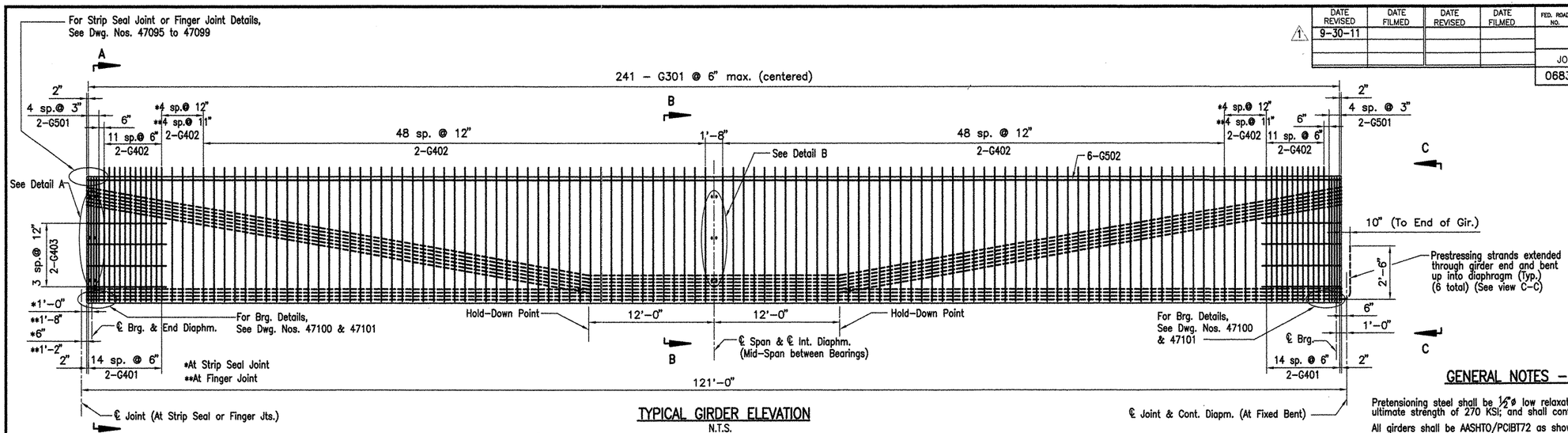
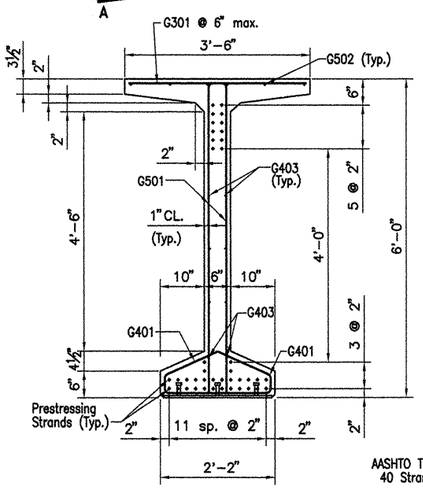
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1 9-30-11					ARK.			
				JOB NO.		110395	90	203
				06830		363' UNITS		47084



TYPICAL GIRDER ELEVATION
N.T.S.



SECTION A–A
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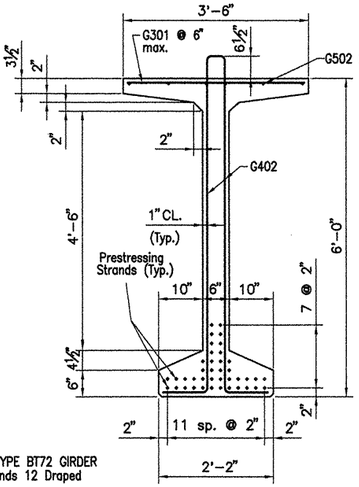
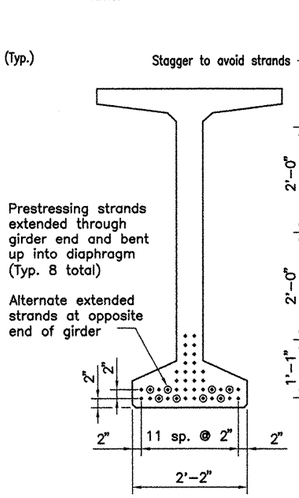


AASHTO TYPE BT72 GIRDER
40 Strands 12 Draped

SECTION B–B
N.T.S.



VIEW C–C
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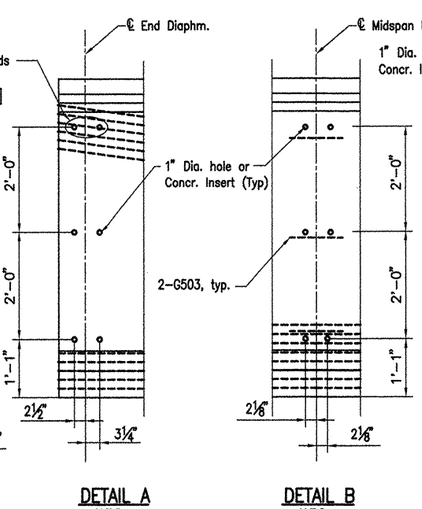
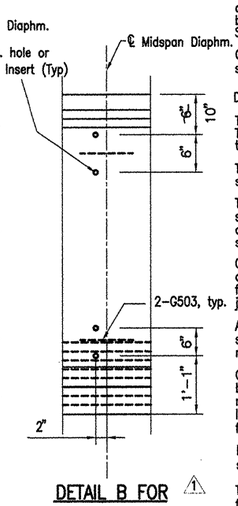


DETAIL A
N.T.S.

