CITY OF SHAWNEE, KANSAS

2021 BRIDGE REPAIRS

BRIDGE NOS. 5, 8, 11, 15, 16, 17, 18, 19, 20, 21, 23, 24, 26, 27, 34, 37, 39, 46, 65

PROJECT NO. 3532

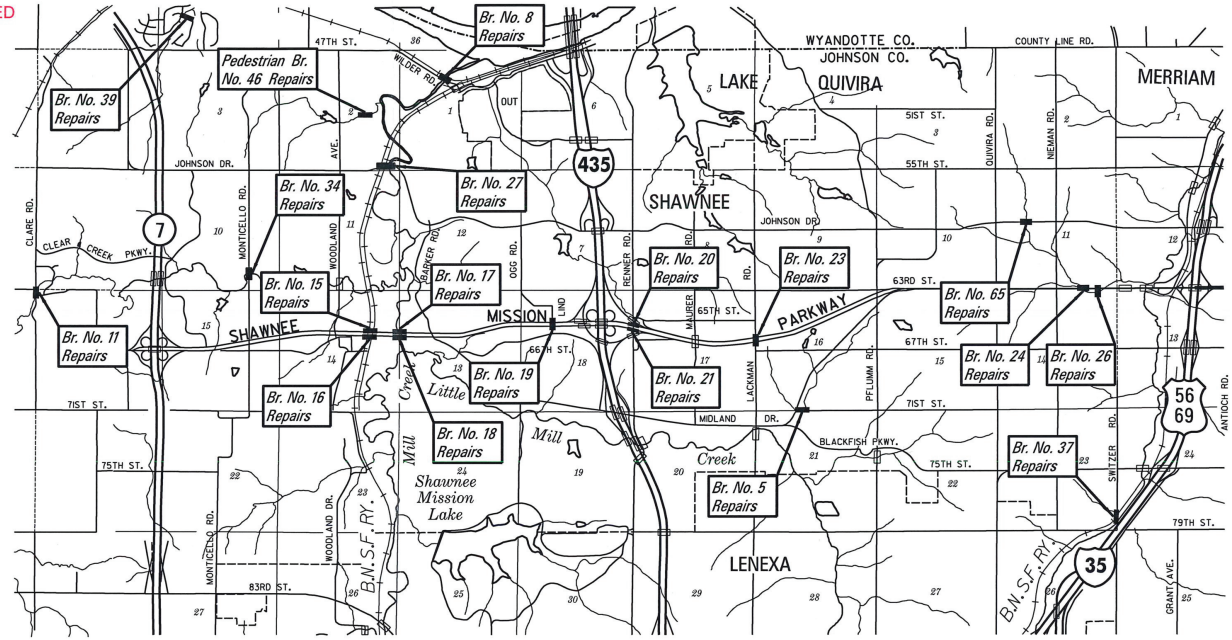
INDEX OF SHEETS ***TRUNCATED FOR DWR SUBMITTAL; ONLY BRIDGES 5, 11, AND 24 INCLUDED

1 Title Sheet
2 Summary of Quantities
3 General Notes

BRIDGE REPAIRS
4-5 Construction Layout, Repair Details -- Bridge No. 5
6 Construction Layout -- Bridge No. 8
7-8 Construction Layout, Repair Details -- Bridge No. 11
9-13 Construction Layout, Repair Details, Railroad Details -- Bridge Nos. 15 & 16
14-15 Construction Layout -- Bridge Nos. 17 & 18
16-17 Construction Layout -- Bridge No. 19
18-21 Construction Layout, Repair Details -- Bridge Nos. 20 & 21
22-23 Construction Layout, Repair Details -- Bridge No. 23
24 Construction Layout, Repair Details -- Bridge No. 24
25 Construction Layout -- Bridge No. 26
26 Construction Layout -- Bridge No. 27
27 Construction Layout -- Bridge No. 34
28-29 Construction Layout, Repair Details, Guardrail End Terminal Details -- Bridge No. 37
30-32 Construction Layout, Repair Details -- Bridge No. 39
33 Construction Layout -- Pedestrian Bridge No. 46
34 Construction Layout -- Bridge No. 65
35 Approach Slab Patching Details
36 Precompressed Foam Membrane Sealant Details

PAVEMENT MARKING
37 Permanent Pavement Marking -- Bridge Nos. 15 & 16

TRAFFIC CONTROL
38 Traffic Control Standards
39 Traffic Control -- Bridge Nos. 15 & 16, 17 & 18, 20 & 21
40 Traffic Control -- Bridge No. 19 Closure Plan
41 Traffic Control -- Bridge No. 39 Closure Plan
42 Traffic Control -- Bridge No. 23 Phase 1 and 4
43 Traffic Control -- Bridge No. 23 Phase 2 and 3



BRIDGE LIST

Bridge No. 5 -- 71st Street over Little Mill Creek Tributary
Bridge No. 8 -- Wilder Road over Mill Creek
Bridge No. 11 -- Clare Road over Clear Creek
Bridge No. 15 -- W.B. Shawnee Mission Parkway over BNSF Railroad
Bridge No. 16 -- E.B. Shawnee Mission Parkway over BNSF Railroad
Bridge No. 17 -- W.B. Shawnee Mission Parkway over Mill Creek
Bridge No. 18 -- E.B. Shawnee Mission Parkway over Mill Creek
Bridge No. 19 -- Lind Road over Shawnee Mission Parkway
Bridge No. 20 -- W.B. Shawnee Mission Parkway over Renner Road
Bridge No. 21 -- E.B. Shawnee Mission Parkway over Renner Road
Bridge No. 23 -- Lackman Road over Shawnee Mission Parkway
Bridge No. 24 -- Shawnee Mission Parkway over Turkey Creek Tributary
Bridge No. 26 -- Pioneer Crossing Park Entrance over Turkey Creek Tributary
Bridge No. 27 -- Johnson Drive over BNSF Railroad and Mill Creek
Bridge No. 34 -- Monticello Road over Clear Creek
Bridge No. 37 -- Switzer Road over Turkey Creek
Bridge No. 39 -- 44th Terrace over Kansas River Tributary
Bridge No. 46 -- Pedestrian Bridge on Stump Park Trail over Mill Creek Tributary
Bridge No. 65 -- Johnson Drive over Turkey Creek Tributary

