

A large, light gray, stylized number '5' is centered in the background of the page. The number is composed of thick, solid lines. The top horizontal bar of the '5' is at the top of the page. The vertical stem of the '5' is on the right side. The bottom curve of the '5' is at the bottom of the page.

# **U.S. Route 5 Planning / Preliminary Design Study**

Wallingford & Meriden, Connecticut

sponsored by the  
South Central Regional Council of Governments  
and the  
Connecticut Department of Transportation

June 2006

URS Corporation  
in association with the  
South Central Regional Council of Governments



# City of Meriden, Connecticut

## OFFICE OF THE CITY MANAGER

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LAWRENCE J. KENDZIOR  
CITY MANAGER

August 22, 2006

Ms. Judy Gott  
Executive Director  
South Central Regional Council of Governments  
127 Washington Avenue  
4<sup>th</sup> Floor West  
North Haven, CT 06473

RE: Route 5 Corridor Study

Dear Ms. Gott:

The City of Meriden has reviewed the conceptual plans proposed by URS of Rocky Hill, CT, for the implementation of both short term and long term improvements to Route 5. These improvements begin at the Meriden/Wallingford City line and end at the intersection of Route 5 at Gale Avenue and Ann Street. The City finds these concepts acceptable and recognizes that refinement of these plans will be required as the implementation of these suggested improvements advance through the various design phases.

If you have any questions, please contact me.

Very truly yours,

Lawrence J. Kendzior  
City Manager

cc: Mark G. Zebora, Director of Parks and Public Works  
Parks and Public Works Committee  
Pierre L. Blanchet, P.E. /L.S., City Engineer  
Robert J. Bass, P.E., Associate City Engineer  
Paul A. Kopek, Assistant City Engineer  
Project File



**OFFICE OF THE MAYOR**  
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June 15, 2006

Judy Gott, Executive Director  
SCRCOG  
127 Washington Avenue, 4<sup>th</sup> Floor West  
North Haven, CT 06473

RE: U.S. Route 5 Planning & Preliminary Design Study

Dear Ms. Gott:

The Town of Wallingford is pleased to participate in the South Central Regional Council of Government's study of Route 5 and its analysis of inadequacies in the highway's current configuration. We believe that constructing more uniformity in highway width and number of traffic lanes will enhance traffic capacity and safety.

However, given the shortage of funds sufficient to accomplish all desirable improvements, we do not sponsor or encourage work on local highways. The cost of realigning the intersections at Cedar Lane and North Plains Highway, and Ives Road and Pent Highway may have an adverse affect on constructing the improvements to Route 5 which we believe to have a higher priority.

Thank you for your attention to this report, and we hope it will result in a project of benefit to all.

Sincerely,

William W. Dickinson, Jr.  
Mayor

jms

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### Connecticut Department of Transportation, Bureau of Engineering and Highway Operations

- § Project Development Unit
- § Planning/Liaison Unit
- § Traffic Engineering, Studies Unit (Districts 1 & 3)
- § Pavement Management Unit
- § Rights-of-Way, Acquisition-Relocation Unit
- § Office of Inventory and Forecasting
- § Office of Property and Facility Services

### Town of Wallingford

- § Engineering Department
- § Department of Public Utilities

### City of Meriden

- § Department of Parks & Public Works
- § Management Information Services Department

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This study was sponsored by the South Central Regional Council of Governments through a funding agreement with the Connecticut Department of Transportation.

# Executive Summary

## Study Purpose

The South Central Regional Council of Governments (SCRCOG) in cooperation with the Connecticut Department of Transportation (CDOT), the City of Meriden, and the Town of Wallingford sponsored the U.S. Route 5 Planning and Preliminary Design Study. The primary purpose of this study was to analyze and quantify the shortcomings of the spot improvements implemented over the years, and initiate a comprehensive corridor-wide improvement program aimed at enhancing traffic capacity and safety while promoting alternative modes of transportation along the U.S. Route 5 corridor to address the existing and projected needs of the communities in this vital corridor.

Primary objectives of the study were outlined as follows:

- Consider traffic volumes, accident history, computed levels of service, and other factors in identifying areas within the corridor that require physical improvement;
- Identify specific constraints to widening US 5 or other possible improvements;
- Evaluate and consider a range of possible improvements to respond to current (short-range) and emerging (long-range) traffic demands within the corridor;
- Develop recommendations that represent viable and feasible solutions to operational shortcomings, safety concerns, and geometric deficiencies found within the corridor;
- Develop cost estimates for the implementation of final recommendations, based on conceptual design work products;
- Estimate the extent and cost of right-of-way impacts associated with final study recommendations;
- Conduct limited public involvement activities to inform stakeholders of study findings, and solicit comment on study recommendations; and,
- Conduct a dialog among Study Team participants regarding technical, programmatic, and funding issues associated with advancing study recommendations to subsequent phases of implementation.

## Assessment of Existing Conditions

The Study Team reviewed existing conditions related to existing geometry, traffic volumes, land development, and multi-modal transportation needs to identify factors that contribute to poor traffic operations, congestion, and elevated accident rates. Initially, a series of locations along the corridor were identified as being Early Focus Areas of attention.

Accident data were analyzed to identify locations where mitigating efforts may be necessary to improve safety. In all, 2.6 miles of the 4.3 mile-long study corridor operate with elevated accident rates, representing approximately 60% of the entire study corridor by length. Accident rates at specific locations within the corridor are noted to be more than twice the statewide averages for similar arterials.

As development activity in and around the US 5 corridor continues to occur capacity along the corridor will continue to be an issue. To help the Study Team identify which

intersections were most susceptible to degraded levels of service due to increased traffic volumes, SCRCOG projected traffic volumes that are 10% higher than existing volumes. Analysis of these volumes revealed the operational sensitivities to traffic increases along the US 5 corridor.

Intersection Levels of Service (LOS) were computed for each of the major intersections along the US 5 corridor during various peak periods. Under the existing conditions, nine locations were determined to have one or more intersection approach leg operating at a LOS D or worse during one of the analysis periods. Under projected conditions, this number increases to 15 locations.

Based on the investigation of traffic volumes, capacity, and accident experience within the US 5 corridor, the Study Team refined its list of focus areas. Additional focus areas were identified based on requests made by Town and City officials that specific improvements be considered at specific locations throughout the corridor.

### Short-Range Improvements

Based on the analysis of the "Peak Plus 10%" period, a series of short-range improvement alternatives were developed. The intent of the short-range improvements are to provide low cost / low impact meaningful and beneficial corridor improvements and enhancements to mitigate congestion and delay, enhance alternative transportation modes, and reduce the potential for accidents along the corridor.

The short-range improvement package in Wallingford and Meriden involves the development of a center two-way left turn lane (TWLTL), as well as dedicated left turns at specific locations. Research indicates that these types of improvements can potentially reduce certain types of accidents by substantial margins. The short-range plan also includes in-fill sidewalk along one side of US 5 within the study limits.

### Long-Range Improvements

The long-range improvements identified by this study are intended to address expected travel demand over the next 20 years. Typically, these improvements will require right-of-way action, significant funding commitment, environmental review, detailed engineering, permitting and public involvement prior to implementation. The following improvements were identified as long-range initiatives:

- In Wallingford, widen US 5 to achieve a five-lane roadway section consisting of two travel lanes in each direction and a center two-way left turn lane (a) between North Street and the Wal-Mart parcel; (b) Between Ives Road and the Stop & Shop driveway; (c) Between the Stop & Shop driveway and the Route 15 southbound ramp terminal
- In Meriden, realign Gypsy Lane to intersect US 5 opposite the Green Road approach, and Realign Ann Street to intersect US 5 opposite the Gale Avenue approach.
- In Meriden, construct minor pavement widening at the southwest corner of the US 5 / Hall Avenue intersection, providing more generous curb geometry for wheel paths of turning trucks and buses.

- In Wallingford and Meriden, complete the construction of in-fill sidewalk improvements, and provide additional crosswalks and pedestrian actuation at signalized intersections where required.

### The US 5 / Connecticut Route 15 Interchange Area

The current configuration of the Route 15 northbound ramp terminals and Yale Avenue at US 5 has been in operation and has experienced significant levels of congestion for decades. Prior attempts to pursue improvements at this interchange by the Town and CDOT proved unsuccessful due to a number of issues. To respond to these legacy issues and to address the need for interchange area improvements, the Study Team formulated four improvement options. Detailed investigation of the effectiveness and impacts of these options were beyond the scope of this study, but do provide a starting point for future study efforts.

### Short-Range and Long-Range Program Costs

Construction cost estimates were developed for short- and long-range improvements identified in this study. The total cost of all short-range improvements in Wallingford are estimated at \$1,270,000, and improvements in Meriden are estimated at \$710,000. The total cost of all long-range improvements in Wallingford are estimated at \$12,145,000, excluding the cost of improvements at the US 5 / Route 15 Interchange. The cost of long-range improvements in Meriden are estimated at \$2,365,000.

### Right of Way Impacts

The short-range improvements were formulated in ways that avoided the need for right-of-way acquisitions. Thus, there are no right-of-way acquisition needs associated with the recommended short-range improvements.

In Wallingford, the long-range improvements would affect an estimated 49 individual properties, and a total right-of-way cost of approximately \$3,176,000. In Meriden, the long-range improvements would affect an estimated 3 parcels, and a total right-of-way cost of approximately \$893,000.

In all, implementation of the long-range recommendations would affect an estimated 52 parcels, three total property acquisitions, and partial acquisitions impacts to 3.8 acres of developed property. Total right-of-way related costs for work in both communities is estimated at \$4,609,000.

### Public Involvement Program

During the conduct of the study, one joint Public Information Meeting (PIM) was held for both Wallingford and Meriden. The meeting was attended by representatives of SCRCOG, the Town of Wallingford, the City of Meriden, and URS Corporation. Approximately 45 citizens attended, and were actively involved in discussion of the project.

Subsequent to the PIM, URS and Town staff made a presentation to the Wallingford Town Council to report on study findings and recommendations. The presentation produced meaningful interaction with Town Council members, and was productive in disseminating study-related information to Town officials and Town residents unable to attend the PIM.

## I. Background and Study Purpose

US 5 functions as a primary arterial serving the communities of Wallingford and Meriden, and plays a critical role in serving the transportation needs of residents, commuters, businesses, and visitors to the area. The following documents conditions within the US 5 corridor, events, and influences that generated the need for the US 5 Planning / Preliminary Design Study.

### Land Development

Continuing land development activity in Wallingford and Meriden has historically played a key role in creating the need for improvements along US 5. The Town of Wallingford and the City of Meriden have faced the issue of cumulative impacts from corridor-wide development for decades. In Wallingford, those issues intensified in 1995, when both the Wal-Mart and Super K-Mart projects were simultaneously approved for construction. While land use and zoning studies have been conducted over the years, there has been no comprehensive initiative aimed at providing additional traffic flow capacity on US 5.

In recent years, land development activity in the area has again surged, placing renewed pressure on US 5 to accommodate growing traffic volumes. Traffic volume growth often spurs additional land development activity, with retail interests seeking locations with higher traffic volumes and higher commercial visibility.

From a revenue generating perspective, Wallingford and Meriden have been fortunate in their abilities to attract, and in most cases retain, sizeable commercial development projects. Unfortunately, much of that development is situated along US 5. For those developments that aren't located adjacent to US 5, motorists invariably rely on US 5 or crossing roadways as either an approach or departure route for the site-oriented trips they generate. The economic health of the Town and the City is therefore invested heavily in US 5, and its ability to provide safe and efficient traffic operations is viewed as critical to the interests of the Town, the City, and the region.

### Previous Study Efforts

In late 1995, the Wallingford Planning and Zoning Commission engaged a consultant to perform the "*U.S. Route 5 Land Use and Traffic Analysis Study*", focusing on the US 5 and Main Street corridors. This study investigated the impacts of pending development projects and future growth trends on traffic volumes, congestion, and the need for improvements to State and Town highways. The final report, issued in March 1996, contained the following generalized recommendations:

- Changes to zoning ordinances and other land use controls to regulate the size and density of allowable developments;
- Implementation of curb cut management strategies to reduce turning movements and congestion;
- Implementation of changes to traffic operations such as left turn restrictions from US 5, and neighborhood traffic control strategies;
- Initiate planning activities for future improvements; and,

- Implementation of suggested physical improvements to State and Town highways based on projected travel demand and traffic operations.

Many of these changes were implemented, and are credited by Town staff for at least partially slowing the growth of traffic and congestion on US 5.

## Completed Improvements and Constraints

Developers generally face certain practical limitations when committing to off-site roadway improvements, resulting in somewhat limited improvements to public infrastructure. Over the years, these limitations have been realized throughout the corridor, and are manifest in the succession of “hourglass” widenings of US 5 throughout the corridor. With each new development approved by the Town or City, various developers committed to spot improvements to alleviate traffic congestion at or near their respective development parcel.

The Town, City, and State have done an admirable job of working with developers toward implementing spot improvements where possible through the STC and local site plan approval processes. However, while such spot improvements have created pockets of additional capacity on US 5, they have fallen short of achieving operational lane balance or comprehensive capacity enhancement within the corridor.

Within the US 5 corridor, there currently exist several physical constraints to roadway capacity and potential improvements. These include lane drops and poor lane continuity, a large number of curb cuts, pavement markings that fail to provide proper travel path delineation, structures that provide limited horizontal clearances, on-street parking, and limited right-of-way.

## The Study Team

Faced with these issues of land use, growing traffic volumes, congestion, and corridor constraints, the Town of Wallingford in late 2004 petitioned the South Central Regional Council of Governments (SCRCOG) to initiate a planning and preliminary design study for US 5. Recognizing that the City of Meriden also faced many of the same issues as Wallingford, SCRCOG solicited interest from the City, which supported the initiative and agreed to participate in the study.

Because US 5 is a State highway, participation by the Connecticut Department of Transportation was deemed critical to the success and legitimacy of the study. SCRCOG efforts to include CDOT as a member of the Study Team were successful. The study was initiated in September 2006 with the following members of the Study Team:

- South Central Regional Council of Governments (SCRCOG);
- Town of Wallingford (Town);
- City of Meriden (City);
- Connecticut Department of Transportation (CDOT); and,
- URS Corporation (URS).



## Purpose and Scope of the US 5 P/PD Study

The purpose of the US 5 Planning/Preliminary Design Study was to analyze and quantify the shortcomings of the spot improvements implemented over the years, and initiate a comprehensive corridor-wide improvement program aimed at enhancing traffic capacity and safety along US 5. Through an understanding of operational problems, capacity constraints, localized travel patterns, and community needs, the Study Team was tasked with formulating improvement strategies, measuring their effectiveness, and determining the most viable and cost-effective solutions to corridor needs.

Primary objectives of the study were outlined as follows:

- Consider traffic volumes, accident history, computed levels of service, and other factors in identifying areas within the corridor that require physical improvement;
- Identify specific constraints to widening US 5 or other possible improvements;
- Evaluate and consider a range of possible improvements to respond to current (short-range) and emerging (long-range) traffic demands within the corridor. These were to include widening of US 5; Transportation System Management (TSM) improvements; new or improved traffic signalization; drainage improvements; realignment of local road approaches to US 5; consideration to accommodate alternative transportation modes such as pedestrians and bicycles; access control/curb cut management; Wilbur Cross Parkway Interchange 66 improvements; other improvements identified by study participants;
- Develop a set of final recommendations predicated on conceptual design work products that represent viable and feasible solutions to operational shortcomings, safety concerns, and geometric deficiencies found within the corridor;
- Develop cost estimates for the implementation of final recommendations, based on conceptual design work products;
- Estimate the extent and cost of right-of-way impacts associated with final study recommendations;
- Conduct limited public involvement activities to advise residents and other constituents regarding the study findings, and solicit comment on study recommendations; and,
- Conduct a dialog among Study Team participants regarding technical, programmatic, and funding issues associated with advancing study recommendations to subsequent phases of implementation.

This final report document summarizes the work of all Study Team members.

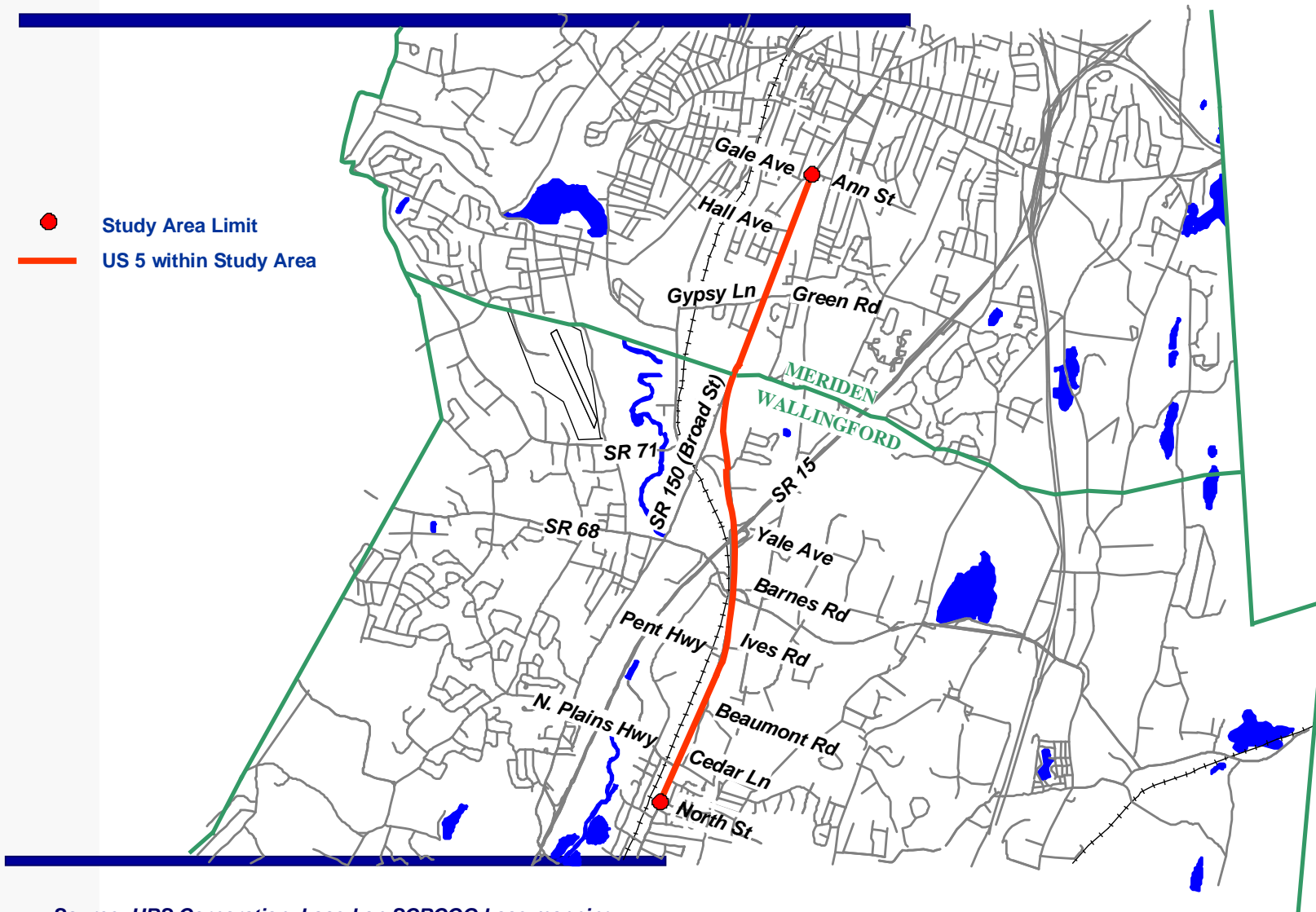
## Study Limits

The project focuses on the segment of US 5 shown in Exhibit I-1, encompassing a total distance of approximately 4.3 miles and spanning the Town/City line. The south study limit is located on US 5 at the North Street intersection. The north study limit is located on US 5 at the Ann Street/Gale Avenue intersection.

The south study limit was established by SCRCOG through consultation with Town staff. It

# Exhibit I-1

## Study Area



Source: URS Corporation, based on SCRCOG base mapping.

was felt that major capacity enhancements or operational changes south of North Street would be infeasible due to the nature of abutting land use and the overall character of US 5. The north study limit was established by SCRCOG in a similar manner and on the basis of similar input from City staff, relative to the segment of US 5 north of the Ann Street/Gale Avenue intersection.

## II. Existing Physical Conditions

### Land Use

Properties abutting US 5 within the study limits represents a broad range of land uses, involving a diverse mix of retail, commercial, residential, light industrial, and institutional interests. This level of diversity is important in understanding the travel patterns and user needs of the corridor.

The area between North Street and Beaumont Road is characterized by dense retail and commercial development. Properties range in size from approximately 0.25 acre to more than 3 acres, but average perhaps no more than an acre in size. Individual parcels are occupied by fast food and other small-scale restaurants, gas stations, service establishments (e.g., dry cleaners), and miscellaneous retail. Barberino Pontiac is a major landowner along this roadway segment, occupying sizeable parcels on the east and west sides of US 5.

Land use between Beaumont Road and the Route 68 overpass is characterized by fairly large parcels, ranging in size from approximately 0.5 acre to more than 16 acres. Average parcel size is substantially larger than those located south of Beaumont Road. Developments include a mix of large-scale retail (Wal-Mart, Shaw's, Stop & Shop), small- or medium-scale retail (Advance Auto Parts, Sherwin-Williams), a lumber yard, several automobile dealerships, and several small restaurants.

The pattern of larger parcels and "big box" retail and other commercial developments intermingled with smaller-scale commercial land use continues further north, beyond the Town/City line. Properties of prominent size located along this segment of US 5 include Wallingford Plaza, the Yankee Silversmith restaurant, BJ's Wholesale Club (under construction), The Home Depot, Lowe's (pending construction), Staples Plaza, Kohl's/Shop-Rite Plaza, Town Line Plaza, and numerous car dealerships.

