CITY of NOVI CITY COUNCIL

CITY OF OF NOV

Agenda Item F November 26, 2007

SUBJECT: Approval of a contract extension to URS Corporation to provide additional engineering services for the 2007 Neighborhood Streets Project - Phase II in the amount of \$25,500.

SUBMITTING DEPARTMENT: Engineering

CITY MANAGER APPROVAL

EXPENDITURE REQUIRED	\$25,500
AMOUNT BUDGETED	\$2,700,000 (of which approximately \$520,000 is available)
LINE ITEM NUMBER	203-203.00-865.417

BACKGROUND INFORMATION:

The budget for fiscal year 2007-2008 included \$200,000 for engineering and \$2,500,000 for construction of the 2007 Neighborhood Streets Project. The 2007 project is now substantially complete and because of the highly competitive bids that were received in June 2007, approximately \$520,000 remains in the budget for this fiscal year (see attached URS letter dated November 20, 2007 for budget breakdown).

As background, the prioritization and analysis of streets that were considered for reconstruction in 2007 was documented in the *Scoping Report for 2007 Neighborhood Roads Program* prepared by the Engineering Department and its consultant (URS) in March 2007. The attached summary and recommendation section of the report lists 17 of the worst street segments and prioritizes them based on an evaluation of various condition criteria, such as percentage of deficient transverse joints, percentage of deficient longitudinal joints, supplemental cracks per 100 feet of roadway and the 2006 PASER rating.

Of the 17 segments identified in the study, 12 segments have been completed, including the southeast half of Galway Drive west of Taft Road. (The northwest half of Galway was not completed this past summer in order to maintain access during the Taft Road reconstruction, but this part of Galway will be re-prioritized in 2008). The remaining five segments include:

Street Segment	Priority Rank from 2007 Scoping Study	Estimated Construction Cost (updated 11/19/07 based on current contractor prices)
Elizabeth Lane (Ten Mile to Addington)	10	\$311,904
Sunnybrook Lane (Beck to Whitehall)	12	\$159,755
Welch Road (Galway to city limit)	15	\$119,077
Welch Circle	16	\$27,642
Worcester Drive	17	\$326,000
TOTAL CONSTRUCTION COST		\$944,378

As a continuation of the 2007 program and to complete the remainder of the FY07/08 budget, the Engineering Department is recommending that City Council extends URS' engineering contract in order to design the reconstruction of selected additional concrete streets. This approach would allow design and bidding to be completed this winter, and for construction to commence as soon as possible in the spring and be completed by the end of the current fiscal year.

Based on the remaining budget amount, the Engineering Department recommends completing the highest priority streets: Elizabeth Lane and Sunnybrook Lane for a total estimated construction cost of \$471,659. The remaining streets listed in the table above (Welch Road, Welch Circle and Worcester Drive) along with the remainder of Galway, will be prioritized for inclusion in the FY2008-09 Neighborhood Streets project.

The Engineering Department requested a proposal from URS (the consultant for the 2007 Neighborhood Streets Program) for design, bidding and construction engineering services (see attached letter from URS dated November 20, 2007). URS' fee to complete the design phase and bidding phase engineering services for the reconstruction of Elizabeth Lane and Sunnybrook Lane is \$25,500. (The fee for construction phase services would still be 6.4% of the construction contract, as previously awarded.)

The design will be completed by February 2008 to allow bidding to take place in March 2008. Construction will follow from April through June 2008.

RECOMMENDED ACTION: Approval of a contract extension to URS Corporation to provide additional engineering services for the 2007 Neighborhood Streets Project - Phase II in the amount of \$25,500.

