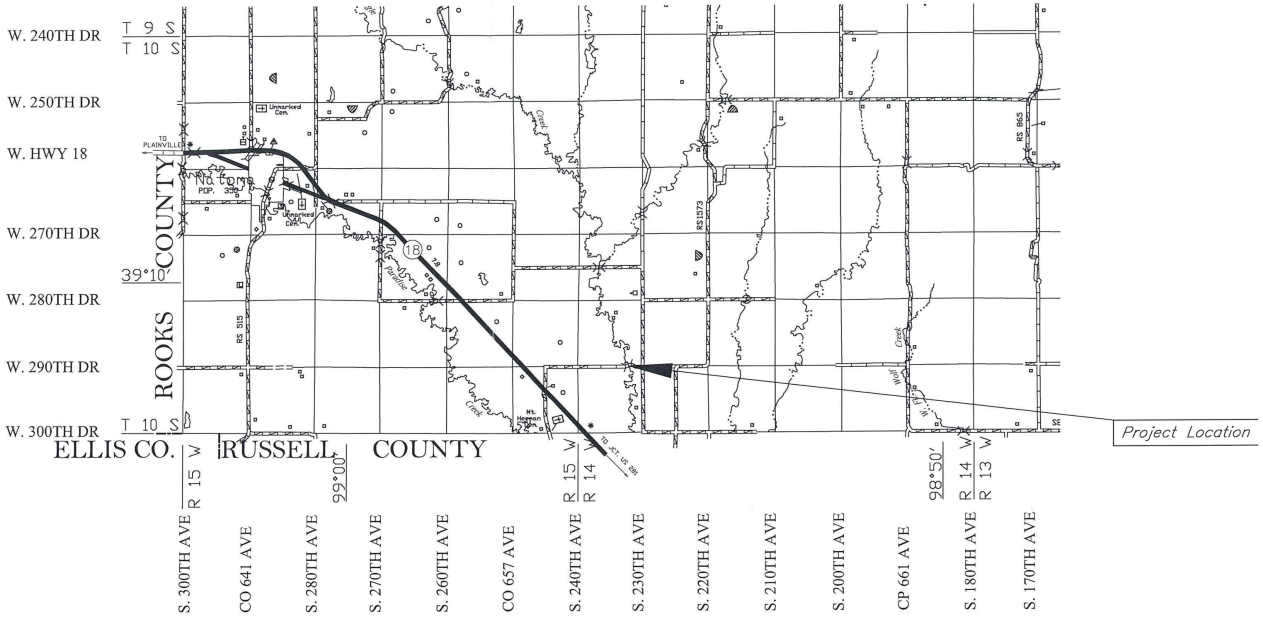
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	DO22023	2022	1	8

OSBORNE COUNTY, KANSAS
BRIDGE REPLACEMENT OFF #30
Project No. DO22023

INDEX OF SHEETS

1	TITLE SHEET
2	PLAN PROFILE
3	LAYOUT
4–6	BRIDGE DETAILS
7–8	CROSS SECTIONS



LOCATION MAP

WATER RESOURCES RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

PLANS PREPARED BY
PENCO ENGINEERING, P.A. PLAINVILLE, KANSAS
PLANS APPROVED BY
Brent French — Date County Road & Bridge Supervisor

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	2	8

Note:
Existing Bridge consists of: steel truss, timber deck, abutments and wing walls.

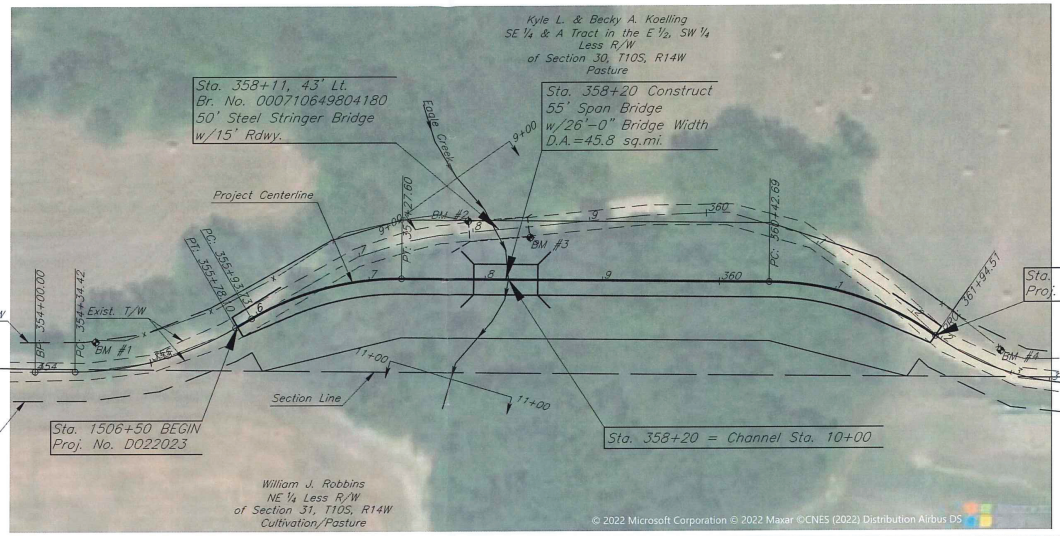
Osborne County shall complete all grading items upon completion of the the bridge.

