

IMPLEMENTING A LOCAL PAVEMENT PRESERVATION PROGRAM



Chris Bauserman, PE, PS
Delaware County Engineer
Delaware, Ohio

August 28, 2012



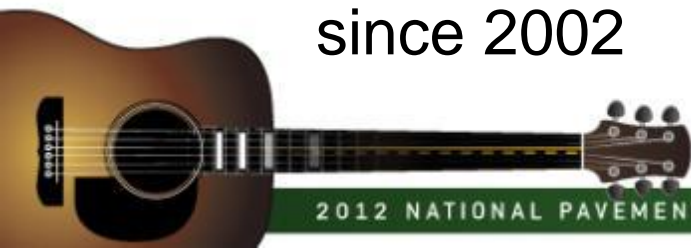
SUCCESSFUL PAVEMENT PRESERVATION PROGRAMS

- Funding
- Commitment
 - Staff
 - Political
- Collect and maintain data on the condition of your system



DELAWARE COUNTY, OHIO

- 2009 Population of approximately 180,000 (1990 population of 54,500)
- 2600 building permits (2006)
- 420 building permits (2009)
- Over 100 miles added to the public road system since 2002



1996

- Long Range Planning Study
 - 186 miles of critically deficient roads
 - Surface condition
 - Width
 - safety
 - 126 bridges in poor condition
 - Condition rating 4 or less'
 - Posted load limits
 - Narrow or 1-lane condition



COUNTYWIDE OPINION POLL

- What are the three most important factors to your Quality of Life?
 - Schools
 - Transportation
 - Public Safety
- How would you grade the county road system?
 - Poor



1998 ROAD AND BRIDGE BALLOT ISSUE

- One mil reduction in property tax, and
- $\frac{3}{4}\%$ increase in sales tax
 - Projected to generate an additional \$4 M annually for road and bridge construction and maintenance



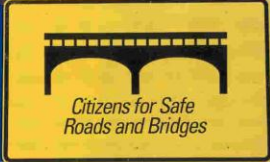
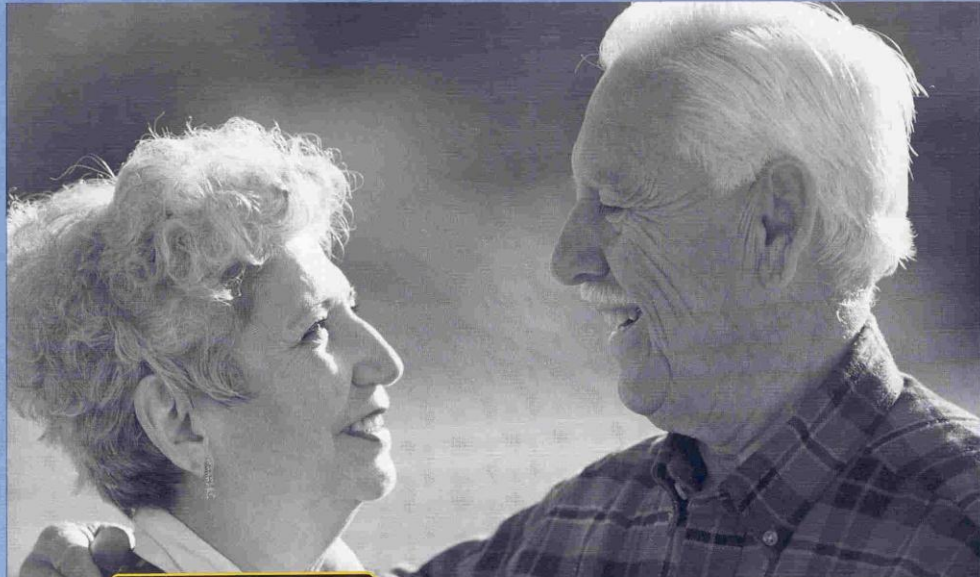
CAMPAIGN FOCUS