	1	2	Y	N		1	2	Y	N
Mayor Landry					Council Member Margolis				
Mayor Pro Tem Capello		_			Council Member Mutch				
Council Member Crawford					Council Member Staudt				
Council Member Gatt									



November 20, 2007

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

Reference: Proposal for Additional Engineering Services for 2007 Neighborhood Road Program

Dear Brian:

As previously discussed, we are submitting this letter proposal for additional design and surveying services for the 2007 Neighborhood Roads Project. These services include the following:

- Design, Surveying and Bidding Services for Elizabeth Lane. Due to the 2007 Neighborhood Road Project coming in under budget, the City of Novi is considering moving forward with plans on Elizabeth Lane. The City has requested that URS prepare bid documents for this additional street. In order to issue this package, survey, plans and bidding documents have to be completed. The cost associated with these services is \$17,500.
- Design, Surveying and Bidding Services for Sunnybrook Lane. Due to the 2007 Neighborhood Road Project coming in under budget, the City of Novi is considering moving forward with plans on Sunnybrook Lane. The City has requested that URS prepare bid documents for this additional street. In order to issue this package, survey, plans and bidding documents have to be completed. The cost associated with these services is \$8,000.

This brings the total additional fee to **\$25,500**. It should be noted that there is no additional construction engineering fee listed for any of the additional services, since this amount is based on a percentage (6.4%) of the actual construction costs.

If you have any questions or comments, please feel free to call.

Sincerely,

URS Corporation

Consul

Khated Soubra, Ph.D., PE Vice President – Operations

SNK/mm

Jen Kelset

Sean N. Kelsch, PE Project Manager

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URS Corporation 34555 West 12 Mile Road Farmington Hills, MI 48331 Tel: 248.553.9449 Fax: 248.553.9571

City of Novi 2007 Neighborhood Road Program Spent Versus Budget Summary 11/08/2007

2007 Budget

Item No.	Item Description		Amount (\$)
1	Construction Costs		2,500,000.00
2	Design and Construction Engineering Fees		200,000.00
		Total: \$	2,700,000.00

Spent to Date

Item No. Item Description			Amount (\$)
1	Contract 1 (Construction Total)		955,000.00
2	Contract 2 (Construction Total)		1,025,000.00
3	Contract 1 and Contract 2 Engineering Fees		200,000.00
		Total: \$	2,180,000.00

Additional Work for 2008

Item No.	Item Description		Amount (\$)
1	Design and Construction Engineering Fees		54,940.00
2	Elizabeth Lane Construction Cost		311,903.57
3	Sunnybrook Lane		159,755.06
		Total: \$	526,598.63

Location: Elizabeth Lane Length: 2033 Avg. Width: 28

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Т	otal Cost (\$)
1	Pre-Construction Audio-Visual	LS	1.00	100.00	\$	100.00
2	Soil Erosion Control	LS	1.00	100.00	\$	100.00
3	Maintaining Traffic	LS	1.00	500.00	\$	500.00
4	Tree Protection	Ea	81	5.00	\$	405.00
5	Remove Concrete Pavement	Syd	6,320	4.00	\$	25,280.00
6	Underdrain, 6-inch	Ft	4,066	6.00	\$	24,396.00
7	Subgrade Undercut	Cyd	102	15.00	\$	1,530.00
8	Aggregate Base, 21AA, 8-inch	Syd	6,320	6.00	\$	37,920.00
9	Concrete Pavement w/Integral Curb, Non-reinf, 7-inch	Syd	6,320	27.00	\$	170,640.00
10	Remove and Replace Concrete Drives	Syd	813	27.00	\$	21,951.00
11	Remove and Replace Concrete Sidewalk	Sft	163	4.00	\$	652.00
12	Adjust Drainage Structure	Ea	14	275.00	\$	3,850.00
13	Remove and Reset Mailboxes	Ea	20	10.00	\$	200.00
14	Remove and Reset Sprinkler Heads	Ea	41	10.00	\$	410.00
15	Sprinkler Piping	Ft	410	0.50	\$	205.00
16	Class A Sod	Syd	1,360	5.00	\$	6,800.00
17	ADA Detectable Warning Plate - New Construction	Sft	41	30.00	\$	1,230.00
18	Reconstruct Drainage Structure	Ft	14	350.00		4,900.00
19	Point-up Drainage Structure	Ea	7	250.00		1,750.00
	Subtota	:			\$	302,819.00
	Contingency @ 3%	6			\$	9,084.57
	Total	:			\$	311,903.57

