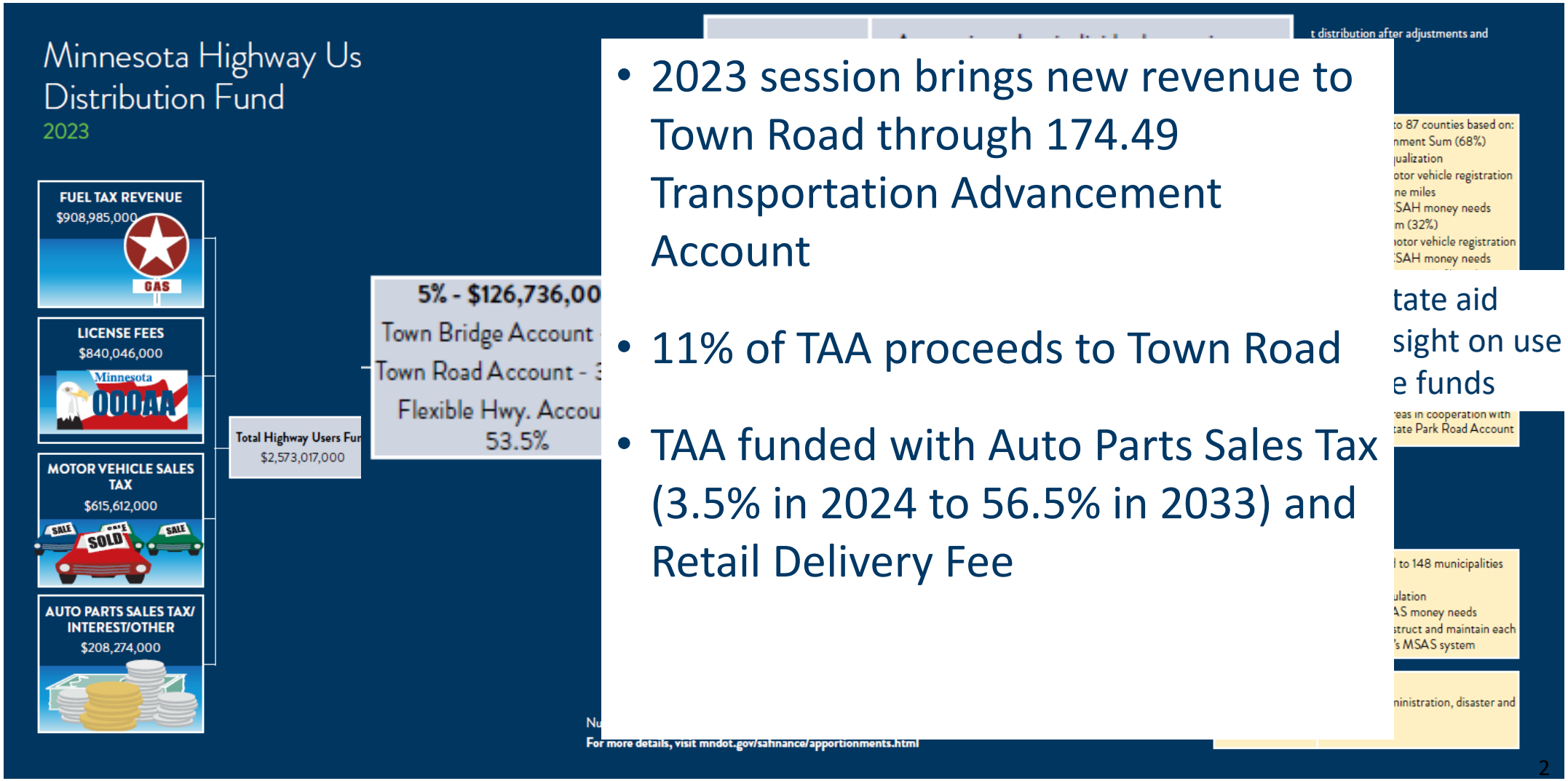
DEPARTMENT OF TRANSPORTATION

Township Roads

Marc Briese, Angie Tomovic

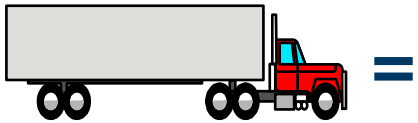
County Engineer State Aid Refresher Training: June 21, 2023

Town Road Funding



- 2023 session brings new revenue to Town Road through 174.49 Transportation Advancement Account
- 11% of TAA proceeds to Town Road
- TAA funded with Auto Parts Sales Tax (3.5% in 2024 to 56.5% in 2033) and Retail Delivery Fee

1 Legal Truck ~ 9600 Cars



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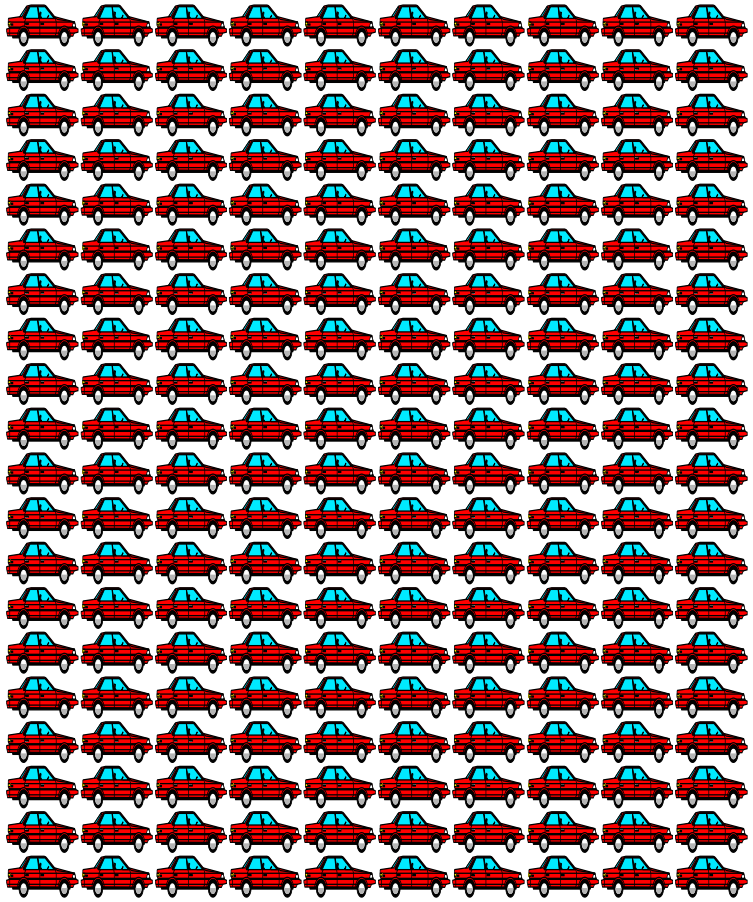
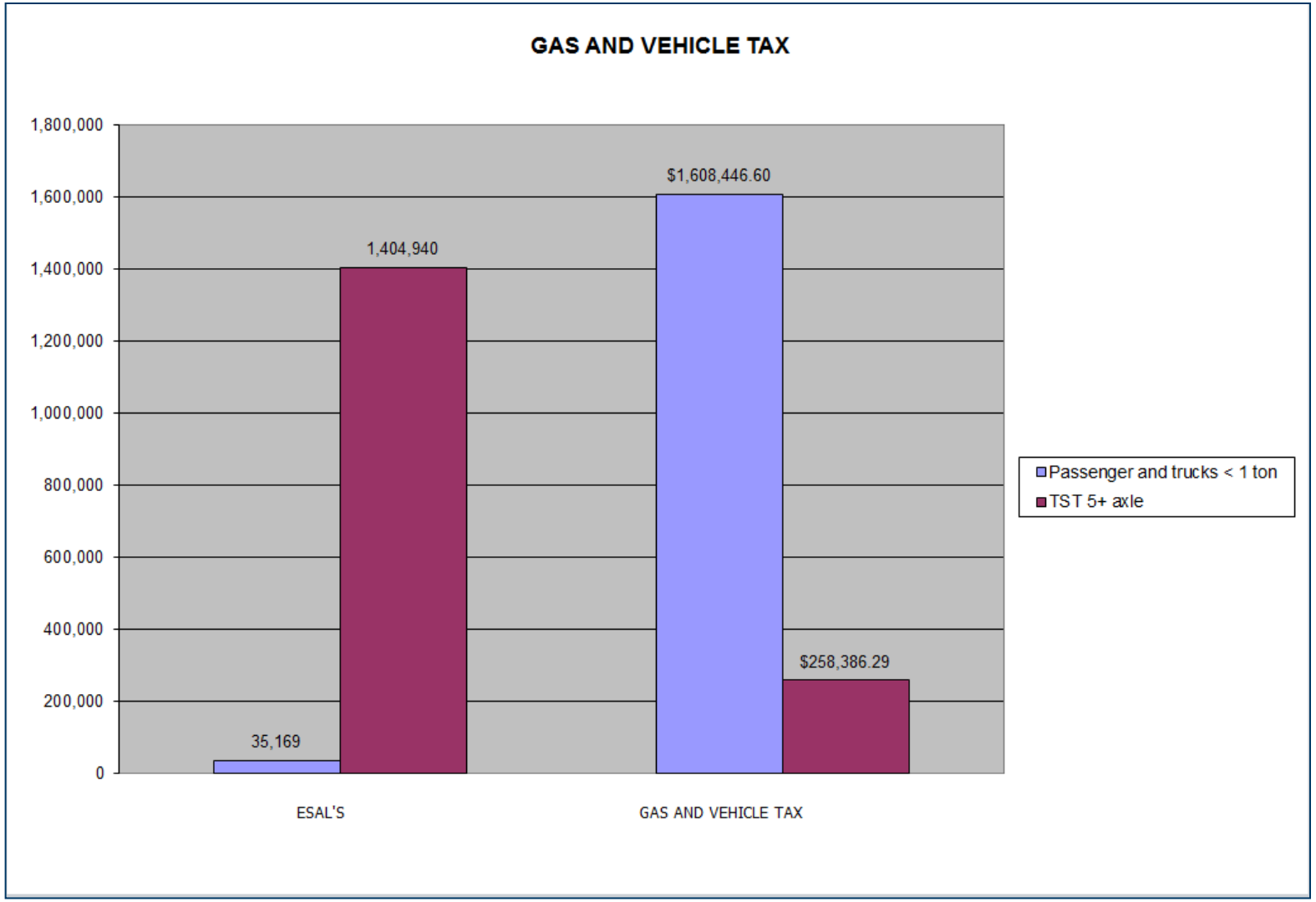


