



CHAMPAIGN COUNTY BOARD HIGHWAY COMMITTEE AGENDA

County of Champaign, Urbana, Illinois

Friday, March 5, 2021 9:00 a.m.

Highway Building Conference Room

1605 E Main Street, Urbana, Illinois

Committee Members:

Lorraine Cowart – Chair

Diane Michaels – Vice-Chair

Titiana Ammons

Jim McGuire

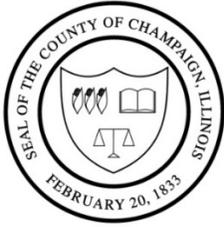
Brad Passalacqua

Cameron Raab

Jennifer Straub

- I. Call to Order
- II. Roll Call
- III. Approval of Agenda/Addenda
- IV. Approval of Minutes – February 5, 2021 1-3
- V. Public Participation
<https://us02web.zoom.us/j/89609744917?pwd=VG1rdEFjWEFHsVRwTUNITnhqRG5lQT09>
- VI. Communications
- VII. County & Township Motor Fuel Tax Claims – February 2021 4
- VIII. FY 2022 Section 5311 Rural Public Transportation and Downstate Operating Assistance Program (DOAP) Applications for Champaign County Area Rural Transit System (C-CARTS) 5
 - A. Resolution Authorizing Execution and Amendment of Section 5311 Grant Agreement 6
 - B. Public Transportation Applicant Ordinance 7
 - C. Resolution-Acceptance of the Special Warranty 8
- IX. Applied Research Associates, Inc. -Pavement Management System Update 2021-2025 9-22
- X. Resolution Appropriating an Additional \$250,000 from County Bridge Funds for the Replacement of Structure #010-0224, CH 13 Section #19-00077-00-BR 23-24
- XI. Resolution Awarding of Contract for Bridge Deck Replacement Section #19-00080-00-BR (The resolution will be updated after the letting on March 2, 2021) 25-26
- XII. Other Business
 - A. Semi Annual Review of Closed Session Minutes
- XIII. Chair's Report
- XIV. Designation of Items to be Placed on the Consent Agenda
- XV. Adjournment

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**Champaign County Board
Highway & Transportation Committee
County of Champaign, Urbana, Illinois**

7 **MINUTES – SUBJECT TO REVIEW AND APPROVAL**

8 DATE: Friday, February 5, 2021
9 TIME: 9:00 a.m.
10 PLACE: Highway Building Conference Room
11 1605 East Main Street, Urbana, Illinois
12

13 **Committee Members**

14 **Present:** Lorraine Cowart (Chair), Titianna Ammons (via Zoom), Jim McGuire (via Zoom), Diane
15 Michaels, Brad Passalacqua, Cameron Raab (via Zoom), Jennifer Straub (via Zoom)

16 **Absent:**

17
18 **County Staff:** Jeff Blue (County Engineer), Michelle Carter (Recording Secretary)
19

20 **Others Present:** Steve Summers, County Board Member (via Zoom)
21

22 **MINUTES**

23 **I. Call to Order**

24 Committee Chair Cowart called the meeting to order at 9:02 a.m.
25

26 **II. Roll Call**

27 A verbal roll call was taken, and a quorum was declared present.
28

29 **III. Approval of Agenda/Addendum**

30 **MOTION** by Ms. Michaels to approve the agenda; seconded by Mr. Passalacqua.

31 **MOTION CARRIED by unanimous roll-call vote.**

32 **Yeas: Ammons, McGuire, Passalacqua, Straub, Michaels, Cowart-6**

33 **Nays: None**
34

35 **Mr. Raab joined the meeting via Zoom at 9:05 AM.**
36

37 **IV. Approval of Minutes – January 8, 2021**

38 **MOTION** by Ms. Straub to approve the minutes of the January 8, 2021 meeting; seconded by Mr.
39 McGuire.

40 **MOTION CARRIED by unanimous roll-call vote.**

41 **Yeas: Ammons, McGuire, Passalacqua, Raab, Straub, Michaels, Cowart -7**

42 **Nays: None**
43

44 **V. Public Participation**

45 Mr. Blue stated that before the start of the Highway Committee Meeting today, Chuck Black from
46 the Local Iron Workers Union joined the meeting via Zoom and asked about upcoming projects.
47 Mr. Blue informed Mr. Black there was nothing on today's agenda relating to Iron Work. Mr. Blue
48 suggested that Mr. Black call his office for information relating to future projects.
49

- 50 **VI. Communications**
51 None
52
- 53 **VII. County & Township Motor Fuel Tax Claims-January 2021**
54 **MOTION** by Ms. Michaels to receive and place on file the County and Township Motor Fuel Tax
55 Claims for January 2021; seconded by Mr. McGuire.
56 **MOTION CARRIED by unanimous roll-call vote.**
57 **Yeas: Ammons, McGuire, Passalacqua, Raab, Straub, Michaels, Cowart -7**
58 **Nays: None**
59
- 60 **VIII. FY 20 Bridge Report**
61 Mr. Blue reviewed the Final Bridge Report discussing the breakdown of costs for each project
62 that was completed in 2020.
63
- 64 **IX. CH 13 Section #19-00077-00-BR Bridge Letting Results**
65 Mr. Blue discussed the bridge letting results for County Highway 13. He stated that four bids
66 were received with Big O Services submitting the lowest bid. Big O Services submitted a bid
67 amount of \$524,854.70 only 2 percent over the engineer's estimate. In January of this year a
68 resolution was passed allowing Mr. Blue to accept the low bid for construction if the low bid was
69 within 10% of the engineer's estimate.
70
- 71 **X. Petition Requesting and Resolution Approving Appropriation of Funds from the County Bridge**
72 **Fund, Harwood Township #21-11108-00-BR**
73 Mr. Blue discussed a culvert in Harwood Township that is in poor condition and needs replaced.
74 The culvert is north of 136 and east of Rantoul. The estimated cost of replacing the culvert is
75 \$20,000.00.
76 **MOTION** by Ms. Michaels to approve the resolution; seconded by Mr. Passalacqua.
77 **MOTION CARRIED by unanimous roll-call vote.**
78 **Yeas: Ammons, McGuire, Passalacqua, Raab, Straub, Michaels, Cowart -7**
79 **Nays: None**
80
- 81 **XI. Petition Requesting and Resolution Approving Appropriation of Funds from the County Bridge**
82 **Fund, Sadorus Township #21-22106-00-BR**
83 Mr. Blue discussed a bridge in Sadorus Township that needs repaired. The bridge is located
84 between sections 23 & 26. The estimated cost of repairing the bridge is \$18,000.00.
85 **MOTION** by Mr. Passalacqua to approve the resolution; seconded by Mr. McGuire.
86 **MOTION CARRIED by unanimous roll-call vote.**
87 **Yeas: Ammons, McGuire, Passalacqua, Raab, Straub, Michaels, Cowart -7**
88 **Nays: None**
89
- 90 **XII. Petition Requesting and Resolution Approving Appropriation of Funds from the County Bridge**
91 **Fund, Sadorus Township #21-22107-00-BR**
92 Mr. Blue informed the committee there is another bridge also located in Sadorus Township that
93 needs repaired. The bridge is located between sections 11 & 15. The cost of repairing the
94 bridge is estimated to be \$17,000.00.
95 **MOTION** by Mr. Passalacqua to approve the resolution; seconded by Mr. McGuire.
96 **MOTION CARRIED by unanimous roll-call vote.**
97 **Yeas: Ammons, McGuire, Passalacqua, Raab, Straub, Michaels, Cowart -7**
98 **Nays: None**
99

