

REPORT INDEX

(S.N. 056-3006)

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BRIDGE INSPECTION DOCUMENTATION & MAINTENANCE

STRUCTURE NUMBER: 056-3006

INSPECTION TYPE: Routine

DATE: 10/11/2022

INSPECTORS PRESENT:

Frank Lachat
Alex Jindrich

TIME REQUIRED: (Approx. # of hours to complete the field inspection)

0:45 (Hours : Minutes)

ACCESS EQUIPMENT: (List any equipment used to inspect the bridge)

Chest/Hip Waders Tall Ladder

Traffic Control Snooper

Other:

MAINTENANCE ITEMS:

PHOTO REF. NO.

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SN: 056-3006	District: 1	Spans: 1	Appr. Spans: 0	Skew: 14	ADT: 6300	Truck Pct: 9
ADT Un: 0	Maint. Co: 56 - McHenry	Twsp: 09 - Greenwood		Status: 1-Open, no restrictions		
Facility Carried: CHARLES RD			Feature Crossed: Slough Creek			
Location: AT NELSON RD		Municipality: 0000		Team/Sub Section: /		Insp/Rte:
Bridge Name:			Material & Type: Prestressed concrete / Box beam - Multiple			
Insp. Intervals Routine: 24		Fracture Critical: 0		Underwater: 0		Special: 0
90 - Inspection Date: 10/11/2022		90C - Temp (°F): 56			90B1 - In Depth: <input checked="" type="checkbox"/>	
Is Delinquent: <input type="checkbox"/>		Reason:				
90A - Agency Program Manager: Converse, Brian K						
90A1 - Team Leader: Lachat, Frank			90A2 - Inspector: Lachat, Frank			

90B - Previous Inspection Remarks

Item #58 & #59 - Longitudinal crack at 3rd beam in from south at east end of beam.
 - 2 spalls with exposed stirrup bars at mid span of north beam.
 - ± 8" of bituminous overlay may exceed allowable design overlay thickness.
 - Severe collision damage to north beam in west approach span causing large areas of concrete section loss at 3 bridge post location.
 Item #60 - Large spall and heavy scaling with exposed rebar at north end of west abutment stem.
 - Map cracking with leaching at north and south abutment stems, all wingwalls with spalling and exposed rebar.

Resources

Time to Inspect (H:M):	Traffic Control:
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Inspector's Appraisals

	Prev	New	Comments
58 - Deck Condition:	<u>4</u>	4	See comments below
59 - Superstructure Condition:	<u>4</u>	4	See comments below
60 - Substructure Condition:	<u>5</u>	5	See comments below
62 - Culvert Condition:	<u>N</u>	N	
61 - Channel Condition:	<u>8</u>	8	
71 - Waterway Adequacy:	<u>9</u>	9	
72 - Approach Rdwy Align:	<u>8</u>	8	
111 - Pier Navig Protection:	<u>N</u>	N	
36A - Bridge Railing Adequacy:	<u>2</u>	2	
Approach Guardrail Adequacy: 36B - Transitions:	<u>2</u>	2	36C - Guardrail:
			<u>2</u>
			36D - Ends:
			<u>2</u>

Additional Inventory Data - To Be Verified During Routine Inspection

108A - Wearing Surface Type: <u>G</u>	108B - Type of Membrane: <u>A</u>	108C - Deck Protection: <u>J</u>
108D - Total Deck Thickness (In.): <u>24.0</u>		
59A - Paint Date (Mo/Yr): <u> / </u>	59B - Paint Type: <u> - - - - </u>	
59C - Utilities Attached: <u>N N N</u>		
113A - Scour Critical Analysis Date: <u>06/07/1994</u>	113 - Scour Critical Rating: <u>8</u>	113B - Evaluation Method: <u>A</u>



<u>Weight Limit Posting:</u>	70A2 - Single Unit Vehicles:	-
	70B2 - Combination Type 3S-1 (3 or 4 axles):	-
	70C2 - Combination Type 3S-2 (5 or more axles):	-
	70D2 - One Truck at a Time:	<u>0</u>

90B - Inspection Remarks

Item #58 & #59 - Longitudinal crack in beam in 3rd beam in from the South at East end of beam, exposed stirrups, leaking keyways
 Item #60 - Spalling and heavy scaling with exposed rebar at North end of West abutment

	Signature	Date
Inspection Team Leader:		
Agency Program Manager:		