Between the Gypsy Lane/Green Road intersection and the Ann Street/Gale Avenue intersection in Meriden, land use abutting US 5 involves relatively small parcels supporting a mix of residential and commercial activity. Sacred Heart Cemetery appears to control and occupy the largest parcel abutting US 5 in this area. Guilford Saab, Roberts Dodge, Roberts Chrysler and several apartment complexes also occupy sizeable parcels. Remaining parcels range in size from approximately 0.12 to 1.7 acres, with the average parcel size estimated at perhaps 0.5 acres.

### Roadway Attributes

US 5 through Wallingford and Meriden was originally constructed and put into service in 1926, probably as a two-lane highway having a nominal width of about 20 ft. Between New Haven and Enfield, US 5 was designated a "strategic highway" by the U.S. Department of War during the early 1940's, and was reconstructed to include wider pavement, shoulders, and minimum clearances.

Based on consultation with CDOT staff, US 5 is thought to have a composite pavement structure, featuring a concrete base with bituminous overlay(s). CDOT reports that sections

of US 5 were milled and overlayed within the past few years. A visual review of pavement condition indicates that the pavement is in satisfactory condition, within minor reflexive cracking. This apparent condition is consistent with composite pavements constructed elsewhere in the state that are believed to be of similar age, and subject to similar loading.

The existing pavement width along US 5 varies within the study limits from approximately 36 ft (near the Beaumont Road intersection) to 91 ft (at the Neal Road intersection). In general, US 5 provides one or two travel lanes in each direction, with dedicated turn lanes at signalized intersections. As documented elsewhere, spot widenings of US 5 at major intersections have been undertaken over the years in an attempt to alleviate traffic congestion attributable to permitted land developments. These “hourglass” widenings generally provide poor lane continuity from one signalized intersection to another, and require motorists to constantly be aware of changing lane assignments, pavement widths, and merging maneuvers.

### Traffic Signalization

The following 20 intersections along US 5 within the study limits currently operate under traffic signal control (listed in order from south to north):

- North Plains Highway / Cedar Lane;
- Driveways to Wallingford Wine & Spirits / Best Value Home Center;
- Driveway to Wal-Mart;
- Driveways to Shaw’s Plaza / Dunkin’ Donuts;
- Pent Highway / Ives Road;
- Driveways to Stop & Shop / Sherwin-Williams;
- Barnes Road (connection to Route 68);
- Driveway to Wallingford Plaza;
- Yale Avenue / Driveway to Mobilmart;
- Wilbur Cross Parkway (Route 15) northbound ramps;
- Wilbur Cross Parkway (Route 15) southbound exit ramp / Driveway to Yankee Silversmith Inn;
- Neal Road / Driveway to The Home Depot;
- SR 71 / Circle Drive;
- SR 150;
- Driveway to Kohl’s Plaza;
- South driveway to Town Line Plaza;
- North driveway to Town Line Plaza;
- Gypsy Lane / Green Road;
- Hall Avenue; and,
- Ann Street / Gale Avenue.

Several of these signals were updated or replaced as part of projects sponsored by CDOT during the mid and late 1990s. Based on record signal drawings obtained from CDOT, all of the signals feature emergency vehicle preemption equipment, which is owned and

maintained by the Town or the City. With the exception of the last two signals listed above, all existing signals within the study limits operate within an interconnected system.

In addition to the signals listed above, new traffic signals will be installed at the following locations along US 5 pursuant to site plan approvals for new land development projects:

- Beaumont Road (improvement associated with new retail development located along the east side of US 5 at Beaumont Road); and,
- New commercial driveway located south of Neal Road (improvement associated with development of new BJ's Wholesale Club located along the east side of US 5 south of Neal Road).

## Utilities

Based on research conducted for this study, the US 5 corridor is known to contain the following utilities:

- Electric facilities (overhead and underground);
- Telephone facilities (overhead and underground);
- Cable television;
- Gas mains and service laterals;
- Water mains and service laterals;
- Sanitary lines and service laterals;
- Fiberoptic communication lines;
- Traffic signal interconnect;
- Roadway illumination;
- Storm drainage mains and laterals; and,
- Railroad signal and communication.

## Right-of-Way

The Study Team collected information regarding property ownership, property lines, and public rights-of-way in order to establish what land areas were currently available for improvements to US 5 and other roadways affecting operations on US 5. This information, as shown in corridor illustrations prepared for this study, was obtained from a variety of sources:

- State highway right-of-way lines were based on record right-of-way mapping made available by CDOT. In some cases, right-of-way information was based on information shown on record drawings for highway improvement projects or traffic signal control plans also made available by CDOT;
- Property lines and owner information for parcels in Wallingford were made available by the Town of Wallingford Assessor's Office; and,
- Property lines and owner information for parcels in Meriden were made available by the City of Meriden Management Information Services Department.

In cases where there were apparent discrepancies between different sources of information, it was assumed that information contained in State highway right-of-way mapping was of a

higher order of accuracy, and was used in the study exhibits.

In Wallingford, existing State-owned right-of-way for US 5 varies considerably in width. A minimum width of approximately 52 ft is present north of Barnes Road, adjacent to railroad right-of-way. Between North Plains Highway and Pent Highway, the right-of-way measures approximately 100 ft wide. In the vicinity of Neal Road, SR 71, and Staples Plaza, existing right-of-way is estimated to measure 100-140 ft wide. North of SR 150, existing right-of-way for US 5 is estimated to measure approximately 85 ft wide.

In Meriden, existing State highway right-of-way is estimated to measure 85-100 ft wide between the City/Town line and the Gypsy Lane/Green Road intersection. North of this intersection, US 5 right-of-way measures approximately 66 ft wide.

### III. Existing Traffic Operations

The following narrative describes current traffic operations along US 5 within the study limits, and documents the decisions made by the Study Team regarding which areas of the corridor should be considered for improvements under this study.

#### Early Focus Areas

On the basis of background knowledge of corridor operations offered by Town and City staff, SCRCOG initially identified several areas within the corridor as being focus areas of attention for this study. These included the following areas (listed south to north):

- US 5 south of North Plains Highway - One travel lane in each direction, with no turn lanes to accommodate access into a high number of commercial driveways;
- US 5 at North Plains Highway/Cedar Lane - Offset alignments of North Plains Highway and Cedar Lane result in split signal phasing, potentially high delay, and irregular travel paths for motorists;
- US 5 at Pent Highway/Ives Road - Offset alignments of Pent Highway and Ives Road result in split signal phasing, potentially high delay, and irregular travel paths for motorists;
- US 5 between the driveway to Stop & Shop and the Route 15 ramps - Intersections and roadway segments suspected to operate over capacity;
- US 5, vicinity of Town Line Plaza - Single southbound through lane suspected to operate over capacity; and,
- US 5 between Gypsy Lane/Green Road and Ann Street/Gale Avenue - One travel lane in each direction, with no turn lanes to accommodate access into a high number of driveways.

This list of focus areas would be revisited and refined based on the results of investigations and detailed analysis of accident experience, traffic volumes, and capacity analyses for intersections along US 5.

#### Accident Experience

A review of accident data for a corridor is important in understanding the nature of deficiencies influencing traffic operations within a corridor, and identifying appropriate types of improvements or corrective measures. The Study Team reviewed accident data for the US 5 corridor for the three-year period of 1998-2000. Data was obtained from CDOT records for the entire length of US 5 within the study limits.

CDOT maintains accident data on state highways, including information on the location and collision type associated with each reported incident. Exhibit III-1 provides a tabulation of accident experience by collision type and location. Although rear end accidents account for a substantial percentage of all collision types throughout the entire corridor, other trends can be discerned from data related to individual locations.

Using accident data along with traffic volume data and standardized roadway classifications, CDOT prepares safety performance data for select roadway segments and intersections



# Exhibit III-1

## Accident History

### Accident Type

January, 2001 thru June, 2004

Critical Accident/Critical Rate Above 1.00

		Milepost		Percent Distribution												Fixed Object		Moving Object		Total	
				Turning Same Dir	Turning Opp Dir	Turning Inter Path	Sideswipe Same Dir	Sideswipe Opp Dir	Angle	Rear End	Head On	Backing	Parking	Unknown							
North St	to North Plains Hwy	12.140	12.370	5	18	26	5	0	3	36	0	3	0	5	0	0	0	100			
North St/Cedar Ln		12.370	12.440	20	11	11	3	0	3	43	0	3	0	6	0	0	0	100			
Cedar Ln	to Walmart	12.450	12.920	8	4	15	25	6	0	34	0	0	0	9	0	0	0	100			
Walmart		12.930	12.970	not available																	
Walmart	to Shaws	12.980	13.000	0	17	50	17	0	0	17	0	0	0	0	0	0	0	100			
Shaws		13.010	13.060	0	0	20	20	0	0	20	0	0	0	40	0	0	0	100			
Shaws to Pent Hwy		13.070	13.140	7	14	21	7	43	0	7	0	0	0	0	0	0	0	100			
Pent Hwy/Ives		13.150	13.190	11	6	39	6	0	0	28	0	6	0	6	0	0	0	100			
Ives	to Stop & Shop	13.200	13.450	8	13	35	11	0	2	27	0	2	0	3	0	0	0	100			
Stop & Shop		13.460	13.510	15	23	0	23	8	0	23	0	0	0	8	0	0	0	100			
Stop & Shop to Barnes		13.520	13.570	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100			
Barnes		13.580	13.630	0	21	0	14	0	0	57	0	0	0	7	0	0	0	100			
Barnes	to Yale Ave	13.640	13.850	4	8	24	6	0	0	51	0	2	0	2	0	0	2	100			
Yale/Rt15 NB		13.851	13.942	5	23	19	13	0	3	32	1	3	1	1	0	0	0	100			
Rt15 NB	to Rt15 SB	13.943	13.974	0	0	0	25	0	0	75	0	0	0	0	0	0	0	100			
Rt15 SB		13.975	14.061	3	6	28	22	3	3	31	0	0	0	0	0	0	6	100			
Rt15 SB	to Home Depot	14.062	14.209	6	18	18	12	0	0	35	0	6	0	0	0	0	6	100			
Home Depot		14.210	14.328	15	9	6	11	0	4	49	0	0	0	4	0	0	2	100			
Home Depot to Rt 71		14.329	14.371	50	0	0	0	0	0	50	0	0	0	0	0	0	0	100			
Rt 71		14.372	14.440	0	4	0	21	0	7	61	0	4	0	0	0	0	4	100			
Rt 71	to Rt 150	14.441	14.808	6	6	16	13	0	0	53	3	0	0	0	0	0	3	100			
Rt 150		14.809	14.886	4	0	11	11	0	4	64	0	0	0	7	0	0	0	100			
Rt 150	to Kohls	14.887	14.922	13	13	0	13	0	0	63	0	0	0	0	0	0	0	100			
Kohls		14.923	14.984	8	31	0	23	0	0	38	0	0	0	0	0	0	0	100			
Kohls	to TL Plaza No	14.985	15.095	0	13	13	0	0	0	38	0	13	0	13	13	0	0	100			
TL Plaza N&S		15.096	15.262	2	19	23	9	0	2	40	0	0	0	5	0	0	0	100			
TL Plaza N&S	to Gypsy Ln	15.263	15.532	4	13	27	2	0	0	50	0	0	0	5	0	0	0	100			
Gypsy Ln		15.533	15.619	0	10	12	2	2	0	69	0	2	0	2	0	0	0	100			
Gypsy Ln	to Hall Ave	15.620	16.011	5	0	5	5	0	0	68	0	11	0	5	0	0	0	100			
Hall Ave		16.012	16.052	7	21	7	0	0	7	57	0	0	0	0	0	0	0	100			
Hall Ave	to Ann St	16.053	16.409	2	2	11	15	0	0	53	0	4	2	4	6	0	0	100			
Ann St		16.410	16.488	3	6	9	3	0	3	71	3	0	3	0	0	0	0	100			

Source: South Central Regional Council of Governments, based on 1998-2000 CDOT accident data.

along all state highways. Comparisons are drawn between actual accident rates evidenced on roadway segments or at intersections with average accident rates at similar locations on a statewide basis. Thus, a safety performance rating of 1.50 for a particular location indicates that the actual accident rate for that location is 50% higher than what would be expected at similar locations throughout the state.

Exhibit III-2 illustrates accident rate data for US 5 within the study limits. Roadway segments highlighted in red and intersections denoted with a red circle indicate those locations that exhibit accident rates that are above the statewide averages for similar locations. In all, 2.6 miles of the 4.3 mile-long study corridor operate with elevated accident rates, representing approximately 60% of the entire study corridor by length. Two segments (Shaw's Plaza driveway to Pent Highway (2.53), and Town Line Plaza driveway to Gypsy Lane (2.16)) experience accident rates that are more than twice the statewide averages for similar arterials. The accident rate at the US 5 / Pent Highway intersection is computed to be 2.71 times the statewide average for intersections of this type.

These results were somewhat expected by the Study Team. Data regarding reported accidents within the study area generally confirm a high accident potential within the corridor that is consistent with observations of existing conditions, as well as anecdotal rationale for the study provided by local officials, area motorists, and others familiar with operations on US 5.

### Traffic Volumes

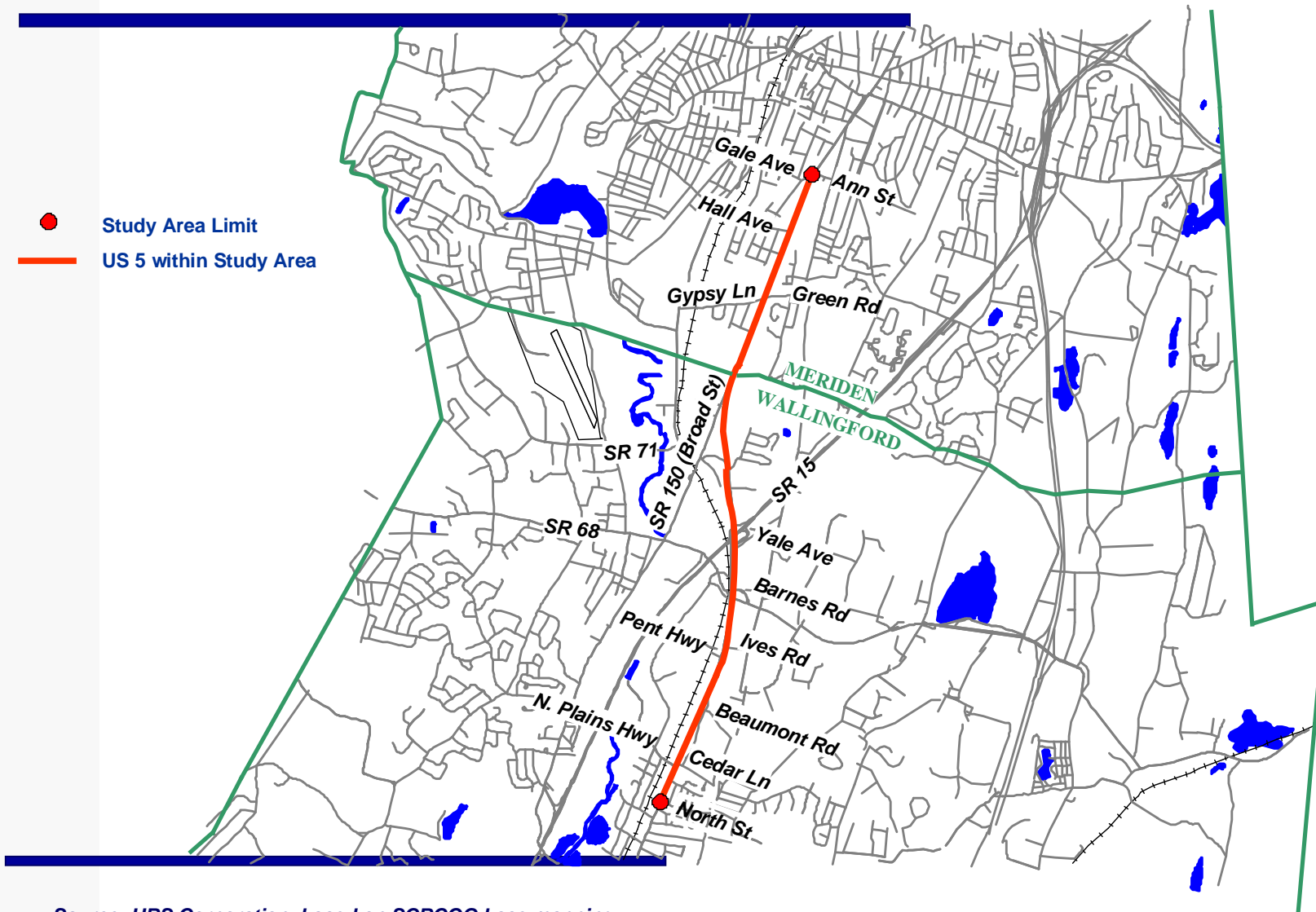
Traffic counts were undertaken by SCRCOG at major intersections along US 5 within the study limits during the Fall 2004 and Spring 2005 seasons. Volumes were adjusted for seasonal variations, and were balanced between adjacent intersections. Exhibits III-3 through III-6 illustrate average weekday traffic volumes during am and pm peak periods. SCRCOG also conducted traffic counts to verify existing traffic volumes during typical Saturday peak period conditions. Exhibits III-7 through III-10 illustrate current (2005) traffic volumes during average Saturday peak period conditions.

Data indicates the following general trends:

- Traffic volumes during the weekday pm peak period are generally higher than those encountered during the weekday am peak period throughout the corridor.
- Saturday peak period volumes are comparable to, and in some cases higher than, those encountered during weekday peak periods. This trend is likely attributable to the influence of dense retail development that is directly accessed from US 5.
- Traffic volumes are noted to be highest near the Route 15 northbound ramps and Yale Avenue intersection. Bidirectional volumes during the weekday am and pm peak periods are a minimum of 400 vph higher than anywhere else in the corridor. During the Saturday peak period, volumes at the Route 15 ramp/Yale Avenue area are a minimum of 300 vph higher than elsewhere within the study limits.
- Traffic volumes in Meriden north of the Gypsy Lane/Green Road intersection (800-1000 vph) and in Wallingford at the North Street intersection (1000-1200 vph) are markedly lower than elsewhere within the study area.

# Exhibit I-1

## Study Area



Source: URS Corporation, based on SCRCOG base mapping.

# Exhibit III-1

## Accident History

### Accident Type

January, 2001 thru June, 2004

Critical Accident/Critical Rate Above 1.00

		Milepost		Percent Distribution												Fixed Object		Moving Object		Total	
				Turning Same Dir	Turning Opp Dir	Turning Inter Path	Sideswipe Same Dir	Sideswipe Opp Dir	Angle	Rear End	Head On	Backing	Parking	Unknown							
North St	to North Plains Hwy	12.140	12.370	5	18	26	5	0	3	36	0	3	0	5	0	0	0	100			
North St	Cedar Ln	12.370	12.440	20	11	11	3	0	3	43	0	3	0	6	0	0	0	100			
Cedar Ln	to Walmart	12.450	12.920	8	4	15	25	6	0	34	0	0	0	9	0	0	0	100			
Walmart		12.930	12.970	not available																	
Walmart	to Shaws	12.980	13.000	0	17	50	17	0	0	17	0	0	0	0	0	0	0	100			
Shaws		13.010	13.060	0	0	20	20	0	0	20	0	0	0	40	0	0	0	100			
Shaws	to Pent Hwy	13.070	13.140	7	14	21	7	43	0	7	0	0	0	0	0	0	0	100			
Pent Hwy	Ives	13.150	13.190	11	6	39	6	0	0	28	0	6	0	6	0	0	0	100			
Ives	to Stop & Shop	13.200	13.450	8	13	35	11	0	2	27	0	2	0	3	0	0	0	100			
Stop & Shop		13.460	13.510	15	23	0	23	8	0	23	0	0	0	8	0	0	0	100			
Stop & Shop	to Barnes	13.520	13.570	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100			
Barnes		13.580	13.630	0	21	0	14	0	0	57	0	0	0	7	0	0	0	100			
Barnes	to Yale Ave	13.640	13.850	4	8	24	6	0	0	51	0	2	0	2	0	0	2	100			
Yale/Rt15 NB		13.851	13.942	5	23	19	13	0	3	32	1	3	1	1	0	0	0	100			
Rt15 NB	to Rt15 SB	13.943	13.974	0	0	0	25	0	0	75	0	0	0	0	0	0	0	100			
Rt15 SB		13.975	14.061	3	6	28	22	3	3	31	0	0	0	0	0	0	6	100			
Rt15 SB	to Home Depot	14.062	14.209	6	18	18	12	0	0	35	0	6	0	0	0	0	6	100			
Home Depot		14.210	14.328	15	9	6	11	0	4	49	0	0	0	4	0	0	2	100			
Home Depot	to Rt 71	14.329	14.371	50	0	0	0	0	0	50	0	0	0	0	0	0	0	100			
Rt 71		14.372	14.440	0	4	0	21	0	7	61	0	4	0	0	0	0	4	100			
Rt 71	to Rt 150	14.441	14.808	6	6	16	13	0	0	53	3	0	0	0	0	0	3	100			
Rt 150		14.809	14.886	4	0	11	11	0	4	64	0	0	0	7	0	0	0	100			
Rt 150	to Kohls	14.887	14.922	13	13	0	13	0	0	63	0	0	0	0	0	0	0	100			
Kohls		14.923	14.984	8	31	0	23	0	0	38	0	0	0	0	0	0	0	100			
Kohls	to TL Plaza No	14.985	15.095	0	13	13	0	0	0	38	0	13	0	13	13	0	0	100			
TL Plaza N&S		15.096	15.262	2	19	23	9	0	2	40	0	0	0	5	0	0	0	100			
TL Plaza N&S	to Gypsy Ln	15.263	15.532	4	13	27	2	0	0	50	0	0	0	5	0	0	0	100			
Gypsy Ln		15.533	15.619	0	10	12	2	2	0	69	0	2	0	2	0	0	0	100			
Gypsy Ln	to Hall Ave	15.620	16.011	5	0	5	5	0	0	68	0	11	0	5	0	0	0	100			
Hall Ave		16.012	16.052	7	21	7	0	0	7	57	0	0	0	0	0	0	0	100			
Hall Ave	to Ann St	16.053	16.409	2	2	11	15	0	0	53	0	4	2	4	6	0	0	100			
Ann St		16.410	16.488	3	6	9	3	0	3	71	3	0	3	0	0	0	0	100			

Source: South Central Regional Council of Governments, based on 1998-2000 CDOT accident data.

