

Select Highway  
090 E

LAYOUT OPTIONS

RESULTS OPTIONS

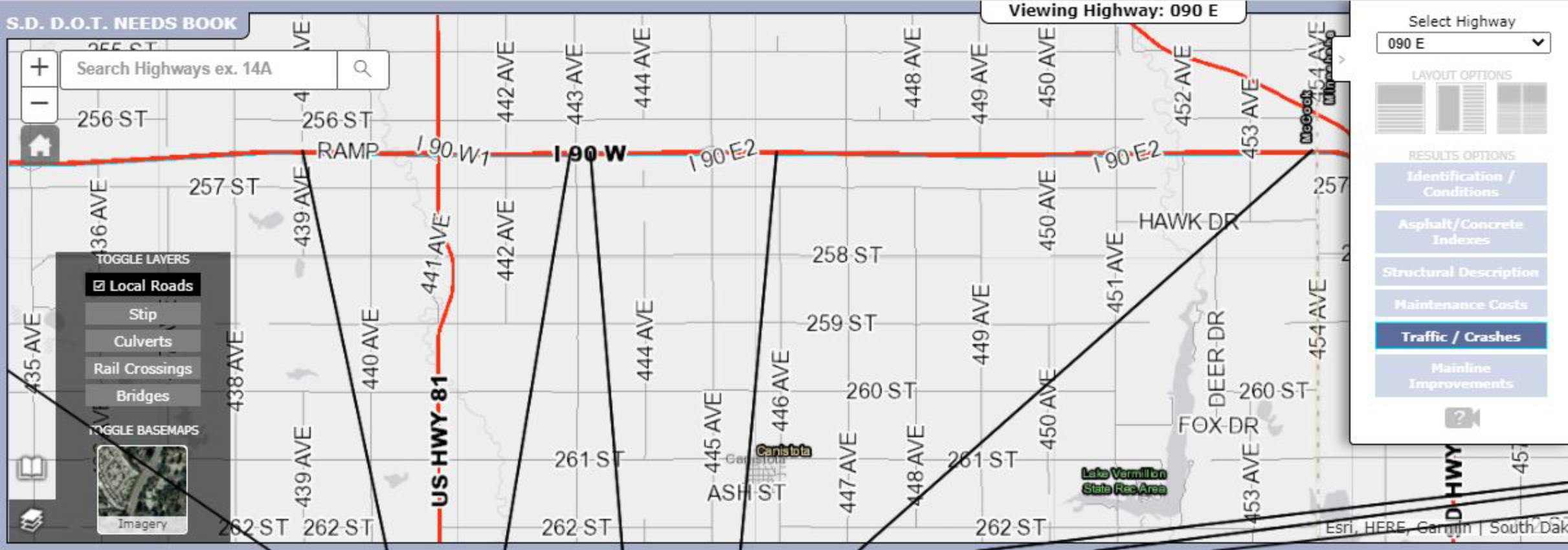
- Identification / Conditions
- Asphalt/Concrete Indexes**
- Structural Description
- Maintenance Costs
- Traffic / Crashes
- Mainline Improvements

**ASPHALT INDEX VALUES**

Transverse Cracking		4.78 (19)		4.49 (19)	4.80 (19)	4.75 (19)
Fatigue Cracking		4.77 (19)		4.70 (19)	4.84 (19)	4.75 (19)
Patching/Patch Deterioration		4.92 (19)		4.90 (19)	4.99 (19)	4.91 (19)
Block Cracking		4.86 (19)		4.75 (19)	4.84 (19)	4.97 (19)
Rut Index		4.46 (19)		4.64 (19)	4.39 (19)	4.25 (19)
Rut Depth (Inches) AVG/MAX		0.20 / 0.30		0.10 / 0.20	0.20 / 0.50	0.20 / 0.40

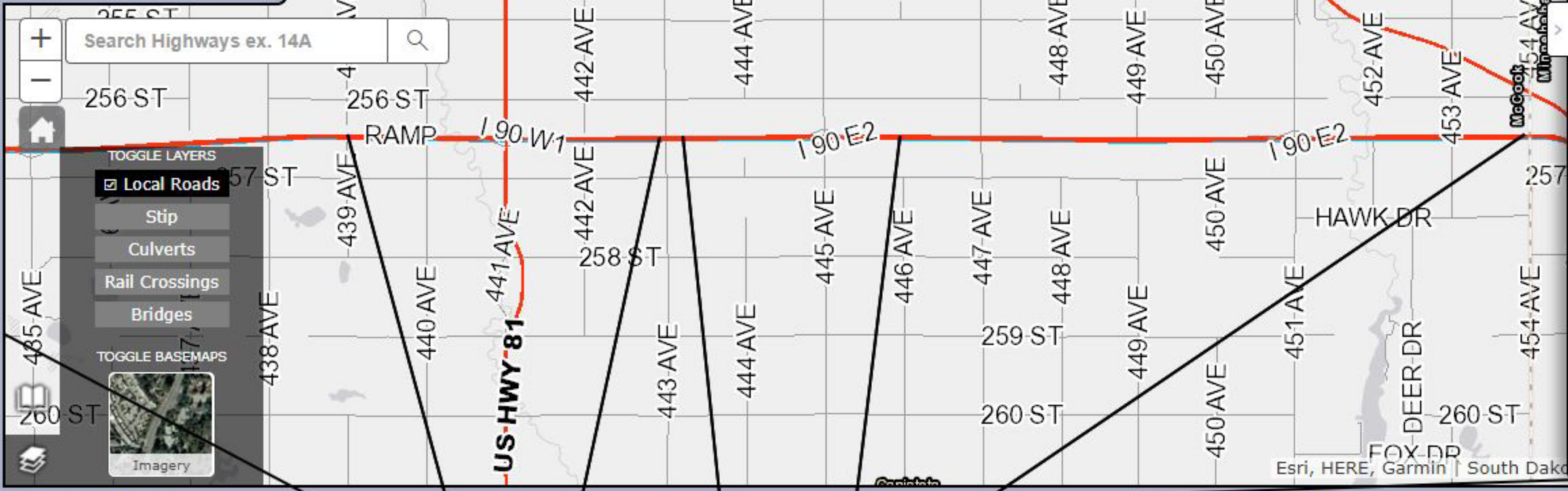
**CONCRETE INDEX VALUES**

D-Cracking/ASR	5.00 (19)		3.40 (19)		
Joint Spalling	4.00 (19)		2.00 (19)		
Corner Cracking	4.98 (19)		5.00 (19)		
Faulting	3.52 (19)		4.77 (19)		
Joint Seal Damage	4.34 (19)		2.00 (19)		
Punchouts	4.58 (19)		5.00 (19)		



