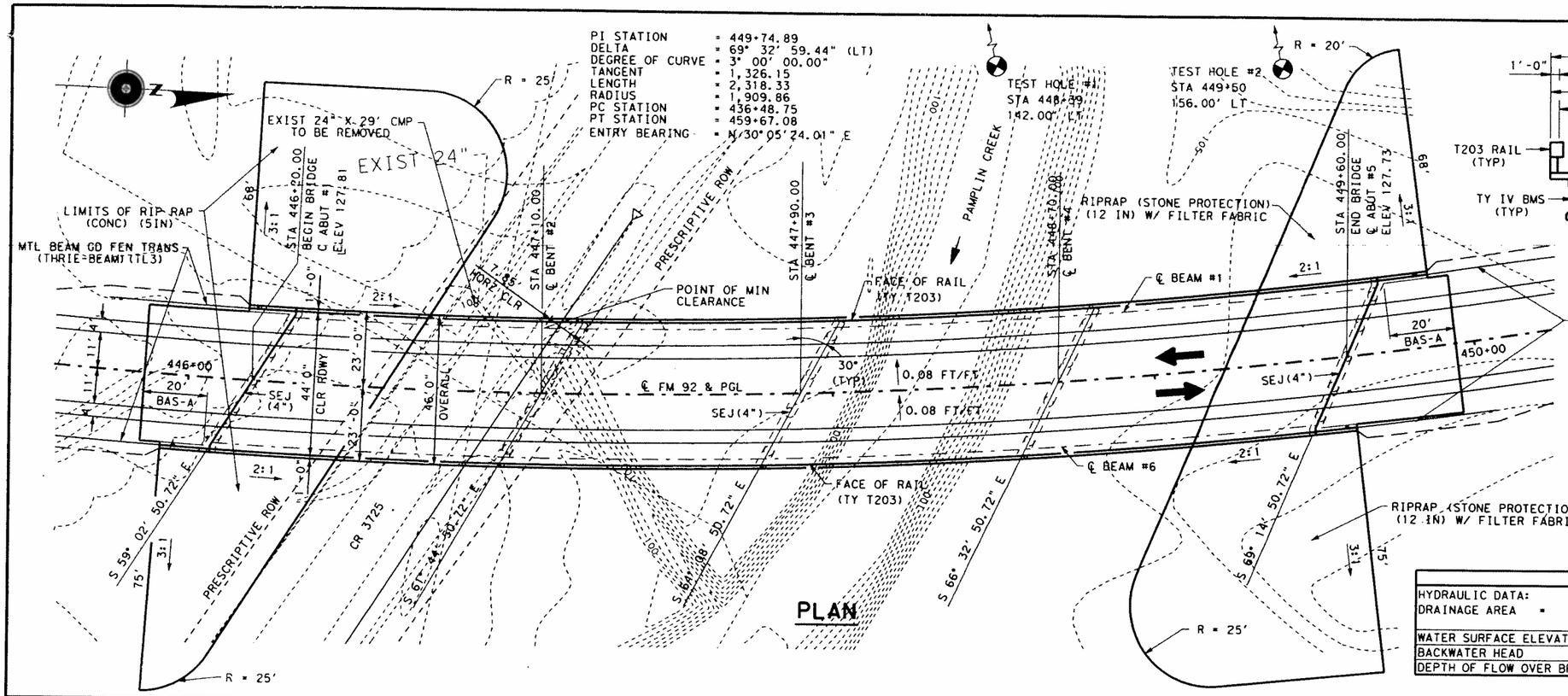
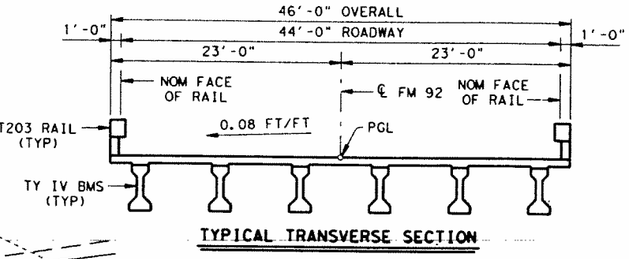
PI STATION = 449+74.89
DELTA = 69° 32' 59.44" (LT)
DEGREE OF CURVE = 3° 00' 00.00"
TANGENT = 1,326.15
LENGTH = 2,318.33
RADIUS = 1,909.86
PC STATION = 436+48.75
PT STATION = 459+67.08
ENTRY BEARING = N 30° 05' 24.01" E