KANSAS ONE-CALL 811

JOHNSON COUNTY UNIFIED WASTEWATER DISTRICT (913) 715-8590	ATMOS ENERGY (866) 322-8667	SPECTRUM (833) 267-6094
EVERGY (800) 544-4857	CITY OF SHAWNEE (913) 631-2500	CONSOLIDATED COMMUNICATIONS (913) 322-9622
KANSAS GAS SERVICE (888) 482-4950	WATER ONE (913) 895-1800	GOOGLE FIBER (877) 454-6959
WILLIAMS NATURAL GAS COMPANY AND (800) 635-7400	AT & T (800) 924-9420	

RECEIVED WATER RESOURCES
JUN 14 2021
KS DEPT AGRICULTURE

½ Mile 0 ½ Mile 1 Mile

APPROVED BY:

CITY OF SHAWNEE, KANSAS
CITY ENGINEER
APPROVED FOR ONE YEAR FROM THIS DATE

DESIGNED BY:

H.W. LOCHNER, INC.
PROJECT MANAGER

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS
2021 SHAWNEE BRIDGE REPAIRS

PROJECT NO.	3532
DRAWN BY JTC	DATE 2/2021
CHECKED BY NSC	DATE 4/2021
DESIGNED BY MAH	DATE 2/2021
REVISIONS	DATE
ISSUE DATE	

TITLE SHEET

1

I:\KACC\ADD\KDOT\Lochner Variables\Pen Tables\Structural.tbl 4/26/2021 2:48:23 PM
I:\KACC\ADD\KDOT\Lochner Variables\Plot Config\KDOT PDF_Eng\Bl\all (22x34).pltcfg
I:\KACC\PA-000001858801\DGN\SHEETS\01 Title Sheet.dgn

SUMMARY OF QUANTITIES BRIDGE NOS. 5, 8, 11, 15, 16, 17, 18, 19, 20, 21, 23, 24, 26, 27, 34, 37, 39, 46, & 65

	ITEM	UNITS	QUANTITY																			
			BR. NO. 5	BR. NO. 8	BR. NO. 11	BR. NO. 15	BR. NO. 16	BR. NO. 17	BR. NO. 18	BR. NO. 19	BR. NO. 20	BR. NO. 21	BR. NO. 23	BR. NO. 24	BR. NO. 26	BR. NO. 27	BR. NO. 34	BR. NO. 37	BR. NO. 39	BR. NO. 46	BR. NO. 65	TOTAL
	Mobilization	L.S.										1										1
1	Brush and Tree Removal	L.S.										1										1
	Class I Excavation	C.Y.	-	-	-	-	-	160	150	-	-	-	-	-	-	-	-	-	-	-	-	310
	Class II Excavation	C.Y.	390	-	70	-	-	-	-	-	-	-	-	420	-	-	-	-	-	-	-	880
	Machine Preparation (2")	S.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	288	-	-	288
	Area Prepared for Patching	S.F.	-	-	-	10	5	95	-	450	30	10	350	-	-	200	-	-	300	-	-	1,450
□	Area Prepared for Patching (Full Depth)	S.F.	-	-	-	-	-	10	-	50	-	-	-	-	-	-	-	-	50	-	-	110
†	Area Prepared for Patching (Poured with Overlay)	S.F.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-	-	1,000
	Reinforcing Steel (Repair)(Grade 60)	LBS.	10	-	300	200	50	20	10	100	50	50	-	50	-	-	-	200	400	-	50	1,490
	Reinforcing Steel (Repair)(Grade 60)(Epoxy)	LBS.	-	-	-	-	-	-	-	-	-	-	10	-	-	10	-	-	-	-	-	20
	Concrete Curb Repair	L.F.	-	-	-	70	25	-	-	-	15	35	-	-	-	-	-	-	-	-	-	145
	Concrete Rail Repair	S.F.	-	-	-	-	-	-	-	-	1	50	25	-	6	-	-	-	35	-	-	117
	Concrete Slab Drip Line Repair	S.F.	-	-	-	250	40	-	-	-	25	215	-	-	-	-	-	-	500	-	-	1,030
	Portland Cement Concrete Overlay (2")	S.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	288	-	-	288
	Material for Portland Cement Concrete Overlay	C.Y.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	5
	Multi-Layer Epoxy Polymer Overlay	S.Y.	-	-	-	697	634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,331
	RCB Wall or Ceiling Repair	S.F.	45	-	360	-	-	-	-	-	-	-	-	-	15	-	-	40	-	-	50	510
	RCB Floor Repair	S.F.	-	-	-	-	-	-	-	-	-	-	-	180	-	-	-	550	-	-	-	730
	Concrete Waterproofing	S.Y.	20	-	85	115	115	-	-	-	105	115	-	-	-	-	-	-	85	-	-	640
	Approach Slab Patching (Partial Depth)	S.F.	-	25	-	30	45	40	40	-	65	10	30	-	-	-	10	-	-	-	-	295
	Approach Slab Patching (Full Depth)	S.F.	-	5	-	5	10	5	5	-	10	-	5	-	-	-	5	-	-	-	-	50
	Reseal Pavement Joint	L.F.	-	56	-	496	470	462	438	-	504	480	-	-	-	-	-	-	-	-	-	2,906
	Precompressed Foam Membrane Sealant (3")	L.F.	-	-	-	-	-	-	-	-	-	-	154	-	-	-	-	-	-	-	-	154
	Precompressed Foam Membrane Sealant (1 1/4")	L.F.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	-	-	-	-	73
	Concrete Slope Protection	S.F.	-	-	-	170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	170
	Stone Riprap (Light 24" Class)(24" Thickness)	C.Y.	-	-	-	-	-	160	150	-	-	-	-	-	-	-	-	-	-	-	-	310
2	Guardrail End Terminal (SRT)	EACH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1
3	Mud Jacking	L.S.										1										1
4	Seeding	L.S.										1										1
	Railroad Permits, Insurance, and Track Protection	L.S.										1										1
	4" Yellow Multi-Component Pavement Marking	L.F.	-	-	-	218	218	-	-	-	-	-	-	-	-	-	-	-	-	-	-	436
5	4" White Multi-Component Pavement Marking	L.F.	-	-	-	268	258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	526
	Traffic Control	L.S.										1										1