TRAFFIC									
Current ADT	5598	5640	5660	5644	5756	6835	7584	8100	
Projected 20yr ADT	7699	7766	7794	7772	7926	9968	11194	11956	
Number Of Trucks	1182	1195	1200	1196	1207	1261	1471	1571	
CRASHES									
Weighted Crash Rate	0.860	0.780	0.290	0.640	0.880	1.010	0.580	1.040	
Number of Fatal	0	0	0	0	1	1	0	1	
Number of Injury	8	2	0	1	6	15	2	3	
Number of Property Damage	55	26	3	15	43	108	2	55	



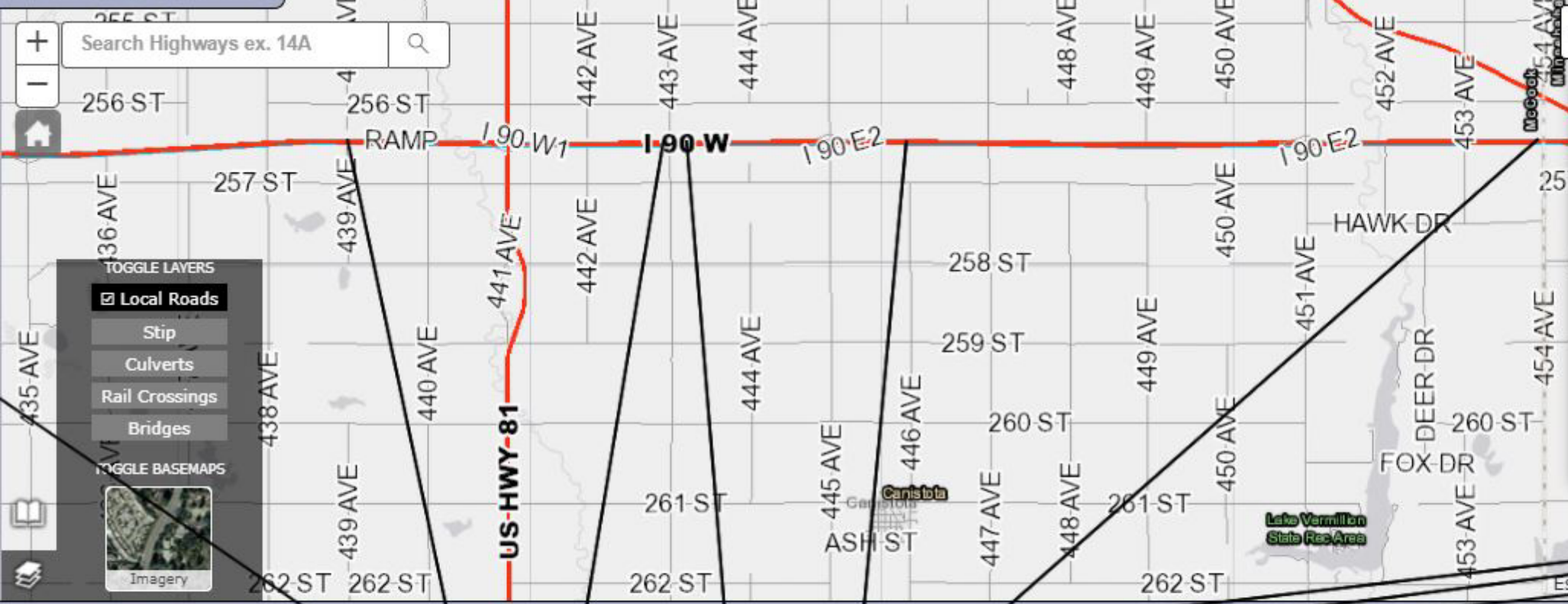


**IDENTIFICATION**

Federal Aid System	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN
Funding Category	INT	INT	INT	INT	INT	INT
Functional Classification	R-INT	R-INT	R-INT	R-INT	R-INT	R-INT
Direction	E	E	E	E	E	E
Beginning MRM	353.07	362.00	366.00	366.06	369.00	377.00
MRM Displacement	0.000	0.035	0.011	0.242	0.043	0.000
Segment Length	8.956	3.972	0.292	2.745	7.928	13.074
Year Built	1966	1965	1988	1965	1965	1964
Year Last Improved	2002	2011	2011	2011	2011	2011
Year Last Sealed	0	0	0	0	0	0

