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S-5	TYPICAL SECTIONS
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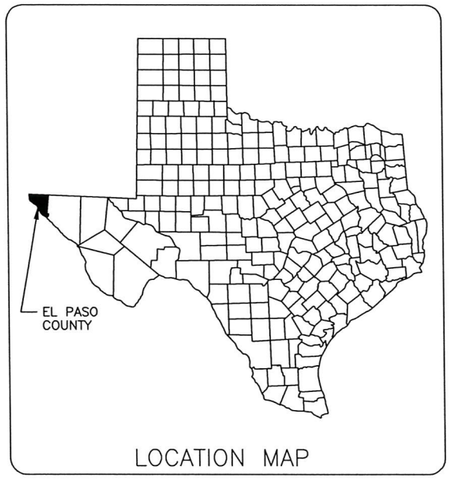
PLANS FOR THE DEMOLITION OF THE UNITED STATES SECTION:

FABENS-CASETA INTERNATIONAL BRIDGE



LOCATION MAP

THE COUNTY OF EL PASO TEXAS

VICINITY MAP

FINAL PLAN DATA:

FINAL CONTRACT PRICE: _____

CONTRACTOR'S NAME: _____

CONTRACTOR'S ADDRESS: _____

LETTING DATE: _____

DATE WORK BEGINS: _____

DATE WORK COMPLETED: _____

DATE OF ACCEPTANCE: _____

STRUCTURAL ENGINEERING
ASSOCIATES, INC.
CONSULTING ENGINEERS
TBPE FIRM REGISTRATION # F-199

Sidney A. Mielke

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED
PROFESSIONAL ENGINEER

09/15/16

TBPE FIRM REG. NO. F-199

GENERAL NOTES:

1 CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PROJECT, PROJECT SITE AND ACCESS TO THE SITE.

a. ALL INFORMATION SHOWN ON THESE PLANS RELATING TO EXISTING BRIDGE CONFIGURATION, DIMENSIONS AND MEMBER SIZES IS FOR GENERAL INFORMATION ONLY.

b. CONTRACTOR SHALL VERIFY ALL EXISTING BRIDGE INFORMATION THAT MAY AFFECT HIS COSTS PRIOR TO SUBMITTING HIS BID.

c. THE COUNTY OF EL PASO ASSUMES NO RESPONSIBILITY FOR THE ACTUAL CONDITION OR THE STRUCTURAL ADEQUACY OF THE EXISTING BRIDGE. THE CONTRACTOR SHALL MAKE OWN DETERMINATION OF THE ACTUAL CONDITION AND STRUCTURAL ADEQUACY OF THE EXISTING BRIDGE.CONTRACTOR SHALL SUBMIT A DEMOLITION PLAN SIGNED AND SEALED BY A TEXAS LICENSED PROFESSIONAL ENGINEER.

d. THE CONTRACTOR IS CAUTIONED THAT THE PROJECT SITE IS WITHIN THE RIO GRANDE RIVER FLOOD PLAIN.

2. THE PROJECT SITE IS WITHIN THE JURISDICTION OF THE INTERNATIONAL BOUNDARY AND WATER COMMISSION (IBWC), THE U.S. COAST GUARD, THE U.S. BORDER PATROL AND OTHER FEDERAL AGENCIES; THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THEIR REQUIREMENTS AND COMPLY WITH THEM. SOME OF THEIR REQUIREMENTS INCLUDE:

a. ALL CONTRACTOR'S EMPLOYEES ARE SUBJECT TO A BACKGROUND SCREENING BY U.S. BORDER PATROL. EMPLOYEES NOT PASSING THE BACKGROUND SCREENING WILL NOT BE ALLOWED TO WORK ON THIS PROJECT SITE.

b. ACCESS TO THE PROJECT SITE IS ONLY THROUGH EXISTING GATES IN THE BORDER FENCE. DIRECT ACCESS IS AVAILABLE AT THE WINGO RESERVE GATE, WHICH IS APPROXIMATELY 2.0 MILES UP STREAM. DIRECT ACCESS AT THE FABENS GATE IS NOT AVAILABLE ON A PUBLIC THOROUGH FARE. CONTRACTOR MAY OBTAIN PERMISSION FROM ADJACENT LAND OWNER TO ACCESS FABENS GATE FROM COUNTY ROAD. ACCESS THROUGH FABENS PORT OF ENTRY (POE) GATE IS NOT PERMITTED.

3. THE PROJECT SITE IS WITHIN THE FLOODPLAIN OF THE RIO GRANDE RIVER. AS SUCH CERTAIN HOUSE KEEPING MEASURES ARE REQUIRED DURING DEMOLITION/CONSTRUCTION.

a. CONTRACTOR SHALL TAKE ADEQUATE MEASURES SO THAT NO DEBRIS WILL BE ALLOWED TO FALL INTO THE LOW FLOW CHANNEL OF THE RIVER.

b. ALL DEBRIS OR MATERIAL REMOVED FROM THE OLD BRIDGE OR LEVEE MUST BE COMPLETELY REMOVED FROM THE BRIDGE SITE AND FLOOD PLAIN, CONTRACTOR WILL NOT BE ALLOWED TO STORE ANY MATERIALS OR DEBRIS IN THE FLOODPLAIN.

c. PIER NO. 8 AND NO. 9 LOCATED WITHIN THE LOW FLOW CHANNEL OF THE RIVER MUST BE REMOVED BELOW THE LOW FLOW CHANNEL BOTTOM OR THE EXISTING FLOOD PLAIN TO THREE (3) FEET BELOW THE LOWEST EXISTING GROUND SURFACE ELEVATION ALONG THE PIER CENTERLINE BETWEEN 10 FEET UPSTREAM AND 10 FEET DOWNSTREAM OF THE EDGE OF THE BRIDGE. ELEVATIONS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND FIELD VERIFIED BY EL PASO COUNTY.

d. ABUTMENT #1, PIERS #2-#7 AND TIMBER RETAINING WALL SHALL BE REMOVED WITHIN THE RIVER FLOODPLAIN TO THREE (3) FEET BELOW THE LOWEST EXISTING GROUND SURFACE ELEVATION ALONG THE PIER CENTERLINE BETWEEN 10 FEET UPSTREAM AND 10 FEET DOWNSTREAM OF THE EDGE OF THE BRIDGE. ELEVATIONS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND FIELD VERIFIED BY EL PASO COUNTY.

e. DEWATERING MAY BE REQUIRED FOR REMOVAL OF STRUCTURES BELOW GROUND SURFACE.

f. DIVERSION OF RIVER WATER FLOW FROM THE PIER AREAS OR FOR RIVER ACCESS IS PROHIBITED.

g. THE CONTRACTOR MUST SUBMIT A DEMOLITION SCHEDULE FOR APPROVAL PRIOR TO COMMENCING WORK.

4. BURNING AT THE PROJECT SITE FOR DISPOSAL OF REFUSE AND DEBRIS WILL NOT BE PERMITTED.

5. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.

6. AREA LIGHTING AND POWER POLE FOR AREA LIGHTING ARE TO BE REMOVED AS A PART OF THIS PROJECT. CONTRACTOR IS REQUIRED TO COORDINATE WITH U.S. BORDER PATROL AND EL PASO ELECTRIC COMPANY TO GET THE LINES DE-ENERGIZED.

7. CONTRACTOR IS REQUIRED TO RE-VEGITATE ALL AREAS WITHIN CONSTRUCTION LIMITS DISTURBED BY CONSTRUCTION OPERATIONS.

SPECIFICATION NOTES:

SCOPE OF WORK
ALL COORDINATION WITH EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO CONTACT ALL UTILITIES TO FIELD LOCATE ALL EXISTING UTILITIES IN THE WORK AREA.

ALL OF THE ITEMS FOR THIS PROJECT UNDER WHICH PAYMENT IS TO BE MADE ARE PLANS QUANTITY MEASUREMENT AND AS SUCH THE QUANTITY TO BE PAID IS THE QUANTITY SHOWN IN THE PROPOSAL. ANY OTHER WORK INDICATED WITHIN THE PLAN SHEETS SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.

ITEM 31 92 00 SEED MIXES USED SHALL BE US IBWC COMPLIANCE APPROVED FOR USE IN EL PASO COUNTY AND BE COMPATIBLE WITH THE TOPSOIL.

ITEM 35 41 00 EXCAVATION (LEVEE)
THIS ITEM SHALL COVER THE EXCAVATION OF ALL MATERIAL, EXCLUDING THE TOPSOIL FOR STOCKPILE, AND INCLUDES BUT IS NOT LIMITED TO EXCESS TOPSOIL, EXCESS LEVEE MATERIAL, EXISTING ROADWAY BASE, AND BENCH EXCAVATION.

ITEM 35 41 00 FILL (IMPERVIOUS MATERIAL)
THIS ITEM SHALL COVER THE PLACEMENT OF FILL MATERIAL TO BRING THE LEVEE CROSS SECTIONS TO THE LINES AND GRADES AS INDICATED WITHIN THE PLANS. USE CLEAN FILL: FILL MATERIAL THAT MEETS OR EXCEEDS THE TCEQ TEXAS RISK REDUCTION PROGRAM (TRRP) RULES (30 TAC SEC. 350.51(m), MEDIAN BACKGROUND CONCENTRATION LEVELS.