Plus 47 more pages…

ESAL & Tax Comparison

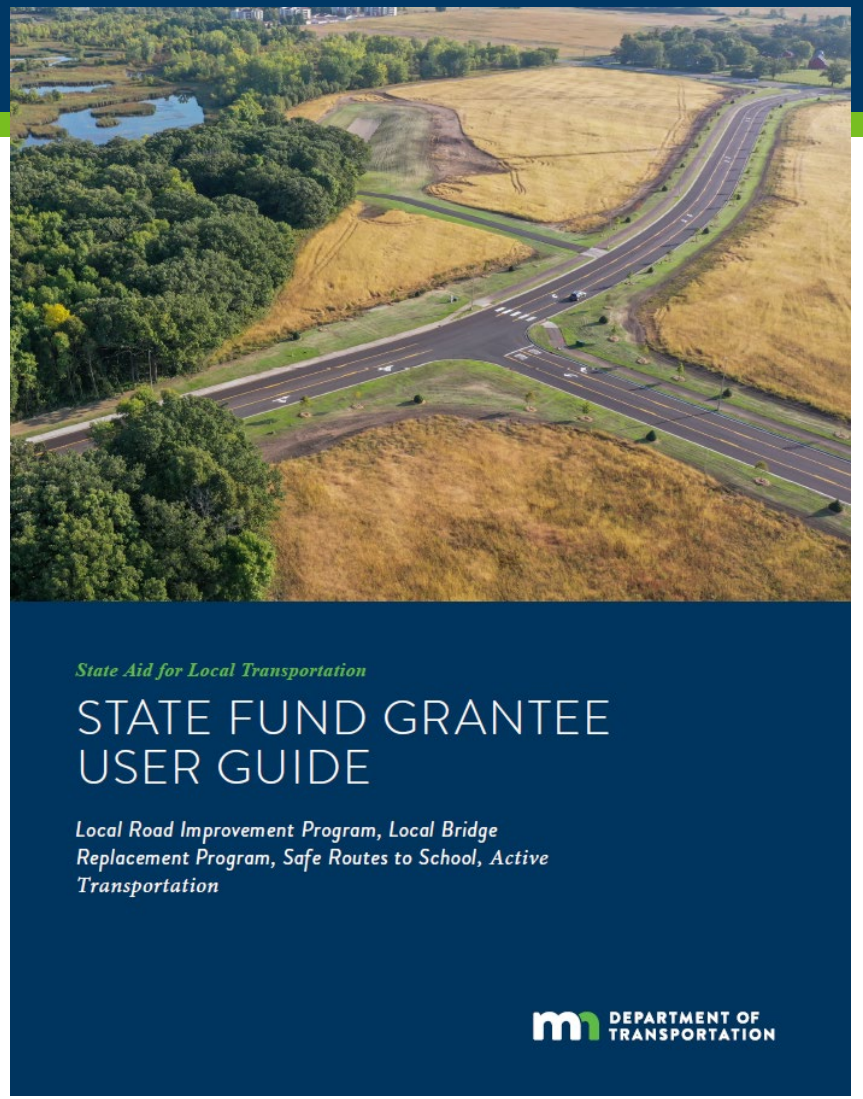


Competitive Grant Opportunities

- Competitive Grant Opportunities
  - Local Road Improvement (http://www.dot.state.mn.us/stateaid/lrip.html)
  - Safety Routes to School (http://www.dot.state.mn.us/saferoutes/infrastructure-grants.html)
  - Active Transportation (http://www.dot.state.mn.us/active-transportation-program/infrastructure-grants.html)
- Township applications require county sponsorship, must follow state aid process and procedures, requires grant agreement
- Design standards set by DSAE and county sponsor

State Fund Grantee User Guide

- Work with DSAE to develop PS&E
- DSAE request funding letter from CO
- Advertise, open bids
- Execute grant agreement with MnDOT and township
- Award, construct, pay requests, closeout



https://edocs-public.dot.state.mn.us/edocs_public/DMResultSet/download?docId=19741585

Town Road Project Development

- **County Sponsorship**
- Roadway **Geometrics** and selecting the appropriate **Design Standards**
- **Environmental docs and Permits**

Town Road Project Development

- **Final Plans and 100% Engineer's Estimate**
- **Funding Letter**
- **Advertise and Open Bids**
- **Grant Agreement**
- **Construction**

Town Road Project Development

- Coordinate **Construction Administration** with DSAE

  SA Pay Requests

  Change Orders

Town Road Project Development

- **Construction Completion**

  Final Inspection Report by DSAE

- **Close out**

  Final Pay Request Package to DSAE

DEPARTMENT OF TRANSPORTATION

Questions?

Historic Bridge L7898, Normania Township, Built 1925

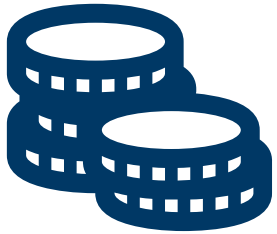
Township Bridges

Marc Briese, Dave Conkel, Erik Brenna

County Engineer State Aid Refresher Training: June 21, 2023

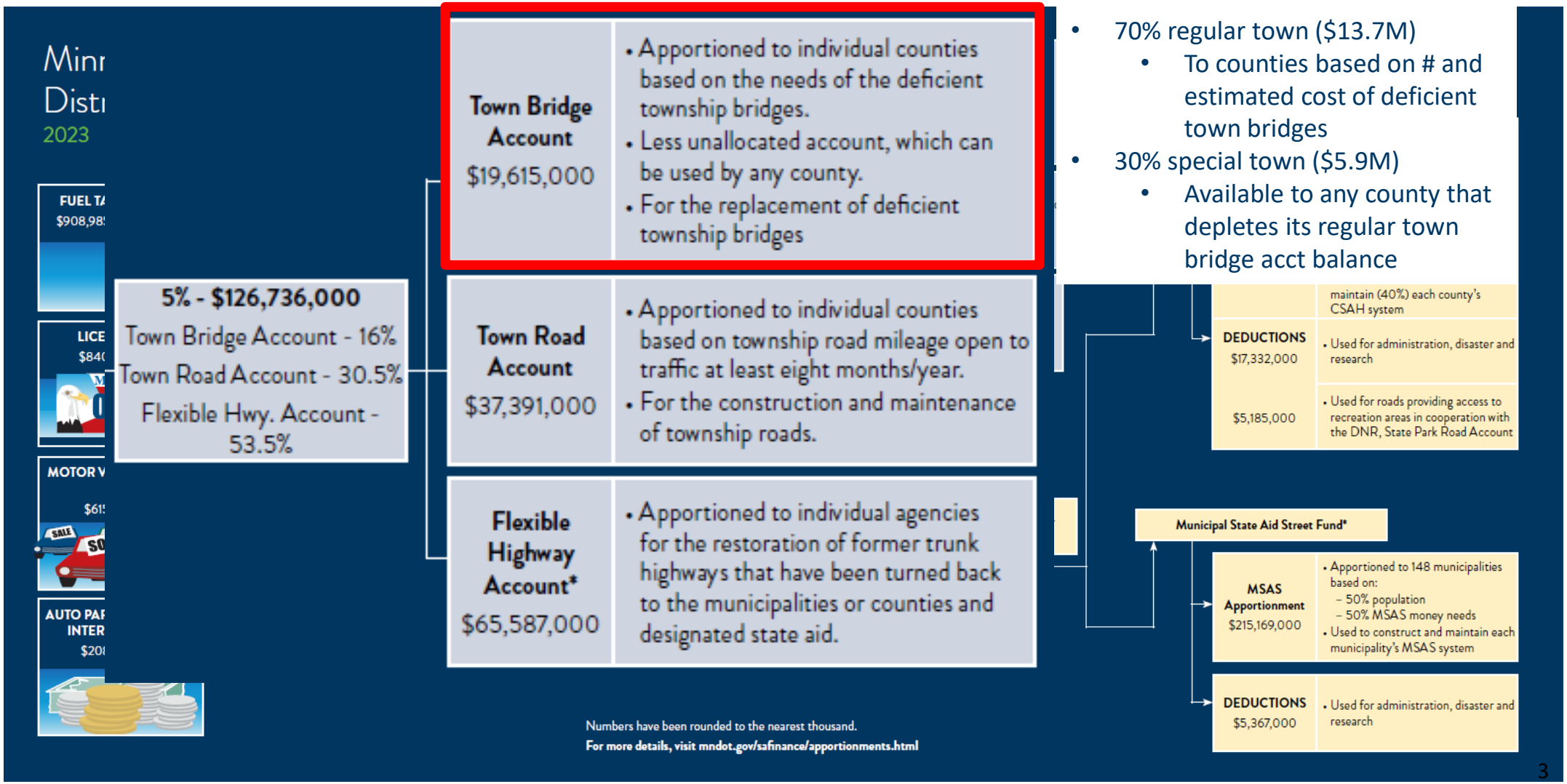
Local Bridge Subprograms

- Three subprograms under the Local Bridge Program:
  1. Town Bridge Program [1]
  2. State Bridge Funds (bonds, general funds, MVLST) [2]
     - Uncommon for town. Would require grant agreement (similar to LRIP agreement)
  3. Federal Funds (STBG, BROS, BFP, discretionary grants) [2]
     - Uncommon for town. County would administer via DCP agreement.