Use Additional Forms as Needed

**Illinois Department of Transportation
Structures Information Management System
Master Structure Report (S-107)**

Date: 12/1/2022

Page 1

Structure Number: 056-3006 District: 1

Inventory Data

Facility Carried:	CHARLES RD	Bridge Name:		Sufficiency Rating:	61.7	Structure Length:	31.0
Feature Crossed:	Slough Creek	Location:	AT NELSON RD	HBP Eligible:	Yes	AASHTO Bridge Length:	28.5
Bridge Remarks:		Status Date:	4/1/1988	Replaced By:		Length of Long Span:	31.0
Bridge Status:	1 OPEN - NO RESTRICT			Replaces:		Bridge Roadway Width:	40.0
Status Remarks:				Last Update Date:	03/30/2021	Appr Roadway Width:	32.0
Maint County:	056 MCHENRY	Maint Township:	09 GREENWOOD	Parallel Structure:	None	Deck Width:	40.0
Maint Responsibility:	30 COUNTY		UNKNOWN	Multi-Level Structure Nbr:		Sidewalk Width Right:	0.0
Service On/Under:	1 HIGHWAY		5 WATERWAY	Skew Direction:	Right	Sidewalk Width Left:	0.0
Reporting Agency:	3 COUNTY			Skew Angle:	14 D	Navigation Control:	0 No
Main Span Matl/Type:	5 PRESTRESS CONCRETE		05 BOX BEAM OR GIRDER-MULTIPLE	Structure Flared:	No	Navigation Horiz Clear:	0
Nbr Of Main Spans:	1	Nbr Of Approach Spans:	0	Historical Significance:	No	Navigation Vert Clear:	0
Approaches							
Near #1 Matl/Type:				Border Bridge State:		Culvert Fill Depth:	0.0
Near #2 Matl/Type:				Bdr State SN:		Number Culvert Cells:	0
Far #1 Matl/Type:				Bdr State % Responsibility:	0	Culvert Opening Area:	0.0
Far #2 Matl/Type:				Structural Steel Wt:	0	Culvert Cell Height:	0.00
				Substructure Material:	5N	Culvert Cell Width:	0.00
Median Width/Type:	0 Ft. / 0 None	Rated By:	3 Consultant	Rate Method:	6	LOAD FACTOR (LF) REP	
Guardrail Type L/R:	0 None / 0 None	Inventory Rating:	0.920 (33)	Load Rating Date:	10/13/2021	***Railroad Crossing Info***	
Toll Facility Indicator:	0 No Toll	Operating Rating:	1.540 (55)	Design Load:	02 HS20	Crossing 1 Nbr:	
Latitude:	42.36493030	Longitude:	88.47286019	Deck Structure Thickness:	17.0	Crossing 1 Nbr:	
Deck Structure Type:	E PCAST PRES CN DK BM			SD:	Y	RR Lateral Underclear:	0.0
Sidewalks Under Structure:	0 None			FO:	N	RR Vertical Underclear:	0 Ft 0 In

Key Route On Data

Key Route Nbr:	FEDERAL-AID SECONDARY	Station:	0026	Station:	10.0900
Appurtenances	Main Route 00000	Segment:		Linked:	Y
Inventory County:	056 MCHENRY	Natl. Hwy System:		Inventory Direction:	Not on NHS
Township/Road Dist	09 GREENWOOD	Curr AADT Yr/Count:	2021 / 6300	Est Truck Percentage:	8 %
Municipality	0000	Number Of Lanes:	2	One Or Two Way:	2 Two-Way
Urban Area:	None	Bypass Length:	4	Future AADT Yr/Cnt:	2046 / 7560
Functional Class:	5 MAJOR COLLECTOR	Designated Truck Rte:	NONE	Special Systems:	No
** CLEARANCES **	South/East North/West				
Max Rdwy Width:	40.0				
Horizontal:	40.0				
Min Vertical:	99 Ft 11 In				
10 Ft Vertical:	99 Ft 11 In				
Lateral:					

Key Route Under Data

Station:		Inventory Direction:	
Segment:		Curr AADT Yr/Count:	/
Linked:		Est Truck Percentage:	%
Natl. Hwy System:		Number Of Lanes:	
Inventory Direction:		One Or Two Way:	
Curr AADT Yr/Count:		Bypass Length:	
Est Truck Percentage:		Future AADT Yr/Cnt:	/
Number Of Lanes:		Designated Truck Rte:	
One Or Two Way:		Special Systems:	
Bypass Length:			
Future AADT Yr/Cnt:			
Designated Truck Rte:			
Special Systems:			

***** Marked Route On Data *****

Route #:	Designation	Kind	Number
1	Mainline	4 FAS, CH, or TR's Unmarked	
1	Mainline		
1	Mainline		

