

CITY of NOVI CITY COUNCIL

Agenda Item 6
June 23, 2008

SUBJECT: Approval to award a construction contract for the 2008 Neighborhood Road Program to Hard Rock Concrete, Inc., the lowest qualified bidder, in the amount of \$1,349,733.05 (the contract is to be signed on or after July 1, 2008).

SUBMITTING DEPARTMENT: Engineering *R24*

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	\$1,349,733
AMOUNT BUDGETED	\$1,500,000 (FY08/09, includes \$100,000 for FY09/10 design engineering)
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	203-203.00-865.418

BACKGROUND INFORMATION:

Each year, the City of Novi selects residential local streets for reconstruction, repaving, and/or rehabilitation using Pavement Surface Evaluation and Rating system (PASER) ratings and input from Public Works and Engineering staff based on field observations and resident concerns. Similar to last year's program, this year's program includes only concrete streets. The reason is that there are many more miles of concrete streets that have more serious problems than asphalt streets; and, the vast majority of the worst asphalt streets have been repaved/rehabilitated in recent years.

Following the completion of the 2006 PASER analysis, Engineering staff reviewed the conditions of 73 street segments that received the lowest (worst) PASER ratings in the 2004 and 2006 studies and identified 21 street segments for additional study by URS - the City's consultant for this project (Rob Hayes' April 23, 2008 memo with Scoping Report Executive Summary, attached). URS's study prioritized the 21 street segments and identified \$4,018,000 worth of street reconstruction. The FY2008-09 budget includes \$1,400,000 (plus \$100,000 for design engineering for FY2009-10) for the reconstruction of concrete streets this construction season, and will include 8 of the street segments identified in the URS study. (The design and construction engineering services for the 2008 program were included in the FY2007-08 budget).

The 2008 Neighborhood Road Program includes the following street segments – all of which will be fully reconstructed (as opposed to strictly reconstructing individual panels or discrete areas):

- Cherry Hill Road (Kings Pointe to Meadowbrook including new right turn lane at Meadowbrook Road)
- Plaisance Boulevard (Nine Mile Road to Midway Drive)
- Lydgate Court (Plaisance to end)
- Galway Drive (Windermere Court to Nine Mile Road)
- Dartmoor Drive (Galway Drive to subdivision line, including sidewalks on both sides)
- Welch Road and Circle (Galway to city limits)
- Sunnybrook Lane (Whitehall Lane to end)
- Worcester Drive (Princeton to Galway) (Bid as an alternate)

Eight bids were received and opened on June 12, 2008 following a public bid solicitation period. The low bidder is Hard Rock Concrete. Hard Rock's bid is recommended as being in the best interest of the City as it is responsive (i.e., Hard Rock has complied with all requirements of the bidding instructions) and it is the lowest price. (URS's award recommendation letter dated June 16, 2008 is attached). A summary of the seven accepted bids is as follows (an eighth bidder was disqualified because they did not acknowledge the addendum and were not on the official plan holders list):

Bidder	Base Bid
Hardrock Concrete, Inc.	\$1,113,957.00
Six-S Inc.	1,133,684.45
Washtenaw, Inc.	1,208,685.39
Century Cement, Inc.	1,267,616.05
Major Cement Co.	1,296,102.50
DiLisio Contracting	1,307,402.25
Florence Cement Co.	1,330,223.30

The complete reconstruction of Worcester Drive was bid as an alternate (Alternate A for the west half and Alternate B for the east half) and is being recommended for addition to the contract award. You may recall in previous correspondence that staff was recommending some spot repairs (Alternate C); however the condition of the road is worse than originally anticipated and now warrants full reconstruction.

Staff is recommending award of the Base Bid and Alternate A and B in the amount of \$1,349,733.05. The attached letter and bid tabulation shows the bid prices for the bid alternates.

Hard Rock successfully completed the concrete portion of the 2006 Neighborhood Road Program and Contracts 1 and 2 for the 2007 Neighborhood Road Program.

The project is funded for FY2008-09, and is being awarded now so that the Contractor can begin acquiring bonds and insurance to facilitate the signing of the contract as soon as possible after the start of the fiscal year on July 1, 2008.

Construction is scheduled to begin in July 2008 and will be completed by the end of October 2008.

RECOMMENDED ACTION: Approval to award a construction contract for the 2008 Neighborhood Road Program to Hard Rock Concrete, Inc., the lowest qualified bidder, in the amount of \$1,349,733.05 (the contract is to be signed on or after July 1, 2008).

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Crawford				
Council Member Gatt				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Staudt				



June 16, 2008

Mr. Brian Coburn, PE
City of Novi
Engineering Department
45175 W. Ten Mile Road
Novi, MI 48375-3024

Reference: Bid Analysis and Contract Award Recommendation
2008 Neighborhood Roads Program
URS Project Number 12941025 City of Novi Contract Number 072-428

Dear Mr. Coburn:

Attached is the Bid Tabulation for the above referenced project. Eight (8) bids were received. Competition appears to have been adequate. The lowest bids appear to be balanced and there were no irregularities noted in the bids.

One mathematical error was found in the third lowest bid from Six-S, Inc. The error did not change the order of the "As Read" bids. In addition, the bid for John Carlo was thrown out since they did not properly obtain the bid documents.

Hardrock Concrete, Inc. is the low bidder for this project.

We have reviewed the Bidders Qualifications and Experience Statements as submitted. As you're aware and as we discussed, Hard Rock has completed projects for the City before and have performed very well.

We therefore recommend award of the contract to the low bidder, Hardrock Concrete, Inc. for the amount of \$1,349,733.05. This includes the Base Bid, Alternative A and Alternative B.

Please call me at 616 574-8497 if you need anything else or wish to discuss the project.

Sincerely,

URS, Inc.

Sean Kelsch, P.E.
Project Manager

cc: Khaled Soubra, URS, Inc.
Carol Kalinovic, City of Novi

2008 Neighborhood Roads Program
CITY OF NOVI
TABULATION OF BIDS
 City of Novi Contract Number 072-428
 URS Project Number 12941025
 Bids Opened: June 12, 2008

Engineer's Estimate	Base Bid
1 Hardrock Concrete, Inc.	\$1,349,127.81
2 Six-S, Inc.	\$1,113,957.00
3 Washtenaw, Inc.	\$1,133,684.45
4 Century Cement, Inc.	\$1,208,685.39
5 Major Cement, Co.	\$1,267,616.05
6 DiLisio Contracting	\$1,296,102.50
7 Florence Cement Co.	\$1,307,402.25
8 John Carlo	\$1,330,223.30
	N/A

