

BOLTON & MENK, INC.
Consulting Engineers & Surveyors

County Road E (B-2 District)
Implementation Plan

Prepared for: City of Arden Hills



December 2012
BMI Project No. T16.104335



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COUNTY RD E (B-2 DISTRICT) IMPLEMENTATION PLAN

1.0 INTRODUCTION

In October of 2008, the City of Arden Hills accepted the *Guiding Plan for the B-2 District* (“*Guiding Plan*”). The B-2 District is generally bounded by Hamline Avenue (Trunk Highway 51) to the west, Canadian Pacific railroad tracks to the north, Lexington Avenue (County State Aid Highway 51) to the east, and the east-west Harriet Avenue alignment to the south (see **Figure 1**). County Road E (County State Aid Highway 15) is the primary roadway providing access to and through this district. The *Guiding Plan* process examined existing conditions, created a long-range redevelopment vision and guiding principles, addressed transportation questions, evaluated market potential, reviewed land uses, and prepared design guidelines.

The purpose of this *County Road E (B-2 District) Implementation Plan* (“*Implementation Plan*”) is to revisit the goals and recommendations of the 2008 *Guiding Plan* and better illustrate the recommendations of that document through more defined roadway concepts. The work performed for this project was directed by the Project Management Team (PMT) which included staff representatives from the City of Arden Hills and Ramsey County. A central focus of this planning effort has been a robust public engagement program, discussing specific improvement strategies. The public engagement included two primary elements as summarized below:

Corridor Advisory Committee (CAC) – This body was made up of local stakeholders, including property owners, business residents, and City Council members. A roster of the CAC is included as **Appendix A**. Bolton and Menk met with this group on three occasions to present and discuss design alternatives, and get feedback and direction.

Individual business meetings – The project team solicited 25 local business owners to schedule one-on-one meetings. Fourteen of these responded and participated.

In addition, a City Council Work Session was held after the first two CAC meetings to update the Council on work progress and to get its input and guidance to complete the project. Individual meetings, issues discussed, and outcomes are summarized in Section 3.0.

2.0 BACKGROUND TRAFFIC CONDITIONS

Based on Mn/DOT data, County Road E currently carries over 14,000 vehicles per day. While it is classified as a “B” Minor Arterial roadway in the metro area network, it has numerous access points in the project area. Traffic counts (vehicle and pedestrian) for PM peak conditions were taken on January 5, 2012.¹ This was prior to the closure of northbound Snelling Avenue, which occurred later in the spring. The resulting data is summarized on **Figure 2**. Level of Service (LOS) analysis for existing conditions was performed. All of the intersections in the project corridor currently operate at LOS C or better, which is acceptable. However, two specific movements are problematic:

- Westbound movements at County Road E and northbound Hwy 51 ramp/Connelly Street – The total westbound movements (left, thru, and right) result in a cumulative LOS D for westbound

¹ It may be noted that the Walgreens Pharmacy at the corner of County Road E and Lexington Avenue was under construction while the traffic counts were taken. To account for this, trip generation estimates based on Institute of Traffic Engineers guidance were made and added to the observed traffic counts.

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traffic entering this intersection, indicating excessive delays to these motorists. The analysis shows a maximum westbound queue length during the PM peak time period of 770 feet.

- Eastbound left turns on County Road E to Lexington Avenue – This movement is LOS D, but is very close to the LOS E threshold, and nearing capacity.

In addition to these two problems identified at specific intersections, there also exists a common problem throughout the corridor, that being the difficulty for traffic to make left turns onto County Road E from adjacent driveways. Traffic volumes along County Road E, particularly during the peak hours, reduce the frequency of acceptable gaps for vehicles to make these left turns. Furthermore, the problem is made worse by the unrestricted left turns allowed along County Road E into these adjacent properties.

When reviewing the existing traffic information, it is important to recognize the significant vacancies within the corridor. As parcels become redeveloped and occupied, existing traffic problems will become exacerbated, and new problem locations may emerge.

3.0 CONCEPT DISCUSSION AND DEVELOPMENT

Since a primary focus of the project was to engage local stakeholders to discuss relatively detailed design concepts, this portion of the report will be organized according to public engagement meetings that were held.

3.1. FIRST CORRIDOR ADVISORY COMMITTEE MEETING (APRIL 11, 2012)

The purpose of this meeting was to express the purpose of the *Implementation Plan* process, begin the discussions, and get general input from the CAC members regarding improvement elements or strategies they favored or did not favor. The areas of concern expressed in the 2008 *Guiding Plan* were summarized and discussed, as were that document's principal goals. The CAC members were asked by the project team to describe their vision for preferred ultimate corridor conditions.

To set a base for the analyses and discussions to take place through the rest of the project, information was provided by the project team on the following topics:

- Traffic concepts including the importance and principles of access management
- Streetscape considerations
- Utilities

Regarding streetscape considerations, a presentation was provided by the project team to provide background on possible streetscape improvement strategies. A range of intensity and cost options was presented (please see PowerPoint presentation in **Appendix B**). In response to this information, CAC members generally felt that it would be best to focus primarily on transportation issues, along with some lower intensity aesthetic improvements.

3.2. SECOND CORRIDOR ADVISORY COMMITTEE MEETING (JUNE 18, 2012)

At this meeting, three differing concepts were presented to the CAC. The intent behind these concepts was to provide a better balance between the access and mobility functions of the roadway and to improve accommodations for non-motorized travelers consistent with the

COUNTY RD E (B-2 DISTRICT) IMPLEMENTATION PLAN

2008 *Guiding Plan* principles. These concepts were quite different from each other in terms of the extent and cost of improvements. This was intentionally done to provide a broad range of alternatives to evaluate and discuss.

The three alternatives, illustrated in **Figures 3, 4, and 5**, respectively, included:

Improved Five-Lane Option – This option was the most similar to current conditions, but included a significant number of access closures to allow for better traffic movement (mobility) along the corridor.

Center Median Option – Through the use of a raised center median, this option restricted left turn movements to and from County Road E, but fewer access points needed to be closed.

Roundabout Option – This option had similar access restrictions to the Center Median Option, but provided for easier U turns along the corridor with the roundabouts. The roundabouts would offer operational and aesthetic benefits as well.

Along with these three access management alternatives, various backage road alternatives were identified to support access to parcels along County Road E and to help mitigate access closures directly along County Road E.

All of the alternatives included comparable improvements to better accommodate non-motorized travelers. These improvements included closing gaps in the existing sidewalk system along to County Road E, as well as providing narrowed vehicular lanes to allow for five foot shoulders which bicyclists could use more safely than under current conditions.

These options generated a robust and valuable discussion at the second CAC meeting. Differing opinions were revealed in terms of the perceived degree of traffic problems, the desired level of investment for improvements in the corridor, and other issues.

Another topic of discussion was the presence of private utility boxes along the project corridor. Concern had been expressed previously that these boxes are not attractive elements in the streetscape, and Bolton & Menk had therefore been tasked with investigating the possibility of burying, consolidating, or otherwise reducing the visual presence of these boxes. At the second CAC meeting, Bolton & Menk staff summarized their investigation and conclusions:

- Based on information from the utility companies involved, utility boxes are required to provide access to switches and other controls to allow operation and maintenance of the respective systems.
- Burying the utility boxes would not be viable because utility workers must have reasonable access to the relevant wiring and controls.
- It may be possible to consolidate utility boxes, but this would require the installation of additional buried cable at substantial cost.
- The frequency of utility boxes along County Road E is typical for this type of corridor with buried cable.

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- The most viable and cost effective approach for addressing this issue is through strategic landscaping.

3.3. INDIVIDUAL BUSINESS OWNER MEETINGS

The project team solicited 25 business owners in the project area to schedule one-on-one meetings to discuss the issues being addressed in this study. Fourteen of the business owners (56 percent) chose to participate in the project in this manner. These meetings were held from July through September of 2012. The businesses which participated are identified in Table 1.