PRIOR TO PLACEMENT OF IMPERVIOUS FILL MATERIAL, THE SUBGRADE TO RECEIVE THE FILL MATERIAL SHALL BE SCARIFIED, MOISTURE CONDITIONED AND RE-COMPACTED TO A MINIMUM OF NINETY FIVE PERCENT (95%) OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557. SUBSEQUENT LIFTS OF IMPERVIOUS FILL MATERIAL SHALL BE MOISTURE CONDITIONED AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557

ITEM 35 41 00 TOPSOIL
THIS ITEM SHALL COVER THE PLACEMENT OF STOCKPILED TOPSOIL MATERIAL ON THE LEVEE FRONT SLOPE, IN ACCORDANCE WITH THE FINISHED LINES AND GRADES ON THE PLANS, AND PLACEMENT OF NEW TOPSOIL MATERIAL BROUGHT FROM OFF-SITE SOURCE.

ASTM D5268 REQUIREMENTS FOR TOPSOIL WILL BE AS APPLICABLE FOR THE EL PASO COUNTY GEOGRAPHIC AREA.

ITEM 32 15 ROADWAY BASE (FLEXIBLE BASE)
ROADWAY BASE SHALL BE AGGREGATE ROAD SURFACING MATERIAL MEETING THE SPECIFICATIONS AND AS SHOWN BELOW:

PROPERTY	TEST METHOD	AGGREGATE SURFACING
MASTER GRADATION SIEVE SIZE % PASSING		
1 1/2 IN. 3/8 IN. N0. 4 N0. 40	ASTM D422	0-10 50-85 35-65 15-30
LIQUID LIMIT, % MAX	ASTM D4318	40
PLASTICITY INDEX, MAX. PLASTICITY INDEX, MIN.	ASTM D4318	12 4
SPECIFIC GRAVITY, MIN.	ASTM C127/C128	2.40
LA ABRASION, MAX. LOSS	ASTM C131	20%

BID ITEMS

ITEM NO.	QTY	UNIT	DESCRIPTION	GOV. SPEC.
1	1	LS	PREPARING RIGHT OF WAY	31 11 00
2	240.0	CY	REMOVE/STOCKPILE EXISTING MATERIAL (TOPSOIL)	31 14 00
3	2500.0	CY	EXCAVATION (LEVEE)	35 41 00
4	415.0	CY	FILL (IMPERVIOUS MATERIALS)	35 41 00
5	240.0	CY	TOPSOIL	35 41 00
6	163.0	CY	ROADWAY BASE	32 15 00
7	1	EA	REMOVE OLD STRUCTURE (TIMBER BRIDGE)	
8	13,725.0	SY	SEEDING FOR EROSION CONTROL	32 92 00
9	611.0	LF	TEMPORARY SEDIMENT CONTROL FENCE	01 57 13
10	611.0	LF	TEMPORARY SEDIMENT CONTROL FENCE (REMOVE)	01 57 13
11	78.0	SY	CONSTRUCTION EXIT	01 57 13
12	78.0	SY	CONSTRUCTION EXIT (REMOVE)	01 57 13
13	1	LS	MOBILIZATION	
14	1	LS	DEWATERING	

ALL OF THE ITEMS FOR THIS PROJECT UNDER WHICH PAYMENT IS TO BE MADE ARE PLANS QUANTITY MEASUREMENT AND AS SUCH THE QUANTITY TO BE PAID IS THE QUANTITY SHOWN IN THE PROPOSAL. ANY OTHER WORK INDICTED WITHIN THE PLAN SHEETS SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.

CONSTRUCTION PHASES:

PHASE 1 - DEMOLITION OF BRIDGE:
DEMOLITION AND REMOVAL OF ALL BRIDGE TIMBER PILES, CROSS BRACING, LAGGING, DIAFRAMS, BEAMS, DECKING, SIDEWALK AND PIPE RAILS FROM ABUTMENT NO.1 THROUGH BENT NO.9 AND SPAN NO.9.

PHASE 2 - LEVEE IMPROVEMENTS:
REMOVAL OF TIMBER RETAINING WALL AND LAGGING, TIMBER/STEEL POSTS, CONCRETE BARRIERS, CONCRETE SLABS, CHAIN LINK FENCING AND GATE, SITE LIGHT POLES, EXISTING LEVEE EMBANKMENT/TOPSOIL/ROAD BASE AND OTHER ITEMS. CONSTRUCTION OF LEVEE AND LEVEE ROAD.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER
09/15/16

TBPE FIRM REG. NO. F-199

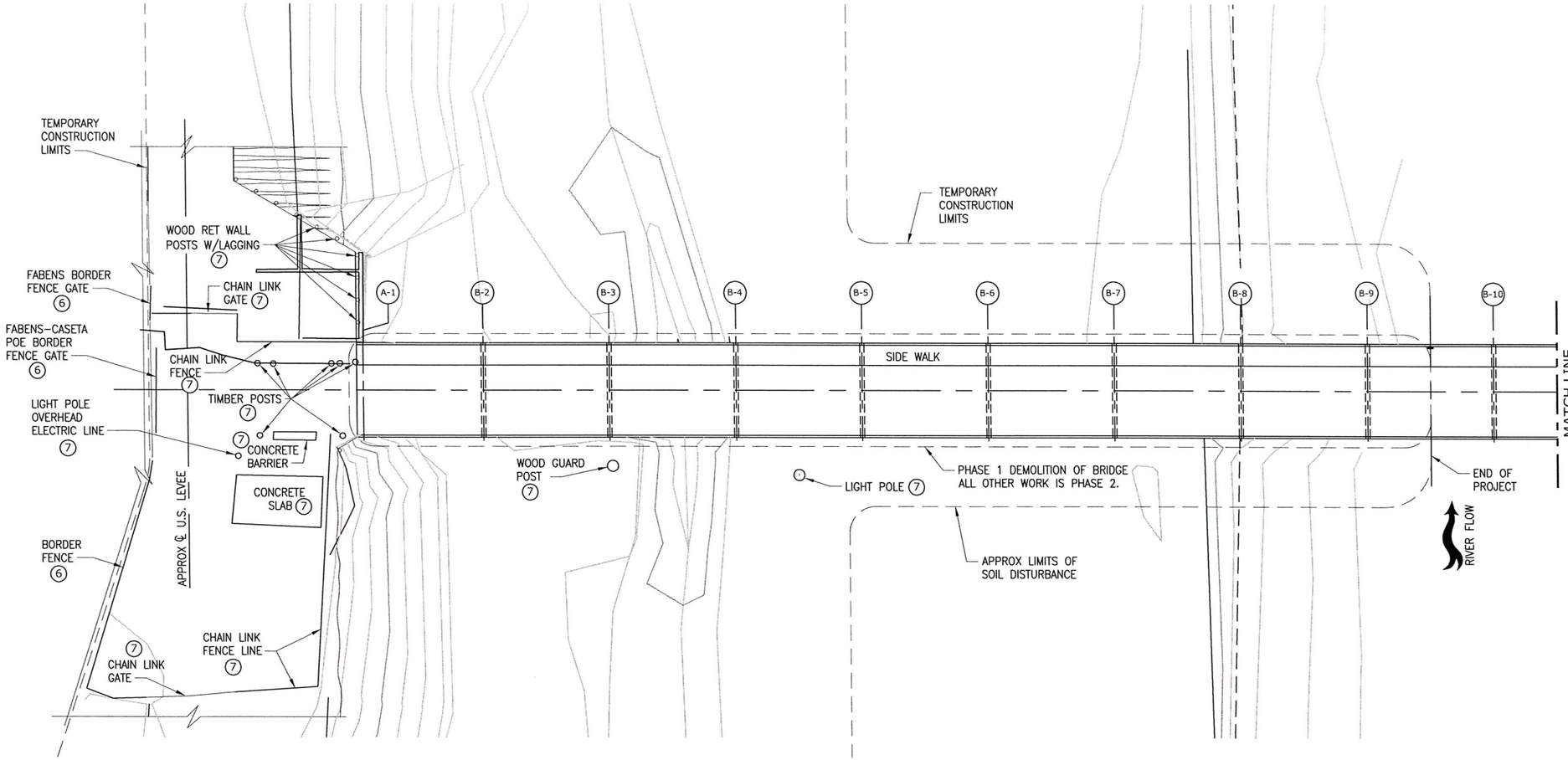
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

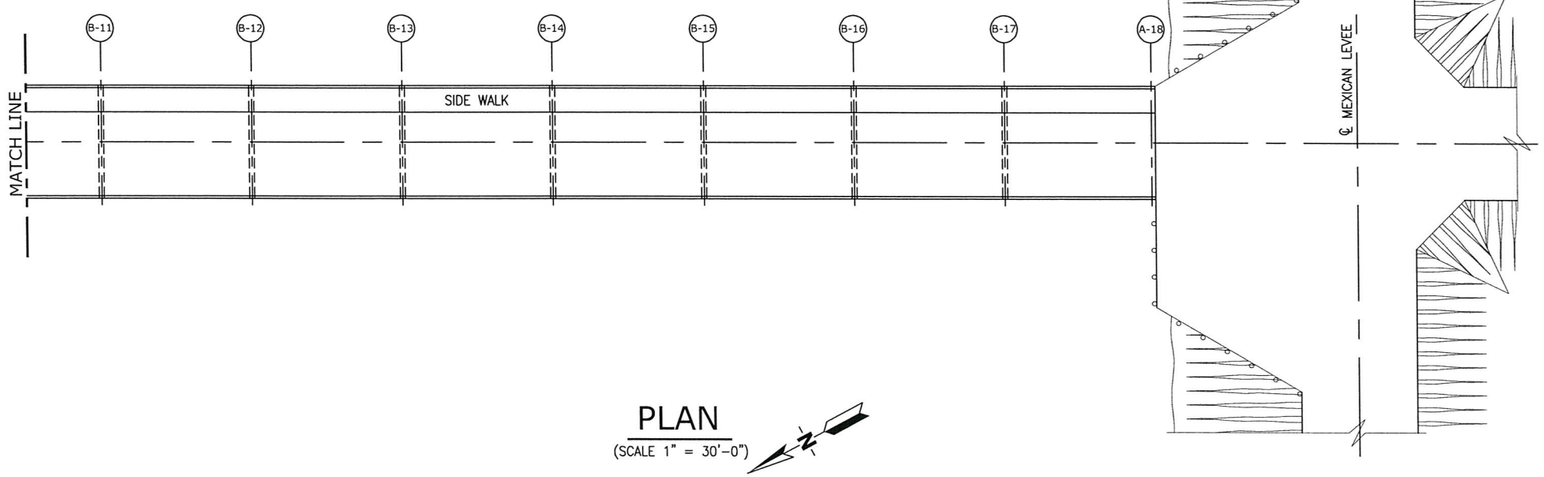
GENERAL NOTES

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-2
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	