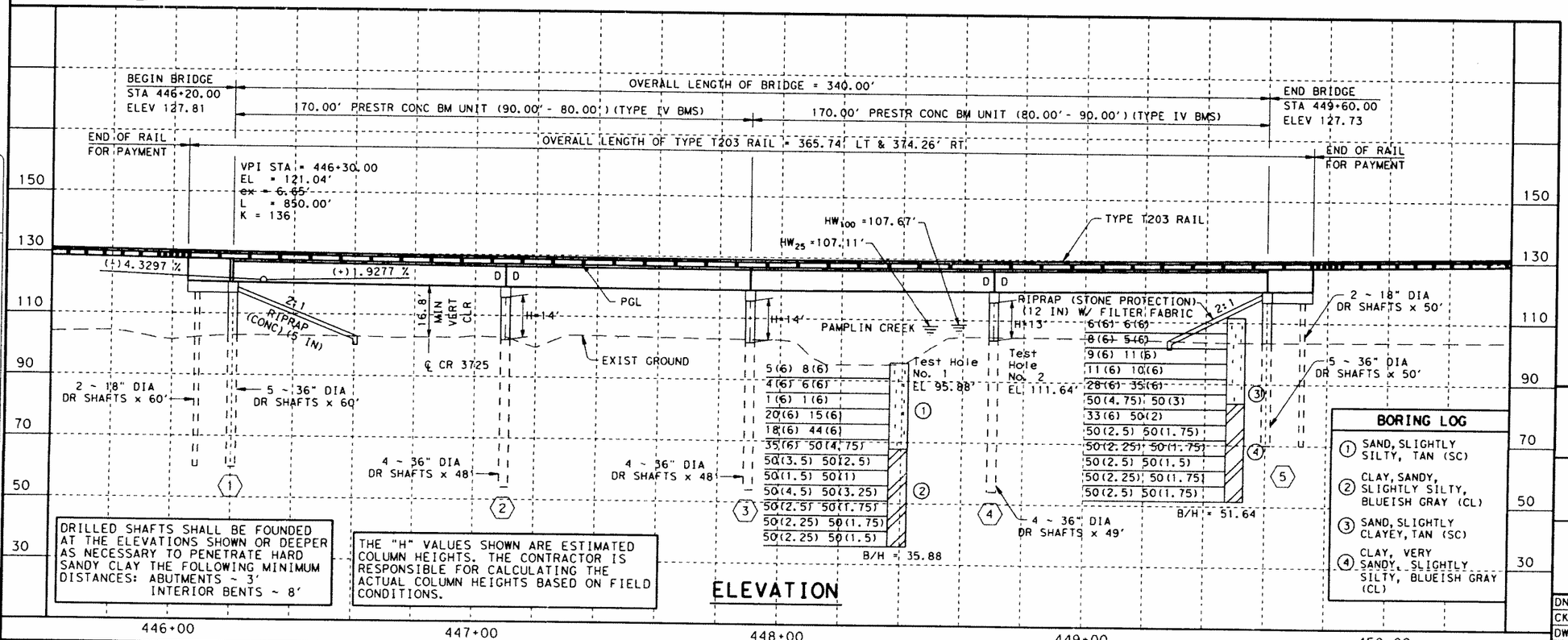
PLAN



TYPICAL TRANSVERSE SECTION

GENERAL NOTES:
DESIGNED ACCORDING TO CURRENT AASHTO STANDARD AND INTERIM SPECIFICATIONS FOR HL 93 LOADING.
DIMENSIONS ARE HORIZONTAL AND MUST BE CORRECTED FOR GRADE AND CROSS SLOPE WHERE APPLICABLE.
SEE SURVEY CONTROL INDEX SHEETS AND HORIZONTAL AND VERTICAL CONTROL SHEETS FOR BENCHMARKS AND VERTICAL DATUM INFORMATION.

	25-year		100-year
HYDRAULIC DATA:	Q25 =	7063 CFS	Q100 = 8917 CFS
DRAINAGE AREA = 8.5 SQ.MI	V25 =	6.41 FT/S	V100 = 7.25 FT/S
	TW25 =	106.71 FT	TW100 = 107.19 FT
WATER SURFACE ELEVATION		107.11 FT	107.67 FT
BACKWATER HEAD		0.40 FT	0.49 FT
DEPTH OF FLOW OVER BRIDGE		0.00 FT	0.00 FT



ELEVATION

DRILLED SHAFTS SHALL BE FOUNDED AT THE ELEVATIONS SHOWN OR DEEPER AS NECESSARY TO PENETRATE HARD SANDY CLAY THE FOLLOWING MINIMUM DISTANCES: ABUTMENTS ~ 3'
INTERIOR BENTS ~ 8'

THE "H" VALUES SHOWN ARE ESTIMATED COLUMN HEIGHTS. THE CONTRACTOR IS RESPONSIBLE FOR CALCULATING THE ACTUAL COLUMN HEIGHTS BASED ON FIELD CONDITIONS.

BORING LOG

1. SAND, SLIGHTLY SILTY, TAN (SC)
2. CLAY, SANDY, SLIGHTLY SILTY, BLUEISH GRAY (CL)
3. SAND, SLIGHTLY CLAYEY, TAN (SC)
4. CLAY, VERY SANDY, SLIGHTLY SILTY, BLUEISH GRAY (CL)

DN: TAR
CK: RCC
DW: TAR
CK: MFG
DATE: 7/2006 NODE:
PATH: 6841LY01.DGN

ACTIVE FILE LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED PROFESSIONAL ENGINEER
3/5/07

STATE OF TEXAS
MARK P. McCLELLAND
60710
REGISTERED PROFESSIONAL ENGINEER

ADT 2006 = 450
ADT 2026 = 700
FUNCTION CLASSIFICATION: RURAL-MAJOR COLLECTOR
NBI#: 20-229-1238-02-003

HL 93 LOADING

SCALE: 1" = 40'

