

EXECUTIVE SUMMARY CENTRAL AVENUE CORRIDOR STUDY

EAST GRAND FORKS
DECEMBER, 2007





Acknowledgments

The Corridor has been a central part and means of growth for the City of East Grand Forks. The East Grand Forks Corridor Committee, along with consultant JLG Architects & SRF Consulting Group Inc., are working to make it better. The following dedicated individuals have given their time and resources to make sure their downtown is the best it can be:

Earl Haugen.....	MPO Executive Director
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Tom Stennes.....	Stennes Funeral
Oscar Sutherland	Community Bank of the RRV
Renee Twite.....	Sun N Things
Mike Pierce	Hawks Manufacturing
Troy Pecka	Troy Pecka Trucking



Study Purpose

The corridor is a major access point into the city of East Grand Forks. It is an entry and economic area in the city. Assessment is being done to improve on the current issues that are apparent here. These include poor pedestrian movement, poorly maintained businesses and properties, vacancies, traffic conditions and the overall appearance and use of the corridor. Also, the assessment includes addressing the strong points of the corridor and discussing other issues and ideas with the people of East Grand Forks.

Study Process

Over the past eight months the East Grand Forks Steering Committee has conducted an extensive analysis and visioning process for the area along the East Grand Forks Central Avenue Corridor. Throughout the planning process, particular emphasis has been placed on the need to create a common vision, build consensus and develop goals which can win the support of the entire community. JLG Architects of Grand Forks, ND was hired to facilitate the effort and develop the framework plan.

Findings presented herein are based on a work program which included two community wide public forums to determine corridor preferences and multiple focus groups. From this analysis, conclusions were drawn regarding the corridor's role in the community, investment opportunities available to the market for both public and private sectors and barriers to investment. Tools necessary to implement the strategy, as well as select opportunity sites and concepts which could serve as catalysts for a stronger entryway and corridor, are among the products which resulted from this effort, each of which is described in the following sections and the associated Appendix.

The Process

1.Data Collection

- a. Base Maps
- b. Photography
- c. Traffic Study
- d. Previous Studies

2.Community Input

- a. Establish a Common Vision
- b. Define Citizens Wishes
- c. Refine Opportunities, Obstacles and Conflicts

3.Review & Analyze

- a. Signage Inventory
- b. Code Violations
- c. Building Vacancies
- d. Open/Vacant Lots
- e. Streetscape Conditions
- f. Landscape Conditions
- g. Land Use Patterns
- h. Traffic Model
- i. Pedestrian Bicycle Needs

4.Planning w/Steering Committee

- a. Identify Parcels of Land Subject to Change
- b. Two Alternative Land Use Plans
- c. Identify Catalyst Properties
- d. Review Previous Studies

- e. Illustrative Streetscape Plan
- f. Level of Magnitude Cost Estimate
- g. Options to Improve Property Maintenance

5.Community Input

- a. Refine Alternative Use Plans
- b. Refine Illustrative Streetscape Plan
- c. Refine Property Maintenance

6.Planning w/Steering Committee

- a. Review Draft Report
- b. Final Planning/Input by Steering Committee

7.Final Report

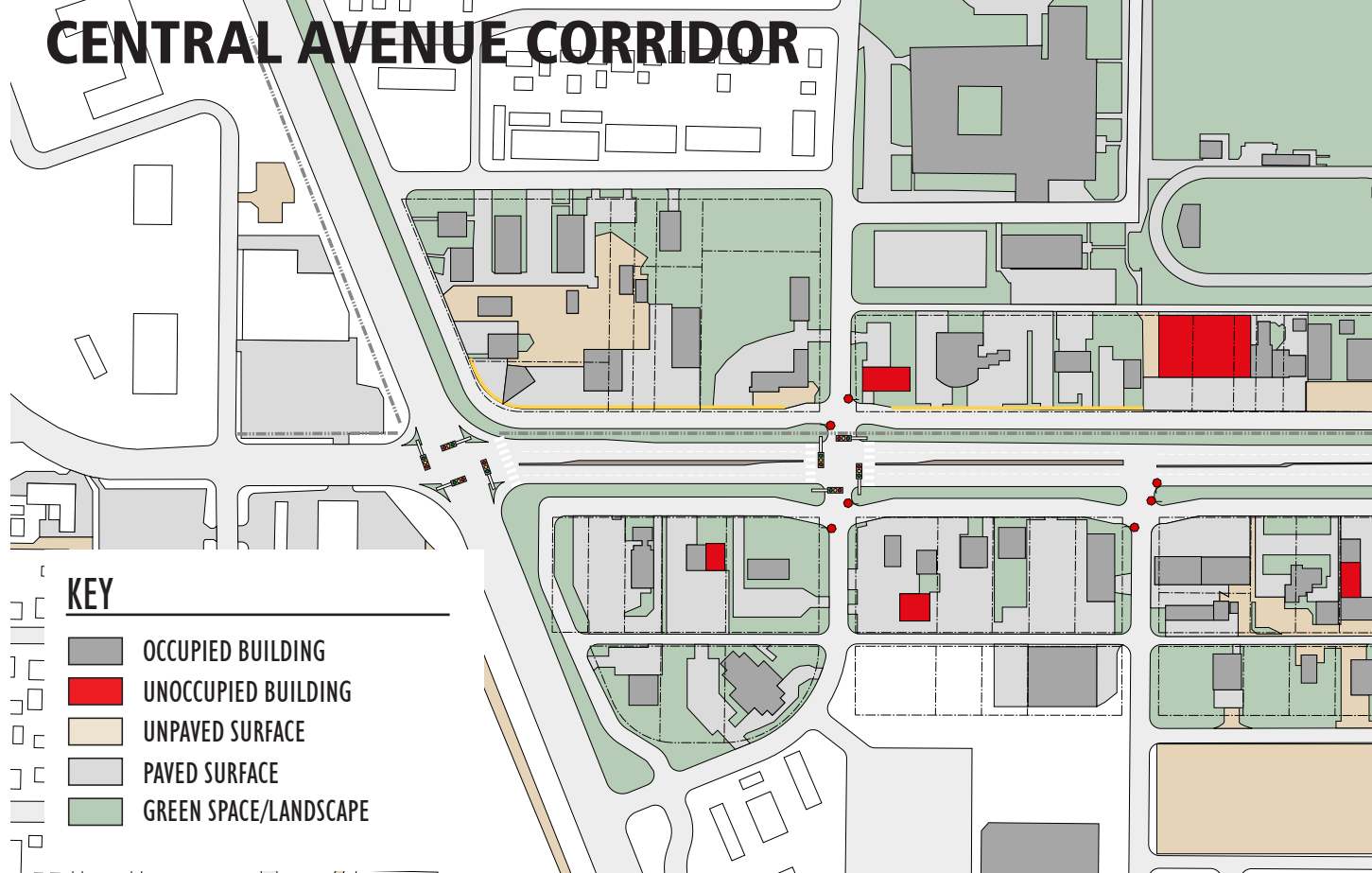
- a. The Main Deliverable of All the Data and Findings from the Work above
- b. To Include Maps Showing Plans, Districts and Key Components
- c. Common Goals
- d. Shared Vision Statement
- e. Hurdles
- f. Back-up Data and Appendices

Contents

Introduction	1
The Corridor Today.....	3
Major Issues	5
Land Use along the Corridor	7
Corridor Concepts	9
1 Enhance the Frontage Road Area	10
2 Enhance the Private Sector.....	15
3 Enhance the Mainline Highway.....	21
4 Traffic Studies from SRF	25
5 Phasing Plan	35
6 Costing Plan	37
7 Next Steps	39
8 Appendix	42



CENTRAL AVENUE CORRIDOR

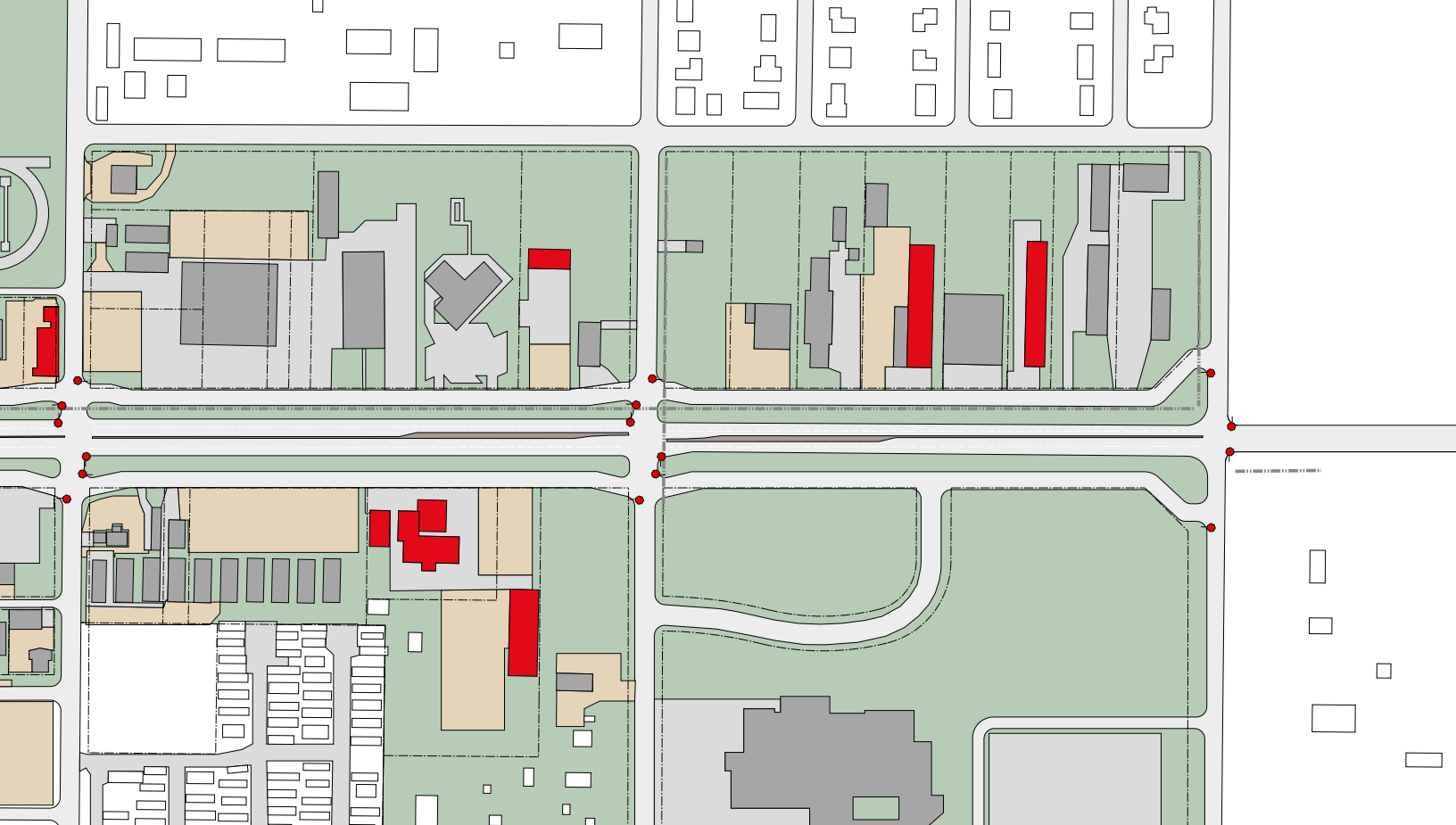


The Corridor Today

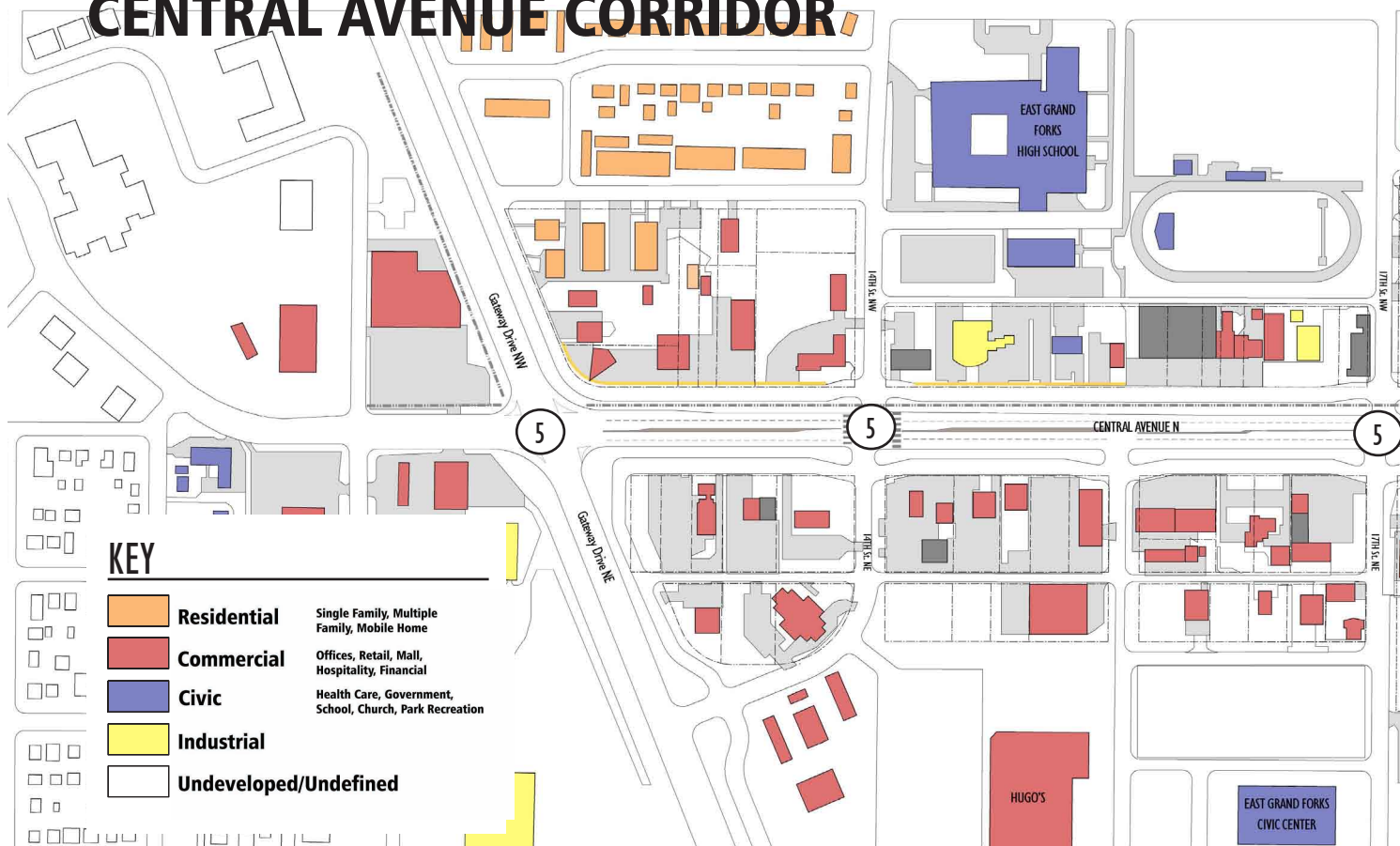
Central Avenue Corridor, also known as Highway 220, is approximately a 10-block strip of roadway that is home to a mix of businesses, industrial loading docks, and other land uses. These business and land uses are not located directly on the highway itself, but off of frontage roads that run parallel on both sides of the highway. The lack of identity as a district and a part of East Grand Forks is a result of several factors. This area along the highway was once farmland that was developed into an area for multiple types of businesses to find affordable and accessible land. As an agricultural area, this provided the opportunity for the storage and shipment of materials and equipment. This also spawned the desire to use it for industrial space. The expansion of East Grand Forks from downtown to the corridor also brought in retail businesses that saw an opportunity in the newly developed corridor.