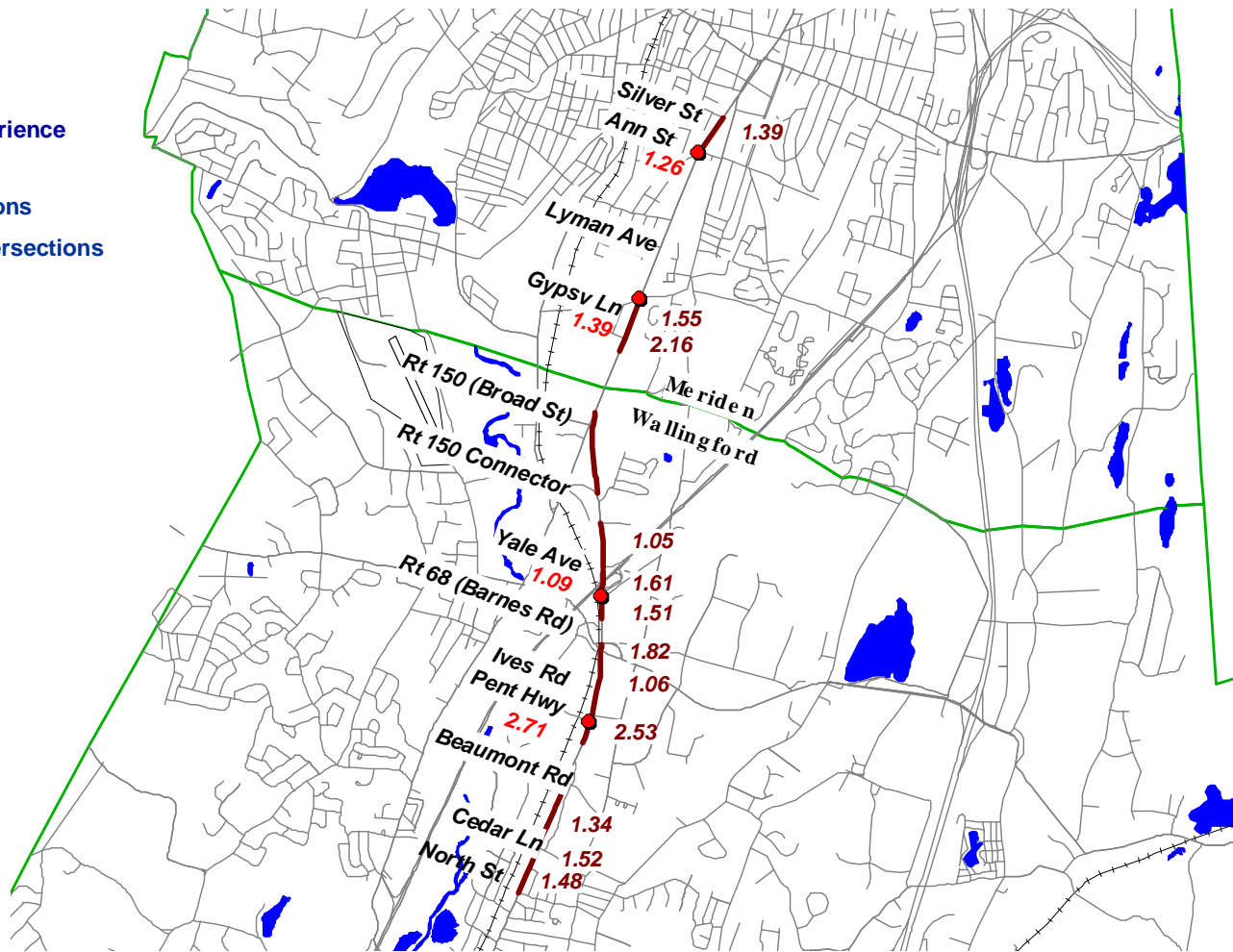
## Exhibit III-2

### Historic Accident Rates

Critical Accident Experience  
actual rate/critical rate

1.43 at intersections

1.43 between intersections



Source: South Central Regional Council of Governments, based on 1998-2000 CDOT accident data.

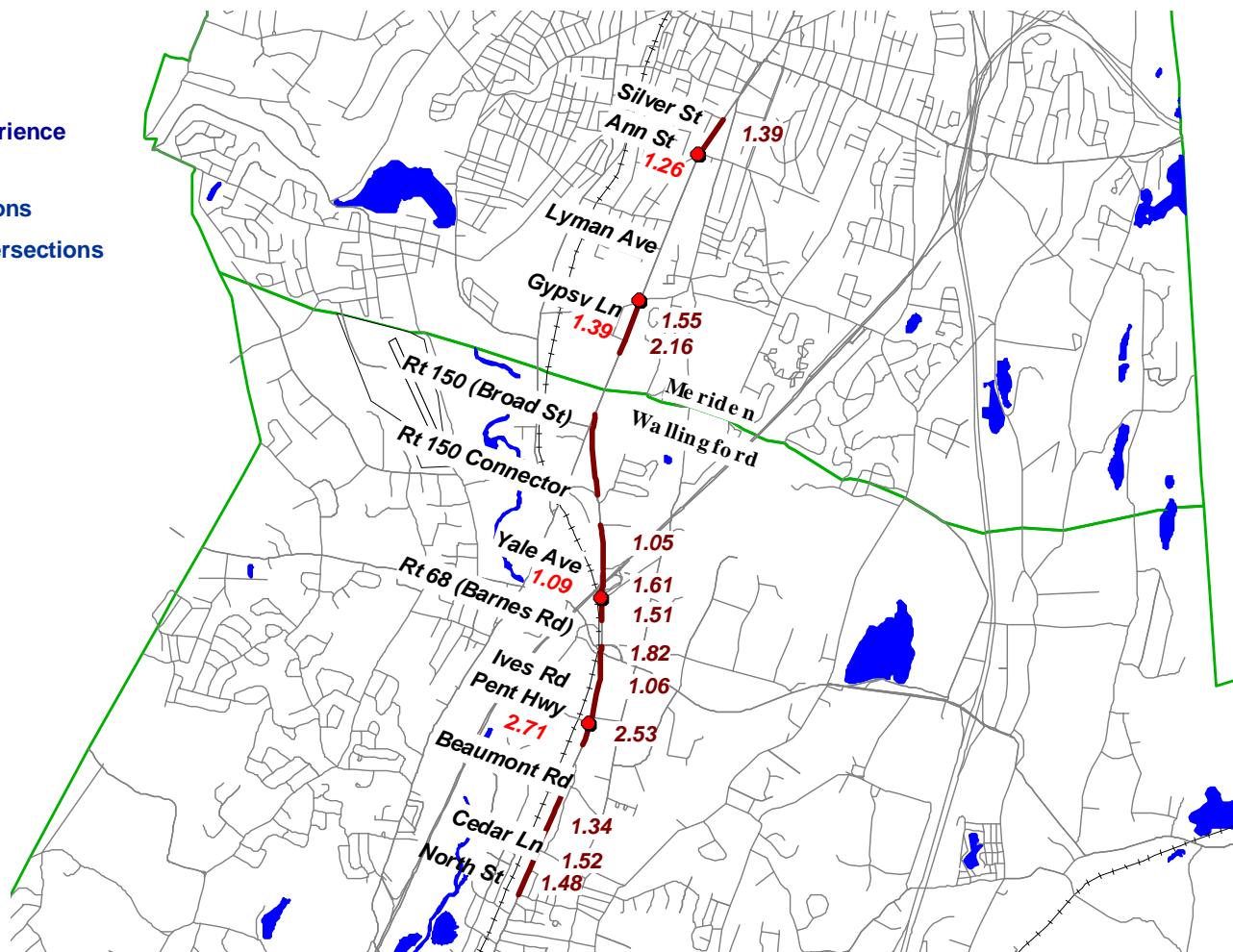
## Exhibit III-2

### Historic Accident Rates

Critical Accident Experience  
actual rate/critical rate

1.43 at intersections

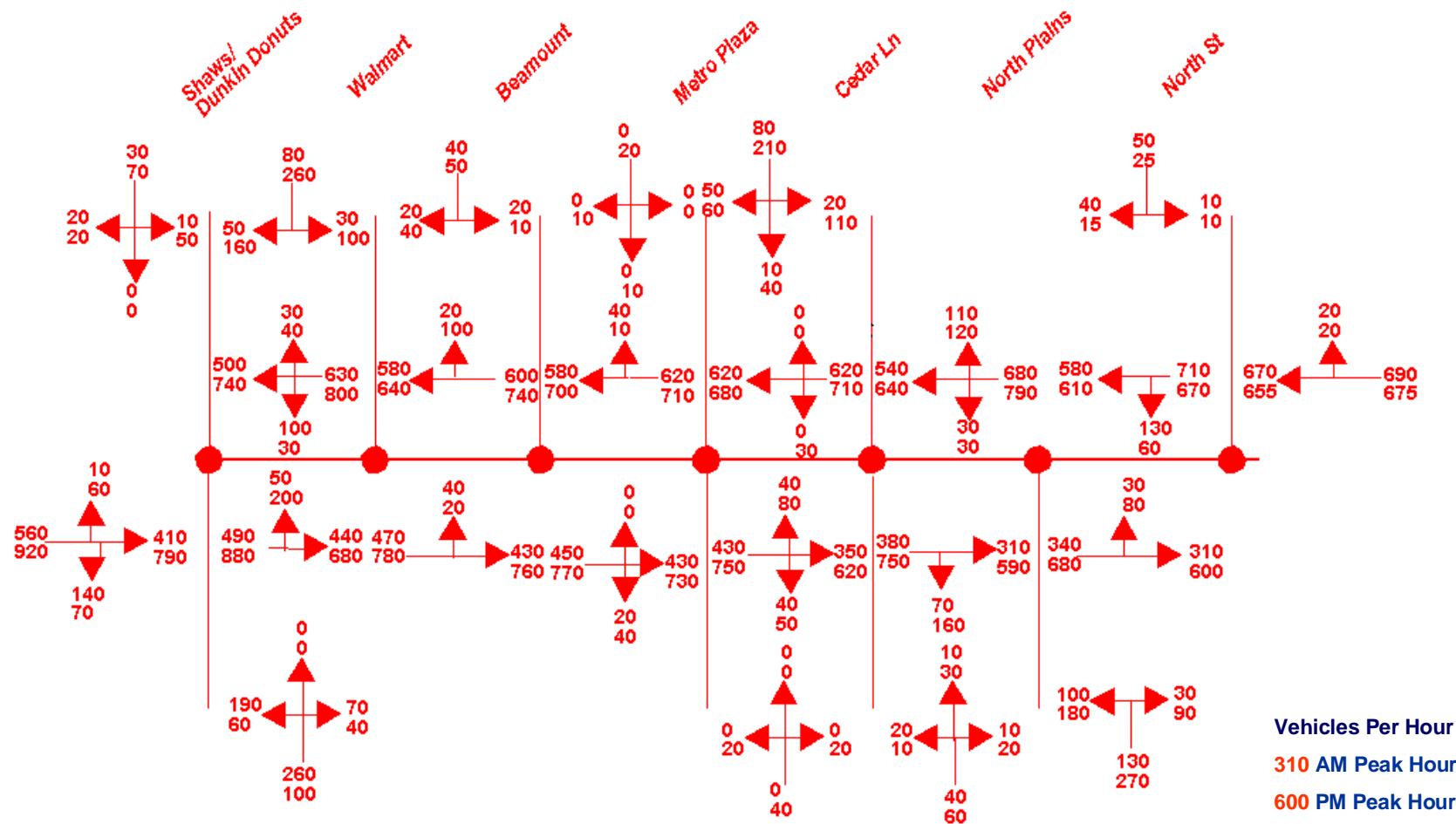
1.43 between intersections



Source: South Central Regional Council of Governments, based on 1998-2000 CDOT accident data.

# Exhibit III-3

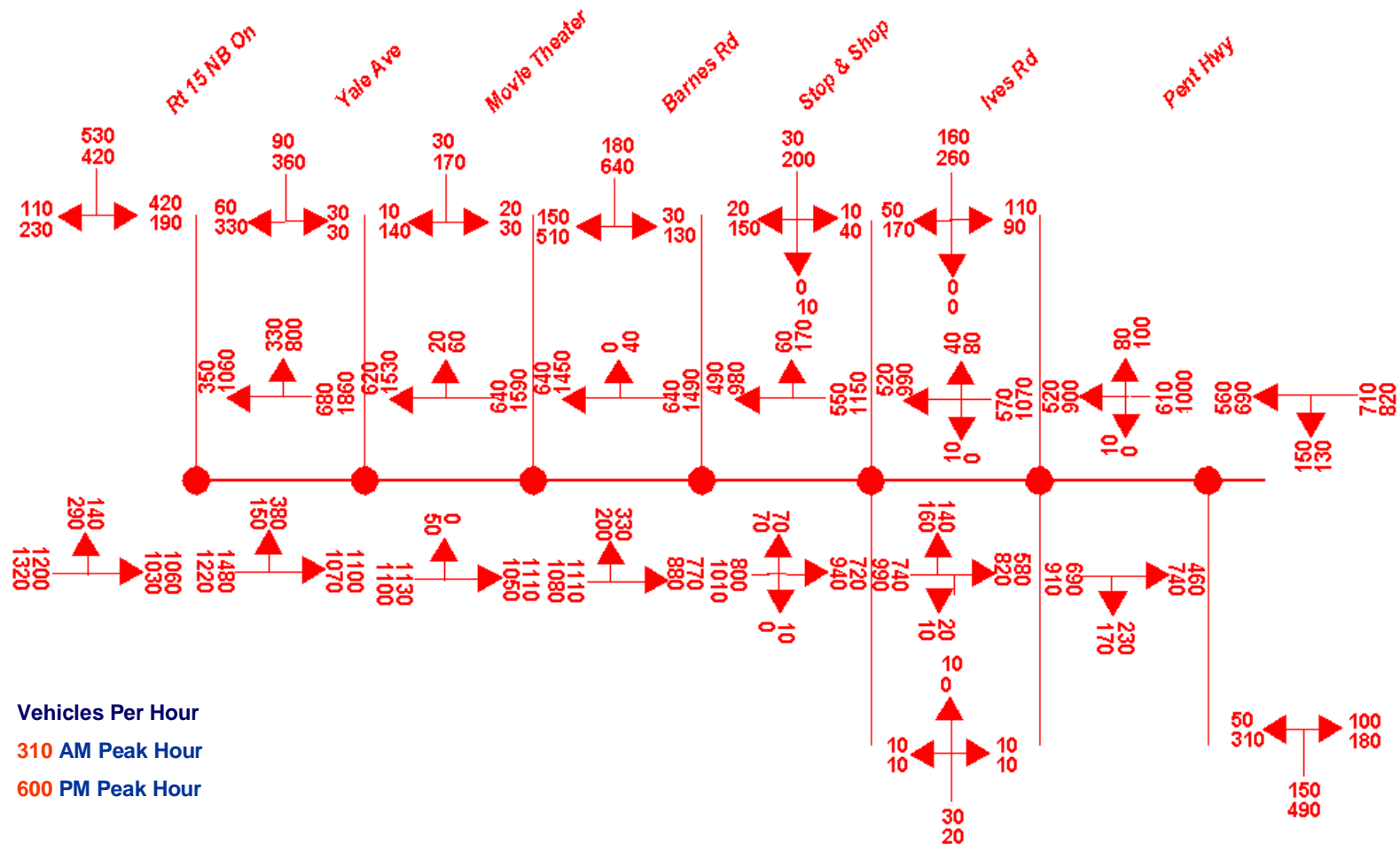
## Turning Movements (Weekdays 1/4)



Source: South Central Regional Council of Governments.

# Exhibit III-4

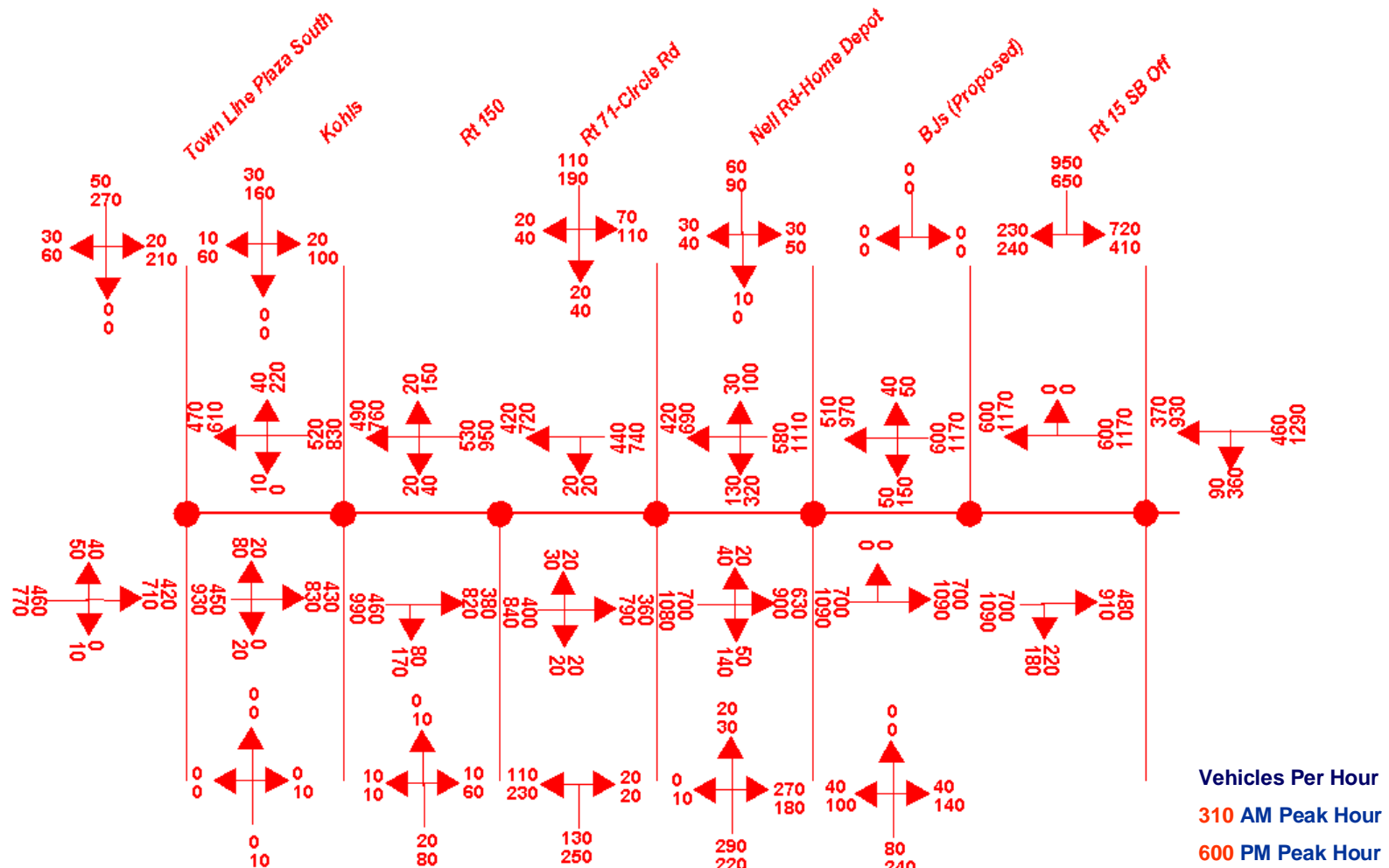
## Turning Movements (Weekdays 2/4)