Table 1 – PARTICIPATING BUSINESSES

McDonalds	Pugleasa Company, Inc.	Flaherty's Arden Bowl
Arden Shoreview Animal Hospital	Staples	Holiday Inn/McGuires's (closed)
Brausen Automotive Group	WJ Anderson (dentist)	Anchor Bank
Wells Fargo Bank	Northpark Corporate Center (vacant)	Arden Square, LLC
Focal Point Flooring	State Farm Insurance	

The discussions with these business representatives were intended to understand opinions and perspectives regarding the following factors:

- Current access conditions for their business, including what works and what does not work
- Degree of reliance on high visibility
- Perception of general efficiency of traffic operations in the project corridor
- Degree of importance for pedestrian access to their business
- Perception of current corridor aesthetics and vitality
- Willingness to invest in corridor improvements

In addition, the three corridor concepts identified in Section 3.2 and depicted in **Figures 3, 4, and 5** were provided at each of the meetings to help generate discussion relevant to the goals of this study.

The project team did not anticipate a consensus among the business representatives, nor was there any sort of structured balloting system used to try to quantify perspectives or preferences. The intent, rather, was to identify trends and common themes. The findings included the following highlights:

- There was broadly held concern with the current vacancies within the B-2 district.

- There was recognition of the Holiday Inn site as a prominent parcel regarding the overall development/redevelopment of the district.
- There was a common desire for and expectation of some level of City investment in the corridor.
- There was relatively wide variation regarding the perception of current traffic conditions in the corridor. Some feel traffic operates acceptably, while others see significant deficiencies. Not surprisingly, those that perceive deficiencies are more interested in seeing traffic-related improvements.
- There was concern with ambiguous traffic control at Pot O' Gold Bingo entrance off of Connelly Street.
- There was wide acknowledgement of the benefits associated with an additional eastbound left turn lane on County Road E to Lexington Avenue.
- Regarding aesthetics, two types of preferences were expressed; proper maintenance of what is already in place, and upgrading with additional streetscape improvements.
- While there was no sweeping consensus, the five-lane option was generally the best received alternative.
- Most participants expressed concern with the perceived risk associated with a large up-front investment for an extensive corridor improvement approach.

3.4. CITY COUNCIL WORK SESSION (JULY 25, 2012)

The primary purpose of this meeting was to advise Council regarding the findings of the public engagement efforts to that point, including the two CAC meetings and initial one-on-one meetings with local business representatives. The three improvement concepts described previously were also presented and used in the discussion.

In addition to a review and discussion of the public engagement efforts to date, the Council was asked to consider the following broader questions which had emerged from that process:

- What is the Council's current vision for the B-2 District relative to the vision reflected in the 2008 *Guiding Plan*?
- Should changes or improvements along County Road E be more oriented towards existing land use conditions or towards a long term vision for the corridor?
- Does the Council prefer a more controlled planning approach to the corridor or a more market-driven approach?
- How involved should the City be in implementing infrastructure improvements within private property (such as coordinated access improvements)?

3.5. THIRD CORRIDOR ADVISORY COMMITTEE MEETING (OCTOBER 8, 2012)

3.5.1. GENERAL

After recapping the previous CAC meetings and the findings from the individual business owner meetings, Bolton & Menk presented a new improvement concept to the CAC. This concept was intended to address the general goals identified in the 2008 *Guidance Plan*, but also reflect the sentiments expressed by stakeholders during the *Implementation Plan* outreach process. This concept, referred to as the Phase I Concept, is based on an incremental approach to improvements to the corridor. Rather than making a large front-end investment with uncertain future outcomes in terms of the broader economy and development within the project area itself, the strategy is to make improvements that will support the baseline project goals, be reduced in scale, and be flexible to meet future conditions.

The baseline project goals were proposed to:

- Better balance the mobility and access functions of the roadway
- Better accommodate non-motorized travelers
- Improve corridor aesthetics

3.5.2. PHASE I CONCEPT

The Phase I Concept is depicted on **Figure 6**. Of the three preliminary concepts it most resembles the Improved Five Lane Concept. It includes the following primary elements:

- Close certain access points along the corridor to improve the flow and safety of traffic
- Provide an additional eastbound left turn lane on County Road E to Lexington Avenue.
- Provide improved access to the redevelopment area north of County Road E including the old Holiday Inn site and the adjacent parcels to the west.
- Narrow roadway lanes to allow for five foot shoulders on both sides which bicyclists can use.
- Close sidewalk gaps to allow a full length of sidewalk throughout the project corridor on both sides of the roadway.
- Create aesthetic improvements by repair or replacement of failing infrastructure such as cracked curbs and broken walks and sidewalks.
- Introduce lower intensity streetscape improvements such as boulevard trees (every 40 feet assumed) and lighting upgrades.

A potential future improvement would be to provide backage access for the businesses south of County Road E and west of Pine Tree Drive as depicted in

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Figure 6. This would be provided in conjunction with a median extension on County Road E at Connelly Street as depicted. The joint modifications are colored in blue in the figure. Costs associated with these improvements are included in the overall project costs (see below).

It may be noted that the operational difficulties at the County Road E and northbound Hwy 51 ramp/Connelly Street intersection noted previously are influenced by the current design of the County Road E bridge over Hwy 51/Hamline Avenue, and therefore beyond the scope of this study to address. MnDOT currently has plans to replace the bridge with geometric (lane and operational) improvements in 2015.

The costs associated with the Phase I Concept are presented on Table 2, below. More detailed information is provided in **Appendix C**.

Table 2 – ESTIMATED PHASE I CONCEPT COSTS

Project Construction Component		Cost
1	CR E Medians (Connelly St & Pine Tree Dr)	\$49,900
2	CR E Seal Coat and Striping	\$79,600
3	CR E Corridor Decorative Lighting	\$370,900
4	CR E Trees (40' Spacing)	\$44,400
5	CR E Sidewalk	\$104,200
6	Pine Tree Dr. Sidewalk	\$61,400
7	Pine Tree Dr. Signal Revision	\$71,900
8	Connelly Street Signal Revision	\$71,900
9	Lexington Signal Revision And Widening	\$559,400
Property Access Modifications		
10	Holiday Inn and Adjacent Properties	\$160,300
11	TCF/ North Park Access Connection	\$28,800
12	Staples/ Baskets By Design Connection	\$28,800
13	Anchor Bank/ WJ Anderson Backage Road and CR E Median Extension	\$95,900
14	Connelly Street/ Bingo Hall Access	\$64,900
15	TCF CR E Access And Parking Improvements	\$21,900
Total Cost		\$1,814,200

Note: All estimates indicated include total project costs (contingencies, engineering, construction administration, etc.). ROW acquisition costs are not included.

4.0 CONCLUSIONS

Based on the technical analysis performed for this project as well as the discussions that have taken place with the Project Management Team, the Corridor Advisory Committee, individual business owners, and the City Council, Bolton & Menk recommends that Council consider the implementation of the Phase I Concept. This concept is generally consistent with the vision identified in the 2008 *Guiding Plan*, but reflects a pragmatic approach that is favored by local stakeholders.

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If Council decides to advance the Phase I Concept, the following general tasks will need to be initiated:

- Complete preliminary design
- Garner more detailed input from property owners directly affected by the proposed improvements
- Refine cost estimates
- Initiate cost participation approach

The following is a possible schedule for the implementation of the Phase I Concept improvements:

- January 2013 – June 2013: complete feasibility study
- June 2013 – December 2013: complete final design
- January 2014 – March 2014: complete project bidding and assessment proceedings
- May 2014 – September 2014: construction