**ROADWAY CONDITIONS**

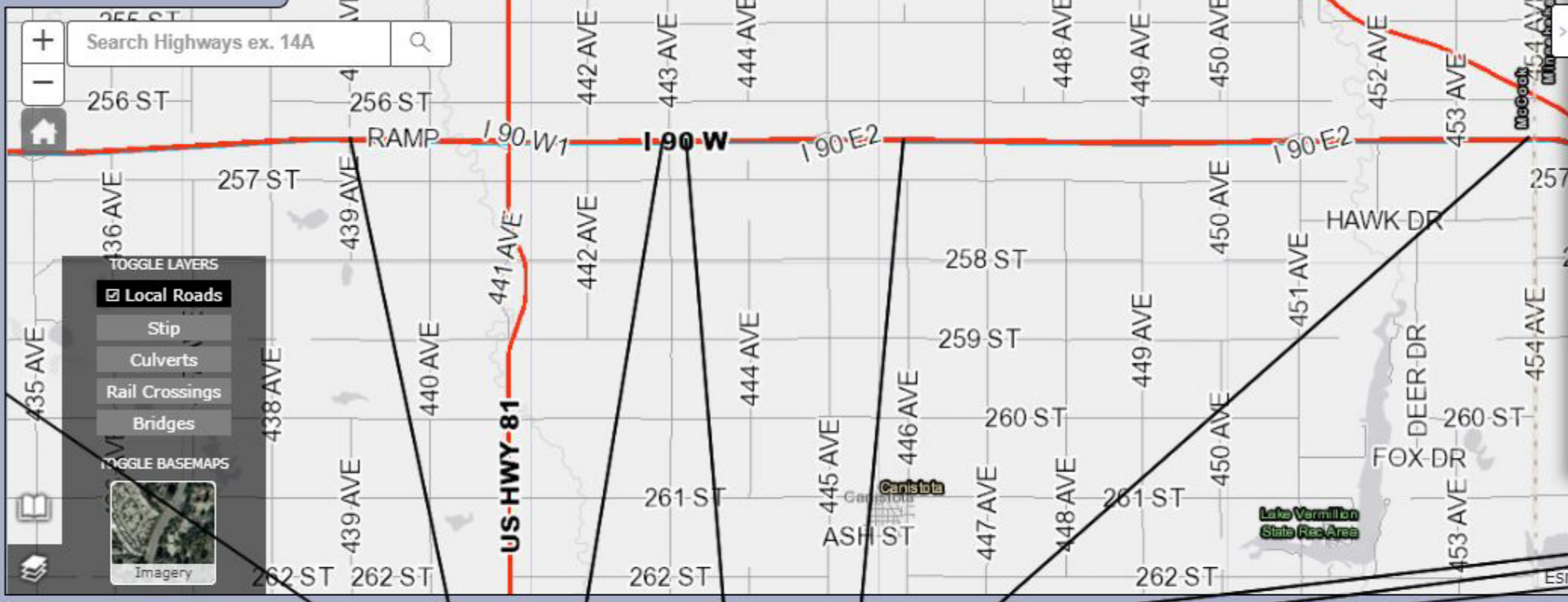
Surface Condition Index	3.52	4.54	2.31	4.48	4.52	4.41
Roughness Index	4.88 (19)	4.68 (19)	3.90 (19)	4.48 (19)	4.74 (19)	4.73 (19)



**MAINLINE IMPROVEMENTS**

Project Programmed		YES	YES	YES	YES	YES	YES	YES
PCEMS Number		05HP	05HP	05HP	05HP	05T2	07CE	06Y9
Improved Type	AC OVER PCCP	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PAV RESTORE1
Estimated Improvement Cost	\$4603	\$8483	\$624	\$5863	\$16932	\$25503	\$1785	\$238
Improvement Year	2023	2020	2020	2020	2020	2023	2027	2021
PCEMS Number								
Improvement Type	ROUTE/SEAL	SEAL JNTS	PAV RESTORE1	NOT OPTIMIZED	SEAL JNTS	NOT OPTIMIZED	NOT OPTIMIZED	CRK SEAT ACO
Estimated Improvement Cost	\$48	\$8483	\$624	\$0	\$16932	\$0	\$0	\$238
Improvement Year	2025	2035	2036	0	2035	0	0	2036





Viewing Highway: 090 E

Select Highway  
090 E

LAYOUT OPTIONS

RESULTS OPTIONS

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- Maintenance Costs**
- Traffic / Crashes
- Mainline Improvements

TOGGLE LAYERS

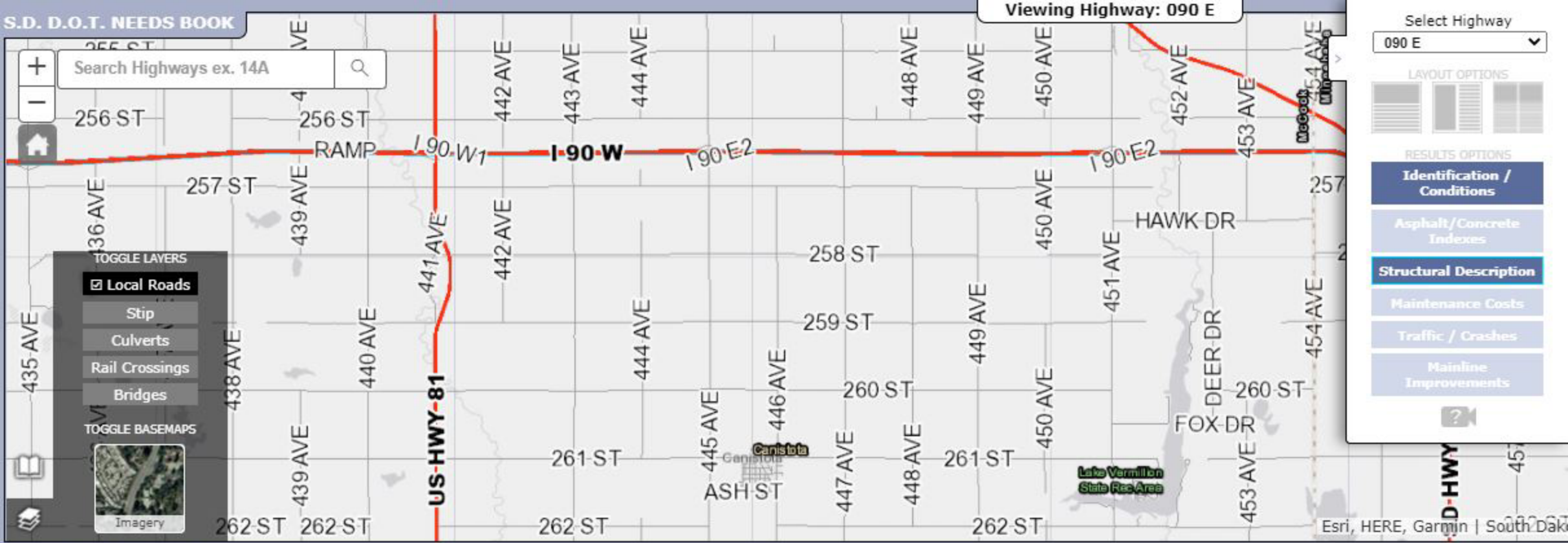
- Local Roads
- Stip
- Culverts
- Rail Crossings
- Bridges