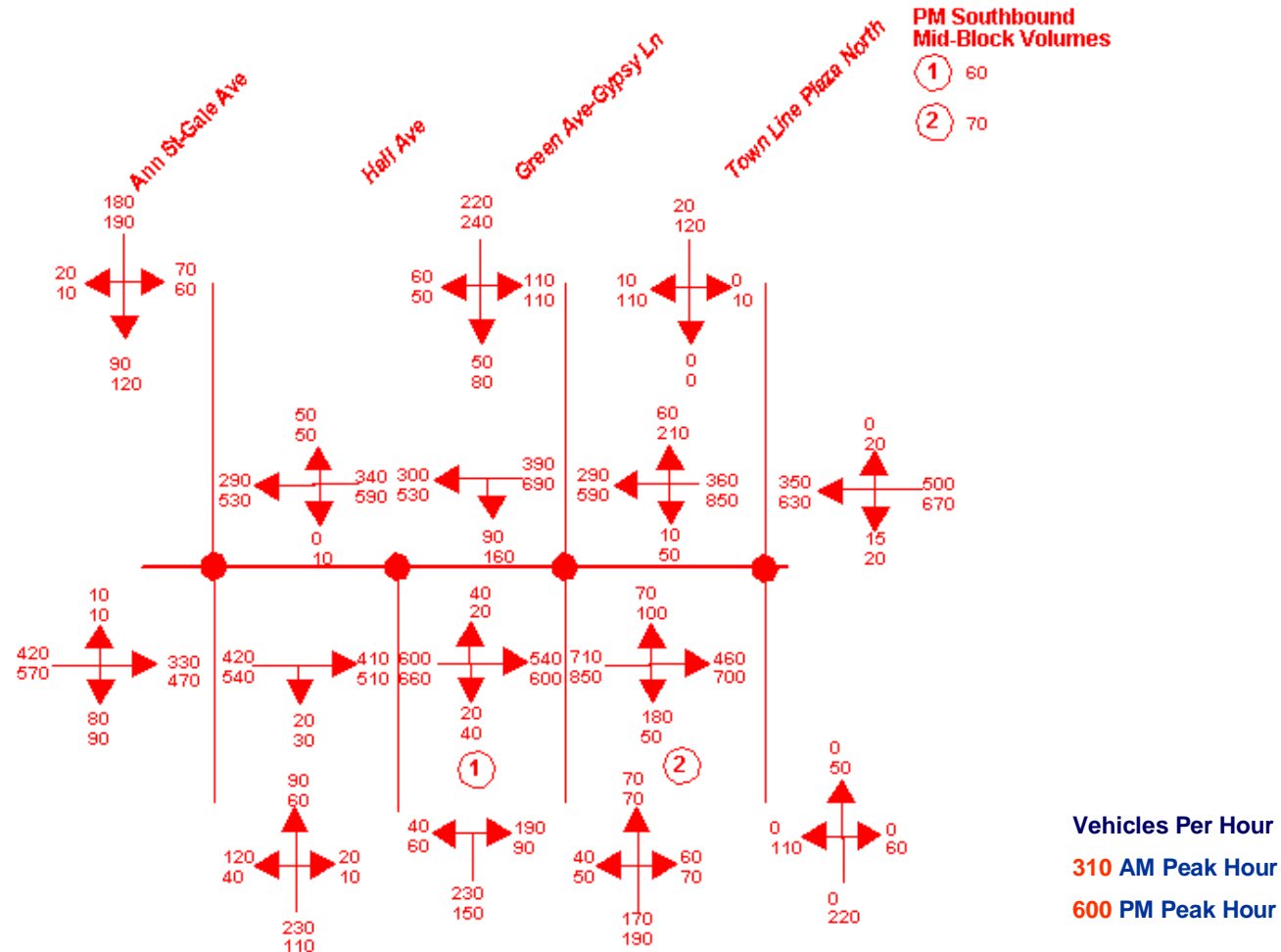
# Exhibit III-5

## Turning Movements (Weekdays 3/4)



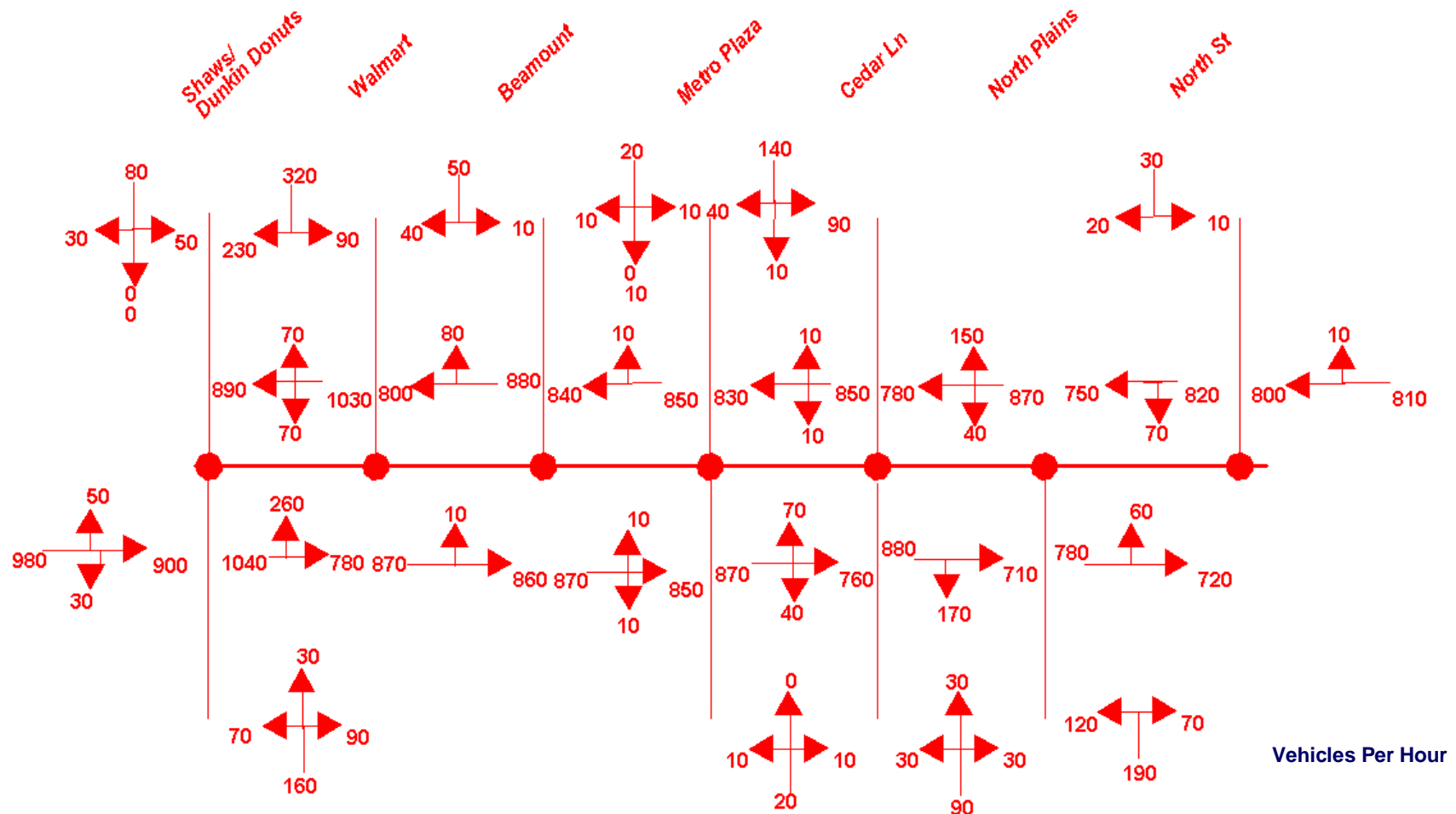
# Exhibit III-6

## Turning Movements (Weekdays 4/4)



# Exhibit III-7

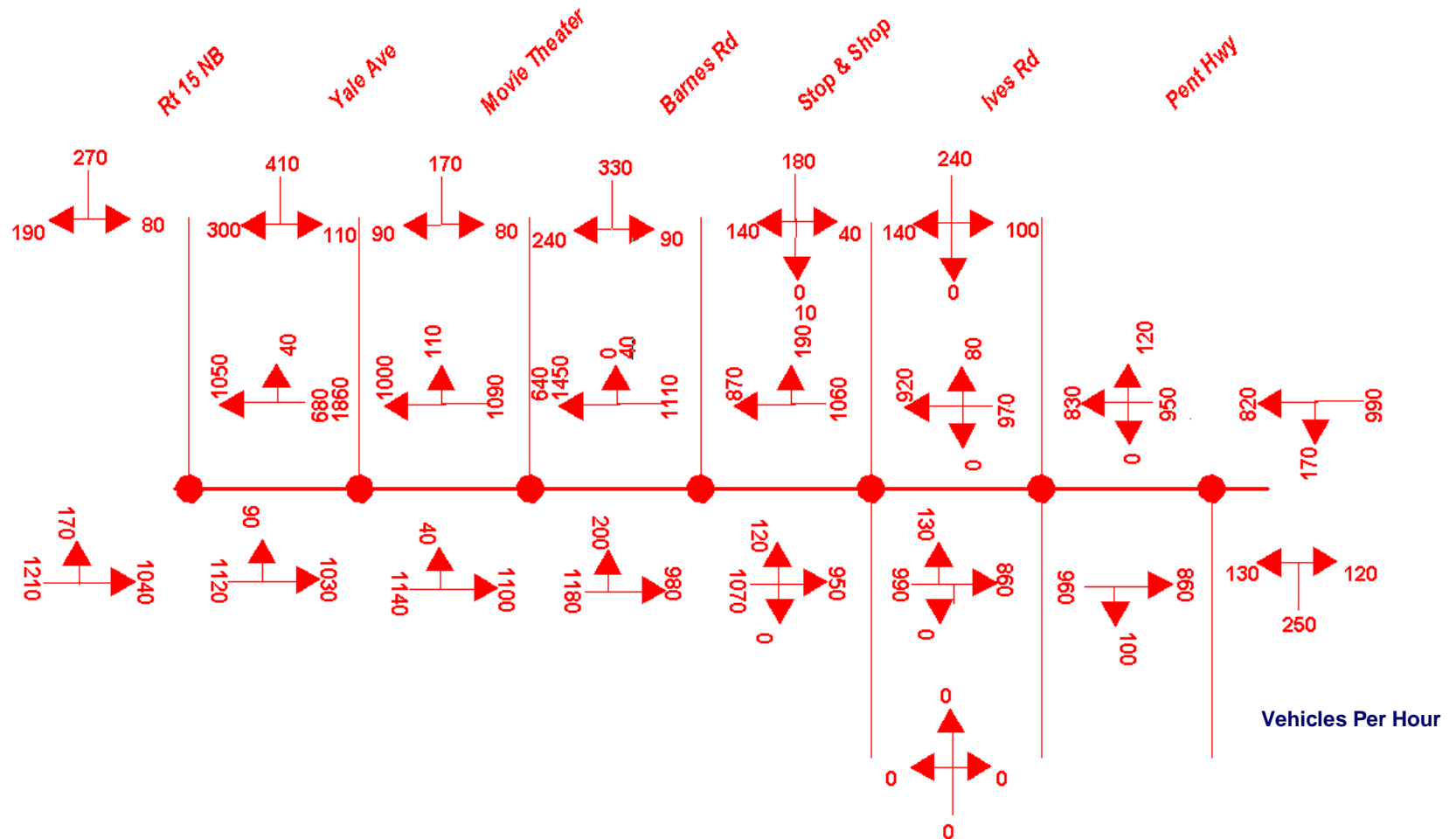
## Turning Movements (Saturdays 1/4)



Source: South Central Regional Council of Governments.

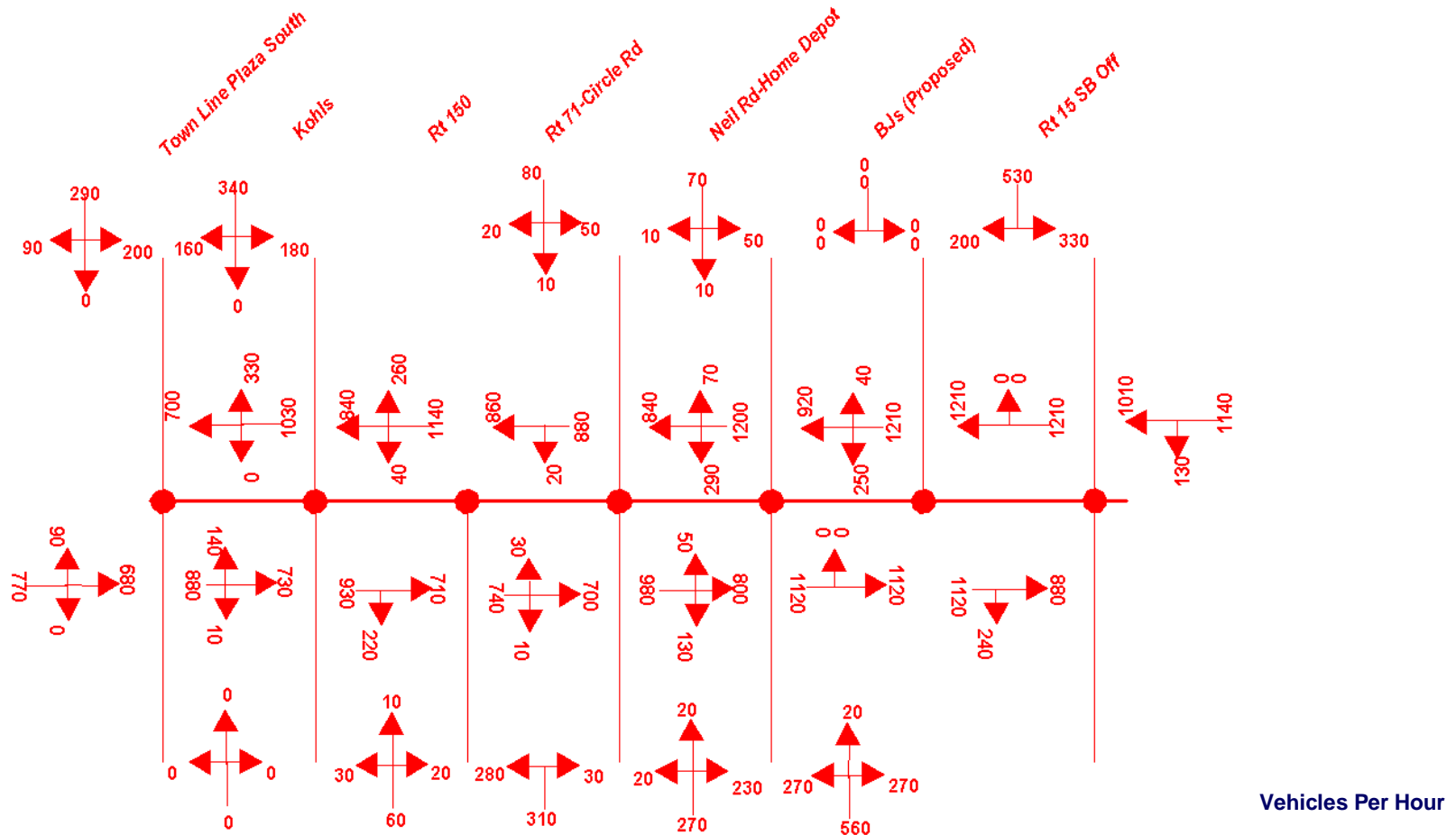
# Exhibit III-8

## Turning Movements (Saturdays 2/4)



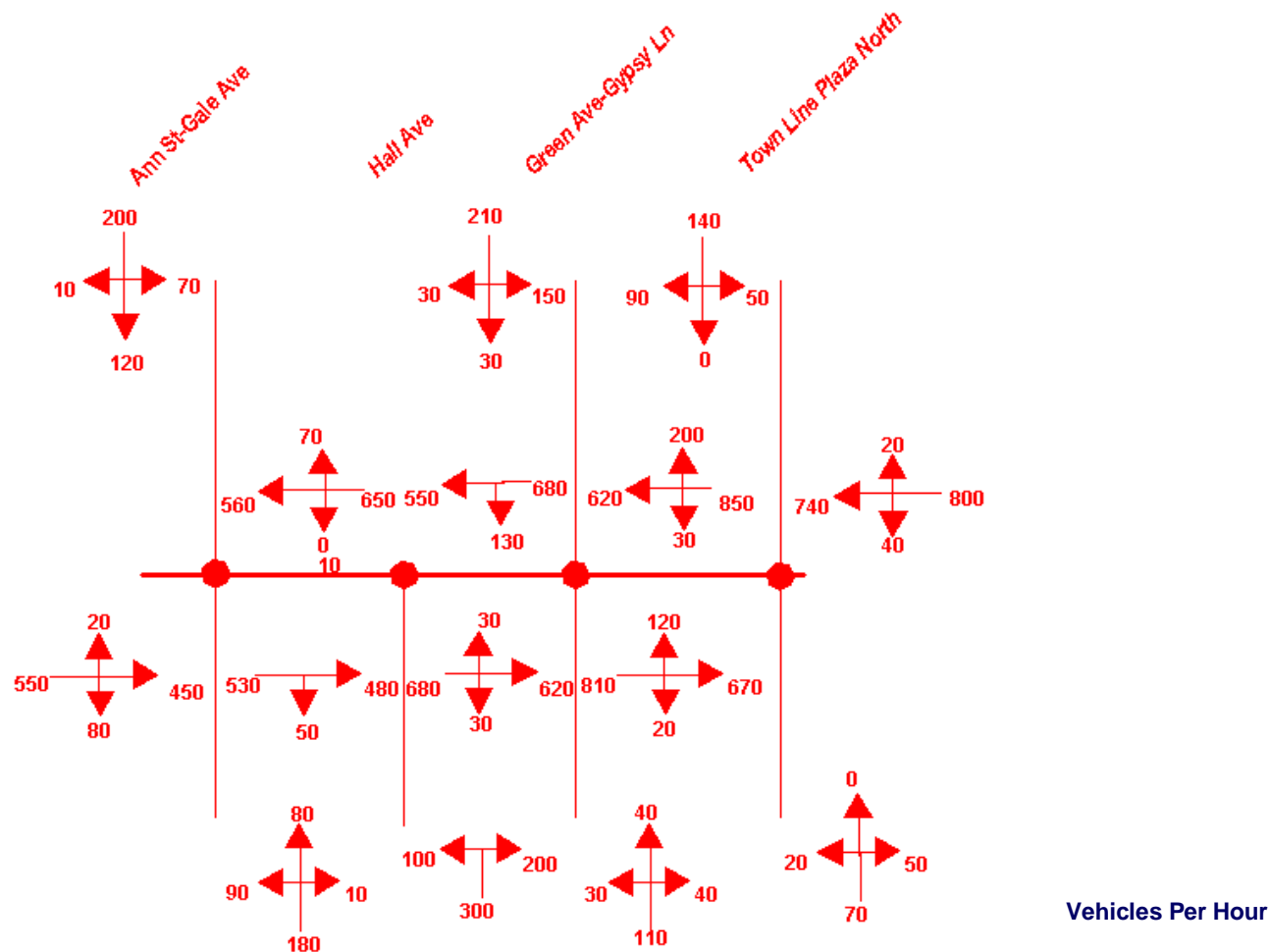
# Exhibit III-9

## Turning Movements (Saturdays 3/4)



# Exhibit III-10

## Turning Movements (Saturdays 4/4)



Source: South Central Regional Council of Governments.

- The Route 15 southbound and northbound exit ramps, Yale Avenue, Hall Avenue, and Pent Highway carry the highest traffic volumes entering US 5.
- The Route 15 northbound and southbound entrance ramps, Barnes Road, Pent Highway, and Yale Avenue carry the highest traffic volumes exiting US 5.
- Peak directional volumes cannot be categorized as predominantly northbound or southbound over the entire roadway network. There is no clear trend of directional movement in any of the peak hour periods studied.

## Projected Traffic Volumes

Because traffic volumes are the product of human activities that are constantly changing, traffic volumes tend to vary considerably over time. In most cases, changes in land use or development activity can result in instant and significant changes to traffic volumes. Such changes can occur at isolated locations within a roadway network, or they can be more widespread, depending on the nature and extent of land use changes.

Development activity in and near the US 5 corridor continues to occur. To help the Study Team identify which intersections were most susceptible to degraded levels of service as a result of increased traffic volumes, SCRCOG projected traffic volumes that are 10% higher than existing volumes. The “Peak Plus 10%” existing volumes are not meant to represent conditions during any specific future year, but are simply used within the context of this study to assess operational sensitivities of the intersections along US 5.

## Levels of Service

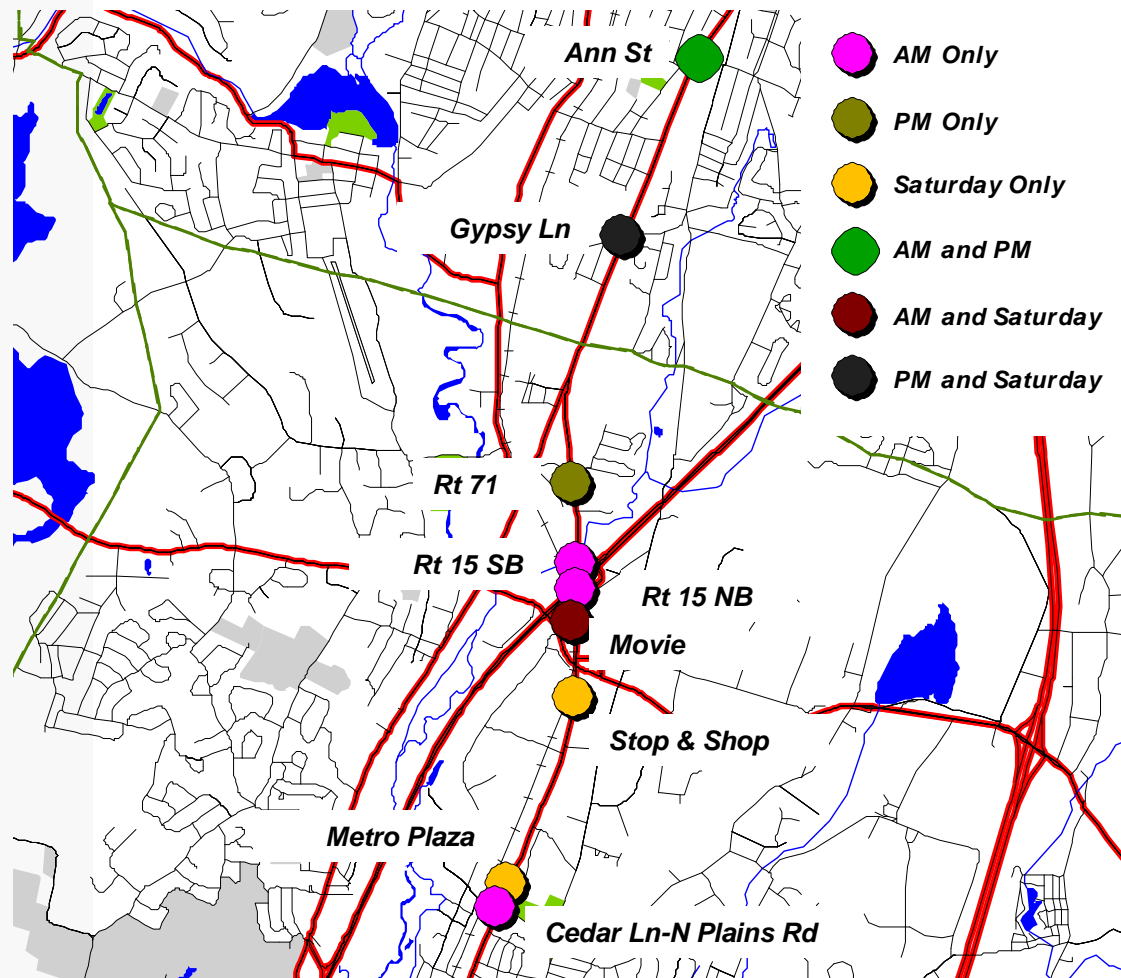
Level of Service (LOS) is a measure of how well a roadway segment, overall intersection, or individual intersection approach operates. For roadway segments, LOS is based on the average travel time and speed that can be sustained by all vehicles using that roadway segment. At intersections, LOS is based on the average delay experienced by each vehicle traveling through the intersection. LOS values are letters, A through F, representing various levels of congestion and mobility. LOS A is the most favorable condition, representing free-flow conditions with little or no delay. LOS F is the worst condition, representing extreme congestion, delay, and in some cases gridlock.

