
| 50300225 | Concrete Structures | Cu. Yd. | 166 |
| 50800205 | Reinforcement Bars, Epoxy Coated | Pound | 24,000 |
| * 5020503 | Underwater Structure Excavation Protection-Location 3 | Each | 1 |
| * X5020504 | Underwater Structure Excavation Protection-Location 4 | Each | 1 |
| 50901725 | Bicycle Railing, Special | L.F. | 66 |
| * X0322508 | Pedestrian Truss Superstructure (Bridge 2) | Sq. Ft. | 2,720 |

BRIDGE REACTION TABLE (90'-0" SPAN)

| ITEM | P (LBS) BRG. | H (LBS) ABUTMENT | L (LBS) |
|--------------------|--------------|------------------|---------|
| DEAD LOAD (2) | 22,950 | --- | --- |
| UNI. LIVE LOAD | 23,460 | --- | --- |
| VEHICLE LOAD | 6,000 | --- | --- |
| UPLIFT WIND 20 PSF | -8,970 | --- | --- |
| WINDWARD/LEEWARD | -2,990 | --- | --- |
| WIND | +2,690 | 7,765 | --- |
| THERMAL (2) | --- | --- | 3,445 |

- ① Bridge Lifting Weight : 32,200
- ② Total Bridge Weight : 91,800

BRIDGE REACTION TABLE (132'-5" SPAN)

| ITEM | P (LBS) BRG. | H (LBS) ABUTMENT | L (LBS) |
|--------------------|--------------|------------------|---------|
| DEAD LOAD (2) | 45,430 | --- | --- |
| UNI. LIVE LOAD | 33,915 | --- | --- |
| VEHICLE LOAD | 6,000 | --- | --- |
| UPLIFT WIND 20 PSF | -13,635 | --- | --- |
| WINDWARD/LEEWARD | -4,545 | --- | --- |
| WIND | +7,385 | 18,810 | --- |
| THERMAL (2) | --- | --- | 6,815 |