Figures



County Road E (B2 District) Implementation Plan Arden Hills, Minnesota

Legend

- Parcels
- City Limits
- Lakes & Ponds
- Railroad
- B-2 District

Source:
Ramsey County - 2010 Aerial Photography



0 300
Feet

Location Map

Figure 1

December, 2012

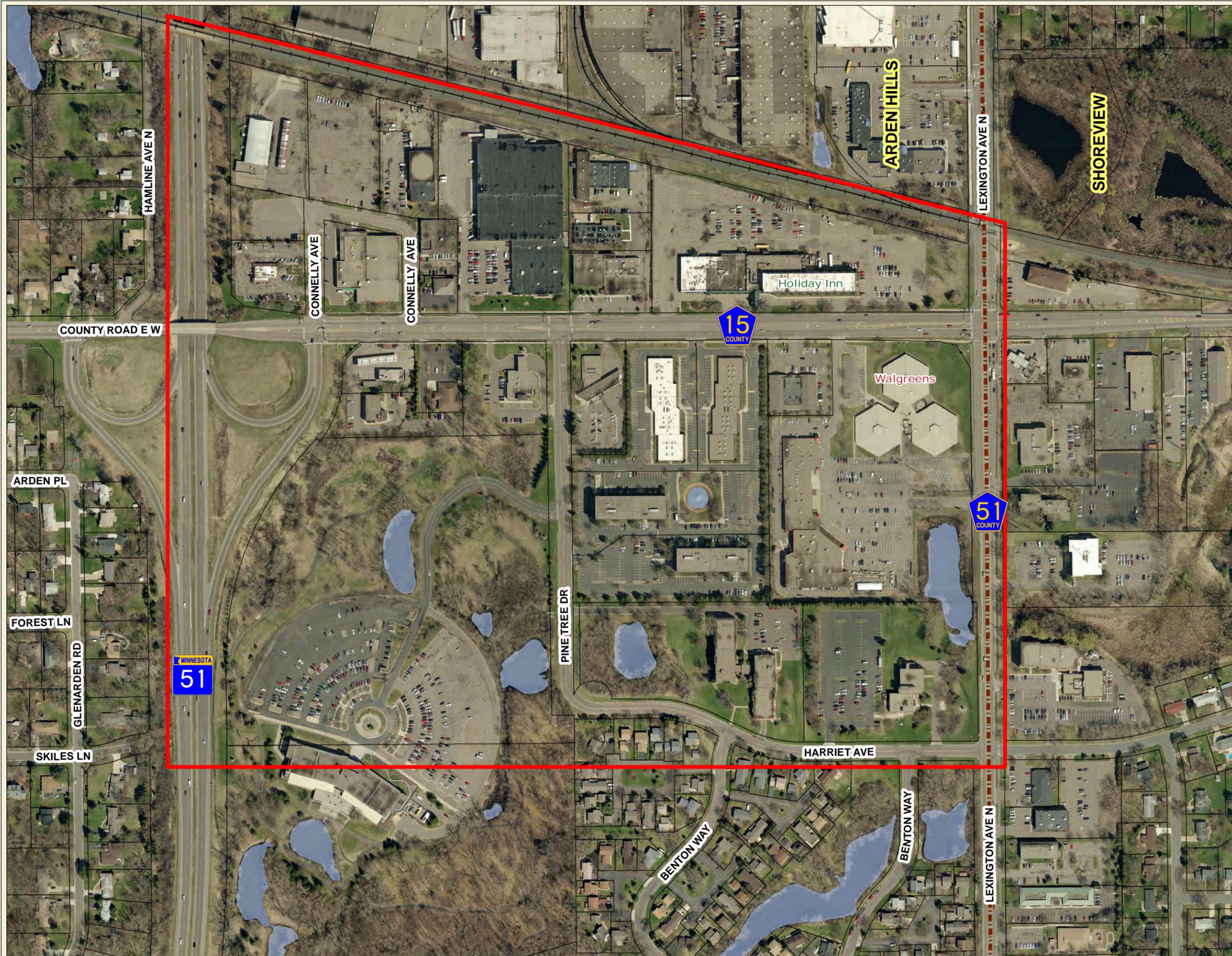
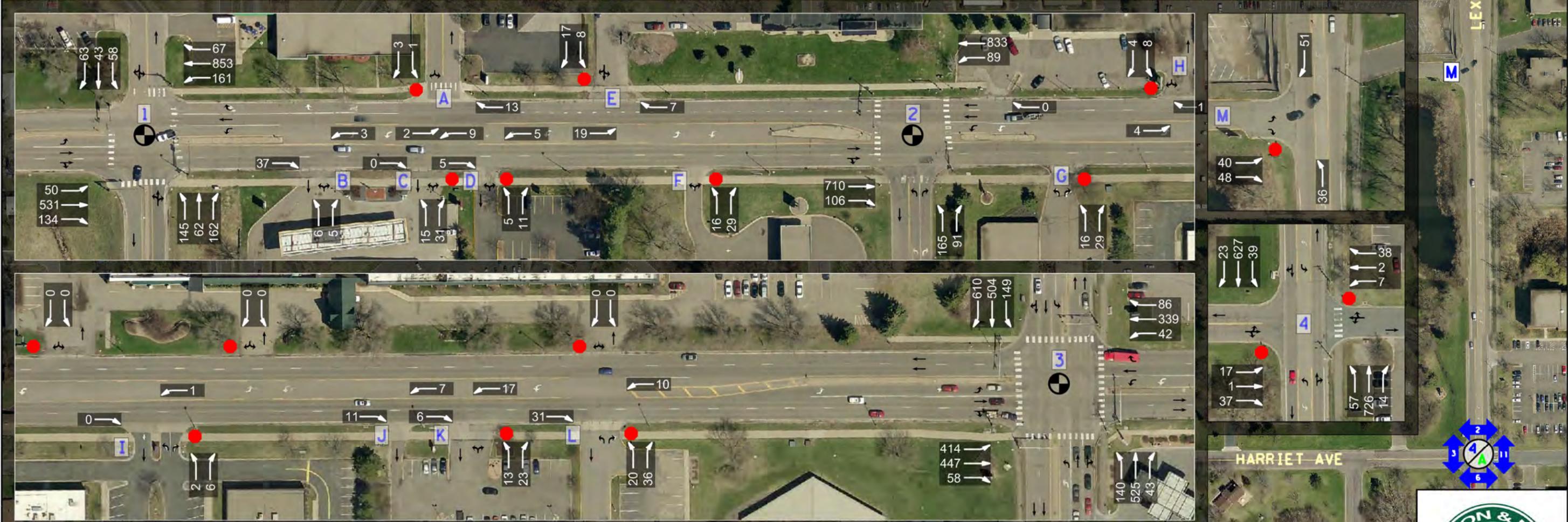
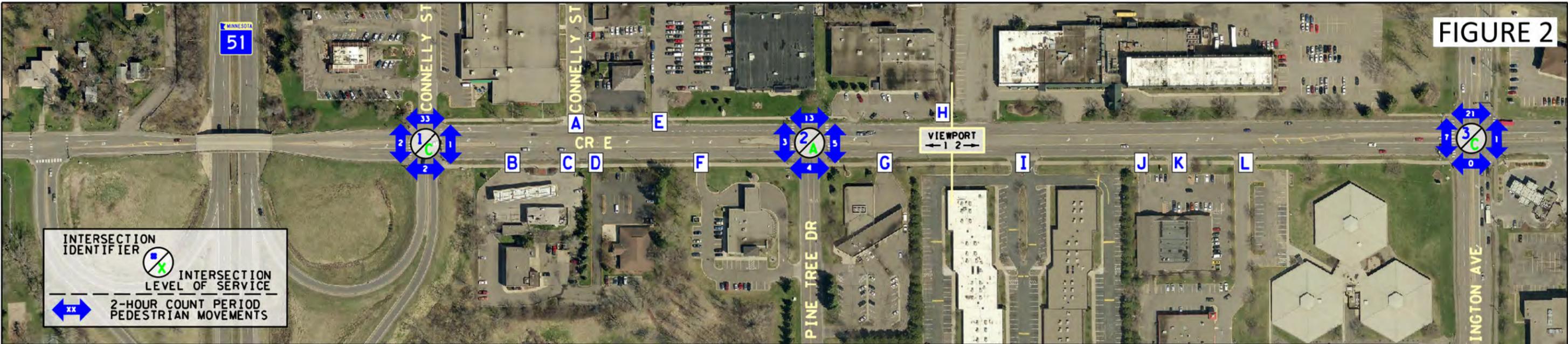


FIGURE 2



- INTERSECTIONS**
- 1. CR E AT CONNELLY ST
 - 2. CR E AT PINE TREE DR
 - 3. CR E AT LEXINGTON AVE
 - 4. LEXINGTON AVE AT HARRIET AVE
- PRIVATE ACCESSES**
- A. CONNELLY ST
 - B./C. SHELL GAS STATION
 - D. WJ ANDERSON DENTIST / ASSOCIATED SPEECH LANGUAGE SPECIALISTS / BRAUSEN AUTOMOTIVE
 - E. STAPLES CONTRACT & COMMERCIAL INC.
 - F. ANCHOR BANK
 - G. WELLS FARGO BANK
 - H. OFFICE BUILDINGS (1-2 STORIES)
 - I. OFFICE BUILDINGS (1-2 STORIES)
 - J. TCF BANK
 - K. TCF BANK / RED CROSS BLOOD DONOR CENTER
 - L. ARDEN PLAZA
 - M. ARDEN PLAZA