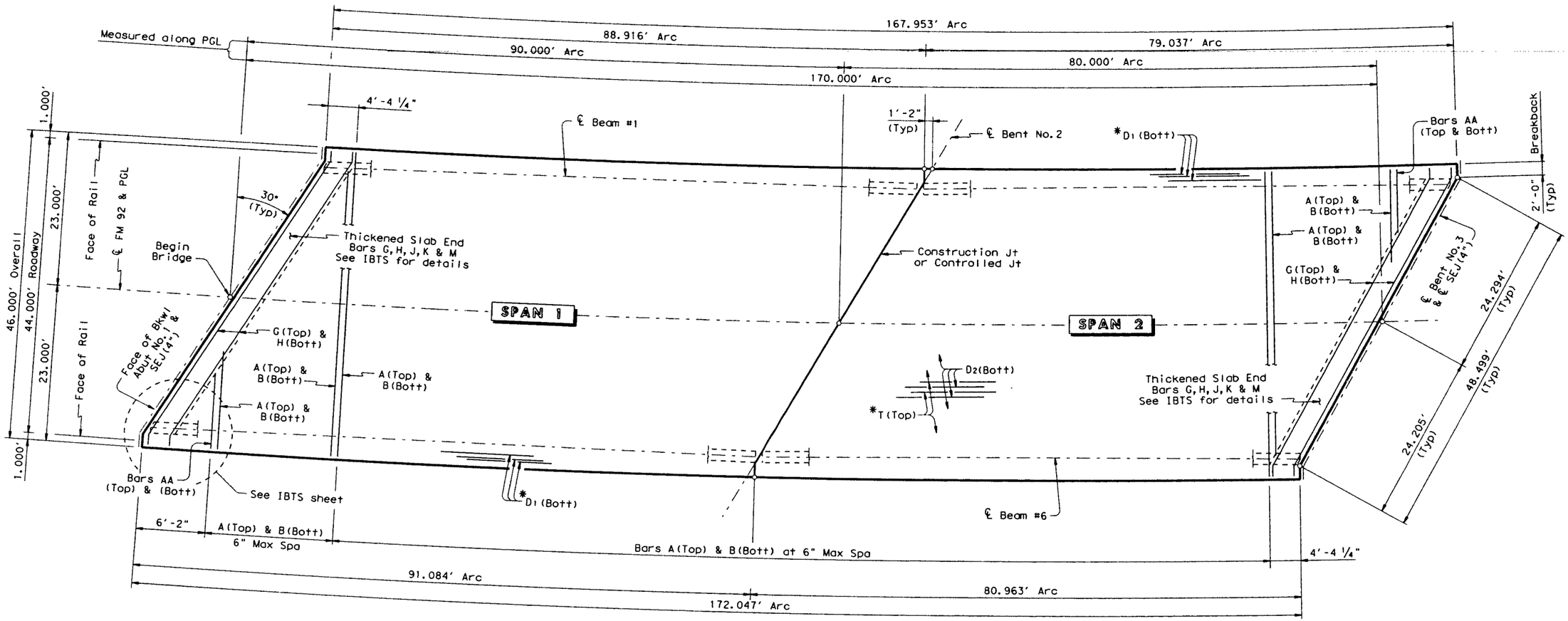
Texas Department of Transportation

PBS&J

BRIDGE LAYOUT

PAMPLIN CREEK BRIDGE

DN: RCH	FED.RD. DIV.NO.	STATE	FEDERAL AID PROJECT NO.			HIGHWAY NO.
CK DN: DWS	6	TEXAS				FM 92
DW: RCH	STATE DIST.	COUNTY	CONTROL NO.	SECTION NO.	JOB NO.	SHEET NO.
CK DW: DWS	20	TYLER	1238	02	004	



PLAN

*2" End Cover on Bars D1 and T.

HL-93 LOADING

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED
PROFESSIONAL ENGINEER
3/5/07

Texas Department of Transportation
Bridge Division

170.00' PRESTRESSED CONCRETE BEAM UNIT

(SPANS 1 & 2)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MFG	CK: TAR
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	20			

COUNTY	CONTROL	SECT	JOB	HIGHWAY
TYLER	1238	02	004	FM 92

ACC: M. GESCH

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

TABLE OF SECTION DEPTHS

Span No.	Beam No.	"X" at ℄ Brg	"Y" at ℄ Brg	"Z" at ℄ Span ③
1	All	1'-0 1/4"	5'-6 1/4"	9 1/2"
2	1 & 2	11 1/2"	5'-5 1/2"	9 1/2"
2	3 - 6	11 1/2"	5'-5 1/2"	9 3/8"