S ¼ Cor Sec 30, T10S, R14W
1. ⅝" Rebar w/Yellow Plastic Cap stamped "PENCO CLS-42"
2. Metal Fence Post
3. Metal Fence Post
4. Fence Line E-W
5. Inline w/Travelway E-W
6. Sta. 342+20.00
N=297908.70, E=1049374.63

Ref.
0.50' Deep
34.70' SE
31.00' SW
24.45' N

Approx. SE Cor Sec 30, T10S, R14W
1. Inline w/Travelway N-S & E-W
2. Sta. 369+31.41
N=297879.42, E=1051985.87

Ref.



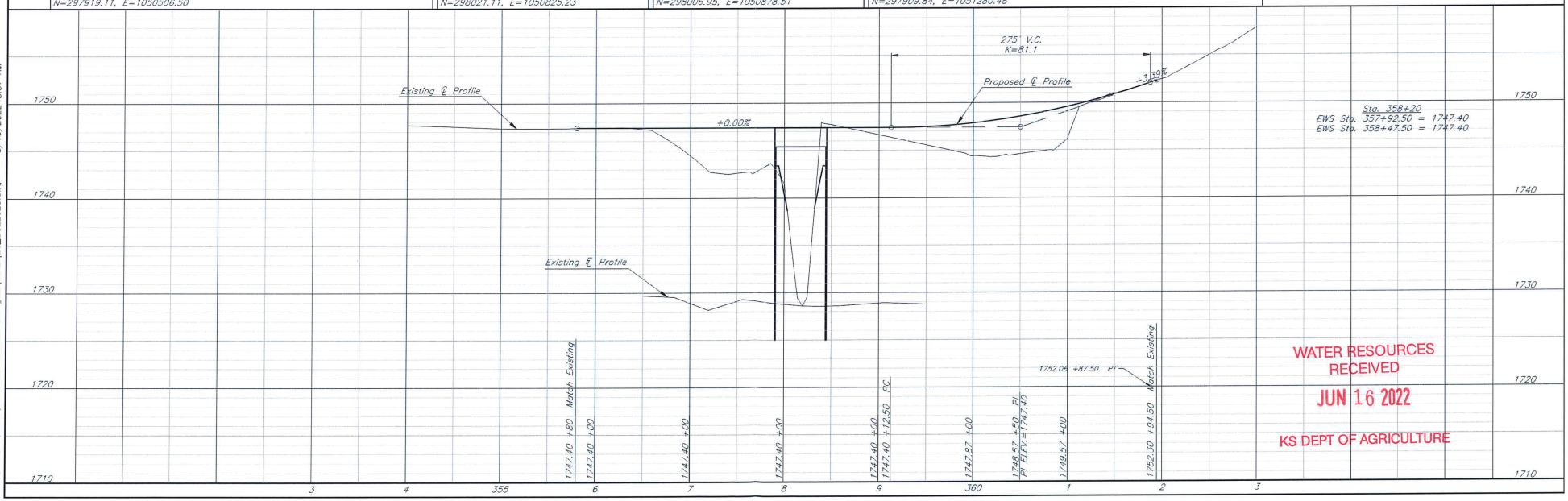
BM #1 ⅝" Rebar w/green "PENCO CONTROL" cap 1' S of Steel Post, 24' Lt. ℄
Sta. 354+54, Elev.=1748.12
N=297919.11, E=1050506.50

BM #2 Mag Nail in NW Wing Pile, 49' Lt. ℄
Sta. 357+85, Elev.=1749.09
N=298021.11, E=1050825.23

BM #3 Mag Nail in SE Wing Pile, 26' Lt. ℄
Sta. 358+38, Elev.=1748.70
N=298006.95, E=1050878.51

BM #4 ⅝" Rebar w/green "PENCO CONTROL" cap 1' S of Wooden Post, 15' Lt. ℄
Sta. 362+52, Elev.=1757.68
N=297909.84, E=1051280.48