Most of the businesses along the corridor are successful. The roadway system that is now in place helps out the particular business climate that is in this area. However, without any specific or highly enforced regulations along the corridor, the vitality of the corridor is lost. There is a lack of creative vibrancy, as retail is mixed in with industrial uses that are extremely spread out along the corridor. The corridor needs more density so that it can become more walkable. The area needs to reinvigorate pedestrian activity, entertainment, restaurants, and specialty retail. In this way, the corridor can develop into a true gateway and an “activity center” for East Grand Forks.

There are many opportunities that exist along this corridor. The vastness of the area allows for improvements in landscaping, buffering, and the addition of multi-use trails. The presence of the Northland Technical College and the East Grand Forks High School in the area will be catalysts in the future economic development of the area. Also, the already successful businesses along the corridor will help to promote new businesses to the area.



CENTRAL AVENUE CORRIDOR



Major Issues

One of the main objectives of the study were to find and analyze the major issues that exist along this corridor. Parking regulations along the frontage roads, road maintenance, deteriorating and inconsistent signage, the presence of industrial lots, and the poor walkability of the area all contribute to the lack of vibrancy in the area.

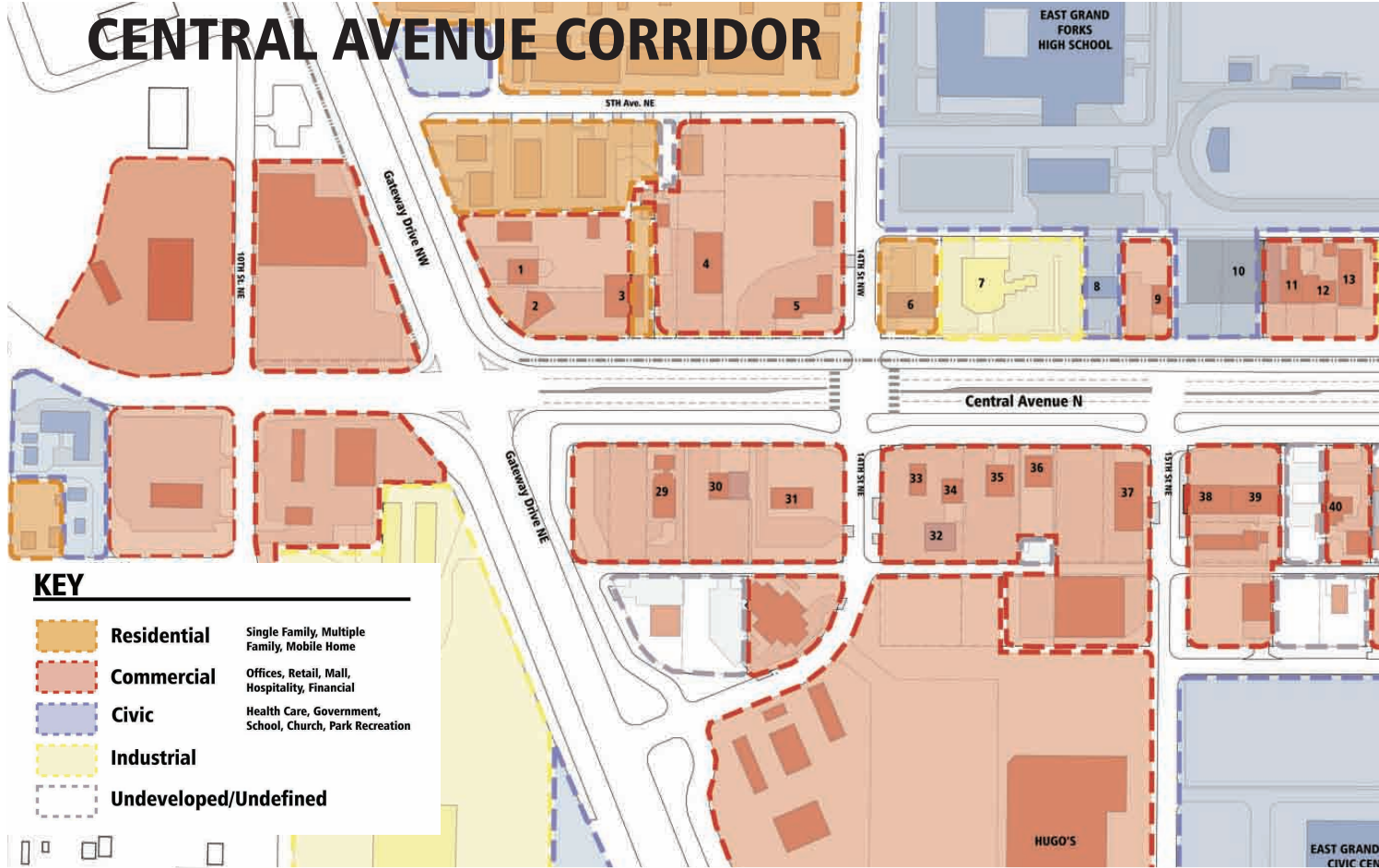
The issue with parking currently is not the regulations that are in place, but the enforcement of the regulations. The frontage road is being used as overflow parking and storage by businesses. Vehicles are being stored off of parking lots. However, the C-2 ordinance that is in place for East Grand Forks requires that storage and parking be within the property lines of the primary business use. These regulations need to be enforced. Another problem that exists are the frontage roads themselves. There are several areas of the frontage road pavement that is showing wear and tear. Also, gravel lots along the frontage roads tend to spread rock onto the roadways, and they are unsightly. Road maintenance and parking regulations will be two attainable first steps for change along the corridor.

The signage along the corridor is inconsistent in size, materiality, and height. They range from being in excellent condition to run-down and abandoned. There needs to be a unified approach to the signage along the corridor. Regulations need to be implemented that specify location and type. Unused and unsightly signs need to be identified and removed. Originally, the corridor was envisioned as a commercial business district. Over time, industrial uses have been established along the corridor. The presence of industrial uses and the growth of them over the years has changed the character of the corridor. Most of these industrial facilities are not concerned with aesthetics, but purely function as storage sheds.

Finally, the poor walkability of the area was quickly established when surveying the area. There are two intersections that have stop lights on this area of the corridor (Gateway Drive and 14th St.). However, all of the intrasections lack clear pedestrian pathways and the pedestrian must travel 150 feet just to cross the mainline highway. Even if the pedestrian is protected by a stop light, walking the full distance without the light changing is very difficult.



CENTRAL AVENUE CORRIDOR



Land Use along the Corridor

Part of step three in the process of this study was to identify the distinct land uses of the corridor as defined by the functions and uses within them. The findings show there that are several different land use types along the corridor, and that many of these uses are not in particular districts but comprise a mixture along the corridor. This is illustrated in the diagram on the top of page 7 and 8. The four dominant land uses are residential (orange), commercial (red), civic (blue), and industrial (yellow). There are a few lots along the corridor that are designated as undeveloped and undefined areas.

Although the land uses are classified by the colored areas above, not all of the properties in the corridor are true to their classification in the designated area. The storage barns (#45 on the map above), for instance, are clearly not commercial but in fact vacant and undefined. In reality, the south side of the corridor is currently a strong extension of the commercial district that exists downtown. However, as one moves north along the corridor this land use diminishes and the presence of industry becomes more visible. The lack of a unified commercial area along the corridor has stopped commercial growth and has prevented this area from becoming a commercial “district”.

Why is designating this area as a district important? Similar uses feed and grow from one another. They create momentum which creates further development. As an example- Minneapolis jump started the rebirth of their own downtown by identifying their “theater district” and worked to build it into a destination. Singularly, these theaters had little draw. Once identified as a district, they became greater than the sum of their parts. With multiple venues to support them-restaurants opened and the area of Hennepin Avenue which had grown derelict in the 80’s-suddenly became the place to be in the 90’s. Grouping functions creates synergy, momentum and leverages the communities resources.

Understanding the land uses and possible districts is also important in determining future growth and change and how the seams between these zones should be treated. Seams can be either vibrant transitions or deteriorating edges depending on the districts growth patterns.



Civic-Government



Civic-School



Industrial



Commercial-Financial



Commercial-Retail



Commercial-Hospitality



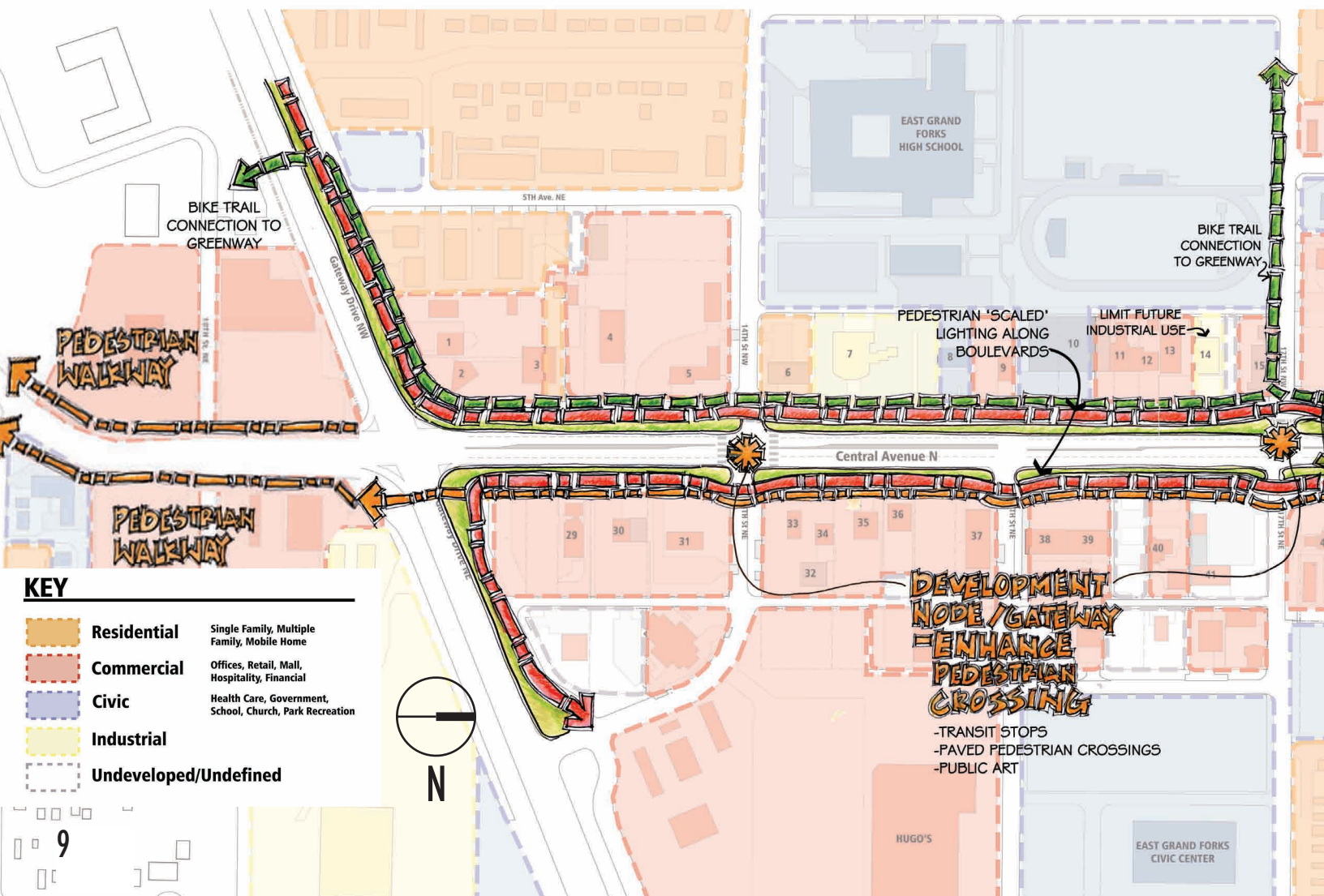
Undeveloped-Undefined

Corridor Concepts

The following pages identify the composite framework plan and is intended to guide future development in a broad sense. It identifies several themes to create focus.

