



CITY of NOVI CITY COUNCIL

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**Agenda Item 1
January 8, 2007**

SUBJECT: Approval of Resolution adopting the Beck Road (Eight Mile Road to Grand River Avenue) Scoping Study Report.

SUBMITTING DEPARTMENT: Engineering *R74*

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	N/A
AMOUNT BUDGETED	N/A
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	N/A

BACKGROUND INFORMATION:

One of Council's long-term goals is to establish a timetable for the improvement of Beck Road from Eight Mile Road north to Grand River Avenue. At its August 14, 2006 meeting, City Council awarded an engineering contract to Fishbeck, Thompson, Carr & Huber (FTCH) to conduct a scoping study to determine options for improvements to the Beck Road thoroughfare. The purpose of the study is to provide background information, project scoping, project phasing, and cost estimates for the future reconstruction of Beck Road, and to present the study findings in a report that can be used as a planning tool in the future. (FTCH's report was previously distributed to members of Council on December 7, 2006.)

The scoping study report presents various short-term and long-term options for the improvement of Beck Road. The report identifies areas requiring right-of-way acquisition, wetland impacts, areas with poor soils, existing traffic counts, projected traffic counts, as well as other pertinent information critical to future Beck Road projects.

The scoping study involved staff from the Planning, Police and Public Works departments, and included an important public feedback component. Two public information meetings were conducted that allowed City staff to solicit and receive information relative to the needs and desires of the public. In addition, City staff received extensive feedback throughout the course of the study from residents, business owners and other stakeholders.

The report's findings are two-tiered. Short-term options that could be implemented over the next one to six years include intersection improvements to increase capacity, and pavement condition improvements to extend the remaining service life of the pavement. Long-term options that could be considered for implementation over the next 15 to 25 years include widening Beck Road to either a 4-lane boulevard or 5-lane section, depending on location along the thoroughfare.

The attached Resolution spells-out specific short-term projects for implementation: Ten Mile/Beck intersection improvements and existing pavement condition improvements between Eight Mile and Grand River. Additionally, the Resolution would authorize Administration to work with SEMCOG to add the long-term improvement options called-out in the report to SEMCOG's Regional Transportation Plan. Doing so would make the City eligible to receive federal funding for long-term Beck Road improvement projects.

RECOMMENDED ACTION:

Approval of Resolution adopting the Beck Road (Eight Mile Road to Grand River Avenue) Scoping Study Report.

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

	1	2	Y	N
Council Member Mutch				
Council Member Nagy				
Council Member Paul				



RESOLUTION OF AUTHORIZATION BECK ROAD SCOPING STUDY REPORT

CITY COUNCIL

Mayor
David B. Landry

Mayor Pro Tem
Kim Capello

Bob Gatt

Terry K. Margolis

Andrew Mutch

Toni Nagy

Lynne Paul

City Clerk
Maryanne Cornelius

WHEREAS, the Novi City Council awarded a contract to the consulting engineering firm of Fishbeck, Thompson, Carr & Huber, Inc. to conduct a comprehensive study of Beck Road from Eight Mile Road northward to Grand River Avenue, including an evaluation of existing conditions and future capacity needs of this major north/south thoroughfare in the city of Novi; and,

WHEREAS, the Beck Road Scoping Study conducted by Fishbeck, Thompson, Carr & Huber, Inc. included the examination of future road projects planned or contemplated by other municipalities and government agencies for segments of Beck Road not under the jurisdiction of the City of Novi, and the potential impact of such projects; and,

WHEREAS, the City administration has conducted two public information meetings presenting the study materials and soliciting public input; received extensive feedback throughout the course of the Beck Road Scoping Study from residents, business owners and other stakeholders; and, evaluated and duly considered such input in the formulation of options presented in the Study Report; and,

WHEREAS, the Beck Road Scoping Study Report identifies short-term and long-term options for City Council consideration in its budgetary planning for future roadway project needs for Beck Road.