[1] Can be paid 95% after award
[2] Paid on reimbursable basis

Town Bridge Funding



- 70% regular town ($13.7M)
  - To counties based on # and estimated cost of deficient town bridges
- 30% special town ($5.9M)
  - Available to any county that depletes its regular town bridge acct balance

Town Bridge Funds

- Source of funds: 5% HUTDF x 16% town bridge = $19.6M in 2023
- Township/county coordination:
  - County sponsor; ID priorities on county board resolution
  - Prioritize replacements based on LPI, local priority, availability of funds
- Funding cycle open year round
- Eligible township bridge costs include:
  - 100% of “participating” bridge structure or culvert costs
  - 100% of “non-participating” costs in excess of $10,000, including approach grading to logical touchdown and bridge removal costs
  - 100% of engineering costs in excess of $10,000
- Funds also eligible for road-in-lieu of a bridge, removal, and LT10

State Aid Bridge, What we do?

- Process state and/or federally funded local bridges and miscellaneous structures
- Ensure compliance with current MnDOT Bridge Office manuals, specifications and policies, AASHTO specifications and the State Building Code.
  - Vehicular bridges and tunnels
  - Pedestrian bridges, tunnels, and boardwalks
  - Culverts
  - Retaining walls
  - Bridge rehabilitation and repair projects
  - Parking ramps
  - Other transportation structures

State Aid Bridge, What we do?

- Local bridge inspection statewide support
  - North, South and Metro Team Leader Specialists and Team Leader Specialist Assistants
    - Improve local routine bridge inspection activities
    - Help ensure uniform compliance with State and Federal regulations
    - Perform virtual and onsite training, advanced inspection equipment and bridge management system training
- Local bridge technical assistance
  - Design
  - Load Rating and overweight permitting
  - Hydraulics
  - Inspection
  - Construction

State Aid Bridge, What we do?

- Local bridge research and implementation projects
  - Serves as the Technical Liaison or Technical Advisory Committee Member
    - Local Road Research Board
    - National Cooperative Highway Research Program
    - Transportation Pooled Fund Program
- Local bridge information resource
  - Annual Local Bridge Cost Reporting
  - Annual State Aid Bridge News Reporting
  - Liaison with MnDOT Bridge Office
  - Presentations and updates at District State Aid Meetings
  - Local agency training
  - MCEA Bridge Committee SA Representative

Mn Bridge Definition

FIGURE 1: MEASUREMENT OF BRIDGE BETWEEN UNDERCOPINGS

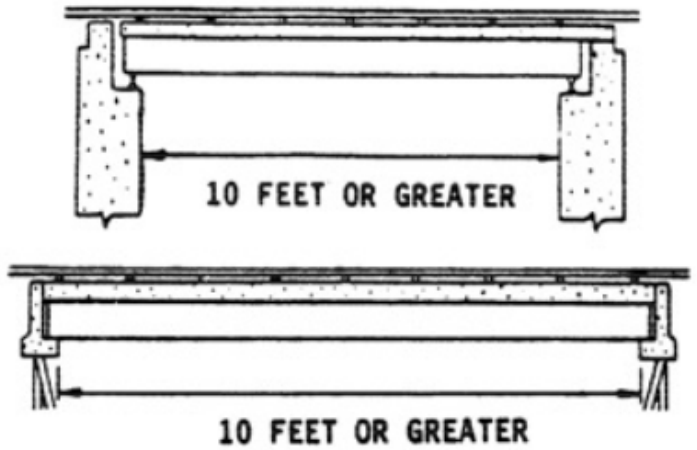
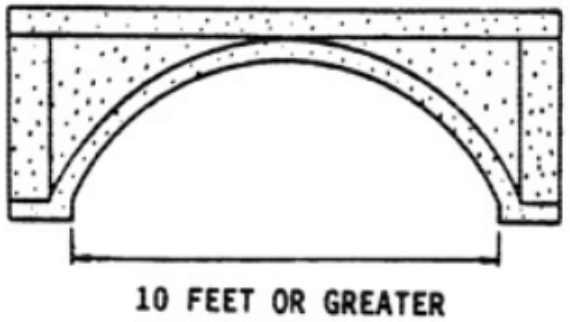
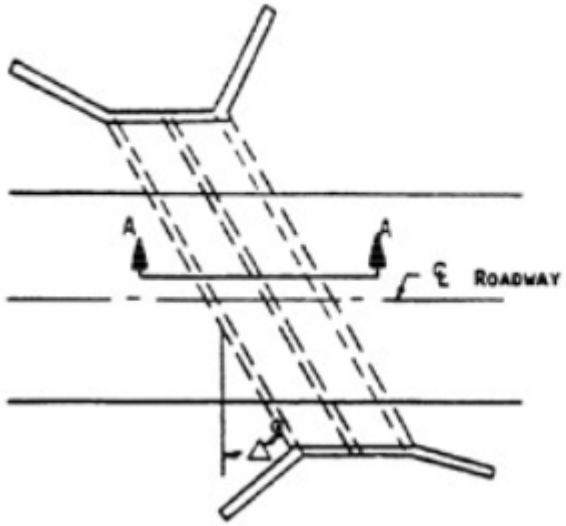