1	Enhance the Frontage Roads	10
2	Enhance the Mainline Highway.....	13
3	Enhance the Private Sector.....	17
4	Traffic.....	23
5	Phasing Plan	33
6	Costing Plan	35
7	Next Steps	37

Initially, two main concepts were developed for the Central Avenue Corridor framework plan. These were developed from both meetings with the Steering Committee and comments from the first open house. After community input at the second open house, it was decided that the Reduced Frontage Road Concept will be the option pursued. The Backage Road Concept is included and illustrated in the Appendix.



1 Enhance Frontage Road Area

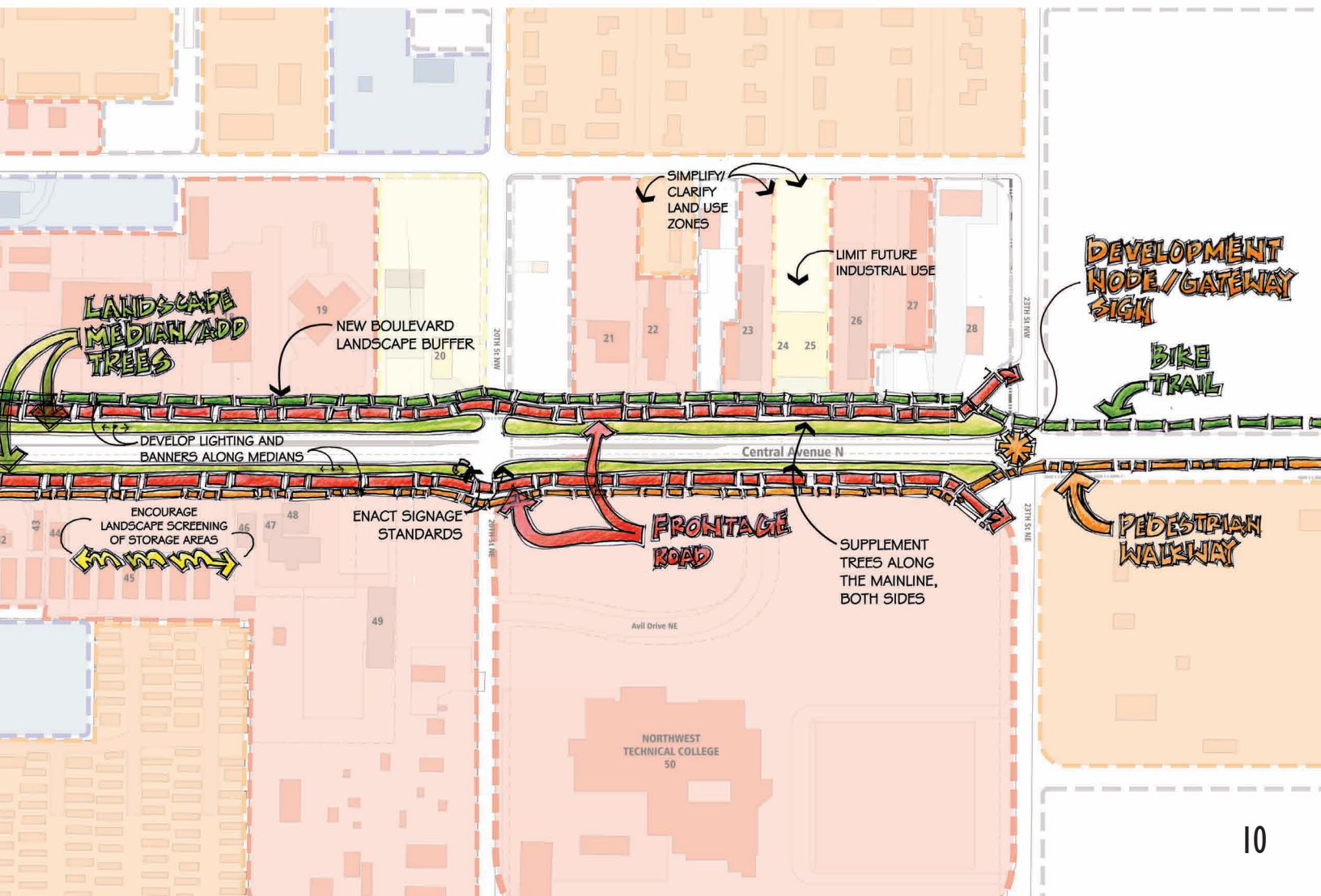
The area along the Central Avenue corridor was first envisioned as a business and commercial district. However, the activity of that particular area, the lack of land use regulation, and the availability of land promoted uses for industrial and agricultural purposes. The frontage roads along the corridor also provided easy access off of Highway 220 (Central Avenue) for trucks and equipment.

The expansiveness of the highway and roadway system is one reason that the commercial district has never taken over this area. There is nothing to soften the character of the hardscape, it is hard to walk comfortably in this area, and businesses are spread too far out. Without a pleasing appearance and a vibrancy of pedestrians and scenery, the corridor becomes a lackluster area to visit. This is a contradiction to what was first envisioned for the area.

There were two concepts that address these various concerns. The first concept looked to reduce the widths of the frontage roads on either side of the highway. As illustrated on the diagrams on page 10 and 14, the frontage roads would be reduced by 14-16 feet on the sides closest to the businesses.

Furthermore, trees and lighting will add some verticality to the corridor and bring the area down to a pedestrian scale. Pedestrian lighting would aid in the safety of these trails. It is also an opportunity to create a unifying element or theme along the corridor.

The other and less likely concept would be to add a backage road on the east side of the corridor along with reducing the frontage road on the west side. This concept was developed to consider another possibility



1 Enhance Frontage Road Area

of completely removing vehicular traffic on the east side of the corridor. This would definitely add a unique environment along the corridor and improve the walkability greatly.

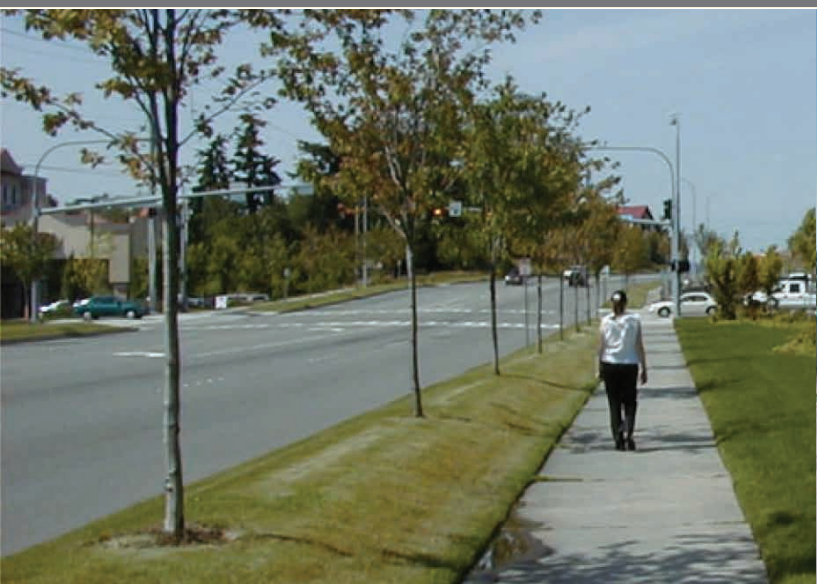
However, there are feasibility issues that deal with creating a backage road that could potentially cut through current properties and facilities. The cost and approval of this concept does not seem likely, but it was and is an option worth exploring. This concept is also illustrated in the appendix. Essentially the east frontage road would be transformed into a larger pedestrian trail with an addition 22 foot boulevard to the east of the trail. The backage road would then accomodate vehicular access behind the businesses to the east. Again, feasibility is a concern with this concept. The suggestive route of the road is not presently available. The roadway does not extend the length of the corridor as it is broken up by properties. Creating this complete backage road would be expensive and difficult. Properties and some buildings would change or be moved. Both of the options would employ the the opportunities that correspond to the images below. These opportunities would help transform the

corridor into a commercial mixed use district that would promote business and pedestrian activity. Issues to land uses that do not fit in this proposed district must be addressed and resolved to best suit the entire community's interests for future growth and wellness.

After discussing the options with the business members, the concern of losing parking spaces was addressed. Both ideas would help the corridor immensely, but due to public setiment a third option was introduced.

The third option does not reduce the frontage road. In turn, a multipurpose trail will be placed in the MNDOT right-of-way and the road will be striped to accomodate bikes. As a short term improvement the frontage road will be striped 9' from the curb to allow for parking as well as bicycle traffic. A 10' multipurpose trail will then be phased in like the rest of the plan. Only one side of the corridor will be completed at a time from Gateway to 23rd Street, and will be dependent on funding options available.

I. Allocate Space for Bicyclists and Pedestrians

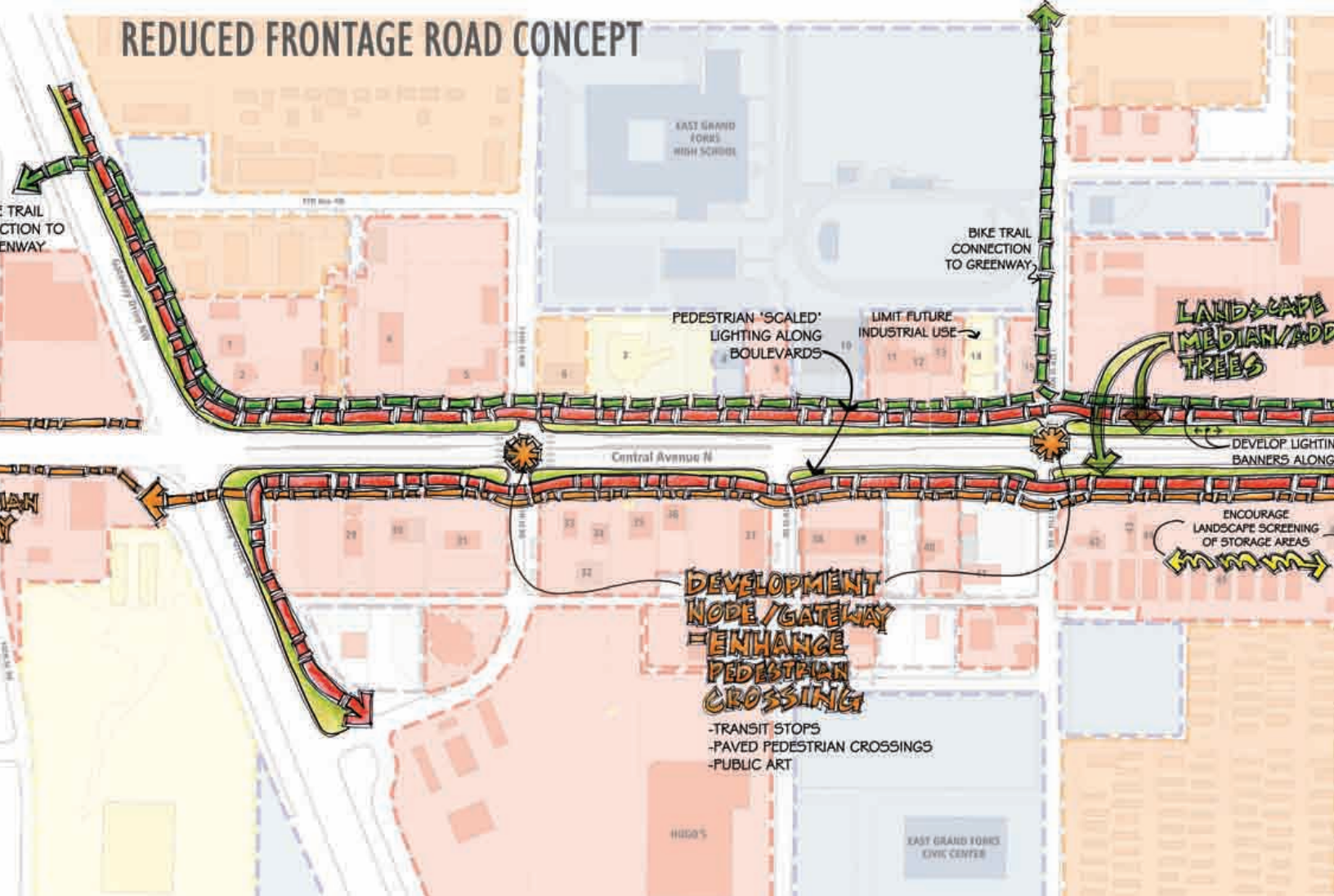


An improved walking environment will encourage pedestrian traffic. Increased pedestrian traffic will add to the vitality and activity along the corridor.

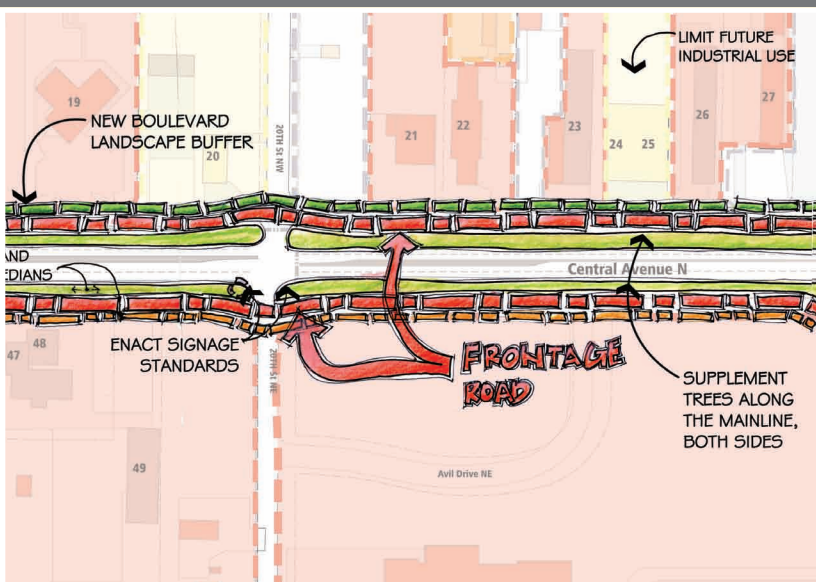


Depending on the species and spacing of pedestrian lights, spacing of street trees would more likely fall in the range of 30'-40'. Trees can soften the roadway character. They also aid in breaking the corridor into smaller sub areas and provide a more comfortable environment for pedestrians.