□ The bid price for "Area Prepared for Patching (Full Depth)" shall be a minimum of 1.25 times the bid price for "Area Prepared for Patching".

† The bid price for "Area Prepared for Patching (Poured with Overlay)" shall be 70% of the bid price for "Area Prepared for Patching".

1 Brush and Tree Removal is anticipated at Bridge Nos. 5, 11, 15, 16, 20, and 37. See the Construction Layout sheet for these bridges for estimated quantities.

2 Mud Jacking is anticipated at Bridge Nos. 39 and 46. See the Construction Layout sheet for these bridges for estimated quantities.

3 Seeding is anticipated at Bridge Nos. 5, 11, 17, 18, and 24. See the Construction Layout sheet for these bridges for estimated quantities.

4 Railroad Permits, Insurance, and Track Protection is anticipated at Bridge Nos. 15 and 16.

5 Traffic Control is anticipated at all bridges except Bridge Nos. 24, 37, and 65. See Construction Layout sheets for Traffic Control restrictions at each bridge site. See Traffic Control sheets for traffic control layouts.

EXPLANATION OF BID ITEMS:
The bid items used in these plans have many subsidiary items included. The following is a list of bid items and most of the items that are subsidiary to them. However, the list is not exhaustive, and the Contractor is expected to include costs associated with mobilization, proper disposal of waste material, restoring vegetation damaged by construction, etc. in the bid items provided. Any work not specifically identified as a bid item shall be considered subsidiary to other items in the bid.

Brush and Tree Removal:
Cut brush and trees at the ground line (clearing).
Remove brush and trees from the site.

Class I Excavation:
Within the limits specified, excavate volume of whatever nature, except water, found above a line 1.5 ft. above Ordinary High Water.
Remove the material from the site.

Class II Excavation:
Within the limits specified, excavate volume of whatever nature found below a line 1.5 ft. above Ordinary High Water.
Remove the material from the site.

Machine Preparation:
Mill concrete from top of bridge deck to the depth specified.
Remove the material from the site.

Area Prepared for Patching:
Remove unsound concrete/asphalt patches from bridge deck.
Clean and repair exposed reinforcing steel.
Fill the partial depth removal area with concrete.

Area Prepared for Patching (Full Depth):
Remove unsound concrete/asphalt patches from bridge deck.
Clean and repair exposed reinforcing steel.
Form the bottom of the removal area.
Fill the full depth removal area with concrete.

Area Prepared for Patching (Poured with Overlay):
After milling, remove additional unsound concrete from bridge deck.
Clean and repair exposed reinforcing steel.
Fill the removal area monolithic with the overlay.

Reinforcing Steel (Repair):
If necessary, replace damaged or missing reinforcing bars with new bars as designated by the Engineer. Bars are considered damaged if they are broken or have advanced section loss.

Concrete Curb Repair:
Use this item for repairs on bridge rail curbs only.
Remove deteriorated concrete from curb.
Clean and repair exposed reinforcing steel.
Fill the removal area with concrete.

Concrete Rail Repair:
Use this item for repairs on bridge rail elements other than the curb.
Remove unsound concrete from bridge rail.
Clean and repair exposed reinforcing steel.
Fill the removal area with concrete.

RECEIVED WATER RESOURCES
JUN 14 2021
KDA SECRETARY OF AGRICULTURE

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS

2021 SHAWNEE BRIDGE REPAIRS

PROJECT NO.	3532
DRAWN BY	MAH 3/2021 (DATE)
CHECKED BY	NSC 4/2021 (DATE)
DESIGNED BY	MAH 3/2021 (DATE)
REVISIONS	DATE
ISSUE DATE	

SUMMARY OF QUANTITIES

2

I:\KACI\CADD\KDOT\Lochner Variables\Plot Config\KDOT_PDF_Eng8\Full (22x34).pltcfg 4/26/2021 2:49:52 PM
I:\KACI\CADD\KDOT\Lochner Variables\Pen Tables\Structural.tbl
I:\KACI\PR\0000185880\1D\GN\SHEETS\02_Summary of Quantities.dgn

EXPLANATION OF BID ITEMS (CONTINUED):

Concrete Slab Drip Line Repair:
Remove unsound concrete from side face or bottom face of bridge deck.
Clean and repair exposed reinforcing steel.
Form the removal area.
Fill the removal area with concrete.

Portland Cement Concrete Overlay:
Construct a concrete overlay on the bridge deck to the depth specified.