LOS determinations allow operations at various locations within a corridor to be evaluated on a relative basis. One intersection can be determined to operate at a substantially lower LOS than another, allowing design attention and corrective actions to be focused where most needed. For the purposes of this study, LOS D was considered the threshold that would warrant consideration of improvements.

SCRCOG staff conducted capacity analyses to determine LOS for all major intersections within the study limits under existing traffic conditions. Exhibit III-11 identifies nine locations within the US 5 study limits that have one or more intersection approaches currently operating at LOS D or worse during any of the peak hour periods considered. Additional analyses were conducted to evaluate traffic operations under “Peak Plus 10%” existing traffic volumes. These analyses reveal that 15 locations throughout the corridor (see Exhibit III-12) are expected to operate at LOS D or worse.

## Exhibit III-11

### LOS – Current Conditions

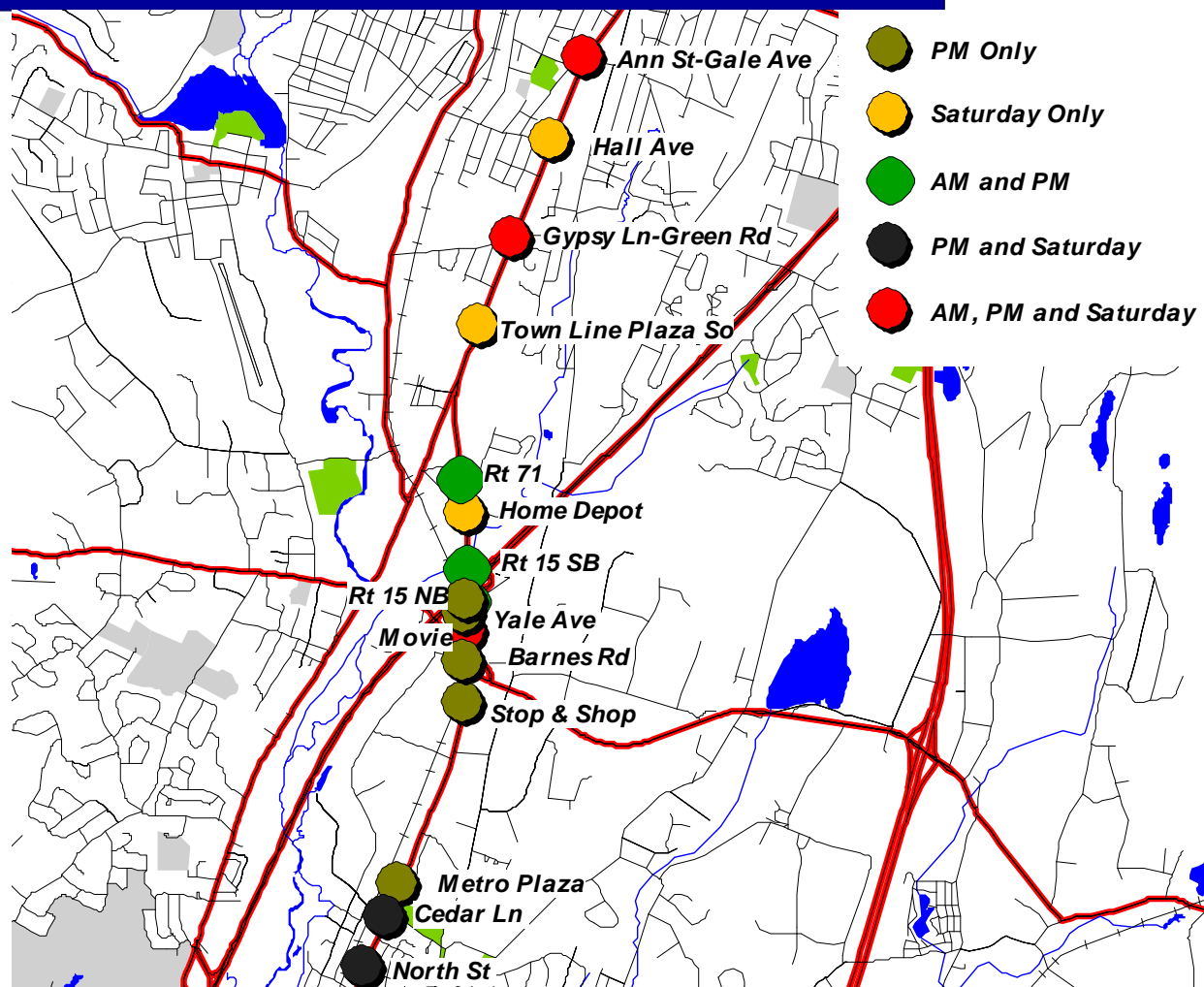


**At Least One  
Approach Leg with  
Level of Service D or  
Worse (Control  
Delay) in Peak Period**



## Exhibit III-12

### LOS – Peak Plus 10% Existing Traffic



**At Least One  
Approach Leg with  
Level of Service D or  
Worse (Control  
Delay) in Peak Period**

Collectively, these analyses indicate that there presently exist significant capacity shortfalls at intersections throughout the corridor. The analyses further indicate that operations on a corridor-wide basis (and at individual locations) have the potential to substantially worsen with even minor increases in traffic volumes.

### Study Focus Areas

Based on the results of investigations regarding traffic volumes, capacity analyses, and accident experience along the US 5 corridor, the Study Team refined its list of focus areas to include the following:

- US 5 at North Plains Highway/Cedar Lane;
- US 5 between Route 15 Southbound ramps and the driveway to Stop & Shop;
- US 5 at Gypsy Lane / Green Road; and,
- US 5 at Ann Street / Gale Avenue.

In addition to these areas, Town and City officials requested that improvements be considered at the following areas:

- Segments of US 5 immediately adjacent to focus area segments - The corridor should provide basic lane continuity between areas previously widened, and areas designated for future widening pursuant to this study.
- US 5 immediately south of the Gypsy Lane / Green Road intersection - Turning movements into commercial driveways between this intersection and Town Line Plaza are reported to be heavy, and tend to obstruct through traffic on US 5.
- Hall Avenue - Queuing on northbound US 5 is reported to be heavy at times, and creation of a dedicated northbound left turn lane at this intersection would substantially improve operations.
- Sidewalks - The existing system of sidewalks is incomplete and discontinuous throughout the corridor. In-fill of missing sidewalk segments should be considered in order to enhance pedestrian safety and promote alternative travel modes within the corridor.

The following areas were removed from the list of focus areas:

- US 5, vicinity of Town Line Plaza - Analysis of traffic operations on this segment of US 5 revealed acceptable levels of service. A review of accident experience in this area did not reveal a high potential for accidents. Therefore, improvements do not appear warranted in this area.
- US 5 between Hall Avenue and Ann Street/Gale Avenue - Although accident data and capacity analyses did not suggest the need for improvements to this segment of US 5, it was initially suggested that creation of a two-way center left-turn lane could enhance traffic operations by allowing through traffic to bypass left turning vehicles. However, such an improvement would have required the elimination of existing on-street parking for residential and commercial properties abutting US 5. City staff elected to not pursue the three-lane improvement in this area, in favor of retaining on-street parking.

## IV. Short-Range Improvements

The effectiveness of short-range improvements was tested against “Peak Plus 10%” existing traffic volume projections. These investigations revealed that the short-range improvements described in the following narrative were successful in addressing immediate and near-range traffic volume demand, as well as promising reduced potential for accidents.

In general, improvements identified as short-range in nature are characterized by one or more of the following traits:

- Relatively low cost to implement;
- Right-of-way actions (acquisitions or easements) are not required;
- Reduces congestion through revised use of travel lane and shoulder areas; and,
- Offers immediate accident reduction potential at high accident location.

A key component of the short-range improvement package in both the Town and the City involves the development of a center two-way left turn lane (TWLTL) on US 5. Based on research conducted by CalTrans and others, the TWLTL can potentially reduce certain types of accidents by as much as 25%, and provision of a dedicated left turn lane at unsignalized intersections can reduce accident potential by as much as 35%.

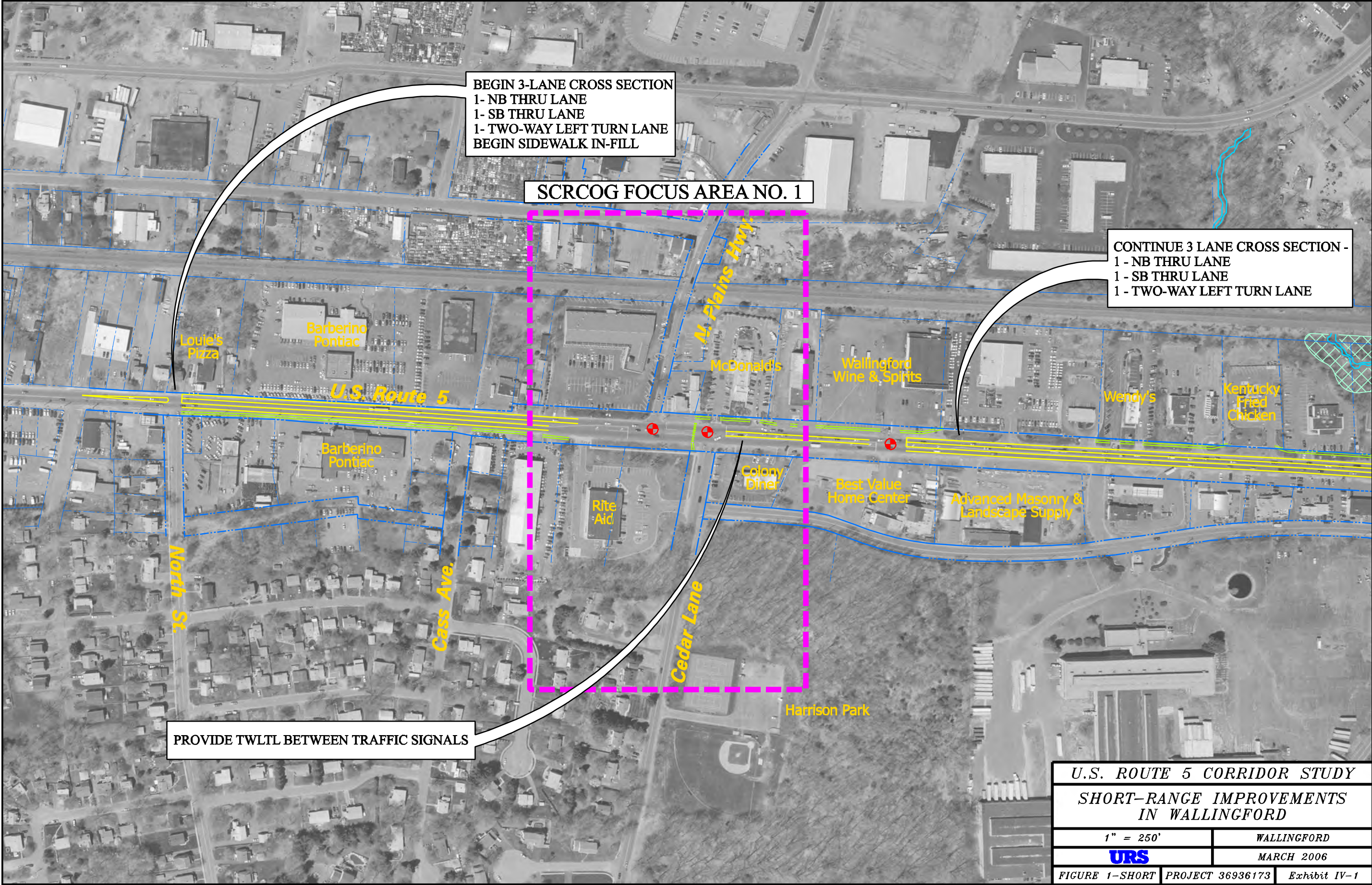
Another key improvement type included in the recommendations is the development of dedicated left turn lanes at certain signalized locations. Based on the same CalTrans research, this type of improvement can reduce the potential for certain accident types by as much as 35%.

### Town of Wallingford

Study recommendations include the following short-range improvements (also illustrated in Exhibits IV-1 thru IV-4):

- Between North Street and the North Plains Highway/Cedar Lane intersection, restripe US 5 to provide a three-lane roadway section consisting of one lane in each direction and a two-way center left turn lane.
- North of the signalized driveways to Wallingford Wine & Spirits and the Best Value Home Center, restripe US 5 to provide a three-lane roadway section consisting of one lane in each direction and a two-way center left turn lane. This lane arrangement would extend northward to meet the existing five-lane roadway section currently in operation near the Wal-Mart parcel. Related improvements include minor widening of US 5 at its crossing of an unnamed stream, and a transition from 3-5 lanes north of Beaumont Road.
- Between Ives Road and the signalized driveway to Stop & Shop, restripe US 5 to provide a three-lane roadway section consisting of one lane in each direction and a two-way center left turn lane.
- Construct select in-fill sidewalk improvements between North Street and the signalized driveway to Stop & Shop to provide a continuous ADA-compliant sidewalk system along at least one side of US 5. Provide marked crosswalks on at least one





BEGIN 3-LANE CROSS SECTION  
1- NB THRU LANE  
1- SB THRU LANE  
1- TWO-WAY LEFT TURN LANE  
BEGIN SIDEWALK IN-FILL

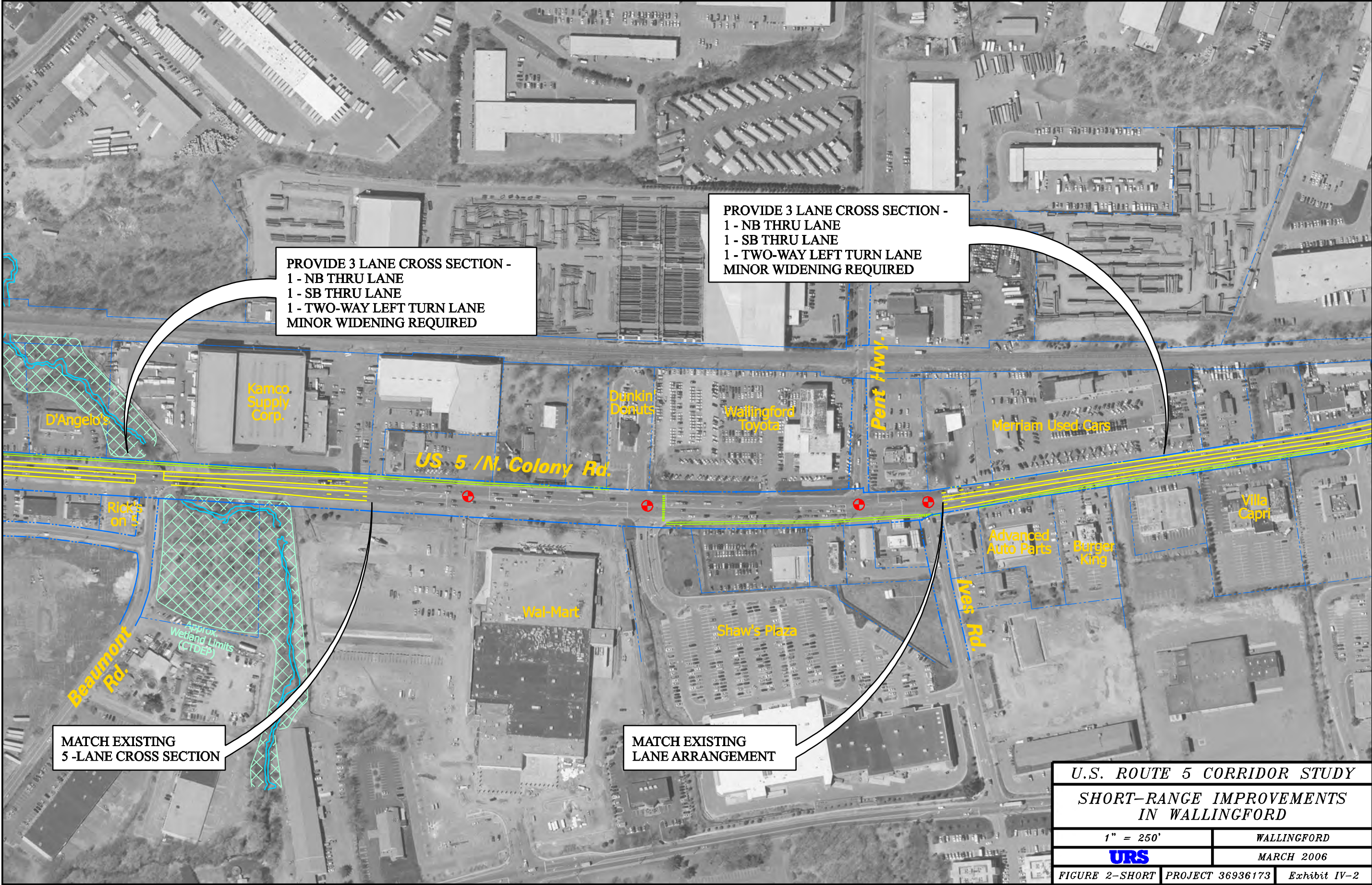
SCRCOG FOCUS AREA NO. 1

CONTINUE 3 LANE CROSS SECTION -  
1 - NB THRU LANE  
1 - SB THRU LANE  
1 - TWO-WAY LEFT TURN LANE

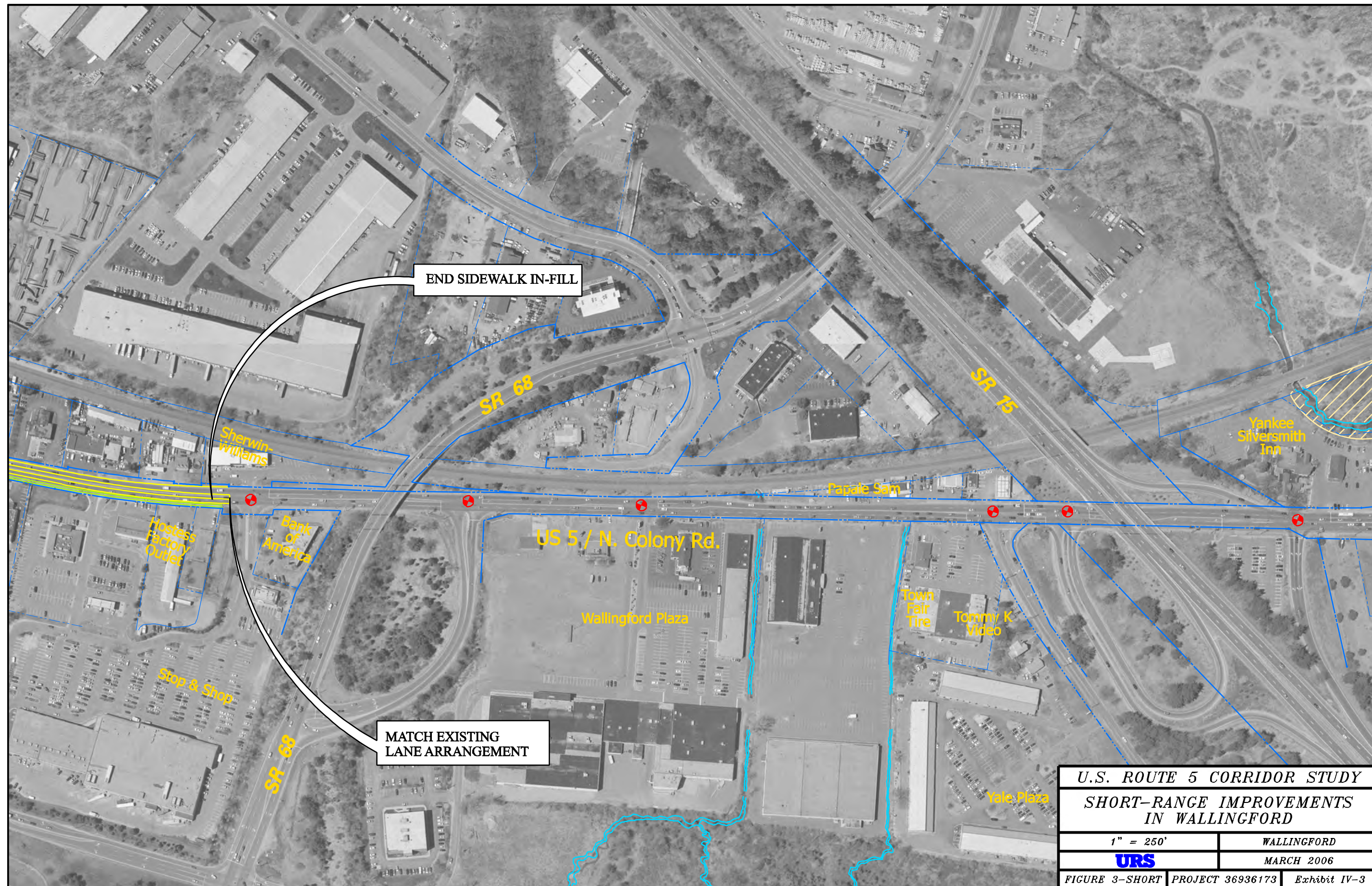
PROVIDE TWLTL BETWEEN TRAFFIC SIGNALS

U.S. ROUTE 5 CORRIDOR STUDY	
SHORT-RANGE IMPROVEMENTS IN WALLINGFORD	
1" = 250'	WALLINGFORD
URS	MARCH 2006
FIGURE 1-SHORT	PROJECT 36936173 Exhibit IV-1