DETAIL B
N.T.S.



DETAIL B FOR ALT. STEEL DIAPH
1

GENERAL NOTES – GIRDER ONLY

Pretensioning steel shall be ½"ø low relaxation strands with a minimum ultimate strength of 270 KSI, and shall conform to AASHTO M203 & supplement.

All girders shall be AASHTO/PCIBT72 as shown on the details. All girders shall be cast in concrete floored pallets and in metal forms. All work & materials shall be as specified in section 802.22 of the Standard Specifications and job SP 110395 "Prestressed Concrete Bulb Girders".

Concrete shall be class "S" and shall have a minimum of 28 day compressive strength. f'c = 6,000 PSI

Dimensions shown are to the center of the strands.

The initial tensile force applied to each ½"ø strand shall be 30.98 Kips. Transfer of this tensioning load to the girder shall not be done until the compressive strength of the concrete is 4,500 PSI.

The contractor shall submit the method and sequence for release of strands, to the Bridge Engineer for approval prior to the casting of the girders.

Tops of the girders shall be rough floated at approximately the time of set. The entire tops of the girders shall be scrubbed transversely with a coarse wire brush to remove all laitance and to produce a roughened surface for bonding slabs.

Girder lengths shown on the design plans are net lengths measured horizontally along the girder centerlines. The girder manufacturer shall make necessary allowances for grade, shortening due to elastic shortening, creep and shrinkage, and expansion joints and etc.

All exposed steel at ends of girders not extended into diaphragms at interior bents shall be protected against corrosion by coating of tar or other waterproofing material.

Girders must be maintained in an upright position at all times and must be picked up from points near the girder ends. Disregard of this requirement may lead to collapse of the girder. the contractor's proposed lifting details shall be submitted on shop drawings to the Bridge Engineer for approval. The use of holes for lifting purposes will not be permitted.

Reinforcing steel shall be AASHTO M31–94, Gr.60 and shall be paid as subsidiary to prestressed girders.

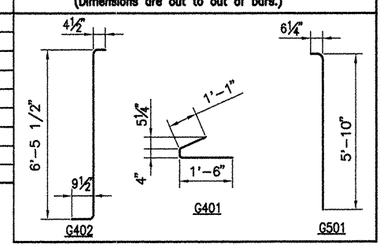
The contractor may submit alternate strand patterns with design calculations for review and approval.

For additional General Notes, Dwg No. 47083.

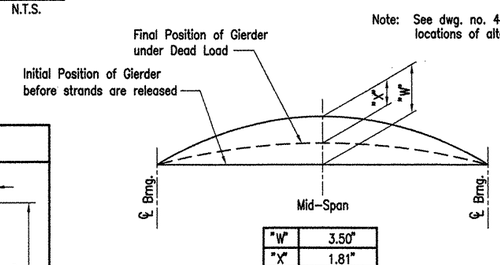
BAR LIST–PER GIRDER

Mark	No. Req'd	Length	P.D.
G301	241	3'–4"	STR.
G401	60	2'–9"	2"
G402	256	7'–5½"	2"
G403	16	7'–6"	STR.
G501	20	6'–3"	2½"
G502	18	41'–6"	STR.
G503	6	2'–0"	STR.

Bending Diagrams (Dimensions are out to out of bars.)



1 Revised 'Detail B for Alt. Steel Diaph.' by HJE/MM GPT 9–30–11



"W"	3.50"
"X"	1.81"

'W' is expected camber of Girder at 90 days after release (Prestress + Dead Load of Girder)

'X' is Dead Load Deflection of Slab + Diaphragms + Composite Dead Load

CAMBER & DEFLECTIONS (INCHES)
N.T.S.

Note: See dwg. no. 47079 for hole locations of alternate diaphragm

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 3129 W. JAMES ENGSTROM 9/30/11

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 4281 W. B. CONWAY 9/30/11

CERTIFICATE OF AUTHORIZATION H. JAMES ENGSTROM & ASSOC., INC. No. 164 ARKANSAS ENGINEER

BRIDGE ENGINEER

ALTERNATE NO. 1

DETAILS OF 363'–0" CONT.
PRESTRESSED CONCRETE GIRDER UNIT
(SHEET 7 OF 7)

WHITE RIVER STR. & APPRS.
(CLARENDON) (PH III) (F)
MONROE COUNTY

ROUTE 79 SEC. 13

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

Engstrom/Modjeski and Masters

DRAWN BY: YO DATE: Nov. 07
CHECKED BY: JES DATE: Nov. 01
DESIGNED BY: YO DATE: Nov. 01
FILENAME: b11039513_s07
SCALE: 3/4" = 1'–0"

BRIDGE NO. 06830 DRAWING NO. 47084

COMPANY\1999 JOBS\99–044 AHTD\WHITERIVER\JOB 110395\363 psgirder ACAD SCALE: 3/4"=1'–0"