- 100 **XIII. Other Business**
101 A. Semi Annual Review of Closed Session Minutes
102 The review of the Closed Session Minutes is scheduled for the March 2021 Agenda.
103
104 Mr. Summers asked about the damaged bridge over interstate 74. Mr. Blue said the bridge is
105 on a township road in Saint Joseph Township. The Illinois Department of Transportation has
106 secured the bridge and placed detour signs. The damaged bridge is part of IDOT's 5-year
107 Capital Improvement Plan. The closing should have no impact on Champaign County Highway.
108
109 Mr. Summers asked for an explanation of riprap. Mr. Blue explained this is large rocks that are
110 placed under the bridge to stop erosion. The rip rap is usually placed 2-3' thick and then grout
111 is placed over the rocks.
112
113 Mr. Blue informed the committee he supports the decision to offer County employees weekly
114 COVID Testing through the University of Illinois testing site.
115
116 **XIV. Chair's Report**
117 None
118
119 **XV. Designation of Items to be Placed on the Consent Agenda**
120 Ms. Cowart stated that items X thru XII be placed on the consent agenda.
121
122 **XVI. Adjournment**
123 There being no further business, Ms. Cowart adjourned the meeting at 9:31 am.

124 ***Please note the minutes reflect the order of the agenda and may not necessarily reflect the order of business conducted at*
125 *the meeting.*

CHAMPAIGN COUNTY HIGHWAY DEPARTMENT

JEFF BLUE
COUNTY ENGINEER

1605 E. MAIN STREET

(217) 384-3800
FAX (217) 328-5148

URBANA, ILLINOIS 61802

February 22, 2021

COUNTY MOTOR FUEL TAX CLAIMS FOR FEBRUARY

Req No.	Payee	Description	Amount
4	Lehigh Hanson	CA-06/10 132.33 ton, 022RR03 45.10 ton	2,706.42
5	Lehigh Hanson	CA-06/10 153.83 ton	1,730.59
6	Cargill	Deicing Salt	63,166.11
7	Lehigh Hanson	CA-06/10 266.78 ton	3,345.42
8	ASTA Trust	ROW CH15	2,080.00
9	TAK Communications	ROW CH15	570.00
10	Kevin Woodard	ROW CH15	1,140.00
11	Lori Mintle	ROW CH15	1,140.00
12	Phillip Holycross	ROW CH15	1,140.00
13	Cargill	Deicing Salt	1,163.58
14	Lehigh Hanson	CA-06/10 22.34 ton	251.33
15	Traffic Sign Store	Stop Ahead sign	237.00
16	Tapco	Stop Signs Highway 12 and 20 intersection	3,670.00
17	Kevin Thurman	ROW CH15	2,100.00
18	Cheryl Lyn Long	ROW CH15	2,100.00
19	Carol McCloud	ROW CH15	1,281.25
20	Elizabeth McLean	ROW CH15	1,025.00
21	David Ellis	ROW CH15	768.75
22	Martha Ann Bynum	ROW CH15	768.75
23	Susan Riordan	ROW CH15	256.26

\$ 90640.46

TOWNSHIP MOTOR FUEL TAX CLAIMS FEBRUARY

Req No.	Payee	Description	Amount
1	Tuscola Stone	Colfax Twsp CA-15 F&D 1412.13 ton	27,014.17
2	Tuscola Stone	Hensley Twsp CA-15 F&D 995.85 ton	20,245.76
3	Tuscola Stone	Pesotum Twsp CA-16 F&D 296.15 ton	4,892.42
4	Tuscola Stone	St. Joseph Twsp CA-15 F&D 2501.06 ton	50,021.66
5	Carri Scharf Materials	Somer Twsp CA-16 F&D 1647.72 ton	40,204.38

\$142,378.39



CHAMPAIGN COUNTY
REGIONAL PLANNING
COMMISSION

Memorandum

To: Members of the Highway and Transportation Subcommittee of the Champaign County Board
From: Rita Morocoima-Black, CCRPC/CUUATS Planning and Community Development Director
 Samuel Stewart, CCRPC/Program Compliance Oversight Monitor for Champaign County Rural Public Transportation
Date: February 26, 2021
Re: FY2022 Section 5311 Rural Public Transportation and Downstate Operating Assistance Program (DOAP) Applications for Champaign County Area Rural Transit System (C-CARTS)

Requested Action: Approve the Resolution Authorizing Execution and Amendment of Section 5311 Grant Agreement, Public Transportation Applicant Ordinance, and Acceptance of Special Warranty as part of the Federal and State grant applications for Fiscal Year 2022 continued operation of Champaign County Area Rural Transit System (CCARTS).

Background: To continue to receive rural public transportation operating funding, Champaign County is required to submit grant applications annually for FTA section 5311 (Rural Public Transportation) and IL Downstate Operating Assistance Program (DOAP). These grants are awarded based on the Illinois Department of Transportation's (IDOT) Fiscal Year (July 1, 2021 - June 30, 2022). The separate applications were prepared by RPC staff with input from Champaign-Urbana Mass Transit District staff and will be submitted online.

FY21 SECTION 5311 AND DOAP GRANT APPLICATION BUDGET

Allocated federal funding for FY2022 is \$153,871, while the awarded DOAP funding is \$1,102,129. Total available funding is \$1,125,600; however, the amount of DOAP funding that Champaign County and its operator can obtain will depend on their ability to source local match funding. In order to be realistic, the FY2022 budget is based on actual expenditures, and the amount of DOAP requested is \$723,852. This means the total federal and state request for FY2022 is \$877,723, which is the same amount of requested in FY2021.

BUDGET VARIANCES

Each year a budget variances letter is submitted to IDOT explaining the reason for budget line item variances of 10% or greater. Below is a detailed summary of the budget variances from FY2021 to FY2022.

NOTEWORTHY GRANT APPLICATION ITEMS

IDOT changed the 5311 and DOAP grant application to be completely online this year. In lieu of submitting portions of the grant application with this memo, a list of the noteworthy items are cited below:

- Champaign County acquired no additional vehicles since the previous grant cycle last year.
- C-CARTS is currently revenue free due to COVID-19 pandemic.
- C-CARTS will continue operating Monday through Friday from 6:00am to 6:00pm.
- The projected miles are 310,000 and projected trips are 32,000.



Champaign County Urbanized Area Transportation Study
A program of the Champaign County RPC

1776 E. Washington St. Urbana, IL 61802
P 217.328.3313 F 217.328.2426
TTY 217.384.3862 CCRPC.ORG 5

Resolution No.

AUTHORIZING EXECUTION AND AMENDMENT OF SECTION 5311 GRANT AGREEMENT

WHEREAS, the provision of public transit service is essential to the people of Illinois; and

WHEREAS, 49 U.S.C. § 5311 (“Section 5311”), makes funds available to the State of Illinois to help offset certain operating deficits and administrative expenses of a system providing public transit service in non-urbanized areas; and

WHEREAS, the State of Illinois, acting by and through the Illinois Department of Transportation, is authorized by 30 ILCS 740/3-1 *et seq.* to provide the Section 5311 grant; and

WHEREAS, grants for said funds will impose certain obligations upon the recipient, including the provision by it of the local share of funds necessary to cover costs not covered by funds provided under Section 5311 or the Act.