③ Theoretical dimension

BAR TABLE

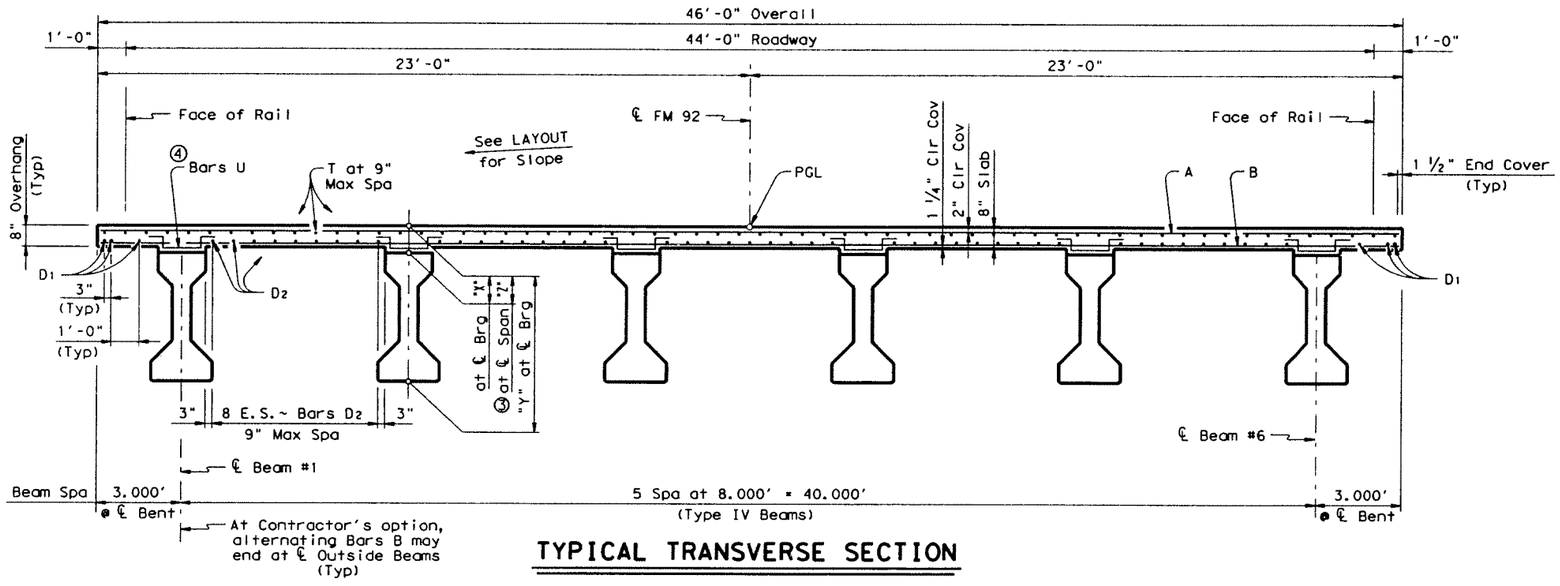
BAR	SIZE
A	#5
B	#5
D	#5
G	#5
H	#5
J	#5
K	#5
M	#5
T	#4
U	#4

TABLE OF ESTIMATED QUANTITIES

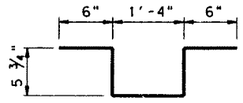
SPAN	REINF CONC SLAB	PRESTRESSED CONC BEAM (Type IV) ②	CLASS "S" CONCRETE	REINFORCING STEEL
NO.	SF	LF	CY	Lb
1	4140	537.80	110.2	26910
2	3680	477.96	97.3	23920
TOTAL	7820	1015.76	207.5	50830 ①

① Reinforcing steel weight is calculated using an approximate factor of 6.5 Lbs per Sq Ft.

② Lengths shown are bottom beam flange lengths with adjustments made for beam slope. See BEAM LAYOUT for beam lenghts.



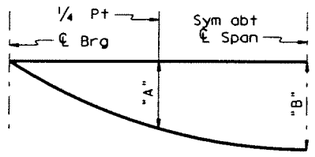
TYPICAL TRANSVERSE SECTION



④ **BARS U**

Bars U shall match Bars R in beam where Haunch exceeds 3".

Span No.	Beam No.	"A" Ft	"B" Ft
1	1	0.052	0.072
1	2	0.053	0.074
1	3	0.053	0.075
1	4	0.054	0.076
1	5	0.055	0.078
1	6	0.056	0.079
2	1	0.032	0.045
2	2	0.033	0.046
2	3	0.033	0.047
2	4	0.034	0.048
2	5	0.035	0.048
2	6	0.035	0.049



DEAD LOAD DEFLECTION DIAGRAM

NOTE: Deflection shown are due to concrete slab only. (E_c = 5 x 10^6 psi) Calculated deflections shown are theoretical and actual dimensions may be less. Deflections shall be adjusted based on field observations.

GENERAL NOTES:

Designed according to AASHTO LRFD and current Interim Specifications.

See PCP or PMDF standards for details and quantity adjustments if either of these options are used.

See IBTS standard for Thickened Slab End details.

All reinforcing steel shall be Grade 60.

Concrete strength f'c = 4000 psi.

Bar laps, where required, shall be as follows: #4 = 1'-5"
#5 = 1'-9"

HL-93 LOADING

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED PROFESSIONAL ENGINEER
8/5/07