***** Marked Route Under Data *****

Route #:	Designation	Kind	Number

**Illinois Department of Transportation
Structures Information Management System
Master Structure Report (S-107)**

Date: 12/1/2022
Page 2

Structure Number: 056-3006 District: 1

Data Related to Inspection Information

***Inspection Intervals ***
 Routine NBIS: 24 MOS Underwater: 0 MOS One Truck At A Time: 0 Tons Combination Type 3S-1: Tons
 Fracture Critical: 0 MOS Special: N Single Unit Vehicles: Tons Combination Type 3S-2: Tons
 Bridge Posting Level: 5 || No Posting Required

Inspection/Appraisal Information

Inspection Date: 10/11/2022 Inspection Temperature: 56 Deg. F Insp by (Name): Lachat, Frank
 Deck: 4 POOR CONDITION - ADVANCED DETERIORATION Insp by (Name): Lachat, Frank
 Superstructure: 4 POOR CONDITION - ADVANCED DETERIORATION Utilities Attached: N N/A
 Substructure: 5 FAIR CONDITION - MINOR SECTION LOSS, CRACKS NOT APPLICABLE N N/A
 Culvert: N NOT APPLICABLE N N/A
 Channel and Protection: 8 VERY GOOD CONDITION - NO PROBLEMS NOTED G BITUMINOUS OVERLAY
 Structural Evaluation: 4 MINIMUM ADEQUACY TO BE LEFT IN PLACE A WATERPROOF MEM SYST
 Deck Geometry: 5 BETTER THAN ADEQUATE TO BE LEFT IN PLACE J NONE
 Underclearance-Vert/Lat: N NOT APPLICABLE
 Waterway Adequacy: 9 SUPERIOR TO PRESENT DESIRABLE CRITERIA
 Approach Roadway Align: 8 EQUAL TO PRESENT DESIRABLE CRITERIA
 Bridge Railing Appraisal: 2 Doesn't Meet Standards
 Approach Guardrail: 222 Not Acceptable || Not Acceptable || Not Acceptable
 Pier Navig Protection: N N/A
 ** Actual Posted Limits **
 Single Unit Vehicles: Tons
 Combination Type 3S-1: Tons
 Combination Type 3S-2: Tons
 One Truck At A Time: 0
 Last Paint Type:
 Deck Wearing Surf:
 Deck Membrane:
 Deck Protection:
 Total Deck Thick:
 Last Paint Date:
 Inspection Remarks:
 Item #58 & #59 - Longitudinal crack in beam in 3rd beam in from the South at Ea st end of beam, exposed stirrups, leaking keywaysystem #60 - Spalling and heavy scaling with exposed rebar at North end of West abutment

Underwater Inspection/Appraisal Information

Inspection Date: Inspection Method: Appraisal Rating:
 Temperature: Inspected By:
 Inspection Remarks:

Scour Critical Information

Rating: 8 CALCULATED SCOUR ABOVE FOOTING Evaluation Method: A Computer Calculation
 Analysis Date: 06/07/1994 Analysis By: FRED J.STONE, JR

Miscellaneous

Fracture Critical Members: No
 Microfilm Data Recorded: No

Construction Information

Year: 1947 Original 1984 Reconstructed
 Route: FAS 26 Sta: 415+58.1
 Section Nbr: 82-00106-00-BR Sta: 415+58.1
 Contract Nbr:
 Fed Aid Pr #: BR-S26 0102000
 Built By: 3 COUNTY AGENCY 0 UNKNOWN

Proposed Improvement

Cost Estimate Year: Length: *** Costs in Dollars ***
 Type of Work: Bridge Cost:
 Done By: Roadway Cost:
 Remarks: Total Project Cost:

2022 MCHENRY COUNTY COUNTY & TOWNSHIP BRIDGE INSPECTION PROGRAM

REPORT SUMMARY

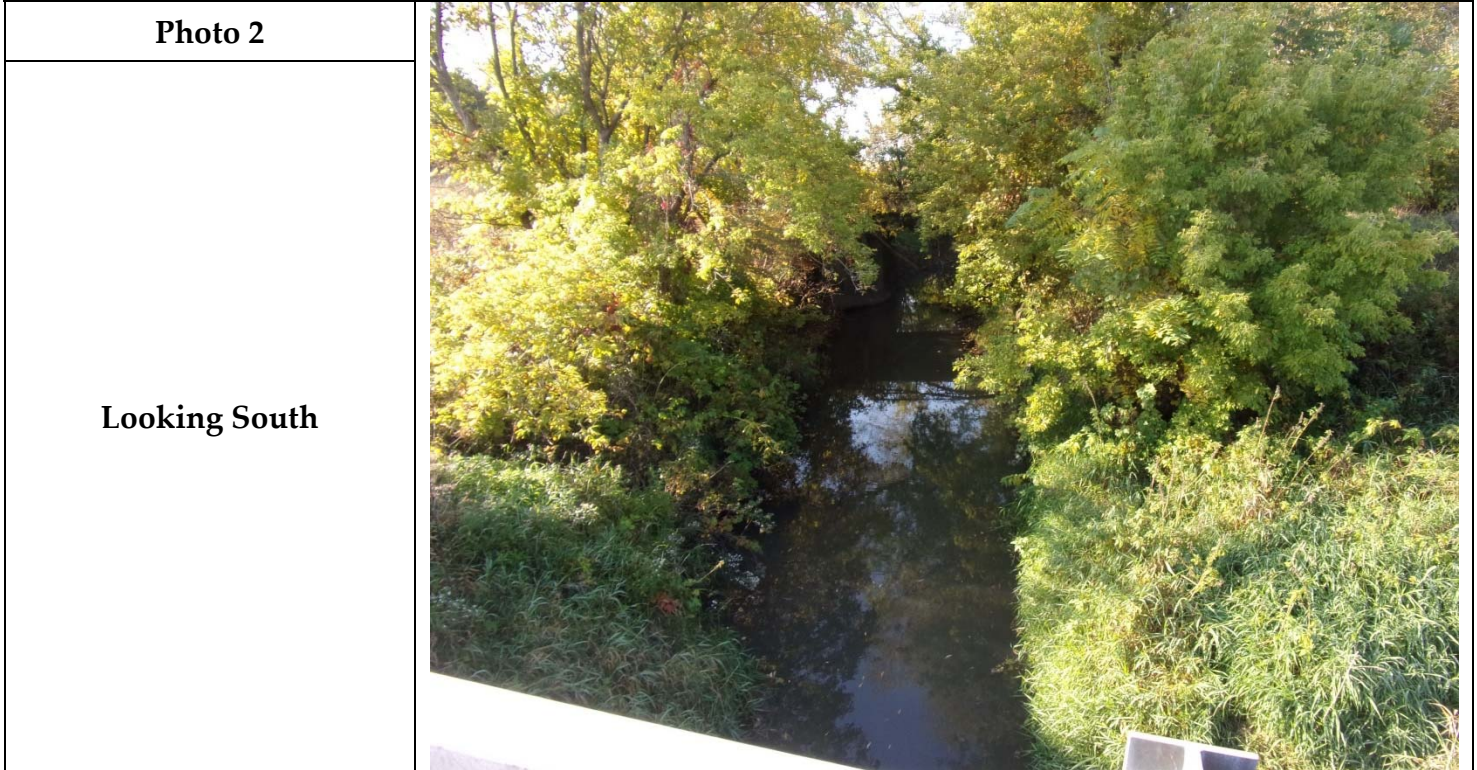
STRUCTURE NUMBER:	<i>056-3006</i>
ROAD NAME:	<i>Charles Road</i>
FEATURE CROSSED:	<i>Slough Creek</i>
TOWNSHIP:	<i>Greenwood</i>
COMMENTS:	<ul style="list-style-type: none">• <i>Collison damage to North beam</i>• <i>Spalls with exposed rebar on NW corner of West abutment</i>• <i>Leaking keyways</i>