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF CHAMPAIGN COUNTY:

Section 1. That an application be made to the Office of Intermodal Project Implementation, Department of Transportation, State of Illinois, for a financial assistance grant under Section 5311 and the Act for fiscal year 2021, for the purpose of off-setting a portion of the Public Transportation Program operating expenses and deficits of Champaign County.

Section 2. That while participating in said operating assistance program, Champaign County will provide all required local match funds.

Section 3. That the Champaign County Executive is authorized to execute and file on behalf of Champaign County such application.

Section 4. That the Champaign County Executive is authorized to furnish such additional information as may be required by the Office of Intermodal Project Implementation and the Federal Transit Administration in connection with the aforesaid application for said grant.

Section 5. That the Champaign County Executive is authorized to execute and file on behalf of Champaign County a Section 5311-Downstate Operating Assistance Grant Agreement (“Agreement”) with the Illinois Department of Transportation and amend such Agreement, if necessary, in order to obtain grant assistance under the provisions of Section 5311 and the Act for fiscal year 2021.

Section 6. That the Champaign County Executive is authorized to provide such information and to file such documents as may be required to perform the Agreement and to receive the grant for fiscal year 2021.

PRESENTED and ADOPTED this 18th day of March 2021.

Attest

(Date)

Champaign County Executive

(Date)

Public Transportation Applicant Ordinance

ORDINANCE NUMBER:

AN ORDINANCE TO PROVIDE FOR PUBLIC TRANSPORTATION IN CHAMPAIGN COUNTY, ILLINOIS

Whereby, public transportation is an essential public purpose for which public funds may be expended under Article 13, Section 7 of the Illinois Constitution; and

WHEREAS, Champaign County wishes to provide public transportation for its citizens and become eligible for grants from the State of Illinois or any department or agency thereof, from any unit of local government, from the Federal government or any department or agency thereof; and

WHEREAS, Illinois Compiled Statutes 740/2-1 et seq. authorizes a county to provide for public transportation within the (county or counties) limits:

NOW, THEREFORE, BE IT ORDAINED that:

Section 1. Champaign County shall hereby provide public transportation within the (county or counties) limits.

Section 2. The clerk/secretary of the governing board of Champaign County shall file a certified copy of this Ordinance, within sixty days after passage of this ordinance.

Section 3. This Ordinance shall be in full force and effect from and after its passage and approval, as required by law.

Section 4. That the Champaign County Executive is authorized to execute and file on behalf of Champaign County a Grant Application to the Illinois Department of Transportation.

Section 5. That the Champaign County Executive is authorized to execute and file on behalf of Champaign County all required Grant Agreements with the Illinois Department of Transportation.

PASSED by the Champaign County Board on the 18th day of March 2021, and deposited and filed in the office of the clerk/secretary on that date.

Elected Board Members _____

PRESENT _____

AYE _____

NAY _____

Champaign County Executive signature

Attest signature

RESOLUTION NO.

Acceptance of the Special Warranty

WHEREAS, Section 5311 of the Federal Transit Act of 1964, as amended, makes funds available to help offset certain operating deficits of a system providing public transit service in non-urbanized areas; and

WHEREAS, 49 U.S.C. § 5333(b) requires that fair and equitable arrangements must be made to protect the interests of employees affected by such assistance as a condition of receipt of funds under Section 5311; and

WHEREAS, A simplified process for assuring employee protections that accommodates the needs of participants in the Section 5311 program has been agreed upon by the U.S. Department of Labor and the U.S. Department of Transportation by allowing execution of a Special Section 5333(b) Warranty for Section 5311 projects (Special Warranty), which the Secretary of Labor certified on May 31, 1979;

NOW, THEREFORE, BE IT RESOLVED BY THE CHAMPAIGN COUNTY BOARD:

Section 1. That an application be made to the Division of Public Transportation, Department of Transportation, State of Illinois, for a financial assistance grant under Section 5311 of the Federal Transit Act of 1964, as amended.

Section 2. As a condition of the receipt of Section 5311 funds, County Board of Champaign County, IL hereby agrees in writing to the terms and conditions of the Special Warranty (attached) regarding fair and equitable arrangements to protect the interests of employees affected by such assistance.

PRESENTED and ADOPTED this 18th day of March, 2021

_____ Date:_____

Attest: Aaron Ammons
Champaign County Clerk

_____ Date:_____

Darlene Kloeppel
Champaign County Executive



February 19, 2021

Jeff Blue, P.E.
County Engineer
Champaign County
1605 E. Main St.
Urbana, IL 61802
(217) 384-3800 telephone
jblue@co.champaign.il.us

**Subject: Champaign County Pavement Management System Update—2021-25
Maintenance and Rehabilitation Plan. ARA Project No. 003957**

Dear Mr. Blue:

Applied Research Associates, Inc. (ARA) appreciates the opportunity to submit to Champaign County your annual Pavement Management System (PMS) update, including the 2021-25 maintenance and rehabilitation plan.

It has been a pleasure providing pavement management services to Champaign County and we look forward to our continued relationship.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Steele".

Douglas A. Steele, P.E.
Senior Engineer

A handwritten signature in black ink, appearing to read "W. Vavrik".

William R. Vavrik, Ph.D., P.E.
Vice President and Principal Engineer

Attachment

cc: Joe Stefanski, ARA

TRANSPORTATION SECTOR

100 TRADE CENTRE DRIVE, SUITE 200 ■ CHAMPAIGN, IL 61820
(217) 356-4500 ■ FAX: (217) 356-3088 ■ WWW.ARA.COM/TRANSPORTATION

REPORT

**Champaign County Pavement Management System
2021-25 Maintenance and Rehabilitation Plan**

Prepared for:

Champaign County Highway Department

1605 E. Main St.
Urbana, IL 61802
Tel. (217) 384-3800

Prepared by:

Applied Research Associates, Inc.

Transportation Sector
100 Trade Centre Dr., Suite 200
Champaign, IL 61820
Tel. (217) 356-4500

February 19, 2021

TABLE OF CONTENTS

Background	2
Updated Records.....	3
Past Year Maintenance and Rehabilitation Projects	3
Funding Updates	3
Pavement Condition	4
New Construction Assurance Testing.....	6
PMS Update.....	7
Unit Costs for Treatments	7
Treatment Matrix	7
Five-Year M&R Plan and Condition Forecast	9

BACKGROUND

The Champaign County Highway Department's pavement management system (PMS) objectively evaluates, assesses, and manages approximately 400 lane-miles of County-maintained roads in Champaign County. Applied Research Associates, Inc. (ARA) implemented and manages the PMS through a multiyear contract with the County. In addition to providing an objective means of evaluating roadway conditions and optimizing limited construction funds, the County's PMS has served as a resource for addressing other issues, including preparing for the impact of new enterprises such as windfarms that may affect County roads, selecting suitable candidates for additional funding sources when they become available, and providing construction history and condition data for project-level design purposes.