TOGGLE BASEMAPS

- Imagery

**3YR AVG MAINTENANCE COSTS**

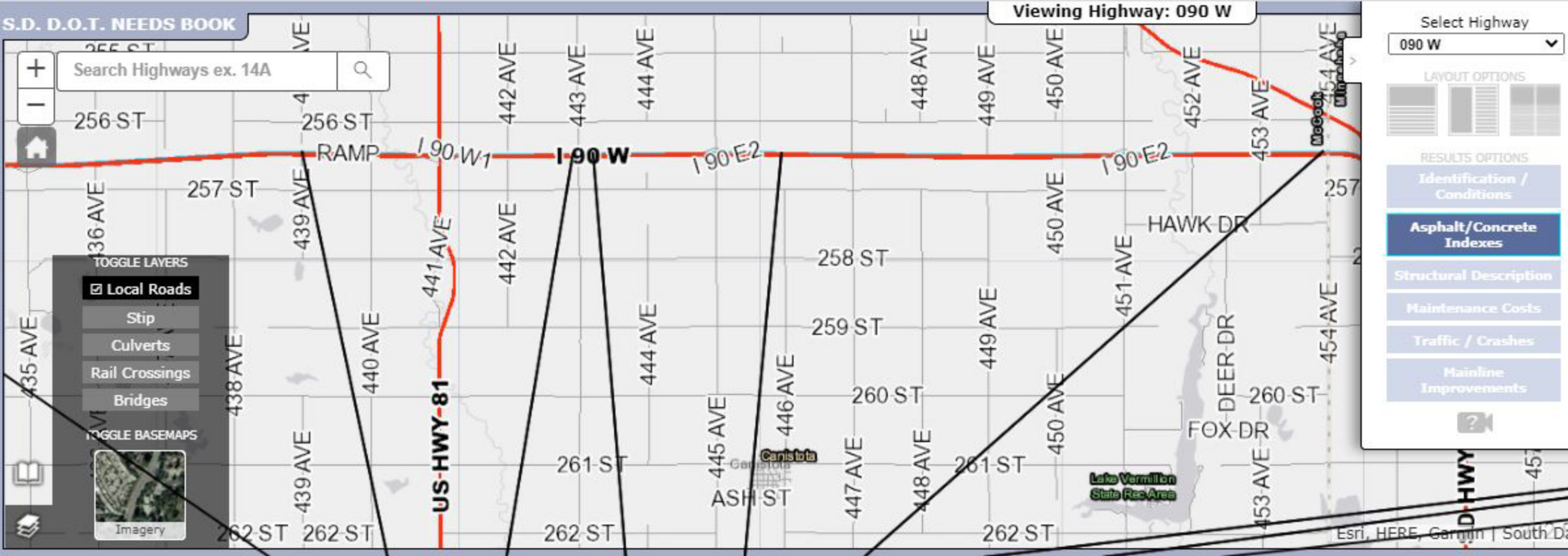
Mainline	\$132	\$305	\$637	\$2215	\$2215	\$2215	\$1609	\$1609
Shoulders	\$448	\$355	\$14	\$62	\$62	\$62	\$3056	\$3055
Structure	\$130	\$112	\$2031	\$2191	\$2191	\$2191	\$544	\$546
Other	\$6121	\$21210	\$21212	\$14182	\$14182	\$14182	\$17719	\$17718
Total	\$6831	\$21982	\$23894	\$18650	\$18650	\$18650	\$22929	\$22928
Tot 3yr Main Contract Amt	\$1131	\$27775	\$3880	\$27666	\$27666	\$27666	\$19740	\$19739



**STRUCTURAL DESCRIPTION**

	CRCP	AONC	TKSJD	AONC	AONC	AONC
Surface Type	CRCP	AONC	TKSJD	AONC	AONC	AONC
Shoulder Type - Prim/Secndry	AC/N/D	AC/AC	PCCP/N/D	AC/AC	AC/AC	AC/AC
Surface Width	26 (026)	24 (024)	24 (024)	24 (024)	24 (024)	24 (024)
Lf Shldr Width-Prim/Secndry	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)
Rt Shldr Width-Prim/Secndry	8 (08) / 0 (0)	5 (05) / 5 (5)	10 (10) / 0 (0)	5 (05) / 5 (5)	5 (05) / 5 (5)	5 (05) / 5 (5)
Widths-RDWAY/ROW-Predom/MIN	038/190/190	038/190/190	038/190/190	038/190/190	038/190/190	038/190/190
Roadbed Layer 1	2002/CC1/10.0	2011/AS3/1.3	2011/CL/0.0	2011/AS3/1.3	2011/AS3/1.3	2011/AS3/1.3
Roadbed Layer 2	1966/BU3/2.0	2003/TS3/0.4	2011/CG/0.0	2003/TS3/0.4	2003/TS3/0.4	2003/TS3/0.4
Roadbed Layer 3	1966/BU8/9.0	2003/TM/0.4	2011/CJ5/0.0	2003/TC/0.0	2003/TM/0.4	2003/TM/0.4
Roadbed Layer 4		2003/TC/0.0	1988/CD3/11.0	1997/TC/0.0	2003/TC/0.0	2003/TC/0.0
Roadbed Layer 5		1997/TC/0.0	1988/BU3/6.0	1997/AP3/1.5	1999/TC/0.0	1999/TC/0.0
Roadbed Layer 6		1997/AH3/1.5		1997/AH3/2.0	1999/AH3/1.5	1999/AH3/1.5
Roadbed Layer 7		1997/AH3/2.0		1997/CJ5/0.0	1999/AH3/2.0	1999/AH3/2.0
Roadbed Layer 8		1997/CJ5/0.0		1982/CL/0.0	1999/CJ5/0.0	1999/CJ5/0.0
Roadbed Layer 9		1982/CL/0.0		1982/CJ5/0.0	1983/CL/0.0	1983/CL/0.0
Roadbed Layer 10		1982/CJ5/0.0		1965/CR3/9.0	1983/CJ5/0.0	1983/CJ5/0.0
Roadbed Layer 11		1965/CR3/9.0		1965/BU3/3.0	1965/CR3/9.0	1964/CR3/9.0
Roadbed Layer 12		1965/BU3/3.0		1965/BU8/9.0	1965/BU3/3.0	1964/BU3/3.0
Number of Structures	0	1	1	0	2	2
Number of Box Culverts	0	0	0	0	0	0





