

City of Madison Resurfacing Program





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- ✓ You may use the “raise hand” option at the bottom if you have something that required immediate clarification.
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How to Participate

The screenshot displays a Zoom webinar interface. At the top, a green status bar indicates "You are viewing City of Madison's screen" and includes a "View Options" dropdown. Below this, a Microsoft Excel spreadsheet is visible, showing a calendar for 2019 and 2020. The spreadsheet has columns for months and rows for dates. A "City of Madison" logo is visible in the top right corner of the spreadsheet area. In the center of the screen, there are two buttons: "Phone Call" and "Computer Audio". Below these, a blue button labeled "Join Audio by Computer" is highlighted with a red arrow. At the bottom left of the Zoom interface, there is a "Join Audio" button with a headset icon, also highlighted with a red arrow. The bottom right corner of the Zoom interface features a "Leave Webinar" button. The bottom of the Zoom interface includes icons for "Q&A", "Chat", and "Raise Hand".

Recording

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City of Madison

Phone Call

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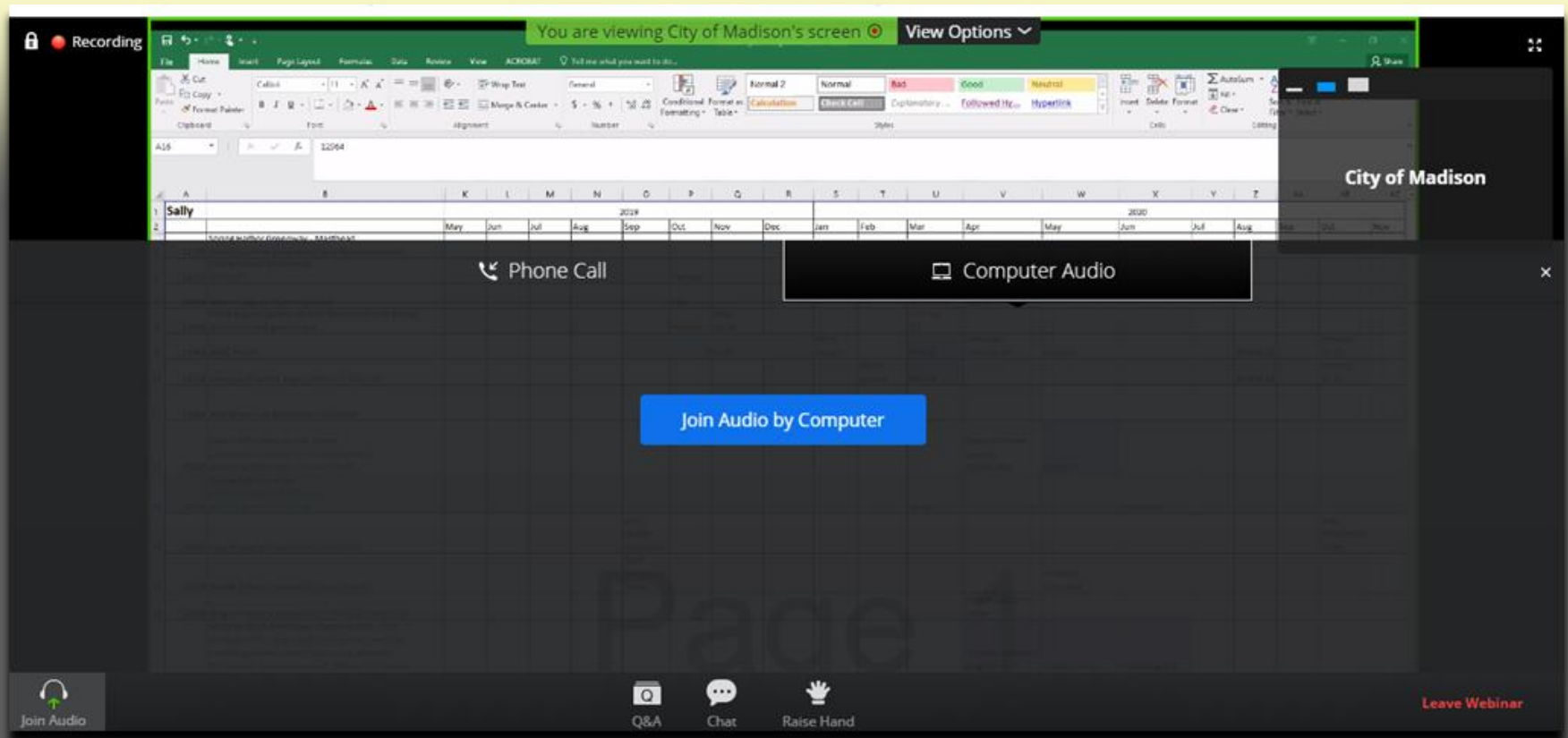
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Q&A Chat Raise Hand

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How to Participate



Raise your hand to be unmuted
For comments or ask additional questions.