PLAN: Lat. & Long. (feet)
PROFILE: Horiz. same as above
Vert. 2



WATER RESOURCES
RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

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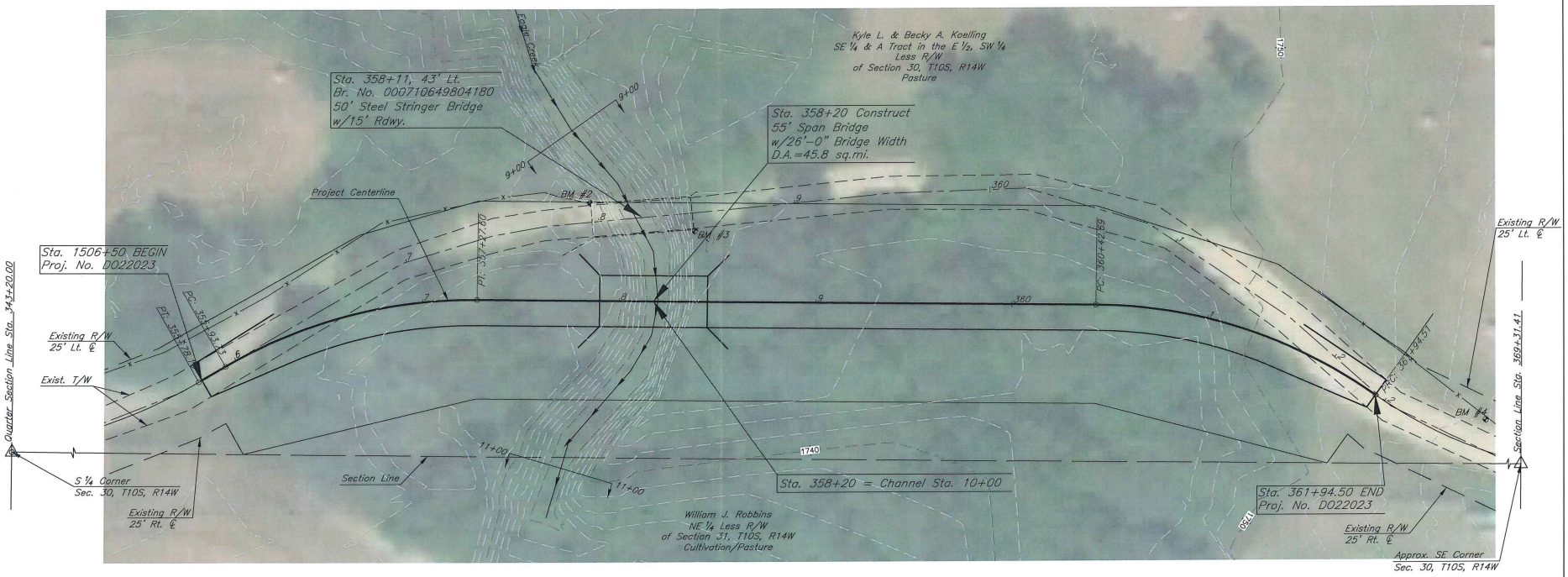
S ¼ Cor Sec 30, T10S, R14W
1. ⅝" Rebar w/Yellow Plastic Cap stamped "PENCO CLS-42" — Ref. 0.50' Deep
2. Metal Fence Post — 34.70' SE
3. Metal Fence Post — 31.00' SW
4. Fence Line E-W — 24.45' N
5. Inline w/Travelway E-W
6. Sta. 342+20.00
N=297908.70, E=1049374.63

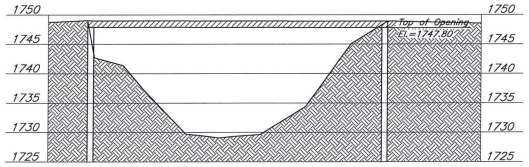
Approx. SE Cor Sec 30, T10S, R14W
1. Inline w/Travelway N-S & E-W
2. Sta. 369+31.41
N=297879.42, E=1051985.87

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	3	8

Note:
Existing Bridge consists of: steel truss, timber deck, abutments and wing walls.

Osborne County shall complete all grading items upon completion of the the bridge.





SKETCH OF EXISTING STRUCTURE
Existing Waterway Opening = 592 sq. ft.
Sta. 358+11, 43' Lt.

WATER RESOURCES RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

0 25 50 100
Graphic Scale in Feet
Scale: 1"= 25' Plan

LAYOUT

PENCO ENGINEERING, P.A.
PLAINVILLE, KS

DESIGNED BY: JGD	SCALE: As Shown
DRAWN BY: MRH	JOB NO.: D022023
CHECKED BY: BRD	DATE: 2022

BM #1 ⅝" Rebar w/green "PENCO CONTROL" cap 1' S of Steel Post, 24' Lt. ℄
Sta. 354+54, Elev.=1748.12
N=297919.11, E=1050506.50

BM #2 Mag Nail in NW Wing Pile, 49' Lt. ℄
Sta. 357+85, Elev.=1749.09
N=298021.11, E=1050825.23

BM #3 Mag Nail in SE Wing Pile, 26' Lt. ℄
Sta. 358+38, Elev.=1748.70
N=298006.95, E=1050878.51