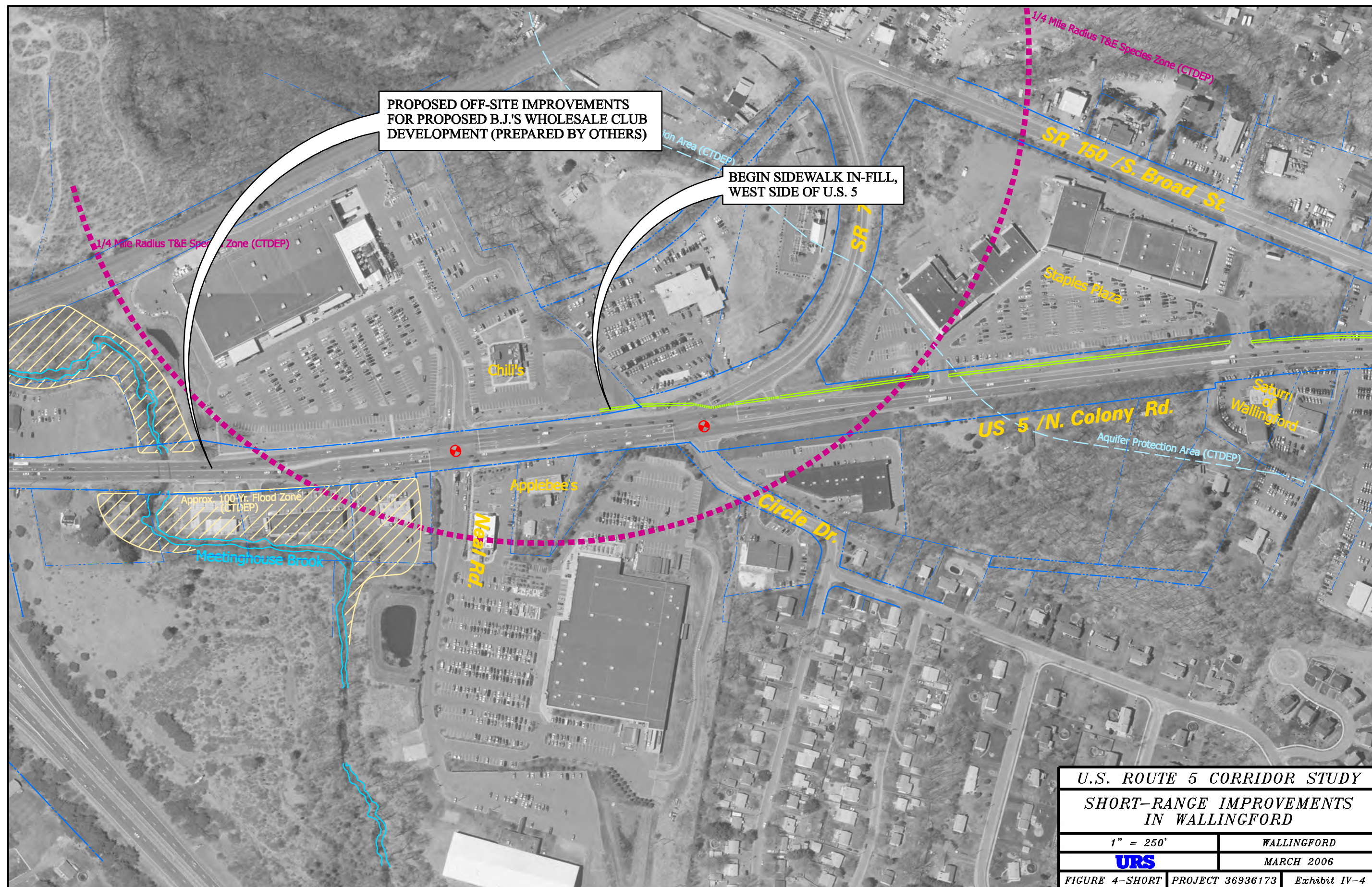












U.S. ROUTE 5 CORRIDOR STUDY		
SHORT-RANGE IMPROVEMENTS IN WALLINGFORD		
1" = 250'	WALLINGFORD	
URS	MARCH 2006	
FIGURE 4-SHORT	PROJECT 36936173	Exhibit IV-4



minor street and one major street approach at intersections of US 5 with Cedar Lane, Shaw's Plaza driveway, Ives Road, and the Stop & Shop driveway.

- Construct select in-fill sidewalk improvements between the Chili's parcel near the SR 71 intersection northward, to the Town line along at least one side of US 5. Provide marked crosswalks at intersections along US 5 at SR 71, SR 150, and the driveway to Kohl's Plaza.

Beyond these measures, additional improvements along US 5 will be constructed pursuant to approvals granted to new land development projects. Developers of the BJ's Wholesale Club will make the following improvements:

- Widen the southbound exit ramp from Route 15 to provide a four-lane ramp section resulting in an additional right turn lane oriented to northbound US 5;
- Widen US 5 between the southbound Route 15 ramp and the Neal Road intersection to provide a five- to six-lane roadway section, with dedicated turn lanes at major signalized intersections;
- Install a new traffic signal at the new BJ's driveway, opposite a relocated main driveway to the Yankee Silversmith Inn; and,
- Modify secondary access to the Yankee Silversmith Inn near the Route 15 ramp terminal, allowing only right-in/right-out movement.

The improvements sponsored by the developer of the BJ's project are expected to be in place and operational by the end of 2006.

### [Yale Avenue / Route 15 Interchange](#)

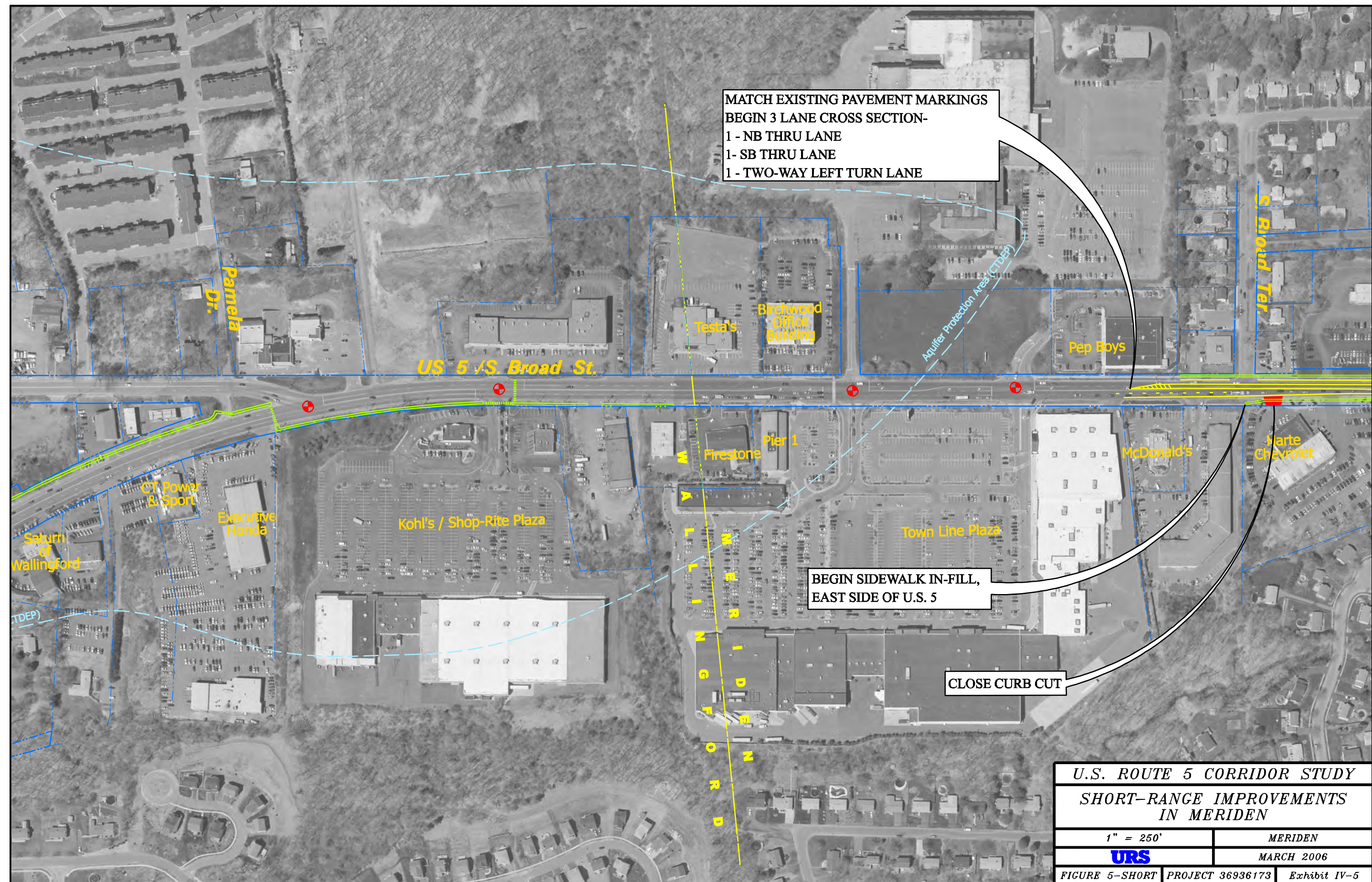
The intersections along US 5 involving Yale Avenue and the northbound Route 15 termini are situated approximately 170 ft apart. The extent and cost of improvements required to materially change this geometry and operating characteristics of these closely spaced intersections are substantial. Moreover, changes of such a magnitude would likely take several years to conceive, design, and construct, and would likely require extensive public involvement and right-of-way actions. Therefore, the Study Team determined that there are no short-range improvements that are worth pursuing relative to this area along US 5, and that recommended improvements are categorized as long-range initiatives.

### [City of Meriden](#)

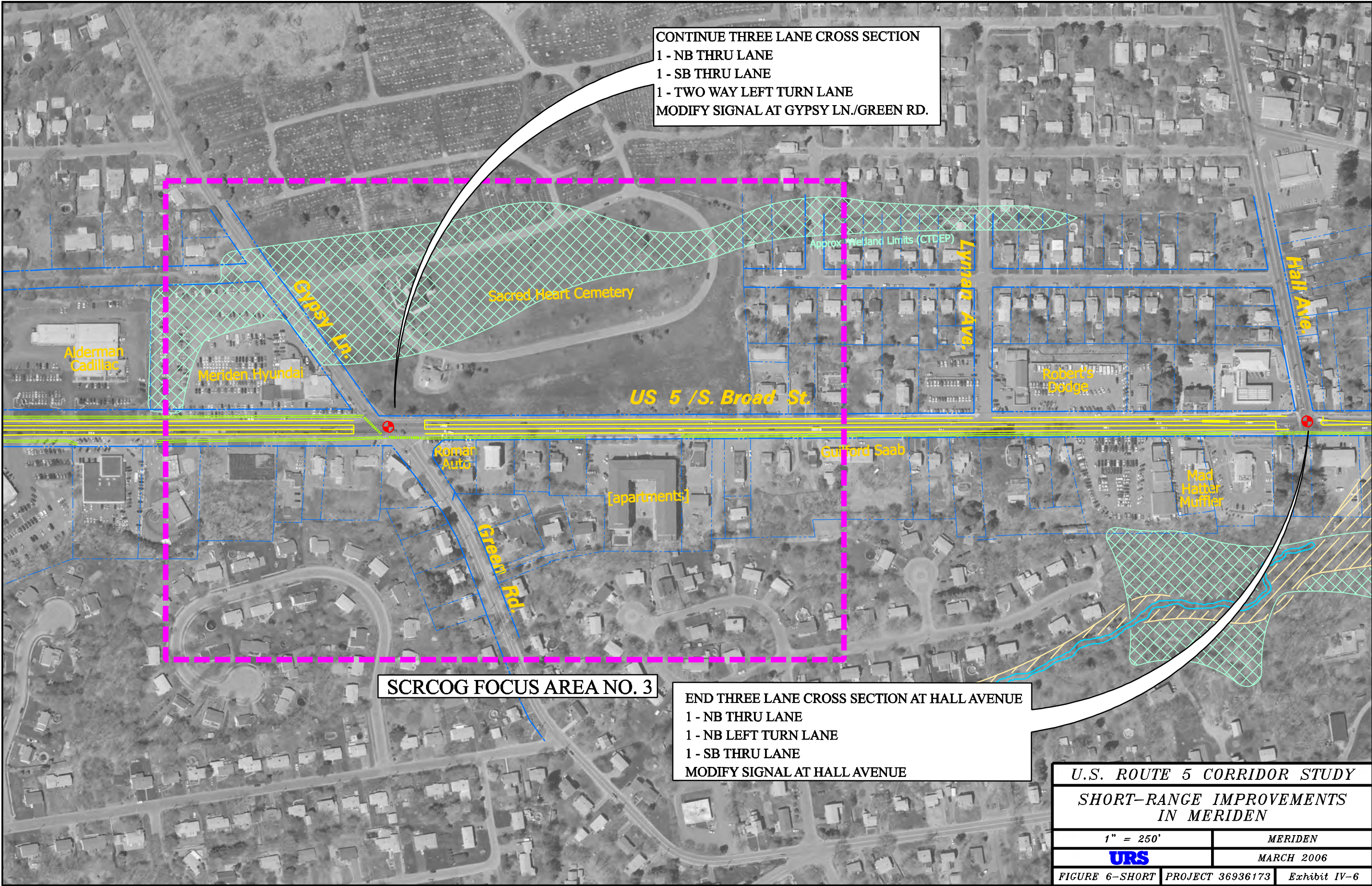
Short-range improvements within the City are illustrated in Exhibit IV-5 thru IV-7, and involve the following measures:

- Between the Town Line Plaza north signal and Gypsy Lane/Green Road, restripe US 5 to provide a three-lane roadway section consisting of one lane in each direction and a two-way center left turn lane.
- At the Gypsy Lane/Green Road intersection, restripe US 5 and modify the existing traffic signal to provide opposing dedicated left turn lanes on US 5 with protected left turn phasing. Several alternative intersection improvement concepts were developed to address CDOT concerns that restriping US 5 at the Gypsy Lane/Green Road intersection would negatively affect the ability of trucks to execute acute angle right turns from either Gypsy Lane or Green Road.

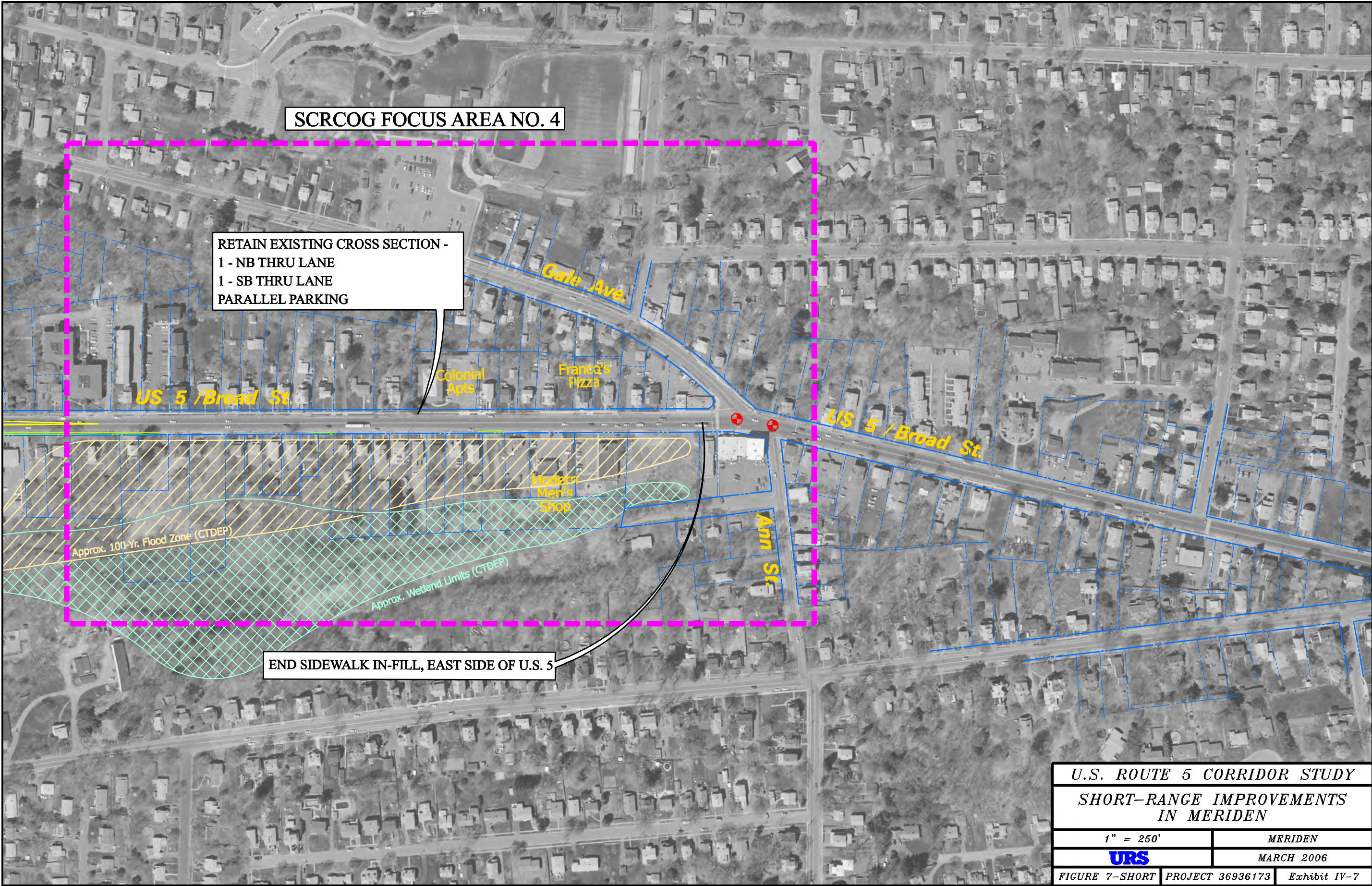












SCRCOG FOCUS AREA NO. 4

RETAIN EXISTING CROSS SECTION -  
1 - NB THRU LANE  
1 - SB THRU LANE  
PARALLEL PARKING

END SIDEWALK IN-FILL, EAST SIDE OF U.S. 5

U.S. ROUTE 5 CORRIDOR STUDY  
SHORT-RANGE IMPROVEMENTS  
IN MERIDEN

1" = 250'	MERIDEN
URS	MARCH 2006
FIGURE 7-SHORT	PROJECT 36936173 Exhibit IV-7



- Between the Gypsy Lane/Green Road and Hall Avenue intersections, restripe US 5 to provide a three-lane roadway section consisting of one lane in each direction and a two-way center left turn lane. Provide a dedicated left turn lane on US 5 at Hall Avenue, along with traffic signal modifications to provide a northbound advance phase for left turn movements.
- Construct select in-fill sidewalk improvements between Town Line Plaza and the Ann Street/Gale Avenue intersection to provide a continuous ADA-compliant sidewalk system along at least one side of US 5. Provide marked crosswalks on at least one minor and one major street approach at the Gypsy Lane/Green Road intersection.

## Design Justification

The layout of potential short-range improvements was predicated on design guidelines set forth by the Connecticut Department of Transportation document Highway Design Manual (2003). This reference established default lane widths of 11-12 ft for travel lanes and 14 ft for two-way left turn lanes (TWLTLs). Because short-range improvements are intended to maximize the usefulness of existing pavement, lane widths and shoulder widths were considered to have some degree of flexibility. Thus, the following alternatives representing tradeoffs between lane and shoulder widths could be considered for implementation during subsequent design work:

- 3' shoulder / 11' travel lane / 14' TWLTL / 11' travel lane / 3' shoulder
- 2' shoulder / 12' travel lane / 14' TWLTL / 12' travel lane / 2' shoulder
- 4' shoulder / 11' travel lane / 13' TWLTL / 11' travel lane / 4' shoulder

These combinations of lane and shoulder widths would each require a 42' total roadway width. Based on field measurements, areas along US 5 designated for restriping to achieve a three-lane roadway section as a short-range improvement currently provide 42' or more total pavement width, with the following exceptions:

- Between the KFC and Kamco parcels (south of and at the Beaumont Road intersection), the existing pavement width varies between 36-39 ft wide. Because this total width is substantially less than the desired minimum width of 42', this area is noted as requiring minor widening to permit operation of a three-lane section.
- Along the Villa Capri frontage (approximately 800 ft north of Ives Road), the existing US 5 pavement width measures approximately 40 ft. This reduced pavement width appears to be localized to a confined area along US 5, and would warrant a spot reduction in shoulder width.
- Along the Wendy's frontage (approximately 100 ft north of Cedar Lane), the existing pavement width on US 5 measures 41 ft. Again, a reduced shoulder width would allow development of the required three-lane roadway section.
- Between the Guilford SAAB parcel and Hall Avenue, US 5 measures approximately 39.5 ft wide. This area differs from other areas of the corridor in that land use is comprised of much smaller scale developments, and includes many residential properties. In addition, volumes and operating speeds are believed to be lower than experienced in other areas of the corridor. It therefore seems appropriate to recommend the use of a three-lane roadway section comprised of 2' shoulders, 11 ft lanes, and a 13' TWLTL for this roadway segment.