REDUCED FRONTAGE ROAD CONCEPT



Pedestrian scaled lighting reduces the expansive scale of the corridor and enhances safety for pedestrians.



The new boulevard will provide an amenity to the corridor to increase community use.

2 Enhance the Mainline Highway

Central Avenue Corridor, or Highway 220, is the constant nucleus of this particular development area. It's function is to carry transportation through, into, and out of East Grand Forks. As a vital part of the city's infrastructure, major changes to the actual highway cannot be made without severely disrupting and altering the city's functions.

Therefore, the challenge to improve the highway is to make changes to not only maintain the current flow of traffic, but also to improve it. Also, the task ahead is to have these functional improvements correlate to improvements in appearance.

A major undertaking, improving traffic conditions will be the result of in depth analysis of current traffic conditions. SRF is conducting a 25 year study along the corridor to determine immediate and future needs for improvement. Based off the study, measures will be taken to address current and potential issues. Please refer to the appendix for more information regarding the undergoing traffic study.

The immediate focus to enhancing the mainline highway will be to improve the appearance of the corridor. Currently, there is a dominant presence of overhead power lines. The lighting along corridor is too utilitarian and lacks character. There is no landscaping on medians, and there is minimal landscaping on boulevards between the mainline and the frontage roads. The installment of streetscape features will address these issues.

Enhanced pedestrian crossings will help increase the activity of pedestrians and bicyclists. This increase in activity will help create awareness for vehicular traffic. These visible crossings will also increase the comfort and safety for these users. Pavement type and patterns on the concrete can help distinguish pedestrian crossings. Any method that clearly distinguishes a pedestrian path improves the safety and comfort of the pedestrian. Crosswalk materials, colors and design will need to be coordinated with MNDOT. The diagram on page 23 illustrates the designated intersections for improved pedestrian crossings. The

1. Improve Traffic Conditions

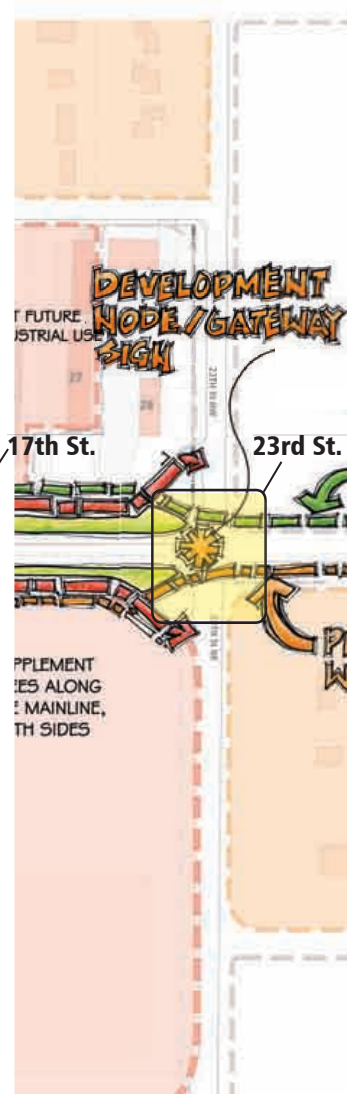
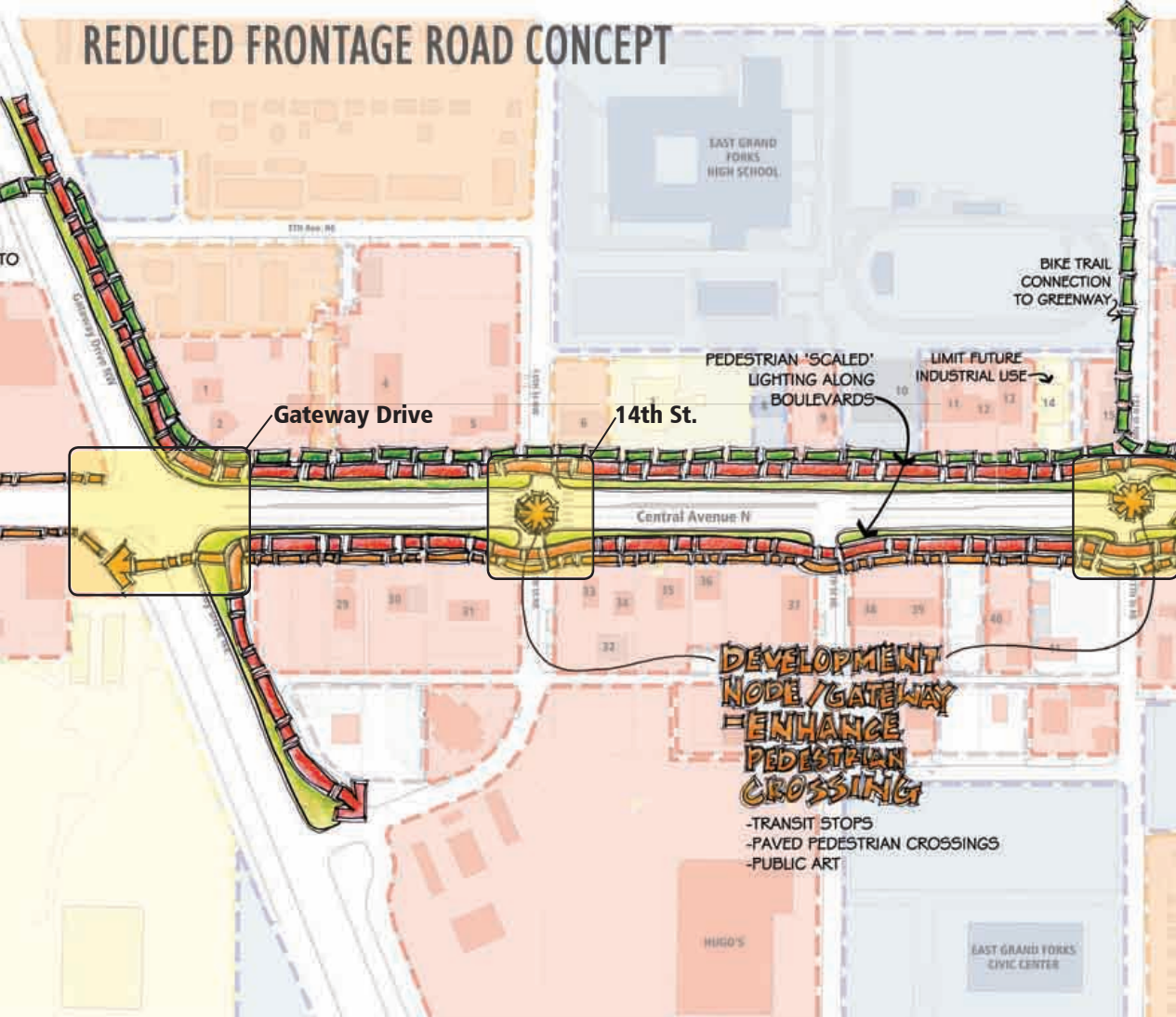


SRF is conducting a 25 year traffic study along the corridor to determine immediate and future needs for improvement. Based off the study, measures will be taken to address current and potential issues.

2. Enhanced Pedestrian Crossings



Pavement type and patterns on the concrete can help distinguish pedestrian crossings. Any method that clearly distinguishes a pedestrian path improves the safety and comfort of the pedestrian. Crosswalk materials, colors and design will need to be coordinated with MNDOT.



3. Gateway Treatments



Construct gateway treatments at town entrances and key intersections to reinforce corridor identity.

4. Transit Stops



Transit stops provide a safe area for pedestrians and bus riders to rest or wait. Bus routes to this area are vital for future development of the area, and transit stops are necessary in our climate. Also, transit stops can contribute to the character of the corridor.

2 Enhance the Mainline Highway

improvement of these crossings will be the first step in creating development nodes around these intersections.

This area would then accommodate new boulevards approximately six feet wide and multi-use pedestrian trails. The boulevards would be landscaped to include grasses and trees to create visual interest. A landscaped boulevard reinforces separation of vehicular and pedestrian traffic, therefore enhancing safety and comfort for pedestrians and bicyclists. This improved walking environment will encourage pedestrian traffic, and this increase in traffic will add to the vitality and activity along the corridor. In addition or bike trails along the corridor could allow for possible connections to the bike trails along the Greenway. Expanding these trails will improve this trail system and further promote its use.

The addition of transit stops will also be an important part of bringing pedestrians to the area. Accessibility is a very important issue, and

the coordination and extension of the current bus routes (Cities Area Transit) would enhance the access to the corridor. The existing route already compliments the suggested intersections needing development, but eventually the route should extend all the way to the intersection at Central Avenue and 23rd St. NW. Based on further review, the direction of the bus routes will determine the appropriate location of transit stops/shelters. Adequate paving and landscaping should be implemented to accommodate these transit stops.

Gateway treatments should be constructed at town entrances and key intersections to reinforce corridor identity. Gateway treatments include monuments, architectural features, signage and landscape plantings. The first phase should include a new gateway treatment along the north edge of the corridor along 23rd St. N or possibly one mile further north. These treatments can take the form of structural elements, such as columns, monuments and fencing, or can consist primarily of vegetation.

5. Landscape Medians



Planting, trees, shrubs, and perennials/annuals along boulevards and existing medians will provide visual interest and reduce the scale of corridor. These areas may also be supplemented with enhanced pavement treatment.

6. Decorative Lighting and Banners



Install new ornamental roadway lighting along the mainline. Follow the set standard so that roadway and pedestrian lighting styles complement each other. The use of decorative lighting can unify a corridor through the use of a functional element that is necessary for roadway safety.

Roundabouts are a potential gateway treatment that serve multiple functions. First, because of their nature, they regulate and slow down traffic. They also provide a node or focused central area where gateway treatments could be implemented. The future development/placement of a roundabout is dependent on the ICE process as defined by MNDOT.

The implementation of landscaped medians along the corridor would improve the character and appearance in numerous ways. First, adding perennials/annuals, grasses, and shrubs along these corridors will provide visual interest and break up the vast hardscape of the mainline highway. Ornamental lighting should be considered on both the mainline and frontage road boulevards. A set standard should be followed so that roadway and pedestrian lighting styles complement each other. The use of decorative lighting can unify a corridor while also providing necessary roadway safety. The style and color of the lighting can help establish a unique identity for the corridor. Lights can be further supplemented with banners that provide additional color and seasonal interest. An

alternative would be to leave the existing lights along the mainline. The newly created boulevards along the frontage roads could then be a place for smaller scaled decorative lighting. The diagram on page 24 illustrates possible locations for lighting and street banners.

Street banners are another element that are often installed with decorative lighting. They promote community identity and could be seasonal in use. Banners could be attached to the existing street lights along the mainline highway to improve the appearance. Banners can also be a separate element along the corridor, or part of a new decorative lighting system. The City of East Grand Forks would be responsible to install the banners. Also, the city would be responsible to replace and maintain the banners.

7. Bury Overhead Power Lines



Exposed overhead electrical utilities should be buried. They are unsightly and detract from the character of the corridor. An alternative to burying the lines would be to utilize less visually dominant poles.

8. Incorporate pedestrian walkways & bike paths



Incorporate improved pedestrian walkways & bike paths by placing 10' multipurpose path within the MNDOT right-of-way.

3 Enhance the Private Sector

Creating a unified district along the corridor is one of the main tasks to improve the corridor. At a more specific and concentrated scale, improving the individual lots is as important as the overall goal of unifying the district.

Drastic changes along the corridor cannot happen overnight. Even if a particular concept was approved for the area, it will take years for the entire plan to come into actuality. However, improvements on specific lots are much more short term and if done well can serve as inspiration and motivation to further enrich surrounding lots. It can also persuade the city to go forth with further improvements along the corridor in general. The four primary opportunities for improvements correspond to the images below.

Screening Storage

One effective measure in adding to the character of the corridor is screening the storage areas and parking lots. Buffers and screening elements will reduce the visual impact of certain land uses, including parking lots, storage areas, dumpsters, service docks, and industrial operations.

The buffering of parking lots are not intended to block the view of the businesses themselves, but of the additional pavement and stationary vehicles that may be unattractive. Larger buffers will be used to cover dumpsters and industrial operations that do not rely on being seen for business. Privately owned lots should have as follows:

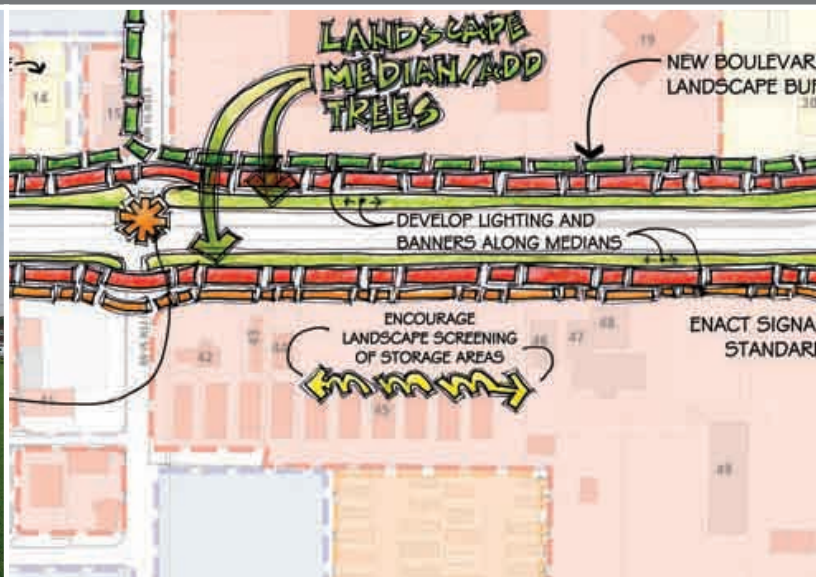
I. Buffer yard for parking lots and other impermeable surfaces adjacent to public right-of-way.

a) A minimum of five (5) feet of landscaped area shall be provided between a 5' sidewalk and any parking lot, drive-aisle or any other impermeable surface. Within this area, a buffer yard shall be planted, consisting of eight (8) shrubs per 50 linear feet of frontage, or fraction thereof. The required plantings shall be laid out in a manner that effectively screens parking lots and paved surfaces from the adjacent street. For this purpose, shrubs located in this area shall consist of varieties that grow to at least 24 inches in height. A 5' sidewalk at curb must be installed when property changes occur.