Material for Portland Cement Concrete Overlay:
For bridges receiving a concrete overlay, use this item for the extra volume of concrete needed to fill removal areas deeper than the milling limits.

Multi-Layer Epoxy Polymer Overlay:
Prepare the concrete deck surface.
Apply two courses of epoxy polymer concrete overlay.

RCB Wall or Ceiling Repair:
Remove unsound concrete from RCB wall or ceiling.
Clean and repair exposed reinforcing steel.
Fill the removal area with concrete.

RCB Floor Repair:
Remove unsound concrete from RCB floor.
Clean and repair exposed reinforcing steel.
Fill the removal area with concrete.

Concrete Waterproofing:
Clean concrete surfaces to be waterproofed.
Apply waterproofing to the limits shown..

Approach Slab Patching:
Remove unsound concrete from concrete approach slab.
Clean and repair exposed reinforcing steel.
Fill the removal area with concrete.

Reseal Pavement Joint
Remove existing seal material from concrete joint.
Clean joint.
Apply joint sealing compound to joint.

Precompressed Foam Membrane Sealant:
Remove the existing seal material from the concrete joint.
Clean joint.
Furnish and install precompressed foam membrane seal in joint.

Concrete Slope Protection:
Remove settled or heaved concrete slope protection panels.
Fill void beneath the removed panels with stones or other approved material.
Construct new concrete slope protection panels.

Stone Riprap:
Furnish stone riprap of the class specified.
Install riprap to the limits and thickness specified.

Guardrail End Terminal:
Remove damaged guardrail end terminal.
Furnish and install new guardrail end terminal.

Mud Jacking:
Fill voids beneath elements as specified.
Lift settled concrete elements to original position as specified.

Seeding:
Seed areas disturbed by construction activities.

Railroad Permits, Insurance, and Track Protection:
At Contractor's expense, obtain right of entry permits and construction agreements as required by the railroad.
At Contractor's expense, obtain a Railroad Protective Liability insurance policy as required by the railroad.
At Contractor's expense, use a railroad flagman when working on bridge drip lines or below bridge within 25 feet from centerline of track.

Pavement Marking:
Apply permanent pavement markings at the locations specified.

Traffic Control:
Provide, erect, maintain and remove traffic control devices as specified.

GENERAL NOTES

WORK SCHEDULE: The Contractor shall submit in writing his proposed work schedule to the Engineer for approval at least three weeks prior to the beginning of construction.

EXISTING STRUCTURE: Select sheets from the plans of the existing structures are included in this plan set (for information only).

EXISTING DIMENSION VERIFICATION: Dimensions of the existing structure are based on available plans. It is the responsibility of the Contractor to verify dimensions shown on the plans.

TRAFFIC CONTROL:
Traffic control for temporary lane closures shall be in accordance with the latest edition of MUTCD and Traffic Control Plan sheets.

SEE CONSTRUCTION LAYOUT SHEETS FOR TRAFFIC CONTROL RESTRICTIONS AT EACH BRIDGE SITE.

PROTECTION OF STRUCTURES:
The Contractor shall be responsible for the protection of all structures and utilities during construction. If any barrier, guardrail, pipe, curb, etc. is damaged due to construction activity, the structure shall be repaired to the Owner's satisfaction at the Contractor's expense.

TEMPORARY CONSTRUCTION LOADS: The Contractor shall not stock pile construction materials, debris/rubble or place equipment weighing more than 20 tons or greater than bridge posted load limits on the bridge without prior written approval by the Engineer. For bridges with highway traffic on or under the bridge the Contractor will provide plans showing the location, quantity and weight of the proposed materials, debris or equipment weighing more than 20 tons or greater than bridge posted load limits. These plans will bear the Seal of the Contractor's Engineer before approval is granted. The Contractor's Engineer will use AASHTO Specifications for limitations on structural capacities, as the structure is found in the field.

BROKEN CONCRETE: Waste the broken concrete from the existing bridges on sites provided by the Contractor and approved by the Engineer.

CONCRETE SAWING: Concrete sawing on existing bridge decks shall be limited to a maximum depth of 1" so as not to cut the existing reinforcing steel.

REINFORCING STEEL: All reinforcing steel dimensions are to the centerline of bars unless otherwise noted. All reinforcing steel shall conform to the requirements of ASTM A615, Grade 60.

CONCRETE: Concrete mix for repairs and overlays shall meet the requirements of KDOT Concrete (Grade 4.0) (AE) (SA) (MPC). Submit complete mix design data, including proportions and sources of all mix ingredients, and the results of time and strength tests representing the proposed mix.

(AE) = Air Entrained
(SA) = Structural Concrete with select coarse aggregate for wear and absorption
(MPC) = Moderate Permeability Concrete

HIGH EARLY STRENGTH CONCRETE: Concrete mix for approach slab repairs at Bridge Nos. 8 and 34 shall be high early strength meeting the requirements of KDOT Concrete (Grade 4.0) (AE) (SA) (MPC). Submit complete mix design data, including proportions and sources of all mix ingredients, and the results of time and strength tests representing the proposed mix.

PRE-BAGGED CONCRETE PATCH MATERIAL: The Contractor may use an approved pre-bagged concrete patch material for repairs. The patch material shall have a minimum ultimate compressive strength of 4,000 psi. Submit product information to the Engineer for approval prior to construction.

CURING: Cure bridge deck and approach slab patches with wet burlap covered with white polyethylene sheeting. If regular strength concrete is used, wet cure patches for a minimum of 72 hours. If high early strength concrete is used, wet cure patches until concrete reaches at least 3,000 psi compressive strength. After the wet cure period, apply 2 coats of Type 2 white liquid membrane forming compound. Traffic may be allowed on the concrete once the compound is dry.