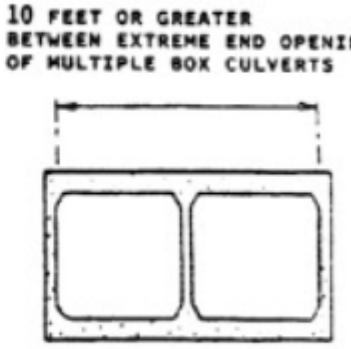
FIGURE 2: MEASUREMENT OF STRUCTURE BETWEEN SPRING LINES



Mn Bridge Definition

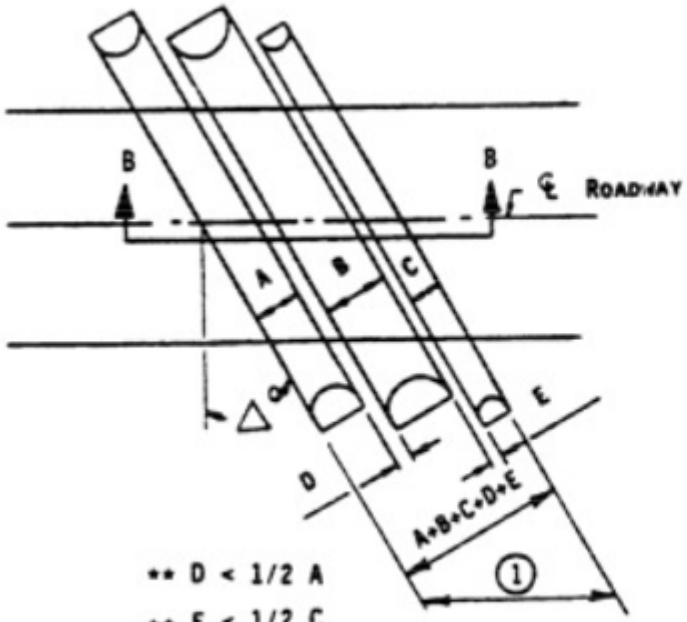
FIGURE 3: MEASUREMENT OF BOX CULVERTS

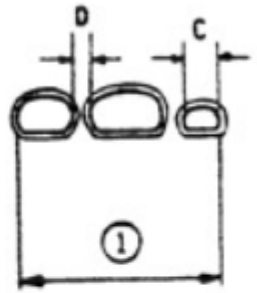




SECTION A-A

FIGURE 4: MEASUREMENT OF MULTIPLE CULVERTS





SECTION B-B

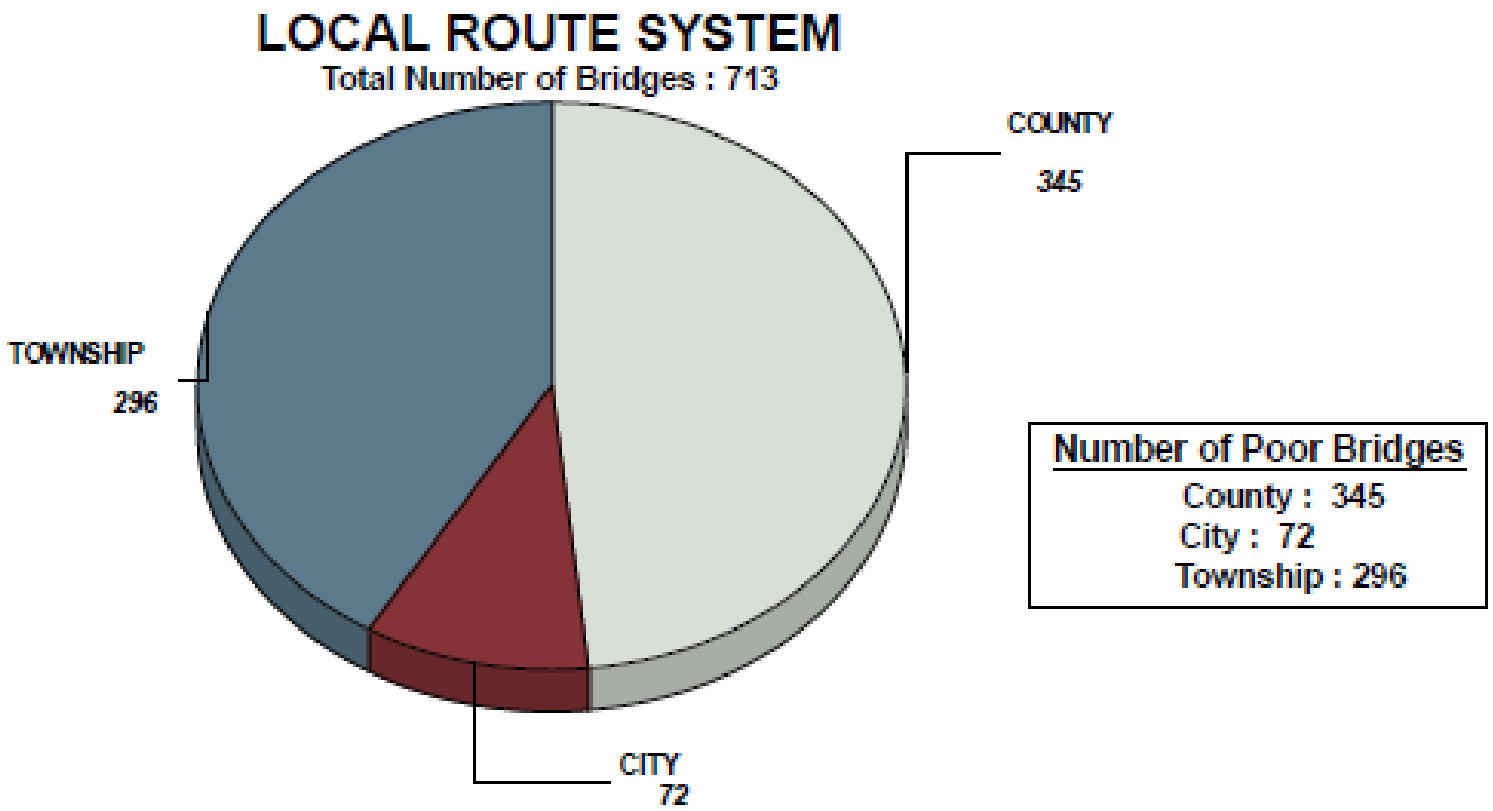
10 FEET OR GREATER
BETWEEN EXTREME END OPENINGS
OF MULTIPLE PIPE CULVERTS

$(1) = \frac{A+B+C+D+E}{\cos \Delta} \geq 10'$

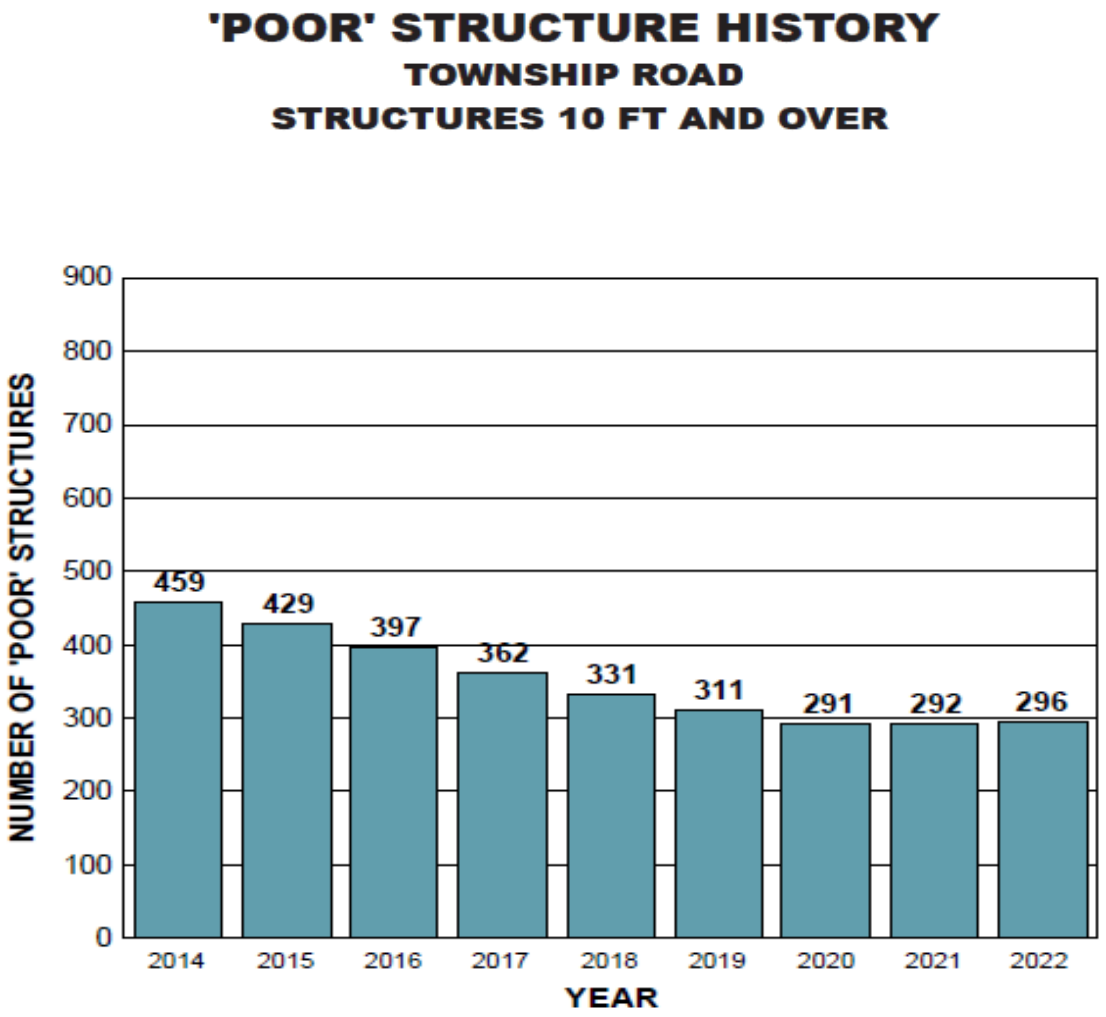
** THE SPACE BETWEEN ADJACENT PIPE CULVERTS OPENINGS MUST BE LESS THAN ONE HALF THE SMALLER CONTIGUOUS OPENING

Rural bridge collapse sparks calls for statewide inventory, safety assessment

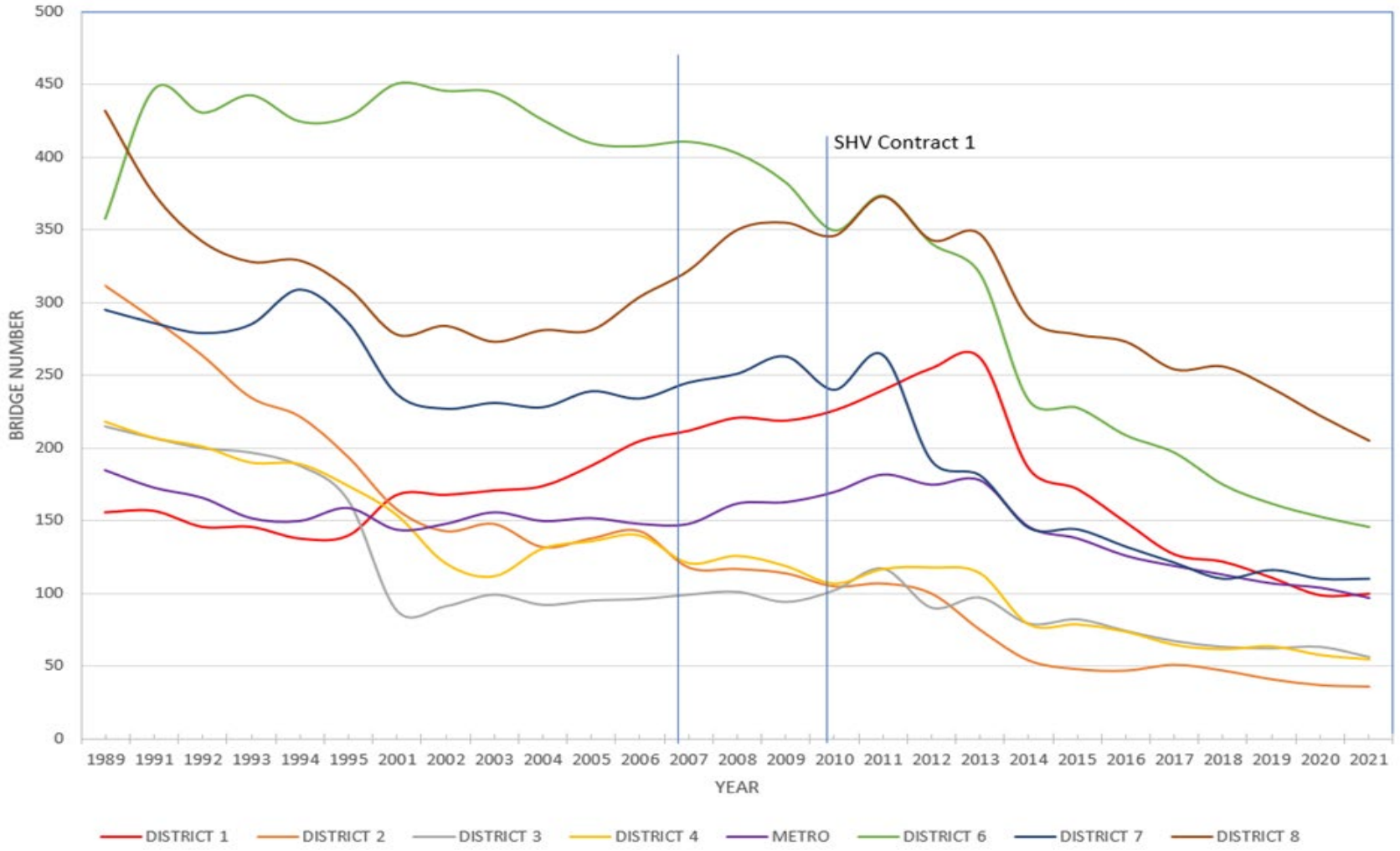
Mn Town Bridge Statistics



Mn Town Bridge Statistics



Mn Town Bridge Statistics



Town Bridge Local Planning Index (LPI)