- SIGNALIZED INTERSECTION
- STOP SIGN
- THROUGH TRAFFIC LANE
- TURNING TRAFFIC LANE
- SHARED-MOVEMENT TRAFFIC LANE

PM PEAK HOUR TRAFFIC VOLUMES AND INTERSECTION GEOMETRY

CR E (B-2 DISTRICT) IMPLEMENTATION PLAN



FIGURE 3

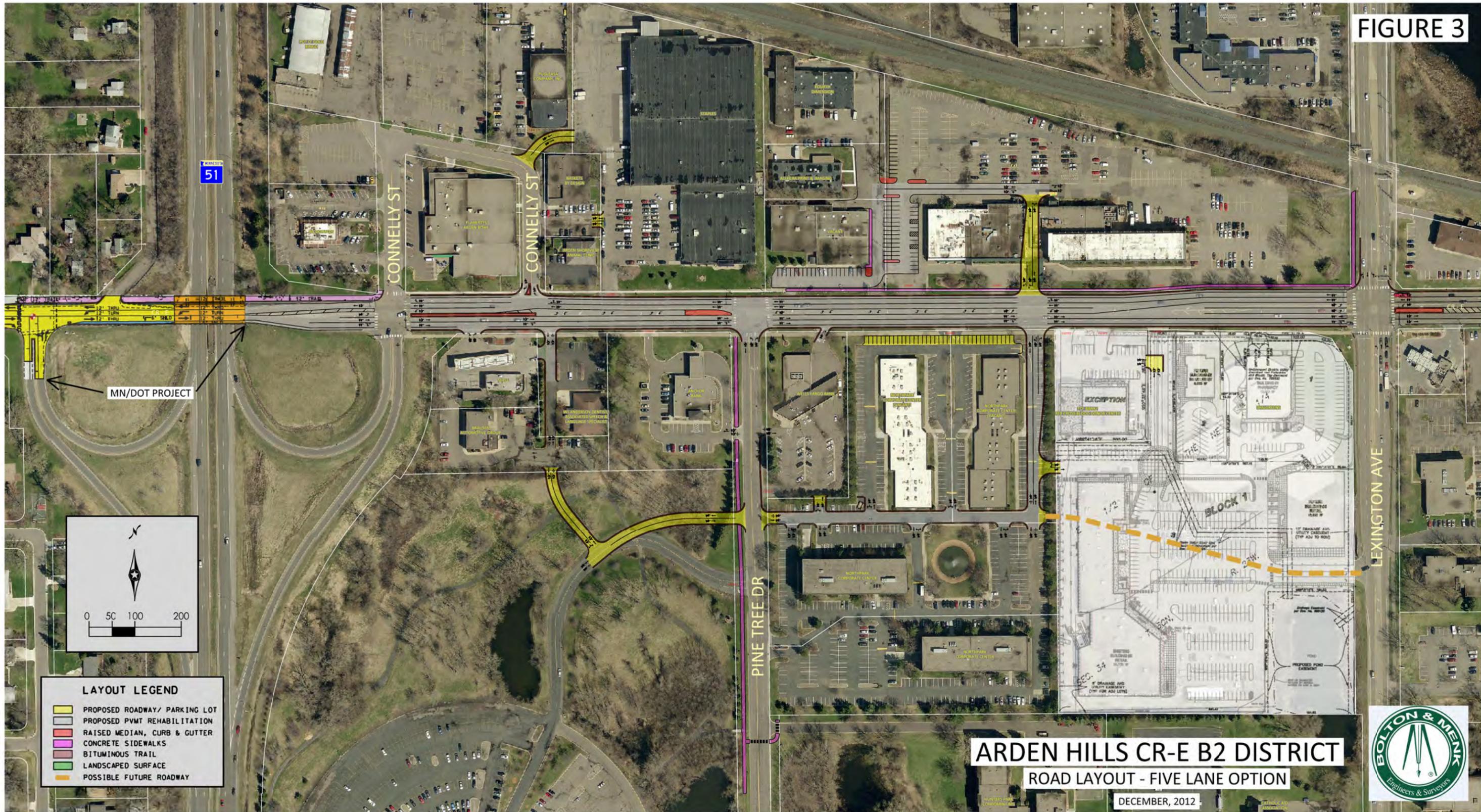
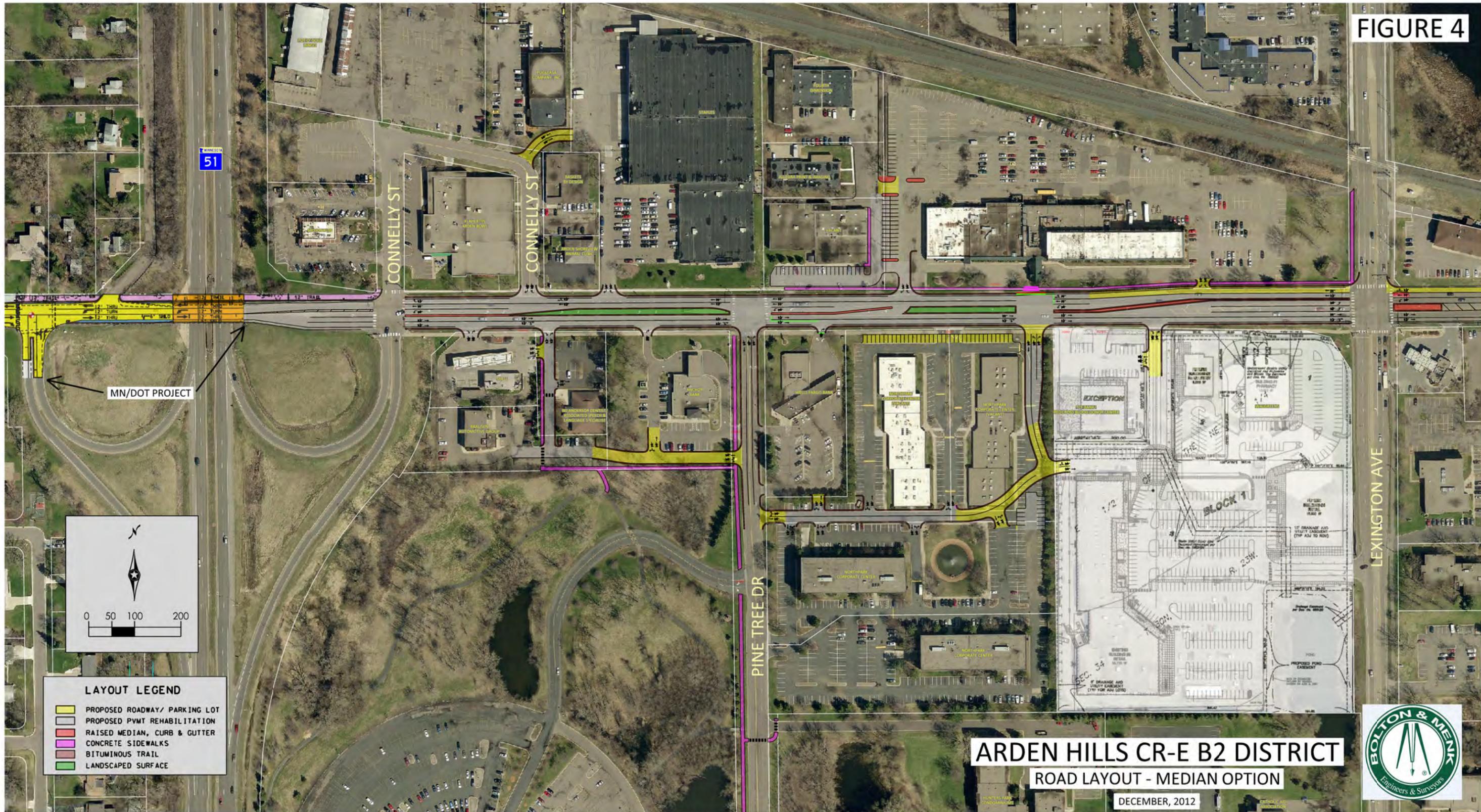