Texas Department of Transportation
Bridge Division

170.00' PRESTRESSED CONCRETE BEAM UNIT

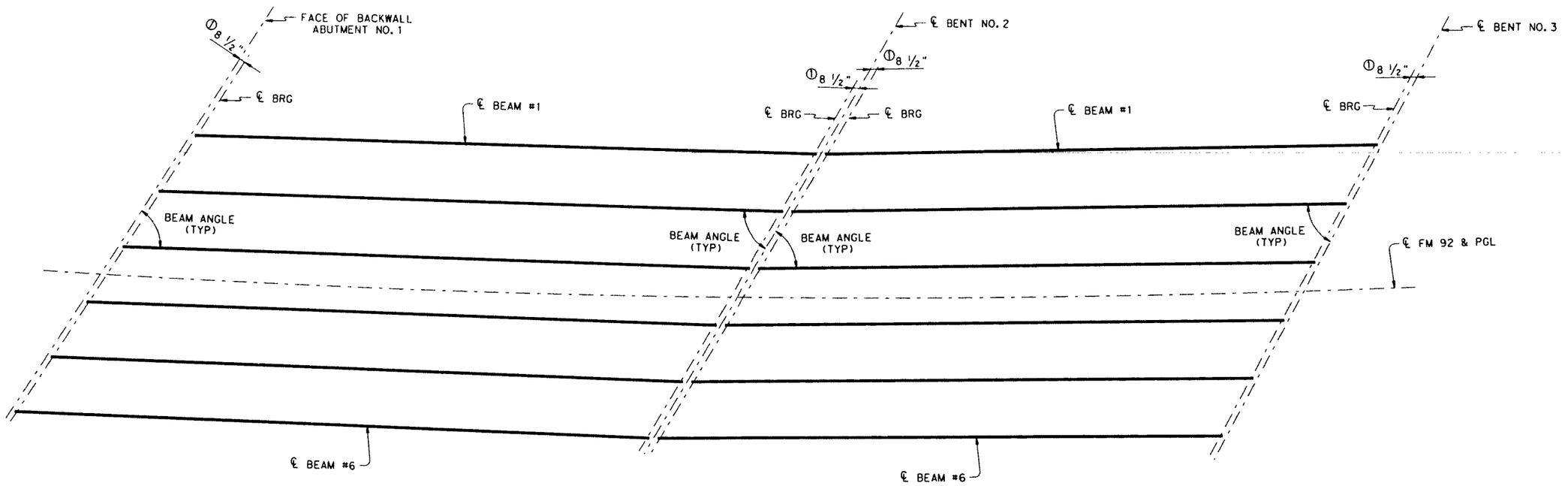
(SPANS 1 & 2)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MFG	CK: TAR
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	20			
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TYLER	1238	02	004	FM 92

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 45 50 62 73 83 94 04 14 24 34 44 54 64 74 84
96 05 15 25 35 45 55 65 75 85 96 06 16 26 36

ACC: M. GESCH



BENT REPORT

ABUT NO. 1 (N 59 2 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 1	BEAM	1	.000	58 17 57
	BEAM	2	9.238	58 26 25
	BEAM	3	9.238	58 34 48
	BEAM	4	9.238	58 43 07
	BEAM	5	9.238	58 51 21
	BEAM	6	9.238	58 59 32
	TOTAL		46.189	

BENT NO. 2 (N 61 44 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 1	BEAM	1	.000	60 59 57
	BEAM	2	9.238	61 08 25
	BEAM	3	9.238	61 16 48
	BEAM	4	9.238	61 25 07
	BEAM	5	9.238	61 33 21
	BEAM	6	9.238	61 41 32
	TOTAL		46.189	
SPAN 2	BEAM	1	.000	58 26 57
	BEAM	2	9.238	58 35 25
	BEAM	3	9.238	58 43 48
	BEAM	4	9.238	58 52 07
	BEAM	5	9.238	59 00 21
	BEAM	6	9.238	59 08 32
	TOTAL		46.189	

BENT NO. 3 (N 64 8 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 2	BEAM	1	.000	60 50 57
	BEAM	2	9.238	60 59 25
	BEAM	3	9.238	61 07 48
	BEAM	4	9.238	61 16 07
	BEAM	5	9.238	61 24 21
	BEAM	6	9.238	61 32 32
	TOTAL		46.189	

BEAM REPORT

BEAM REPORT, SPAN 1

		HORIZONTAL DISTANCE C-C BENT	C-C BRG.	TRUE DISTANCE BOT. BM. FLG. ②	BEAM SLOPE
BEAM	1	89.049	87.508	88.69	-.0087
BEAM	2	89.425	87.886	89.07	-.0090
BEAM	3	89.802	88.263	89.44	-.0093
BEAM	4	90.179	88.641	89.82	-.0096
BEAM	5	90.556	89.020	90.20	-.0099
BEAM	6	90.934	89.399	90.58	-.0102

BEAM REPORT, SPAN 2

		HORIZONTAL DISTANCE C-C BENT	C-C BRG.	TRUE DISTANCE BOT. BM. FLG. ②	BEAM SLOPE
BEAM	1	79.156	77.740	78.82	-.0023
BEAM	2	79.491	78.074	79.16	-.0027
BEAM	3	79.825	78.409	79.49	-.0030
BEAM	4	80.160	78.744	79.83	-.0033
BEAM	5	80.496	79.079	80.16	-.0037
BEAM	6	80.832	79.415	80.50	-.0040

① SEE STANDARD IBEB FOR ORIENTATION OF DIMENSION.

② BEAM LENGTHS SHOWN ARE BOTTOM BEAM FLANGE LENGTHS WITH ADJUSTMENTS MADE FOR BEAM SLOPE.