PHOTOS

Photo 1	
Looking North	

2022 MCHENRY COUNTY COUNTY & TOWNSHIP BRIDGE INSPECTION PROGRAM

STRUCTURE NUMBER: 056-



**2022 MCHENRY COUNTY
COUNTY & TOWNSHIP
BRIDGE INSPECTION PROGRAM**

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Photo 4
Looking West

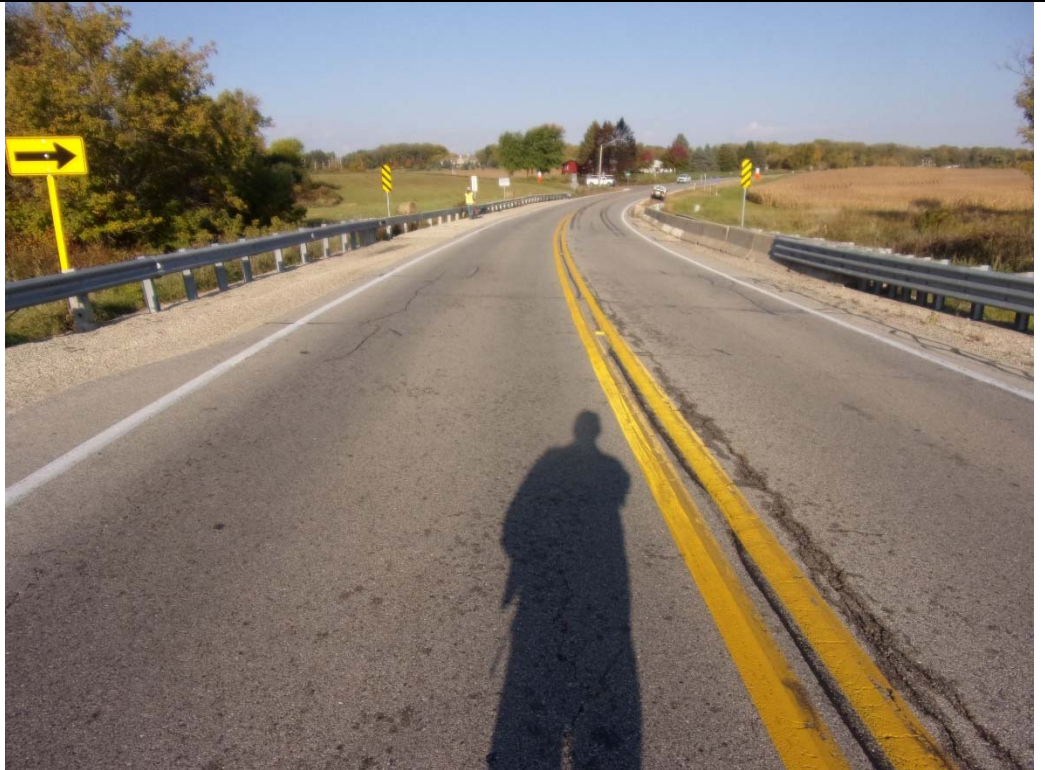


Photo 5
Scour in shoulder NW corn of guardrail



**2022 MCHENRY COUNTY
COUNTY & TOWNSHIP
BRIDGE INSPECTION PROGRAM**

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Photo 6
Viewing collision damage to outer beams.



Photo 7
Viewing collision damage to outer beams.



**2022 MCHENRY COUNTY
COUNTY & TOWNSHIP
BRIDGE INSPECTION PROGRAM**

STRUCTURE NUMBER:	056-
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Photo 8

**Viewing collision
damage to outer beams.**



Photo 9

**Northwest corner
Of West abutment**

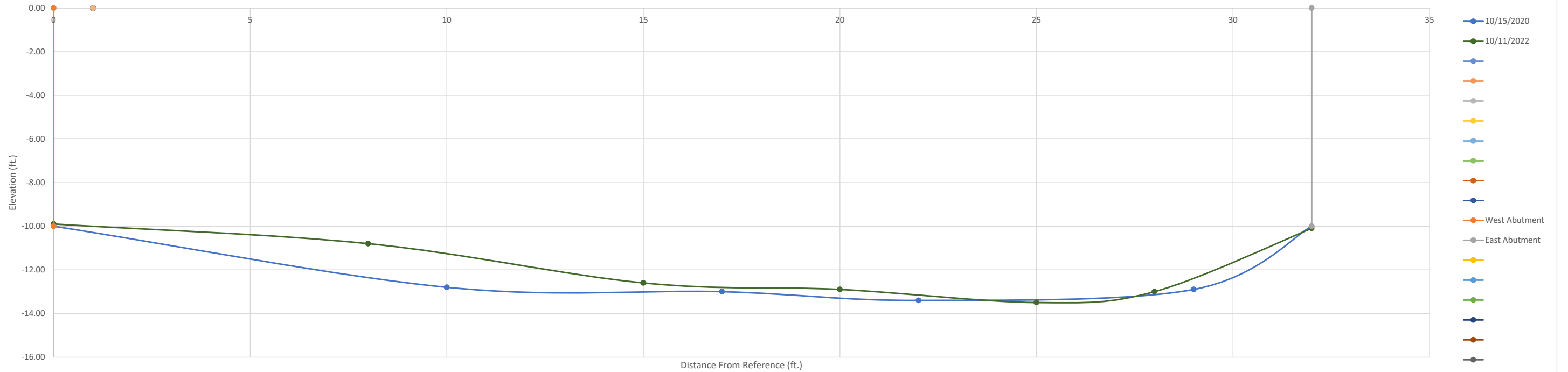


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COUNTY & TOWNSHIP
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Upstream Channel Cross Section



Downstream Channel Cross Section