DIMENSIONS: All dimensions shown on the design plans are horizontal dimensions unless otherwise noted. Make necessary allowances for roadway grade and cross slope.

QUANTITIES: Items not listed separately in the Summary of Quantities are subsidiary to other items in the proposal.

MATERIAL PROPERTIES:

Concrete (Grade 4.0) (AE) (SA) (MPC)	f'c = 4 ksi
Reinforcing Steel (Grade 60)	fy = 60 ksi

COORDINATION WITH PROPERTY OWNERS: The Contractor shall coordinate entry onto private property with the property owner at least one week prior to the start of work at the site.

WATERPROOFING: Use a gray concrete colored product on the KDOT prequalified materials list.

RECEIVED WATER RESOURCES
JUN 14 2021
KS DEPT AGRICULTURE

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS

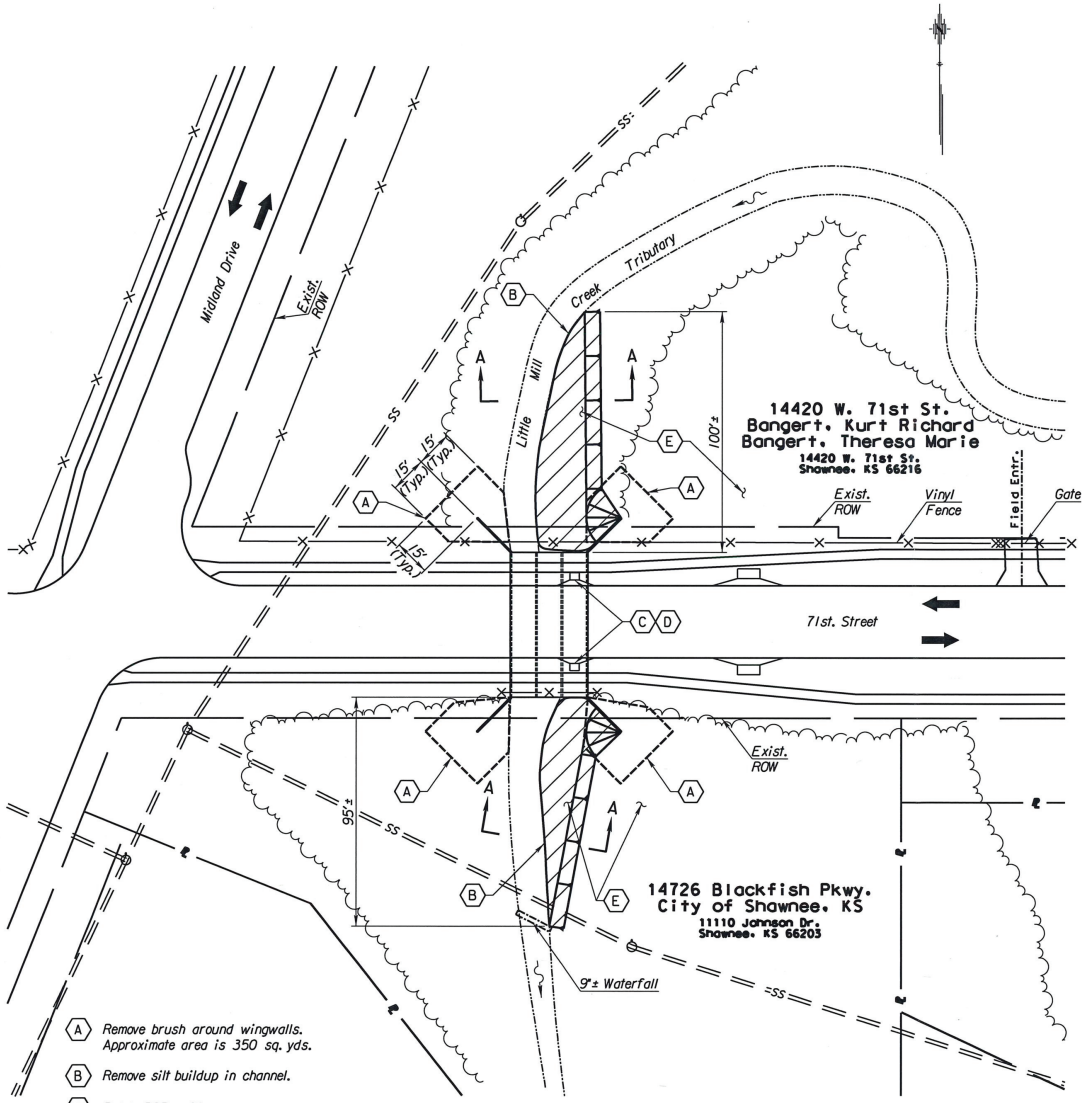
2021 SHAWNEE BRIDGE REPAIRS

PROJECT NO.		3532
DRAWN BY	MAH	DATE 3/2021
CHECKED BY	NSC	DATE 4/2021
DESIGNED BY	MAH	DATE 3/2021
REVISIONS		DATE
ISSUE DATE		

GENERAL NOTES

3

I:\KACPA\0001\169861\DGN\SHEETS\03_General Notes.dgn I:\KACI\CADD\KDOT\Lochner Variables\Plot Config\KDOT_PDF_Eng\WF-II (22x34).pltcfg I:\KACI\CADD\KDOT\Lochner Variables\Pen Tables\Structural.tbl 4/28/2021 2:50:14 PM



(A) Remove brush around wingwalls. Approximate area is 350 sq. yds.

(B) Remove silt buildup in channel.

(C) Patch RCB ceiling. Replace deteriorated reinforcing steel bars.

