

ACCESS MANAGEMENT PLAN US HIGHWAY 10



Detroit Lakes, Minnesota

Minnesota Department of Transportation (Mn/DOT) in partnership with the City of Detroit Lakes and Becker County

2002

Project Type: Urban, 4-lane

PURPOSE

The Access Management Plan for Highway 10 through Detroit Lakes was needed to improve safety and maintain mobility for through traffic while providing appropriate access to the local community.

DESCRIPTION

This project is located in the City of Detroit Lakes, Minnesota, approximately 45 miles east of Fargo, North Dakota. The highway is an important link between the Fargo area and other regional trade centers in Minnesota. The routes connecting trade centers in Minnesota have been designated as Interregional Corridors (IRC) for which specific operational guidelines have been established.

The IRC guidelines establish a goal for the average travel speed over long distances. Since the goal is less than the posted speed in the rural areas, it allows a lower travel speed within communities. Within communities, traffic progression becomes the critical design factor rather than simply speed limits.



Traffic progression within the 3-mile Highway 10 study area through Detroit Lakes is impeded by approximately 70 access points. Several of the intersections have accident rates that exceed the state averages.

Traffic operations in Detroit Lakes are compounded by the Burlington Northern Sante Fe Railroad, (BNSF), that runs parallel to Highway 10. The BNSF has two mainline tracks that carry 40-60 trains per day. Both Highway 10 and the BNSF tracks run at a diagonal to the local city street grid which results in a very inefficient local street system. Several areas of town must utilize the highway as a local street because of the lack of street connections.

The worst condition was in the downtown area. Accident rates at all of the intersections on Highway 10 were above state averages. The results of an origin-destination study of this area determined that a significant number of local trips were crossing the railroad track, then turning onto Highway 10, and turning off of the highway within three blocks to access the downtown.

Highway 10 passes near several historic buildings in the downtown area. A depot along with a hotel and office buildings have frontage on the highway. The highway also traverses the northern shore of Big Detroit Lake in a narrow corridor between the lake and the railroad.

PUBLIC ENGAGEMENT

The project development engaged the public at three different levels. First, the city and county were members of the project management team. Second, regulatory agencies were directly involved in reviews of the concepts. Third, was an extensive public engagement program that included large formal meetings, workshops, and one-on-one meetings.

The project management team met on a monthly basis. Each agency assigned key staff to the team and also provided individuals to address specific topics as needed. Political issues were addressed by the mayor and county commissioners. Utility impacts, traffic impacts, and other similar items were addressed by technical staff. The project management team provided critical direction to guide the project through all issues. The project received the required vote of support from the Detroit Lakes City Council.

Regulatory coordination occurred on the onset of the study through agency meetings and regular updates were provided as concepts were refined. The regulatory agencies provided insight, minimizing impacts, providing mitigation and most importantly, designing the project to address unmet needs of the agency.



The public was invited to several large open house meetings to review the concepts. The concept development was facilitated through public design workshops which first evaluated the goals and objectives and second, reviewed design concepts. Through the design workshops a concerned citizen introduced a concept to shift the BNSF railroad and utilize railroad right-of-way for Highway 10. This realignment concept was the foundation for the preferred solution.



The public engagement process has continued into the final design phase and has facilitated the detail design development to incorporate the vision set forth during the concept development.

CONTEXT SENSITIVE SOLUTIONS APPROACH

The need for a CSS approach is critical in Minnesota where a highway project affects a city because state law requires a vote of support from the city for the project to move into construction. Access management projects can be the most difficult to implement because of the direct impacts to the city. The goal of the CSS approach was to create a Highway 10 Access Management Plan with concepts that addressed the unmet needs of the community or regulatory agencies. If this goal could be achieved, the project would have value to the community and to those agencies whose support would be required to implement the preferred solution.

The primary transportation goals for Highway 10 are safety and mobility. The mobility goal for an IRC would allow a reduced design speed through town. The

design speed at the core of the city could be 35 mph provided access points are restricted. The project will eliminate all access except for seven key intersections and utilize the reduced design speeds. Visual cues will be implemented for the drivers to slow down appropriately for each segment of highway. Aesthetic treatments are designed for various segments of the corridor: gateway treatments at the city limits, parkway treatments with the city limits, and boulevard treatments in the downtown area.

The project will close one at-grade crossing with the railroad and grade-separate a second at-grade crossing creating an underpass for Roosevelt Road. The Roosevelt Road at-grade crossing has the highest potential for a train/highway accident in the county.