NOW, THEREFORE, BE IT RESOLVED that the Mayor and City Council acknowledge the value of the information contained in the Beck Road Scoping Study Report as a planning tool for the short-term and long-term planning for the improvement of Beck Road from Eight Mile Road to Grand River Avenue.

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the Mayor and City Council authorize the City's administration to implement selected short-term options contained in the Beck Road Scoping Study Report, to include making intersection improvements at the Beck Road/Ten Mile Road intersection to increase capacity; making pavement condition improvements to the existing cross-section of Beck Road between Eight Mile Road and Grand River Avenue; and, requesting the Southeast Michigan Council of Governments (SEMCOG) to add the long-term Beck Road improvement projects identified in the Study Report to SEMCOG's Regional Transportation Plan.

CERTIFICATION

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the City Council of the City of Novi at a regular meeting held this 8th day of January, 2007

Maryanne Cornelius
City Clerk

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"Enhancing Novi's quality of life"



MEMORANDUM

To: Clay Pearson, City Manager
Pam Antil, Assistant City Manager

From: Rob Hayes, P.E., City Engineer *RA*

Re: Beck Road Scoping Study Report – Responses to Questions & Comments

Date: January 4, 2007

This memorandum provides responses to questions and comments received to date on the Beck Road Scoping Study Report, as follows:

Questions

- 1) How do current traffic counts compare to current capacity? **A detailed capacity analysis was not done as part of this study; however the traffic study completed in 2004 as part of the Thoroughfare Plan Update shows various Levels of Service (LOS) for Beck Road. [LOS is an indicator of the degree of congestion on a roadway and it can range from LOS A (unimpeded operations) to LOS F (extremely low speeds). LOS is determined using roadway capacity modeling software and is based on average through-vehicle travel speed for a particular road segment. Factors that impact average travel speed include signal delays, turning movements, pedestrian crossings, and other vehicles.] Beck Road has a Level of Service of C (stable operations) for the morning peak and a LOS of D (variable delay) for the evening peak. Our goal would be to achieve a LOS of B (reasonable unimpeded operations) or C for both peak periods.**
- 2) Could we get a matrix that compares capacity to improvements - 2 lanes supports X volume, 3 lanes supports Y volume, etc.? **Unlike freeways, there's not an established rule of thumb for determining capacity for arterials given the proposed number of lanes of pavement. The main variables or unknowns are access/number of driveways and time of day. This would be one outcome of a detailed traffic study, which FTCH recommends to be done in ten years.**
- 3) Can pathway costs be broken out per segment and per side? **Costs are shown per segment in Appendix 6. Each estimate for long-term improvements includes pathway costs, with the 5-foot wide paths on the east side of Beck and the 8-foot wide paths on the west side.**
- 4) Can summary cost estimates show ROW costs separately (for long-term capacity improvements)? **Please refer to the individual segment cost estimates in Appendix 6. ROW acquisition costs are presented near the bottom of each estimate.**
- 5) Is 8 Mile Road the only intersection without FAST-TRAC? **Yes, this is the only Beck Road signal that is not SCATs-enabled. What's the cost to include that? Roughly \$150,000. Is that a study recommendation? No, because it remains on our list of incomplete 2000 Road Bond projects. As reported in June 2005, we recommended that improvements to this signal be made once intersection improvements had been determined.**

6) Where intersection improvements require signalization replacement, can this be shown in the summary costs? Otherwise, people are likely going to wonder why similar improvements vary so greatly in costs. **Please refer to the individual segment cost estimates in Appendix 6. Signalization costs are presented near the bottom of each estimate.**

7) Why do the culverts between 8 and 9 Mile Road need to be replaced? **Our costs are conservative. Because we don't know the exact condition of these culverts, we're assuming that they will require replacement. The culverts that are damaged need to be replaced to provide adequate drainage which will prolong the life of the pavement.**

8) Does the report include Level of Service for the intersections and road segments? **No, however we relied on the thoroughfare traffic study completed in 2004 that depicts various Levels of Service for Beck Road. If not, what are they now and what will they be after the improvements? The detailed traffic study recommended to be completed in ten years (i.e., after new Wixom Road Interchange SPUI, Novi Road Link project, etc. are completed) will provide this updated information.**