GENERAL NOTES:

1. ALL INFORMATION SHOWN ON THESE PLANS RELATING TO EXISTING BRIDGE CONFIGURATION, DIMENSIONS AND MEMBER SIZES IS FOR GENERAL INFORMATION ONLY.
2. CONTRACTOR SHALL VERIFY ALL EXISTING BRIDGE INFORMATION THAT MAY AFFECT HIS COSTS PRIOR TO SUBMITTING HIS BID.
3. THE DEMOLITION OF SPAN 9 SHALL BE SCHEDULED AND COORDINATED WITH MEXICAN AUTHORITIES. CARE SHALL BE TAKEN NOT TO DAMAGE PIER 10 OR SPAN 9, WHEN DEMOLISHING OTHER PORTIONS OF BRIDGE.
4. ALL BRIDGE COMPONENTS, TIMBER RET. WALL & LAGGING TIMBER/STEEL POSTS, CONCRETE BARRIERS, CONCRETE SLABS, CHAIN LINK FENCING & GATE, SITE LIGHTING POLES & ANY OTHER ITEMS NOT SHOWN SHALL BE SUBSIDIARY ITEMS UNDER PAY ITEMS #1 AND #2.
5. ALL EXISTING LEVEE MATERIAL NOT REQUIRED TO MATCH PROPOSED CROSS SECTION SHALL BE EXCAVATED AND REMOVED FROM THE SITE PER GENERAL NOTE 3.b. PAYMENT FOR LEVEE EXCAVATION SHALL BE UNDER PAY ITEM #3.
6. INDICATES ITEMS TO REMAIN IN PLACE ANY DAMAGES TO THESE ITEMS RESULTING FROM OTHER WORK PERFORMED ON THIS PROJECT SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITION.
7. INDICATES ITEMS TO BE REMOVED AS A PART OF THIS PROJECT. PAYMENT FOR REMOVAL OF THESE ITEMS IS CONSIDERED SUBSIDIARY TO EITHER PREPARE R.O.W. OR REMOVE OLD STRUCTURE (TIMBER BRIDGE).
8. USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.



PLAN
(SCALE 1" = 30'-0")

CONSTRUCTION PHASES:

PHASE 1 - DEMOLITION OF BRIDGE

PHASE 2 - LEVEE IMPROVEMENTS

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

Sidney A. Mielke
09/15/16

TBPE FIRM REG. NO. F-199

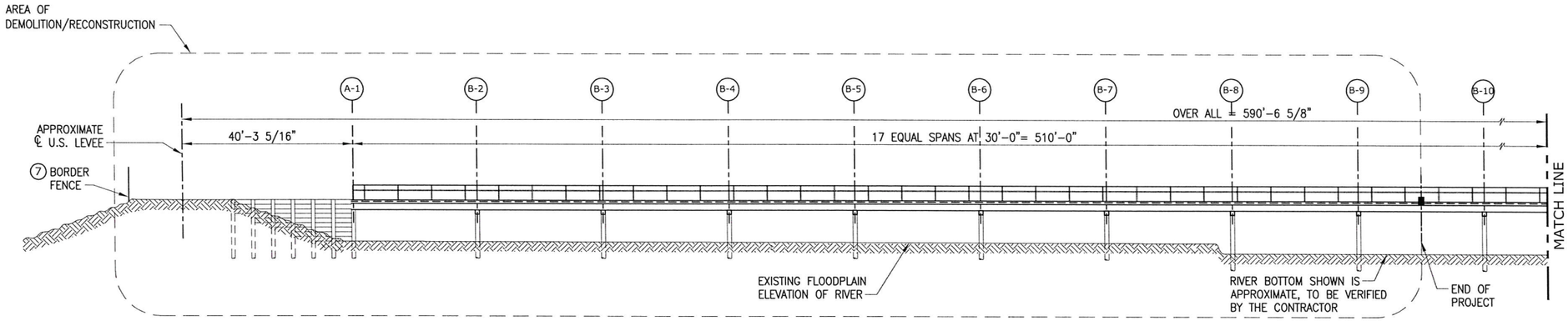
THE COUNTY OF EL PASO

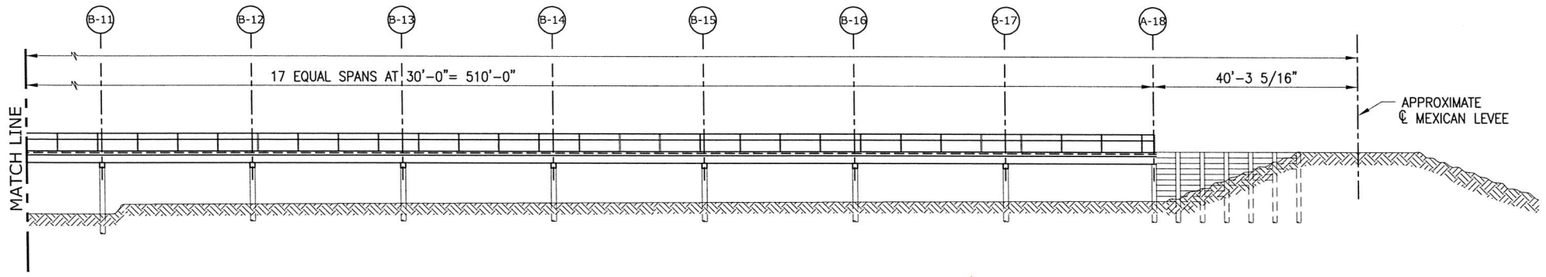
STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

OVERALL PLAN OF BRIDGE

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-3
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	





ELEVATION
(SCALE 1" = 30'–0")

PHASE 1 - DEMOLITION OF BRIDGE

GENERAL NOTES:

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3. THE DEMOLITION OF SPAN 9 SHALL BE SCHEDULED AND COORDINATED WITH MEXICAN AUTHORITIES. CARE SHALL BE TAKEN NOT TO DAMAGE PIER 10 OR SPAN 9, WHEN DEMOLISHING OTHER PORTIONS OF BRIDGE.
4. ALL BRIDGE COMPONENTS, TIMBER RET. WALL & LAGGING TIMBER/STEEL POSTS, CONCRETE BARRIERS, CONCRETE SLABS, CHAIN LINK FENCING & GATE, SITE LIGHTING POLES & ANY OTHER ITEMS NOT SHOWN SHALL BE SUBSIDIARY ITEMS UNDER PAY ITEMS #1 AND #2.
5. ALL EXISTING LEVEE MATERIAL NOT REQUIRED TO MATCH PROPOSED CROSS SECTION SHALL BE EXCAVATED AND REMOVED FROM THE SITE PER GENERAL NOTE 3.b. PAYMENT FOR LEVEE EXCAVATION SHALL BE UNDER PAY ITEM #3.
6. LIGHT POLE, POST, FENCING AND GATES NOT SHOWN FOR CLARITY.
7. BORDER FENCE TO REMAIN IN PLACE ANY DAMAGE TO THE BORDER FENCE RESULTING FROM WORK PERFORMED ON THIS PROJECT SHALL BE REPAIRED AND RESTORED TO ORIGINAL CONDITION.
8. USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

Sidney A. Mielke 09/15/16

TBPE FIRM REG. NO. F-199

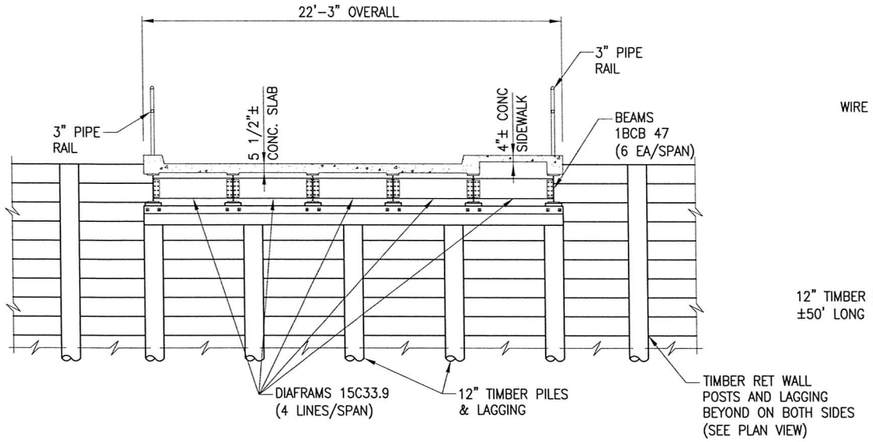
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