- ① Bridge Lifting Weight : 66,000
- ② Total Bridge Weight : 181,720

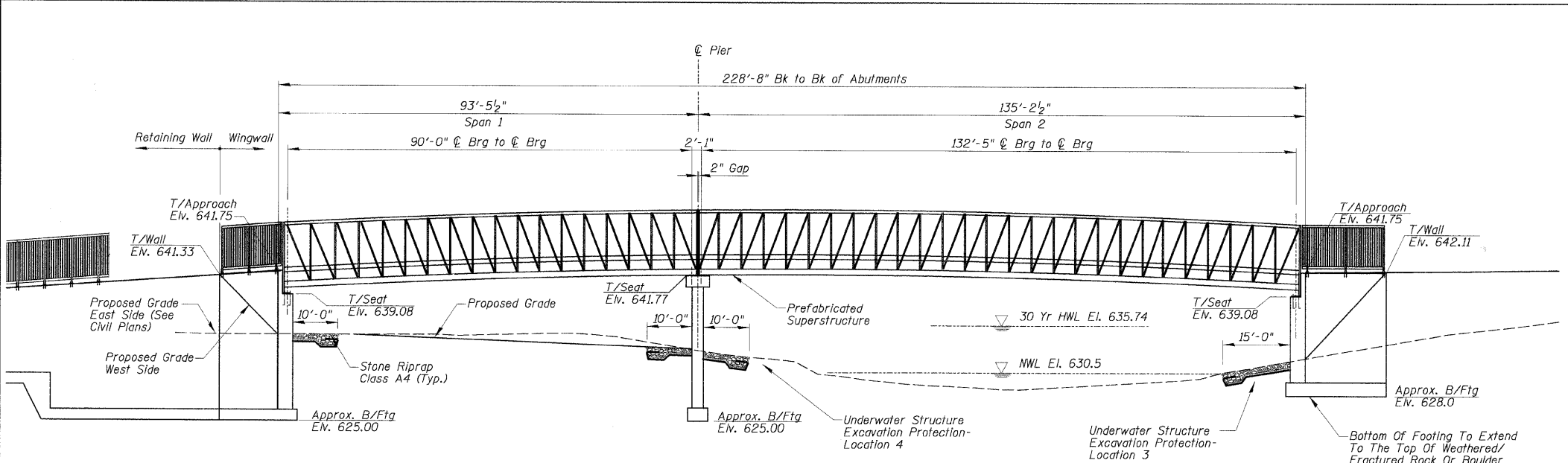
LEGEND

- Soil Boring
- Proposed Grade

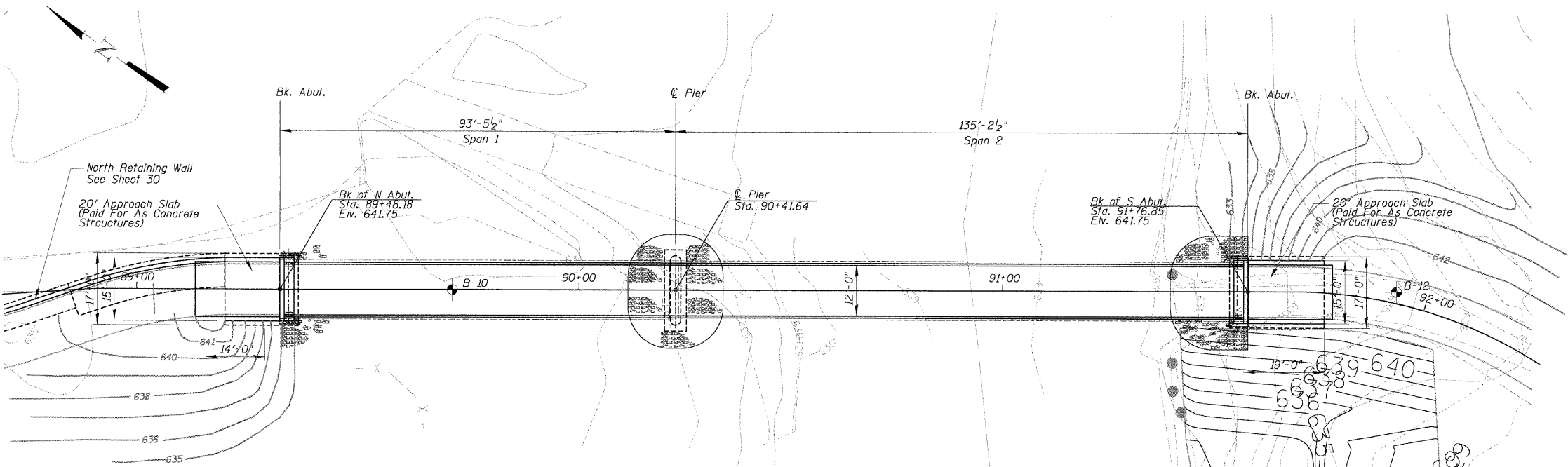
I Certify That To The Best Of My Knowledge, Information And Belief, This Bridge Design Is Structurally Adequate For The Design Loading Shown On The Plans. The Design Is An Economical One For The Style Of Structure And Complies With Requirements Of The Current "AASHTO Standard Specification For Highway And Bridges".



Majid Mobasser 3-21-09
MAJID MOBASSERI
 STRUCTURAL ENGINEER
 ILLINOIS REGISTRATION No. 081-005058
 EXPIRATION DATE: 11/30/10



ELEVATION



PLAN

WATERWAY INFORMATION

| Flood | | Q cfs | Opening ft ² | Nat. H.W.E. | Head - ft | Headwater El. |
|---|-----------------|--------|-------------------------|-------------|-----------|---------------|
| | | Exist. | Prop. | Exist. | Prop. | Exist. |
| Prop. Low Grade Elv. 640.74 @ Sta. 82+00 Drainage Area = 121 mi ² | | | | | | |
| 10 | Main Channel | - | 3213.9 | - | 720.6 | 635.18 |
| | Outside Channel | - | 128.1 | - | 0.0 | 635.18 |
| | TOTAL | - | 3342 | - | 720.6 | 635.18 |
| Design-30 | Main Channel | - | 4069.5 | - | 867.4 | 635.91 |
| | Outside Channel | - | 360.0 | - | 36.7 | 635.91 |
| | TOTAL | - | 4429.5 | - | 904.1 | 635.91 |
| 100 | Main Channel | - | 4867.0 | - | 1037.3 | 636.71 |
| | Outside Channel | - | 796.0 | - | 164.0 | 636.71 |
| | TOTAL | - | 5663.0 | - | 1201.3 | 636.71 |
| 500 | Main Channel | - | 5947.4 | - | 1284.7 | 637.62 |
| | Outside Channel | - | 1452.6 | - | 346.8 | 637.62 |
| | TOTAL | - | 7400.0 | - | 1631.5 | 637.62 |

DATE: _____ BY: _____
 CHECKED: _____
 PLANNING CHECKED: _____
 ALIGNED CHECKED: _____
 CAD FILE NAME: _____

DATE: _____ BY: _____
 CHECKED: _____
 PROFILE ENGINEER: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS CHECKED: _____

3/30/2009

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE 2
STA. 90+40.00
PLAN AND PROFILE

SCALE: NOT TO SCALE DRAWN BY PDR
 DATE 3/30/2009 CHECKED BY PLB