FIGURE 4



ARDEN HILLS CR-E B2 DISTRICT

ROAD LAYOUT - MEDIAN OPTION

DECEMBER, 2012



- LAYOUT LEGEND**
- PROPOSED ROADWAY/ PARKING LOT
 - PROPOSED PYMT REHABILITATION
 - RAISED MEDIAN, CURB & GUTTER
 - CONCRETE SIDEWALKS
 - BITUMINOUS TRAIL
 - LANDSCAPED SURFACE



MN/DOT PROJECT

CONNELLY ST

CONNELLY ST

PINE TREE DR

LEXINGTON AVE

51

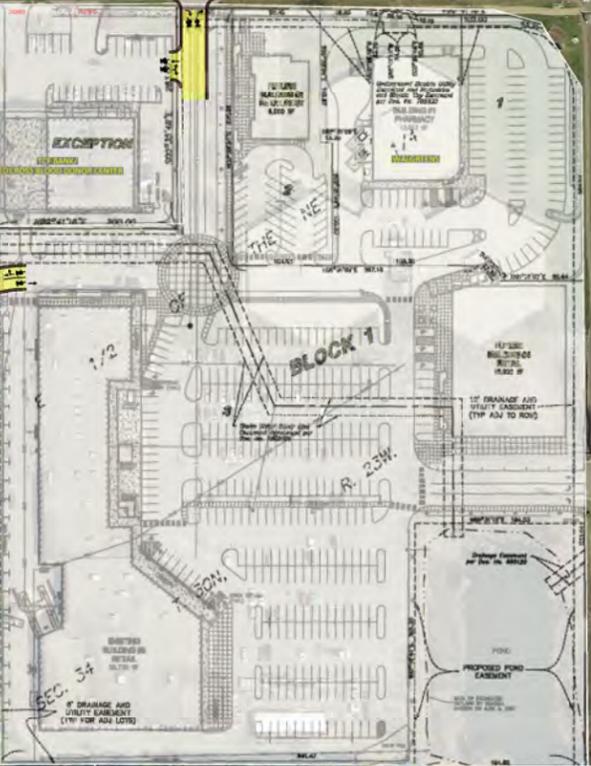
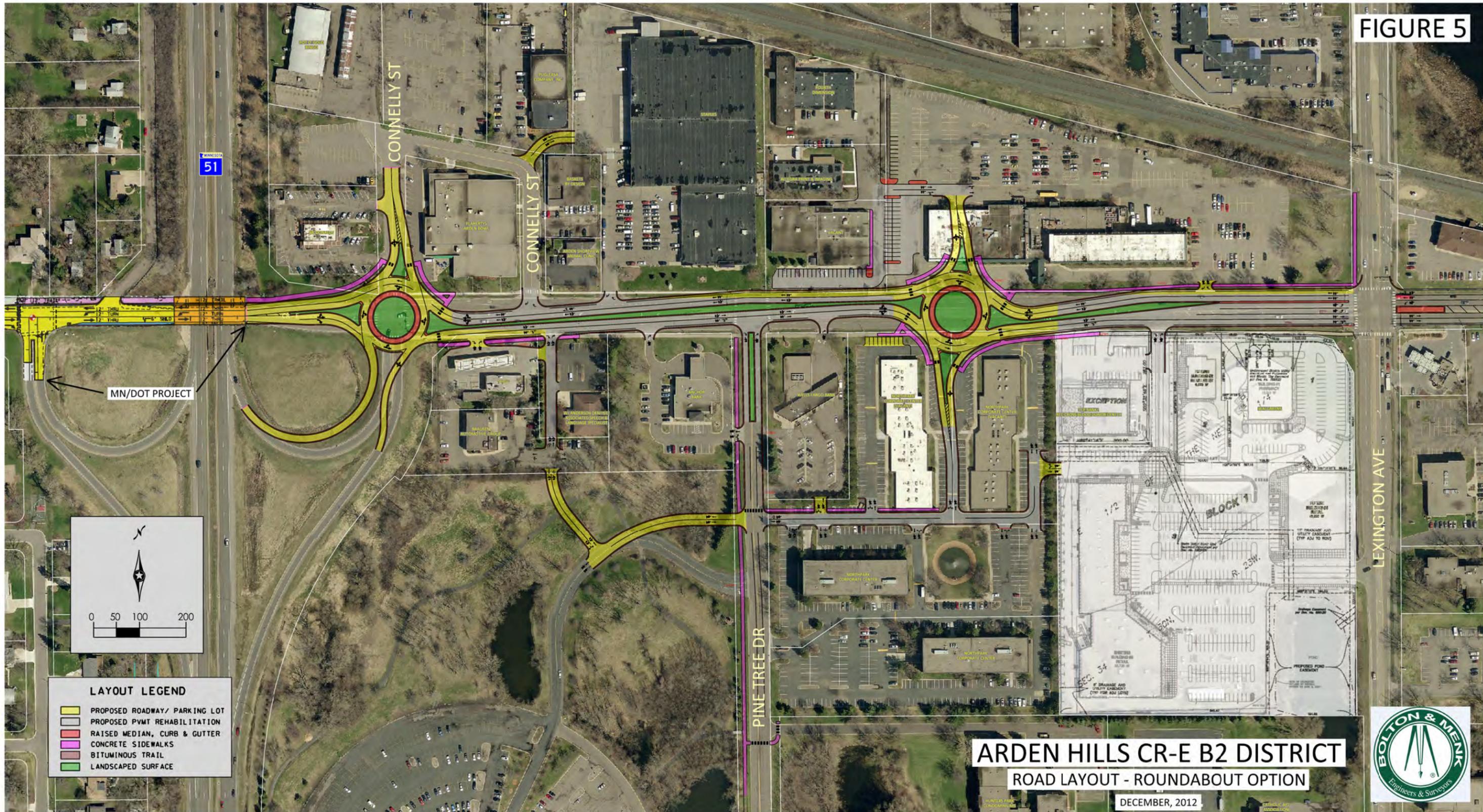