BM #4 ⅝" Rebar w/green "PENCO CONTROL" cap 1' S of Wooden Post, 15' Lt. ℄
Sta. 362+52, Elev.=1757.68
N=297909.84, E=1051280.48

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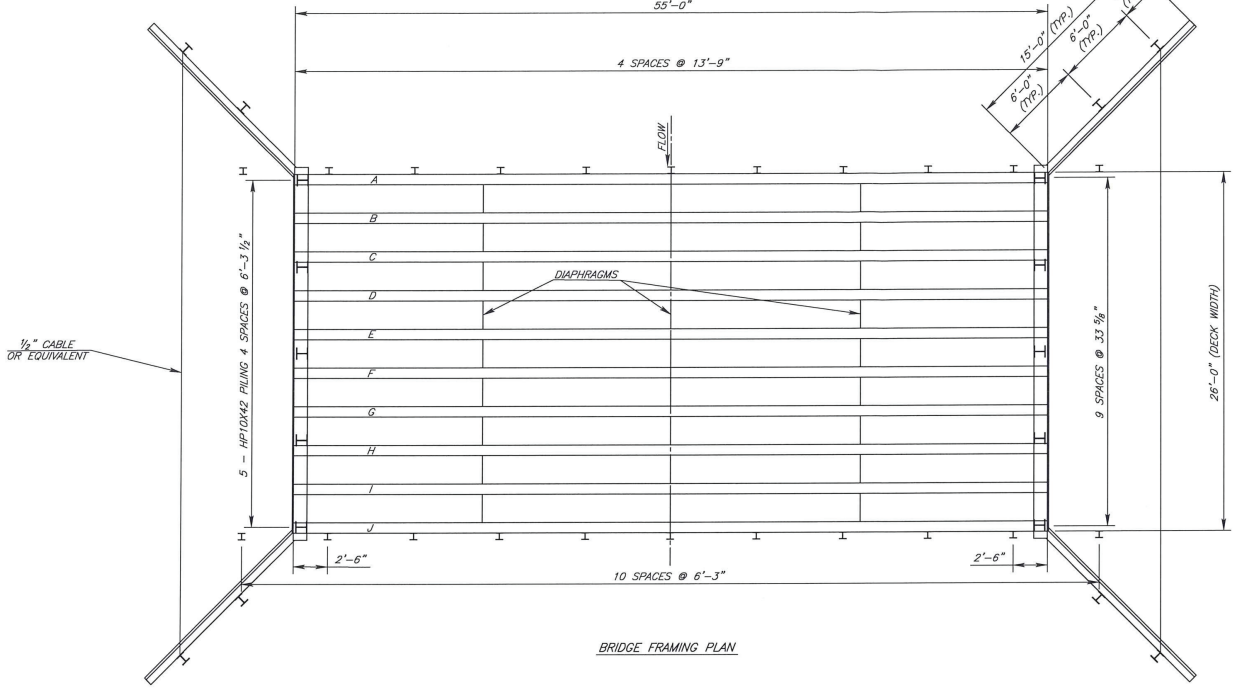
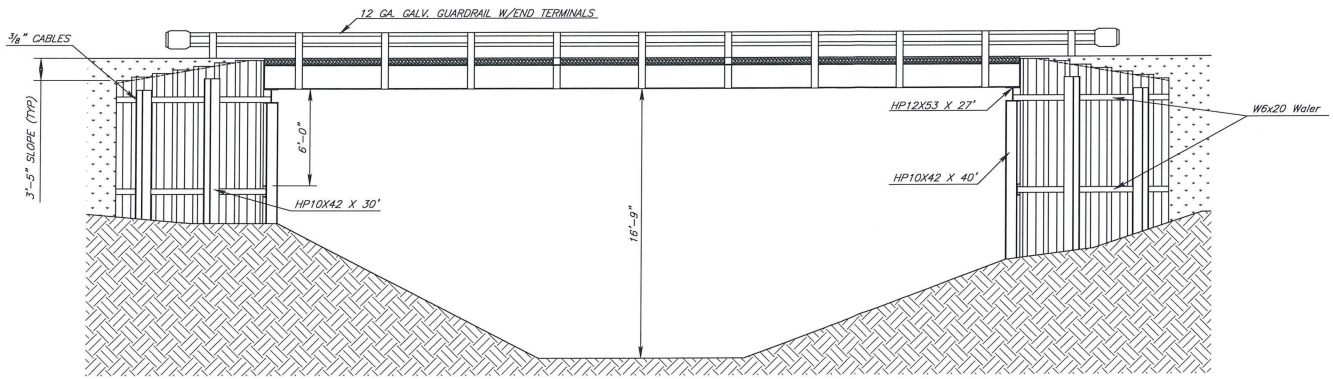
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	DO22023	2022	4	8

OSBORNE COUNTY
OFF #30



BRIDGE FRAMING PLAN



BRIDGE ELEVATION

GENERAL NOTES:

DESIGN SPECIFICATION: AASHTO LRFD Spec. 2007 Ed., 2009 Int.