Location: Sunnybrook Lane Length: 1039 Avg. Width: 28

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Тс	otal Cost (\$)
1	Pre-Construction Audio-Visual	LS	1.00	100.00	\$	100.00
2	Soil Erosion Control	LS	1.00	100.00	\$	100.00
3	Maintaining Traffic	LS	1.00	500.00	\$	500.00
4	Tree Protection	Ea	42	5.00	\$	210.00
5	Remove Concrete Pavement	Syd	3,230	4.00	\$	12,920.00
6	Underdrain, 6-inch	Ft	2,078	6.00	\$	12,468.00
7	Subgrade Undercut	Cyd	52	15.00	\$	780.00
8	Aggregate Base, 21AA, 8-inch	Syd	3,230	6.00	\$	19,380.00
9	Concrete Pavement w/Integral Curb, Non-reinf, 7-inch	Syd	3,230	27.00	\$	87,210.00
10	Remove and Replace Concrete Drives	Syd	416	27.00	\$	11,232.00
11	Remove and Replace Concrete Sidewalk	Sft	83	4.00	\$	332.00
12	Adjust Drainage Structure	Ea	7	275.00	\$	1,925.00
13	Remove and Reset Mailboxes	Ea	10	10.00	\$	100.00
14	Remove and Reset Sprinkler Heads	Ea	21	10.00	\$	210.00
15	Sprinkler Piping	Ft	210	0.50	\$	105.00
16	Class A Sod	Syd	690	5.00	\$	3,450.00
17	ADA Detectable Warning Plate - New Construction	Sft	21	30.00	\$	630.00
18	Reconstruct Drainage Structure	Ft	7	350.00		2,450.00
19	Point-up Drainage Structure	Ea	4	250.00		1,000.00
	Subtota	1:			\$	155,102.00
	Contingency @ 39	6			\$	4,653.06
	Tota	:			\$	159,755.06

Location: Welch Road Length: 796 Avg. Width: 27

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Тс	otal Cost (\$)
1	Pre-Construction Audio-Visual	LS	1.00	100.00	\$	100.00
2	Soil Erosion Control	LS	1.00	100.00	\$	100.00
3	Maintaining Traffic	LS	1.00	500.00	\$	500.00
4	Tree Protection	Ea	32	5.00	\$	160.00
5	Remove Concrete Pavement	Syd	2,390	4.00	\$	9,560.00
6	Underdrain, 6-inch	Ft	1,592	6.00	\$	9,552.00
7	Subgrade Undercut	Cyd	40	15.00	\$	600.00
8	Aggregate Base, 21AA, 8-inch	Syd	2,390	6.00	\$	14,340.00
9	Concrete Pavement w/Integral Curb, Non-reinf, 7-inch	Syd	2,390	27.00	\$	64,530.00
10	Remove and Replace Concrete Drives	Syd	318	27.00	\$	8,586.00
11	Remove and Replace Concrete Sidewalk	Sft	64	4.00	\$	256.00
12	Adjust Drainage Structure	Ea	5	275.00	\$	1,375.00
13	Remove and Reset Mailboxes	Ea	8	10.00	\$	80.00
14	Remove and Reset Sprinkler Heads	Ea	16	10.00	\$	160.00
15	Sprinkler Piping	Ft	160	0.50	\$	80.00
16	Class A Sod	Syd	530	5.00	\$	2,650.00
17	ADA Detectable Warning Plate - New Construction	Sft	16	30.00	\$	480.00
18	Reconstruct Drainage Structure	Ft	5	350.00		1,750.00
19	Point-up Drainage Structure	Ea	3	250.00		750.00
	Subtotal	:			\$	115,609.00
	Contingency @ 3%	6			\$	3,468.27
	Total	:			\$	119,077.2