9) Some of the proposed short-term improvements don't appear to require the full ROW. When acquiring ROW, would we be looking at acquiring the full ROW to allow for long-term improvements or just what is needed now? **Yes, we would acquire a 120-foot right-of-way. Cost estimates are based on a 120' ROW width.**

10) Any explanations on the number of accidents at Grand River? That seems excessive for an "improved" intersection. **Only that the number of accidents appears to be driven by demand (i.e., high traffic volumes on Grand River and Beck).**

11) What is the difference in width of 5 lanes compared to 4-lane boulevard (actual width, not ROW)? **The difference in width would be 8 feet: the distance from edge-of-pavement to edge-of-pavement (i.e., not including curb, gutter, etc.) would be 68 feet for the 4-lane boulevard section (four 12-foot lanes plus a 20-foot median), and 60 feet for the 5-lane section (five 12-foot wide lanes).**

12) Just south of 10 Mile, the road is very loud because of the poor condition of the pavement. What can we do to address that in the short-term? **This is a relatively short section of poor asphalt pavement near Ten Mile Road that causes excessive noise. We could include the overlay of this section as part of the proposed Beck/Ten Mile intersection improvement project.**

13) Does Beck Road need to be listed with SEMCOG before we can apply for CMAQ funding? **No, CMAQ funding is handled separately from traditional federal funding sources that require projects to be listed on the SEMCOG Regional Transportation Plan.**

14) Do traffic levels ever peak? The models make it appear as if traffic growth goes on forever. **The study tends to be conservative; therefore until data suggests that traffic is decreasing, we will typically project growth. SEMCOG has a regional model which indicates a 1% traffic growth factor for Beck Road, which is influenced by many factors and as such, will change as the transportation system matures (i.e. improvements, increased congestion, etc). For any given year, the actual traffic growth factor may be more or less than what we predict. However, over the long-term, the 1% figure should be reliable for use during the next 20-30 years.**

15) Which improvements would include curb and gutter? **All long-term improvements assume curb/gutter and storm sewer systems will be constructed.**

16) Any access management recommendations? What about limiting the number of driveways per parcel. Many people seem to be doing "U" shaped drives that lead to multiple driveways per home. Wouldn't it be better to limit those to one per parcel? **Our ordinance allows parcels with more than 80 feet of frontage to have multiple drives. U-shaped drives don't increase demand as they are typically one-way in and one-way out. The ordinance is already in place regarding subdivisions to provide good access management along our thoroughfares as is evident on Beck Road between Nine Mile Road and Ten Mile Road.**

17) Does the median option include turns at intersections with residential collectors (for example, White Pines Dr.?) It's doesn't appear so from the schematics. **Yes, the median breaks weren't shown on the schematic drawings because the level of detail shown on the drawings is still very conceptual in nature.**

18) In the areas with poor underlying soils can we realistically expect to get a 15-20 year lifespan from overlays? **Probably not, but it would be a significant improvement over existing pavement conditions that will extend remaining service life another 5-10 years. If we make short term improvements within 5 years and get 5-10 years out of the improved pavement, that will get us to years 10-15, which puts us close to the time recommended for making the long term improvements (within 15-25 years as suggested in the report). If not, does it make more sense to bite the bullet and do the full reconstruction as was done on Taft? Not without first knowing what the ultimate cross-section will be and how the funding will be acquired.**

19) Does Northville Township have a say in future widenings of Beck Road? **Wayne County has jurisdiction and ultimate decision-making authority, however, it's likely Northville (and other townships along Beck in Wayne County) are consulted before widening decisions are finalized.**

20) Could a wider median or a design that allows U-turns be done with additional ROW? **Yes. What is the capacity difference between road with median versus one without? No difference - a fifth lane is for turning movements and not for added capacity.**