I. Screening of Storage Areas and Parking Lots



Parking lots need to accompany nearly all of the existing land uses along the corridor. The visual impact of parking lots and storage can be minimized.



Providing buffers such as berms, vegetation, and ornamental fencing will soften the aesthetic corridor and provide screening.

Another code should be in place that regulates the type, size, and placement of signage on individual lots. Presently signage is at the disposal of the owner, so there is a lack of congruency between property signage and their quality. The original C-2 Code is listed in the Appendix. The Appendix also includes the appended version from this study. Review of current sign code is a must. Some possible requirements for signage should be as follows:

1. All new signage must be located within the front property setback.
2. All new signage shall meet the following criteria:
 - a) Low profile signage no higher than 6'-0" above finished floor of the principle building.
 - OR
 - b) Signage shall either be made of similar materials at those of the principle building or use painted steel or coated/anodized aluminum standards with a sign made of the same metals or plastic components.
 - c) Signage mounted on a building is permitted, but shall not exceed any other limitations set herein.

Architectural and landscaping requirements can also be implemented for future development. As a way to minimize costs however, buildings can place high quality building materials on the front facades and then transition to less expensive materials around the side and back. Existing buildings can be enhanced by the incorporation of awnings, windows, new siding materials and foundation plantings.

A building design/Architectural code is listed below:

1. All new exterior materials shall be of the following:
 - a) Brick, at a minimum height of 3'-4" above finished floor of the principal building.
 - b) Or architectural precast to a min. height of 3'-4" above finished floor of the principle building.
 - c) Or color, integral, cultured face concrete masonry units at a minimum height of 3'-4" above finished floor of the principle building.
 - d) Or any other stone like material approved by the authority having jurisdiction at a min. height of 3'-4" above the finished floor.

2. Create 5' Boulevards w/ 5' sidewalk against curbline



The boulevard will reinforce the character and the aesthetic of the mainline. A landscaped boulevard reinforces separation of vehicular and pedestrian traffic, enhancing safety and comfort for pedestrians and bicyclists.

3. Review Sign Ordinance for Possible Corridor Sign Requirements



Establish signage requirements to get some consistency along the corridor.

3 Enhance the Private Sector

- e) EIFS is allowable above 3'-4".
- f) Steel siding/fiber cement boards are allowable above 3'-4".
- g) Metal panels are allowable above 3'-4".

Landscaping

All businesses located along any of the Greenway corridors, as designed by the Land Use Plan shall be appropriately landscaped according to the standards set forth in EGF City Code Chapter 152.295.

Landscaping is an integral part of changing the appearance of the corridor. The use of vegetation, vertical elements, and pavers will enhance and diversify the landscape of the corridor. Effective screening and use of property are also issues that must be addressed and regulated. All businesses located along any of the Greenway corridors, as designed by the Land Use Plan shall be appropriately landscaped according to the standards set forth in EGF City Code Chapter 152.295.

Other On-Site Requirements

The following requirements are related to activities that affect the appearance of property but do not specifically involve landscaping.

I. Exterior Storage

- a) In commercial districts, all storage, service, or repairs shall be conducted wholly within an enclosed building or behind an opaque fence or wall not less than six (6) feet high. In these cases the area so occupied shall not exceed 30% of the principle building. This requirement shall not apply to the outdoor storage and display of new or used boats, cars, and building materials and equipment being used for construction on the premises.
- b) In the industrial districts all production, servicing, or merchandising, except off-street parking and loading, shall be conducted within completely enclosed buildings. Exterior storage of materials necessary for production of finished goods and materials that result from the manufacturing process shall be limited to those areas designated for storage of this nature on the approved site plan, and shall be screened from public view by a six-foot opaque wall or fence surrounding the designated exterior storage area, in addition to the required buffer yards. The required fence or wall shall be placed such that the buffer yard landscaping is outside the

4. Architectural and Landscape Requirements



Buildings along the roadway are a prime visual element within the corridor. The building materials are a key indicator of care and quality within the corridor.



Consistency in materiality can improve the visual quality and character of the space along the corridor.



To minimize costs, use high quality building materials on the front facades and then transition to less expensive materials around the side and back.



Existing buildings can be enhanced by the incorporation of awnings, windows, new siding materials and foundation plantings.

3 Enhance the Private Sector

fence or wall and visible to the adjacent property.

- c) Appropriately landscaped to 80% opaque, and according to the standards set forth in EGF City Code Chapter 152.299.

Contractors' Yards

1. All contractors' yards whose materials are stored for later use to include electrical, plumbing, heating, sand and gravel piles, shall be screened from public view on all sides by a six-foot opaque wall or fence surrounding the designated exterior storage area, in addition to the required buffer yards. The required fence or wall shall be placed such that the buffer yard landscaping is outside the fence or wall and visible to the adjacent property.

Screening of Trash and Refuse Containers

1. In commercial districts, all trash containers shall be placed within a trash enclosure constructed of an opaque fence or wall not less than five (5) feet high.
2. In industrial districts, all solid waste materials, debris, refuse or garbage not disposed of through the public sanitary sewage system shall be kept in a completely enclosed building or properly contained in a closed container designed for such purposes. Such containers

shall be placed within a trash enclosure constructed of an opaque fence or wall not less than five (5) feet high.

Land Use

Limiting industrial use will help prevent this area from being classified as an industrial park and in turn help turn it around into a vital economic mixed used area. A boundary of existing industrial uses should be established. Any future new construction on those sites must be commercial and meet the new architectural and signage requirements. Several locations along the corridor should be considered for future redevelopment. Two potential areas could be by the Northland Technical College and in front of the peat barns (as illustrated by the image on the right). Mixed use development, or areas that combine commercial and residential land uses will promote increased activity in the area. Also it will provide housing and accessible amenities to the residence and the college that is located along the corridor. There is an evident potential for a partnership with Northland Technical College to develop along the western edge of their campus into a new commercial or mixed use development.

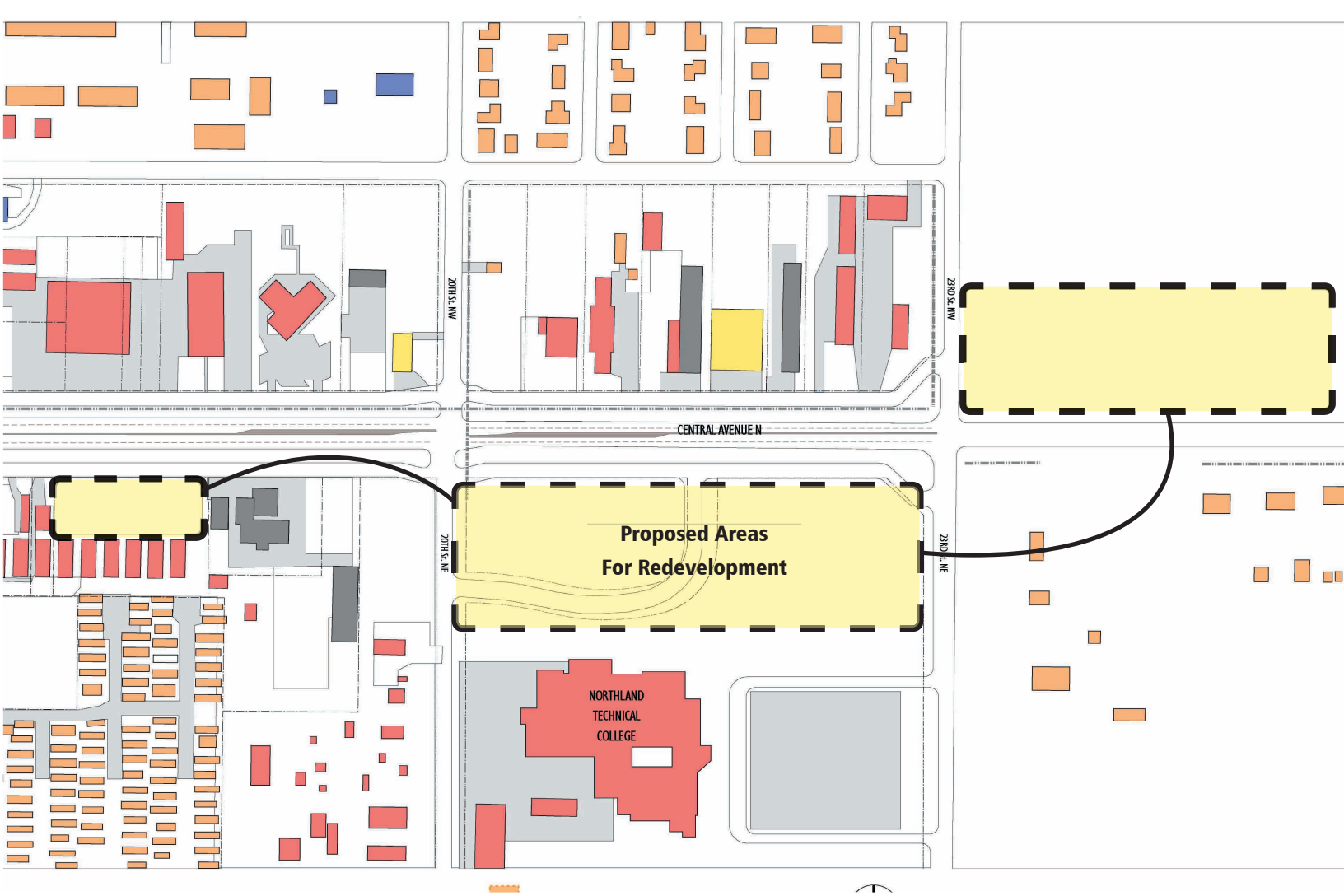
4. Architectural and Landscape Requirements



Landscaping is an integral part of changing the appearance of the corridor.



The use of vegetation, vertical elements, and pavers will enhance and diversify the landscape of the corridor



5. Land Use Requirements



There is an evident potential for a partnership with Northland Technical College to develop along the western edge of their campus into a new commercial or mixed use development.



The continual improvement of the corridor will be dependent upon the future development. Industrial areas are not intended for appearance and are typically not environments that the public seeks.

4 Traffic

SRF Consulting Group is conducting a 25 year study along the corridor to determine immediate and future needs for improvement. Based off the study, measures will be taken to address current and potential issues.

Study Objectives

- Evaluate existing intersection/roadway operations, safety and access.
- Evaluate future intersection/roadway operations in order to determine the future roadway design needs.
- Identify staged improvements that could take place along the corridor.
- Develop an access management plan for the corridor.

Study Issues

- Substandard pedestrian access along the corridor.
- Observed safety and crash frequency near 10th and 9th Streets.
- Access for businesses along the corridor.
- Significant truck traffic during harvest season.
- Traffic at Central Avenue and 14th Street junction.

Existing Roadway Configuration

- Central Avenue is a four-lane facility between Gateway Drive (TH 2) and 17th Street.
- It is a three-lane urban facility between 9th Street and Gateway Drive and between 17th Street and 23rd Street (two-lane divided, with turn lanes at each of the respective intersections).
- Gateway Drive (TH 2) is a four-lane facility with turn lanes at its intersections with Central Avenue.
- All other side-street connections are two-lane streets with enough room to accommodate right-turn movements at Central Avenue.
- All other side-street connections are two-lane streets with enough room to accommodate right-turn movements at Central Avenue.
- Frontage roads run parallel to Central Avenue on both sides of the corridor (approximately 50 feet setback from Central Avenue), from Gateway Drive (TH 2) to 23rd Street.



Gateway Drive and Central Avenue intersection



14th St. N and Central Avenue intersection



4 Traffic

Traffic - Safety Analysis

- An intersection crash analysis using crash records from January 1, 2002 through December 31, 2006 was conducted along the corridor.
- The critical crash rate was calculated to determine the statistical significance of the crash rate comparison.
- 2 of 8 key intersections have crash rates (crashes per million entering vehicles) greater than the critical crash rate (fig 12).

Central Avenue/23rd Street

- Review the placement of advance warning signage indicating side-street ahead, reduced speed limit ahead signage, etc. (short term improvement).
- Conduct speed limit enforcement sessions (post dynamic speed limit indicators, if available; or, physically enforce speed limit with law enforcement) - (short term improvement).
- Improve the roadway lighting in this area as development occurs (intermediate improvement).
- Improve traffic control (i.e., all-way stop, traffic signal, roundabout)-(long term improvement).

Central Avenue/17th Street

- Review the placement of additional side-street signage to indicate to motorists on the side-street that cross traffic does not stop (short term improvement).
- Conduct speed limit enforcement sessions (post dynamic speed limit indicators, if available; or, physically enforce speed limit with law enforcement) - (short term improvement).
- Improve the roadway lighting in this area as development/redevelopment occurs (intermediate improvement).
- Improve traffic control (i.e., all-way stop, traffic signal, roundabout)-(long term improvement).

Central Avenue/Gateway Drive (TH 2)

- Review the traffic signal timing at this intersection to ensure that the phase change interval is long enough to clear the intersection (short term improvement).
- Review the traffic signal head placement to ensure that the signal indications are directed appropriately for approaching traffic (short term improvement).
- Review the condition of the visors and back plates to ensure that they have been installed properly and in good condition (short term improvement).