Location: Welch Road Circle Length: 199 Avg. Width: 24

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	То	tal Cost (\$)
1	Pre-Construction Audio-Visual	LS	1.00	100.00	\$	100.00
2	Soil Erosion Control	LS	1.00	100.00	\$	100.00
3	Maintaining Traffic	LS	1.00	500.00	\$	500.00
4	Tree Protection	Ea	8	5.00	\$	40.00
5	Remove Concrete Pavement	Syd	530	4.00	\$	2,120.00
6	Underdrain, 6-inch	Ft	398	6.00	\$	2,388.00
7	Subgrade Undercut	Cyd	10	15.00	\$	150.00
8	Aggregate Base, 21AA, 8-inch	Syd	530	6.00	\$	3,180.00
9	Concrete Pavement w/Integral Curb, Non-reinf, 7-inch	Syd	530	27.00	\$	14,310.00
10	Remove and Replace Concrete Drives	Syd	80	27.00	\$	2,160.0
11	Remove and Replace Concrete Sidewalk	Sft	16	4.00	\$	64.00
12	Adjust Drainage Structure	Ea	1	275.00	\$	275.00
13	Remove and Reset Mailboxes	Ea	2	10.00	\$	20.0
14	Remove and Reset Sprinkler Heads	Ea	4	10.00	\$	40.00
15	Sprinkler Piping	Ft	40	0.50	\$	20.00
16	Class A Sod	Syd	130	5.00	\$	650.00
17	ADA Detectable Warning Plate - New Construction	Sft	4	30.00	\$	120.00
18	Reconstruct Drainage Structure	Ft	1	350.00		350.00
19	Point-up Drainage Structure	Ea	1	250.00		250.00
	Subtota	:			\$	26,837.00
	Contingency @ 3%	10			\$	805.1
	Total	:			s	27,642.1

Location: Worcester Drive Length: 1662 Avg. Width: 27

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Т	otal Cost (\$
1	Pre-Construction Audio-Visual	LS	1.00	100.00	\$	100.00
2	Soil Erosion Control	LS	1.00	100.00	\$	100.00
3	Maintaining Traffic	LS	1.00	500.00	\$	500.00
4	Tree Protection	Ea	66	5.00	\$	330.00
5	Remove Concrete Pavement	Syd	4,990	4.00	\$	19,960.00
6	Underdrain, 6-inch	Ft	3,324	6.00	\$	19,944.00
7	Subgrade Undercut	Cyd	83	15.00	\$	1,245.00
8	Aggregate Base, 21AA, 8-inch	Syd	4,990	6.00	\$	29,940.00
9	Concrete Pavement w/Integral Curb, Non-reinf, 7-inch	Syd	4,990	27.00	\$	134,730.00
10	Remove and Replace Concrete Drives	Syd	665	27.00	\$	17,955.00
11	Remove and Replace Concrete Sidewalk	Sft	133	4.00	\$	532.00
12	Adjust Drainage Structure	Ea	11	275.00	\$	3,025.00
13	Remove and Reset Mailboxes	Ea	17	10.00	\$	170.00
14	Remove and Reset Sprinkler Heads	Ea	33	10.00	\$	330.00
15	Sprinkler Piping	Ft	330	0.50	\$	165.00
16	Class A Sod	Syd	1,110	5.00	\$	5,550.00
17	ADA Detectable Warning Plate - New Construction	Sft	33	30.00	\$	990.00
18	Reconstruct Drainage Structure	Ft	11	350.00		3,850.00
19	Point-up Drainage Structure	Ea	6	250.00		1,500.00
	Subtotal	:			\$	240,916.00
	Contingency @ 3%	6			\$	7,227.48
	Total	:			\$	248,143.48

SCOPING REPORT

2007 NEIGHBORHOOD ROADS PROGRAM STUDY AND RECOMMENDATION PHASE

> CITY OF NOVI OAKLAND COUNTY, MICHIGAN

> > Prepared For:

CITY OF NOVI ENGINEERING DEPARTMENT

Prepared By:



DETROIT - FARMINGTON HILLS - GRAND RAPIDS - TRAVERSE CITY

March 19, 2007

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 18 different roadways. Each of these roadways is broken into segments as established by the City of Novi Engineering Department. In 2006, these individual segments were rated based on a pavement analysis survey (Pavement Quality Index (PQI) rating).

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 our subconsultant, Professional Services Industries, Inc., the existing pavement section is typically 5 inches to 8 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. 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.

Other, less expensive fixes (i.e. joint repairs and individual slab replacement) can be applied to several of the roadways. However, these fixes will be temporary in nature. Given the decay of the joints (both transverse and longitudinal) and the lack of a drainage course layer in the pavement section, the existing problems will likely reappear unless the pavement is reconstructed.