Local BRIM results for STATEWIDE LOCAL AGENCIES on 5/2/2023

BRIDGE	LOCATION	INSPECTOR	OWNER	MATERIAL & DESIGN	IMP	LPI	ELIG	FED	DECK	SUPER	SUB	CULV	CHAN	WADQ	DGEO	ALGN	POSTING	DP
L2721	CREEK RD over CHASKA CREEK	CHASKA	CITY	STEEL ARCH	1.42	4	Y	Y	N	N	N	3	5	8	N	2	26 - 40 - 40	408
8820	CSAH 61 over WILLOW RIVER	PINE COUNTY	COUNTY	CONC BOX CULV	1.39	9	Y	Y	N	N	N	3	5	6	N	8	16 - 25 - 25	408
L1496	440TH ST over LOST RIVER	CLEARWATER COUNT	TOWN	STEEL PIPE ARCH	1.08	9	Y	N	N	N	N	1	1	8	0	5		408
L3942	NORTH KOERING RD over NOKASI	CROW WING COUNTY	TOWN	STEEL LOW TRUSS	1.08	12	Y	Y	0	1	2	N	3	5	0	7	0	408
90980	305TH ST over N FK CROW RIVER	MEEKER COUNTY	TOWN	STEEL HIGH TRUSS	1.10	12	Y	Y	5	2	3	N	4	8	0	5	5	408
L5245	330TH AVE over OKABENA CREEK	JACKSON COUNTY	TOWN	STEEL LOW TRUSS	1.08	14	Y	Y	0	0	0	N	5	7	0	5	3	408
89850	CSAH 17 over MINNESOTA RIVER	REDWOOD COUNTY	COUNTY	STEEL HIGH TRUSS	1.40	15	Y	Y	7	4	4	N	5	7	2	5	5	408
16J03	ALFRED CREEK RD over ALFRED (	COOK COUNTY	COUNTY	STEEL PIPE ARCH	1.33	16	Y	N	N	N	N	3	5	5	N	7	26 - 40 - 40	408
97033	UT 70 over FLUTE REED RIVER	COOK COUNTY	COUNTY	STEEL PIPE CULVERT	1.33	16	Y	N	N	N	N	3	5	6	N	5	26 - 40 - 40	408
93725	122ND AVE over STREAM	MARTIN COUNTY	COUNTY	STEEL PIPE ARCH	1.24	16	Y	N	N	N	N	3	8	8	N	8	3	408

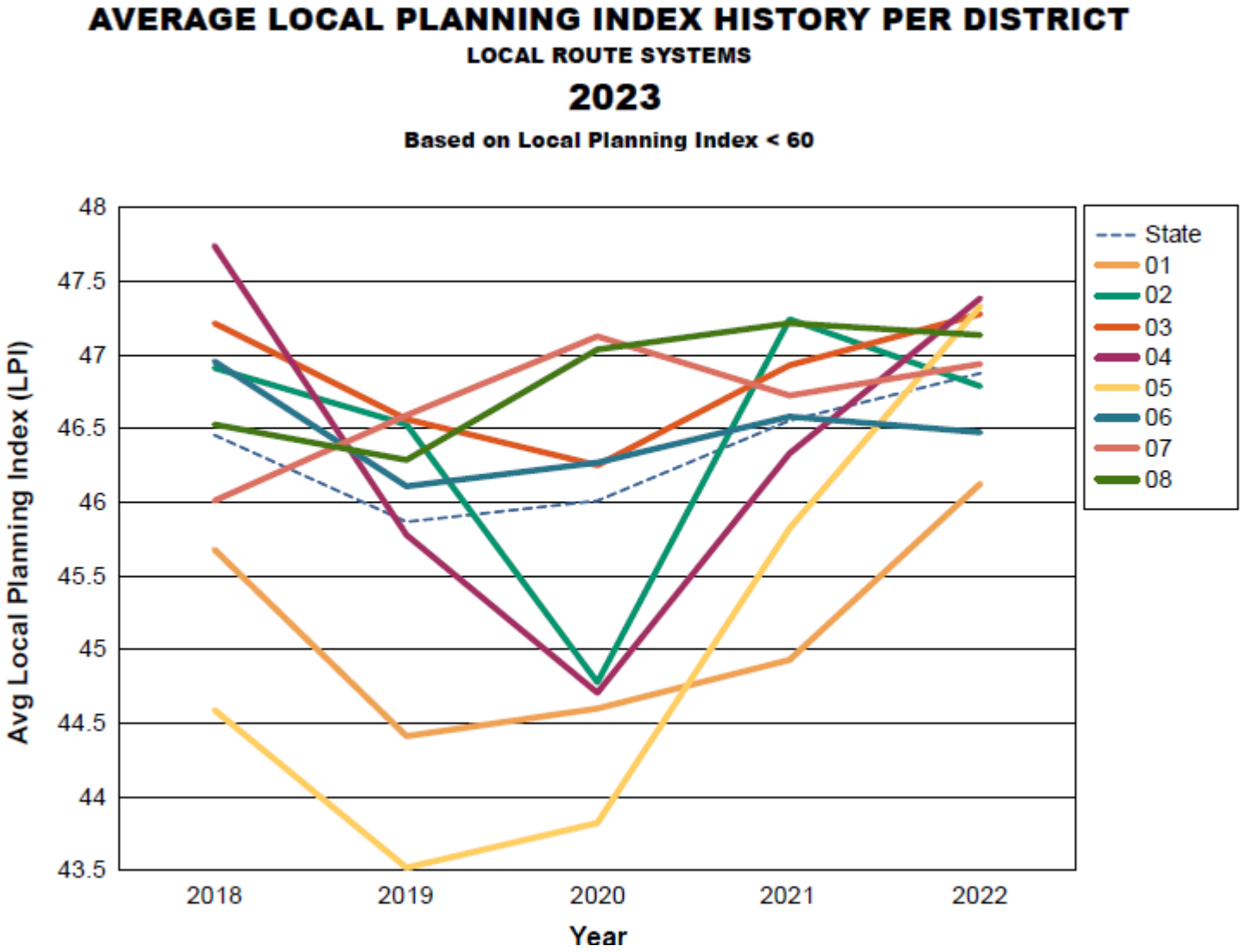
Town Bridge Local Planning Index (LPI)

68	*Inventory Input*		
69			
70	Bridge Number =	92538	Structure number (NBI Item 8)
72	Year Built =	1966	Year structure was built (NBI Item 27)
74	Scour Code =	E	MnDOT Scour Code (MnDOT Item)
76	LR Class =	5	Load Rating Class, based on operating rating in the table below

134	*Inspection Input*		
135			
136	Deck NBI =	N	NBI Deck Condition Rating (Item 58)
138	Superstructure NBI =	N	NBI Superstructure Condition Rating (Item 59)
140	Substructure NBI =	N	NBI Substructure Condition Rating (Item 60)
142	Culvert NBI =	4	NBI Culvert Condition Rating (Item 62). Enter "N" for a bridge
143			
144	Element 810 =	0	Crack density as reported in Bridge Element 810

605	Bridge LPI =	N/A
606		
607		
608	Culvert LPI = 100 - [100 - (75% * Culvert Probability + 10% * Scour Probability + 15% * Load Rating Probability)] * (ADT Importance Factor * Detour Length Importance Factor * Bridge Length Importance Factor * Bridge Width Importance Factor * Fill Height Importance Factor*Load Posting Importance)	
609		
610	Culvert LPI =	31.7
611		

Town Bridge Local Planning Index (LPI)



Town Bridge Local Planning Index (LPI)

- To be eligible for rehabilitation or replacement, the in-place structure must:
    1. Have a clear span 10 feet or more, and
    2. Have a LPI of less than 60, or
    3. NBI Appraisal Rating ≤ 3 for Deck Geometry or Approach Roadway or Waterway Adequacy. Approach Roadway and Waterway NBI Appraisal Ratings must be substantiated with District State Aid Engineer and State Aid Bridge

Town Bridges, State Aid Manual, and State Aid Rules

- State Aid Manual
  - Chapter 5.4 Plans and Proposals
    - Bridge Plans
      - State Aid Rules for Geometric Design Standards
      - Designed in accordance with the AASHTO LRFD Bridge Design Specifications
      - MnDOT Bridge Office LRFD Bridge Design Manual
      - Pedestrian bridges, AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges.
      - MnDOT Standard Specifications for Construction & Bridge Office Special Provisions

Town Bridges, State Aid Manual, and State Aid Rules

- State Aid Rules
  - 8820.3000 Additional Controls on Expenditures
    - Plans for bridge construction or bridge reconstruction projects must be approved by the State Bridge Engineer
  - 8820.2500 Minimum State Aid Standards
    - Applicability of standards.
    - Geometry
    - Specifications.
  - 8820.9922 Minimum Width Chart: New Bridge, Replacement, or Rehabilitation, Not on the State Aid System
    - Engineering judgment may be used
    - Widths less than those indicated in the chart require a variance in accordance with parts
    - Bridges of minimum 20-foot clear width may be constructed