Disqualified Bidder



BASE BID	DESCRIPTION	TOTAL QTY	UNIT	Engineer's Estimate		Hardrock Concrete, Inc.		Six-S, Inc.		Washtenaw, Inc.	
				UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST
1	Pre-Construction Audio-Visual (Base Bid)	1	LS	5,000.00	\$5,000.00	\$2,285.00	\$2,285.00	\$2,285.00	\$2,285.00	\$2,397.75	\$2,397.75
2	Soil Erosion Control (Base Bid)	1	LS	3,000.00	\$3,000.00	\$100.00	\$100.00	\$2,000.00	\$2,000.00	\$5,000.00	\$5,000.00
3	Maintaining Traffic (Base Bid)	1	LS	20,000.00	\$20,000.00	\$1,500.00	\$1,500.00	\$10,786.07	\$10,786.07	\$10,000.00	\$10,000.00
4	Tree Protection	198	Ea	12.00	\$2,376.00	\$1.00	\$198.00	\$25.35	\$5,019.30	\$50.00	\$9,900.00
5	Remove Concrete Pavement	25,069	Syd	4.70	\$117,824.30	\$4.00	\$100,276.00	\$6.37	\$159,689.53	\$6.00	\$150,414.00
6	Underdrain, 6-inch	13,694	Ft	7.00	\$95,858.00	\$5.70	\$78,055.80	\$4.56	\$62,444.64	\$4.00	\$54,776.00
7	Subgrade Undercut	340	Cyd	17.00	\$5,780.00	\$12.00	\$4,080.00	\$20.01	\$6,803.40	\$15.00	\$5,100.00
8	Aggregate Base, 21AA, 8-inch	27,354	Syd	8.25	\$225,670.50	\$4.75	\$129,931.50	\$4.87	\$133,213.98	\$7.46	\$204,060.84
9	Concrete Pavement w/integral Curb, Non-reinf, 7-inch	25,287	Syd	28.50	\$720,679.50	\$26.75	\$676,427.25	\$24.16	\$610,953.92	\$25.00	\$632,175.00
10	Remove and Replace Concrete Drives	1,515	Syd	28.00	\$42,420.00	\$25.00	\$37,875.00	\$31.22	\$47,298.30	\$27.90	\$42,268.80
11	Remove Concrete Sidewalk	2,515	Sft	1.00	\$2,515.00	\$0.50	\$1,257.50	\$0.88	\$1,710.20	\$0.40	\$1,006.00
12	Construct Concrete Sidewalk	4,967	Sft	3.25	\$16,142.75	\$3.00	\$14,901.00	\$3.00	\$14,901.00	\$2.99	\$14,851.33
13	Clean Out and Adjust Drainage Structure	35	Ea	380.00	\$13,300.00	\$175.00	\$6,125.00	\$204.42	\$7,154.70	\$60.00	\$2,100.00
14	Remove and Reset Mailboxes	53	Ea	15.00	\$795.00	\$5.00	\$265.00	\$98.07	\$5,197.71	\$80.00	\$4,240.00
15	Remove and Reset Sprinkler Heads	135	Ea	15.00	\$2,025.00	\$5.00	\$675.00	\$50.00	\$6,750.00	\$50.00	\$6,750.00
16	Sprinkler Piping	1,500	Ft	1.00	\$1,500.00	\$0.50	\$750.00	\$3.00	\$4,500.00	\$3.00	\$4,500.00
17	Class A Sod	2,968	Syd	5.25	\$15,582.00	\$4.50	\$13,356.00	\$3.40	\$10,091.20	\$3.40	\$10,091.20
18	ADA Detectable Warning Plate - New Construction	400	Sft	35.00	\$14,000.00	\$16.00	\$6,400.00	\$20.00	\$8,000.00	\$23.00	\$9,200.00
19	Reconstruct Drainage Structure	35	Ft	375.00	\$13,125.00	\$175.00	\$6,125.00	\$166.29	\$5,820.15	\$100.00	\$3,500.00
20	Point-up Drainage Structure	14	Ft	250.00	\$3,500.00	\$150.00	\$2,100.00	\$77.02	\$1,078.28	\$100.00	\$1,400.00
21	Concrete Pavement Repair	0	Ft	35.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
22	Tree Removal	8	Ft	200.00	\$1,200.00	\$200.00	\$1,200.00	\$175.00	\$1,050.00	\$460.00	\$2,760.00
23	Driveway Opening, Conc, Det M, Mod	236	Ft	18.00	\$4,248.00	\$10.00	\$2,360.00	\$12.00	\$2,832.00	\$15.52	\$3,662.72
24	Dr Structure, Rem	2	Ft	250.00	\$500.00	\$100.00	\$200.00	\$262.32	\$524.64	\$400.00	\$800.00
25	Sewer, Rem, Less than 24 inch	56	Ft	8.00	\$448.00	\$20.00	\$1,120.00	\$9.79	\$548.24	\$10.00	\$560.00
26	Dr Structure, 48 inch	2	Ft	1,100.00	\$2,200.00	\$1,500.00	\$3,000.00	\$945.43	\$1,896.86	\$1,200.00	\$2,400.00
27	Sewer, CI E, 12 inch, Tr Det B	64	Ft	40.00	\$2,560.00	\$65.00	\$4,160.00	\$41.73	\$2,670.72	\$36.80	\$2,355.20
28	Dr Structure Cover	2,000	Ft	1.10	\$2,200.00	\$1.30	\$2,600.00	\$1.06	\$2,120.00	\$1.00	\$2,000.00
29	Post, Steel, 3 Lb	26	Ft	7.00	\$182.00	\$8.00	\$208.00	\$7.50	\$195.00	\$17.25	\$448.50
30	Sign Type IIB	13	Ft	16.00	\$208.00	\$25.00	\$325.00	\$25.00	\$325.00	\$28.75	\$373.75
31	Pavt Mkg, Ovlly Cold Plastic, 6 Inch, Crosswalk	74	Ft	3.00	\$222.00	\$5.45	\$403.30	\$5.45	\$403.30	\$6.27	\$463.98
32	Pavt Mkg, Ovlly Cold Plastic, 24 Inch, Stop Bar	24	Ft	10.00	\$240.00	\$21.50	\$516.00	\$21.85	\$524.40	\$25.13	\$603.12
33	Pavt Mkg, Ovlly Cold Plastic, Only	1	Ft	110.00	\$110.00	\$250.00	\$250.00	\$250.00	\$250.00	\$287.50	\$287.50
34	Pavt Mkg, Ovlly Cold Plastic, Rt Turn Arrow Sym	1	Ft	110.00	\$110.00	\$225.00	\$225.00	\$225.00	\$225.00	\$258.75	\$258.75
35	Pavt Mkg, Sprayable Thermopl, 4 inch, White	100	Ft	0.50	\$50.00	\$4.20	\$420.00	\$4.15	\$415.00	\$4.77	\$477.00
36	Pavt Mkg, Sprayable Thermopl, 4 inch, Yellow	100	Ft	0.50	\$50.00	\$4.15	\$415.00	\$4.15	\$415.00	\$4.77	\$477.00
37	ADA Detectable Warning Surface, Cast in Place	25	Ft	3.00	\$75.00	\$16.00	\$400.00	\$20.00	\$500.00	\$24.15	\$603.75
38	Pushbutton, Rem	4	Ft	63.91	\$255.64	\$50.00	\$200.00	\$50.00	\$200.00	\$23.00	\$92.00
39	Pushbutton Sign, Rem	4	Ft	100.00	\$400.00	\$50.00	\$200.00	\$50.00	\$200.00	\$23.00	\$92.00
40	Pushbutton and Sign	4	Ft	401.84	\$1,607.36	\$566.50	\$2,266.00	\$450.00	\$1,800.00	\$800.00	\$3,200.00
41	Pushbutton Support Post	4	Ft	500.00	\$2,000.00	\$620.00	\$2,480.00	\$300.00	\$1,200.00	\$690.00	\$2,760.00
42	Hh, Round	4	Ft	812.19	\$3,248.76	\$915.00	\$3,660.00	\$1,000.00	\$4,000.00	\$1,495.00	\$5,980.00
43	Conduit, DB, 1, 1 1/4 inch	21	Ft	5.00	\$105.00	\$27.05	\$568.05	\$10.00	\$210.00	\$11.50	\$241.50
44	Conduit, DB, 1, 3 inch	21	Ft	15.00	\$315.00	\$28.00	\$588.00	\$20.00	\$420.00	\$23.00	\$483.00
45	RCOC Force Account Fees	3,000	Dir	1.00	\$3,000.00	\$1.00	\$3,000.00	\$1.00	\$3,000.00	\$1.00	\$3,000.00
46	Remove Retaining Walls	1	Ea	2,500.00	\$2,500.00	\$500.00	\$500.00	\$2,081.91	\$2,081.91	\$575.00	\$575.00
Total:				\$1,349,127.81	\$1,113,957.00	\$1,113,957.00	\$1,113,957.00	\$1,133,684.45	\$1,133,684.45	\$1,208,685.39	\$1,208,685.39