BRIDGE LOADING: HL93

STEEL: STEEL STRINGERS SHALL CONFORM TO ASTM A588. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36, OR GREATER.

PILING: USE HP PILING SECTION CONFORMING TO ASTM A572, GRADE 50.

RAILING: END TERMINALS, RAILING, POSTS, AND ALL GUARDRAIL HARDWARE SHALL BE GALVANIZED.

Construction Requirements

Osborne County with their own forces and funds shall complete all bridge, grading, and traffic control items as required.

WATER RESOURCES RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

26'-0" X 55'-0"
Steel Stringer Bridge

PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS

DESIGNED BY: JGD	SCALE: As Shown
DRAWN BY: ZFE	PROJ. NO.: DO22023
CHECKED BY: BRD	DATE: 2022

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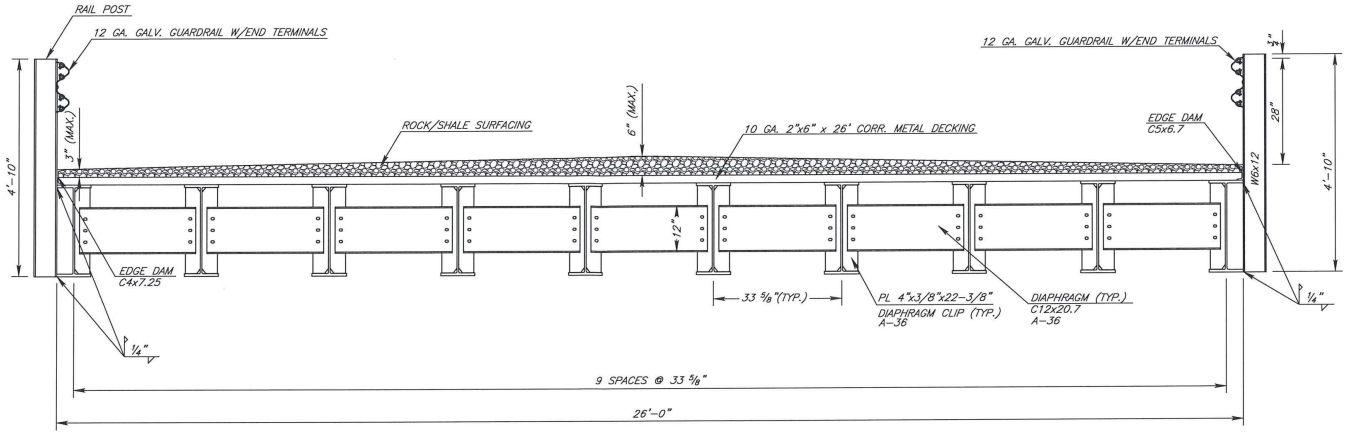
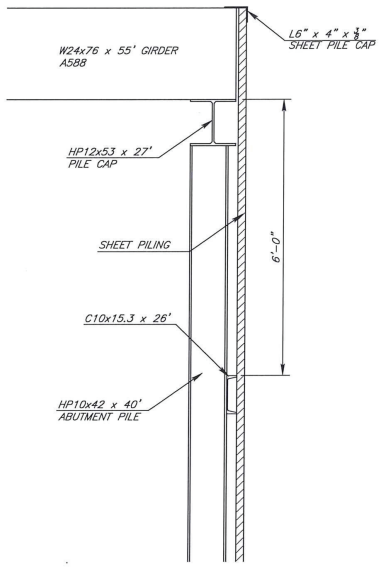
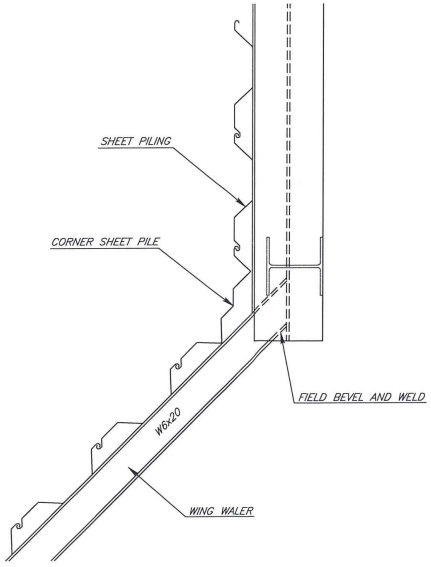
OSBORNE COUNTY
OFF #30