This report summarizes the 2021-25 update to the County's five-year maintenance and rehabilitation plan and long-term pavement condition forecast. ARA performed this analysis using previously collected pavement condition data and updated construction history information provided by the County. ARA will update this plan using a new round of field data collection in 2021.



Figure 1. Champaign County's PMS optimizes the expenditure of construction funds over the long-term by choosing the most appropriate treatment and timing for road improvements, such as the cold in-place recycling (CIR) planned for County Highway 15 from S.R. 130 to Sidney this year.

UPDATED RECORDS

The County Highway Department completed the following construction and maintenance activities in 2020.

Past Year Maintenance and Rehabilitation Projects

The County performed the following construction project last year:

- CH 32 (through Gifford): 2” mill and 2” asphalt concrete (AC) overlay

In addition, the County performed chip sealing on four roads:

- CH 13 (entire length)
- CH 16 (entire length)
- CH 23 (entire length)
- CH 25 (entire length)

Funding Updates

Based on conversations with the County Engineer, we have increased the construction budget to \$3.8 million per year to account for increased MFT and annual federal contributions.

PAVEMENT CONDITION

The County's PMS uses the Pavement Condition Index (PCI) to characterize pavement condition and for selection of the optimal treatment and timing of improvements. In 2019 we performed this condition survey using an automated digital survey vehicle (DSV) that collected images on 100 percent of Champaign County's highway network. For the current analysis, ARA projected pavement deterioration based on the prediction curve in figure 2, which has been updated to include data from previous years' surveys. In general, new or resurfaced roads begin at a PCI of 100 and deteriorate over time at a rate similar to the curve, with a typical AC overlay life of 17 years.

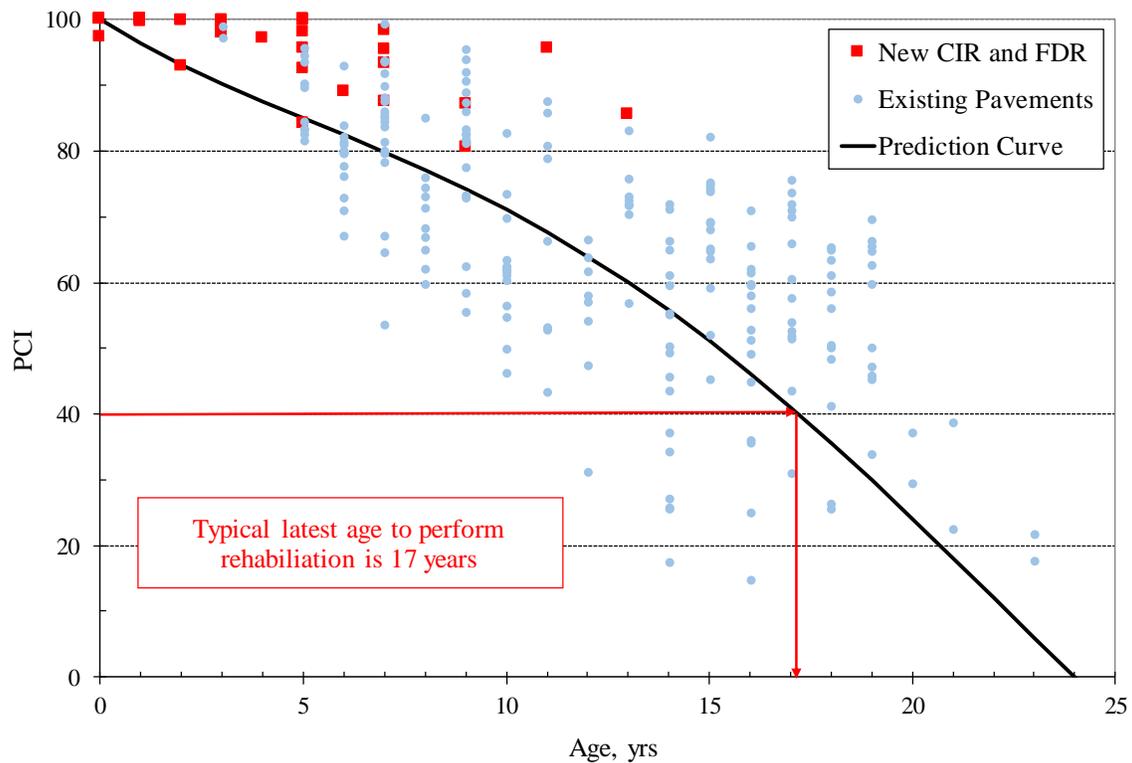


Figure 2. AC overlay deterioration curve developed based on Champaign County data.

Figure 3 shows the spatial distribution of PCI values by section. The distribution based on lane mileage by rating is:

- Very Good (100 to 80) = 44.2 percent
- Good (<80 to 60) = 34.5 percent
- Fair (<60 to 40) = 10.9 percent
- Poor (<40 to 20) = 10.2 percent
- Very Poor (<20 to 0) = 0.2 percent

The projected end of year 2020 overall network PCI value was 76.6, corresponding to a good condition rating.