2008 Neighborhood Roads Program
CITY OF NOVI
TABULATION OF BIDS
City of Novi Contract Number 072-428
URS Project Number 12941025
Bids Opened: June 12, 2008

	Base Bid
Engineer's Estimate	\$1,349,127.81
1 Hardrock Concrete, Inc.	\$1,113,957.00
2 Six-S, Inc.	\$1,133,684.45
3 Washtenaw, Inc.	\$1,208,685.39
4 Century Cement, Inc.	\$1,267,616.05
5 Major Cement, Co.	\$1,296,102.50
6 Dilisio Contracting	\$1,307,402.25
7 Florence Cement Co.	\$1,330,223.30
8 John Cairo	N/A

Disqualified Bidder

	Alternative A
Engineer's Estimate	\$101,870.50
1 Hardrock Concrete, Inc.	\$63,450.10
2 Six-S, Inc.	\$98,719.04
3 Washtenaw, Inc.	\$89,954.59

ALTERNATIVE A

DESCRIPTION	TOTAL QTY	UNIT	Engineer's Estimate		Hardrock Concrete, Inc.		Six-S, Inc.		Washtenaw, Inc.	
			UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST
1 Pre-Construction Audio-Visual (Alt. A)	1	LS	500.00	\$500.00	\$250.00	\$250.00	\$1,500.00	\$1,500.00	\$258.75	\$258.75
2 Soil Erosion Control (Alt. A)	1	LS	1,000.00	\$1,000.00	\$100.00	\$100.00	\$1,000.00	\$1,000.00	\$575.00	\$575.00
3 Maintaining Traffic (Alt. A)	1	LS	1,000.00	\$1,000.00	\$250.00	\$250.00	\$4,500.00	\$4,500.00	\$862.50	\$862.50
4 Tree Protection	20	Ea	12.00	\$240.00	\$1.00	\$20.00	\$25.35	\$507.00	\$50.00	\$1,000.00
5 Remove Concrete Pavement	1,950	Syd	4.70	\$9,165.00	\$4.00	\$7,800.00	\$7.50	\$14,625.00	\$6.00	\$11,700.00
6 Underdrain, 8-inch	1,238	Ft	7.00	\$8,666.00	\$5.70	\$7,056.60	\$6.00	\$7,428.00	\$4.00	\$4,952.00
7 Subgrade Undercut	30	Cyd	17.00	\$510.00	\$12.00	\$360.00	\$19.98	\$598.80	\$15.00	\$450.00
8 Aggregate Base, 21AA, 8-inch	2,064	Syd	8.25	\$17,028.00	\$4.75	\$9,804.00	\$5.10	\$10,526.40	\$7.46	\$15,397.44
9 Concrete Pavement w/integral Curb, Non-reinf, 7-inch	1,950	Syd	28.50	\$55,575.00	\$26.75	\$52,162.50	\$26.00	\$50,700.00	\$25.00	\$48,750.00
10 Remove and Replace Concrete Drives	115	Syd	28.00	\$3,220.00	\$25.00	\$2,875.00	\$32.00	\$3,680.00	\$27.90	\$3,208.50
11 Remove Concrete Sidewalk	0	Sft	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12 Construct Concrete Sidewalk	0	Sft	3.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13 Clean Out and Adjust Drainage Structure	4	Ea	380.00	\$1,520.00	\$175.00	\$700.00	\$205.00	\$820.00	\$60.00	\$240.00
14 Remove and Reset Mailboxes	3	Ea	15.00	\$45.00	\$5.00	\$15.00	\$98.08	\$294.24	\$80.00	\$240.00
15 Remove and Reset Sprinkler Heads	12	Ea	15.00	\$180.00	\$5.00	\$60.00	\$50.00	\$600.00	\$50.00	\$600.00
16 Sprinkler Piping	140	Ft	1.00	\$140.00	\$0.50	\$70.00	\$3.00	\$420.00	\$3.00	\$420.00
17 Class A Sod	206	Syd	5.25	\$1,081.50	\$4.50	\$927.00	\$3.40	\$700.40	\$3.40	\$700.40
18 ADA Detectable Warning Plate - New Construction	0	Sft	35.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
19 Reconstruct Drainage Structure	4	Ft	375.00	\$1,500.00	\$175.00	\$700.00	\$166.29	\$665.16	\$100.00	\$400.00
20 Point-up Drainage Structure	2	Ft	250.00	\$500.00	\$150.00	\$300.00	\$77.02	\$154.04	\$100.00	\$200.00
Total:			\$101,870.50		\$83,450.10		\$98,719.04		\$89,954.59	

2008 Neighborhood Roads Program
CITY OF NOVI
TABULATION OF BIDS
City of Novi Contract Number 072-428
URS Project Number 12941025
Bids Opened: June 12, 2008

Engineer's Estimate	Base Bid
1 Hardrock Concrete, Inc.	\$1,349,127.81
2 Six-S, Inc.	\$1,113,957.00
3 Washtenaw, Inc.	\$1,133,664.45
4 Century Cement, Inc.	\$1,208,685.39
5 Major Cement, Co.	\$1,267,616.05
6 DiLisio Contracting	\$1,296,102.50
7 Florence Cement Co.	\$1,307,402.25
8 John Carlo	\$1,330,223.30
	N/A

Disqualified Bidder

Engineer's Estimate	Alternative B
1 Hardrock Concrete, Inc.	\$182,932.00
2 Six-S, Inc.	\$152,325.95
3 Washtenaw, Inc.	\$175,833.99
	\$166,069.69

ALTERNATIVE B

DESCRIPTION	TOTAL QTY	UNIT
1 Pre-Construction Audio-Visual (Alt. B)	1	LS
2 Soil Erosion Control (Alt. B)	1	LS
3 Maintaining Traffic (Alt. B)	1	LS
4 Tree Protection	41	Ea
5 Remove Concrete Pavement	3,520	Syd
6 Underdrain, 6-inch	2,286	Ft
7 Subgrade Undercut	60	Cyd
8 Aggregate Base, 21AA, 8-inch	3,839	Syd
9 Concrete Pavement w/integral Curb, Non-reinf, 7-inch	3,520	Syd
10 Remove and Replace Concrete Drives	319	Syd
11 Remove Concrete Sidewalk	0	Sft
12 Construct Concrete Sidewalk	0	Sft
13 Clean Out and Adjust Drainage Structure	3	Ea
14 Remove and Reset Mailboxes	6	Ea
15 Remove and Reset Sprinkler Heads	23	Ea
16 Sprinkler Piping	250	Ft
17 Class A Sod	381	Syd
18 ADA Detectable Warning Plate - New Construction	0	Sft
19 Reconstruct Drainage Structure	3	Ft
20 Point-up Drainage Structure	2	Ft

Engineer's Estimate

UNIT PRICE	COST
500.00	\$500.00
1,000.00	\$1,000.00
1,000.00	\$1,000.00
12.00	\$492.00
4.70	\$16,544.00
7.00	\$16,002.00
17.00	\$1,020.00
8.25	\$31,671.75
28.50	\$100,320.00
28.00	\$9,932.00
1.00	\$0.00
3.25	\$0.00
380.00	\$1,140.00
15.00	\$90.00
15.00	\$345.00
1.00	\$250.00
5.25	\$2,000.25
35.00	\$0.00
375.00	\$1,125.00
250.00	\$600.00
Total:	\$182,932.00

Hardrock Concrete, Inc.