Select Highway  
090 W

LAYOUT OPTIONS

RESULTS OPTIONS

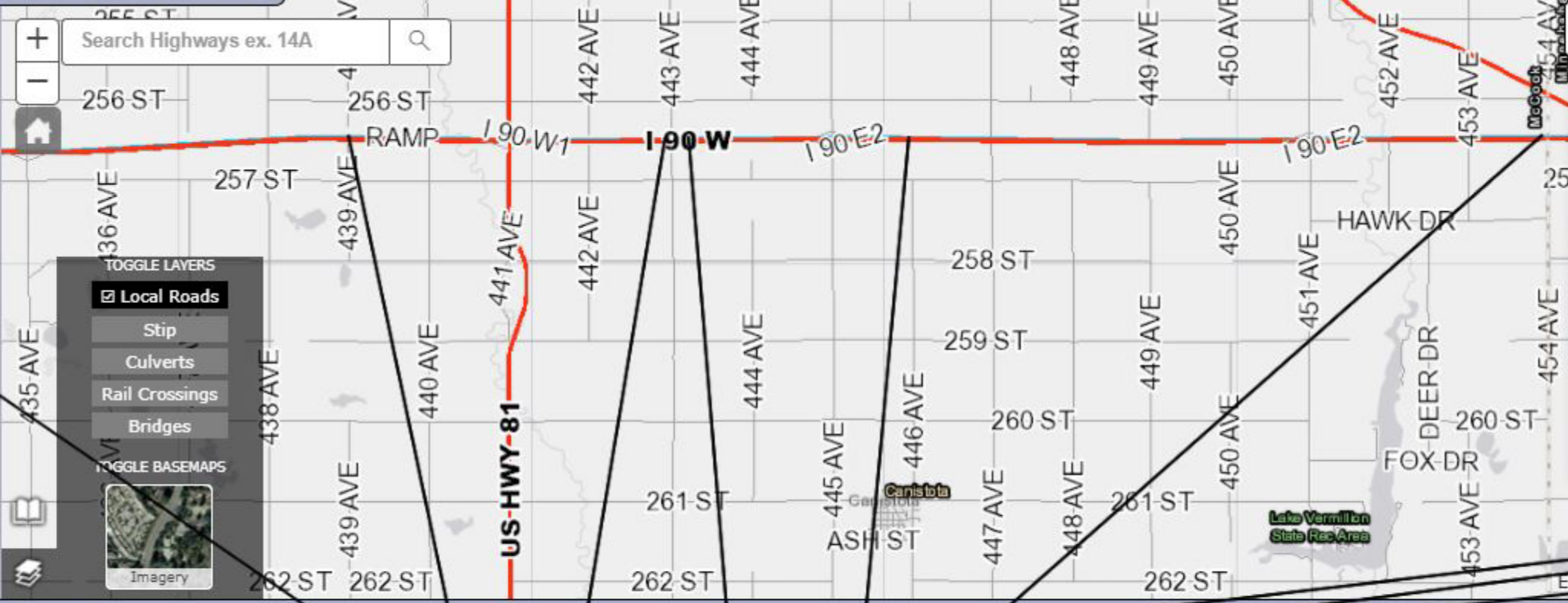
- Identification / Conditions
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- Structural Description
- Maintenance Costs
- Traffic / Crashes
- Mainline Improvements

**ASPHALT INDEX VALUES**

Transverse Cracking	4.81 (19)	4.80 (19)	4.80 (19)	4.77 (19)	4.90 (19)
Fatigue Cracking	4.82 (19)	4.64 (19)	4.85 (19)	4.84 (19)	4.20 (19)
Patching/Patch Deterioration	5.00 (19)	5.00 (19)	5.00 (19)	4.85 (19)	5.00 (19)
Block Cracking	5.00 (19)	4.80 (19)	4.96 (19)	4.81 (19)	5.00 (19)
Rut Index	4.45 (19)	4.60 (19)	4.30 (19)	4.24 (19)	4.65 (19)
Rut Depth (Inches) AVG/MAX	0.20 / 0.20	0.10 / 0.20	0.20 / 0.40	0.20 / 0.50	0.10 / 0.10

**CONCRETE INDEX VALUES**

D-Cracking/ASR	5.00 (19)	5.00 (19)			4.95 (19)
Joint Spalling	4.20 (19)	2.90 (19)			3.50 (19)
Corner Cracking	4.94 (19)	5.00 (19)			4.86 (19)
Faulting	2.65 (19)	4.78 (19)			4.95 (19)
Joint Seal Damage	4.39 (19)	2.90 (19)			3.30 (19)
Punchouts	4.51 (19)	5.00 (19)			5.00 (19)



Select Highway  
090 W

LAYOUT OPTIONS

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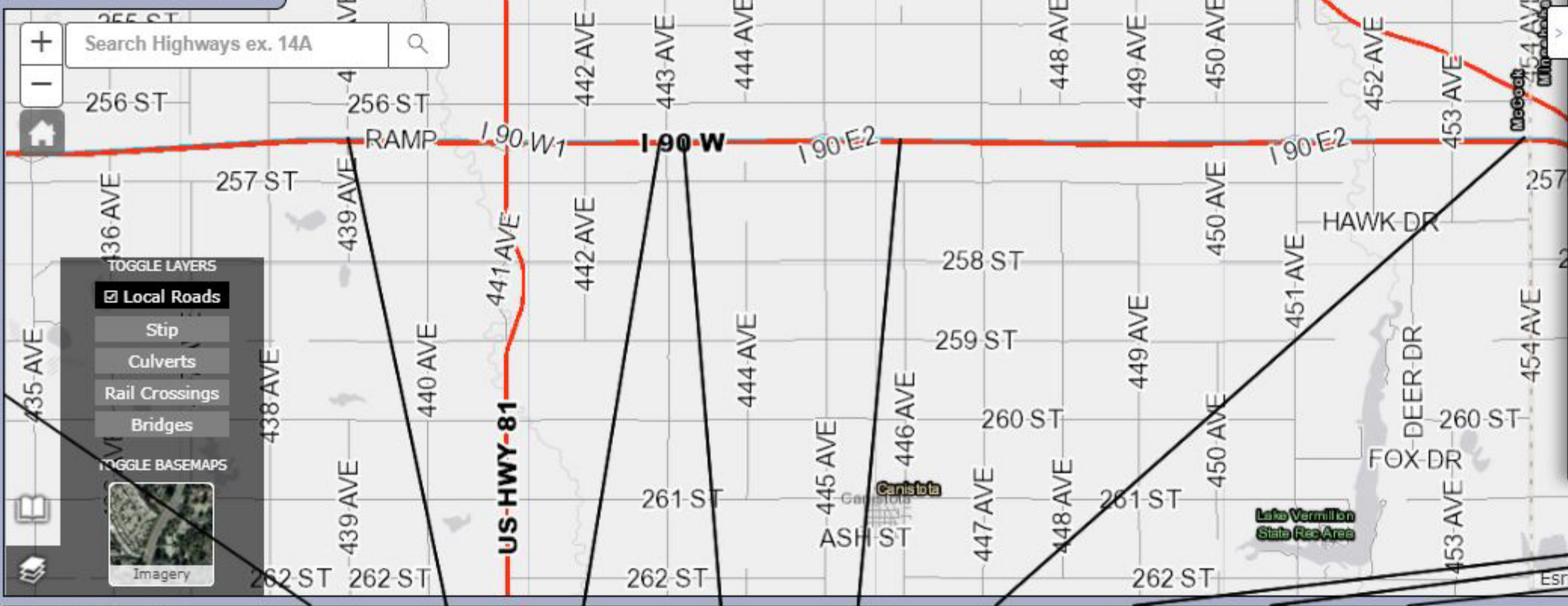
**TRAFFIC**