HL-93 LOADING

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED
PROFESSIONAL ENGINEER
3/5/07

Texas Department of Transportation
Bridge Division

BEAM LAYOUT

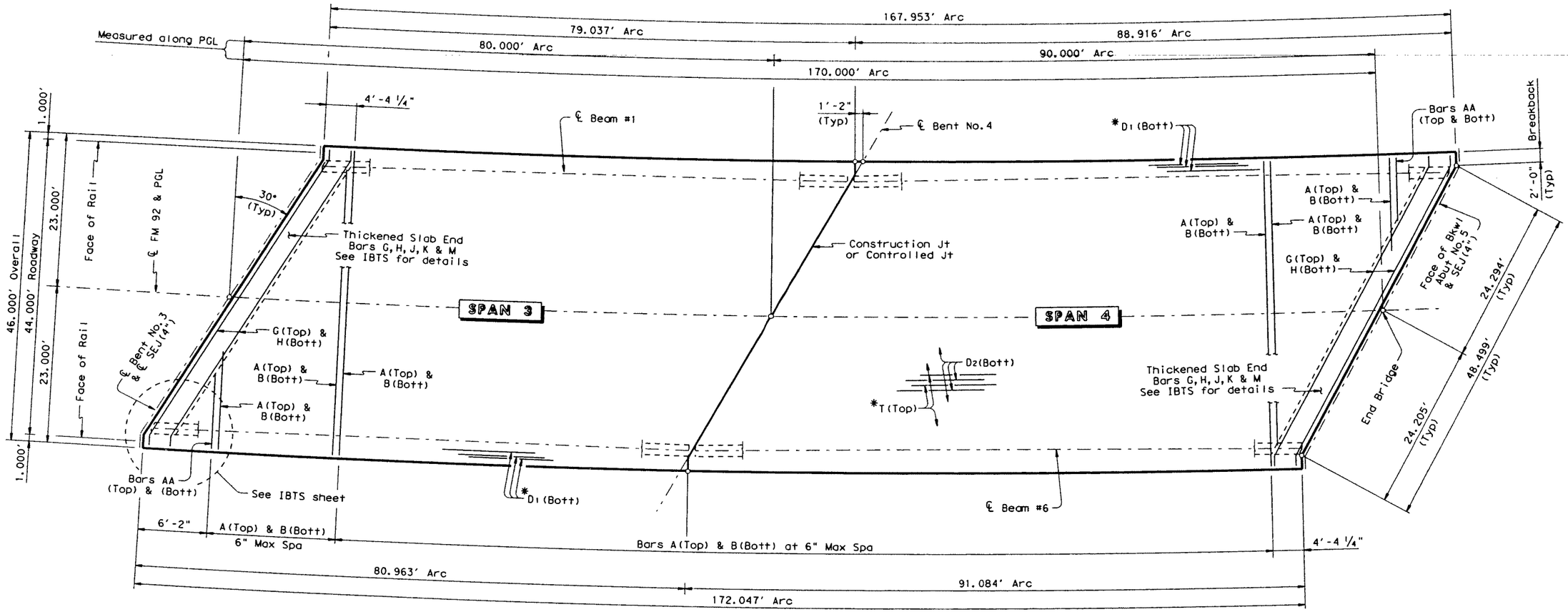
(SPANS 1 & 2)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MFG	CK: TAR
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	20			
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TYLER	1238	02	004	FM 92

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

ACC: M. GESCH



PLAN

*2" End Cover on Bars D1 and T.

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

ACC: M. GESCH

HL-93 LOADING

SHEET 1 OF 2

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED PROFESSIONAL ENGINEER
3/5/07

Texas Department of Transportation
Bridge Division

170.00' PRESTRESSED CONCRETE BEAM UNIT

(SPANS 3 & 4)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MFG	CK: TAR
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	20			
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TYLER	1238	02	004	FM 92

TABLE OF SECTION DEPTHS

Span No.	Beam No.	"X" at ℄ Brg	"Y" at ℄ Brg	"Z" at ℄ Span ③
3	1 & 2	11 ½"	5'-5 ½"	9 ½"
3	3 - 6	11 ½"	5'-5 ½"	9 ⅜"
4	All	1'-0 ¼"	5'-6 ¼"	9 ½"