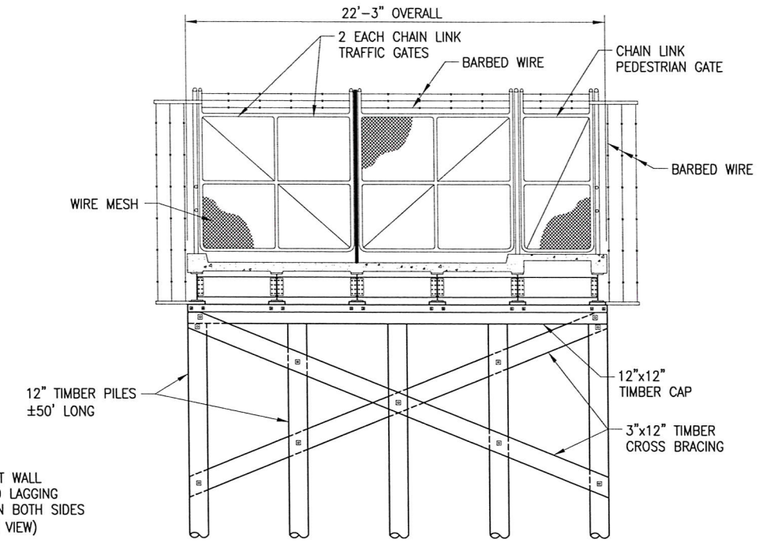
OVERALL ELEVATION
OF BRIDGE

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9–14–16	S–4
DWG. CK. S.A.M.	DESIGN CK. S.A.M.	DRAWING FILE 16–003C	



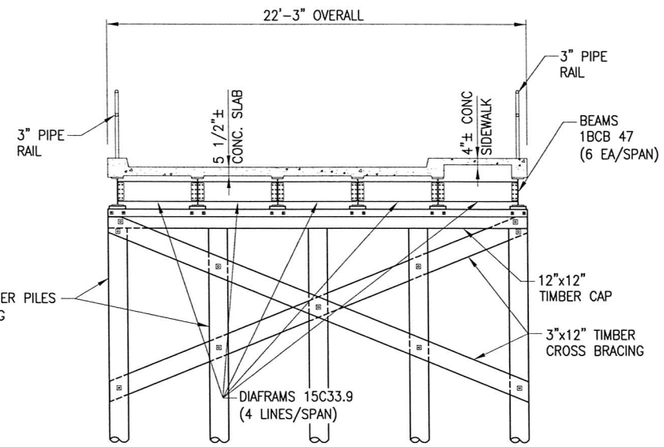
ABUTMENT SECTION

(N.T.S.)



BENT WITH GATE SECTION

(N.T.S.)



TYPICAL BENT SECTION

(N.T.S.)

GENERAL NOTES:

1 PIER NO. 8 AND NO. 9 LOCATED WITHIN THE LOW FLOW CHANNEL OF THE RIVER MUST BE REMOVED BELOW THE LOW FLOW CHANNEL BOTTOM OR THE EXISTING FLOOD PLAIN TO THREE (3) FEET BELOW THE LOWEST EXISTING GROUND SURFACE ELEVATION ALONG THE PIER CENTERLINE BETWEEN 10 FEET UPSTREAM AND 10 FEET DOWNSTREAM OF THE EDGE OF THE BRIDGE. ELEVATIONS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND FIELD VERIFIED BY EL PASO COUNTY.

2. ABUTMENT #1, PIERS #2-#7 AND TIMBER RETAINING WALL SHALL BE REMOVED WITHIN THE RIVER FLOODPLAIN TO THREE (3) FEET BELOW THE LOWEST EXISTING GROUND SURFACE ELEVATION ALONG THE PIER CENTERLINE BETWEEN 10 FEET UPSTREAM AND 10 FEET DOWNSTREAM OF THE EDGE OF THE BRIDGE. ELEVATIONS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND FIELD VERIFIED BY EL PASO COUNTY.

3. DEWATERING MAY BE REQUIRED FOR REMOVAL OF STRUCTURES BELOW GROUND SURFACE.

CONSTRUCTION PHASES:

PHASE 1 - DEMOLITION OF BRIDGE

PHASE 2 - LEVEE IMPROVEMENTS

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER
09/15/16

TBPE FIRM REG. NO. F-199

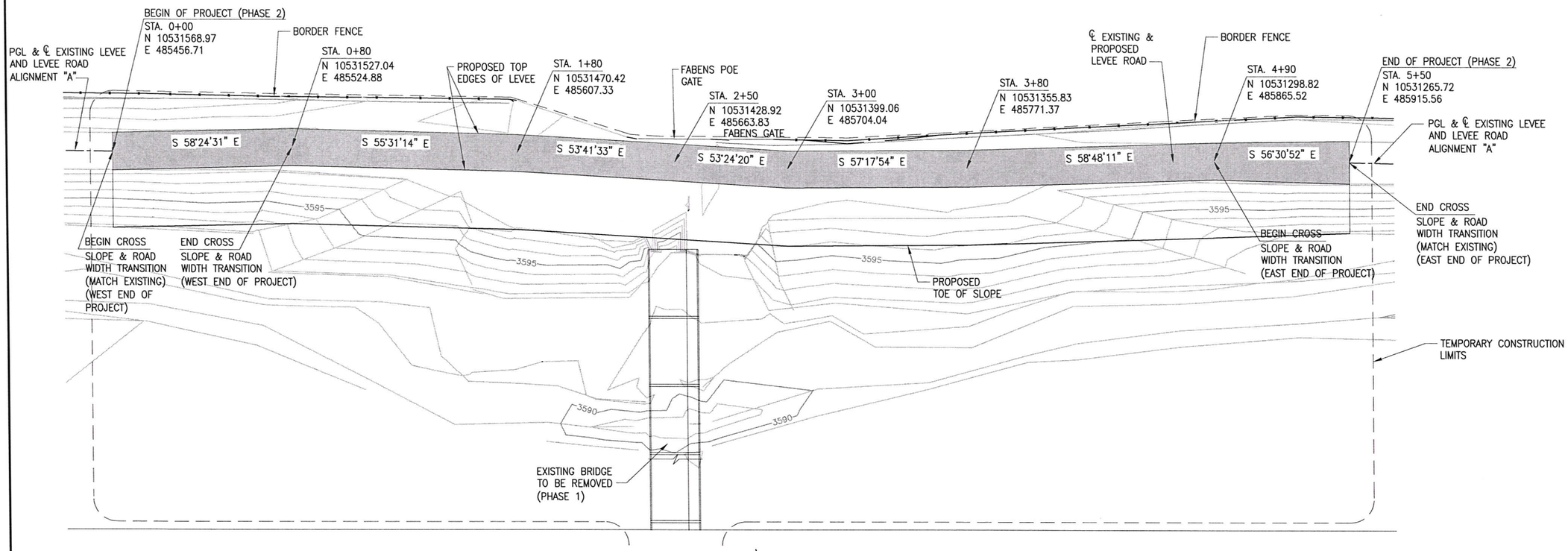
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

TYPICAL SECTIONS

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-5
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	



PLAN

NOTE:

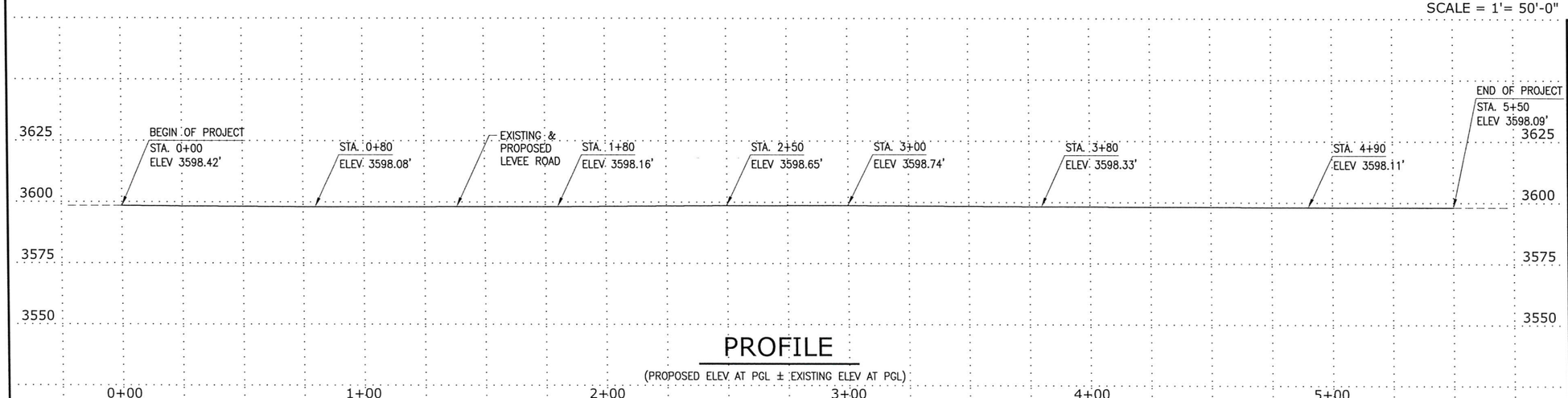
1 USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

CONSTRUCTION PHASES:

PHASE 1 - DEMOLITION OF BRIDGE

PHASE 2 - LEVEE IMPROVEMENTS

SCALE = 1'= 50'-0"