The underpass at Roosevelt Road will be a significant improvement for local traffic. Roosevelt Road is a major north-south route in the community which connects schools, businesses and the downtown together. The underpass will separate this local traffic from the railroad and Highway 10 traffic.

The potential economic impacts to the downtown area were identified early in the study. The downtown was economically stable but a new “big box” development on the west side of town was beginning to erode that stability. The realignment of Highway 10 near the downtown will provide an opportunity to redevelop and expand the downtown area and incorporate vacated highway right-of-way into the redevelopment. The city has completed a planning study for this area to guide future development.

Detroit Lakes is a popular tourist destination and Detroit Lake is the centerpiece of the lake system. The existing development did not incorporate water quality measures and the water quality in the lakes is declining. Coordination with the watershed district allowed for water quality treatment measures to be incorporated into the design including: special ditch treatment, rain gardens, ponds, and mechanical grit removal systems.

The coordination with the State Historic Preservation Office identified enhancements to the depot area and the nearby historic structures. Plaza areas with historical markers, plantings, lighting, and a grand street clock will provide people with a link to their history.

OUTCOME

The early expectations of the project were to provide medians and restrict access along the existing highway. The proposed solution includes a realignment of the highway which provides better highway and railroad operations, local street connections, downtown redevelopment, water quality improvements, and a better opportunity to understand the city’s history.

The city has embraced the concept and has redesigned utility projects to coordinate with the future plan. The city’s vision of the expanded downtown has been studied and summarized as a master plan for the area.

The benefits of the project have translated into support for the project. The state provided additional funding for transportation which has advanced the

project years ahead of schedule. The watershed permitting process along with coordination with the railroad has been streamlined because of their support of the project.

CHALLENGES

The CSS approach requires honest input from all parties. The trust between Mn/DOT the city and county was not well established prior to this project. Building trust among the Project Management Team required time and was achieved through a thorough analysis and definition of the problem. The team understood that the definition of the problem required addressing city concerns along with Mn/DOT's transportation needs.

Working with the railroad brings another type of design challenge. The benefits to the railroad operations from closing of two at-grade crossings have outweighed the many technical challenges facing the final designers.



The change of access to a downtown area was difficult to communicate to the local businesses. The economic impacts are not quantifiable or directly controlled by the highway improvement. A site visit was scheduled to a similar community in Minnesota where the highway was realigned one block through the downtown. Supporters and opponents of the project were taken together to visit with businesses and city planners of the City of Shakopee, MN. Shakopee had the highway project completed and an independent project redeveloped a large commercial/market-rate senior housing complex. The visit convinced the Detroit Lakes city staff that the project could have a positive economic impact but that it was up to the city to take advantage of the opportunity.

FUNDING

The project has utilized several funding sources. The study and right-of-way were funded with special IRC funds; the construction is funded with a combination of special Bond Accelerated Project funds and District funds. The City of Detroit Lakes will contribute substantially to the funding of the amenities.

LESSONS LEARNED



- Build trust with the affected parties. Communicate clearly as a sound analysis of the problem and clear goals for the solution are established.
- Build support for your project from other agencies and groups. Each agency/group that is affected by the project has a mission statement. The project will impact their ability to fulfill that mission. The goal is to have the project address their concerns or unmet needs to develop supporters for the project.
- Let the public define the project. The public is focused and frugal.
- State your non-negotiable design criteria up front. Mn/DOT came with two un-negotiable items; safety and mobility. The alignment of the highway along with the location of access points was directed by other inputs.
- Make the regulators be part of the design team to achieve widespread support for transportation improvements.
- Be flexible in design so that you are solving problems not simply implementing standards.

- Continue a team approach to maintaining the corridor even after the transportation project is complete. Two-way communication is critical to operating the transportation system as an integral part of the community.

KEY WORDS *Applicable Project Delivery Stages:* Administration, Planning, Design

Applicable Transportation Professionals: Highway Engineers, Structural Engineers, Urban Designers, Landscape Architects, Historians

Applicable Transportation Modes: Highway, Railroad, Bicycle, Pedestrian

Transportation Topics: Visual Quality, Safety, Geometrics, Design Speed, Vegetation, Recreation, Species, Water Quality

WEB LINKS <http://www.dot.state.mn.us/d4/projects/connectdetroitlakes/>

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