③ Theoretical dimension

BAR TABLE

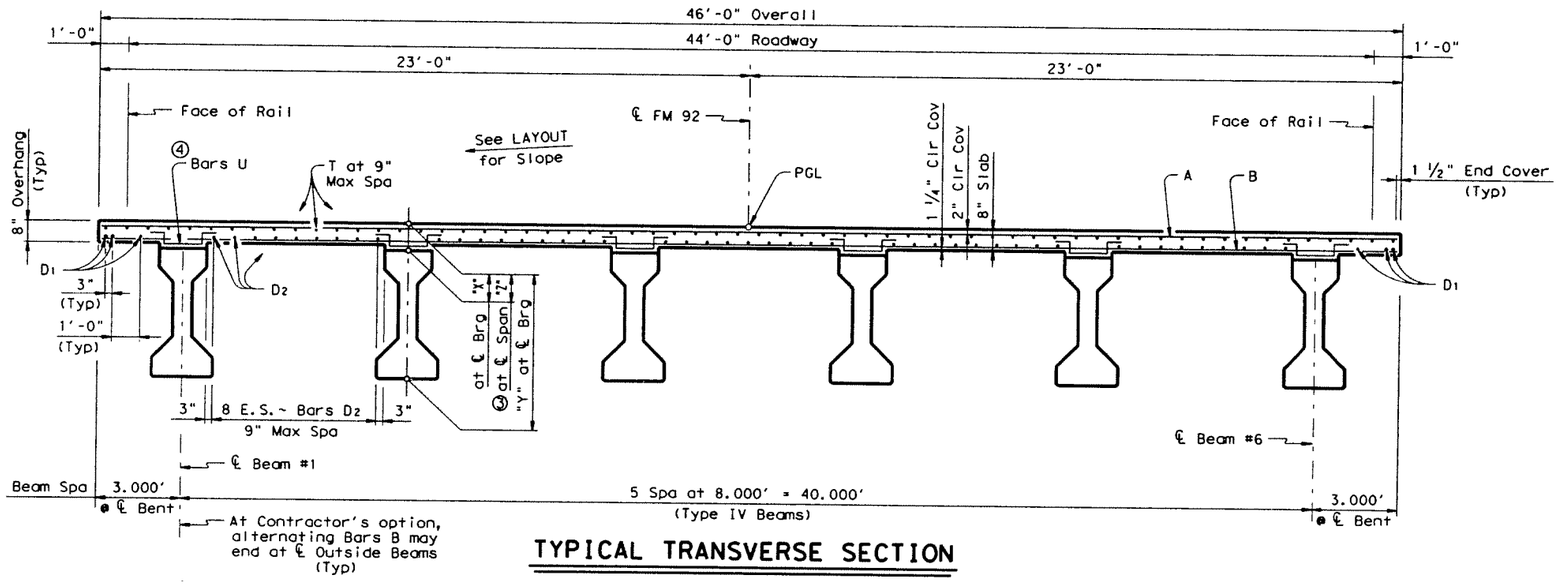
BAR	SIZE
A	#5
B	#5
D	#5
G	#5
H	#5
J	#5
K	#5
M	#5
T	#4
U	#4

TABLE OF ESTIMATED QUANTITIES

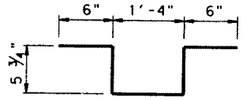
SPAN	REINF CONC SLAB	PRESTRESSED CONC BEAM (Type IV) ②	CLASS "S" CONCRETE	REINFORCING STEEL
NO.	SF	LF	CY	Lb
3	3680	477.96	97.3	23920
4	4140	537.83	110.2	26910
TOTAL	7820	1015.79	207.5	50830 ①

① Reinforcing steel weight is calculated using an approximate factor of 6.5 Lbs per Sq Ft.

② Lengths shown are bottom beam flange lengths with adjustments made for beam slope. See BEAM LAYOUT for beam lenghts.



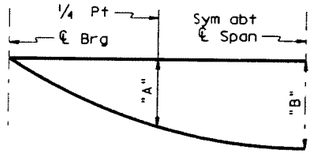
TYPICAL TRANSVERSE SECTION



④ **BARS U**

Bars U shall match Bars R in beam where Haunch exceeds 3".

Span No.	Beam No.	"A" Ft	"B" Ft
3	1	0.032	0.045
3	2	0.033	0.046
3	3	0.033	0.047
3	4	0.034	0.048
3	5	0.035	0.048
3	6	0.035	0.049
4	1	0.052	0.072
4	2	0.053	0.074
4	3	0.053	0.075
4	4	0.054	0.076
4	5	0.055	0.078
4	6	0.056	0.079



DEAD LOAD DEFLECTION DIAGRAM

NOTE: Deflection shown are due to concrete slab only. (E_c = 5 x 10^6psi) Calculated deflections shown are theoretical and actual dimensions may be less. Deflections shall be adjusted based on field observations.

GENERAL NOTES:

Designed according to AASHTO LRFD and current Interim Specifications.

See PCP or PMDF standards for details and quantity adjustments if either of these options are used.

See IBTS standard for Thickened Slab End details.

All reinforcing steel shall be Grade 60.

Concrete strength f'c = 4000 psi.

Bar laps, where required, shall be as follows: #4 = 1'-5"
#5 = 1'-9"

HL-93 LOADING

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED
PROFESSIONAL ENGINEER
3/5/07