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	5	8





ABUTMENT SECTION



CORNER DETAIL

MATERIAL LIST				
NO.	MATERIAL	LENGTH	DESCRIPTION	REMARKS
10	HP10X42	40'-0"	ABUTMENT PILE	A572
2	HP12X53	27'-0"	PILE CAPS	A572
8	HP10X42	30'-0"	WING PILE	A572
10	W24X76	55'-0"	STRINGERS	A588
28	10 GA. 2" x 6"	26'-0"	CORR. METAL DECKING	
34	SHEET PILING	25'-0"	7-GAUGE GALVANIZED	WEST ABUTMENT
2	SHEET PILING	20'-0"	7-GAUGE GALVANIZED	CORNER (WEST ABUT.)
34	SHEET PILING	30'-0"	7-GAUGE GALVANIZED	EAST ABUTMENT
2	SHEET PILING	30'-0	7-GAUGE GALVANIZED	CORNER (EAST ABUT.)
8	W6x20	16'-0"	WALER	
2	C10X15.3	27'-0	ABUTMENT BACKWALL	
6	C5X6.7	20'-0"	DECK EDGE	
2	L6"x4"x3/8"	26'-0"	SHEET PILE CAP	ANGLE
27	C12X20.7	2'-6-11/16"	DIAPHRAGMS	A36 (OR GREATER)
54	3/8" PL x 4"	1'-10-3/8"	DIAPHRAGM STIFFENERS	A588
36	3/8" PL x 4"	1'-10-3/8"	STIFFENERS	A588 (NO HOLES)
162	5/8" DIA BOLTS	1-3/4"	DIAPHRAGMS	A325
1	1/2" CABLE	100'-0"	WING TIES	OR EQUIVALENT
4	12 GAUGE W BEAM	25'-0"	GUARD RAIL	GALVANIZED
2	12 GAUGE W BEAM	12'-6"	GUARD RAIL	GALVANIZED
4	END TERMINALS	------	GUARD RAIL	GALVANIZED
18	W6X12	4'-10"	GUARD RAIL POSTS	GALVANIZED
4	W6X12	6'-9"	GUARD RAIL POSTS	GALVANIZED
64	BOLTS & NUTS	5/8"X1 1/4"	W BEAM CONNECTIONS	GALVANIZED
22	BOLTS & NUTS	5/8"X2"	POST CONNECTIONS	GALVANIZED

WATER RESOURCES RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

26'-0" X 55'-0"
Steel Stringer Bridge

PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS

DESIGNED BY:	JGD	SCALE:	As Shown
DRAWN BY:	ZFE	PROJ. NO.:	D022023
CHECKED BY:	BRD	DATE:	2022

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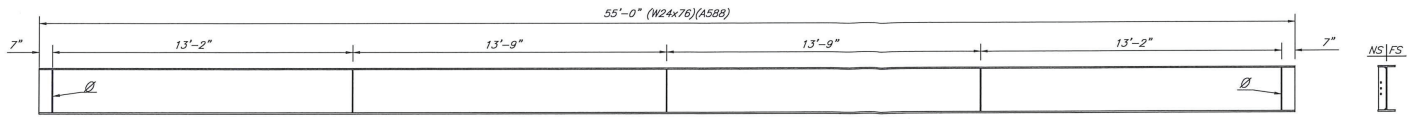
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	6	8

OSBORNE COUNTY
OFF #30



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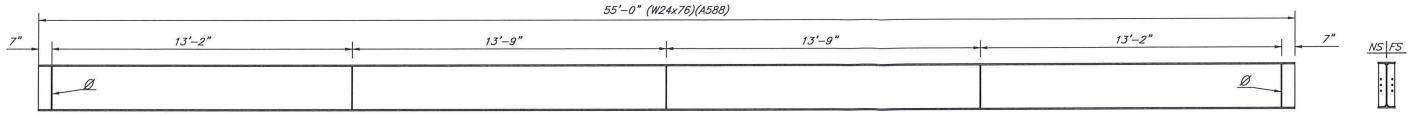
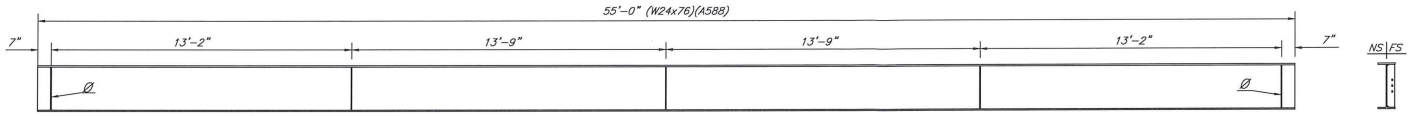
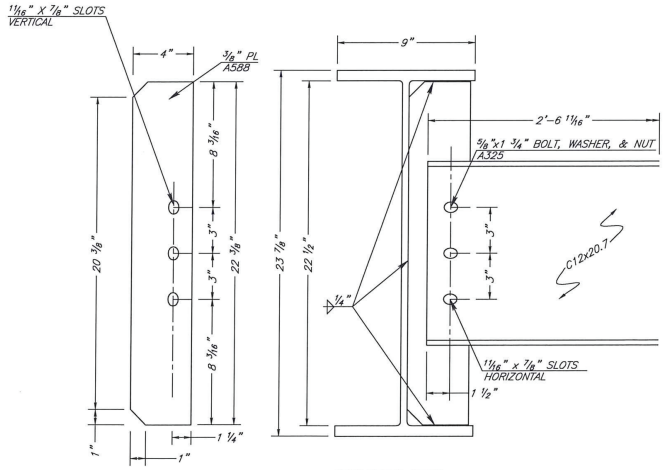