(D) Apply waterproofing to RCB ceiling.

(E) Seed disturbed areas above low flow elevation. Approximate area is 300 sq. yds.

PLAN - BRIDGE NO. 5
71st St. over Little Mil Creek Tributary
3-10'x7' Reinforced Concrete Box
0° Skew
30'-0" Roadway

SUMMARY OF QUANTITIES BR. NO. 5			
	ITEM	UNITS	QUANTITY
◑	Mobilization	L.S.	1
(A) ✕	Brush and Tree Removal	L.S.	1
	Class II Excavation	C.Y.	390
	Reinforcing Steel (Repair)(Grade 60)	LBS.	10
	RCB Wall or Ceiling Repair	S.F.	45
	Concrete Waterproofing	S.Y.	20
(E) ✱	Seeding	L.S.	1
△	Traffic Control	L.S.	1

◑ Only one Mobilization bid item for the entire project.
✕ Only one Brush and Tree Removal bid item for the entire project.
✱ Only one Seeding bid item for the entire project.
△ Only one Traffic Control bid item for the entire project.

TRAFFIC CONTROL ON 71ST STREET: The bridge shall remain open to traffic during construction. It is anticipated that little to no traffic control will be required at this bridge site. If necessary, use flaggers to direct traffic around trucks or equipment parked on 71st Street during normal work hours.

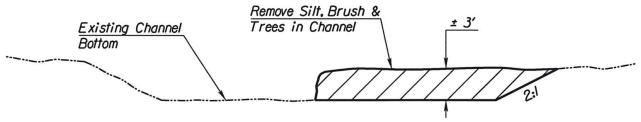
See Traffic Control sheets for more information.

Notes:

Concrete for repairs shall be Concrete (Grade 4.0) (AE) (SA) (MPC).

Waste the removed silt and brush on sites provided by the Contractor and approved by the Engineer.

The Contractor shall coordinate entry onto the property north of 71st with the Owner. The Contractor shall restore the property to its preconstruction condition at the conclusion of construction.



SECTION A-A

RECEIVED WATER RESOURCES
JUN 14 2021
KS DEPT AGRICULTURE

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS

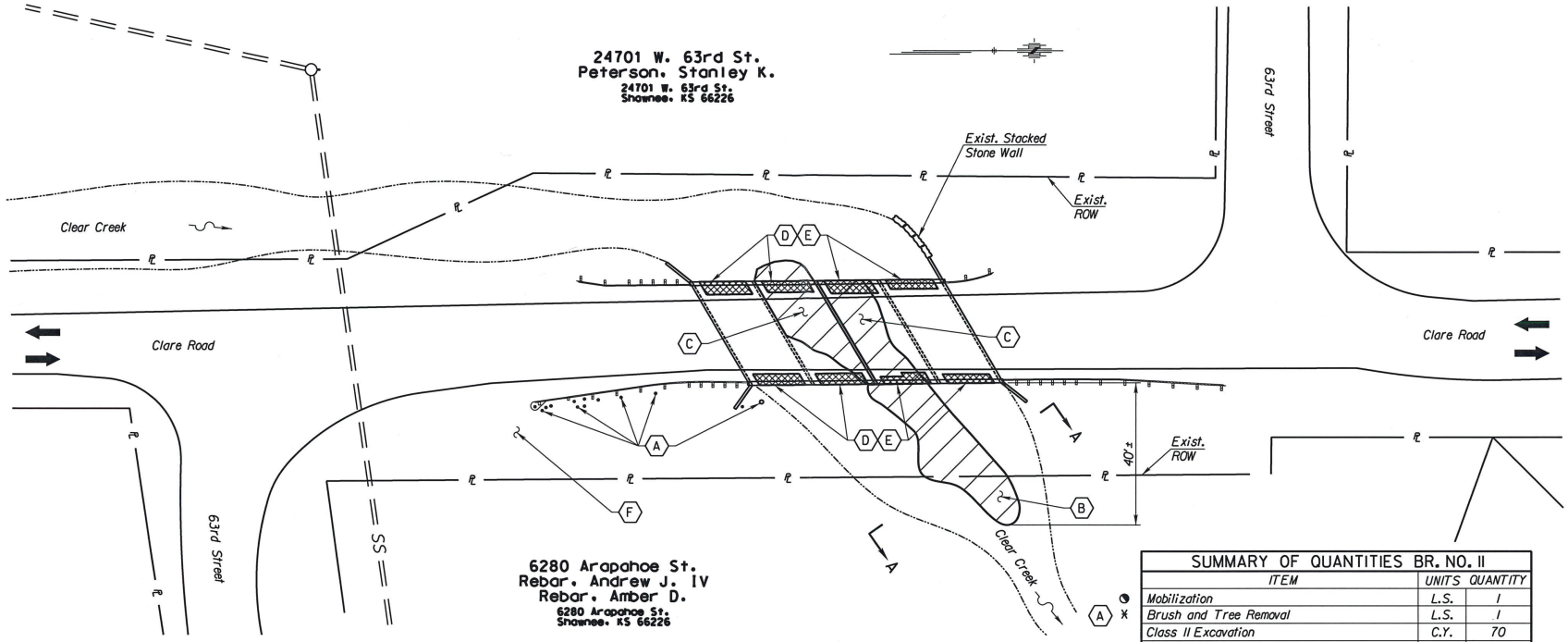
2021 SHAWNEE BRIDGE REPAIRS

PROJECT NO.		3532
DRAWN BY	JTC	DATE 2/2021
CHECKED BY	NSC	DATE 4/2021
DESIGNED BY	MAH	DATE 2/2021
REVISIONS		DATE
ISSUE DATE		