How to Participate

Recording

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City of Madison

Phone Call

Computer Audio

Join Audio by Computer

Join Audio

Q&A

Chat

Raise Hand

Leave Webinar

Use chat if you have technical issues or a question for the panelists

City Engineering Division

RESURFACING PROGRAM

- ⇒ Resurface about 1 mile of streets throughout the City
- ⇒ Resurfacing program which includes pulverizing or mill/overlay to improve the quality of the street and delay the need for total reconstruction
- ⇒ Deficient C&G sections are replaced
- ⇒ Some streets will have new storm sewer installed
- ⇒ Pavement is milled or pulverized
- ⇒ New layer(s) of asphalt are paved
- ⇒ Pavement Markings are placed if needed
- ⇒ Terraces are restored (topsoil, seed & matting)

SELECTION PROCESS

- ⇒ How are streets selected for resurfacing?
- ⇒ Streets rated bi-annually
 - PASER Scale (UW-Madison)
- ⇒ Coordination with other public works projects
- ⇒ Group streets around City for cost/efficiency

RATING SYSTEM

- ⇒ PASER rates streets from 1 – 10
- ⇒ **Resurface** streets with a pavement rating of 5 or less and a c&g rating of 6 or greater
- ⇒ **Reconstruct** streets with lower ratings (these streets require extensive replacement and not cost effective for resurfacing)

State of Our Streets

All Streets:		2001	2010	2015	2017	2018	2019	2020	2021	2022
	Total Miles	682.38	769.14	784.78	798.15	800.41	802.08	807.76	812.58	818.79
	Total Lane Miles		1717.91	1752.04	1779.15	1781.79	1785.04	1796.14	1805.27	1818.55
	Average Surface Year	1982	1991	1994	1996	1996	1997	1998	1998	1999
	Average Curb Rating	6.86	7.19	7.28	7.36	7.43	7.41	7.38	7.43	7.40
	Average Pavement Rating	6.53	6.90	6.64	6.59	6.77	6.47	6.67	6.99	7.08
All Streets by Class		2001	2010	2015	2017	2018	2019	2020	2021	2022
Arterial Streets										
	Total Miles	75.21	93.35	95.16	99.50	96.29	95.67	96.06	95.97	95.97
	Total Lane Miles		312.57	325.74	334.92	326.95	324.86	325.73	325.51	325.54
	Average Surface Year	1986	1996	2002	2003	2004	2005	2005	2006	2006
	Average Curb Rating	7.64	7.37	7.60	7.68	7.71	7.68	7.61	7.69	7.60
	Average Pavement Rating	6.85	7.32	6.90	6.79	7.02	6.57	6.78	7.11	7.08
Collector Streets										
	Total Miles	153.99	166.48	169.38	171.83	172.55	171.88	173.30	173.57	174.29
	Total Lane Miles		376.79	380.66	385.96	387.48	387.33	390.18	390.72	392.98
	Average Surface Year	1987	1996	2001	2002	2002	2003	2003	2004	2004
	Average Curb Rating	7.05	7.42	7.60	7.64	7.70	7.68	7.58	7.60	7.50
	Average Pavement Rating	6.80	7.08	6.84	6.68	6.84	6.52	6.67	6.95	7.03
Local Streets										
	Total Miles	453.18	509.31	520.24	526.81	531.57	534.61	538.40	543.03	548.53
	Total Lane Miles		1028.54	1045.64	1058.27	1067.36	1072.85	1080.23	1089.04	1100.03
	Average Surface Year	1980	1988	1992	1993	1994	1994	1995	1995	1996
	Average Curb Rating	6.67	7.09	7.12	7.20	7.29	7.28	7.28	7.33	7.33
	Average Pavement Rating	6.39	6.76	6.53	6.52	6.70	6.44	6.65	6.99	7.09