UNIT PRICE	COST
\$350.00	\$350.00
\$100.00	\$100.00
\$300.00	\$300.00
\$1.00	\$41.00
\$4.00	\$14,080.00
\$5.70	\$13,030.20
\$12.00	\$720.00
\$4.75	\$18,235.25
\$26.75	\$94,160.00
\$25.00	\$7,975.00
\$0.00	\$0.00
\$0.00	\$0.00
\$175.00	\$525.00
\$5.00	\$30.00
\$5.00	\$115.00
\$0.50	\$125.00
\$4.50	\$1,714.50
\$0.00	\$0.00
\$175.00	\$525.00
\$150.00	\$300.00
Total:	\$152,325.95

Six-S, Inc.

UNIT PRICE	COST
\$1,500.00	\$1,500.00
\$1,000.00	\$1,000.00
\$4,500.00	\$4,500.00
\$25.36	\$1,039.76
\$7.50	\$26,400.00
\$6.15	\$14,058.90
\$20.00	\$1,200.00
\$5.10	\$19,578.90
\$26.00	\$91,520.00
\$31.30	\$9,984.70
\$0.00	\$0.00
\$0.00	\$0.00
\$205.00	\$615.00
\$98.07	\$588.42
\$60.00	\$1,150.00
\$3.00	\$750.00
\$3.40	\$1,295.40
\$0.00	\$0.00
\$166.26	\$498.87
\$77.02	\$154.04
Total:	\$175,833.99

Washtenaw, Inc.

UNIT PRICE	COST
\$373.75	\$373.75
\$862.50	\$862.50
\$1,725.00	\$1,725.00
\$50.00	\$2,058.00
\$6.00	\$21,120.00
\$4.00	\$9,144.00
\$15.00	\$900.00
\$7.46	\$28,636.94
\$25.00	\$88,000.00
\$27.90	\$8,900.10
\$0.00	\$0.00
\$0.00	\$0.00
\$60.00	\$180.00
\$80.00	\$480.00
\$50.00	\$1,150.00
\$3.00	\$750.00
\$3.40	\$1,295.40
\$0.00	\$0.00
\$100.00	\$300.00
\$100.00	\$200.00
Total:	\$166,069.69

2008 Neighborhood Roads Program
CITY OF NOVI
TABULATION OF BIDS
City of Novi Contract Number 072-428
URS Project Number 12941025
Bids Opened: June 12, 2008

	Engineer's Estimate	Base Bid
		\$1,349,127.81
1	Hardrock Concrete, Inc.	\$1,113,957.00
2	Six-S, Inc.	\$1,133,684.45
3	Washtenaw, Inc.	\$1,209,665.39
4	Century Cement, Inc.	\$1,267,616.05
5	Major Cement, Co.	\$1,296,102.50
6	Diluisio Contracting	\$1,307,402.25
7	Florence Cement Co.	\$1,330,223.30
8	John Carlo	N/A

Disqualified Bidder


	Engineer's Estimate	Alternative C
		\$42,015.05
1	Hardrock Concrete, Inc.	\$27,404.75
2	Six-S, Inc.	\$25,684.82
3	Washtenaw, Inc.	\$52,867.50

Corrected Bid Addition Error in Bid from Six-S, Inc. As Read Bid was \$24,879.22.

ALTERNATIVE C

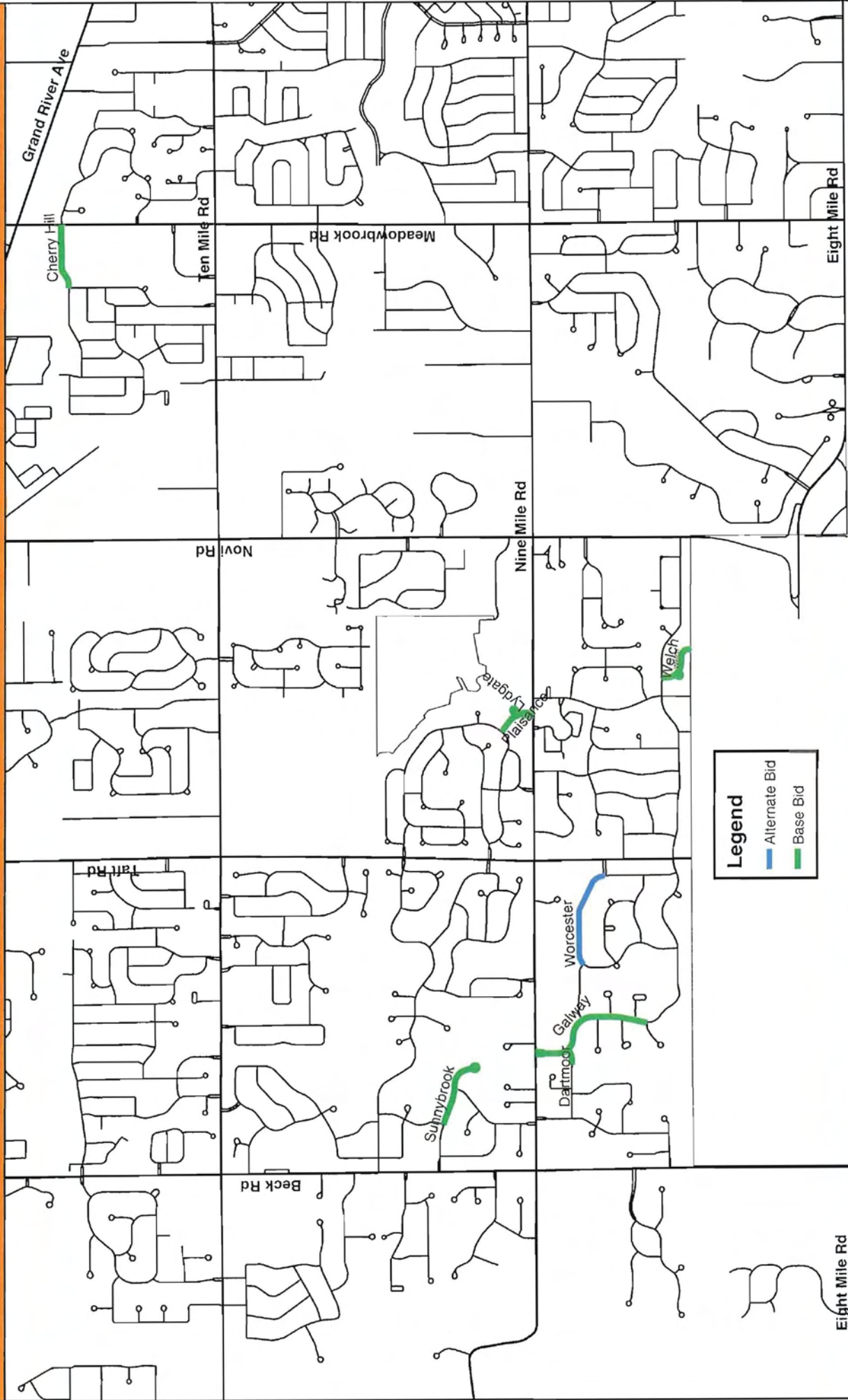
DESCRIPTION	TOTAL QTY	UNIT	Engineer's Estimate		Hardrock Concrete, Inc.		Six-S, Inc.		Washtenaw, Inc.	
			UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST	UNIT PRICE	COST
1 Pre-Construction Audio-Visual (Alt. C)	1	LS	500.00	\$500.00	\$250.00	\$250.00	\$50.00	\$50.00	\$250.00	\$250.00
2 Soil Erosion Control (Alt. C)	1	LS	1,000.00	\$1,000.00	\$100.00	\$100.00	\$198.95	\$198.95	\$500.00	\$500.00
3 Maintaining Traffic (Alt. C)	1	LS	1,000.00	\$1,000.00	\$100.00	\$100.00	\$2,199.01	\$2,199.01	\$1,725.00	\$1,725.00
4 Tree Protection	11	Ea	12.00	\$132.00	\$1.00	\$11.00	\$25.40	\$279.40	\$75.00	\$825.00
5 Remove Concrete Pavement	659	Syd	4.70	\$3,097.30	\$4.00	\$2,636.00	\$6.46	\$4,257.14	\$10.00	\$6,590.00
6 Underdrain, 6-inch	0	Ft	7.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
7 Subgrade Undercut	0	Cyd	17.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
8 Aggregate Base, 21AA, 8-inch	760	Syd	8.25	\$6,270.00	\$4.75	\$3,610.00	\$6.46	\$4,909.60	\$10.00	\$7,600.00
9 Concrete Pavement w/integral Curb, Non-reinf, 7-inch	0	Syd	28.50	\$0.00	\$0.00	\$0.00	\$27.00	\$0.00	\$0.00	\$0.00
10 Remove and Replace Concrete Drives	101	Syd	28.00	\$2,828.00	\$25.00	\$2,525.00	\$31.22	\$3,153.22	\$36.00	\$3,636.00
11 Remove Concrete Sidewalk	0	Sft	1.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
12 Construct Concrete Sidewalk	0	Sft	3.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
13 Clean Out and Adjust Drainage Structure	0	Ea	380.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
14 Remove and Reset Mailboxes	6	Ea	15.00	\$90.00	\$5.00	\$30.00	\$98.07	\$588.42	\$92.00	\$552.00
15 Remove and Reset Sprinkler Heads	10	Ea	15.00	\$150.00	\$5.00	\$50.00	\$60.00	\$600.00	\$67.50	\$675.00
16 Sprinkler Piping	110	Ft	1.00	\$110.00	\$0.50	\$55.00	\$3.00	\$330.00	\$5.00	\$550.00
17 Class A Sod	91	Syd	5.25	\$477.75	\$4.50	\$409.50	\$3.40	\$309.40	\$4.50	\$409.50
18 Concrete Pavement Repair	659	Sft	40.00	\$26,360.00	\$26.75	\$17,628.25	\$13.52	\$8,909.68	\$45.00	\$29,855.00
Total:				\$42,015.05		\$27,404.75		\$25,684.82		\$52,867.50