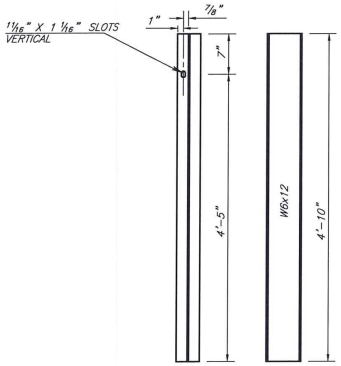
8 REQ'D GIRDER B, C, D, E, F, G, H, & I



1 REQ'D GIRDER J



DIAPHRAGM DETAIL



18 REQ'D RAIL POST GALV.
4 @ 6' 9" ENDS

WATER RESOURCES RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

Ø Note: Bearing stiffener only, holes not required.

26'-0" X 55'-0"
Steel Stringer Bridge

PENCO ENGINEERING, P.A.
PLAINVILLE, KANSAS

DESIGNED BY: JGD	SCALE: As Shown
DRAWN BY: ZFE	PROJ. NO.: D022023
CHECKED BY: BRD	DATE: 2022

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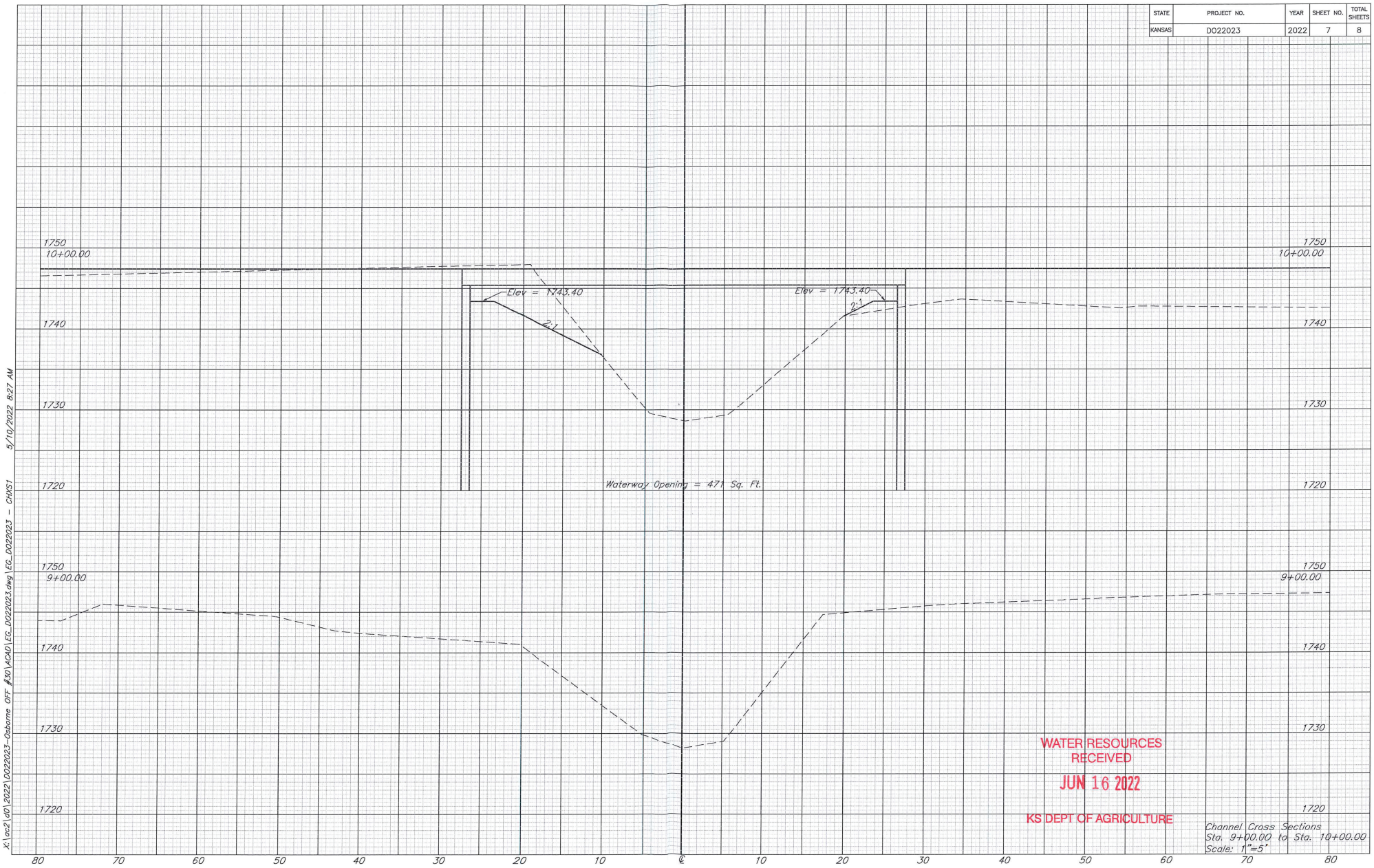
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	7	8