Texas Department of Transportation
Bridge Division

170.00' PRESTRESSED CONCRETE BEAM UNIT

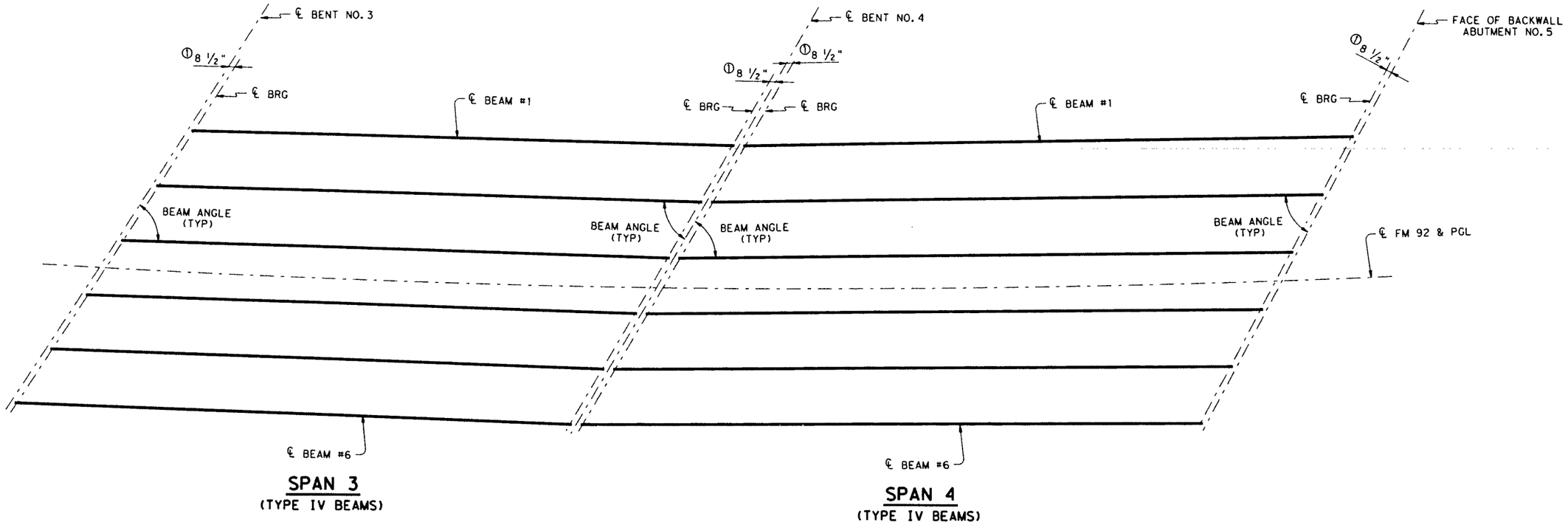
(SPANS 3 & 4)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MFG	CK: TAR
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	20			
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TYLER	1238	02	004	FM 92

ACC: M. GESCH

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 27 31 41 51 61 71 81 92 02 12 22 32 42 52 62 72 82 93 03 13 23 33 43 53 63 73 83 94 04 14 24 34 44 54 64 74 84 95 05 15 25 35 45 55 65 75 85 96 06 16 26 36



BENT REPORT

BENT NO. 3 (N 64 8 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 3	BEAM	1	.000	58 26 57
	BEAM	2	9.238	58 35 25
	BEAM	3	9.238	58 43 48
	BEAM	4	9.238	58 52 07
	BEAM	5	9.238	59 00 21
	BEAM	6	9.238	59 08 32
	TOTAL		46.189	

BENT NO. 4 (N 66 32 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 3	BEAM	1	.000	60 50 57
	BEAM	2	9.238	60 59 25
	BEAM	3	9.238	61 07 48
	BEAM	4	9.238	61 16 07
	BEAM	5	9.238	61 24 21
	BEAM	6	9.238	61 32 32
	TOTAL		46.189	
SPAN 4	BEAM	1	.000	58 17 57
	BEAM	2	9.238	58 26 25
	BEAM	3	9.238	58 34 48
	BEAM	4	9.238	58 43 07
	BEAM	5	9.238	58 51 21
	BEAM	6	9.238	58 59 32
	TOTAL		46.189	

ABUT NO. 5 (N 69 14 50.72 W)
DISTANCE BETWEEN STATION LINE AND BEAM 1 23.135 L

			BEAM SPAC. (C.L. BENT)	BEAM ANGLE D M S
SPAN 4	BEAM	1	.000	60 59 57
	BEAM	2	9.238	61 08 25
	BEAM	3	9.238	61 16 48
	BEAM	4	9.238	61 25 07
	BEAM	5	9.238	61 33 21
	BEAM	6	9.238	61 41 32
	TOTAL		46.189	

BEAM REPORT

BEAM REPORT, SPAN 3

		HORIZONTAL DISTANCE C-C BENT	C-C BRG.	TRUE DISTANCE BOT. BM. FLG. ②	BEAM SLOPE
BEAM	1	79.156	77.740	78.82	.0036
BEAM	2	79.491	78.074	79.16	.0032
BEAM	3	79.825	78.409	79.49	.0029
BEAM	4	80.160	78.744	79.83	.0025
BEAM	5	80.496	79.079	80.16	.0022
BEAM	6	80.832	79.415	80.50	.0019

BEAM REPORT, SPAN 4

		HORIZONTAL DISTANCE C-C BENT	C-C BRG.	TRUE DISTANCE BOT. BM. FLG. ②	BEAM SLOPE
BEAM	1	89.049	87.531	88.70	.0099
BEAM	2	89.425	87.908	89.07	.0095
BEAM	3	89.802	88.286	89.45	.0092
BEAM	4	90.179	88.664	89.83	.0088
BEAM	5	90.556	89.042	90.20	.0084
BEAM	6	90.934	89.421	90.58	.0080

⓵SEE STANDARD IBEB FOR ORIENTATION OF DIMENSION.

② BEAM LENGTHS SHOWN ARE BOTTOM BEAM FLANGE LENGTHS WITH ADJUSTMENTS MADE FOR BEAM SLOPE.

HL-93 LOADING

STATE OF TEXAS
GREGG A. FREEBY
70727
REGISTERED
PROFESSIONAL ENGINEER
3/5/07

Texas Department of Transportation
Bridge Division

BEAM LAYOUT

(SPANS 3 & 4)

PAMPLIN CREEK BRIDGE

FILE: 6841PB01.DGN	DN: TAR	CK: RRC	DW: MEG	CK: TAR		
©TxDOT JUNE 2006	DISTRICT	FEDERAL AID PROJECT			SHEET	
REVISIONS	20					
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TYLER		1238	02	004	FM 92

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

ACC: M. GESCH