Current ADT	5598	5640	5660	5644	5756	6835	7631	8100
Projected 20yr ADT	7699	7767	7794	7772	7926	9968	11264	11956
Number Of Trucks	1182	1196	1200	1196	1207	1261	1480	1571

**CRASHES**

Weighted Crash Rate	0.720	0.810	0.480	0.960	0.790	0.940	0.570	1.390
Number of Fatal	0	0	0	0	0	1	0	0
Number of Injury	5	3	1	4	7	16	1	13
Number of Property Damage	51	24	2	15	45	93	5	52





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090 W

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TOGGLE LAYERS

- Local Roads
- Stip
- Culverts
- Rail Crossings
- Bridges

TOGGLE BASEMAPS

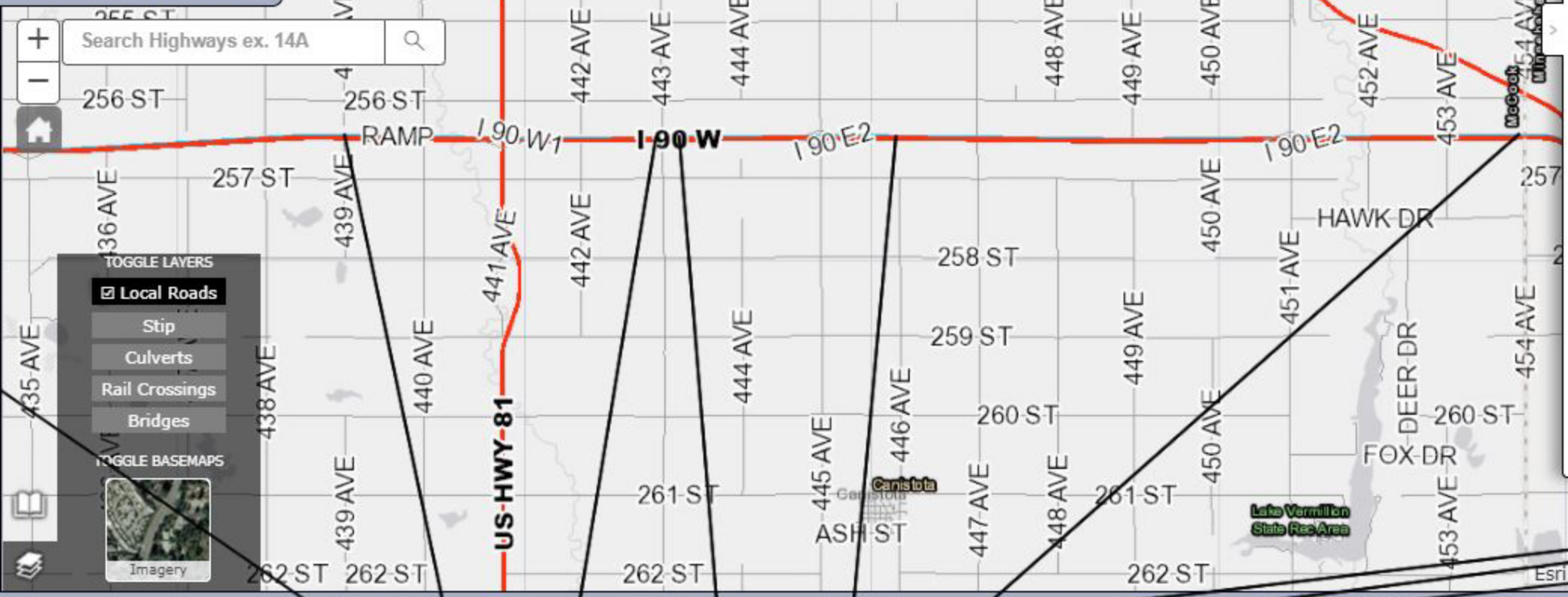
- Imagery

**IDENTIFICATION**

Federal Aid System	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN	NHS-IN
Funding Category	INT	INT	INT	INT	INT	INT	INT	INT
Functional Classification	R-INT	R-INT	R-INT	R-INT	R-INT	R-INT	R-INT	R-INT
Direction	W	W	W	W	W	W	W	W
Beginning MRM	353.07	362.00	366.00	366.06	369.00	377.00	390.00	390.29
MRM Displacement	0.000	0.042	0.011	0.242	0.043	0.000	0.065	0.136
Segment Length	8.965	3.969	0.289	2.743	7.928	13.079	0.340	4.429
Year Built	1966	1965	1988	1965	1965	1964	1988	1963
Year Last Improved	2001	2010	2010	2010	2010	2010	2014	2007
Year Last Sealed	0	0	0	0	0	0	0	0