Town Bridges, Minimum Bridge Width Summary

Minimum Bridge Width Summary						
			Curb-to-Curb Bridge Widths			
Average Daily Traffic (ADT)	Minimum Required Lane Width (ft)	Minimum Required Shoulder Width (ft)	Minimum Required Lanes + Shoulders (ft)	Minimum Required Lanes + 4' (ft)	In no case less than (c) (ft)	Maximum Width Eligible for Bridge Bond or Town Bridge Funds (ft)
	8820.9922 Off-System Rural and Suburban Bridges (a)					
0-49 (d)	11	1	24	26*	20	32**
50-149	11	3	28*	26	20	32**
150-400 (e)	12	4	32*	28	20	36**

- Red Number Widths shown are the recommended State Aid (SA) Operations Chapter 8820 bridge widths
- Township bridge funding requests greater than these widths must be justified and approved by the District State Aid Engineer (DSAE) and the State Programs Manager

Town Bridge Options Study and Report

- Selecting Bridge/Superstructure Type Considerations
  - Low Cost
  - Span Length
  - Depth of Structure (road profile, vertical clearance, low member elevation)
  - Bridge Curvature
  - Speed of Construction
- Bridge/Superstructure Type Study
  - Hydraulic investigation
  - Grade Raise above Existing Bridge Deck
  - Construction time
  - Structure Cost

Town Bridge Options Study and Report

Minimum Low Member Elevation

For overtopping year less than 100

	Concrete Slab Span or Inverted T	Pre-stressed I-Girder, Steel Girder or Box Beam	Double Tee, Timber Beam, Timber Slab or Steel Pedestrian Truss
No debris problem or velocity less than 5 fps	Overtopping TW – 1’	Overtopping TW	Overtopping TW + 1’
Debris problem and velocity greater than or equal to 5 fps	Overtopping TW	Overtopping TW + 1’	Overtopping TW + 2’

“TW” denotes tailwater or stage.

Town Bridge Options Study and Report

STRUCTURE OPTIONS TABLE

PARAMETERS	OPTION #1	OPTION #2	OPTION #3
Structure Type	CCS	PCB	RCB
Number of Spans	1	1	-
Number of Barrels	-	-	2
Barrel Size	-	-	14 ft x 10 ft
Buried Below Channel Flowline	-	-	2.0 ft.
Structure Length	50 ft	50 ft	-
Structure Cost*	$659,000	$680,000	$654,000
Construction Time**	12 weeks	12 weeks	5 weeks
Grade Raise above Existing Bridge Deck	0.7 ft	0.8 ft	1.1 ft

Town Bridge Options Study and Report

TTS

MN45 PCB’s

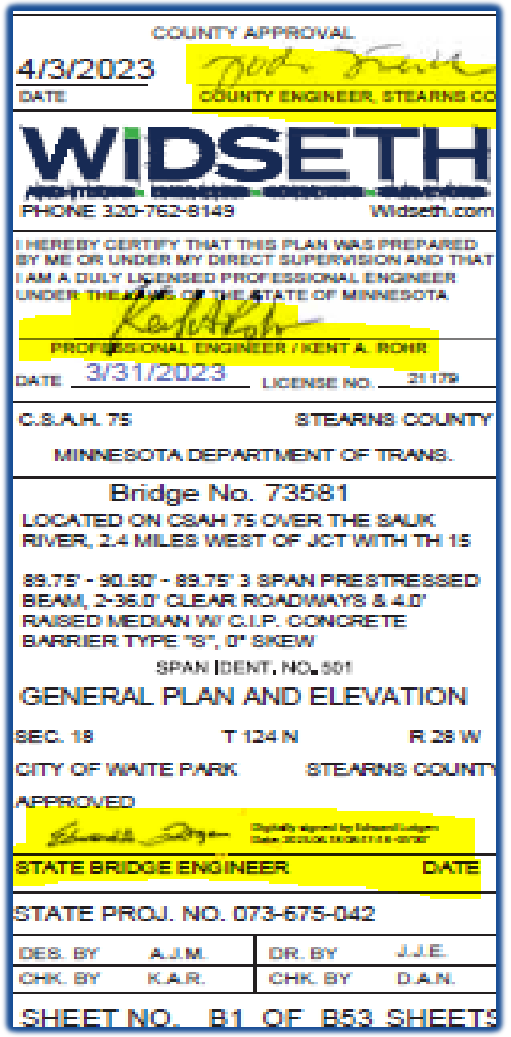
C-SLAB

State Aid Bridge Plan Submittal Process

- Preliminary Bridge Plans Submittal
  - Owner (or their consultant) submits the following to State Aid Bridge
    - Electronic PDF copy of the Preliminary Bridge Plans
    - Electronic PDF copy of the Hydraulic Data Sheet and Hydraulic Risk Analysis
    - Electronic PDF copy of the Soils Report
- Final Bridge Plans Submittal
  - Owner (or their consultant) submits the following to State Aid Bridge
    - Electronic PDF copy of the Final Bridge Plans
    - Electronic PDF copy of the Division SB Special Provisions

State Aid Bridge Plan Submittal Process

- Certified Bridge Plans For State Bridge Engineer Signature
  - Owner (or their consultant) shall submit the following to District State Aid
    - Electronic PDF copy of the of the Certified Final Bridge Plans
  - Owner (or their consultant) shall submit the following to State Aid Bridge Load Ratings Engineer
    - Electronic PDF copy of the completed load rating forms for the bridge
    - AASHTOWare BrR file



COUNTY APPROVAL

4/3/2023
DATE

COUNTY ENGINEER, STEARNS CO

WIDSETH

PHONE 320-762-8149 Widseth.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

PROFESSIONAL ENGINEER / KENT A. ROHR

DATE 3/31/2023 LICENSE NO. 21179

C.S.A.H. 75 STEARNS COUNTY

MINNESOTA DEPARTMENT OF TRANS.

Bridge No. 73581

LOCATED ON CSAH 75 OVER THE SAUK RIVER, 2.4 MILES WEST OF JCT WITH TH 15

89.75' - 90.50' - 89.75' 3 SPAN PRESTRESSED BEAM, 2-36.0' CLEAR ROADWAYS & 4.0' RAISED MEDIAN W/ C.I.P. CONCRETE BARRIER TYPE "S", 0° SKEW

SPAN IDENT. NO. 501

GENERAL PLAN AND ELEVATION

SEC. 18 T 124 N R 28 W

CITY OF WAITE PARK STEARNS COUNTY

APPROVED

STATE BRIDGE ENGINEER DATE

STATE PROJ. NO. 073-675-042

DES. BY	A.J.M.	DR. BY	J.J.E.
CHK. BY	K.A.R.	CHK. BY	D.A.N.

SHEET NO. B1 OF B53 SHEETS

Town Bridge Allotment

- Updating your town bridge improvements costs
  - Why
    - Cost data is used to annually apportion the Town Bridge Account funds to each county
    - Funds can be used to replace, rehabilitate or remove an eligible township bridge
    - It is very important that each county review their township bridge improvement cost data annually
  - How
    - Improvement cost is calculated only for deficient bridges
    - New Bridge Length
    - New Bridge Width
    - Costs

Town Bridge Allotment, Bridge Numbering System

- When
  - Update your costs in the spring to ensure the Town Bridge Apportionment calculation in the fall is based on updated bridge replacement costs Town bridge allotment instructions-
- Current Bridge Numbering System
  - First two digits are based upon Minnesota's county code
  - Third digit identifies the type of roadway system,
    - (5, 6, A through H, County, City or Township Bridge)
    - (J through N, P, Q, County, City or Township Culverts)
  - Fourth and fifth digits make up the bridge sequence number ranging from '00' through '99'.
  - Bridges or culverts without a highway over or under (e.g. pedestrian trail over stream)
    - Use the format RZZZZ where: R = A literal character, ZZZZ = Sequence number ('0000' thru '9999')

Town Bridge Inspection and Load Rating

- Mn Statute 165.03 Strength of Bridge Inspection
  - Subd. 2.Inspection and inventory responsibilities; rules; forms.
    - The commissioner of transportation will adopt the National Bridge Inspection Standards (NBIS) established by the Federal Highway Administration in Code of Federal Regulations, title 23, part 650
    - The commissioner shall establish inspection and inventory standards for structures defined as bridges by section 165.01, subdivision 3.
    - The commissioner of transportation shall adopt official inventory and bridge inspection report forms for use in making bridge inspections by the the following owner or official.
      - The county highway engineer for all bridges located wholly or partially within or over the right-of-way of any county or town road, or any street within a municipality that does not have a city engineer regularly employed

Town Bridge Inspection and Load Rating

- Mn Statute 165.03 Strength of Bridge Inspection
  - Subd. 6a. Bridge load rating and posting.
    - The term "posting" means the placement of regulatory signs at a bridge indicating the safe load carrying capacity of the bridge
    - Each structure must be load rated to determine its safe load carrying capacity. A structure must be rerated
      - When it is determined that a significant change has occurred in the condition
      - Due to additional dead load placed on the structure since the last load rating.
      - When the allowable legal load using the structure is increased

Town Bridge Inspection and Load Rating

- 165.12 Maintenance of Bridge on Town Road
  - If a load rating analysis is required and has not been performed
    - The county is authorized to perform the analysis and bill the town or towns for all related expenses.
  - If the town or towns fail to provide the required posting
    - The county is authorized to provide the required posting and bill the town or towns for all related expenses
  - If a bridge constitutes a critical risk to public safety because its deficiencies, if not immediately corrected, could result in collapse or partial collapse
    - The county engineer is authorized to immediately close the bridge
    - The county may bill the town or towns for all related expenses
    - A county is not liable for a town's or towns' failure to act