Prepared by URS Corporation


Sean Kelsch, PE
Project Manager

Streets Selected for Construction

2008 Neighborhood Road Program



Legend

- Alternate Bid
- Base Bid

CITY OF NOVI
 ENGINEERING DIVISION
 48175 W. TEN MILE ROAD
 NOVI, MI 48375-3024
 (248) 347-0454
 MAP AUTHOR: Brian Coburn, P.E.



MAP INTERPRETATION NOTICE
 Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

MAP PRINT DATE: 6/16/08

MEMORANDUM



TO: CLAY PEARSON, CITY MANAGER
FROM: ROB HAYES, CITY ENGINEER *RH*
SUBJECT: 2008 NEIGHBORHOOD ROADS PROJECT: STUDY PHASE
DATE: APRIL 23, 2008

4/24/08

To: Mayor and City Council Members

Report on 2008 Neghbor Roads

Clay Pearson

The 2008 Neighborhood Roads Program Study & Recommendation Phase report has been completed, and the report's Executive Summary section is attached for your review. A total of 26 streets were included in this year's study. The report lists the recommended streets to be included in this year's project based on the average pavement quality index (PQI) rating from PASER studies, observations made during field inspections, and the testing of pavement cores and soil borings collected from each candidate street.

As part of the FY 08/09 Capital Improvements Program, we have requested \$1.5 million for the 2008 Neighborhood Roads Project, with \$1.4 million for this year's construction and \$100,000 for design engineering in 2009. The table titled "2008 Project Summary" on page 1-4 shows \$1.3 million in street reconstruction for this year. Of the eight recommended streets, seven will be completely reconstructed and one (Worcester) will be reconstructed at discrete locations with severe pavement distress. In addition, sidewalks will be included in the reconstruction of Dartmoor to close two gaps at Galway near Thornton Elementary School.

We are also proposing that another five streets with an estimated reconstruction cost of \$600,000 be designed now and listed as alternate bid items in this year's project. One or more of these alternates will be awarded depending on bid prices received, so that the awarded value of this year's project totals \$1.4 million. As you know, in recent years we have been able to award several additional streets because of the competitive nature of the local road construction industry. As always, streets that cannot be funded for reconstruction this year will be moved to the top of next year's list for study in 2009.

The report includes a brief section that discusses common types of pavement failures that frequently occur on concrete streets. This section also presents information on some long-term maintenance strategies that would help to extend the pavement's useful life.

The City's engineering consultant for this project (URS) is proceeding with the project's final design. Like last year, the project will be advertised in May, with construction work beginning in July and completed by October. Please let me know if you have any questions or comments regarding this report or our plans for proceeding with this important City project.))

cc: Pam Antil, Assistant City Manager
Brian Coburn, Civil Engineer
Benny McCusker, Public Works Director
Kathy Smith-Roy, Finance Director

SCOPING REPORT

2008 NEIGHBORHOOD ROADS PROGRAM
STUDY AND RECOMMENDATION PHASE

CITY OF NOVI
OAKLAND COUNTY, MICHIGAN

Prepared For:

CITY OF NOVI ENGINEERING DEPARTMENT

Prepared By:

URS

DETROIT – SOUTHFIELD – GRAND RAPIDS – TRAVERSE CITY

April 23, 2008

Table of Contents

Section 1	Summary and Recommendations.....	1-1
Section 2	Bedford Drive.....	2-1
Section 3	Brentwood Court.....	3-1
Section 4	Brockshire Street.....	4-1
Section 5	Cherry Hill Road.....	5-1
Section 6	Dartmoor Drive.....	6-1
Section 7	Dunbarton Boulevard.....	7-1
Section 8	Dunbarton Drive.....	8-1
Section 9	Dunbarton Court.....	9-1
Section 10	Galway Drive.....	10-1
Section 11	Ironside Court.....	11-1
Section 12	Lancaster Court.....	12-1
Section 13	Louvert Court.....	13-1
Section 14	Lydgate Court.....	14-1
Section 15	Midway Drive.....	15-1
Section 16	Moorgate Street.....	16-1
Section 17	Norfolk Court.....	17-1
Section 18	Paddington Court.....	18-1
Section 19	Plaisance Boulevard.....	19-1
Section 20	Riverview Lane and Eastern Circle.....	20-1
Section 21	Rossdale Court.....	21-1
Section 22	Serenity Drive and Circle.....	22-1
Section 23	Shadybrook Drive.....	23-1
Section 24	Sunnybrook Lane.....	24-1
Section 25	Welch Road and Circle.....	25-1
Section 26	Woodside Court.....	26-1
Section 27	Worcester Drive.....	27-1
Section 28	Pavement Cores/Soil Borings.....	28-1

Section 1 Summary and Recommendations

1.1 Summary

The City of Novi is continuing to move forward with an annual Neighborhood Roads Program. This year's program includes the review and evaluation of 26 different roadways.