17th St. N and Central Avenue intersection



23rd St. N and Central Avenue intersection



4 Traffic

Traffic - Year 2035 Operations

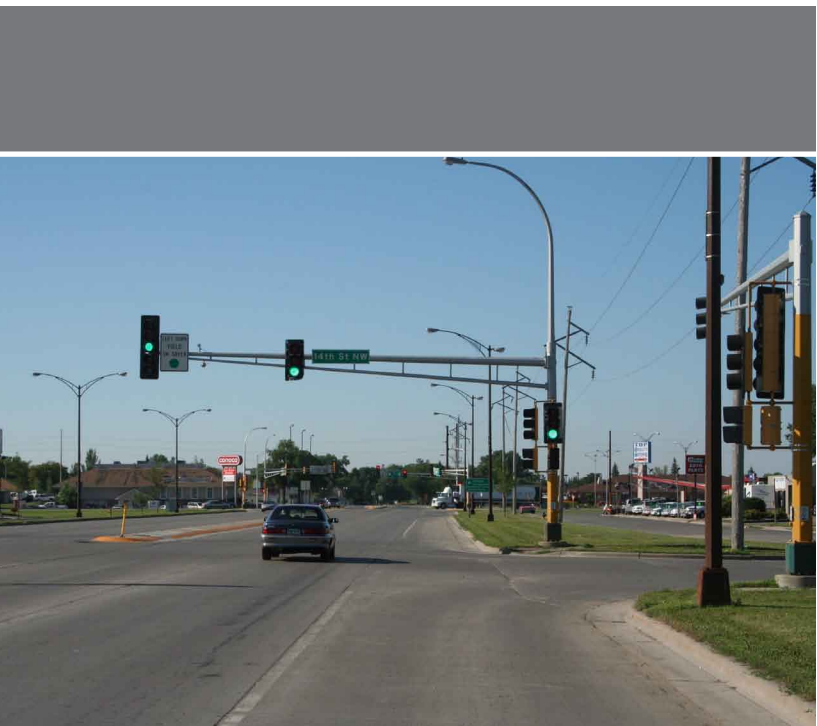
- A planning-level roadway capacity analysis indicates that if the anticipated growth is realized over the next 25 years, the increase in traffic volume that is projected to use the corridor can be accommodated in the existing roadway cross section(s) along Central Avenue itself.
- The intersection along Central Avenue may not operate acceptably with the projected growth.
- Traffic control or side-street geometric modifications may be necessary.
- Central Ave/Hwy. 220 will be expanded to 4 lane from 20th Street to 23rd Street per Long Range Transportation Plan

Traffic - Access Management

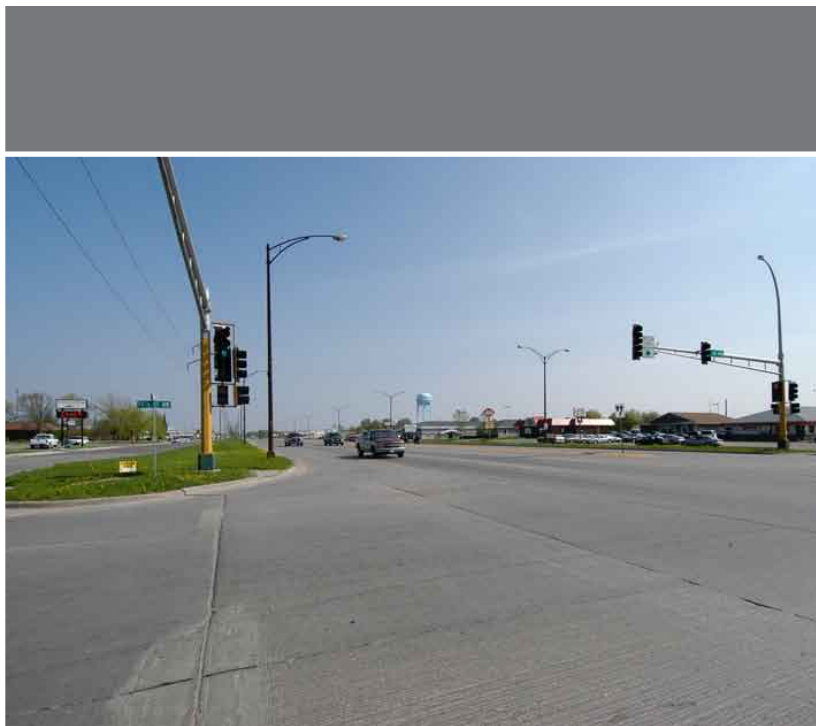
- Limiting access has been demonstrated to have positive safety and traffic flow benefits.
- With the growth in traffic projected in the corridor, it should be recognized that access modifications alone will not provide the necessary benefits to achieve the desired levels of safety and function (mobility).
- Mitigation strategies need to be developed in order for all key

intersections to operate acceptably along the Central Avenue Corridor.

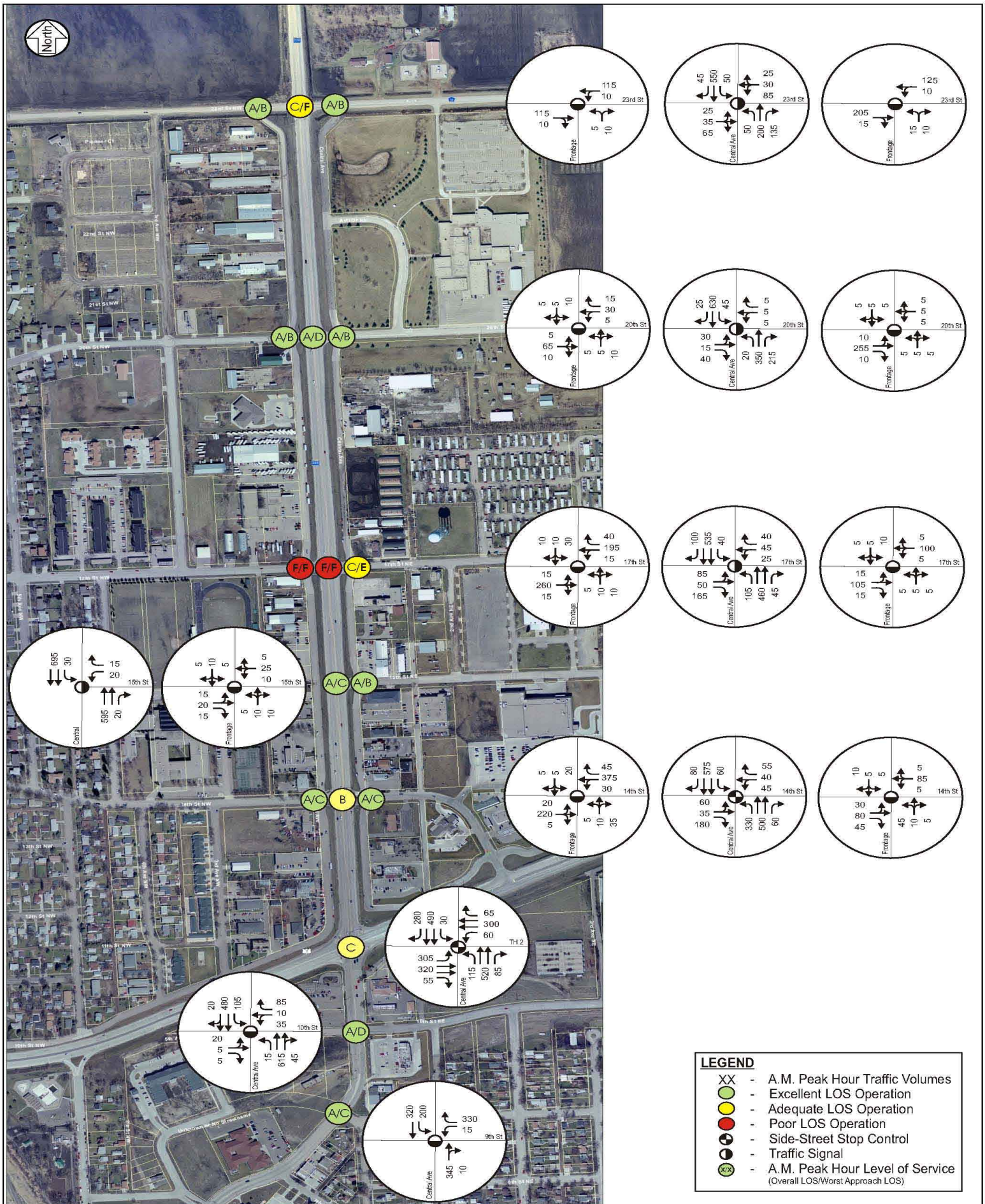
- Implementing this access management plan will help to control the way people access the corridor, reducing the amount of conflict along the corridor.
- Introducing restricted right-in/right-out accesses and increasing the traffic control at the full-access intersections (with either a traffic signal or a roundabout).
- To implement these access changes both “passive” and “active” strategies will need to be used.
- Access Management Plan A (illustrated on page 32) represents reduced frontage roads on both sides of Central Avenue up to 23rd Street, offset frontage roads north of 23rd Street on both sides for a half-mile, then frontage road west and backage road east of Central Avenue to Section Line Road. The frontage roads are being maintained north of 23rd Street in order to accommodate the existing single-family residential use east of Central Avenue and a proposed development west of Central Avenue. From Section Line Road to 17th Street full-access spacing is recommended at half-mile increments (Section Line Road, Half-Mile North of 23rd Street, 23rd Street, and 17th Street), with restricted right-in/right-out access in between (quarter-mile south of Section Line Road, quarter-mile north of 23rd Street, and 20th Street). The two restricted right-in/right-out accesses north of 23rd Street may, if warranted or decided in the future, may be full-access intersections. Additional full-access intersections are shown at 14th Street, Gateway Drive (TH2), 10th Street, and 9th Street.

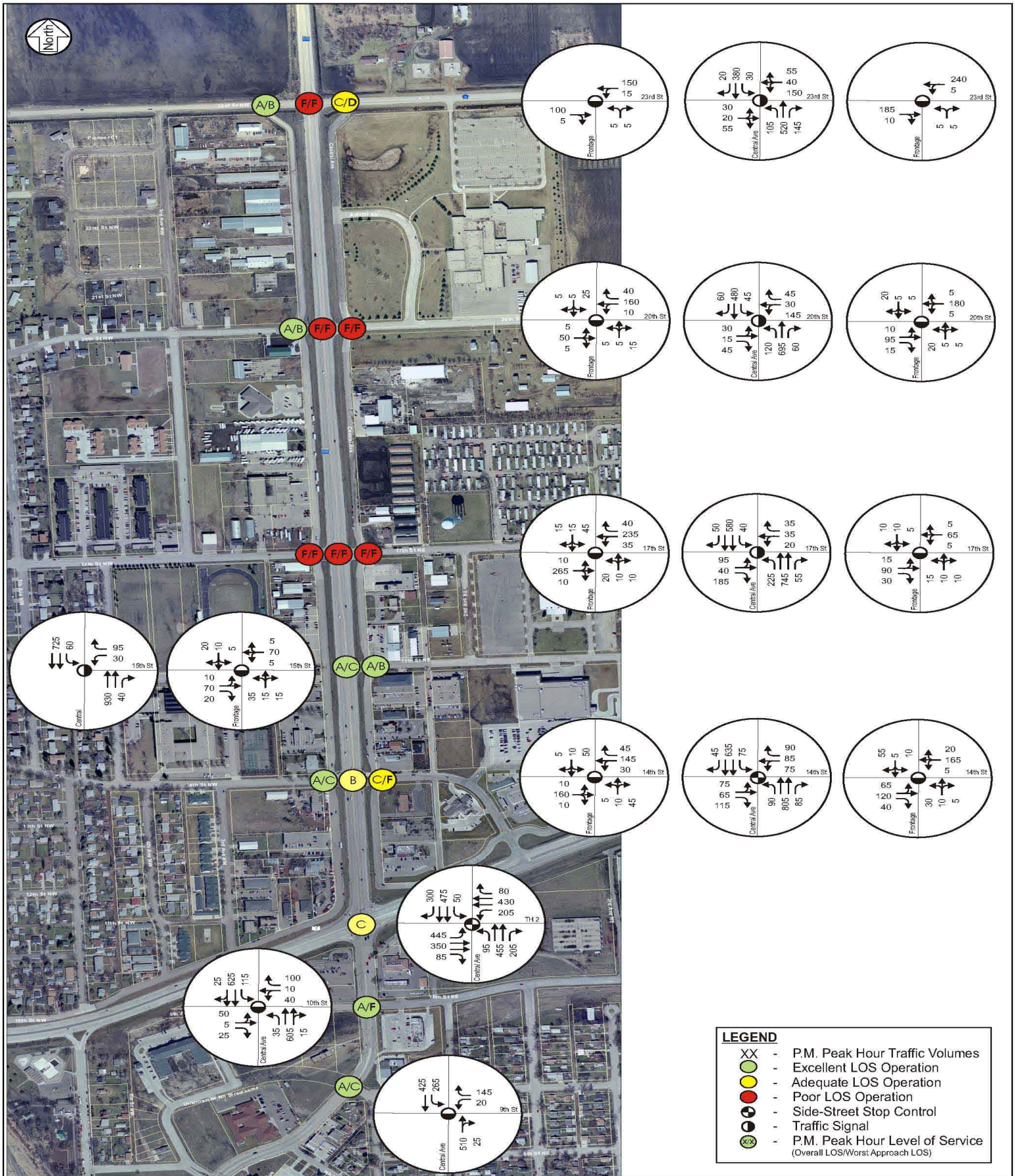


View south down the Central Avenue Corridor










View north down the Central Avenue Corridor







LEGEND

-  - Potential Access Closure
-  - Right-In/Right-Out
-  - Right-In/Right-Out or Full Access
-  - Right-In/Right-Out or Roundabout Full Access
-  - Signal/Roundabout Full Access
-  - Unsignalized Full Access
-  - Potential Alignments



Section Line Road

23rd Street

20th Street

17th Street

15th Street

Gateway Drive

10th Street

9th Street

14th Street



LEGEND

- Crash Rate Below District Average
- Crash Rate Above District Average, but Below Critical Crash Rate
- Crash Rate Above District Average and Above Critical Crash Rate
- Potential Alignment



CORRIDOR SAFETY REVIEW - CRASH RATE ANALYSIS RESULTS
EAST GRAND FORKS CENTRAL AVENUE CORRIDOR STUDY
City of East Grand Forks

Figure 12

A photograph of a busy intersection. In the foreground, a red pickup truck is driving towards the camera. To the left, there are traffic lights on a yellow pole. In the background, a water tower is visible against a clear blue sky. The text is overlaid in the center of the image.