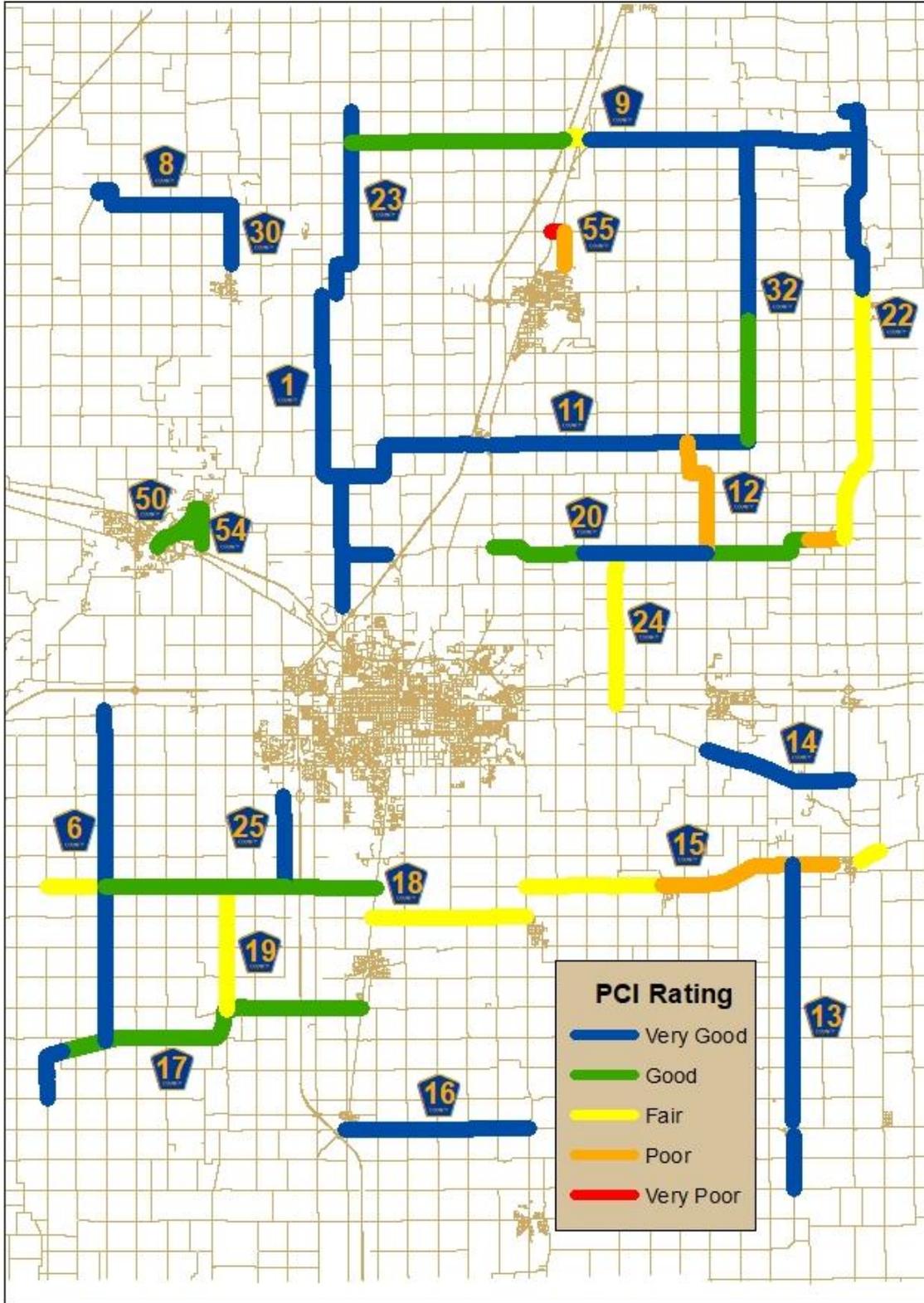


Figure 3. 2020 PCI ratings (end of year projection).

NEW CONSTRUCTION ASSURANCE TESTING

In 2020 ARA FWD tested the two sections of CH 9 that were reconstructed using 10 inches of full-depth reclamation (FDR) and a 4-inch AC overlay in 2019. This includes the section from US 45 to CR 2000E (9-3) that was previously an AC pavement in the eastbound lane and an AC overlay of rubblized concrete in the westbound lane, and the section from CR2000E to CH 32 (9-4) that was previously an AC pavement with a stabilized base in both directions. We tested the two pavements every 0.1 miles in each lane, staggered between the two traffic directions, to evaluate the rehabilitated pavement’s structural response, confirm the effectiveness of its rehabilitation, and to provide a baseline for monitoring of future structural condition.

Figure 4 displays the maximum deflections for both sections by lane. The data show average deflections of 11.3 and 9.4 mils for sections 9-3 and 9-4, respectively, indicating good structural response. In general, lower deflections are indicative of thicker or stiffer pavements, while higher deflections reflect thinner, weaker, or more deteriorated roads. The lower deflections in section 9-4 indicate a slightly stiffer structural response, possibly due to the remainder of a portion of its stabilized base that was reported in the records review conducted as part of the original PMS implementation.

Deflections are similar between lanes, indicating equivalent pavement structures in both directions.

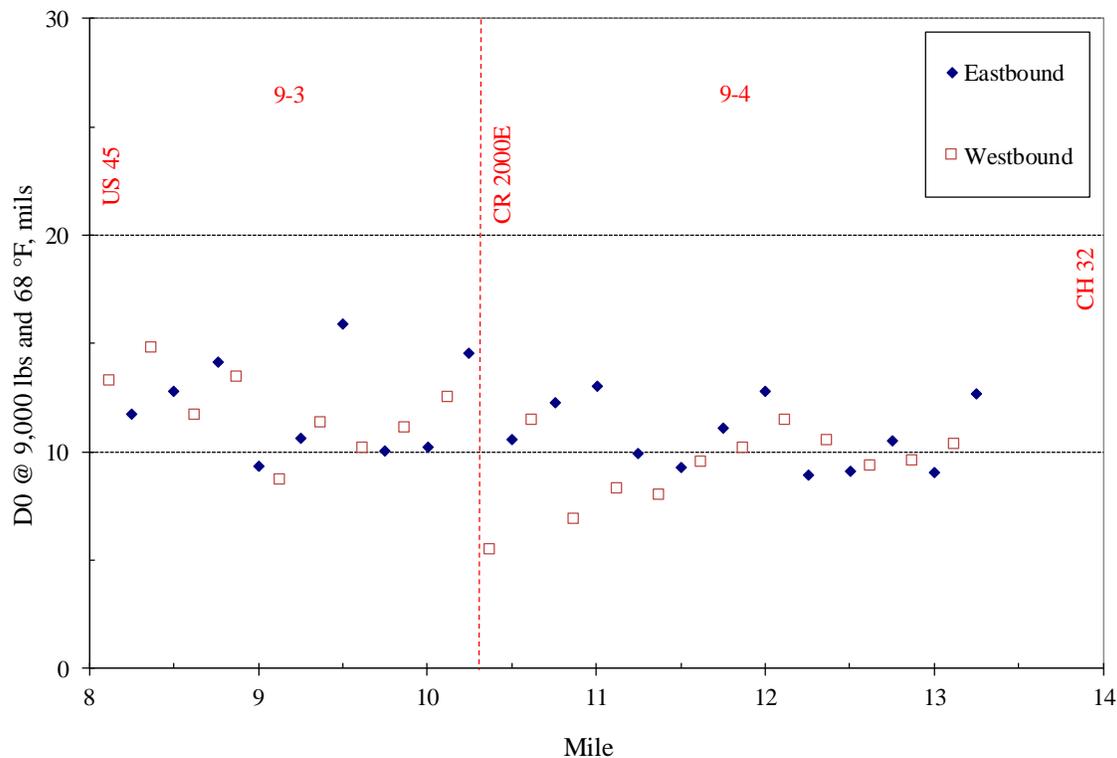


Figure 4. FWD maximum deflections on the recently rehabilitated CH 9 sections.

PMS UPDATE

ARA updated Champaign County’s RoadCare PMS database with last year’s maintenance and construction projects and performed a 10-year simulation of pavement deterioration and improvements to determine the projects to include in the next 5-year maintenance and rehabilitation (M&R) plan. The analysis used the following information as inputs.

Unit Costs for Treatments

Champaign County provided estimated unit cost data for typical work activities, such as placing chip seals, AC milling, and placing AC overlays. From this, ARA determined typical unit costs for each M&R alternative listed in the treatment matrix. The County provided costs on a per lane-mile basis and we subsequently converted to units of cost per square yard. Table 1 presents the estimated unit costs.

Table 1. Estimated unit costs used in RoadCare.

Activity Description	Budget Category	Unit Cost (\$/sy)	Unit Cost (\$/cl-mi) ^a
Crack Sealing	Maintenance	\$ 0.98	\$ 13,798
Chip Sealing	Maintenance	\$ 1.99	\$ 28,019
2” HIR and 2” AC Overlay	Construction	\$ 19.00	\$ 267,520
4” CIR and 3” AC Overlay	Construction	\$ 27.00	\$ 380,160
Reconstruction and 4” AC	Construction	\$ 36.00	\$ 506,880

^a Based on two 12-ft lanes.