819 miles of streets. Ave curb and pavement rating is 7

State of Our Streets

Arterial, Collector and Local	2001	2010	2015	2017	2018	2019	2020	2021	2022
% Miles at or below Cond State 10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% Miles at or below Cond State 9	94.5%	97.4%	97.7%	96.8%	94.7%	96.0%	97.3%	95.6%	94.8%
% Miles at or below Cond State 8	87.7%	89.9%	93.4%	93.9%	91.9%	92.9%	93.5%	91.9%	91.5%
% Miles at or below Cond State 7	65.0%	53.2%	62.0%	60.8%	51.9%	78.4%	62.6%	46.5%	44.9%
% Miles at or below Cond State 6	57.2%	37.4%	40.7%	44.6%	43.1%	44.4%	41.5%	35.3%	31.1%
% Miles at or below Cond State 5	32.1%	25.0%	24.6%	26.6%	24.8%	25.6%	23.6%	20.0%	18.6%
% Miles at or below Cond State 4	9.3%	6.5%	14.4%	15.3%	13.6%	13.1%	12.2%	10.3%	10.1%
% Miles at or below Cond State 3	1.8%	0.7%	2.7%	3.3%	2.9%	2.4%	2.2%	1.9%	1.4%
% Miles at or below Cond State 2	0.7%	0.0%	0.1%	0.1%	0.2%	0.1%	0.2%	0.3%	0.0%
% Miles at or below Cond State 1	0.6%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%
% Miles at or below Cond State 0	0.3%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%

Goal (26%) is centered around the number of streets rated at or below 5.

State of Our Arterial Streets

Arterial	2001	2010	2015	2017	2018	2019	2020	2021	2022
% Miles at or below Cond State 10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% Miles at or below Cond State 9	98.3%	92.0%	98.0%	97.8%	95.1%	95.1%	97.4%	93.8%	93.0%
% Miles at or below Cond State 8	87.0%	76.6%	89.8%	93.6%	90.7%	92.9%	91.8%	88.2%	88.0%
% Miles at or below Cond State 7	58.4%	47.0%	56.4%	53.8%	42.5%	78.9%	57.9%	45.2%	51.1%
% Miles at or below Cond State 6	46.3%	28.2%	37.8%	37.8%	36.5%	40.6%	39.9%	33.9%	32.1%
% Miles at or below Cond State 5	23.3%	15.8%	18.4%	26.3%	24.6%	25.6%	25.8%	21.2%	21.1%
% Miles at or below Cond State 4	2.0%	8.1%	7.1%	8.8%	6.9%	8.6%	8.2%	6.0%	6.5%
% Miles at or below Cond State 3	0.5%	0.8%	2.4%	2.5%	1.6%	1.1%	1.2%	0.6%	0.3%
% Miles at or below Cond State 2	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
% Miles at or below Cond State 1	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Miles at or below Cond State 0	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Goal: less than 15% of total miles of arterial streets at or below 5.

State of Our Collector Streets

Collector	2001	2010	2015	2017	2018	2019	2020	2021	2022
% Miles at or below Cond State 10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% Miles at or below Cond State 9	94.2%	96.9%	96.4%	96.7%	95.1%	96.1%	97.0%	96.5%	95.8%
% Miles at or below Cond State 8	86.1%	89.0%	90.8%	93.0%	91.5%	92.8%	95.0%	94.5%	94.3%
% Miles at or below Cond State 7	58.3%	48.5%	58.8%	61.5%	53.1%	78.0%	64.4%	47.9%	48.6%
% Miles at or below Cond State 6	48.6%	32.4%	39.0%	44.3%	43.1%	46.5%	43.9%	37.0%	32.2%
% Miles at or below Cond State 5	27.8%	19.3%	18.9%	23.1%	21.3%	25.0%	22.6%	20.7%	16.9%
% Miles at or below Cond State 4	6.0%	4.7%	9.1%	10.2%	9.5%	8.4%	8.1%	8.0%	8.1%
% Miles at or below Cond State 3	0.3%	0.8%	2.9%	3.2%	3.0%	1.8%	1.6%	1.8%	1.4%
% Miles at or below Cond State 2	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.3%	0.0%
% Miles at or below Cond State 1	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.3%	0.0%
% Miles at or below Cond State 0	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.3%	0.0%