CONSTRUCTION LAYOUT BRIDGE NO. 5

4

I:\KAC\CADD\KDOT\Lochner Variables\Pen Tables\Structural.tbl 4/26/2021 2:50:39 PM
I:\KAC\CADD\KDOT\Lochner Variables\Plot Config\KDOT_PDF_EngBW\Full (22x34).pltcfg
I:\KAC\PRJ\0000165880\01\DGN\SHEETS\04_Br 5_Construction Layout.dgn



PLAN - BRIDGE NO. II

Clare Rd. over Clear Creek
4-14'x7' Reinforced Concrete Box
30° Skew
26'-0" Roadway

		SUMMARY OF QUANTITIES BR. NO. II		
		ITEM	UNITS	QUANTITY
	◔	Mobilization	L.S.	1
A	✗	Brush and Tree Removal	L.S.	1
		Class II Excavation	C.Y.	70
		Reinforcing Steel (Repair)(Grade 60)	LBS.	300
		RCB Wall or Ceiling Repair	S.F.	360
		Concrete Waterproofing	S.Y.	85
F	✱	Seeding	L.S.	1
	△	Traffic Control	L.S.	1

◔ Only one Mobilization bid item for the entire project.
✗ Only one Brush and Tree Removal bid item for the entire project.
✱ Only one Seeding bid item for the entire project.
△ Only one Traffic Control bid item for the entire project.

(A) Remove all trees around guardrail and wingwall. Approximately 12 trees with 4" to 8" diameter trunks. 1 tree with 12" diameter trunk.

(B) Remove silt and cobble buildup in channel.

(C) Remove silt and cobble buildup inside RCB cell.

(D) Patch RFB headwall and ceiling. Replace deteriorated reinforcing steel bars.

(E) Apply waterproofing to RFB headwall and ceiling.

(F) Seed disturbed areas above low flow elevation. Approximate area is 275 sq. yds.

TRAFFIC CONTROL ON CLARE ROAD: The bridge shall remain open to traffic during construction. It is anticipated that little to no traffic control will be required at this bridge site. If necessary, use flaggers to direct traffic around trucks or equipment parked on Clare Road during normal work hours.

See Traffic Control sheets for more information.

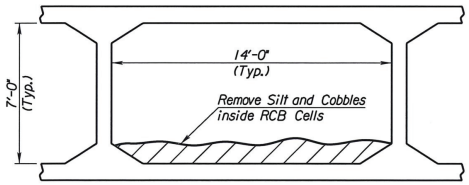
RECEIVED WATER RESOURCES
JUN 14 2021
KS DEPT OF ROADS

Notes:

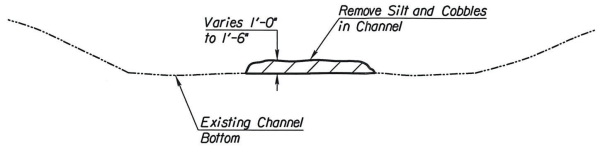
Concrete for repairs shall be Concrete (Grade 4.0) (AE) (SA) (MPC).

Waste the removed silt and cobbles on sites provided by the Contractor and approved by the Engineer.

Except for silt removal in the channel, the Contractor shall attempt to keep vehicles, equipment, and work activities on the City right-of-way. If private property is damaged, the Contractor shall restore the property to its preconstruction condition at the conclusion of construction.



SILT AND COBBLE REMOVAL FROM CELLS



SECTION A-A

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS

2021 SHAWNEE BRIDGE REPAIRS

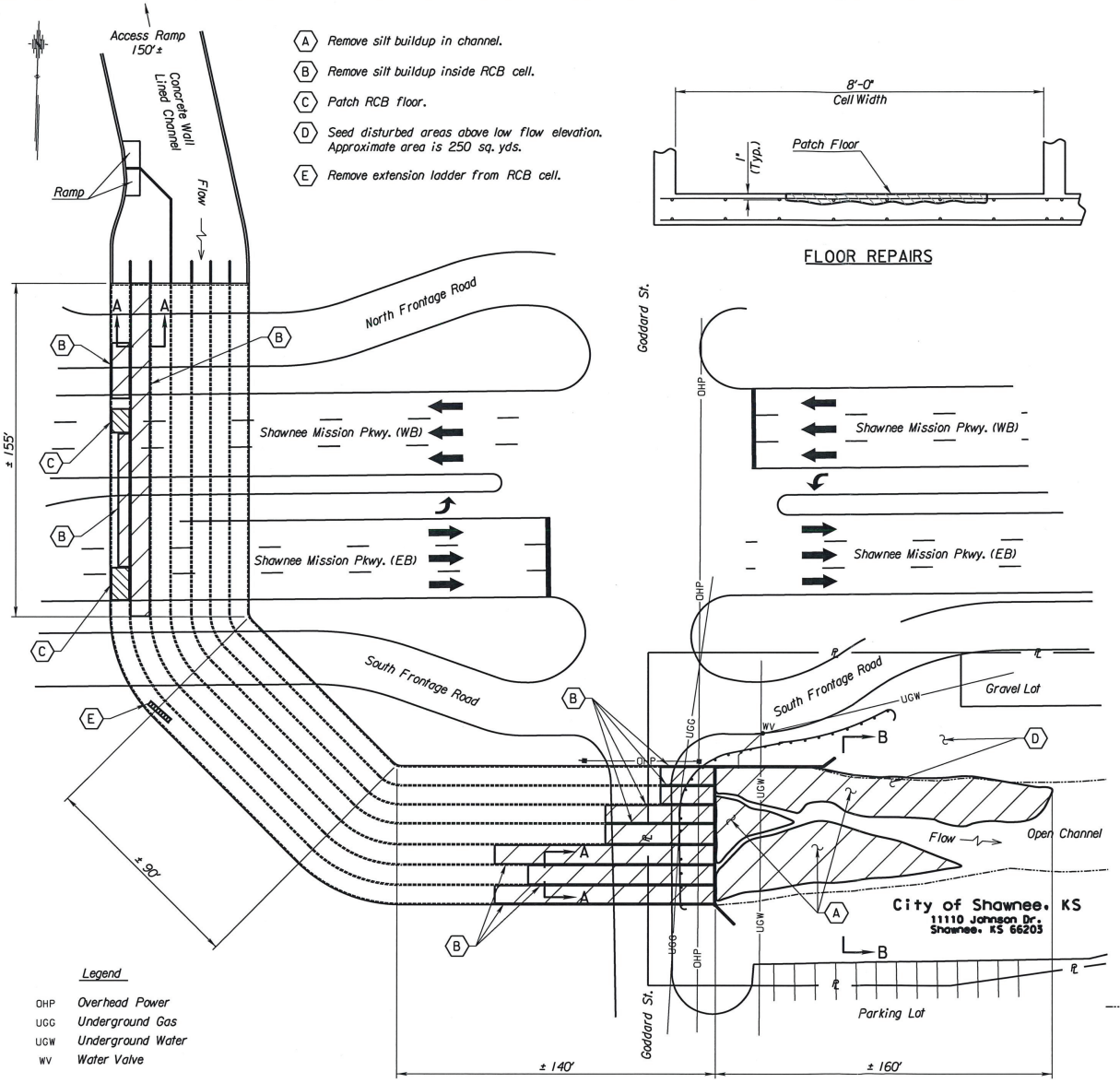
PROJECT NO.	3532	
DRAWN BY JTC	DATE 3/2021	
CHECKED BY NSC	DATE 4/2021	
DESIGNED BY MAH	DATE 3/2021	
REVISIONS	DATE	