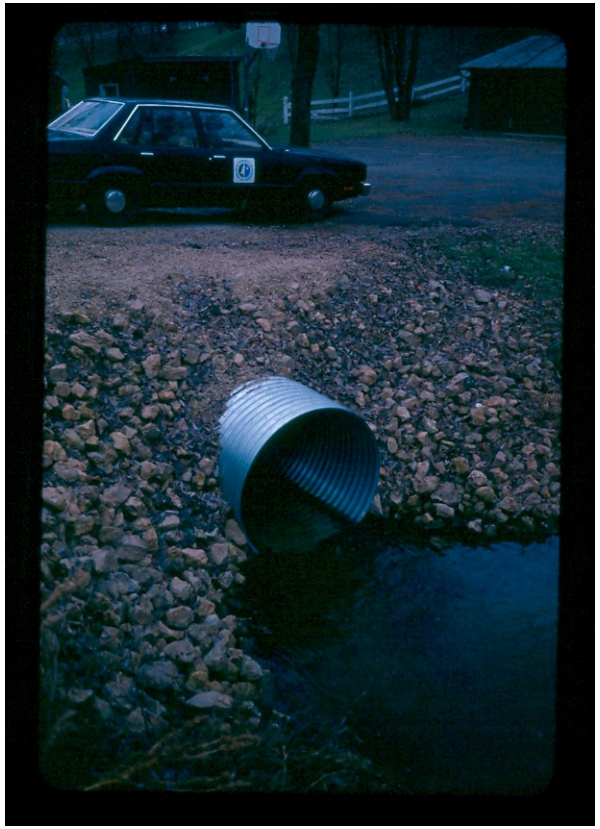
DEPARTMENT OF TRANSPORTATION

State Aid Hydraulics – LT10 Update

Erik Brenna | State Aid Bridge Hydraulics Engineer

Hydraulic Outline

- LT10 Hydraulics Overview
- Case Studies
- Summary



LT10 Hydraulics Overview

- Design assumption: 50-year rainfall = 50-year flood
  - For rational and SCS methods
  - Major structures use frequency analysis or USGS regression
    - Less emphasis on rainfall, more on stream gages
- Reality: Not Necessarily True

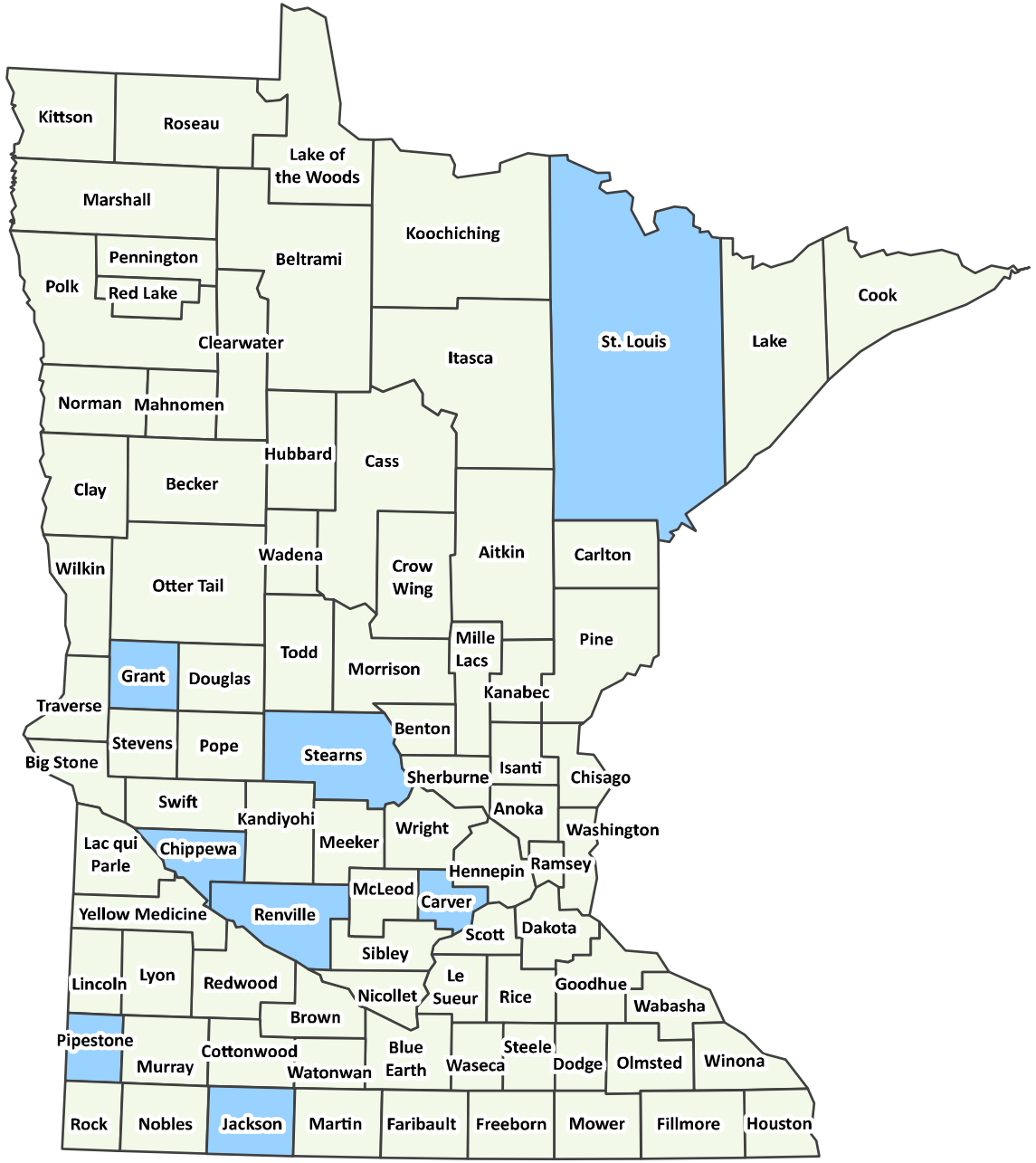
LT10 Hydraulics Overview

- 50-year flood = 1/50 chance of exceedance in given year = 2% AEP flood
  - AEP = Annual Exceedance Probability
- Statistically independent
  - They can happen in back-to-back years
  - They can happen within the same year

LT10 Hydraulics Overview

- LT10 Review Process – State Aid Bridge and DSAE/DSAA Brain Trust
  - Upstream and downstream structure sizes
  - Outlet velocity vs. tailwater velocity
  - Stage increase
  - Scour hole/evidence of erosion/etc.

LT10 - Where?



- 2 from 2022
- 15 from 2023 (start of LT10 Review Process)

Case Study: Renville County Br. 65J94

- Existing: 117” Span Corrugated Metal Pipe Arch
- Proposed: 10 ft by 10 ft Reinforced Concrete Box

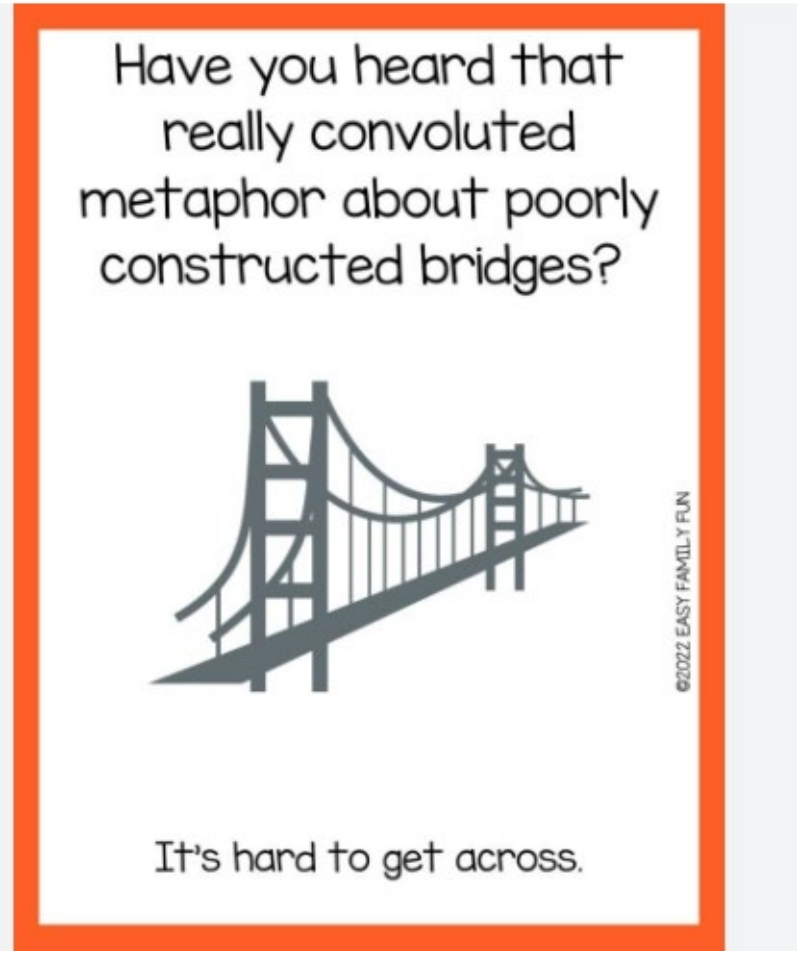
Case Study: Jackson County Br. 32J72

- Existing: 8 ft by 6 ft Cast-In-Place Box
- Proposed: 169” Span Reinforced Concrete Pipe Arch