Goal: less than 20% of total miles of collector streets at or below 5

State of Our Local Streets

Local	2001	2010	2015	2017	2018	2019	2020	2021	2022
% Miles at or below Cond State 10	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
% Miles at or below Cond State 9	93.9%	98.6%	98.1%	96.6%	94.6%	96.1%	97.4%	95.7%	94.8%
% Miles at or below Cond State 8	88.3%	92.6%	94.9%	94.3%	92.2%	92.9%	93.4%	91.8%	91.3%
% Miles at or below Cond State 7	68.2%	56.0%	64.1%	61.8%	53.2%	78.5%	62.9%	46.3%	42.6%
% Miles at or below Cond State 6	61.8%	40.7%	41.8%	45.9%	44.3%	44.3%	41.1%	35.0%	30.6%
% Miles at or below Cond State 5	34.9%	28.5%	27.6%	27.8%	25.9%	25.7%	23.5%	19.6%	18.7%
% Miles at or below Cond State 4	11.6%	6.7%	17.5%	18.2%	16.2%	15.4%	14.3%	11.8%	11.4%
% Miles at or below Cond State 3	2.4%	0.6%	2.7%	3.5%	3.1%	2.9%	2.6%	2.2%	1.6%
% Miles at or below Cond State 2	0.9%	0.0%	0.1%	0.2%	0.2%	0.1%	0.3%	0.3%	0.0%
% Miles at or below Cond State 1	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
% Miles at or below Cond State 0	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%

Goal: less than 30% of total miles of local streets
at or below 5

Curb & Gutter

⇒ What is the purpose of curb & gutter?

- Drainage
- Define parking
- Keep terrace intact

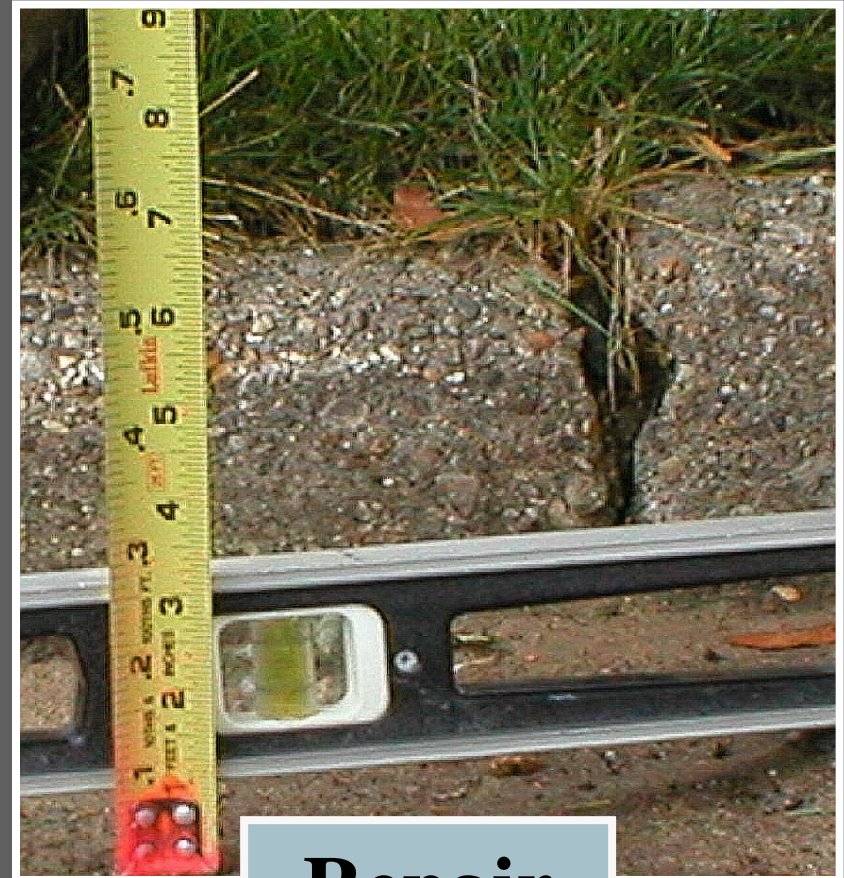
Selection Criteria

- ⇒ Look for 6 different types of problems in c&g:
- ⇒ Vertical Offset
- ⇒ Horizontal Offset
- ⇒ Water Ponding
- ⇒ Curb Head
- ⇒ Tipped Curb
- ⇒ Pitted Concrete