Each of these roadways was rated based on a pavement analysis survey (Pavement Quality Index (PQI) rating) by the City of Novi Engineering Department. In addition to the ratings provided by the Engineering Department, URS has performed a field inspection/survey of each segment of roadway. This field work included an evaluation of the existing joints (both longitudinal and transverse), existing cracking, and slab settlement. Pavement cores/soil borings were also obtained for each roadway.

Results from this field inspection were combined with the 2006 pavement analysis survey provided by Novi. Based on this information, recommendations have been provided for each roadway.

In general, the existing pavement, for all roadways, is experiencing deterioration at the transverse joints. In addition, portions of the longitudinal joints are spalling and deteriorating. Some slabs have experienced significant cracking and settling. It appears that many of the joints have been previously patched.

Based on the pavement cores/soil borings provided by Schleede Hampton Associates, Inc. and our subconsultant, Professional Services Industries, Inc., the existing pavement section is typically 6 inches to 7 inches of non-reinforced concrete over silty clay. Typically, a drainage course layer was not built with the pavement.))

1.2 Recommendations

Based on the existing pavement condition and PQI Ratings, we ultimately recommend full reconstruction of the pavement section for every roadway, excluding Worcester Drive. This reconstruction would include removal of the underlying material (silty clay) and replacement with an aggregate base drainage course. Underdrains are also recommended in conjunction with the aggregate base layer. Worcester Drive is generally in good condition. We recommend localized pavement repairs for this road. }

In order to reconstruct all of the roadways that were studied, a total budget of approximately \$4.0 million (2008 dollars) is required. It is our understanding that the City will likely budget approximately \$1.4 million dollars for the 2008 improvements. With this in mind, we have prioritized the roadways for construction based on condition.

To quantify the prioritization of the roadways, we have combined the ratings from both the pavement survey analysis and the pavement field inspection. As mentioned above, the pavement survey analysis was provided by the City of Novi Engineering Department.

For the field inspection portion, the existing joint condition (both transverse and longitudinal), supplemental cracking, and slab settlement have been quantified. The percentage of transverse joints and longitudinal joints that are in poor condition have been logged and calculated, as identified in the individual inspection reports. In addition, the supplemental cracking has been calculated on a crack per 100' of roadway basis.

The table below displays the roadways and their ranking based on both the pavement survey analysis and the pavement field inspection. This table also shows the overall ranking when the two are averaged.

PAVEMENT CONDITION RATINGS SUMMARY

Roadway Name	PQI Rating	PQI Ranking	Field Inspection Ranking	Average Ranking	Overall Ranking/Priority
Bedford Drive	7	18	16	17.0	16
Brentwood Court	8	24	21	22.5	21
Brockshire Street	7	15	5	10.0	6
Cherry Hill Road	7	13	1	7.0	1
Dartmoor Drive	6	4	8	6.0	8
Dunbarton Blvd	6	10	20	15.0	20
Dunbarton Drive	6	5	9	7.0	15
Dunbarton Court	6	7	14	10.5	10
Galway Drive	5	1	3	2.0	3
Ironside Court	6	9	17	13.0	19
Lancaster Court	7	22	25	23.5	25
Louvert Court	6	11	22	16.5	22
Lydgate Court	7	21	23	22.0	23
Midway Drive	7	16	6	11.0	7
Moorgate Street	5	2	13	7.5	14
Norfolk Court	7	19	18	18.5	18
Paddington Court	9	26	10	18.0	11
Plaisance Boulevard	7	14	2	8.0	2
Riverview Lane and eastern Circle	6	8	15	11.5	13
Rossdale Court	7	17	12	14.5	12
Serenity Drive and Circle	7	20	19	19.5	17
Shadybrook Drive	6	12	26	19.0	26
Sunnybrook Lane	6	6	11	8.5	5
Welch Road and Circle	8	23	4	13.5	4
Woodside Court	6	3	7	5.0	9
Worcester Drive	8	25	24	24.5	24

Rankings are on a 1-26 scale as compared to other roadways (1 being highest ranking)

The following table shows this list, in order of priority, with the estimated construction cost.

PAVEMENT CONDITION PRIORITY SUMMARY

Roadway Name	Estimated Construction Cost
1. Cherry Hill Road (including right-turn lane and signal adjustments)	\$239,000
2. Plaisance Boulevard	\$121,000
3. Galway Drive	\$447,000
4. Welch Road and Circle	\$147,000
5. Sunnybrook Lane	\$236,000
6. Brockshire Street	\$186,000
7. Midway Drive	\$124,000
8. Dartmoor Drive	\$51,000
9. Woodside Court	\$64,000
10. Dunbarton Court	\$49,000
11. Paddington Court	\$130,000
12. Rossdale Court	\$66,000
13. Riverview Lane and eastern Circle	\$142,000
14. Moorgate Street	\$100,000
15. Dunbarton Drive	\$203,000
16. Bedford Drive	\$319,000
17. Serenity Drive and Circle	\$313,000
18. Norfolk Court	\$132,000
19. Ironside Court	\$55,000
20. Dunbarton Boulevard	\$74,000
21. Brentwood Court	\$135,000
22. Louvert Court	\$52,000
23. Lydgate Court	\$41,000
24. Worcester Drive (reconstruct)	\$266,000
25. Lancaster Court	\$113,000
26. Shadybrook Drive	\$213,000
Construction Total:	\$4,018,000

Preliminary Estimates are Rounded (2008 Dollars)

Although Lydgate Court is ranked 23rd on the list, we would recommend that be reconstructed along with Plaisance Boulevard in 2008, since it opens off Plaisance Boulevard. Similarly, we recommend that Dartmoor Drive be reconstructed along with Galway Drive in 2008, since it connects to Galway Drive.

With this in mind, we propose the following projects in 2008:

2008 PROJECT SUMMARY

Roadway Name	Estimated Construction Cost	Base Bid or Alternative Bid
1. Cherry Hill Road	\$239,000	Base Bid
2. Plaisance Boulevard	\$121,000	Base Bid
3. Lydgate Court	\$41,000	Base Bid
4. Galway Drive	\$447,000	Base Bid
5. Dartmoor Drive – with new sidewalks	\$51,000	Base Bid
6. Welch Road and Circle	\$147,000	Base Bid
7. Sunnybrook Lane	\$236,000	Base Bid
8. Worcester Drive – pavement repairs	\$12,000	Base Bid
Base Bid Total	\$1,294,000	
9. Brockshire Street	\$186,000	Alternate Bid
10. Midway Drive	\$124,000	Alternate Bid
11. Louvert Court	\$52,000	Alternate Bid
12. Riverview Lane and eastern Circle	\$142,000	Alternate Bid
13. Moorgate Street	\$100,000	Alternate Bid
Alternate Bid Total	\$604,000	

Preliminary Estimates are Rounded

Based on these preliminary estimates, the combined total for the Base Bid and Alternative Bid is \$1,898,000. Obviously, this is more than the \$1,400,000 budget amount. However, with the alternatives, the city can adjust the work to match the actual budget.

1.3 Future Maintenance ←

All roads require maintenance to remain in good condition. A maintenance and repair program increases the future life of all roadways (old and new), and minimizes cost over the life of the roadway as small problems are addressed before they become large ones. This section presents different maintenance strategies and discusses the common types of pavement problems that ongoing maintenance can prevent.

As a pavement ages, it begins to deteriorate until structural damage is done, and repairs can no longer be reasonably made. When a pavement is damaged structurally, the only real solution is to entirely replace it. However, when lower-cost, preventative treatments are applied before structural damage occurs, the life and ride quality of the pavement can be extended significantly.