Channel Cross Sections
Sta. 9+00.00 to Sta. 10+00.00
Scale: 1"=5'

WATER RESOURCES
RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

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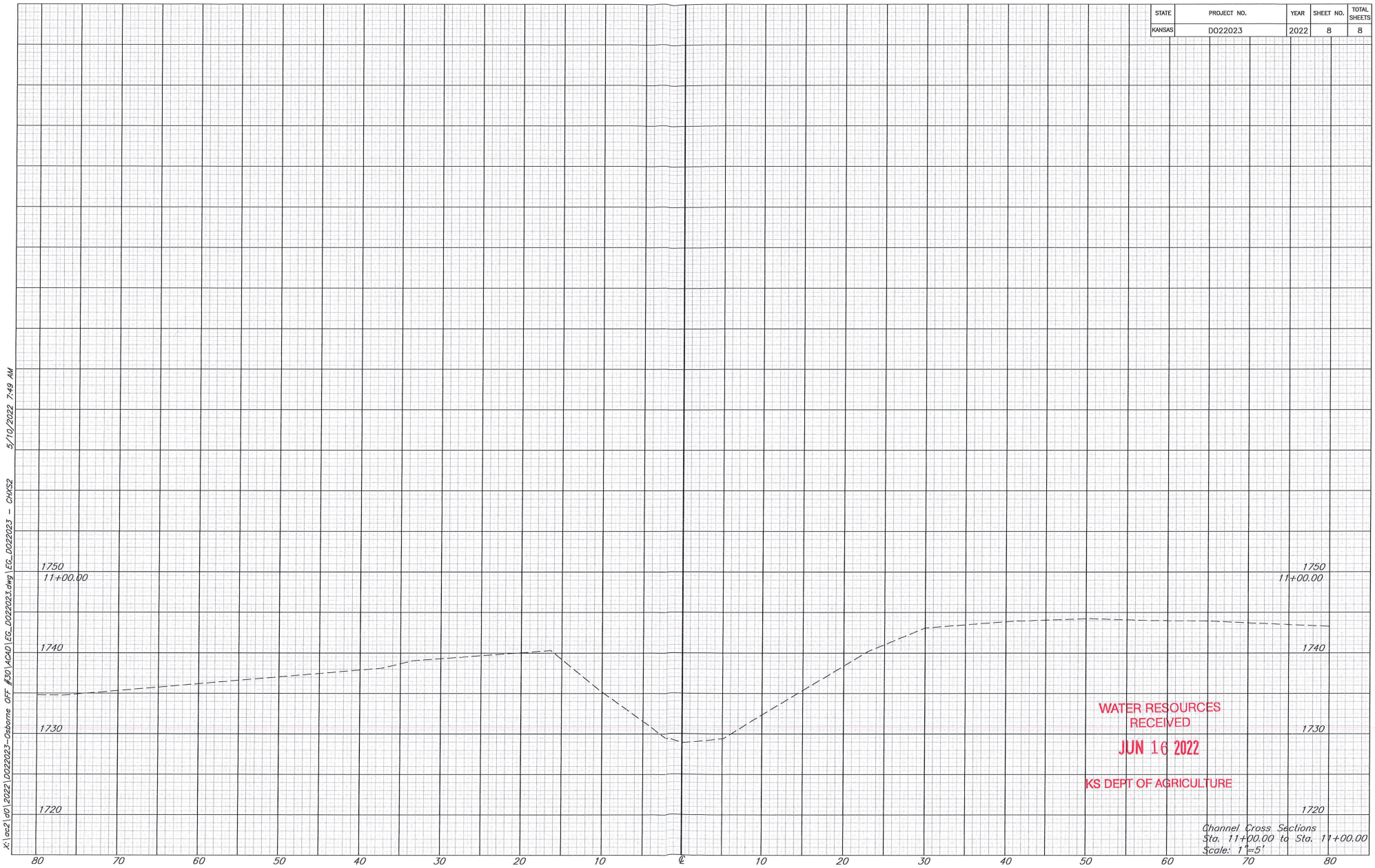
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	D022023	2022	8	8



WATER RESOURCES
RECEIVED
JUN 16 2022
KS DEPT OF AGRICULTURE

Channel Cross Sections
Sta. 11+00.00 to Sta. 11+00.00
Scale: 1"=5'

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