Treatment Matrix

Figure 5 shows the Champaign County treatment matrix. ARA modified the matrix from previous year’s based on discussions with the County Engineer and experience gained from previous local experience. The matrix is driven by the PCI rating, with surface treatments performed early in the pavement life (maximum of two rounds) and CIR performed once the pavements have deteriorated to a condition where chip seals are no longer viable. Hot in-place recycling (HIR) is an alternative when the pavement is experiencing functional issues, such as excessive rutting or roughness, but structurally sound, as determined through deflection testing.

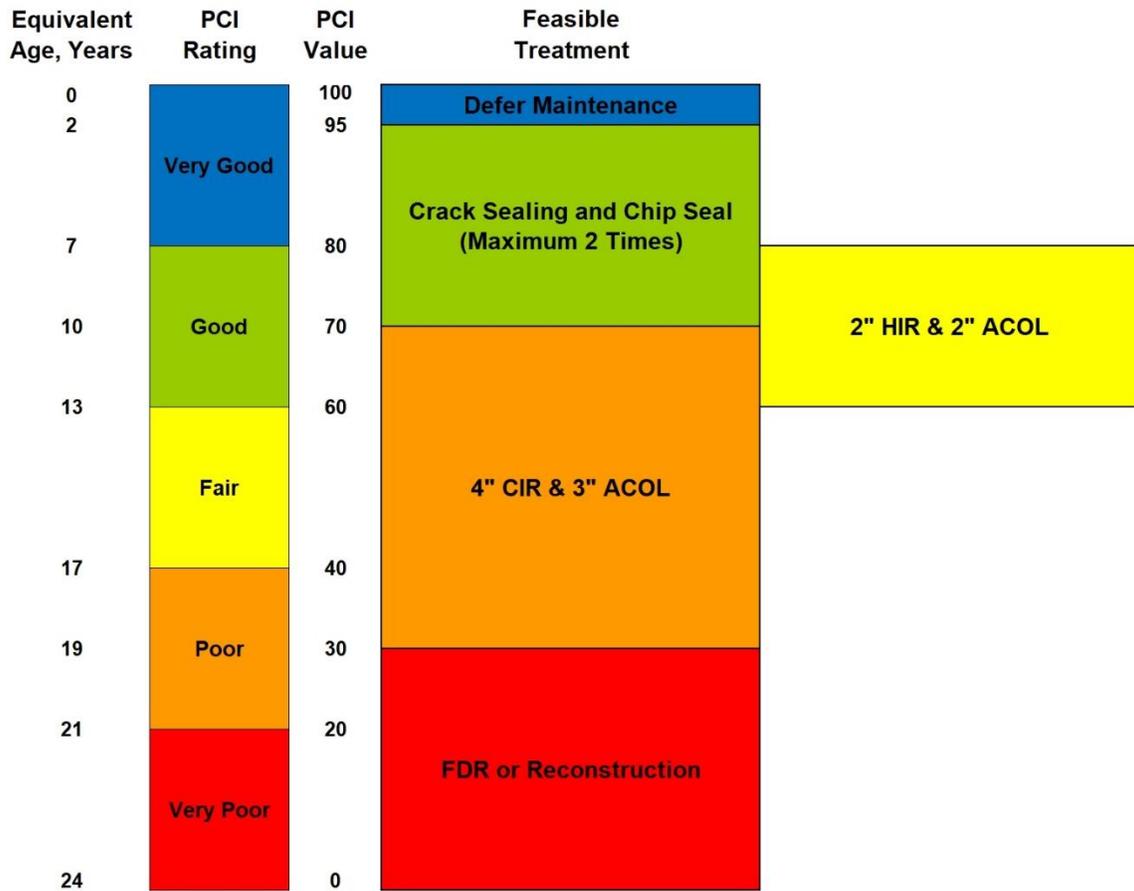


Figure 5. The Champaign County treatment matrix.

All rehabilitated roads are chip sealed in years 2 and 10 following construction.

FIVE-YEAR M&R PLAN AND CONDITION FORECAST

Maintenance and Rehabilitation Plan

ARA updated the maintenance and rehabilitation plan by simulating pavement deterioration and improvements in RoadCare over a 10-year period. RoadCare simulates deterioration of each section based on the performance curve determined specifically for Champaign County roads and increases the condition rating accordingly for any road receiving a maintenance or construction treatment during the simulation period. RoadCare selects projects with the highest benefit-to-cost ratio that are feasible within the allocated budget. Additional anticipated funding from sources other than State MFT funds (such as Federal STR or State HSIP funds) are added to the annual \$2,500,000 MFT construction and maintenance fund. ARA and the County Engineer finalized the maintenance and rehabilitation program based on practical considerations, such as spatial distribution of selected projects and anticipated funding.

Table 2 presents the proposed 5-year plan for the current analysis period. Figure 6 presents the surface treatment and rehabilitation projects for all five years. The main rehabilitation projects for the next five years include:

- 2021: CH 15 (SR 130 to Sidney) – CIR with AC overlay and safety improvements
- 2022: CH 20 (US 45 to CH 22) – HIR with AC overlay
- 2023: CH 18 (US 45 to SR 130) – CIR with AC overlay and safety improvements
- 2024: CH 15 (Sidney to County Line) – CIR with AC overlay
- 2025: CH 12 (CH 20 to CH 11) – CIR with AC overlay
- 2025: CH 24 (US 150 to CH20) – CIR with AC overlay

Table 3 presents the expected pavement expenditures for the next 5 years, based on the RoadCare simulation results.

Table 2. Detailed work activities for 2021 to 2025.

Year	Route	Section Number(s)	Begin MP	End MP	Activity	Cost
2021	CH15	15-1	0.0	4.5	4" CIR & 3" ACOL ^a	\$1,709,960
	CH09	09-3,4	8.1	13.3	Chip Seal	\$145,952
2022	CH20	20-3,4,5,6	5.69	17.83	2" HIR & 2" ACOL	\$3,247,695
	CH32	32-2	3.96	4.97	Chip Seal	\$28,299
2023	CH18	18-5	11.97	17.1	4" CIR & 3" ACOL ^a	\$1,953,263
	CH15	15-1	0	4.5	Chip Seal	\$126,030
2024	CH15	15-2,3,5	4.5	12.1	4" CIR & 3" ACOL	\$2,513,620
	CH20	20-3,4,5,6	5.69	17.83	Chip Seal	\$340,153
2025	CH12	12-1	0	4.17	4" CIR & 3" ACOL	\$1,585,649
	CR24	24-1,2	0	5.02	4" CIR & 3" ACOL	\$1,908,025
	CH18	18-5	11.97	17.1	Chip Seal	\$143,963

^a Includes safety improvements

Table 3. Projected expenditures for 2021 to 2025.