Some common preservation strategies include joint re-sealing and repair, crack sealing, spot pavement repairs, diamond grinding, and various drainage improvements. Each of these strategies is discussed as follows:

Concrete pavement has joints that allow the slabs to expand and contract with changes in temperature. These joints are sealed during construction to keep water and soil out. Over time, the sealant works its way out, and the joints should be re-sealed to maintain the barrier against water and soil, which will otherwise cause the joint to deteriorate.

Eventually, joints begin to deteriorate through spalling or joint widening. At this point, repairs such as an asphalt fill or a concrete patch are needed, depending on the severity of a joint's condition. Most of the joints on Galway Drive, for example, have been filled with an asphalt patch.

Concrete pavement can develop cracks when loads are applied unevenly on the surface, or the aggregate under the concrete supports it unevenly. Cracks can be repaired much like joints: with sealing, asphalt fills, or concrete patches.

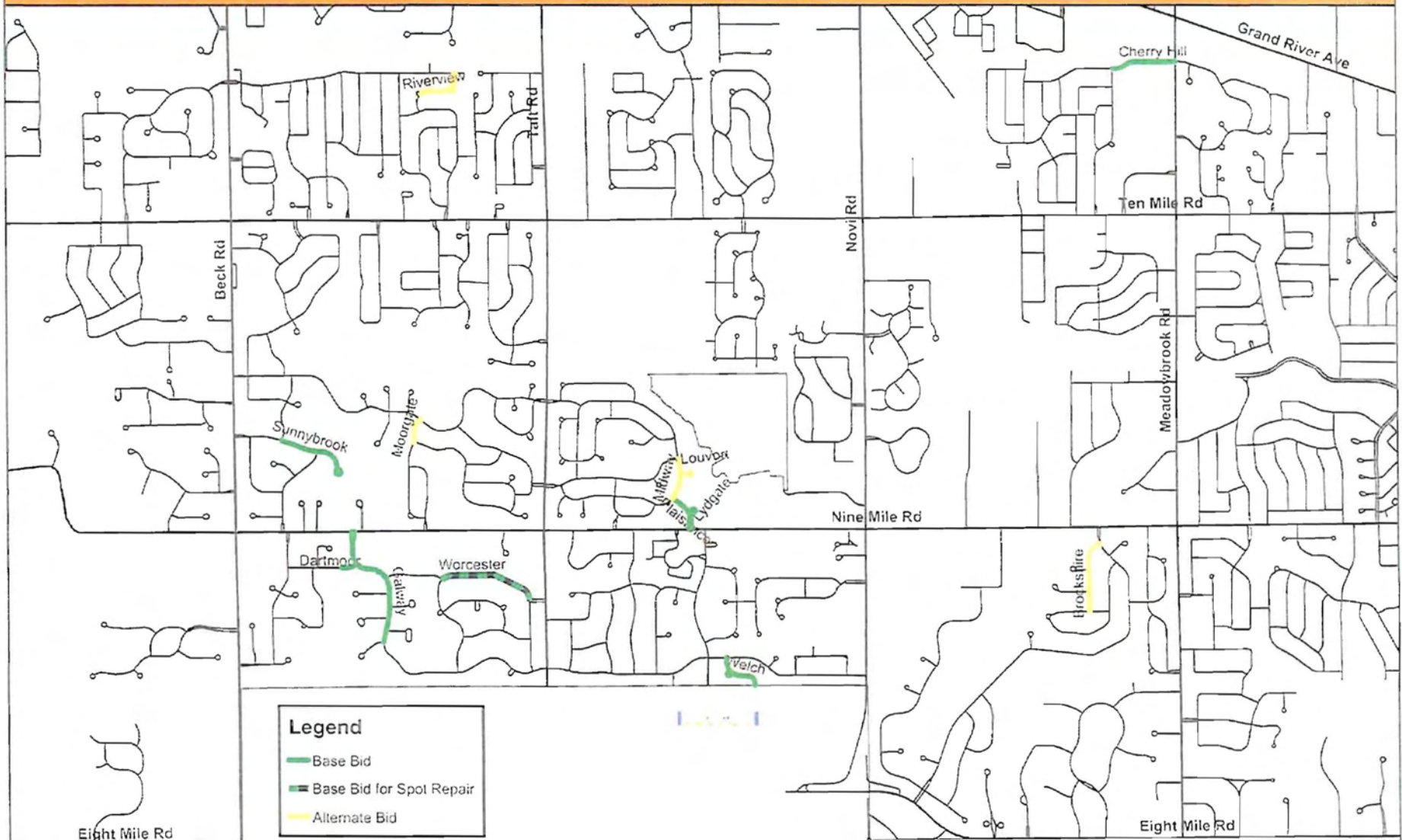
Slab failure can occur when an individual concrete slab develops multiple cracks. If the cracks are small or surficial, they can be sealed or patched; but larger areas of failure should be entirely replaced. The affected slab can be removed and reconstructed, leaving the remainder of the roadway intact. Worcester Drive is a good example – most of the road is in good condition, but it has some spot locations where one or two slabs have cracked, settled, and failed.

Diamond grinding is a type of repair used when the pavement is in good condition, but rides rough or is too smooth. Diamond grinding cuts grooves in the surface that even-out the pavement surface and provides traction.

Good drainage is critical for long pavement life. When water fills the joints, cracks, or soil around the pavement, the freeze-thaw cycle experienced in Michigan forces that water to expand and contract. This, in turn, puts pressure on the concrete, which crumbles and deteriorates under the pressure. Many of the roads in the City of Novi have experienced this type of damage, which commonly results in very wide joints and potholes. New roads are constructed with a layer of aggregate and perforated drains, or underdrain, to convey the water away from the pavement and into the storm sewer system. Older roads in good condition may be retrofitted with perforated drains placed just outside the pavement, but the aggregate layer under the pavement cannot be retrofitted. Some roads can be improved with upgraded storm sewer, such as the addition or relocation of catch basins to appropriate locations.

Concrete roadways are long-term investments that require ongoing routine maintenance in order to optimize the useful life of these assets.