Vertical Offset



Repair



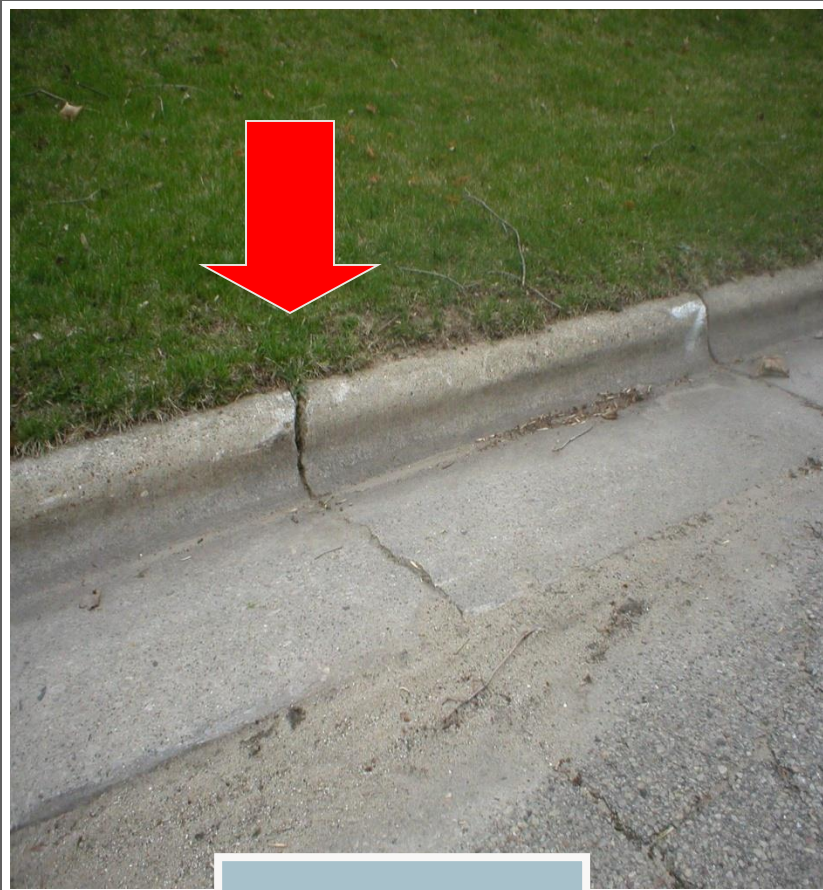
Repair

Horizontal Offset



Repair

Cracks



Repair

1/18/2023



Leave

Water Ponding



Repair

Curb Head



Tipped Curb



Repair

Pitted Concrete



Leave

Assessments

- ⇒ Cost share with property owner and City
- ⇒ Assessment based on frontage on project street (10' of pavement)
- ⇒ Public hearings at Board of Public Works and Common Council meetings
- ⇒ Pay assessment in full the year invoiced or pay installments over an eight year period

CURB & GUTTER CONSTRUCTION



➡ HAND PLACED C&G VS. MACHINE PLACED C&G

STORM SEWER CONSTRUCTION



- REBUILDING INLETS
- INSTALLING NEW INLET AND PIPE

UTILITY CASTING ADJUSTMENTS



➡ ADJUSTING CASTING

➡ ADJUSTING WATER VALVE BOX

DRIVE APRON CONSTRUCTION



- ➡ PARTIAL REPLACEMENT OF DRIVE APRON
- ➡ FULL REPLACEMENT OF DRIVE APRON IN PHASES

PAVEMENT PULVERIZING



- ➡ ASPHALT AND GRAVEL BASE ARE PULVERIZED
- ➡ NEW BASE IS GRADED AND COMPACTED
- ➡ NEW BASE IS TEST ROLLED AND UNDERCUT
- ➡ NEW BASE IS FINISHED ROLLED TO FINAL GRADE