Budget	2021	2022	2023	2024	2025
Maintenance	\$145,952	\$28,299	\$126,030	\$340,153	\$143,963
Construction	\$1,709,960	\$3,247,695	\$1,953,263	\$2,513,620	\$3,493,674
Total	\$1,855,912	\$3,275,994	\$2,079,293	\$2,853,773	\$3,637,637

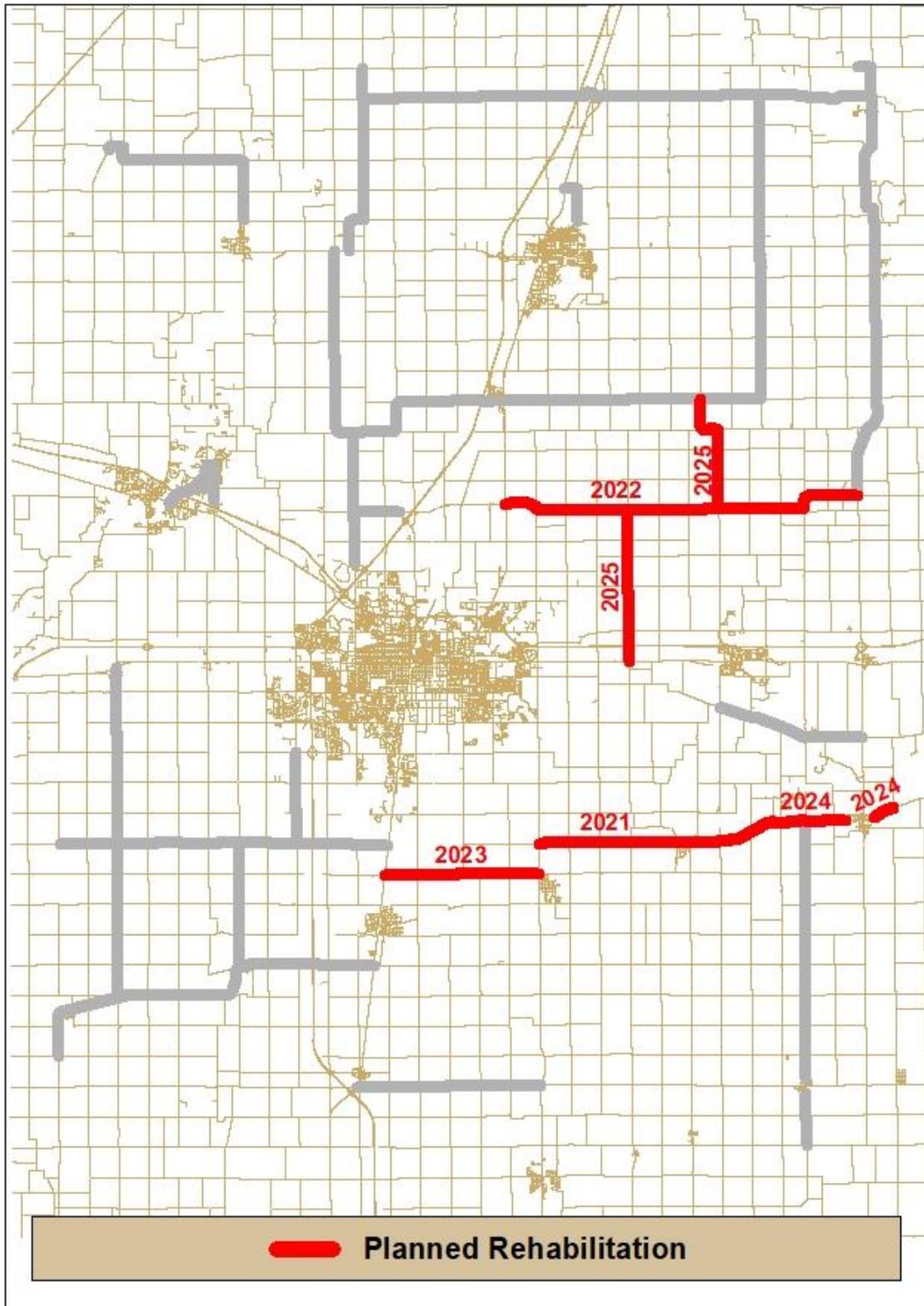


Figure 6. Rehabilitation and surface treatment plan, 2021 to 2025 (event year shown in red).

10-Year Network Condition Forecast

Figure 7 presents the RoadCare pavement condition simulation results for the next 10 years. The chart shows the predicted percentage of lane mileage in each rating category (e.g., very good, good, fair, poor, and very poor) and the predicted average network PCI. The simulation predicts that the network PCI value will hold steady over the next 10 years at an average value of 72.8 (i.e., good). The percentage of pavements in good and very good condition are expected to stay about the same, while the number of pavements in poor and very poor condition will increase slightly.

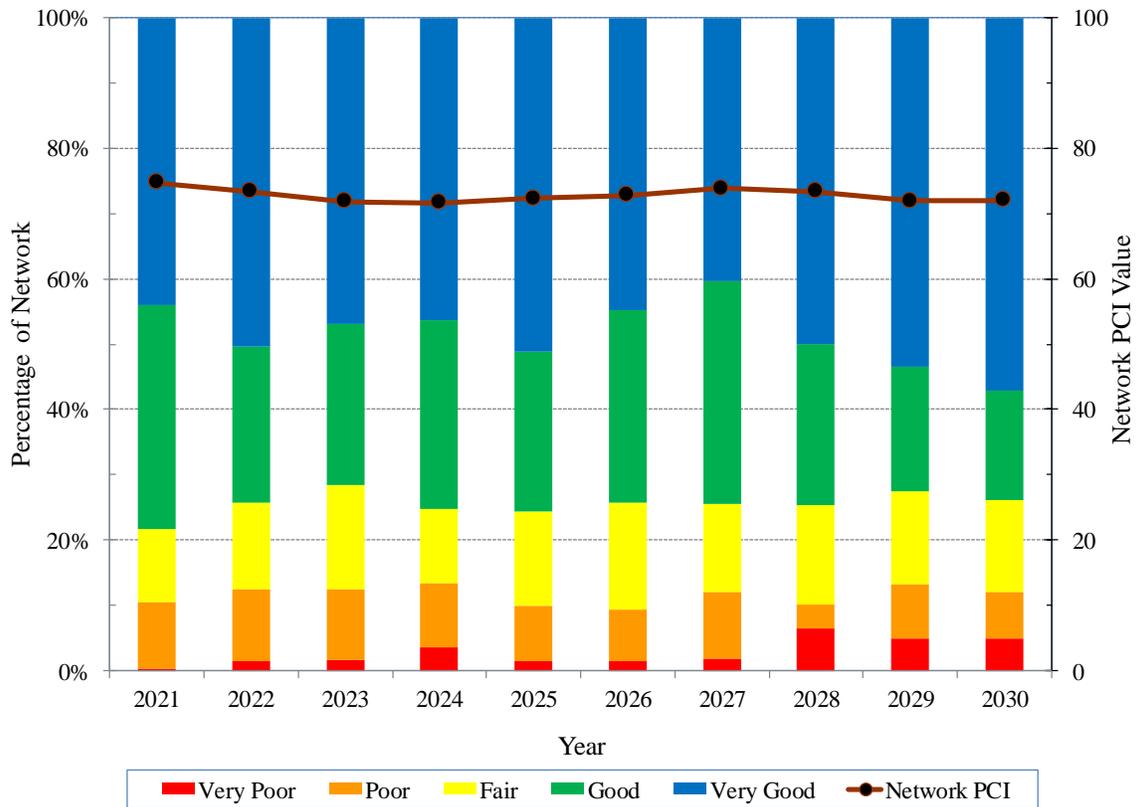


Figure 7. Predicted network condition for 2021 to 2030.