- Deficient Bridges and Roads



CAMPAIGN FOCUS

- Property Tax Relief

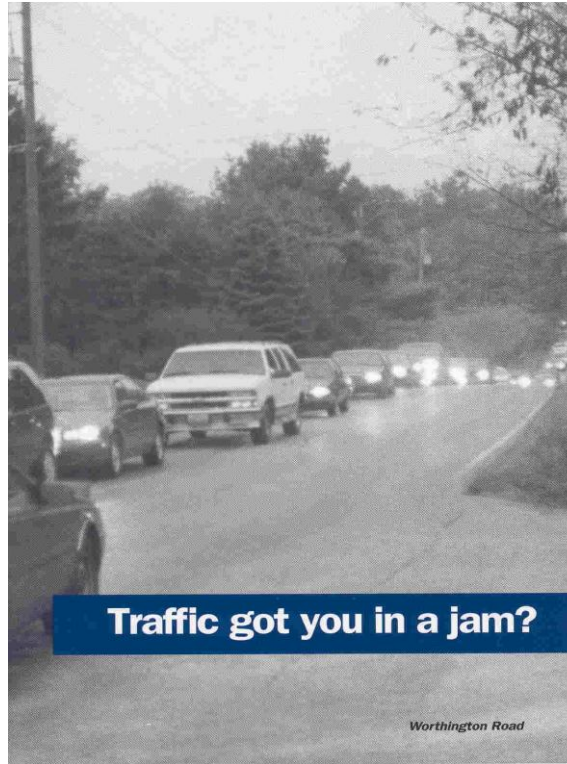


Delaware County Seniors Need Property Tax Relief and Safe Roads and Bridges.
Vote 'Yes' on November 3rd! This is a continuation. It is not a new tax.



CAMPAIGN FOCUS

- Congestion



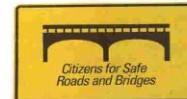
Vote 'yes' for safer bridges and roads

Delaware County is growing. And with this growth, the traffic in our county continues to get worse and maintenance of our roads and bridges becomes increasingly difficult.

VOTE YES TO

- **support the continuation** of the 3/4% sales tax for road and bridge funding and the 1-mill property tax rollback.
- **reduce congestion** by increasing the capacity of roads and intersections countywide.
- **widen and maintain roads and bridges** so they are able to accommodate the heavy traffic that exists today.
- **ensure that the burden for funding** these improvements **is equitable**—placing responsibility on every one who uses Delaware County roads.

On November 3rd, Vote for Better Roads and Bridges!



*This is a continuation.
It is not a new tax.*



ELECTION RESULTS

- Approved by 65-35% margin
- Road and Bridge revenue generated
 - \$4 Million annually in 1999
 - \$13 Million collected in 2009
- Funded major rehabilitation of County Road System

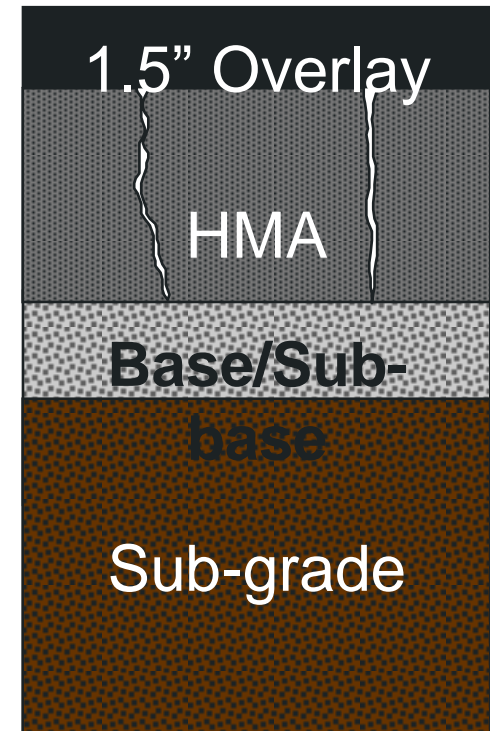
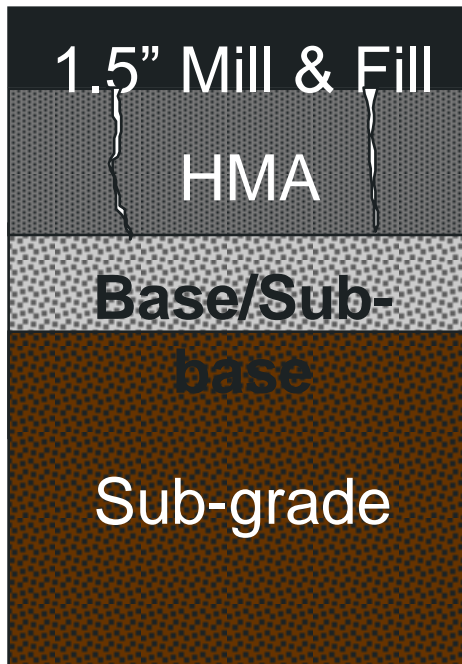
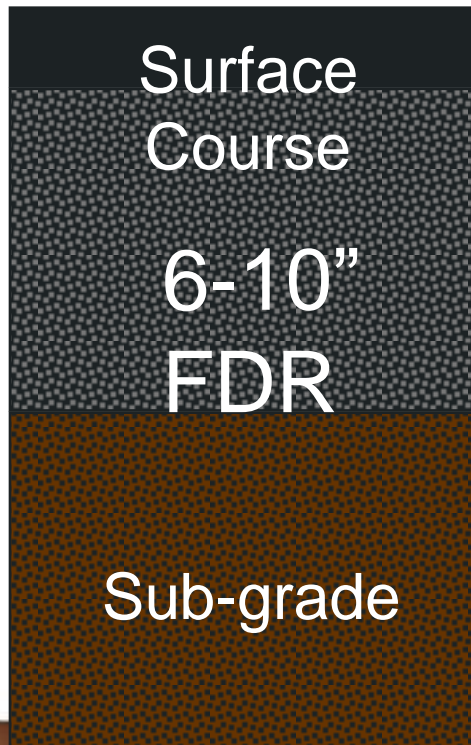