21) What's the likelihood that development of the NW corner of 8 Mile and Beck would include the recommended intersection improvements? **We could certainly ask the developer to make this improvement but couldn't make site plan approval contingent upon it.**

22) I was surprised to see that taking care of the 8 - 9 Mile stretch of Beck wasn't something recommended to be done immediately. Portions of that are in terrible shape. Can you clarify for me why that's been recommended to be done in a few years versus year 1? **The reasons why this segment was prioritized for rehabilitation between Years 3 and 6 are as follows:**

- **It has (and is projected to have) the least amount of traffic when compared to the other segments. Also, the segments north of Ten Mile Road will see increased traffic volumes once the hospital is fully opened/operational.**
- **It was partially preserved with the overlay completed last summer by DPW (north half-mile).**
- **It has the worst underlying soils and would therefore require more reconstruction work, making it a better candidate for federal funding. It typically takes about 2-3 years to wend through the federal funding queue for this type of project.**

23) Is there something we can do in the interim to address the wretched condition of that pavement, like the overlay done further north? **Public Works has provided a cost estimate of \$90,000 to place a thin overlay for the half-mile north from Eight Mile Road.**

Comments

1) My copy didn't include Figure 2 (in case it was missing from other copies). I was able to get it off the CD. **It appears to be in other copies. Sorry, it must have been a copier error.**

2) Page 20 - "For the purpose of the study, is..."
should be ".For the purpose of the study, it..." **OK**

3) Page 24 (7.2.5) - The description of the where the pathway ends could be confusing to some since it doesn't indicate where the path starts. **OK**

4) Page 25 (7.3.5) - Re: the 400-foot gap in the pathway - isn't this supposed to be completed by developers of the adjacent condo development? **Yes, by the developers of Kirkway Place. We included it because it has not yet been constructed. While the city is holding financial guarantees for the construction of the boardwalk, it is anticipated that the developer will complete the boardwalk in the near future.**

Please let me know if you need any further information or have any questions or comments in regards to these responses.