PROFILE

(PROPOSED ELEV. AT PGL ± EXISTING ELEV AT PGL)

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

09/15/16

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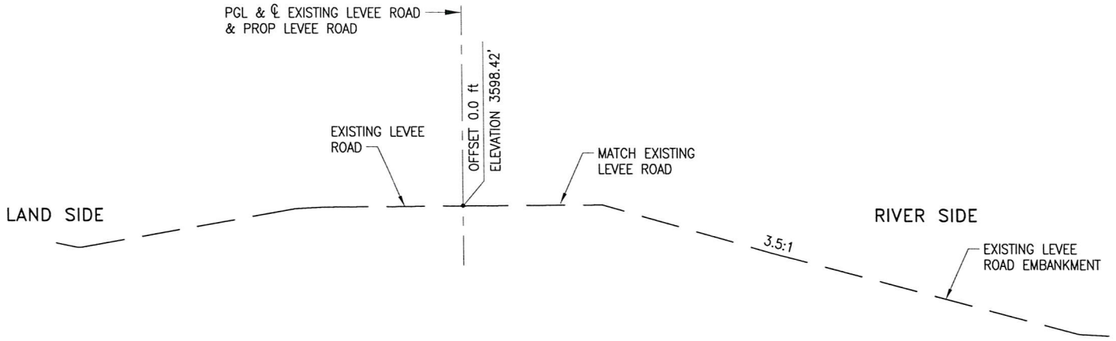
STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

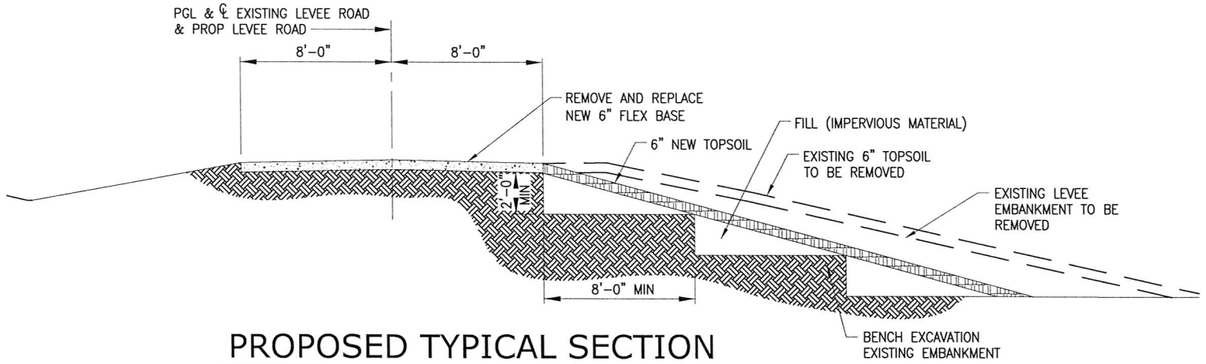
PROPOSED PLAN AND PROFILE
LEVEE ROAD–ALIGNMENT "A"

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9–14–16	S–6
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16–003C	



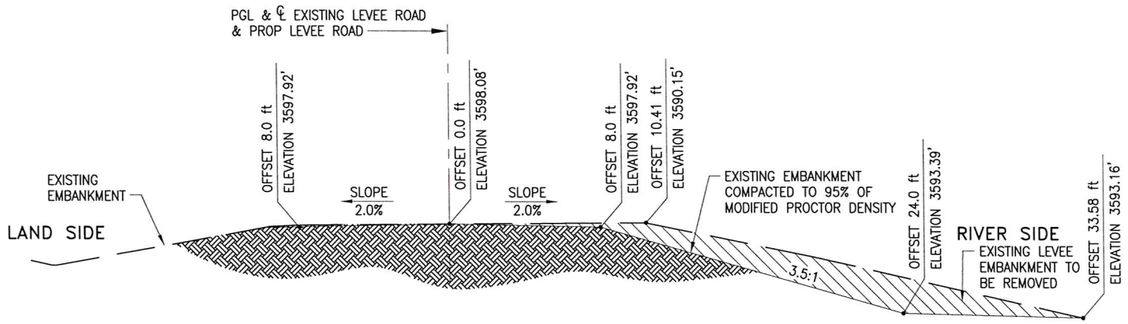
STA. 0+00

(SCALE 1/8" = 1'-0")



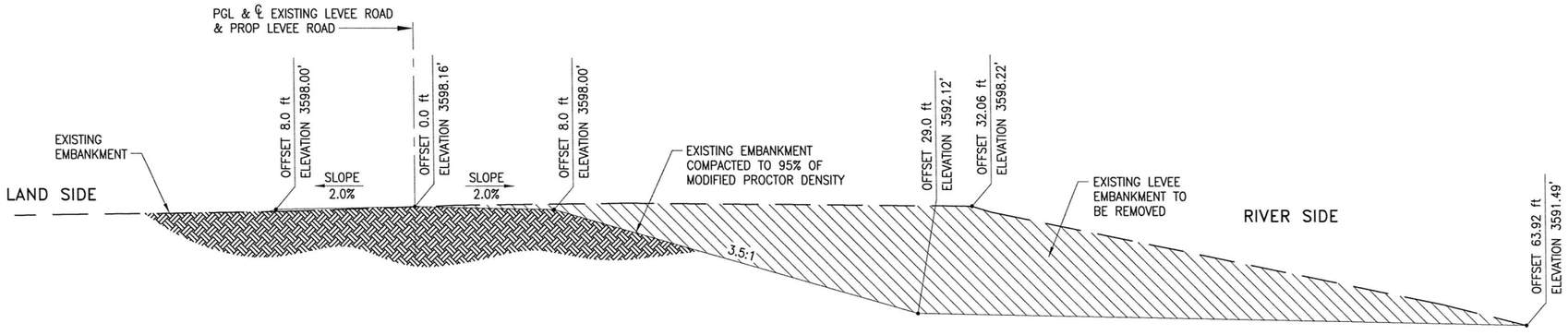
PROPOSED TYPICAL SECTION AT BRIDGE DEMOLITION LIMITS FROM STA 0+00 TO STA 5+50

(SCALE 1/8" = 1'-0")



STA. 0+80

(SCALE 1/8" = 1'-0")



STA. 1+80

(SCALE 1/8" = 1'-0")

NOTE:

1 WHERE TOPSOIL IS CALLED OUT SALVAGED EXISTING TOPSOIL MAY BE UTILIZED PROVIDE THAT IT MEETS THE REQUIREMENTS OF SPECIFICATIONS 31.14.00 SEC. 3.2 AND 35.41.00 SEC. 2.2.

2 USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

3 REFER TO SHEET S-9 FOR REQUIRED VEGETATION-FREE ZONE LIMITS.

Sidney A. Mielke
09/15/16

TBPE FIRM REG. NO. F-199

THE COUNTY OF EL PASO

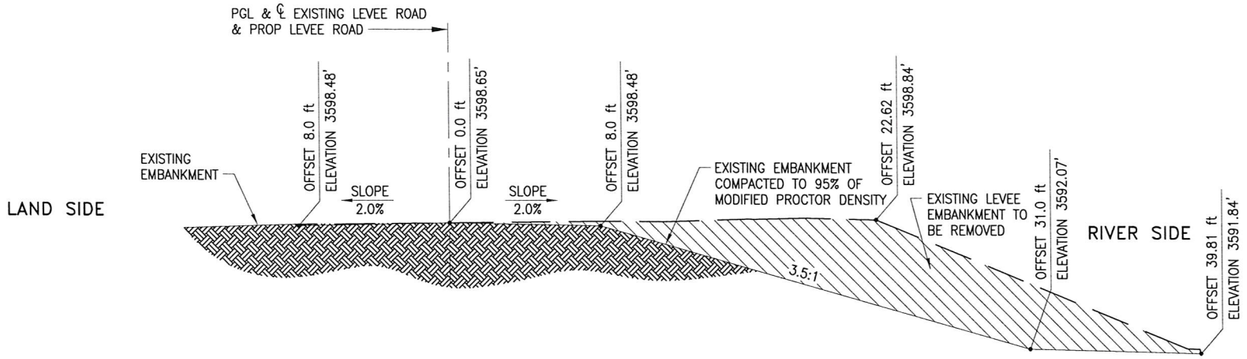
STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

LEVEE ROAD CROSS SECTIONS

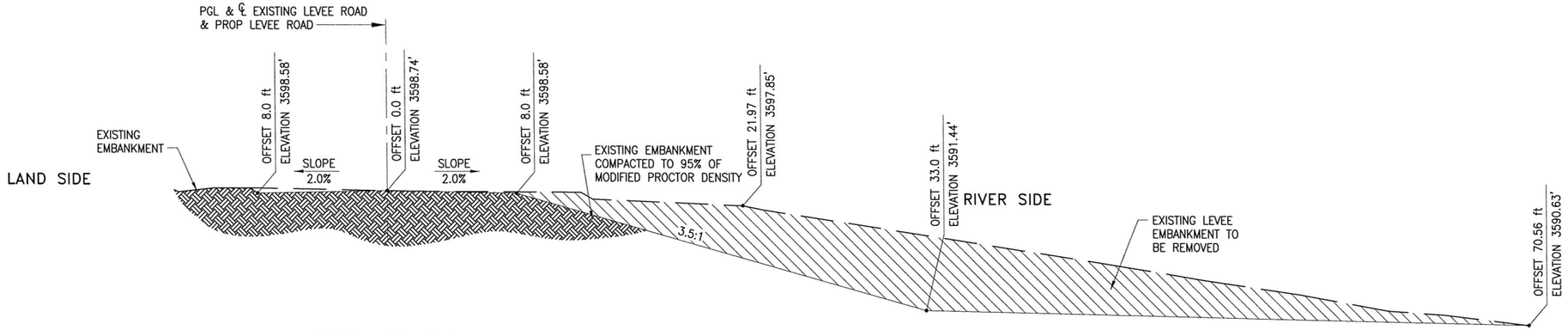
DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-7
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	