## V. Long-Range Improvements

This section of the report addresses the nature and effectiveness of long-range improvements along US 5. In general, long-range improvements were identified as those corrective measures that address specific needs within the corridor, but could not be implemented on a short-range basis due to one or more of the following reasons:

- The improvement would require a right-of-way action (acquisition, easement, or both) in order to construct;
- The improvement would require substantial funding that could likely not be appropriated on a near-term (short-range) basis;
- The improvement would require detailed design, permitting, and/or additional public involvement that could only be undertaken on a long-range basis; and,
- Potential improvements require advanced study before a final recommendation can be positively identified.

### Planning-Horizon Traffic Volume Projections

The effectiveness of long-range improvements was tested against planning-horizon traffic volume projections. The Study Team reviewed historical traffic volume data provided by CDOT for locations throughout the corridor over the past 14 years. Based on this data, a 22% increase in traffic could reasonably be expected over the next 20 years. Also incorporated into the planning-horizon traffic volume projections was the completion of two pending land development projects along US 5:

- The BJ's Wholesale Club development located on the east side of US 5, south of Circle Drive; and,
- The Lowes (home improvement center) development, located off Neal Road.

Exhibits V-1 through V-6 illustrate composite planning-horizon traffic volume projections along US 5 throughout the study limits. Detailed analyses using these volumes verified that the long-range improvements described in the following narrative positively addressed projected traffic demand throughout the corridor, and helped identify specific refinements to improvements necessary for full effectiveness.

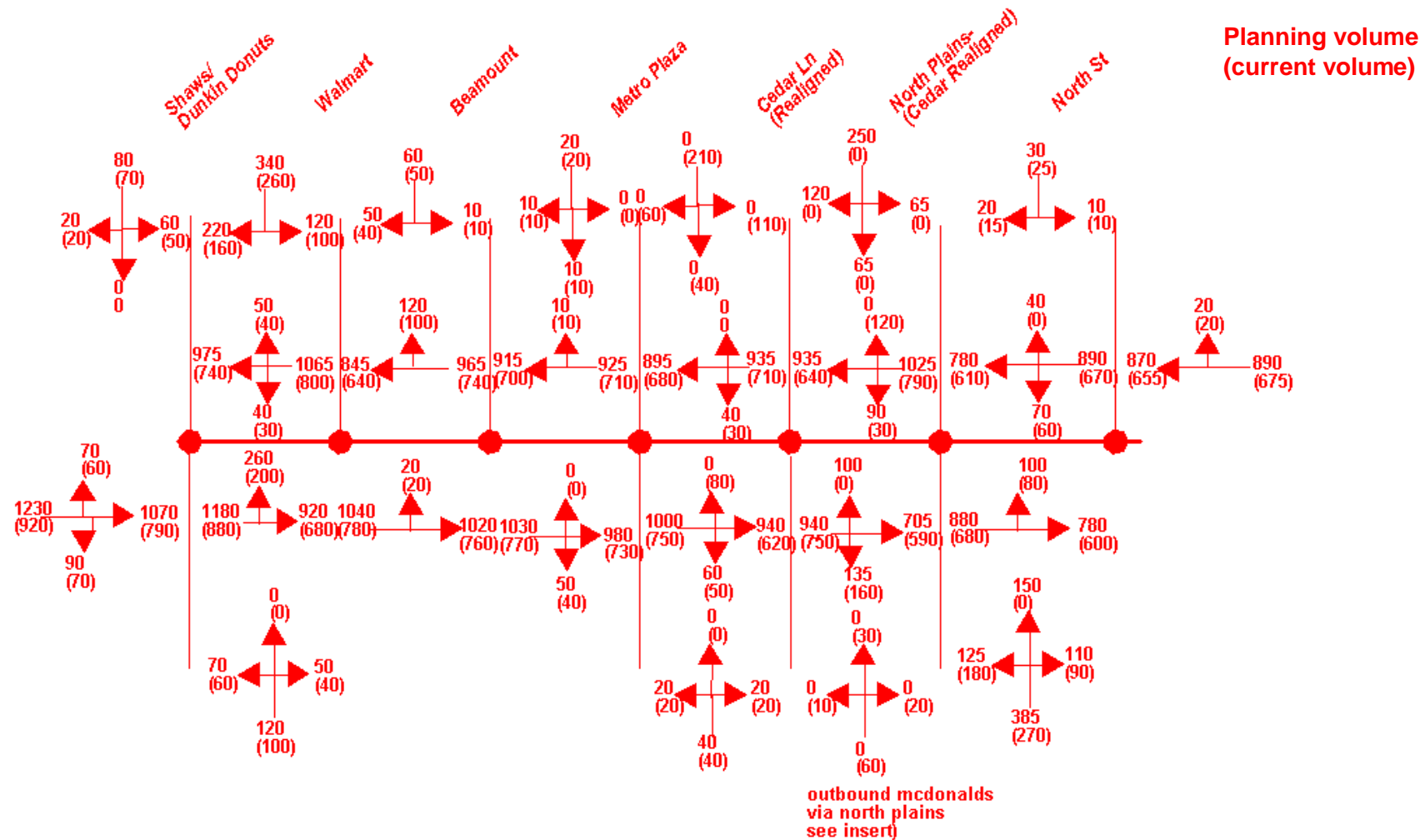
### Town of Wallingford

The following improvements (illustrated in Exhibits V-7 thru V-10) were identified as long-range initiatives required to satisfy projected traffic demands on US 5 in the Town of Wallingford:

- Between North Street and the Wal-Mart parcel, widen US 5 to achieve a five-lane roadway section consisting of two travel lanes in each direction and a center two-way left turn lane. The widened roadway would match the existing five-lane roadway section currently in operation along the Wal-Mart frontage. This improvement would require the lengthening of the existing concrete box culvert carrying an unnamed stream beneath US 5, and will likely require some wetland mitigation activities.

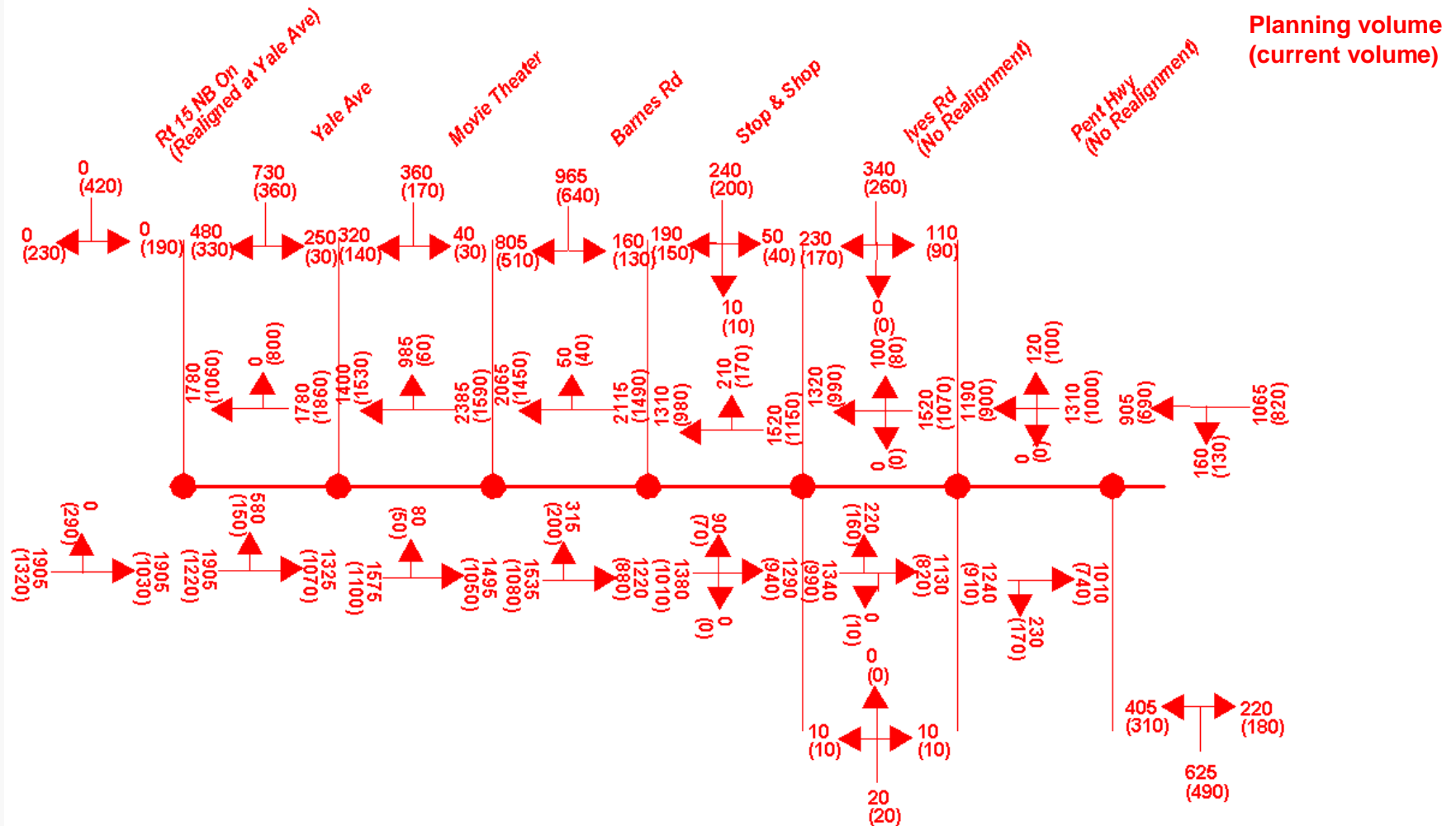
# Exhibit V-1

## PM Peak Planning Horizon Traffic Volumes (1/6)



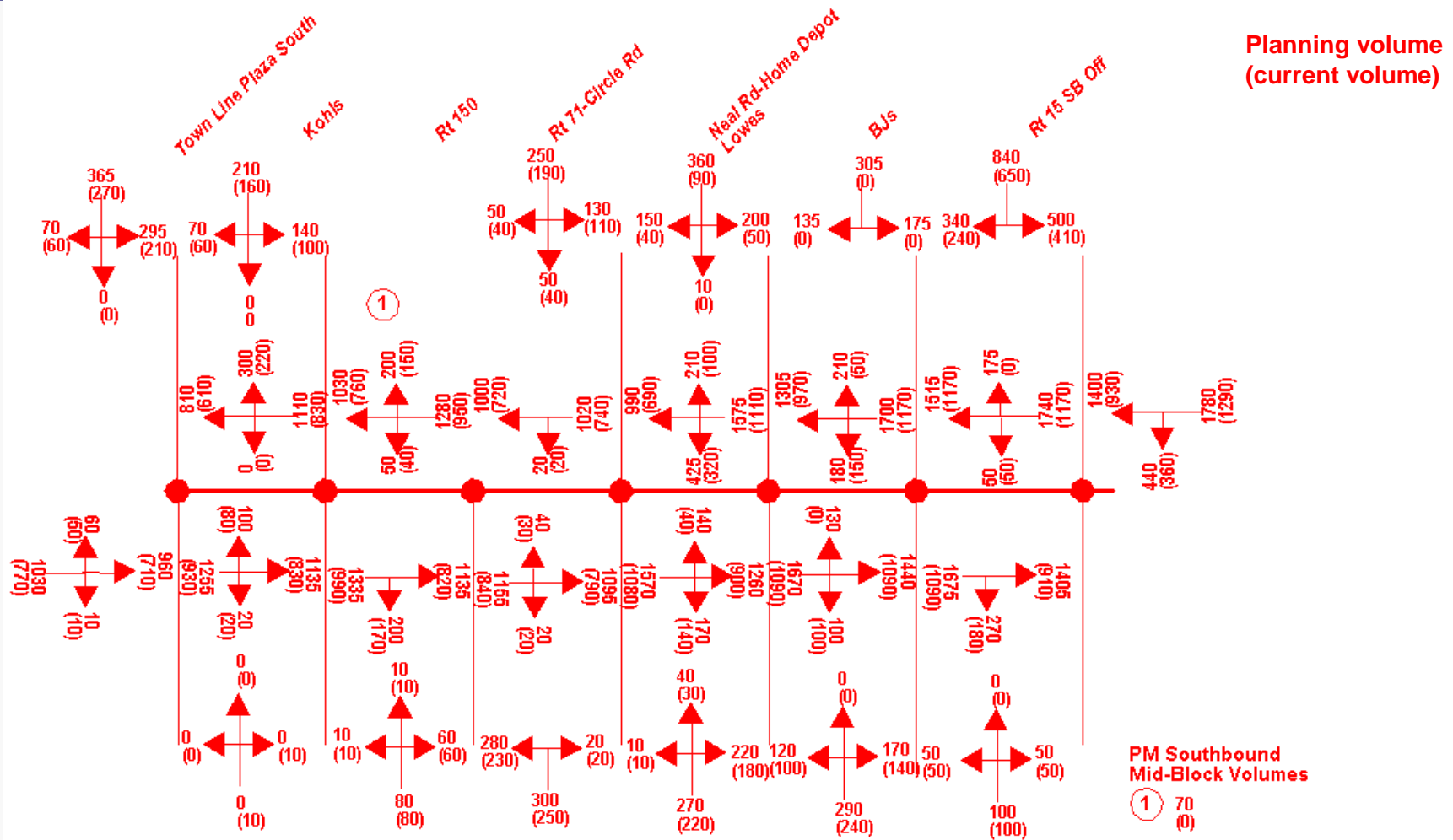
## Exhibit V-2

# PM Peak Planning Horizon Traffic Volumes (2/6)



# Exhibit V-3

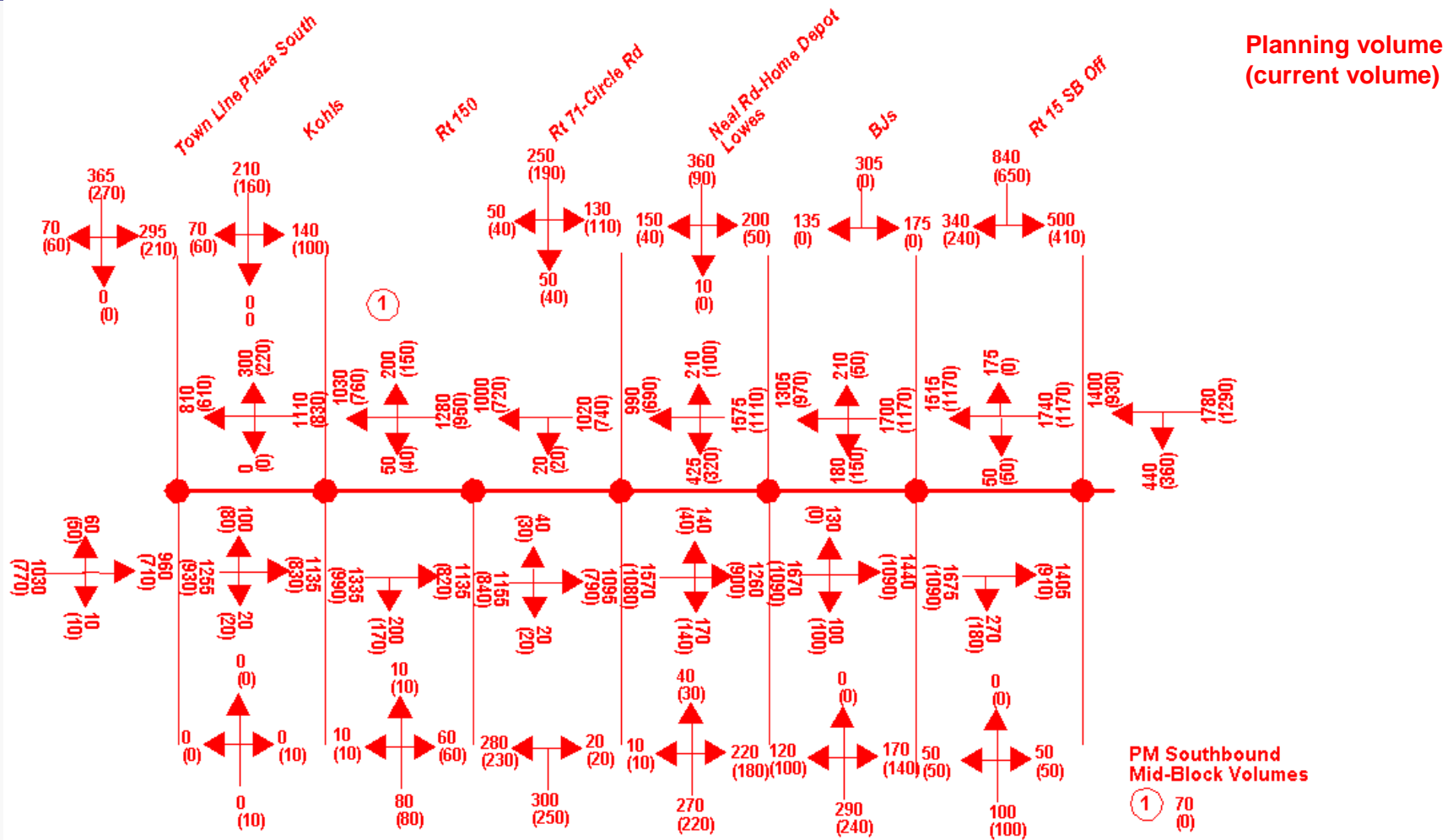
## PM Peak Planning Horizon Traffic Volumes (3/6)





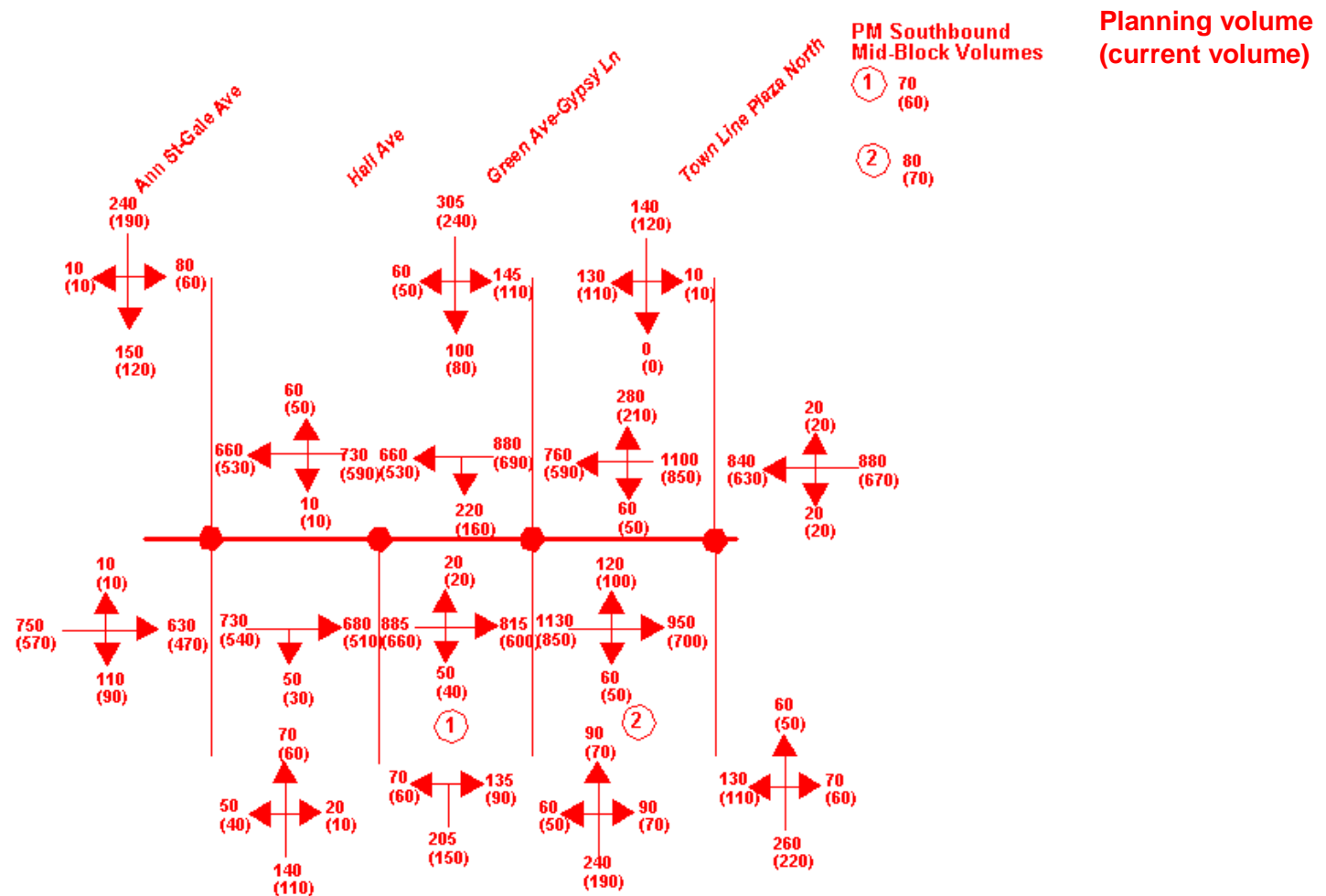
# Exhibit V-3

## PM Peak Planning Horizon Traffic Volumes (3/6)



# Exhibit V-4

## PM Peak Planning Horizon Traffic Volumes (4/6)

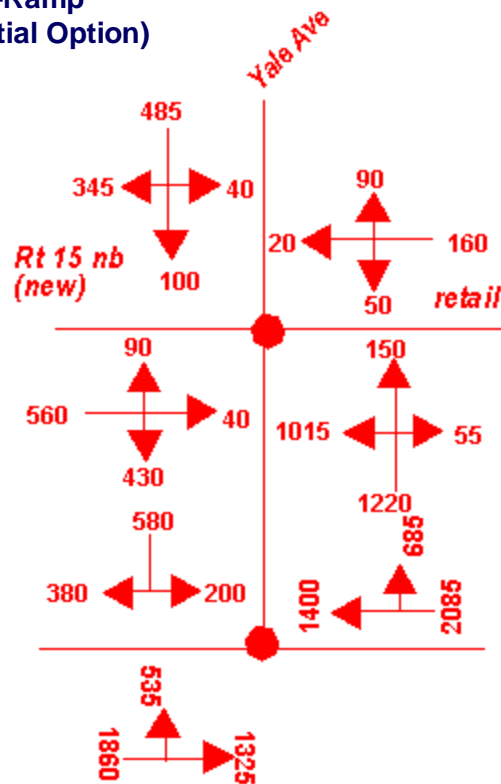


Source: South Central Regional Council of Governments.