Options

FDR

*Mill &
Fill*

Overlay



FDR PROJECT HISTORY

- 1997 1.0 miles
- 1998 24.7 miles
- 1999 24.3 miles
- 2000 25.6 miles
- 2001 7.2 miles
- 2002 7.9 miles
- 2003 11.0 miles
- 2005 4.9 miles
- 2008 2.5 miles
- 2009 .7 miles
- 2010 5.6 miles

115.4 miles



Total 11-year FDR Cost \$13.4 M



WHAT NOW?

- Focus now shifts to protecting this investment
- Growth related capacity improvements competing with preventative maintenance for funding
- Pavement Preservation Strategy is essential to make sure funds are wisely spent



ROAD CONDITION RATINGS

- Patterned after Bridge Inspection Ranking Criteria
- Mostly Windshield Survey
- Started in 2002



ROAD NAME	NUMBER	LENGTH	SUNBURY (030)	to	HARLEM (017)
BASE COMP	A		CRACKING (50%)	7	*WHL BLOK *EDGE THRM LINGDL
SURFACE	A	2001	SURFACE (30%)	6	*RAVEL BLEED PATCH DEBRD CRACK
TREATMENT	s	2007	*RUTTING (10%)	8	INTERSECTION LANE
LENGTH (LF / MI)	11,643	2,205	*DRAINAGE (10%)	7	POTHOLE HIBERM DFRMTION
WIDTH (PL)	21.0		WEIGHTED AVG	6.8	68 PAVEMENT CONDITION RATING
STRAIGHT LINE (SF)	244,503		CRACKING (50%)	50	-15.0
EXTRA LANE (LF)	0		SURFACE (30%)	30	-12.0
EXTRA LANE (SF)	0		*RUTTING (10%)	10	-2.0
TOTAL (SF)	244,503		*DRAINAGE (10%)	10	-3.0
TOTAL (SY)	27,167		WEIGHTED DEDUCTS		-32
INSPECTION DATE	06-Dec-11		BERM	2	2001
INSPECTED BY	GEU-		ROAD MARKINGS	3	2009

PREVIOUS YEAR	CURRENT YEAR
	

ADDITIONAL PHOTOS

SUMMARY OF IMPROVEMENTS

2000	RECLAMATION, LEVEL/OVERLAY (1.5"/1.25")	\$610,600.00
2003	RECLAMITE	\$44,800.00
2004	FULL DEPTH REPAIR	\$6,500.00
2007	CRACK SEAL	\$10,000.00
2010	INTERMEDIATE SEAL & MICROSURFACE	\$308,500.00