In order to reconstruct all of the roadways that were studied, a total budget of approximately \$4.2 million (2007 dollars) is required. It is our understanding that the City will likely budget approximately \$1.4 million dollars for the 2007 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. These ratings are broken down by segment for each roadway. The ratings were than averaged for the entire roadway. For example, Willingham Drive from Windridge Lane to Westmont Court has a PQI rating of 6 and Willingham Drive from Lathum Drive to Windridge Lane has a PQI rating of 7. This averages to an overall rating of 6.5.

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 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.

Roadway Name	Average PQI Rating	PQI Ranking	Field Inspec- tion Ranking	Average Ranking	Overall Rank- ing/Priority
Ashford Circle	7.0	8	3	5.5	4
Elizabeth Lane	7.2	11	7	9.0	9
Chase Drive	6.0	2	11	6.5	6
Devonshire Drive	6.0	2	9	5.5	5
Dover Boulevard	7.0	8	14	11.0	13
Falmouth Avenue	7.0	8	12	10.0	12
Galway Drive (includes Galway Circle)	5.8	1	1	1.0	1
Lathum Drive	8.0	12	6	9.0	10
Sullivan Lane	6.0	2	2	2.0	2
Sunnybrook Lane	6.8	7	13	10.0	11
Welch Road (includes Welch Circle)	8.3	15	8	11.5	14
White Plains Drive	8.0	12	4	8.0	8
Willingham Drive	6.5	5	10	7.5	7
Windridge Lane	6.5	5	5	5	3
Worcester Drive	8.0	12	15	13.5	15

PAVEMENT CONDITION RATINGS SUMMARY

Rankings are on a 1-15 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. Galway Drive	\$990,000	
2. Galway Drive Circle	\$54,000	
3. Sullivan Lane	\$186,000	
4. Windridge Lane	\$180,000	
5. Ashford Circle	\$308,000	
6. Devonshire Drive	\$427,000	
7. Chase Drive	\$251,000	
8. Willingham Drive	\$163,000	
9. White Plains Drive	\$164,000	
10. Elizabeth Lane	\$410,000	
11. Lathum Drive	\$142,000	
12. Sunnybrook Lane	\$210,000	
13. Falmouth Avenue	\$72,000	
14. Dover Boulevard	\$90,000	
15. Welch Road	\$156,000	
16. Welch Road Circle	\$36,000	

	Construction Total:	\$4,166,000
16. Worcester Drive		\$326,000

Preliminary Estimates are Rounded (2007 Dollars)

Although Galway Drive is listed as the top priority, we would recommend that only Galway Drive from Taft Road to Daleview Drive (including Galway Drive Circle) be reconstructed in 2007. This recommendation is based on the proposed construction along Taft Road scheduled for 2007. If Galway at Nine Mile Road were reconstructed this summer, all entrances to Lexington Green would be impacted by construction. Also it is recommended that Falmouth Avenue and Dover Boulevard be added in order to complete street reconstruction in the Yorkshire Place subdivision.

With this in mind, we propose the following projects in 2007:

2007 PROJECT SUMMARY

Roadway Name	Estimated Construction Cost	Base Bid or Alternative Bid
1. Galway Drive (from Taft to Daleview)	\$406,000	Base Bid
Galway Drive Circle	\$54,000	Base Bid
2. Sullivan Lane	\$186,000	Base Bid
3. Windridge Lane	\$180,000	Base Bid
4. Ashford Circle	\$308,000	Base Bid
Base Bid Total	\$1,134,000	
5. Devonshire Drive	\$427,000	Alternative Bid
6. Chase Drive	\$251,000	Alternative Bid
7. Willingham Drive	\$163,000	Alternative Bid
8. White Plains Drive	\$164,000	Alternative Bid
9. Falmouth Ave	\$72,000	Alternative Bid
10. Dover Blvd	\$90,000	Alternative Bid
Alternative Bid Total	\$1,167,000	

Preliminary Estimates are Rounded

Based on these preliminary estimates, the combined total for the Base Bid and Alternative Bid is \$2,301,000. Obviously, this is more than the likely \$1,400,000 budget amount. However, with the alternatives, the city can adjust the work to match the actual budget.