*A Full version of the Traffic
Operations and Access
Management Memorandum is
attached in Appendix C*

5 Phasing Plan

The map on the bottom of page 35 and 36 illustrate the implementation and phases of the different elements in the Reduced Frontage Road Concept. The red shade areas indicate the earliest phases, where the action is to typically take place in the next one to five years (see map key). Actions in this first phase include:

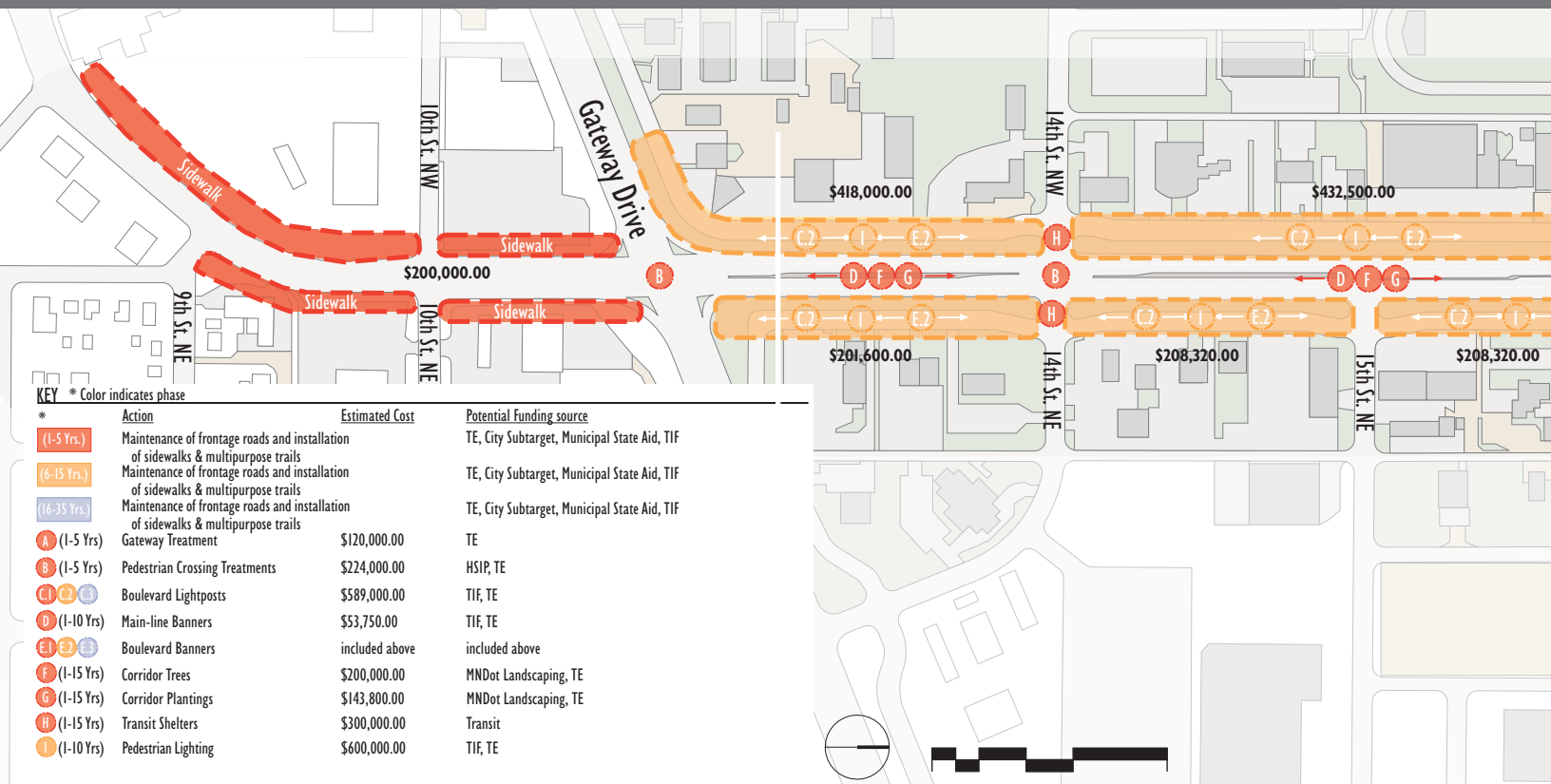
- Gateway treatment to the north of the Central Avenue and 23rd St. intersection. Treatments could consist of a combination of signage, landscaping, and a possible future roundabout.
- Pedestrian crossing treatments at the Gateway, 14th, 17th, and 23rd Street intersections.
- Re-construction of the east frontage road between 17th St. NE and 20th St. NE. New boulevards and lightposts are to be installed during this phase.
- Mainline trees, plantings, and banners should be implemented between a 1 to 15 year phase.
- Striping for bikes on frontage road.

The second phase is a ten year period (6-15 yrs.) after the initial phase. Actions to take place during this phase include:

- Maintenance of frontage roads. In this phase, boulevard lightposts and banners will also be installed.
- Bike path connections from the Greenway down 17th St. NE towards the Central Avenue Corridor.

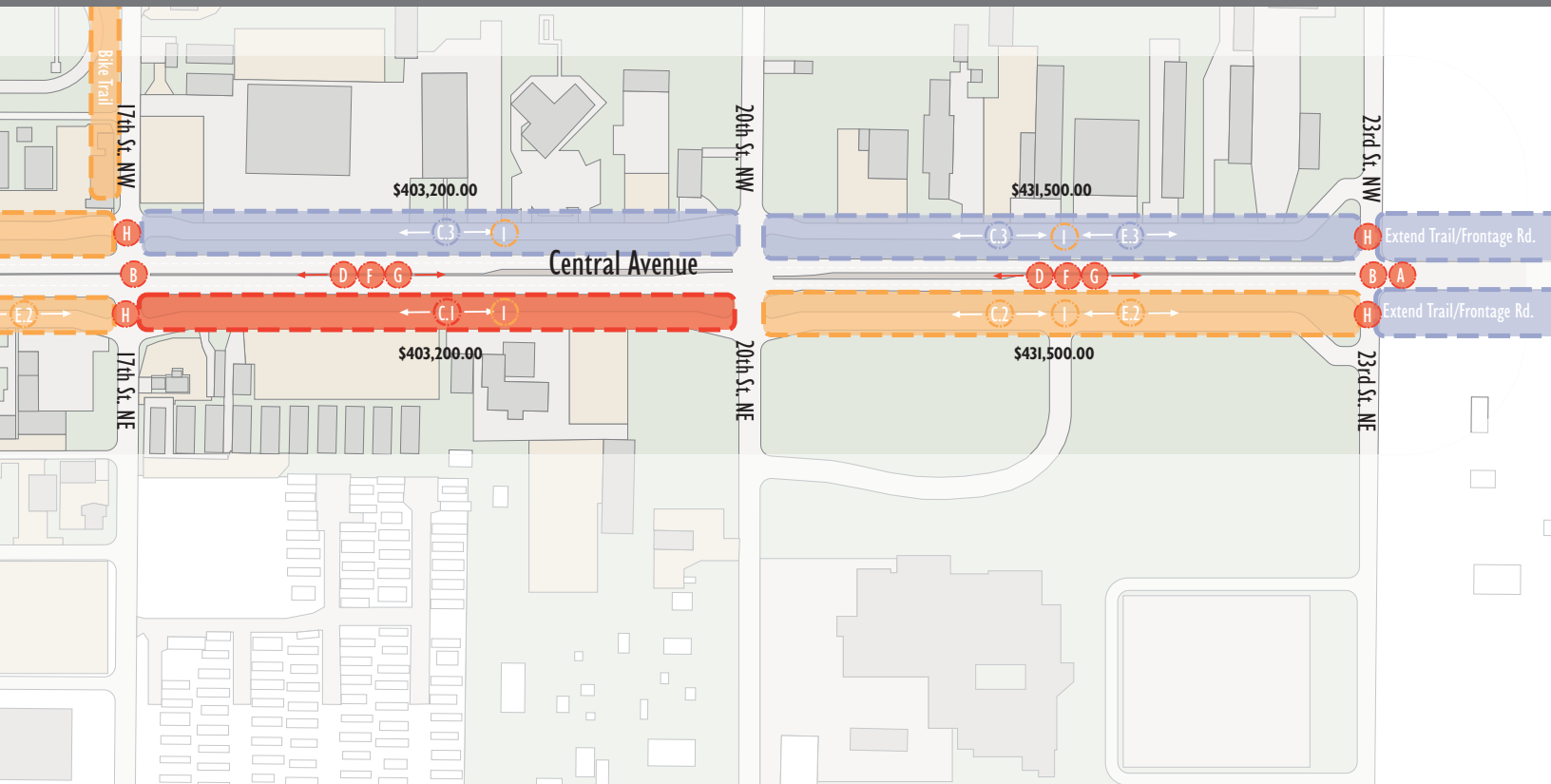
The final phase is the last 20 years of the overall plan (16-35 yrs.) and it includes reconstruction of the remaining unimproved frontage roads and the installation of boulevards, trails, light posts, and banners. Also, the extension of the trails and frontage roads one mile past 23rd St. N will also be in this phase. The city should have a discussion with the county regarding the future use and zoning between 23rd St. and one mile north of 23rd St. Throughout all the phasing stages, an addition of a multipurpose path in MNDOT right of way and sidewalks will be added.

The phasing plan was designed to be a supplement to the already scheduled maintenance for the corridor and it's frontage roads. As they repair/replace a section of frontage road, funds from grants will be used to pay for the additional corridor elements introduced in this plan. Note that private developments on properties along the corridor are not accounted for in the phasing plan.





* Color Focused Areas Represent Potential Initial Phases (1-5 Years)



6 Costing Plan

The table at the bottom of page 37 and 38 gives basic cost information for various elements that will be introduced and changed on the corridor. Unit costs, quantity, and overall costs are provided. The notes and cost assumptions describe what scenarios and standards were used to derive these numbers.

The proposed crosswalk treatments will be basic painted crossing with the assumption that roads will not be reconstructed, which would allow for alternative treatments. The existing concrete roadway will not allow for the use of custom pattern approach, which requires a bituminous roadway. A better quality option would be stamped concrete because it is more durable and it will wear similar to the concrete roadway. It

also requires less maintenance.

Please note that these different elements will not be introduced immediately, but are part of a 35 year phase plan that is described on page 35 and 36. Therefore, the table's primary purpose is to give a close approximation for future funding. Elements that are introduced later in the plan will more than likely have an increase in cost due to inflation.

Also, discussions concerning maintenance should be considered as a part of a project construction cost & life cycle analysis cost.

Corridor Element Costs

Central Corridor (Hwy 2 to 23rd St) Estimated Costs

Item	Unit	Unit Cost	Quantity	Amount	
Pedestrian-Level Light	Each	\$ 5,000	120	\$ 600,000	Includes footing, base, pole
High-Level Light	Each	\$ 6,200	95	\$ 589,000	Includes footing, base, pole
Banners	Each	\$ 125	430	\$ 53,750	Two vinyl banners per street
Transit Shelter (*possible TE dollars)	Each	\$ 75,000	4	\$ 300,000	2 per side (one every 1/2 m
Community Gateway Monument	Each	\$ 60,000	2	\$ 120,000	Includes footing, base, and
Street Tree	Each	\$ 400	500	\$ 200,000	2.5" caliper tree, 35' spac
Planting Bed (40% perennials, 60% shrubs) (*possible Mn/DOT Landscaping Grant)	Each	\$ 6,300	22	\$ 138,600	1000' SF; includes 9" of pre
Planting at Transit stops (100% shrubs) (*possible TE dollars)	Each	\$ 1,300	4	\$ 5,200	240' SF; includes 9" of pre
Pedestrian crossings	Sq. Ft.	\$ 3	70,000	\$ 210,000	Zebra crosswalk, 3' x 10' w
Pedestrian countdown timers, retrofit	Each	\$ 7,000	2	\$ 14,000	Retrofit to existing signals a
10' Concrete Bike Path	Lin. Ft.	\$55			
Landscape, Turf establishment	Sq. Yd.	\$2.50			

Cost Assumptions:

1. Assumes 2008 construction
2. Does not include contingency (15% typ.)
3. Does not include estimated design and construction administration fees (20% typ.)

** The above items are referenced on page 34 as components of the corridor elements*

Working Calculations:

Length of roadway (Hwy

Length of boulevards - b

Length of pedestrian cro



Corridor Element Costs

Notes

luminaire, conduit, and circuitry, 80' spacing along frontage road
 luminaire, conduit, and circuitry, 100' spacing in each MnDOT boulevard
 set light

shelter, each side), Custom designed shelter - approx. 8' x 16'.

lighting, One vertical monument each side of road

g, MnDot and City boulevards

premium topsoil borrow; located at all boulevard noses, all quadrants of Hwy 2 intersection and at each entrance monument

premium topsoil borrow

white blocks (epoxy)

at Gateway and 14th. Future signals at 17th and 23rd should include countdown timers.

2 to 23rd St) for light calculations = 9,300 LF

both MnDOT and new city blvds along frontage road (Hwy 2 to 23rd St) for tree calculations = 17,800 LF

ssings = 1400 LF

7 Next Steps

Next Steps

1. Communicate the vision.
2. Prepare an implementation plan that addresses land assembly, transportation, and the greenway plan.
3. Develop specific "Request For Proposals" for re-development.
 - a) RFP's should have clear goals and community support.
 - b) They need to be market feasible but will require financial assistance initially.
 - c) They will need experienced developers-this is very important. Missteps will cost money and more importantly, it will derail the momentum and spoil the market. The following projects will then need even more assistance. They need to do many smaller projects-not one home run.
 - d) Loose criteria should be used-not specific projects. The city staff shall have the benefit of working with the proposal. The design work needs to follow after the RFP

so that the city can coordinate.