ISSUE DATE

CONSTRUCTION LAYOUT
BRIDGE NO. 11

7

I:\KACPA\0000185886\1\DENSHEET\97_Br11_Construction Layout.dgn
I:\KACA\CADD\KDOT\Lochner Variables\Plot Config\KDOT_PDF_Eng\BVPull (22x34).pltcfg
I:\KACA\CADD\KDOT\Lochner Variables\Pen Tables\Structural.tbl 4/26/2021 2:52:09 PM



PLAN - BRIDGE NO. 24

Shawnee Mission Parkway over Turkey Creek Tributary
7'-8'x7' Reinforced Concrete Box

(A) Remove silt buildup in channel.

(B) Remove silt buildup inside RCB cell.

(C) Patch RCB floor.

(D) Seed disturbed areas above low flow elevation. Approximate area is 250 sq. yds.

(E) Remove extension ladder from RCB cell.

FLOOR REPAIRS

SUMMARY OF QUANTITIES BR. NO. 24		
ITEM	UNITS	QUANTITY
◐ Mobilization	L.S.	1
Class II Excavation	C.Y.	420
Reinforcing Steel (Repair)(Grade 60)	LBS.	50
RCB Floor Repair	S.F.	180
(D) * Seeding	L.S.	1

◐ Only one Mobilization bid item for the entire project.
* Only one Seeding bid item for the entire project.

TRAFFIC CONTROL ON SHAWNEE MISSION PARKWAY, GODDARD ST. AND SOUTH FRONTAGE ROAD: The bridge shall remain open to traffic during construction. It is anticipated that no traffic control will be required at this bridge site. If necessary, use flaggers to direct traffic around trucks or equipment parked on the South Frontage Road. Trucks and equipment shall not be parked on Goddard Street, North Frontage Road, or Shawnee Mission Parkway.

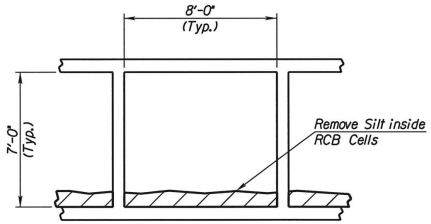
See Traffic Control sheets for more information.

Notes:

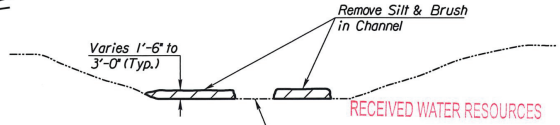
Concrete for RCB floor patches shall be KCMMB 4K AE.
AE = air entrained

Remove and dispose of extension ladder resting in center of southwest RCB barrel. This work shall be considered subsidiary to other items in the bid.

Waste the removed silt on sites provided by the Contractor and approved by the Engineer.



SECTION A-A



SECTION B-B

RECEIVED WATER RESOURCES
JUN 14 2021
KS DEPT AGRICULTURE

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

LOCHNER
16105 W. 113th Street | Suite 107 | Lenexa, KS 66219

CITY OF SHAWNEE, KANSAS

2021 SHAWNEE BRIDGE REPAIRS

PROJECT NO.		3532
DRAWN BY	JTC	DATE 2/2021
CHECKED BY	JSS	DATE 4/2021
DESIGNED BY	MAH	DATE 2/2021
REVISIONS		DATE

ISSUE DATE

CONSTRUCTION LAYOUT
BRIDGE NO. 24

24

I:\KACIP\A-10000185896\10\DGN\SHEETS\24_Br 24_Construction Layout.dgn
I:\KACI\CADD\KDOT\Lochner Variables\Plot Config\KDOT_PDF_Eng\BWFull (22x34).pltcfg
I:\KACI\CADD\KDOT\Lochner Variables\Pen Tables\Structure.tbl 4/26/2021 2:57:05 PM