PAVEMENT PULVERIZING



- ➡ ROLLED AND COMPACTED BASE
- ➡ UNDERCUT SOFT AREA AFTER TEST ROLL

PAVEMENT MILLING



➡ MILLING OPERATION

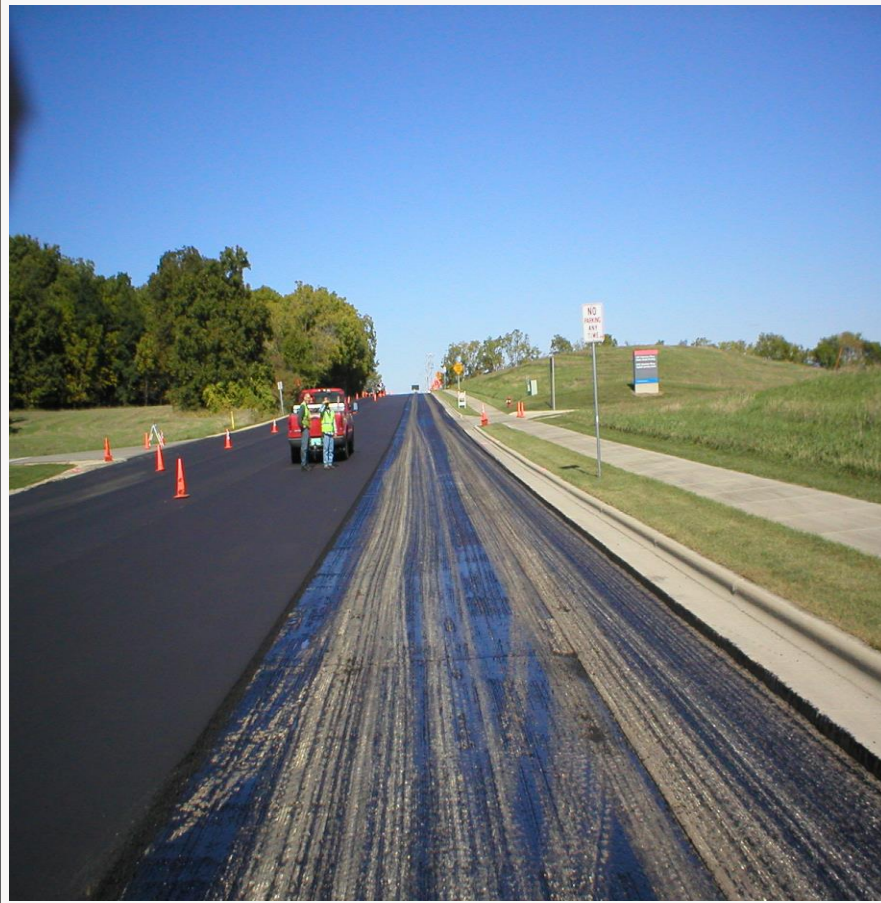
➡ SOFT AREA THAT WILL BE UNDERCUT OR BASE PATCHED

PAVEMENT MILLING - UNDERCUT



- ➡ TEST ROLL PAVEMENT
- ➡ EXCAVATE SOFT AREAS
- ➡ PLACE BREAKER RUN STONE OR ASPHALT

ASPHALT PAVING



- ➡ TACK COAT APPLIED TO LOWER ASPHALT LAYER
- ➡ PAVING FINAL LIFT OF ASPHALT

ASPHALT PAVING & RESTORATION



➡ ASPHALT PAVING

➡ RESTORATION OF TERRACES AFTER C&G INSTALLED

City Engineering Division RESURFACING PROGRAM

- PUBLIC INFORMATION MEETINGS: Dec 15
- BPW APPROVAL OF 3 CONTRACTS
 - CURB AND GUTTER REPLACEMENT WITH RESURFACING
 - PULVERIZING & PAVING WITH RESURFACING
 - PATCHING
- BPW PUBLIC HEARING ON ASSESSMENTS JANUARY 18, 2023
- COMMON COUNCIL HEARING FEBRUARY 7, 2023
- SURFACE PAVING NEW PLAT PHASES: CITY COST SHARE FOR IMPROVEMENTS TO EXISTING STREETS
- PAVEMENT PATCHING/MILLING/OVERLAY CITYWIDE
- RESURFACING WEB SITE (SIGN UP FOR UPDATES)
- SCHEDULE WILL BE POSTED ON WEB: TBD