- e) Strategic sites need to be identified. They will need enough of them to encourage competition. The city owns some of the key land so this will be helpful.
4. Seek potential funding opportunities
- a) TIF Districts
 - b) MNDot ATP Funding Opportunities
 - c) (Mn/DOT) Landscaping Grant
 - d) Earmarks

Summaries of these funding opportunities are listed below. For more information and contacts see the appendix.

a) TIF District

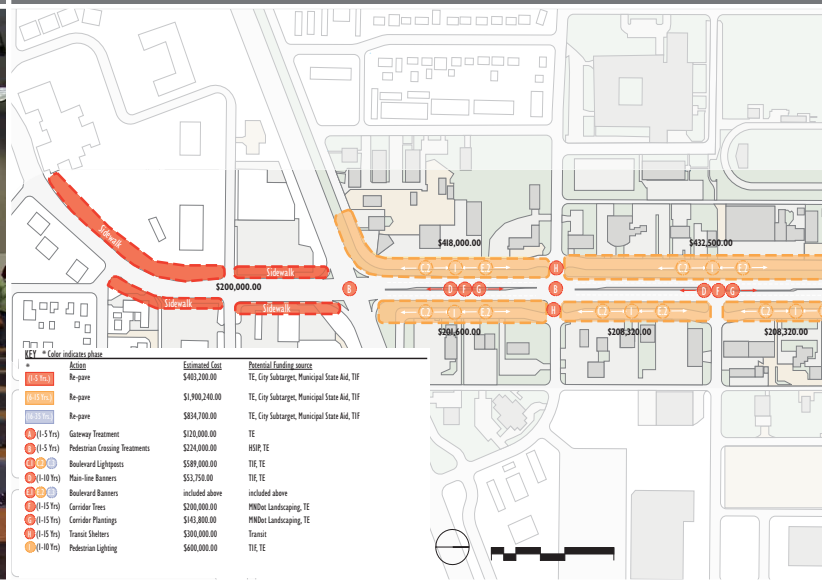
Tax increment financing (TIF) is a method of financing real estate development costs:

1. to encourage developers to construct buildings or other private improvements, or
2. to pay for public improvements, such as streets, sidewalks, sewer

I. Communicate The Vision



2. Prepare an Implementation Plan



and water, and similar improvements.

TIF uses the additional property taxes paid as a result of development in the district to pay for part of the development costs. To receive this financing a TIF district along the corridor would need authorized to development authorities by the state of Minnesota. Different types of districts can be designated by different uses.

b) North West Area Transportation Partnership (NWATP)

Through the federal transportation authorizing legislation known as the Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users (SAFETEA-LU), Mn/DOT District 2 receives several million dollars of federal funding for transportation purposes. Additional local and state funds may be used by individual jurisdictions to supplement and leverage these federal funds. In accordance with SAFETEA-LU, the state of Minnesota has adopted the decentralized ATP process for deciding how its transportation dollars are spent.

b.1) Transportation Enhancement (TE) Dollars MNDOT's District 2 Area Transportation Partnership (ATP 2) is

providing funds for transportation enhancement projects that meet federal, state, and local eligibility guidelines. This is part of the Transportation Enhancement program that is intended to improve the visual, environmental, and cultural aspects of the transportation system. The minimum project size must be at least \$50,000 dollars in federal funding. Generally enhancement funding is limited to a maximum of \$200,000 for any single project or a maximum of \$500,000 within a 5 year period for projects that could be linked.

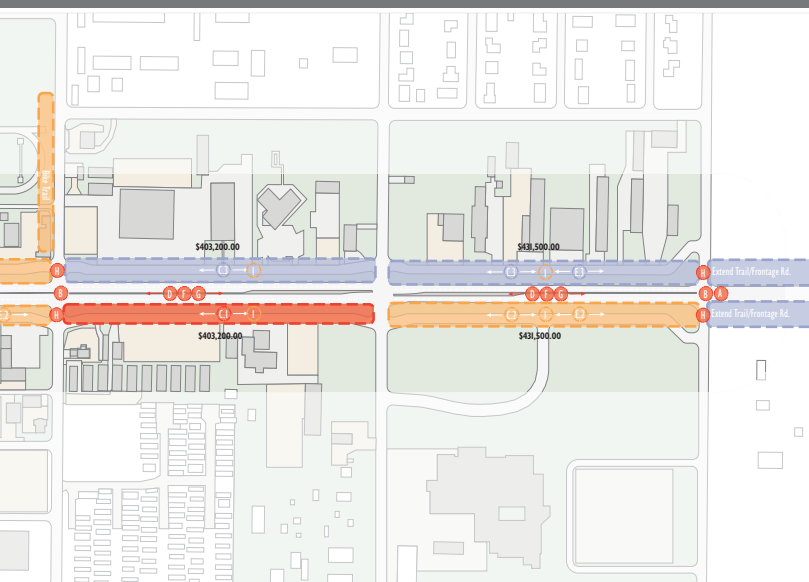
b.2) City Subtarget Dollars

There are four state-aid cities (with populations exceeding 5,000) in the Northwest Minnesota ATP, with East Grand Forks as one such city. In order to provide maximum leverage and flexibility, the entirety of the City subtarget is provided to one city each year on a rotating basis. Typically 3.5% of the total ATP funding amounts.

b.3) HSIP

The Highway Safety Improvement Program is intended to mitigate the priority safety issues on Minnesota highway and roads. HSIP is a federally funded new core safety program included in SAFETEA-LU

3. Develop RFP's for Re-development



4. Seek Potential Funding Opportunities



7 Next Steps

that has specific requirements for implementation. The HSIP program was developed to identify and implement safety projects that have, as their main objective, the intention of reducing fatal and life changing (A Injury) crashes.

Proactive Type Projects - Intersection Project: Pavement markings (Stop Bars), Lighting, Curb Extensions, sign Enhancements, Active Warning Systems, Sight Distance Improvements (Sight Relocates, etc.)

Reactive Type Projects - Reactive Projects: Right/Left turn lanes, acceleration/deceleration lanes, access management, traffic control (signal, roundabouts, etc.), and interchanges.

b.4) Transit

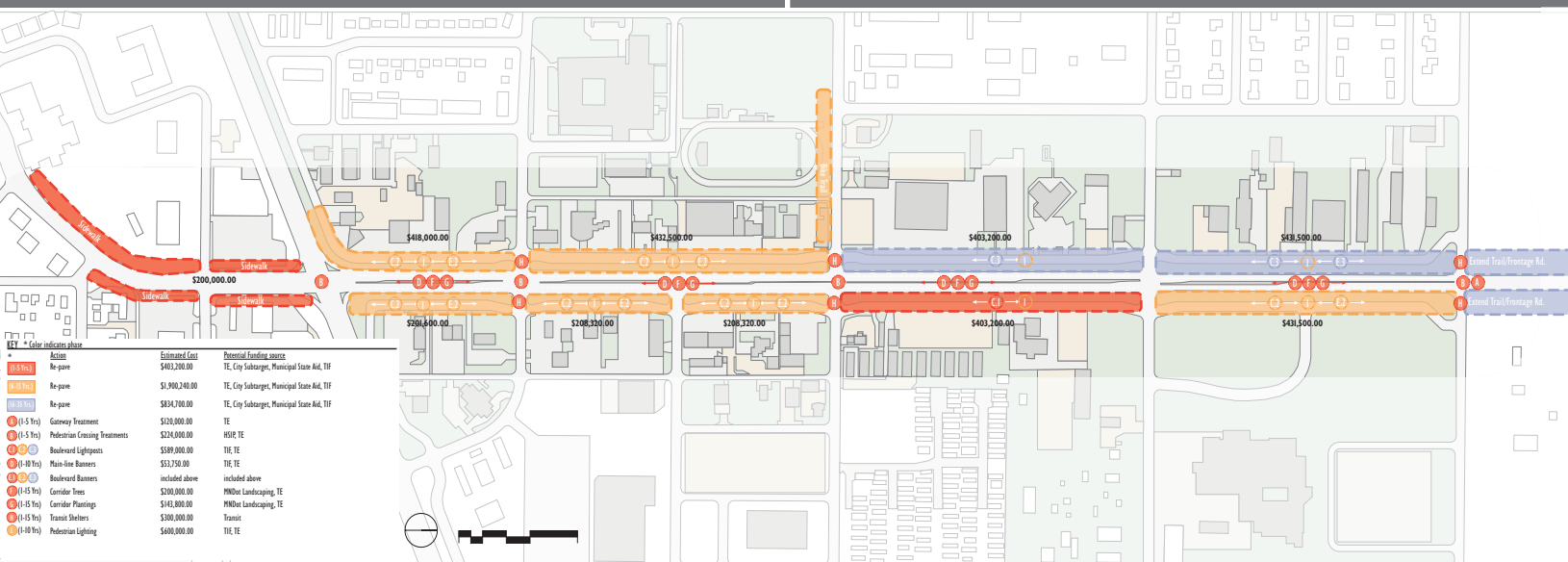
Transit can potentially provide \$50,000 a year except every 5th year (4 years it is available but the 5th year it is needed to replace the bus). Eligible transit facilities include the shelters, the improved crossings, etc.

c) MNDOT Landscaping Grant

The Minnesota Department of Transportation (Mn/DOT) is involved in roadside landscaping partnerships with communities and their volunteers. The Community Roadside Landscape Partnership Program offers communities technical and financial assistance to install and maintain landscape plantings on eligible state highway rights of way.

Available District funds are awarded annually to approved partnership projects on a first come-first serve basis. Desirable or approved projects may be downsized or deferred for a year if available funding becomes insufficient. The Landscaping Grant has a \$25,000 cap and can be applied for annually.

To be considered for approval, all projects must be submitted with a formal application that is provided from the State Landscape Partnership Programs Coordinator. Mn/Dot District trunk highway funds are provided on approved projects to cover the cost of planting materials produced by the community partner. The community partner must install the landscape materials on Mn/DOT right of way using volunteers, employees,



service organizations, contractors, or a combination thereof and must agree to maintain the improvements.

d) Earmarks

Earmarks are always available each year through the appropriations process and every 5/6 years through authorization process.

8 Appendix

An appendix with supporting documentation including the full versions of the technical memos prepared for this study is available in a separate document due to the large size of the information.

The appendix has the following contents:

A - Motion by Steering Committee to approve study and forward to the East Grand Forks City Council

B - Urban Design Memorandum

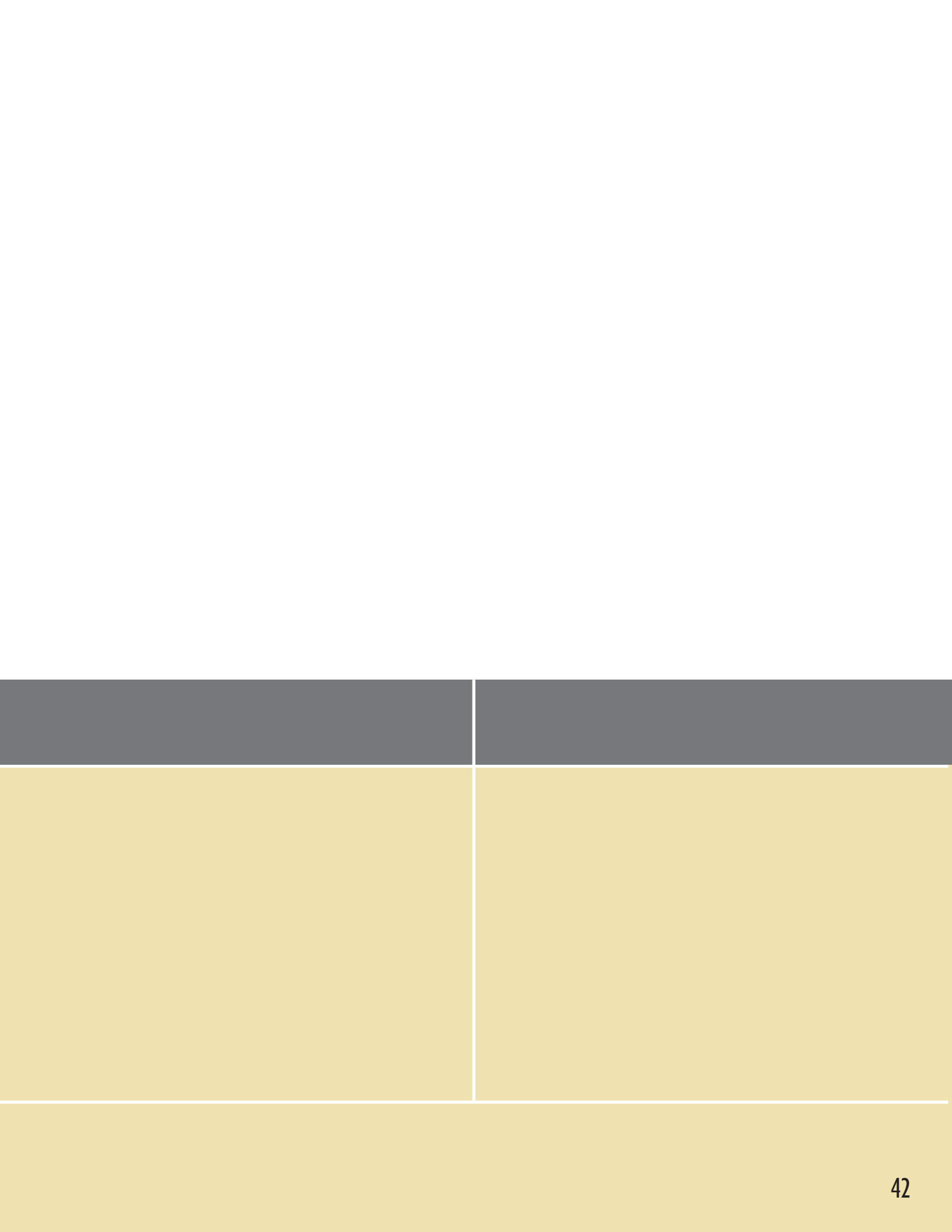
C - Traffic Access & Operations Management Memorandum

D - Meetings

E - Open Issues

F - Press

G - Miscellaneous





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