FIGURE 5



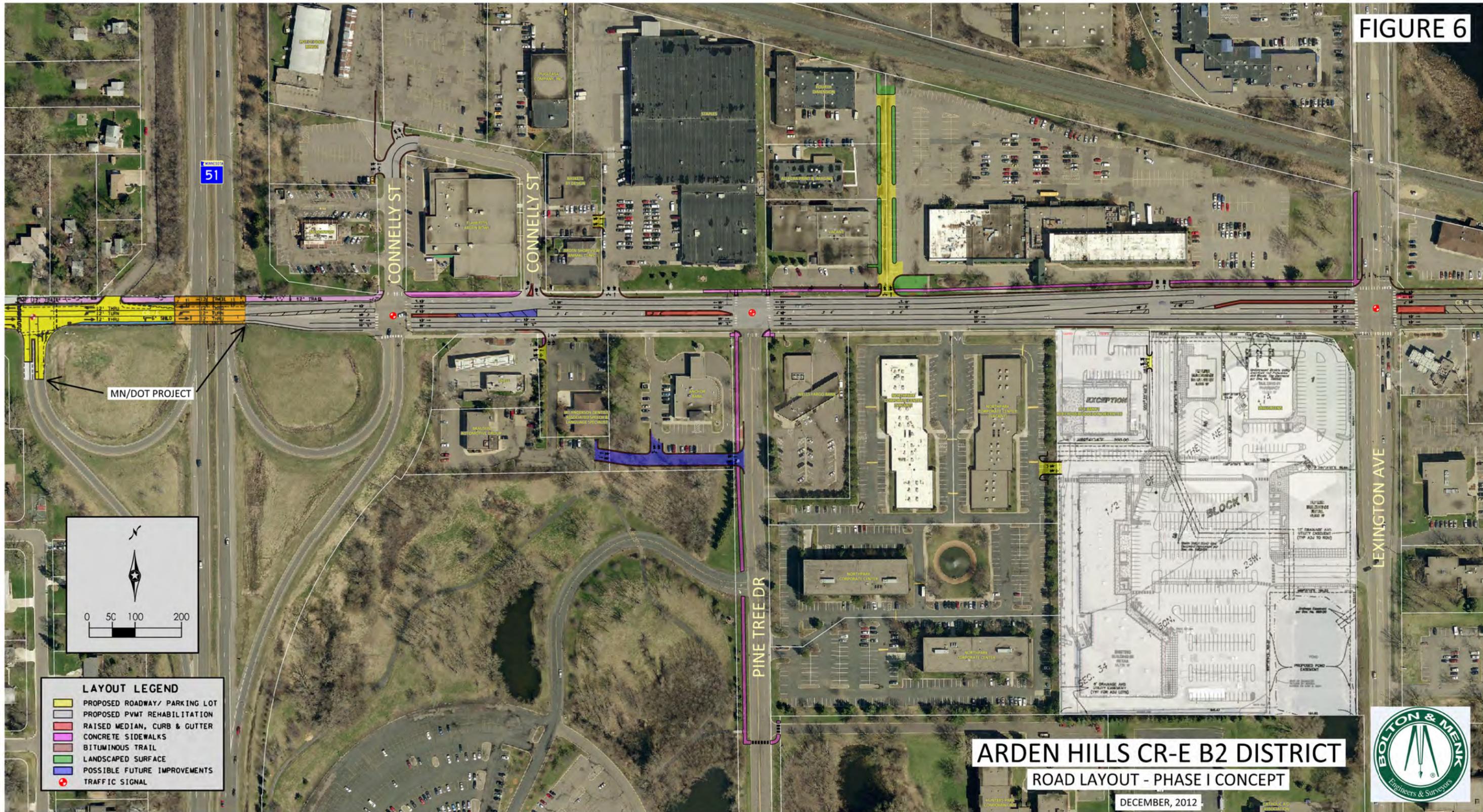
ARDEN HILLS CR-E B2 DISTRICT

ROAD LAYOUT - ROUNDABOUT OPTION

DECEMBER, 2012



FIGURE 6



ARDEN HILLS CR-E B2 DISTRICT

ROAD LAYOUT - PHASE I CONCEPT

DECEMBER, 2012



Appendix A

**County Rd E (B-2 District) Implementation Plan
Corridor Advisory Committee Members**

Business Representatives

Wally Anderson – Wallace J. Anderson, DDS
Harald Borrmann – Senior Vice President, Catholic United Financial
Theodore Brausen – Owner, Brausen’s Shell and Repair
Jon Commers – Advisor, Arden Square, LLC
Daniel Flaherty – President/General Manager, Flaherty’s Arden Bowl
Kara Frank – Property Manager, Arden Plaza, LLC
Randy Hagerty – Property Manager, Country Financial
Jay Higgins – Owner, Fourth Dimension Architectural Signage

City Representatives

Councilmember Fran Holmes
Councilmember Ed Werner
City Planner Meagan Beekman
Community Development Director Jill Hutmacher
Public Works Director Terry Maurer

Appendix B

CR E (B-2 District) Implementation Plan

Streetscape Orientation



Hoisington Kogler Group, Inc

Streetscapes – the basics

- Travel Lanes
- Parking Zone
- Amenity Zone
 - Lighting
 - Landscaping
 - Furniture
 - Signage
 - Café seating
 - Underground utilities
- Pedestrian Zone
 - Clear walking path
 - Cover from rain/sun
 - Direct tie to storefronts



Streetscape Features



Character

- Pavement colors and textures
- Lighting styles and heights
- Traditional vs. contemporary
- Street furniture (bench, waste, etc)
- Trees and colorful plantings



Streetscape Features

Materials

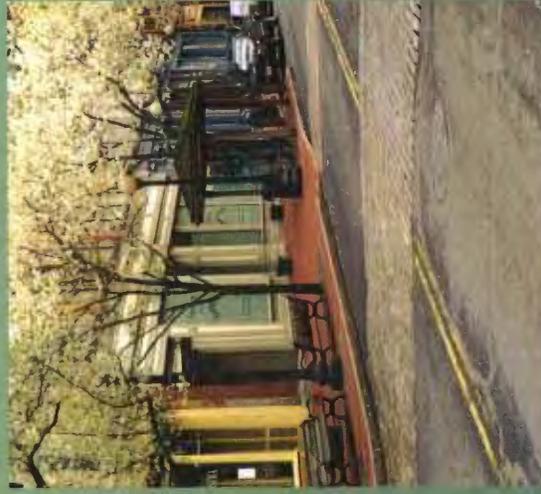
- Lasting
- Sense of quality
- Green
- Patina
- Community identity



Streetscape Features

Safe Circulation

- Bike amenities
- Pedestrian & vehicle zones
- Defined crosswalks



Streetscape Features

Signage

- District Identity
- Unique materials and forms
- Informative



Streetscape Features



Sustainability

- Rainwater reuse/infiltration
- Shade trees
- Less pavement
- Cooling plants material
- Recycled materials
- Permeable pavers



Potential Streetscapes Pitfalls

- Lack of maintenance
- Vandalism
- Accidents
- Dated style
- Unrealistic expectations



Streetscape Benefits

What can a streetscape accomplish?

- **Community Identity and Gateway**
- **Order to Circulation**
- **Safe and Attractive Public Space**
- **Inviting Front Door to Businesses**
- **Other**



Levels of Streetscape Intensity

A Construction Cost Comparison



Level 1

\$150-\$250 per
lineal roadway
foot



Level 2

\$475-\$600 per
lineal roadway
foot



Level 3

\$600-\$750 per
lineal roadway
foot



Level 4

\$750-\$1,200
per lineal
roadway foot

Levels of Streetscape Intensity

Amenity Level 1

Construction Budget:
\$150-\$250 / lineal roadway
foot

Features:
Catalog non-decorative
street lighting
Concrete pedestrian zone
Concrete amenity zone
No plantings



Levels of Streetscape Intensity

Amenity Level 2

Construction Budget:

\$475-\$600 / lineal roadway foot

Features:

- Mix of catalog street & pedestrian lighting
- Concrete pedestrian zone
- Grass amenity zone
- Limited bollards
- Limited banners
- Trees + limited landscaping
- Limited catalog furniture



Levels of Streetscape Intensity

Amenity Level 3

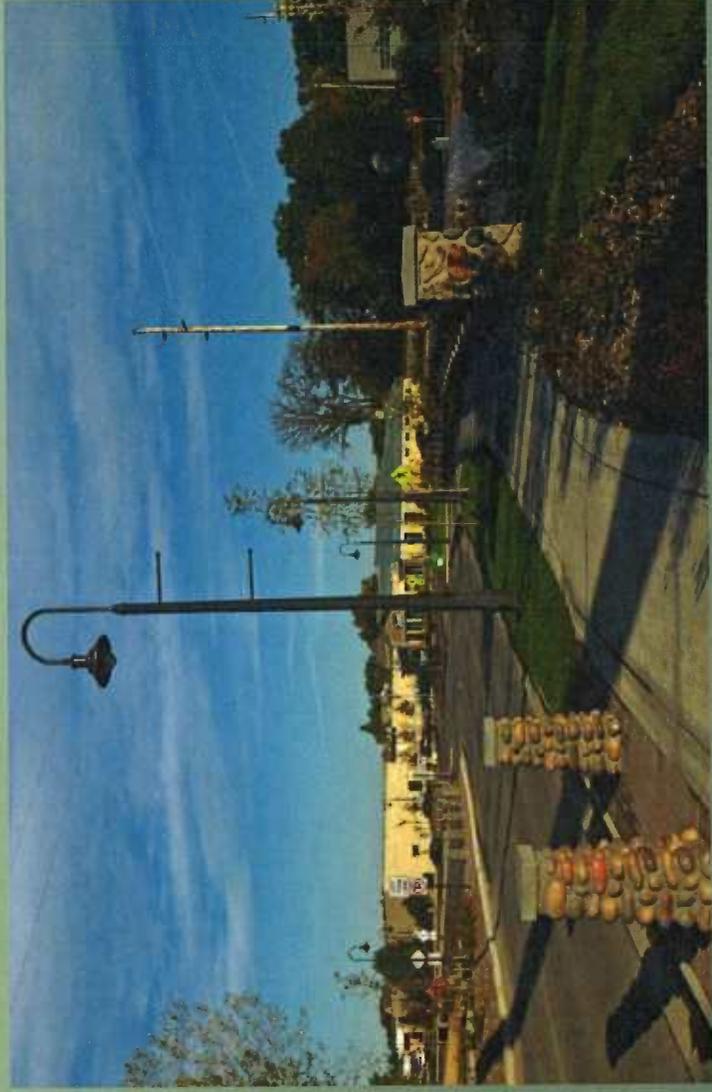
Construction Budget:

\$600-\$750 / lineal roadway foot



Features:

- Top-quality, catalog pedestrian lighting
- Hanging baskets
- Banners
- Bollards
- Mixed paver & concrete pedestrian zone
- Mixed paver & concrete amenity zone
- Planted median
- Trees + lush landscaping
- Top-quality, catalog furniture
- Simple public art



Levels of Streetscape Intensity

Amenity Level 4

Construction Budget:

\$750 - \$1,200 / lineal roadway foot

Features:

- Custom lighting
- Hanging baskets
- Banners
- Bollards
- Raised planters & tree grates
- Brick or paver pavement
- Trees + landscaping + annual plantings
- Custom furniture
- Public art



Streetscape Maintenance

Maintenance Budget Rules of Thumb



Level 1

Annual Budget:
\$10 per lin. ft.