**ROADWAY CONDITIONS**

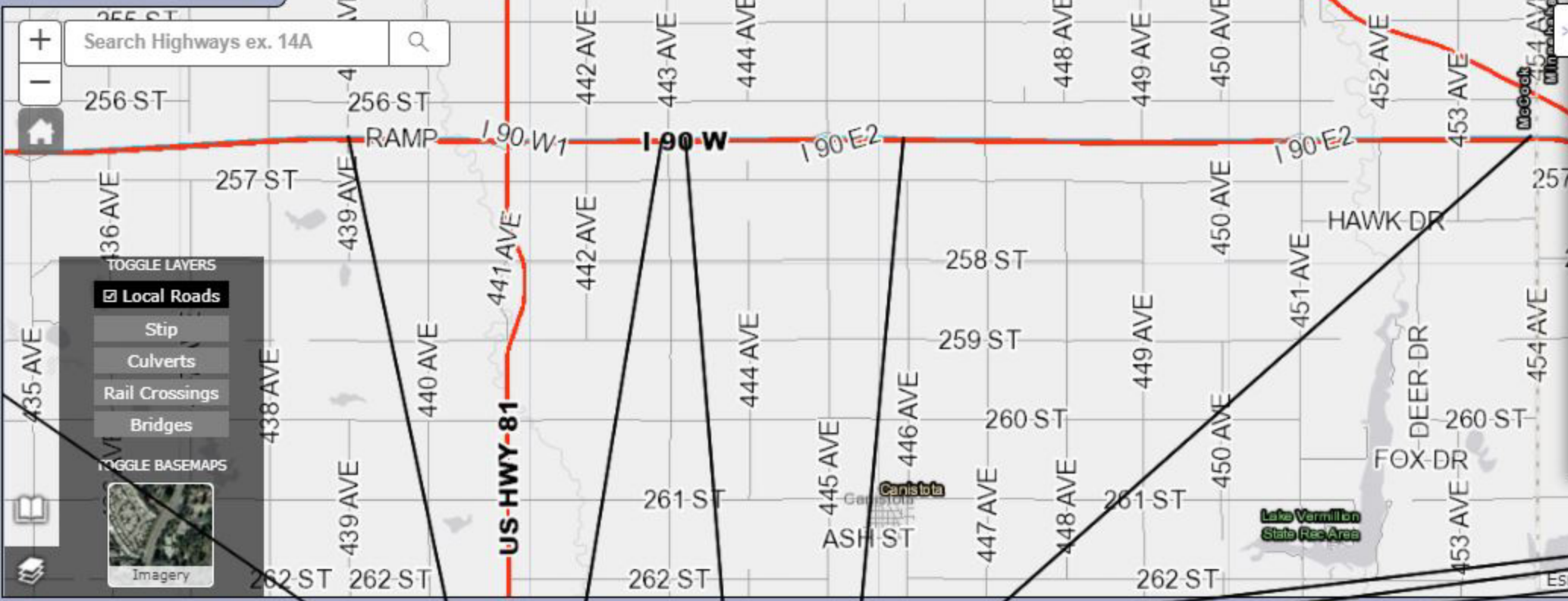
Surface Condition Index	2.65	4.47	3.03	4.60	4.46	4.41	3.91	3.77
Roughness Index	4.81 (19)	4.51 (19)	4.17 (19)	4.67 (19)	4.77 (19)	4.67 (19)	3.68 (19)	4.44 (19)



**MAINLINE IMPROVEMENTS**

Project Programmed		YES	YES	YES	YES	YES	YES	YES
PCEMS Number		05HQ	05HQ	05HQ	05HQ	05T3	07CE	06Y9
Improved Type	AC OVER PCCP	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PCCP RESURF	PAV RESTORE1
Estimated Improvement Cost	\$4607	\$8407	\$612	\$5810	\$16793	\$24517	\$1796	\$213
Improvement Year	2023	2021	2021	2021	2021	2022	2027	2021
PCEMS Number								
Improvement Type	ROUTE/SEAL	NOT OPTIMZED	SEAL JNTS	NOT OPTIMZED	NOT OPTIMZED	NOT OPTIMZED	NOT OPTIMZED	CRK SEAT ACO
Estimated Improvement Cost	\$48	\$0	\$612	\$0	\$0	\$0	\$0	\$213
Improvement Year	2025	0	2036	0	0	0	0	2038