RESOLUTION NO. _____

**RESOLUTION APPROPRIATING AN ADDITIONAL \$250,000
FROM COUNTY BRIDGE FUNDS
FOR THE REPLACEMENT OF STRUCTURE #010-0224
COUNTY ROAD 13
SECTION #19-00077-00-BR**

WHEREAS, Structure #010-0224 on County Road 13 (Broadlands Road) over the Little Vermillion Ditch in Ayers Township is in poor condition and is inadequate to serve the needs of the traveling public; and

WHEREAS, the original estimate of costs was based on replacing the existing triple box culvert with another culvert; and

WHEREAS, the hydraulic analysis mandated a bridge instead of a box culvert; and

WHEREAS, Bids were received on January 27, 2021 for the construction of a new bridge; and

WHEREAS, The cost of replacing the aforesaid bridge, including preliminary engineering is now estimated to be \$650,000.00; and

WHEREAS, Resolution Number 2020-35, approved on February 20, 2020 appropriated \$400,000 for the replacement of this structure.

NOW, THEREFORE, BE IT RESOLVED, That there is hereby appropriated an additional Two Hundred and Fifty Thousand Dollars (\$250,000.00) from County Bridge Funds for the construction of the bridge.

PRESENTED, ADOPTED, APPROVED and RECORDED this 18th day of March 2021.

Kyle Patterson, Chair
Champaign County Board

Approved:

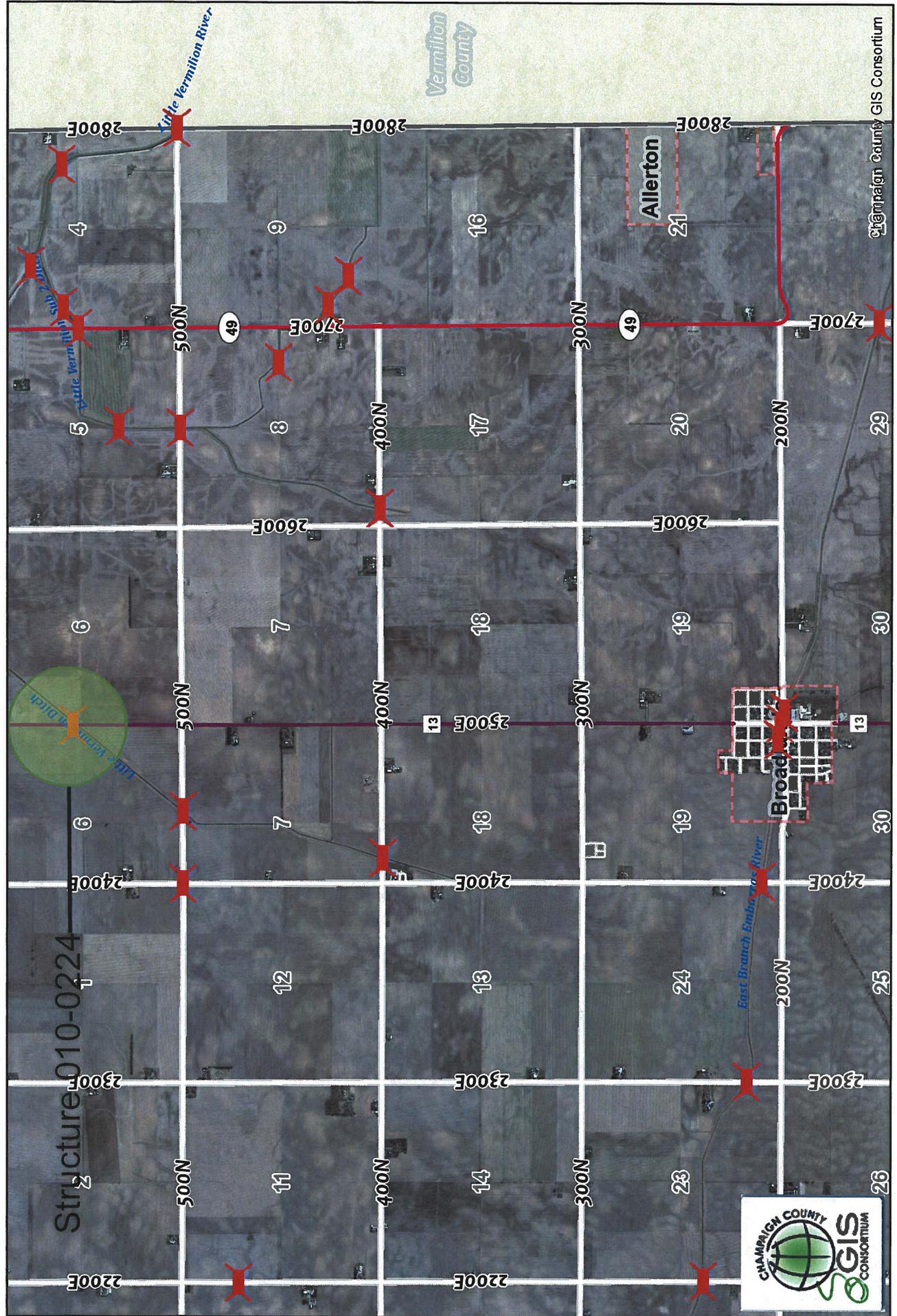
Recorded & Attest: _____
Aaron Ammons, County Clerk
and ex-Officio Clerk of the
Champaign County Board

Darlene A. Kloeppel, County Executive

Date: _____

Prepared by: Jeff Blue, County Engineer

Structure 010-0224



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2,300 Feet
 Date: Friday, May 24, 2019

RESOLUTION NO.

RESOLUTION AWARDING OF CONTRACT FOR
BRIDGE DECK REPLACEMENT
SECTION #19-00080-00-BR

WHEREAS, The following low bid was received at a Public Letting held on March 2, 2021 in Urbana, Illinois, for the deck replacement on bridge 010-4125 on County Highway 11 (Flatville Road) in Champaign County

XXXXXXXXXXXXXXXXXXXX

WHEREAS, The County Engineer recommends to the County Board that the low bid be awarded; and

WHEREAS, The County Board of Champaign County concurs in the action recommended by the County Engineer.

NOW, THEREFORE, BE IT RESOLVED, That the County Board of Champaign County does hereby award the above listed bid to XXXXXXXXXXXXXXXX.

PRESENTED, ADOPTED, APPROVED AND RECORDED this 18th day of March 2021.

Kyle Patterson, Chair
Champaign County Board

Approved: _____
Darlene A. Kloepfel, County Executive

Date: _____

Recorded
& Attest: _____
Aaron Ammons, County Clerk
and ex-Officio Clerk of the
Champaign County Board

Date: _____

Prepared by: Jeff Blue, County Engineer

Bridge 010-4125



This map was prepared with geographic information system (GIS) data created by the Champaign County GIS Consortium (CCGIS), or other CCGISC member agency. These entities do not warrant or guarantee the accuracy or suitability of GIS data for any purpose. The GIS data within this map is intended to be used as a general index to spatial information and not intended for detailed, site-specific analysis or resolution of legal matters. Users assume all risk arising from the use or misuse of this map and information contained herein. The use of this map constitutes acknowledgement of this disclaimer.

2,300 Feet

Date: Tuesday, July 16, 2019