PHASE 2 - LEVEE IMPROVEMENTS



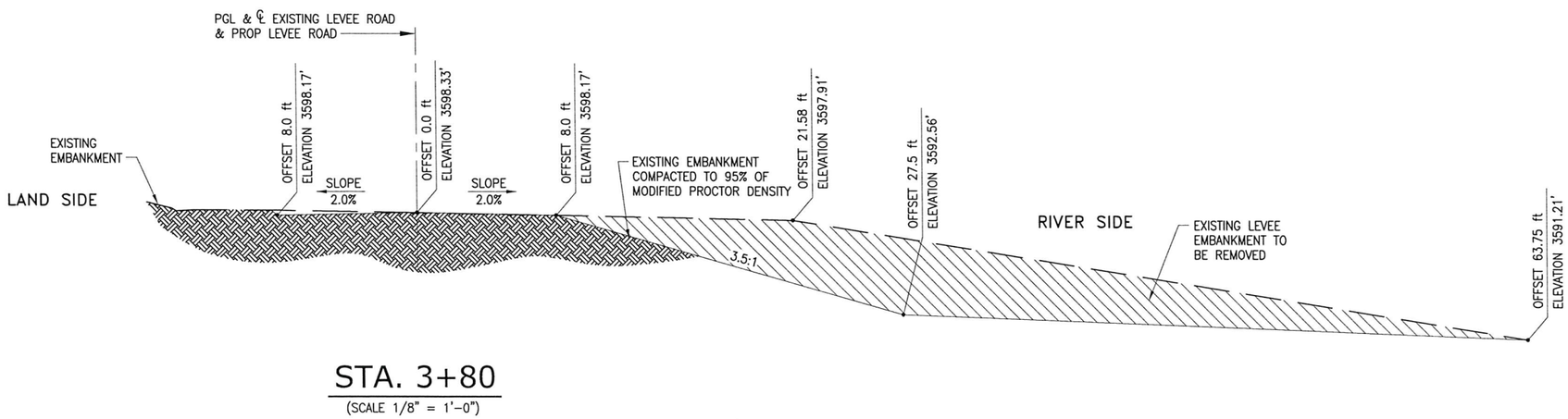
STA. 2+50

(SCALE 1/8" = 1'-0")



STA. 3+00

(SCALE 1/8" = 1'-0")



STA. 3+80

(SCALE 1/8" = 1'-0")

NOTE:

1 WHERE TOPSOIL IS CALLED OUT SALVAGED EXISTING TOPSOIL MAY BE UTILIZED PROVIDE THAT IT MEETS THE REQUIREMENTS OF SPECIFICATIONS 31.14.00 SEC. 3.2 AND 35.41.00 SEC. 2.2.

2 USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

3 REFER TO SHEET S-9 FOR REQUIRED VEGETATION-FREE ZONE LIMITS.

PHASE 2 - LEVEE IMPROVEMENTS

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED
PROFESSIONAL ENGINEER

Sidney A. Mielke
09/15/16

TBPE FIRM REG. NO. F-199

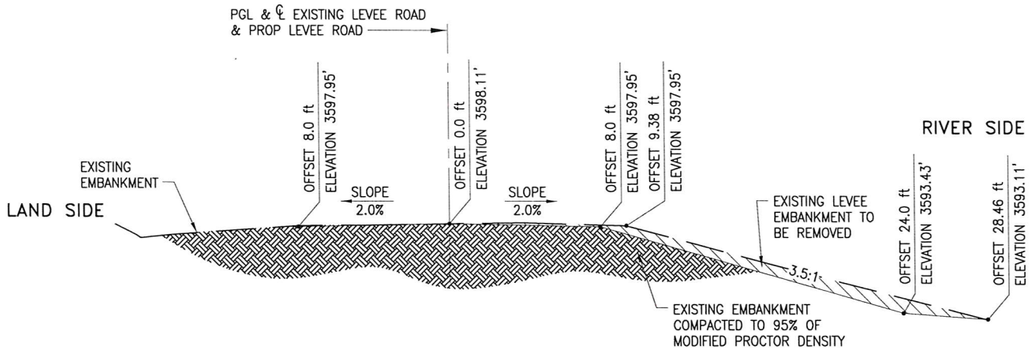
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

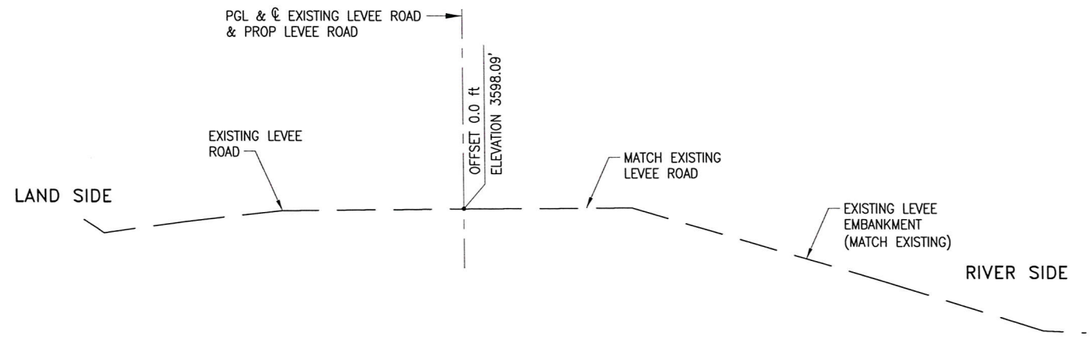
LEVEE ROAD CROSS SECTIONS

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-8
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	



STA. 4+90

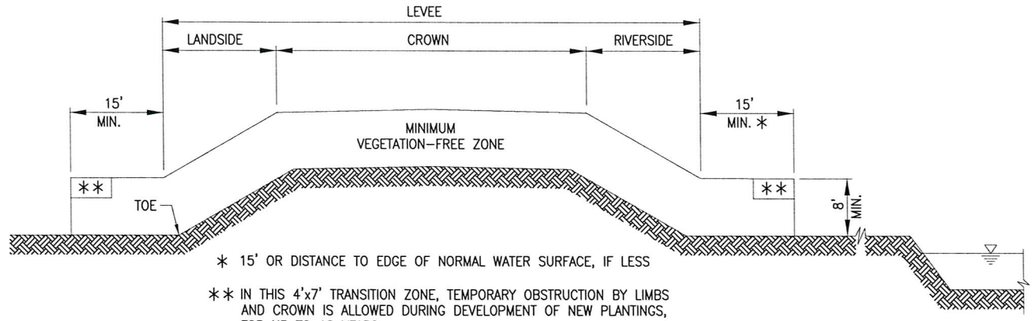
(SCALE 1/8" = 1'-0")



STA. 5+50

(SCALE 1/8" = 1'-0")

PHASE 2 - LEVEE IMPROVEMENTS



∗ 15' OR DISTANCE TO EDGE OF NORMAL WATER SURFACE, IF LESS

∗∗ IN THIS 4'x7' TRANSITION ZONE, TEMPORARY OBSTRUCTION BY LIMBS AND CROWN IS ALLOWED DURING DEVELOPMENT OF NEW PLANTINGS, FOR UP TO 10 YEARS

▽ NORMAL WATER SURFACE

VEGETATION-FREE ZONE TYPICAL

N.T.S.

NOTE:

1 WHERE TOPSOIL IS CALLED OUT SALVAGED EXISTING TOPSOIL MAY BE UTILIZED PROVIDE THAT IT MEETS THE REQUIREMENTS OF SPECIFICATIONS 31.14.00 SEC. 3.2 AND 35.41.00 SEC. 2.2.