2023 LT10 Summary

Date	SP	County	New Bridge Number	Existing Structure	Proposed Structure	Result
5/11/2022	073-599-084	Stearns	73J44	Twin 8 ft by 8 fts 50 ft apart	Triple 102" span RCP arches	Recommended approval
11/1/2022	TBD	Grant	TBD	Twin 36" CMPs	Twin 51", 58" or 65" span RCP arches	Recommended approval
2/17/2023	059-599-126	Pipestone	59K61	6 ft by 4 ft CIP Box	10 ft by 4 ft RCB	Recommended approval
2/17/2023	059-599-127	Pipestone	59K66	Twin 48" CMPs	14 ft by 4 ft RCB	Recommended approval
2/17/2023	059-599-128	Pipestone	59K67	60" CMP	14 ft by 5 ft RCB and 14 ft by 6 ft RCB	Recommended approval
2/22/2023	026-599-025	Grant	26J34	Twin 60" RCPs	14 ft by 7 ft RCB	Recommended approval
2/22/2023	010-599-025	Carver	10J54	Twin 48" RCPs and 66" CMP	10 ft by 7 ft RCB	Recommended approval
2/22/2023	010-599-026	Carver	10J56	10 ft by 8 ft Timber Box	14 ft by 10 ft RCB	Recommended approval
2/23/2023	032-599-113	Jackson	32J72	8 ft by 6 ft CIP Box	169" Span RCP Arch	Recommended approval
3/21/2023	069-598-075	St. Louis	69L10	Triple 48" CMPs	15.5 ft by 7.25 ft Corr. Alum. Box	Recommended approval
3/24/2023	065-598-027	Renville	65J94	117" CMP Arch	10 ft by 10 ft RCB	Recommended approval
4/10/2023	012-599-111	Chippewa	TBD	106" CMP Arch	10 ft by 5 ft RCB	Recommended approval
5/9/2023	TBD	Chippewa	TBD	106" CMP Arch	10 ft by 5 ft RCB	Recommended approval
5/9/2023	TBD	Chippewa	TBD	114" CMP Arch	10 ft by 5 ft RCB	Recommended approval
5/9/2023	TBD	Chippewa	TBD	114" CMP Arch	10 ft by 5 ft RCB	Recommended approval
5/9/2023	TBD	Chippewa	TBD	114" CMP Arch	10 ft by 6 ft RCB	Recommended approval
5/19/2023	069-612-019	St. Louis	69L21	60" RCP	12 ft by 8 ft RCB w/ 2 ft embed	Recommended approval

2023 LT10 Summary



Questions?

Town Bridge Project Development

Todd Broadwell, District 8 State Aid Engineer

Town Bridge Project Development

From the District State Aid Engineer's Perspective:

Common questions that a DSAE gets from a new County Engineer:

How are my Bridge responsibilities different that my Roadway responsibilities?

- MN Statute 165.03 requires the County Engineer to **inspect** and **inventory** all county bridges, township bridges and city bridges in cities that do not employ a city engineer on a routine basis.

So if I'm a new County Engineer where do I get started and what should I focus on?

- Review your **Bridge Inventory** (Condition/LPI & Load Rating)
- Review your **Large Culvert Inventory** (Condition/LPI - Load Rating - Age - Hydraulics)
- Separate your Bridges into **Categories**: (CSAH/County/Township/Non-SA Municipal)

Town Bridge Project Development

So if I'm a new County Engineer where do I get started & what should I focus on?

- Contact your DSAE when you are reviewing your Township & Non-SA Municipal Bridges so that they can review & discuss
  - Bridge Programing Options
  - Bridge Program Funding Eligibility.

- This is especially important with:
  - **LT10** Culverts (Less than 10' spans)
  - "**Road-in-Lieu of Bridge**" projects

Town Bridge Project Development

Experimental "**House-in-Lieu-of Bridge**" Program

Town Bridge Project Development

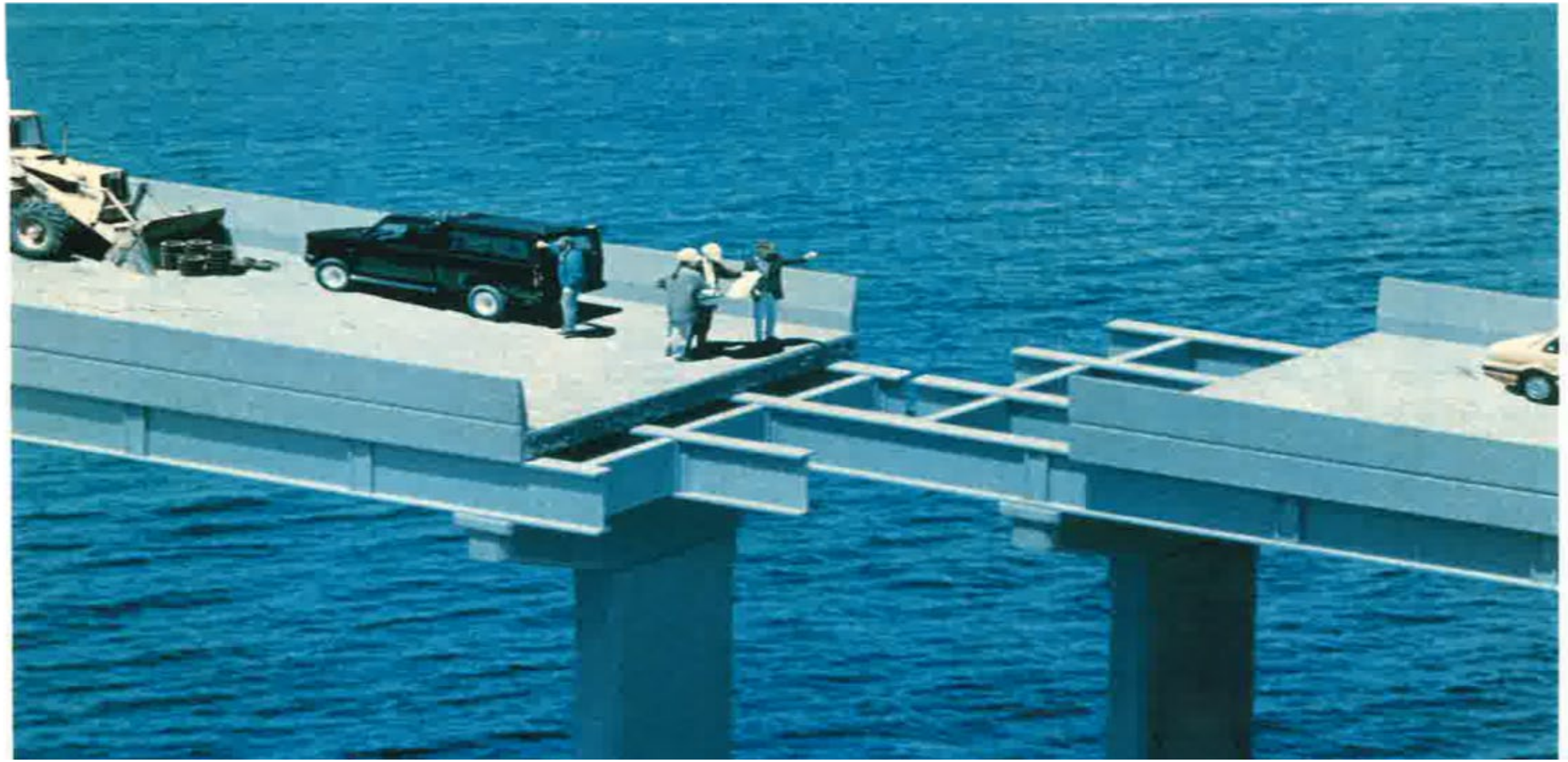
- Create a **County 5 Year Bridge Program** and establish a Resolution of your Submit that to State Aid for the County's Bridge File
- Consult with your DSAE if you are considering a **Bridge Width** greater than identified in the Bridge Width Recommendations
- Coordinate your **Preliminary Bridge Plans** with the SA Bridge Office & DSAE
- Coordinate your **Preliminary Roadway** & Bridge Approach Plans with your DSAE
- Submit your **Bridge Funding Application** in to your DSAE if you are applying to use *State Bridge Funds* or *Special Town Bridge Funds*

Town Bridge Project Development

- Consult with your DSAE when establishing the Roadway Approach **Geometrics** and selecting the appropriate **Design Standards**. (Document your rational for selecting your Design Standards)
- Conduct your **Environmental Evaluation** and obtain the appropriate **Permits**
- Finalize your Bridge Plan with SA Bridge and submit **Roadway & Bridge Plans** to your DSAE for **Plan Approval**
- Coordinate with your DSAE & the appropriate Grant Program Manager if a **Grant Agreement** is required for the Program. (Typically, the State Bridge Fund Programs)
- Coordinate with your DSAE & appropriate Grant Program Manager during the **Letting**, **Award**, & Construction process and when appropriate submit the **SA Pay Request** to your DSAE, just like you do for State Aid projects. Most of the Bridge programs are "**Reimbursement**" based programs (typically only the CSAH & Town Bridge Programs allows 95% payment after Award)
- Provide Construction **Project Updates** to your DSAE during Construction

Town Bridge Project Development

Your DSAE is available for consultation on potential minor **Change Orders**



Town Bridge Project Development

- Contact you DSAE when Construction is **Compete** and ready for **Final Inspection** by your DSAE.

- Coordinate your **Finaling** & Contract **Close-Out** process with your DSAE

  (& SAF if there are Federal Funds involved with the project.)

Questions?