Select Highway  
090 W

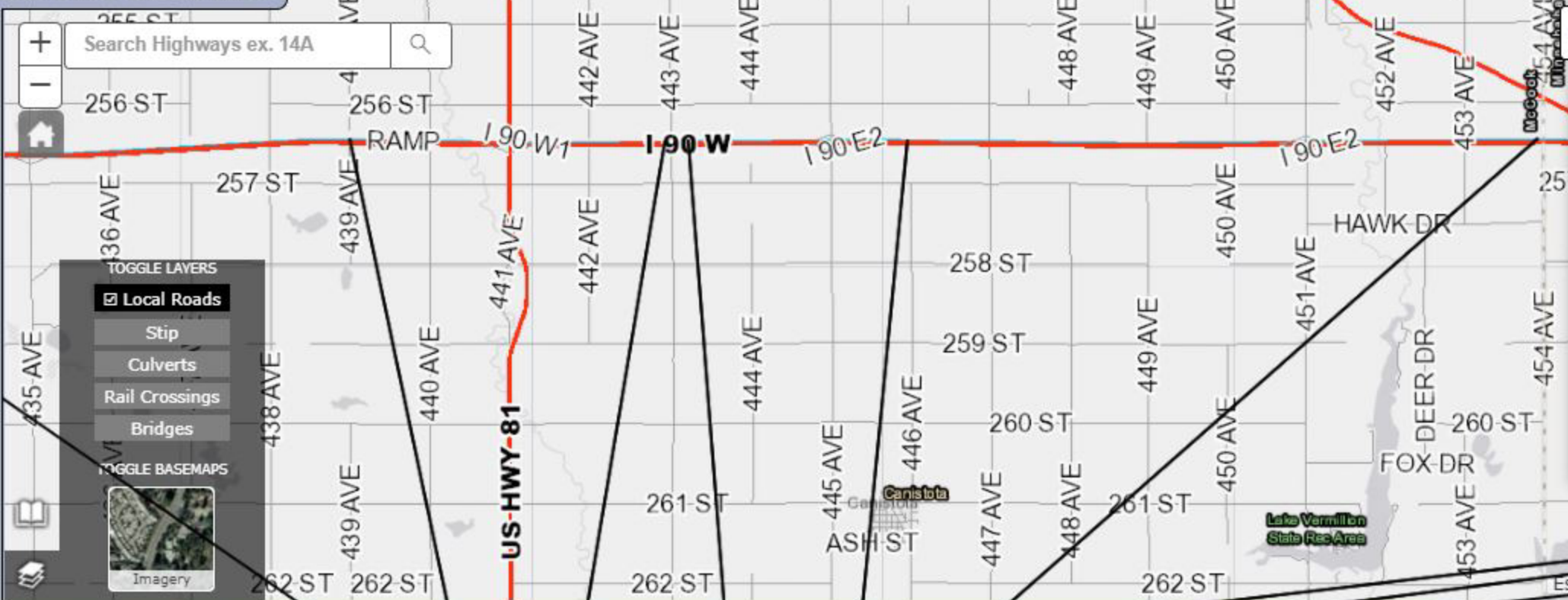
LAYOUT OPTIONS

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3YR AVG MAINTENANCE COSTS

Mainline	\$271	\$1513	\$882	\$2022	\$2021	\$2021	\$2021	\$517
Shoulders	\$325	\$50	\$14	\$162	\$162	\$162	\$162	\$1268
Structure	\$734	\$128	\$3097	\$2320	\$2320	\$2320	\$2321	\$577
Other	\$6130	\$23294	\$21325	\$14025	\$14025	\$14025	\$14024	\$16069
Total	\$7459	\$24986	\$25318	\$18528	\$18528	\$18528	\$18529	\$18431
Tot 3yr Main Contract Amt	\$3434	\$32394	\$3920	\$25711	\$25711	\$25711	\$25712	\$11514



Select Highway  
090 W

LAYOUT OPTIONS

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**STRUCTURAL DESCRIPTION**

Surface Type	CRCP	AONC	TKSJD	AONC	AONC	AONC	AONC	TKSJD
Shoulder Type - Prim/Secndry	AC/N/D	AC/AC	PCCP/N/D	AC/AC	AC/AC	AC/AC	AC/N/D	AC/N/D
Surface Width	26 (026)	24 (024)	24 (024)	24 (024)	24 (024)	24 (024)	24 (024)	26 (026)
Lf Shldr Width-Prim/Secndry	8 (08) / 0 (0)	5 (05) / 5 (5)	10 (10) / 0 (0)	5 (05) / 5 (5)	5 (05) / 5 (5)	5 (05) / 5 (5)	8 (08) / 0 (0)	8 (08) / 0 (0)
Rt Shldr Width-Prim/Secndry	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)	4 (04) / 0 (0)
Widths-RDWY/ROW-Predom/MIN	038/149/149	038/149/149	038/149/149	038/149/149	038/149/149	038/149/149	036/149/149	038/149/149
Roadbed Layer 1	2001/CC1/10.0	2010/AS3/1.3	2010/CL/0.0	2010/AS3/1.3	2010/AS3/1.3	2010/AS3/1.3	2014/AG3/1.5	2007/CD1/11.5
Roadbed Layer 2	1966/BU3/2.0	2003/TS3/0.4	2010/CG/0.0	2003/TS3/0.4	2003/TS3/0.4	2003/TS3/0.4	2014/AG3/2.0	2007/BU4/4.5
Roadbed Layer 3	1966/BU8/9.0	2003/TM/0.4	1988/CD3/11.0	2003/TC/0.0	2003/TM/0.4	2003/TM/0.4	2007/CG/0.0	1963/BU8/6.0
Roadbed Layer 4		2003/TC/0.0	1988/BU3/6.0	1997/TC/0.0	2003/TC/0.0	2003/TC/0.0	1988/CD1/11.0	
Roadbed Layer 5		1997/TC/0.0		1997/AP3/1.5	1999/TC/0.0	1999/TC/0.0	1988/BU8/6.0	
Roadbed Layer 6		1997/AH3/1.5		1997/AP3/2.0	1999/AH3/1.5	1999/AH3/1.5		
Roadbed Layer 7		1997/AH3/2.0		1997/CJ5/0.0	1999/AH3/2.0	1999/AH3/2.0		
Roadbed Layer 8		1997/CJ5/0.0		1982/CL/0.0	1999/CJ5/0.0	1999/CJ5/0.0		
Roadbed Layer 9		1982/CL/0.0		1982/CJ5/0.0	1983/CL/0.0	1983/CL/0.0		
Roadbed Layer 10		1982/CJ5/0.0		1965/CR3/9.0	1983/CJ5/0.0	1983/CJ5/0.0		
Roadbed Layer 11		1965/CR3/9.0		1965/BU3/3.0	1965/CR3/9.0	1964/CR3/9.0		
Roadbed Layer 12		1965/BU3/3.0		1965/BU8/9.0	1965/BU3/3.0	1964/BU3/3.0		
Number of Structures	0	1	1	0	2	2	1	5
Number of Box Culverts	0	0	0	0	0	0	0	0



## Resurf: 05HQ

**Improvement Description:** Remove & Replace PCC, Pipe Work, Replace Str Bridge, Approach Grading, Deck Overlay, Approach Slabs, Polymer Chip Seal

**Improvement Type:** undefined

**Location Description:** I90 WBL - Fm 2 W of the Salem Interchange to 2 W of Humboldt; I90 Str - 0.6 W of the US81 Interchange Over the W Fork of the Vermillion River; I90 Str - 2 E of the US81 Interchange Over 443 Ave

**Project Number:** undefined

**Fiscal Year:** 2021 **Estimated Cost:** 32629000

**Region List:** Mitchell

**County List:** McCook

**Route Number:** undefined

**Highway:** 090 W, **Beginning MRM:** 362, **Ending MRM:** 377

**Segment Length:** 14.929 Miles

**Letting Date:** null

**Funding Category:** undefined

**Federal Aid Eligible:** Yes

## Resurf: 05T3

**Improvement Description:** Remove & Replace PCC Surfacing, Replace Str Bridge, Approach Grading, Correct Clearance Deficiency, Spot Grading, Pipe Work

**Improvement Type:** undefined

**Location Description:** I90 WBL - Fm 2 W of Humboldt to 2 E of Hartford; I90 WBL - Exit 379 (Humbolt); I90 Str - 0.4 W of Exit 390 (SD38) Over a Creek

**Project Number:** undefined

**Fiscal Year:** 2022 **Estimated Cost:** 27524000

**Region List:** Mitchell

**County List:** McCook, Minnehaha

**Route Number:** undefined

**Highway:** 090 W, **Beginning MRM:** 377, **Ending MRM:** 390

**Segment Length:** 13.057 Miles

**Letting Date:** null

**Funding Category:** undefined

**Federal Aid Eligible:** Yes