- Snow plowing
- Routine maint.
 - Lighting
 - Pavement



Level 2

Annual Budget:
\$25 per lin. ft.

- Snow plowing
- Routine maint.
 - Lighting
 - Pavement
 - Trees
- Trash pick-up



Level 3

Annual Budget:
\$45 per lin. ft.

- Full snow removal
- Routine maint.
 - Lighting
 - Pavement
 - Landscaping
 - Irrigation
 - Furnishings
- Trash pick-up
- Banner change-out



Level 4

Annual Budget:
\$60 per lin. ft.

- Full snow removal
- Routine maint.
 - Lighting
 - Pavement
 - Landscaping
 - Irrigation
 - Furnishings
- Trash pick-up
- Banner change-out
- Hanging baskets
- Annual flowers

Budgets for levels 3-4 could include planted median depending on intensity of landscaping

Hoisington Kogler Group, Inc



Examples of Streetscape France Av. & Old Shakopee Road, Bloomington **Level 2 to 3**



Examples of Streetscape

Excelsior Boulevard, Hopkins

Level 3

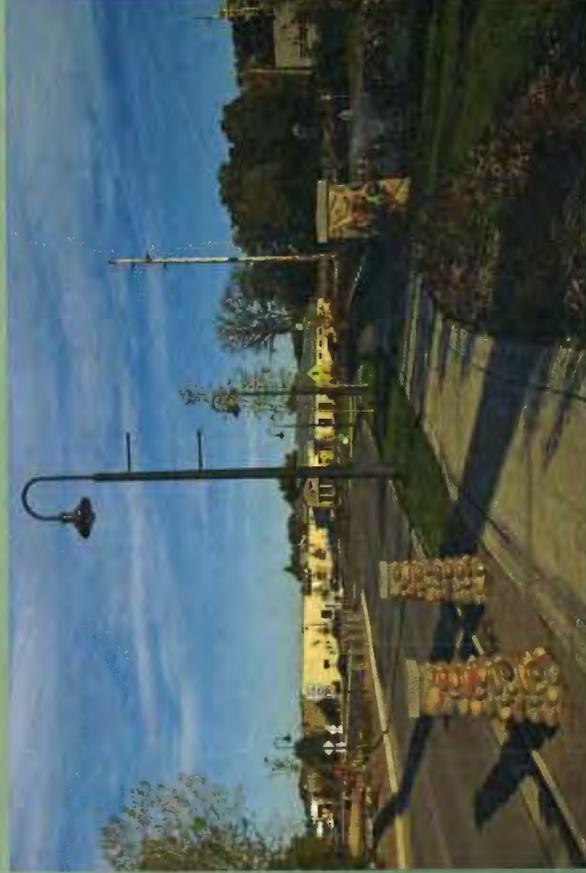


Examples of Streetscape

Shoreline Drive, Mound



Level 3



Examples of Streetscape Excelsior Boulevard, St. Louis Park

Level 4



Considerations for a Successful Downtown oriented Streetscape

- Appropriate image & identity
- “Main street” character
- Place for community gathering
- Entrée to retail success
- A Vibrant public space
- Opportunity for innovation



Appendix C

**CR E IMPROVEMENTS COST ESTIMATE
ARDEN HILLS, MN**

CR E MEDIANS (CONNELLY ST & PINE TREE DR)				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	105	\$2.83	\$297
REMOVE CONCRETE MEDIAN	SY	263	\$4.92	\$1,296
REMOVE CURB & GUTTER	LF	135	\$3.60	\$486
REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	26	\$10.00	\$257
BITUMINOUS PATCH SPECIAL	SY	124	\$26.68	\$3,320
CONCRETE MEDIAN	SY	205	\$27.05	\$5,551
CONCRETE CURB AND GUTTER	LF	942	\$14.00	\$13,188
8" CONCRETE DRIVEWAY PAVEMENT	SY	26	\$50.00	\$1,283
TURF WORK	L SUM	1	\$4,000.00	\$4,000
TRAFFIC CONTROL AND STAGING	L SUM	1	\$5,000.00	\$5,000
SUB TOTAL				\$34,678
+15% CONTINGENCY				\$5,202
+25% ENGINEERING				\$9,970
TOTAL				\$49,851

CR E SEALCOAT AND STRIPING				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	311	\$10.00	\$3,108.89
SEAL COAT	SY	12,105	\$1.75	\$21,184
8" CONCRETE DRIVEWAY PAVEMENT	SY	311	\$50.00	\$15,544
PAVT MSSG (LT/RT ARROW) EPOXY	EACH	14	\$125.00	\$1,750
PAVT MSSG (ONLY) EPOXY	EACH	1	\$300.00	\$300
4" SOLID LINE WHITE - EPOXY	LF	3,225	\$0.25	\$806
4" BROKEN LINE WHITE - EPOXY	LF	562	\$0.25	\$141
24" SOLID YELLOW - EPOXY	LF	483	\$5.75	\$2,777
4" SOLID LINE YELLOW - EPOXY	LF	1,443	\$0.25	\$361
4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	991	\$0.50	\$496
4" BROKEN LINE YELLOW - EPOXY	LF	254	\$0.25	\$64
CROSSWALK MARKING - EPOXY	SF	666	\$5.81	\$3,869
TRAFFIC CONTROL AND STAGING	L SUM	1	\$5,000.00	\$5,000
SUB TOTAL				\$55,400
+15% CONTINGENCY				\$8,311
+25% ENGINEERING				\$15,928
TOTAL				\$79,640

CR E CORRIDOR DECORATIVE LIGHTING				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
LIGHTING SYSTEM	L SUM	0.44	\$540,000.00	\$237,045
LIGHTING REMOVAL	L SUM	0.44	\$47,850.00	\$21,005
SUB TOTAL				\$258,050
+15% CONTINGENCY				\$38,708
+25% ENGINEERING				\$74,189
TOTAL				\$370,948

CR E TREES (40' SPACING)				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
INSTALL TREE	EACH	103	\$300.00	\$30,900
SUB TOTAL				\$30,900
+15% CONTINGENCY				\$4,635
+25% ENGINEERING				\$8,884
TOTAL				\$44,419

CR E SIDEWALK				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE CONCRETE WALK	SF	3417	\$1.46	\$4,989
AGGREGATE BASE (CV) CLASS 5	CY	157	\$19.84	\$3,115
4" CONCRETE WALK	SF	12,685	\$3.50	\$44,398
TURF WORK	L SUM	1	\$20,000.00	\$20,000
SUB TOTAL				\$72,501
+15% CONTINGENCY				\$10,876
+25% ENGINEERING				\$20,844
TOTAL				\$104,222

**CR E IMPROVEMENTS COST ESTIMATE
ARDEN HILLS, MN**

PINE TREE DRIVE SIDEWALK				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
AGGREGATE BASE (CV) CLASS 5	CY	89	\$19.84	\$1,766
4" CONCRETE WALK	SF	7,148	\$3.50	\$25,018
CROSSWALK MARKING - EPOXY	SF	162	\$5.81	\$941
TURF WORK	L SUM	1	\$15,000.00	\$15,000
SUB TOTAL				\$42,725
+15% CONTINGENCY				\$6,409
+25% ENGINEERING				\$12,283
TOTAL				\$61,418

PINE TREE DRIVE SIGNAL REVISION				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
SIGNAL REVISIONS AND ADA IMPROVEMENTS	L SUM	1	\$50,000.00	\$50,000
SUB TOTAL				\$50,000
+15% CONTINGENCY				\$7,500
+25% ENGINEERING				\$14,375
TOTAL				\$71,875