2 USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

STATE OF TEXAS
SIDNEY A. MIELKE
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09/15/16

TBPE FIRM REG. NO. F-199

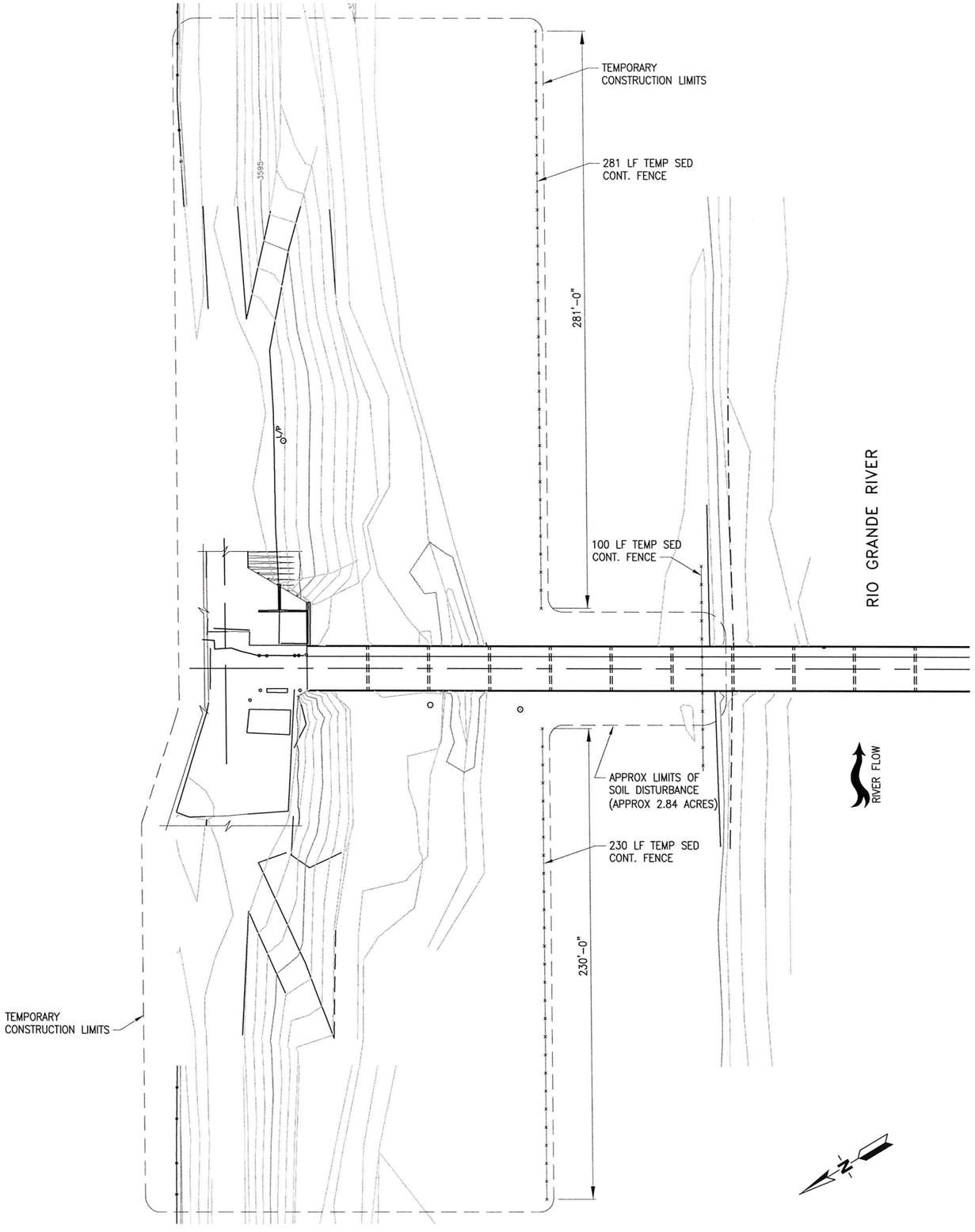
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

LEVEE ROAD CROSS SECTIONS

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-9
DWG. CK. S.A.M.	DESIGN CK. S.A.M.	DRAWING FILE 16-003C	



NOTE:

1 CONTRACTOR MAY NOT STORE AMY MATERIAL IN FLOODPLAIN.

2 TEMPORARY SEDIMENT CONTROL FENCES SHOWN HEREON ARE SUGGESTED BMP'S ONLY AND MAY BE MODIFIED BY THE CONTRACTOR'S SWPPP ENGINEER.

3 USIBWC ROW IS APPROXIMATELY 100 FT NORTH AND 250 FT SOUTH OF LEVEE ROAD CENTERLINE.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

Sidney A. Mielke
09/15/16

TBPE FIRM REG. NO. F-199

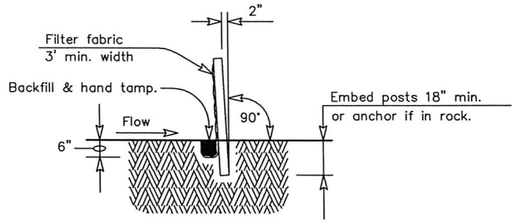
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

STORM WATER POLLUTION
PREVENTION PLAN

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9-14-16	S-10
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16-003C	



SECTION A–A

GENERAL NOTES

1. The guidelines shown hereon are suggestions only and may be modified by the Contractor's SWPPP Engineer.

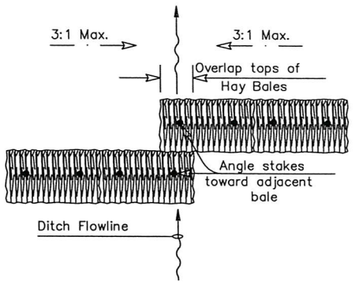
PLAN SHEET LEGEND

Sediment Control Fence — SCF

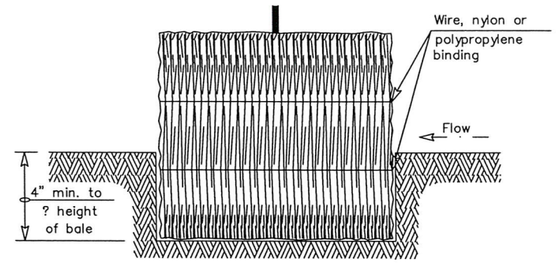
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

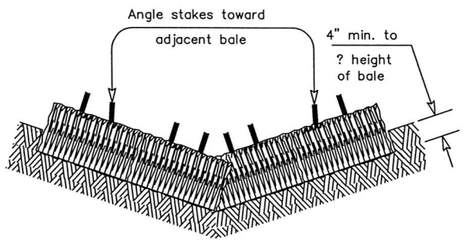
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT^2. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.



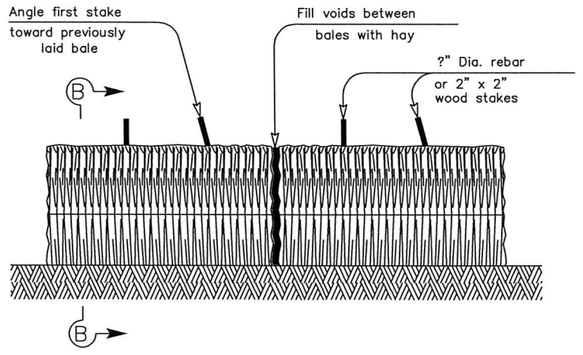
PLAN VIEW



SECTION B–B



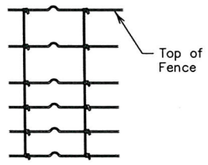
PROFILE VIEW



BALED HAY FOR EROSION CONTROL

BH

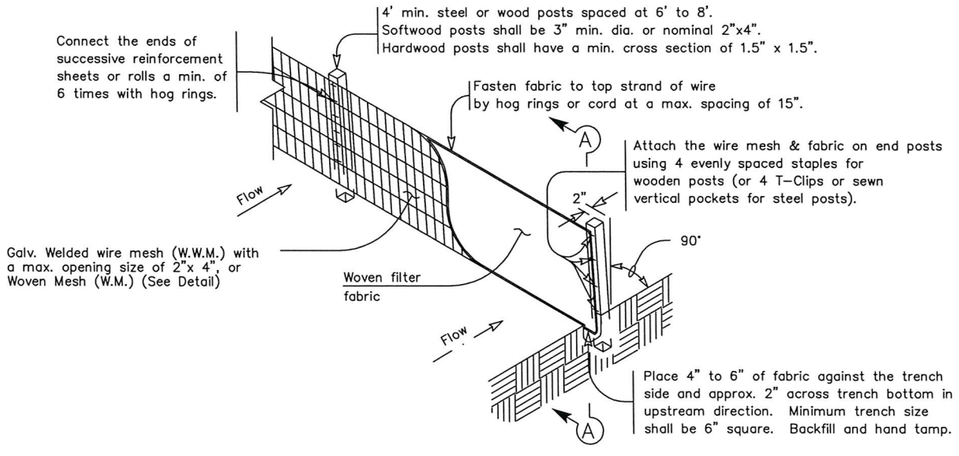
Galv. Hinge joint knot woven mesh (12.5 Ga. Min.) requires a minimum of five horizontal wires spaced at a max.12 inches apart and all vertical wires spaced at a max. 12 inches apart.



Hinge Joint Knot Woven Mesh (Option)

PLANS SHEET LEGEND

Baled Hay — BH



TEMPORARY SEDIMENT CONTROL FENCE

SCF

BALED HAY USAGE GUIDELINES

A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT^2 of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than ? acre.

For Baled Hay installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.