Selected Streets for Design and Bidding 2008 Neighborhood Road Program



Legend

- Base Bid
- Base Bid for Spot Repair
- Alternate Bid

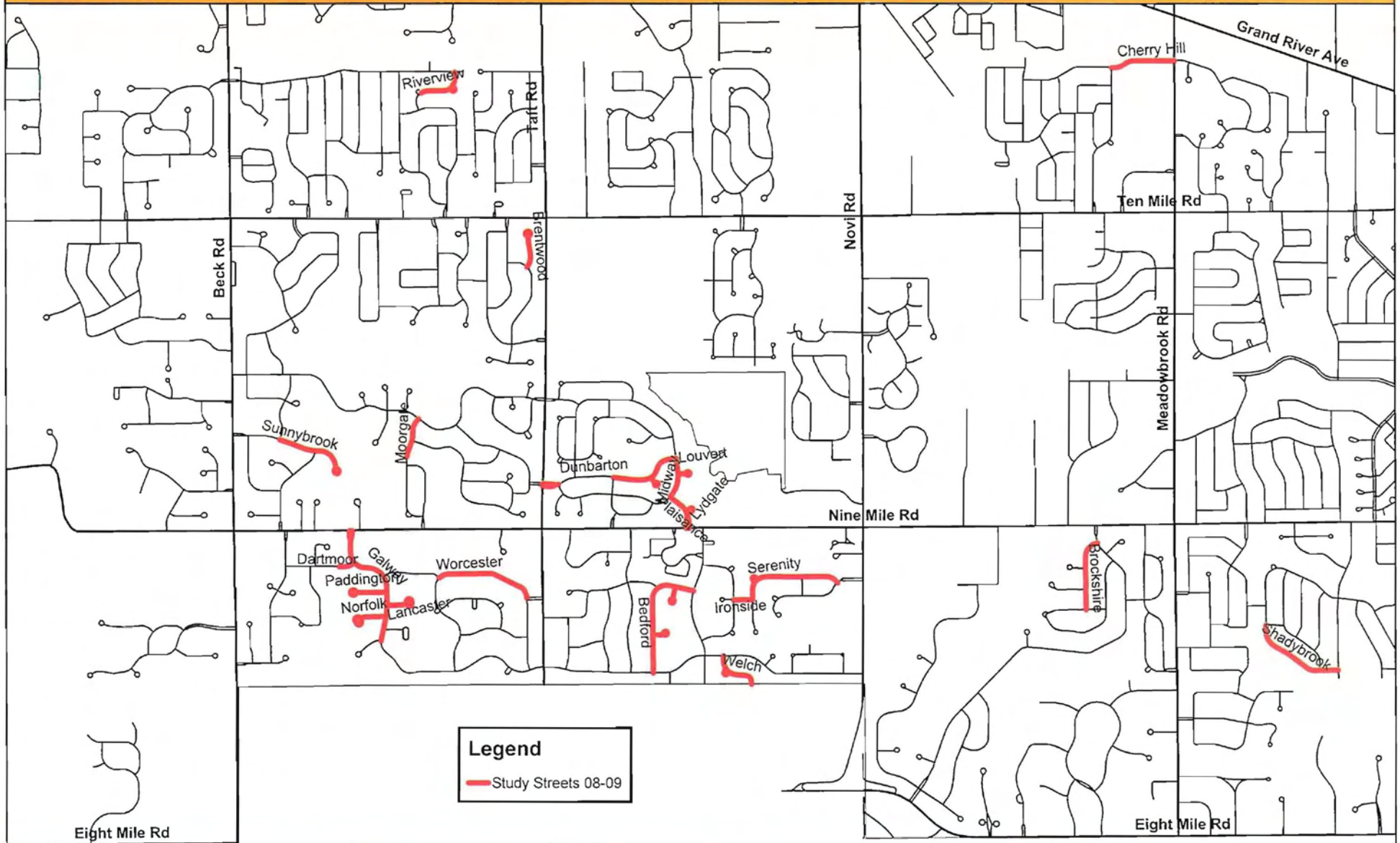
CITY OF NOVI
 ENGINEERING DIVISION
 45175 W. TEN MILE ROAD
 NOVI, MI 48175-3024
 (248) 347-2454
 MAP AUTHOR: Brian Coburn, P.E.



MAP INTERPRETATION NOTICE
 Map information provided is not intended to replace or substitute for any record of primary source. This map was intended to meet National Map Accuracy Standards and not the most recent, accurate locations available to the person of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a Licensed Michigan Surveyor as defined in Michigan Public Act 123 of 1977 as amended. Please contact the City GIS Manager for further details and accuracy information related to this map.

Streets Selected for Additional Study

2008 Neighborhood Road Program



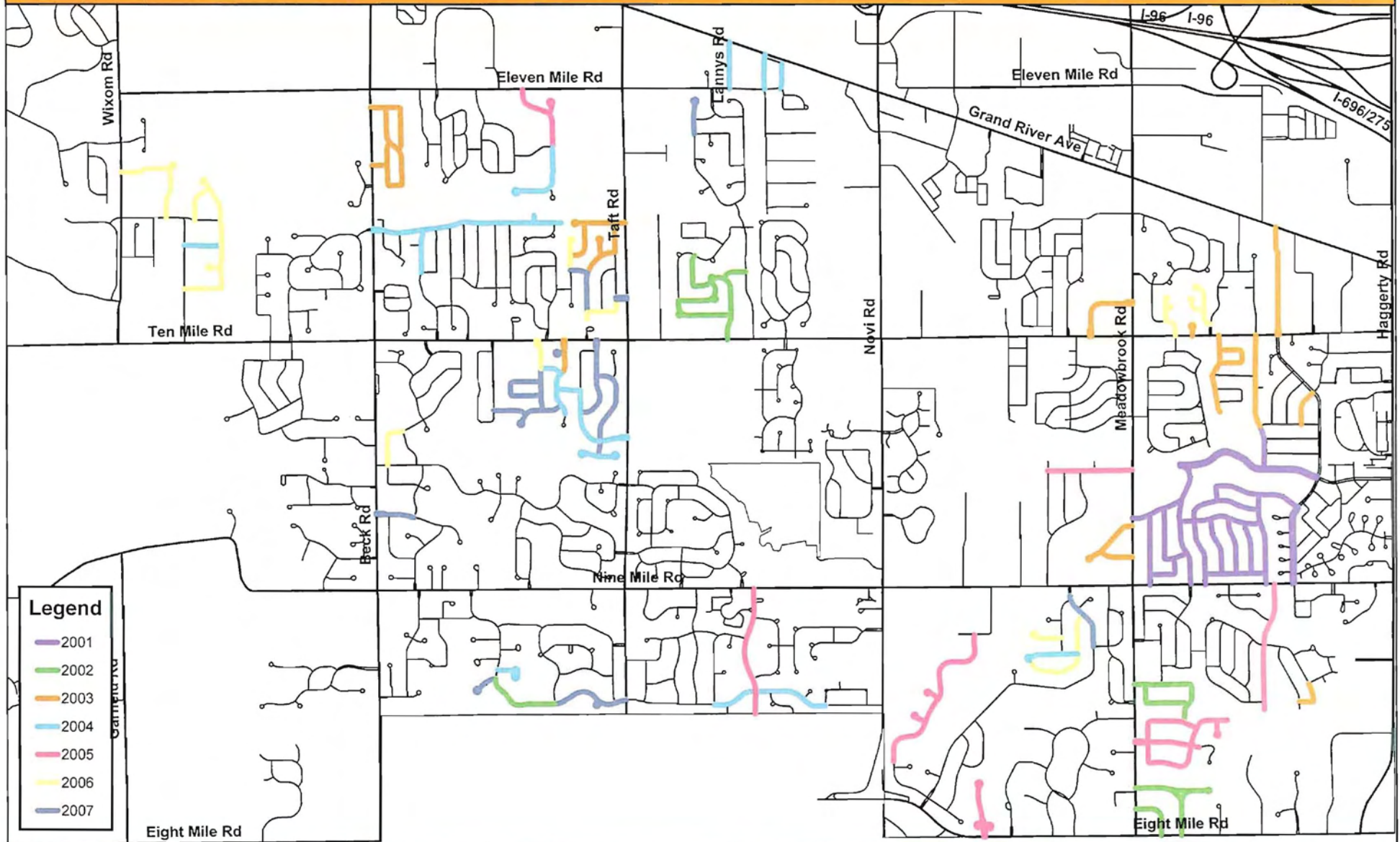
CITY OF NOVI
 ENGINEERING DIVISION
 45175 W. TEN MILE ROAD
 NOVI, MI 48375-3024
 (248) 347-0454
 MAP AUTHOR: Brian Coburn, P.E.



MAP INTERPRETATION NOTICE
 Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

Neighborhood Roads Completed by Year

2001-2007



Legend

- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007

CITY OF NOVI
 ENGINEERING DIVISION
 45175 W. TEN MILE ROAD
 NOVI, MI 48375-3024
 (248) 347-0454
 MAP AUTHOR: Brian Coburn, P.E.



MAP INTERPRETATION NOTICE
 Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.