TOTAL COST OF IMPROVEMENTS TO DATE

\$980,400.00

ROAD CONDITION RATING



SUMMARY OF TREATMENTS

DELAWARE COUNTY ENGINEER'S OFFICE
ROAD IMPROVEMENT SUMMARY
1997 - 2011

YEAR	TOTAL MILES IMPROVED	TOTAL RECONSTRUCTION (HMA)	CONCRETE	FDR / HMA (LEVEL/OVERLAY)	FDR / HMA / CHIP SEAL	WIDENING / HMA	HMA (LEVEL/OVERLAY)	CHIP SEAL / HMA / MICRO	CHIP SEAL / HMA	HMA / MICRO	HMA / CHIP SEAL	HMA (SURFACE ONLY)	COLD MIX / CHIP SEAL	CHIP SEAL / MICRO	MICRO ONLY	CHIP SEAL / FOG	CHIP SEAL (ONLY)	CRACK SEAL	TOTAL \$
1997	28.10	0.09		0.90			27.11												\$1,827,200
1998	49.52			24.70		8.72	16.10												\$4,196,802
1999	25.98			24.32			1.66												\$2,426,161
2000	47.60			25.62			0.13			7.98	13.87								\$3,548,900
2001	59.47			7.19			18.55				33.73								\$2,924,333
2002	27.97			7.89			19.32				0.76								\$1,992,005
2003	21.91			4.86			0.98			8.16	2.59	3.70			1.62				\$1,743,128
2004	47.96		0.19				13.14			4.35	7.31						22.97		\$2,010,124
2005	54.65			5.93						5.32	10.30	0.01	5.24				1.22	26.63	\$2,049,151
2006	64.93						1.88	9.03	1.26	1.43		1.48		6.08	30.89		7.35	5.53	\$2,224,692
2007	100.15						2.73		0.45	0.61		2.72		23.80	4.25		7.55	58.04	\$2,579,236
2008	77.17				2.45		10.10		3.89		1.50	1.77	1.26	2.67				53.53	\$2,980,922
2009	56.84			0.65				9.13		6.79		0.87				3.32		36.08	\$1,978,268
2010	49.76			1.08	4.49				0.09					18.98		10.12		15.00	\$2,605,394
2011	60.90								5.05					11.59		15.29	3.77	25.20	\$2,183,562

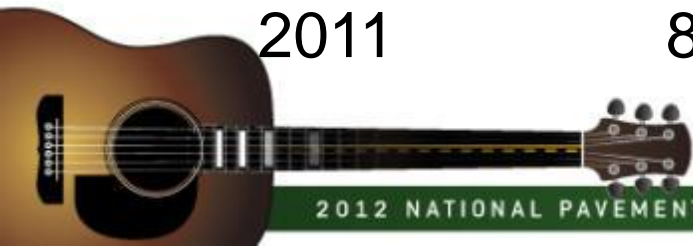
772.91 0.09 0.19 103.14 6.94 8.72 111.70 18.16 10.74 34.64 70.06 10.55 6.50 63.12 36.76 28.73 19.89 242.98 \$37,269,877

TOTAL MILES IMPROVED 772.91
TOTAL FUNDS \$37,269,877.21
\$ / MILE \$48,200
\$ / YEAR \$2,484,700



SYSTEM CONDITION SUMMARY

Year	Average CR	Lane Mile Years	Lane Miles
2002	67	648	691
2003	73	412	693
2004	79	606	697
2005	80	682	698
2006	82	520	700
2007	80	878	701
2008	78	772	701
2009	77	568	702
2010	87	520	702
2011	84	448	702



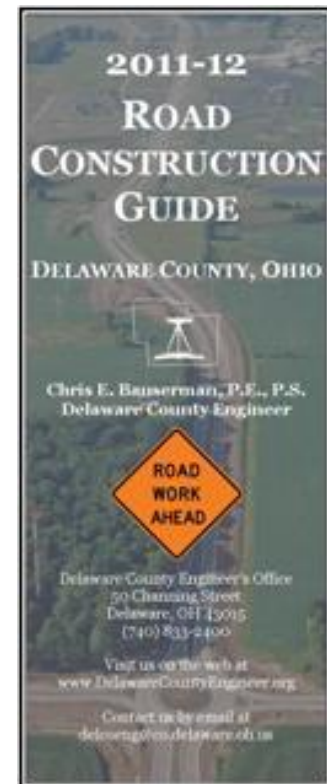
PUBLIC EDUCATION

- DOOR HANGERS IN PROJECT AREAS
- PUBLIC EVENT DISPLAYS
- CIVIC AND COMMUNITY GROUP PRESENTATIONS
- ARTICLES IN TOWNSHIP NEWSLETTERS
- PRESS RELEASES AND TARGETED MEDIA



PUBLIC EDUCATION

- PUBLICATIONS
 - Annual Construction Guide
 - Bi-Annual Newsletter



MEASURES OF SUCCESS

- In 2009 asked the commissioners to reduce road and bridge sales tax by 25%
- Permanent enactment of Road and Bridge Sales Tax
- Cooperative Program with Other Local Government Agencies
- Public feedback
- Potholes



Chris Bauserman, PE, PS
Delaware County Engineer
50 Channing Street
Delaware, Ohio 43015
740-833-2400

E-mail:
cbauserman@co.delaware.oh.us

Website:
delawarecountyengineer.org