GENERAL NOTES

1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 Lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetative matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible ? the height of the bale.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with ?" Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Contractor's SWPPP Engineer.
7. Refer to Specification Section 01.57.13 Temporary Environmental Controls.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED
PROFESSIONAL ENGINEER

Sidney A. Mielke
09/15/16

TBPE FIRM REG. NO. F-199

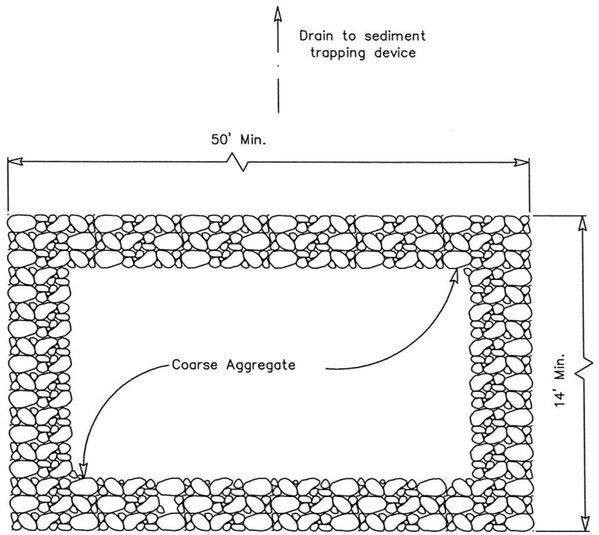
THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

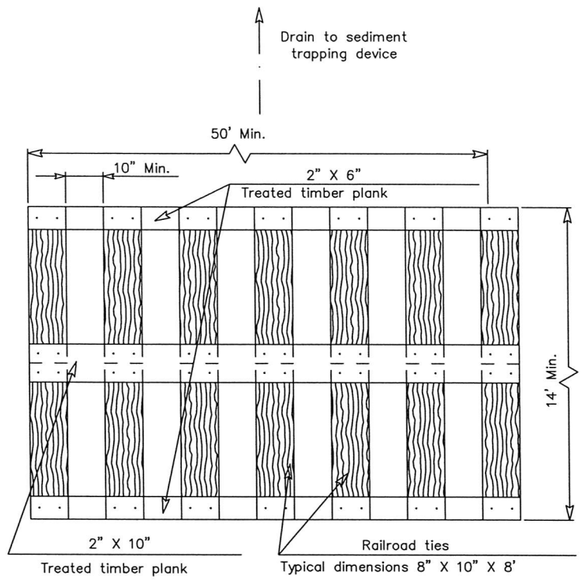
DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES
FENCE & BALED HAY
EC (1)–09

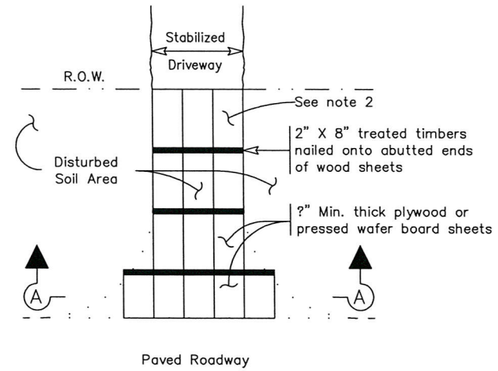
DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9–14–16	S–11
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16–003C	



PLAN

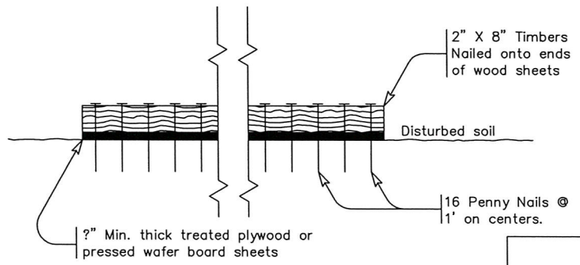


PLAN



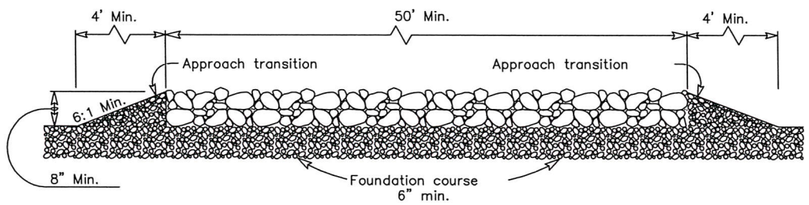
Paved Roadway

PLAN



SECTION A–A

CONSTRUCTION EXIT (TYPE 3)

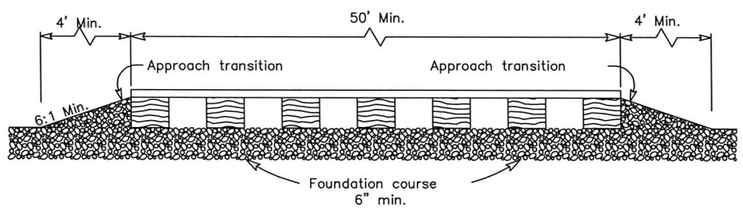


PROFILE

CONSTRUCTION EXIT (TYPE 1)

GENERAL NOTES

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Contractor's SWPPP Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Contractor's SWPPP Engineer.



PROFILE

CONSTRUCTION EXIT (TYPE 2)

GENERAL NOTES

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with ?"x 6" min. lag bolts. Other fasteners may be used as approved by the Contractor's SWPPP Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Contractor's SWPPP Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Contractor's SWPPP Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Contractor's SWPPP Engineer.

GENERAL NOTES

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Contractor's SWPPP Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Contractor's SWPPP Engineer.

NOTE:

1. Refer to Specification Section 01.57.13 Temporary Environmental Controls.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

09/15/16

TBPE FIRM REG. NO. F-199

THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES
CONSTRUCTION EXITS
EC (3)–93

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9–14–16	S–12
DWG. CK. S.A.M.	DESIGN CK. S.A.M.	DRAWING FILE 16–003C	

I. STORMWATER POLLUTION PREVENTION–CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1.

2.

☐ No Action Required ■ Required Action

Action No.

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. Comply with the SW3P and revise when necessary to control pollution or required by the El Paso County Engineer.
3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the El Paso County Engineer.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

☐ No Permit Required

☐ Nationwide Permit 14 – PCN not Required (less than 1/10th acre waters or wetlands affected)

☐ Nationwide Permit 14 – PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)

☐ Individual 404 Permit Required

■ Other Nationwide Permit Required: NWP# 3 (MAINTENCE)

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post–project TSS.

1. RIO GRANDE RIVER

2.

3.

4.

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices:

Erosion	Sedimentation	Post–Construction TSS
■ Temporary Vegetation	■ Silt Fence	■ Vegetative Filter Strips
☐ Blankets/Matting	☐ Rock Berm	☐ Retention/Irrigation Systems
☐ Mulch	☐ Triangular Filter Dike	☐ Extended Detention Basin
☐ Sodding	☐ Sand Bag Berm	☐ Constructed Wetlands
☐ Interceptor Swale	☐ Straw Bale Dike	☐ Wet Basin
☐ Diversion Dike	☐ Brush Berms	☐ Erosion Control Compost
☐ Erosion Control Compost	☐ Erosion Control Compost	☐ Mulch Filter Berm and Socks
☐ Mulch Filter Berm and Socks	☐ Mulch Filter Berm and Socks	☐ Compost Filter Berm and Socks
☐ Compost Filter Berm and Socks	☐ Compost Filter Berm and Socks	☐ Vegetation Lined Ditches
	☐ Stone Outlet Sediment Traps	☐ Sand Filter Systems
	☐ Sediment Basins	☐ Grassy Swales

II. CULTURAL RESOURCES

Refer to Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the El Paso County Engineer immediately.

■ No Action Required ☐ Required Action

Action No.

1.

2.

3.

4.

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical.
Contractor must adhere to Construction Specification Requirements in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

■ No Action Required ☐ Required Action

Action No.

1.

2.

3.

4.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

☐ No Action Required ■ Required Action

Action No.

1. Observe contruction site for presence of Texas horned lizard
2. Terminate construction activities and immediately notify El Paso County if Texas horned lizard is identified.
3. The Western Borrowing Owl has been documented along the levees in the Rio Grande Rectification project.
4. Bird surveys in accordance with the migratory Bird Treaty Act (MBTA) will be required if the project occurs during the months of March through August.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the El Paso County Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the El Paso County Engineer immediately.

LIST OF ABBREVIATIONS

BMP:	Best Management Practice	SPCC:	Spill Prevention Control and Countermeasure
CGP:	Construction General Permit	SW3P:	Storm Water Pollution Prevention Plan
DSHS:	Texas Department of State Health Services	PCN:	Pre–Construction Notification
FHWA:	Federal Highway Administration	PSL:	Project Specific Location
MOA:	Memorandum of Agreement	TCEQ:	Texas Commission on Environmental Quality
MOU:	Memorandum of Understanding	TPDES:	Texas Pollutant Discharge Elimination System
MS4:	Municipal Separate Stormwater Sewer System	TPWD:	Texas Parks and Wildlife Department
MBTA:	Migratory Bird Treaty Act	TxDOT:	Texas Department of Transportation
NOT:	Notice of Termination	T&E:	Threatened and Endangered Species
NWP:	Nationwide Permit	USACE:	U.S. Army Corps of Engineers
NOI:	Notice of Intent	USFWS:	U.S. Fish and Wildlife Service

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used.

Obtain and keep on–site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act.

Maintain an adequate supply of on–site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the El Paso County Engineer if any of the following are detected:

* Dead or distressed vegetation (not identified as normal)
* Trash piles, drums, canister, barrels, etc.
* Undesirable smells or odors
* Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

■ Yes ☐ No

If "No", then no further action is required.
If "Yes", then El Paso County is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

☐ Yes ■ No

If "Yes", then El Paso County must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then El Paso County is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the El Paso County Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

■ No Action Required ☐ Required Action

Action No.

1.

2.

3.

VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)

■ No Action Required ☐ Required Action

Action No.

1.

2.

3.

NOTE:

1. Refer to Specification Section 01.57.13 Temporary Environmental Controls.

STATE OF TEXAS
SIDNEY A. MIELKE
60799
REGISTERED PROFESSIONAL ENGINEER

Sidney A. Mielke
09/05/16

TBPE FIRM REG. NO. F–199

THE COUNTY OF EL PASO

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS

DEMOLITION OF
FABENS CASETA INTERNATIONAL BRIDGE

ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS
EPIC

DWN.	DESIGN	DATE	SHEET NO.
A.M.H.	G.J.S.	9–14–16	S–13
DWG. CK.	DESIGN CK.	DRAWING FILE	
S.A.M.	S.A.M.	16–003C	