CONNELLY STREET SIGNAL REVISION				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
SIGNAL REVISIONS AND ADA IMPROVEMENTS	L SUM	1	\$50,000.00	\$50,000
SUB TOTAL				\$50,000
+15% CONTINGENCY				\$7,500
+25% ENGINEERING				\$14,375
TOTAL				\$71,875

LEXINGTON AVE SIGNAL REVISION AND WIDENING				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	3,711	\$2.83	\$10,502
REMOVE CONCRETE MEDIAN	SY	186	\$4.92	\$917
REMOVE CURB & GUTTER	LF	938	\$3.60	\$3,377
SAWING BIT PAVEMENT	LF	1,150	\$5.00	\$5,750
AGGREGATE BASE (CV) CLASS 5 - 12"	CY	387	\$19.84	\$7,671
GRANULAR BORROW - 12"	CY	387	\$10.62	\$4,106
COMMON EXCAVATION - 30"	CY	967	\$4.05	\$3,915
BITUMINOUS WEAR COURSE - 4"	TON	281	\$70.00	\$19,649
BITUMINOUS NON-WEAR COURSE - 2"	TON	140	\$60.00	\$8,421
BITUMINOUS TACK COAT	GAL	116	\$2.00	\$232
SEAL COAT	SY	7,095	\$1.75	\$12,416
CONCRETE MEDIAN	SY	285	\$27.05	\$7,709
CONCRETE CURB AND GUTTER	LF	2,364	\$14.00	\$33,096
PAVT MSSG (LT/RT ARROW) EPOXY	EACH	11	\$117.00	\$1,287
4" SOLID LINE WHITE - EPOXY	LF	1,741	\$0.25	\$435
4" BROKEN LINE WHITE - EPOXY	LF	278	\$0.25	\$70
4" SOLID LINE YELLOW - EPOXY	LF	648	\$0.25	\$162
24" SOLID YELLOW - EPOXY	LF	195	\$5.75	\$1,121
4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	886	\$0.50	\$443
4" BROKEN LINE YELLOW - EPOXY	LF	130	\$0.25	\$33
CROSSWALK MARKING - EPOXY	SF	486	\$5.81	\$2,824
TRAFFIC SIGNAL	L SUM	1	\$250,000.00	\$250,000
TURF WORK	L SUM	1	\$10,000.00	\$10,000
TRAFFIC CONTROL AND STAGING	L SUM	1	\$5,000.00	\$5,000
SUB TOTAL				\$389,134
+15% CONTINGENCY				\$58,371
+25% ENGINEERING				\$111,876
TOTAL				\$559,382

**CR E IMPROVEMENTS COST ESTIMATE
ARDEN HILLS, MN**

HOLIDAY INN AND ADJACENT PROPERTIES				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	1,766	\$2.83	\$4,998
REMOVE CURB & GUTTER	LF	282	\$3.60	\$1,015
AGGREGATE BASE (CV) CLASS 5 - 8"	CY	304	\$0.70	\$213
GRANULAR BORROW - 12"	CY	457	\$19.84	\$9,060
COMMON EXCAVATION - 24"	CY	913	\$10.62	\$9,700
BITUMINOUS WEAR COURSE - 2"	TON	166	\$70.00	\$11,604
BITUMINOUS WEAR COURSE - 2"	TON	166	\$60.00	\$9,946
BITUMINOUS TACK COAT	GAL	137	\$2.00	\$274
CONCRETE CURB AND GUTTER	LF	1,973	\$14.00	\$27,622
8" CONCRETE DRIVEWAY PAVEMENT	SY	41	\$50.00	\$2,067
MOVE PRIVATE UTILITIES	L SUM	1	\$20,000.00	\$20,000
TURF WORK	L SUM	1	\$10,000.00	\$10,000
TRAFFIC CONTROL AND STAGING	L SUM	1	\$5,000.00	\$5,000
SUB TOTAL				\$111,499
+15% CONTINGENCY				\$16,725
+25% ENGINEERING				\$32,056
TOTAL				\$160,281

TCF/ NORTH PARK ACCESS CONNECTION				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
PROPOSED IMPROVEMENTS	L SUM	1	\$20,000.00	\$20,000
SUB TOTAL				\$20,000
+15% CONTINGENCY				\$3,000
+25% ENGINEERING				\$5,750
TOTAL				\$28,750

STAPLES/ BASKETS BY DESIGN CONNECTION				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
PROPOSED IMPROVEMENTS	L SUM	1	\$20,000.00	\$20,000
SUB TOTAL				\$20,000
+15% CONTINGENCY				\$3,000
+25% ENGINEERING				\$5,750
TOTAL				\$28,750

ANCHOR BANK/ WJ ANDERSON BACKAGE ROAD AND CR E MEDIAN EXTENSION				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	301	\$2.83	\$852
REMOVE CURB & GUTTER	LF	225	\$3.60	\$810
AGGREGATE BASE (CV) CLASS 5 - 8"	CY	231	\$0.70	\$161
GRANULAR BORROW - 12"	CY	346	\$19.84	\$6,860
COMMON EXCAVATION - 24"	CY	692	\$10.62	\$7,344
BITUMINOUS WEAR COURSE - 2"	TON	126	\$70.00	\$8,786
BITUMINOUS NON-WEAR COURSE - 2"	TON	126	\$60.00	\$7,531
BITUMINOUS TACK COAT	GAL	104	\$2.00	\$207
8" CONCRETE DRIVEWAY PAVEMENT	SY	25	\$50.00	\$1,272
CONCRETE MEDIAN	SY	285	\$27.05	\$7,709
CONCRETE CURB AND GUTTER	LF	1,299	\$14.00	\$18,186
4" DOUBLE SOLID LINE YELLOW - EPOXY	LF	305	\$0.50	\$153
CROSSWALK MARKING - EPOXY	SF	486	\$5.81	\$2,824
TURF WORK	L SUM	1	\$4,000.00	\$4,000
SUB TOTAL				\$66,696
+15% CONTINGENCY				\$10,005
+25% ENGINEERING				\$19,175
TOTAL				\$95,876

**CR E IMPROVEMENTS COST ESTIMATE
ARDEN HILLS, MN**

CONNELLY STREET/ BINGO HALL ACCESS				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	854	\$2.83	\$2,416
REMOVE CONCRETE MEDIAN	SY	62	\$4.92	\$303
REMOVE CURB & GUTTER	LF	245	\$3.60	\$882
REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	33	\$10.00	\$333
BITUMINOUS WEAR COURSE - 2"	SY	140	\$70.00	\$9,788
BITUMINOUS NON-WEAR COURSE - 2"	TON	140	\$60.00	\$8,389
BITUMINOUS TACK COAT	GAL	58	\$2.00	\$116
8" CONCRETE DRIVEWAY PAVEMENT	SY	33	\$50.00	\$1,667
CONCRETE CURB AND GUTTER	LF	449	\$14.00	\$6,286
TURF WORK	L SUM	1	\$10,000.00	\$10,000
TRAFFIC CONTROL AND STAGING	L SUM	1	\$5,000.00	\$5,000
SUB TOTAL				\$45,179
+15% CONTINGENCY				\$6,777
+25% ENGINEERING				\$12,989
TOTAL				\$64,946

TCF CR E ACCESS AND PARKING IMPROVEMENTS				
BID ITEM	UNIT	QTY	UNIT COST	TOTAL COST
REMOVE BITUMINOUS PAVEMENT	SY	159	\$2.83	\$449
REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	73	\$10.00	\$733
REMOVE CONCRETE MEDIAN	SY	43	\$4.92	\$212
REMOVE CURB & GUTTER	LF	176	\$3.60	\$634
BITUMINOUS WEAR COURSE - 2"	SY	37	\$70.00	\$2,590
BITUMINOUS NON-WEAR COURSE - 2"	TON	37	\$60.00	\$2,220
BITUMINOUS TACK COAT	GAL	31	\$2.00	\$61
CONCRETE CURB AND GUTTER	LF	306	\$14.00	\$4,277
4" SOLID LINE WHITE - EPOXY	LF	234	\$0.25	\$59
TURF WORK	L SUM	1	\$4,000.00	\$4,000
SUB TOTAL				\$15,234
+15% CONTINGENCY				\$2,286
+25% ENGINEERING				\$4,380
TOTAL				\$21,901