cc: Brian Coburn, P.E., Civil Engineer

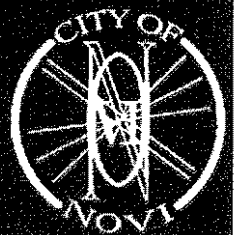
Beck Road Scoping Study

Final Report Presentation

January 8, 2007

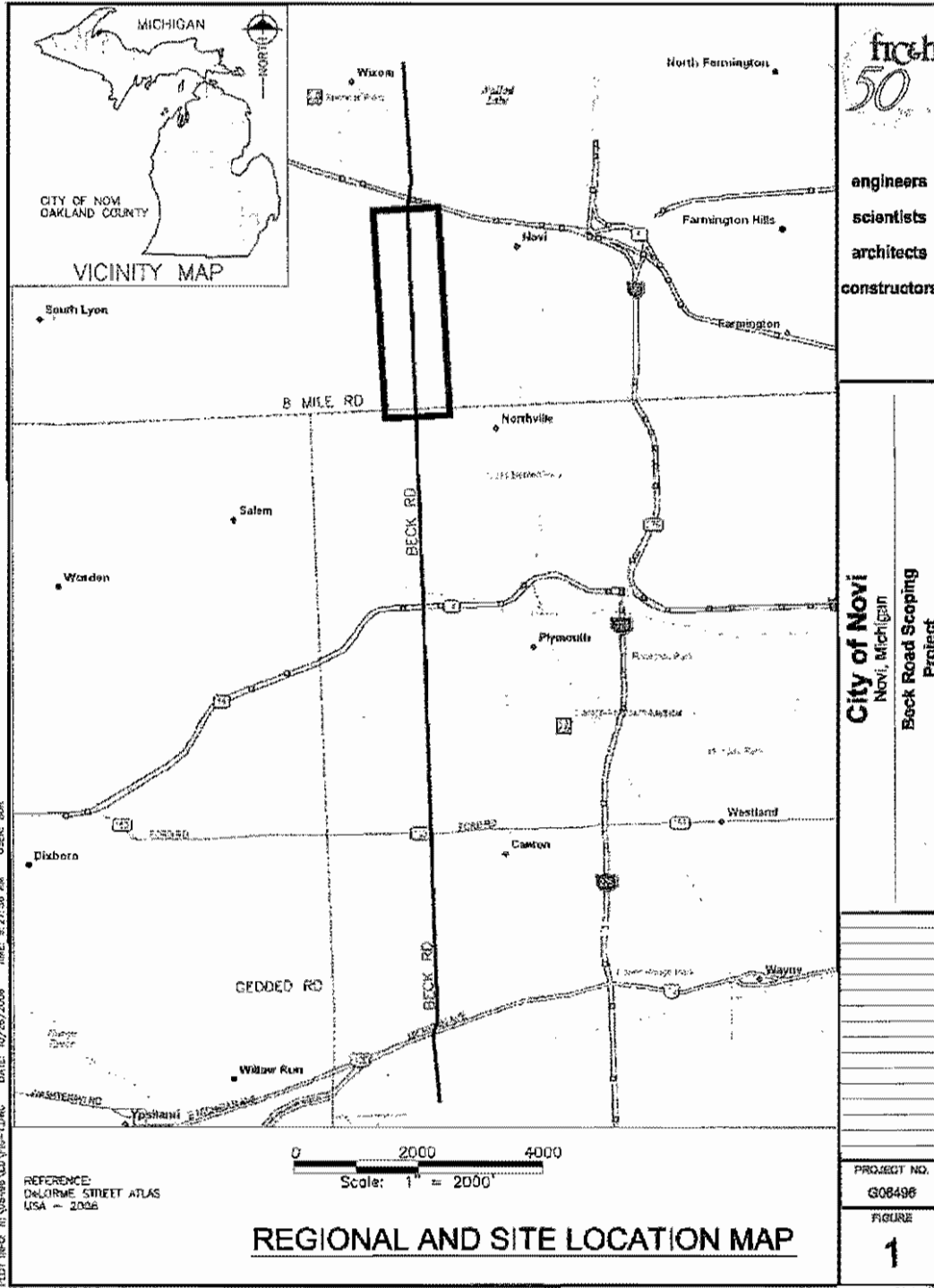
Presented By:

Fishbeck, Thompson, Carr & Huber, Inc.



fic&h

engineers
scientists
architects
constructors



Project Information

- Long-Term Goal of City Council
 - “Set timetable for Beck Road improvement ~ 8 Mile Road to Grand River Avenue”
- Collect and Analyze Information
 - Short and long term options
 - Examine Beck Road on a regional level
 - Provide Council with solutions and alternatives
 - Generate study as a planning tool



Reviewed Information

- Public feedback and input (two public meetings)
- City Master Plan (roadway type, pedestrian facilities)
- Regional Planning (SEMCOG)
- Traffic counts
- Geotechnical report (pavement and soils)

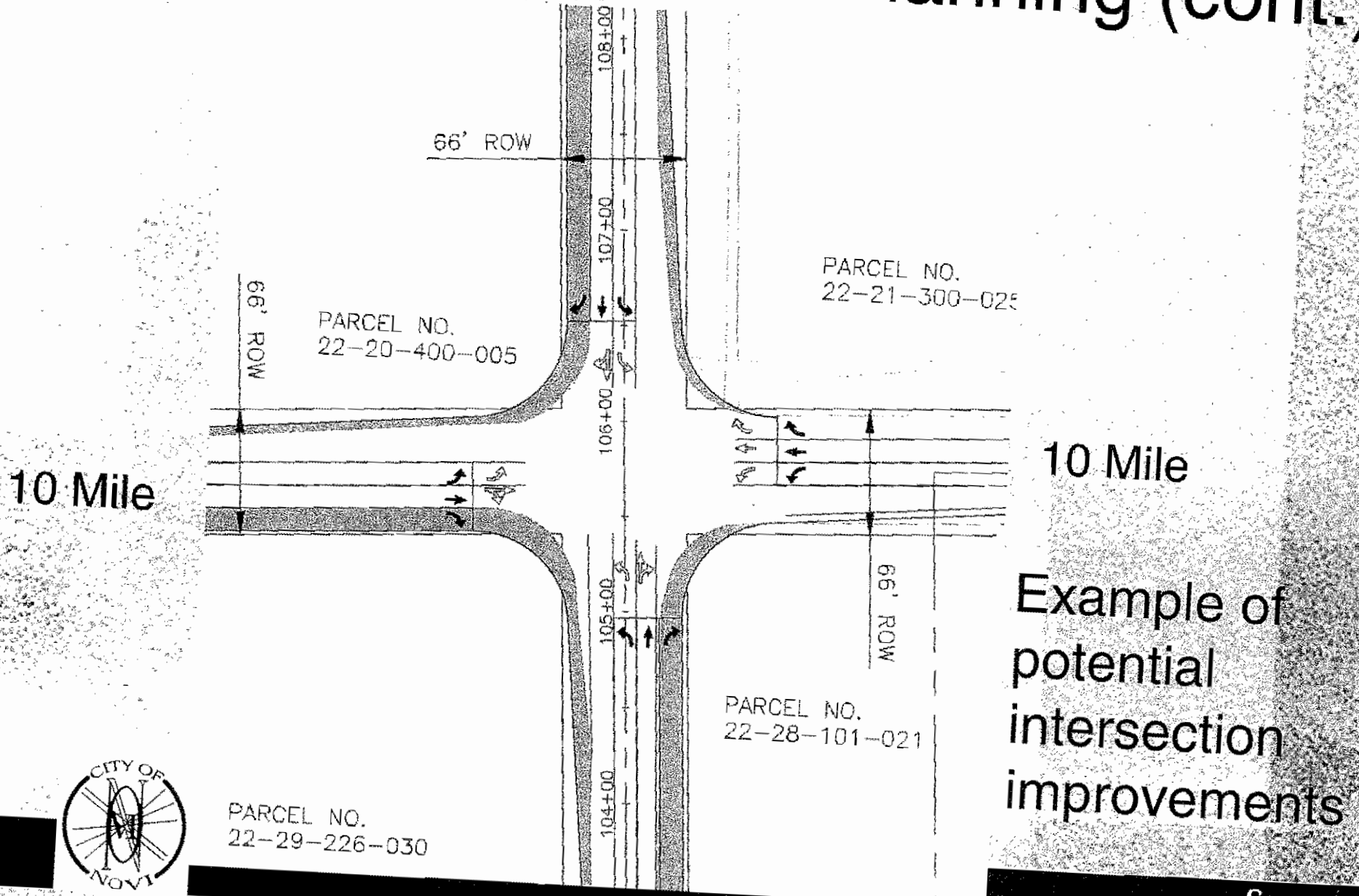


Short Term Planning

- Short Term Capacity
 - Based on technical analysis and feedback, there is a need to improve intersection capacity and safety
 - Adding right turn lanes; extending left turn lanes
- Short Term Condition
 - Engineering analysis indicates an immediate need to preserve the existing roadway
 - Community feedback shows a desire to improve ride quality and reduce noise



Short Term Planning (cont.)



Example of
potential
intersection
improvements



Long Term Planning (cont.)

Review of Primary Options

- Leave roadway section as-is
- 3-lane section – center turn lane
- 4-lane section (2-lanes each way)
- 4-lane section with boulevard
- 5-lane section



Long Term Planning

Key long-term planning items to evaluate what may be needed in 15+ years

- Impact of short-term improvements
- Result of other north-south corridor improvements (Novi Road widening, Wixom SPUI)
- Awareness of developments around Novi
- Needs and desires of residents
- Cost estimates and potential funding sources



Recommendations Summary

Short Term

- Intersection upgrades, improve pavement
- Apply for funding - Federal and other sources

Long Term

- Periodic review of demand and growth
- Future traffic study – 10 years+
- Inclusion on regional plans