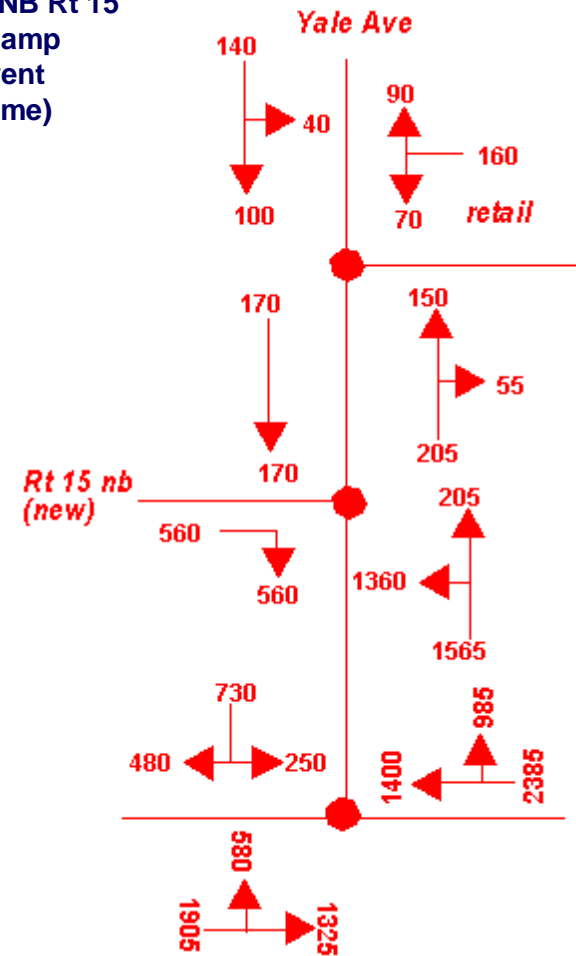
# Exhibit V-5

## PM Peak Planning Horizon Traffic Volumes (5/6)

New NB Rt 15  
On-Ramp  
(Initial Option)

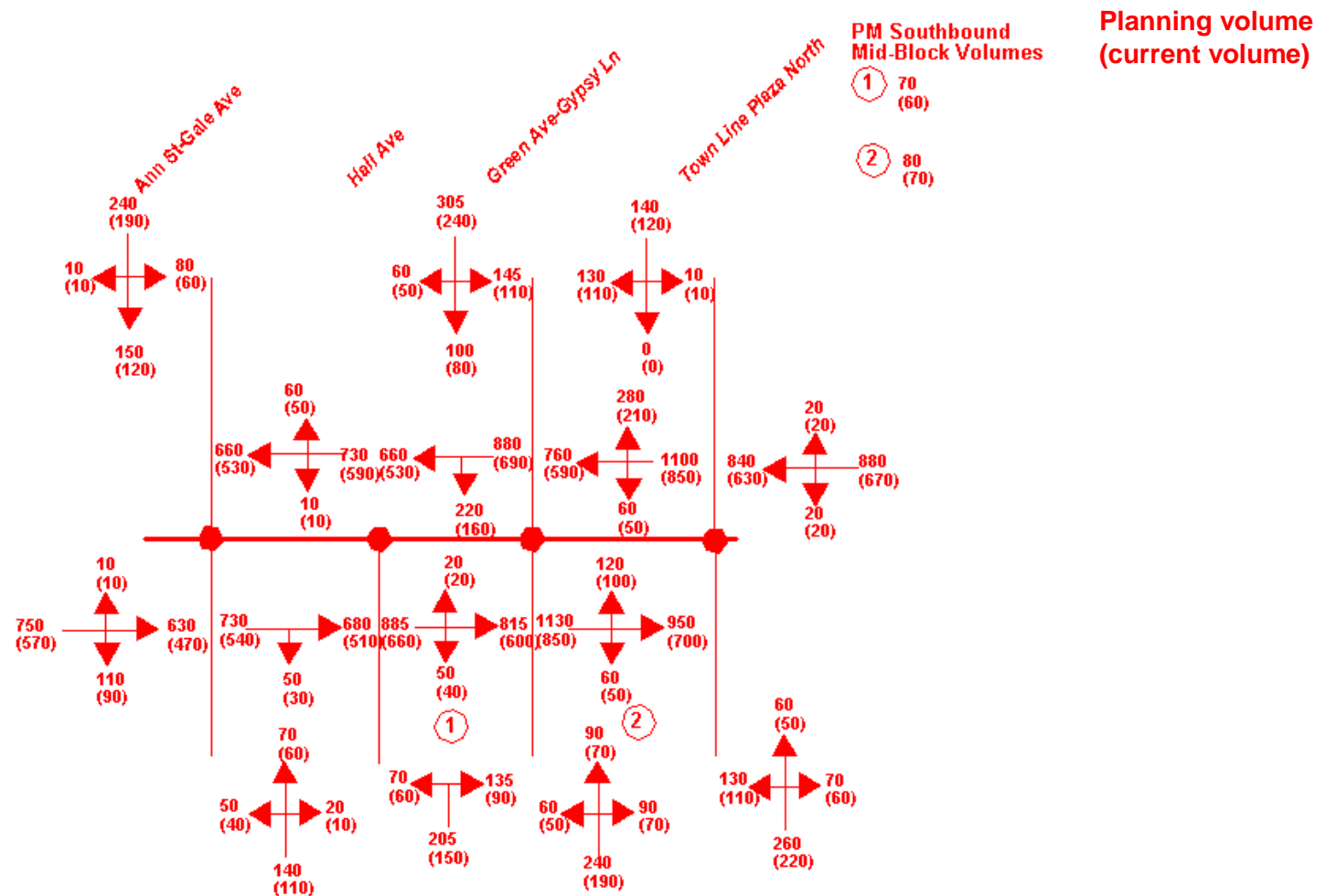


New NB Rt 15  
On-Ramp  
(Current  
Scheme)



# Exhibit V-4

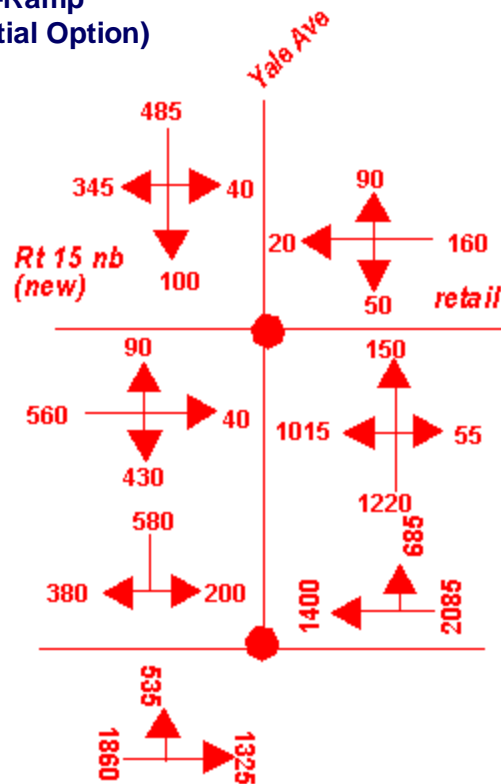
## PM Peak Planning Horizon Traffic Volumes (4/6)



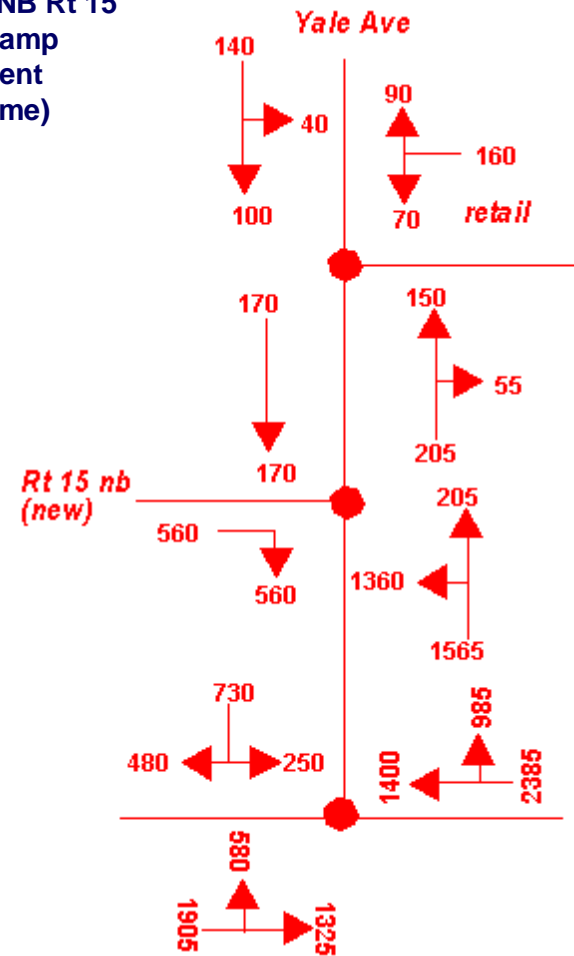
# Exhibit V-5

## PM Peak Planning Horizon Traffic Volumes (5/6)

New NB Rt 15  
On-Ramp  
(Initial Option)



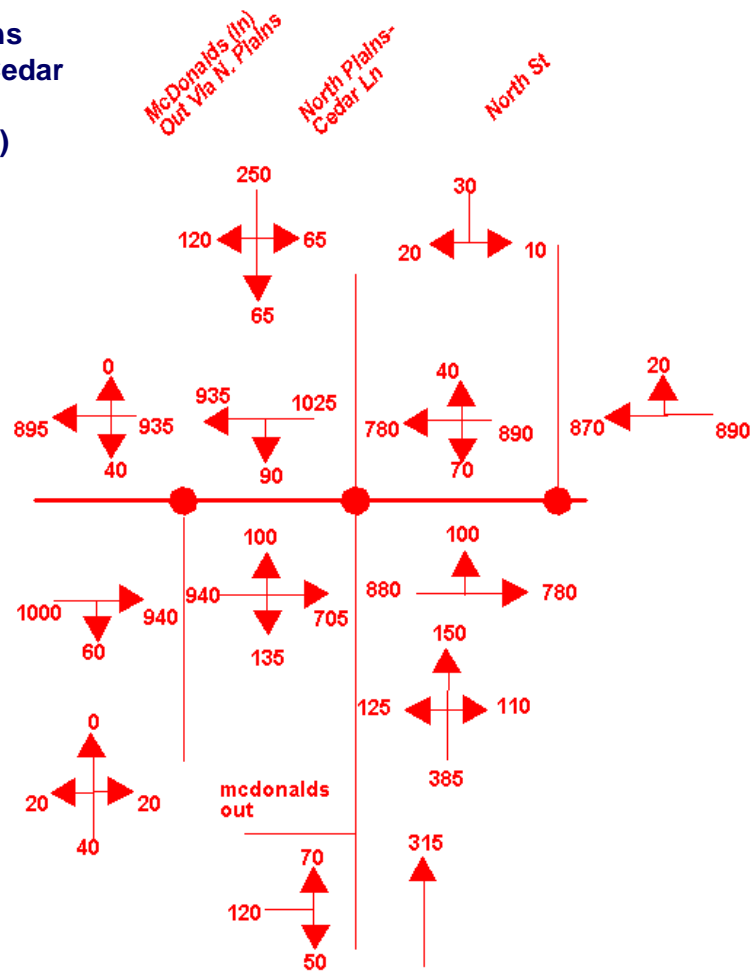
New NB Rt 15  
On-Ramp  
(Current Scheme)



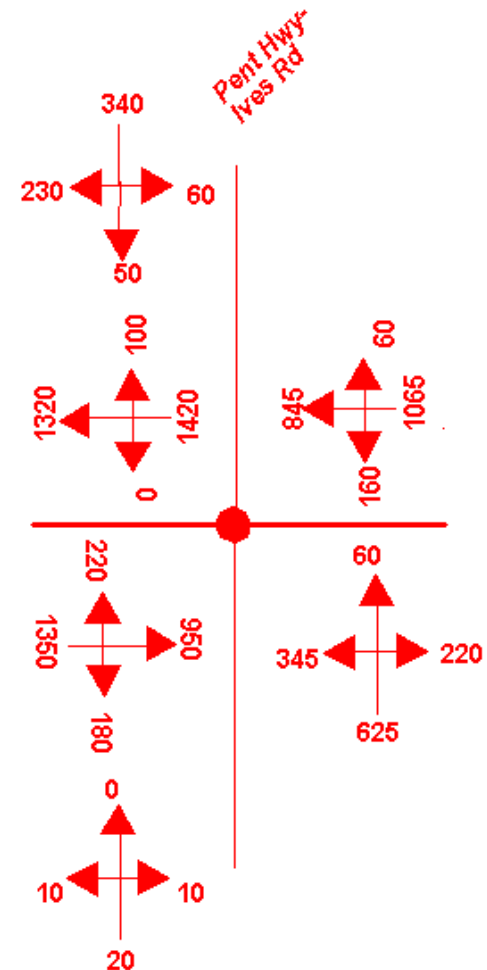
# Exhibit V-6

## PM Peak Planning Horizon Traffic Volumes (6/6)

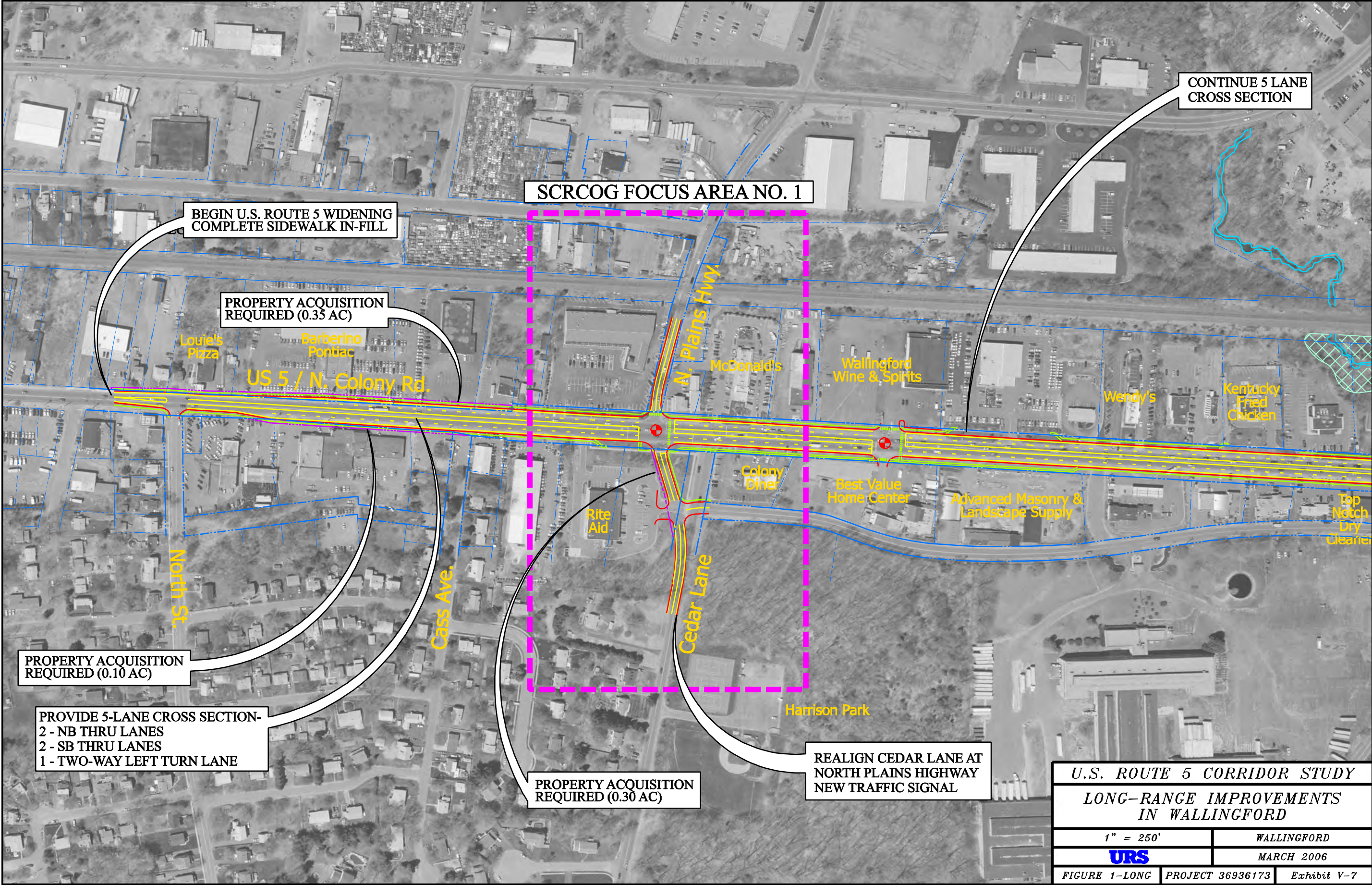
North Plains  
Highway-Cedar  
Lane  
(Realigned)



Pent Hwy-  
Ives Rd  
(Realignment  
Option—Not  
Currently  
Proposed)

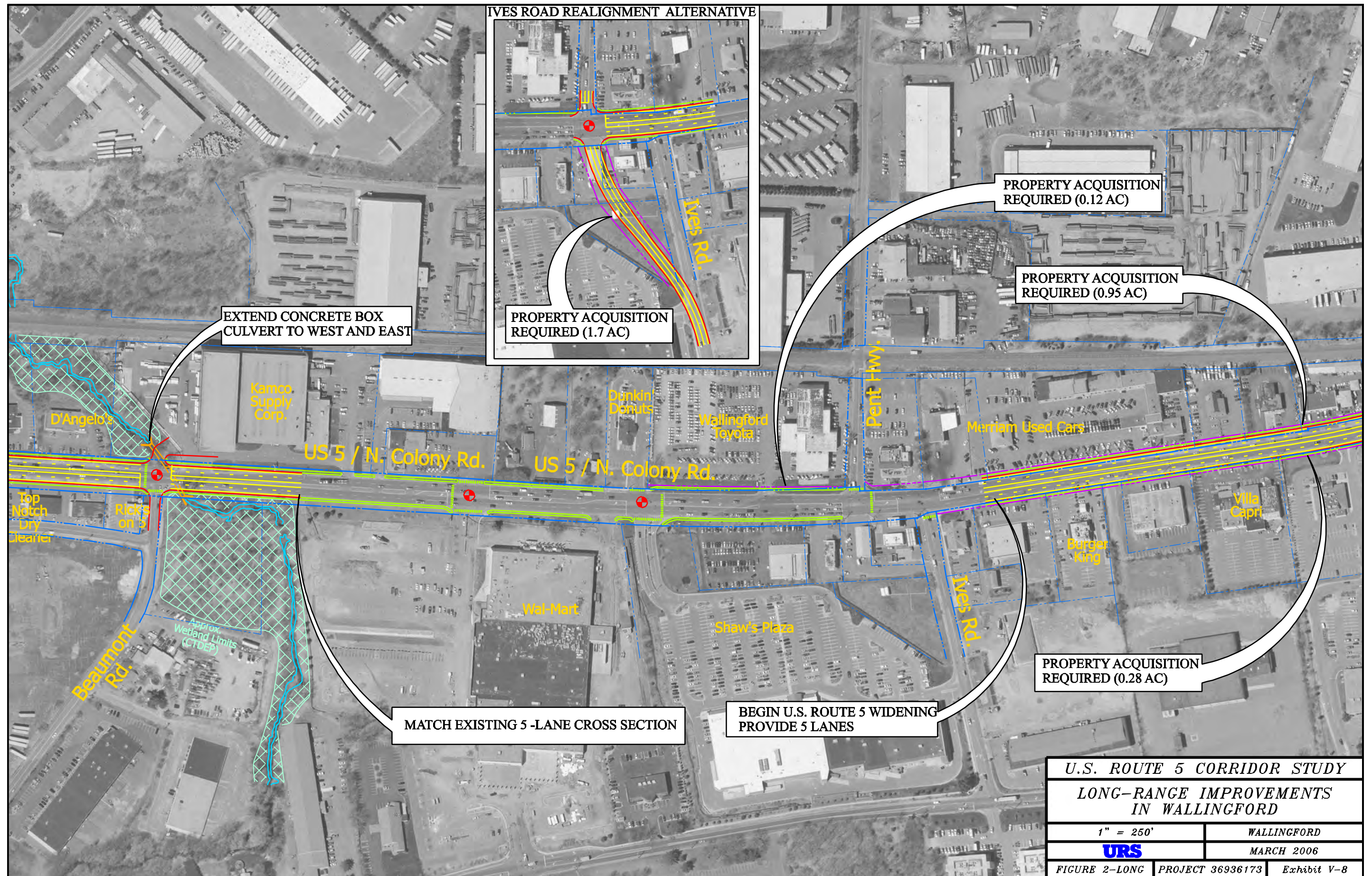




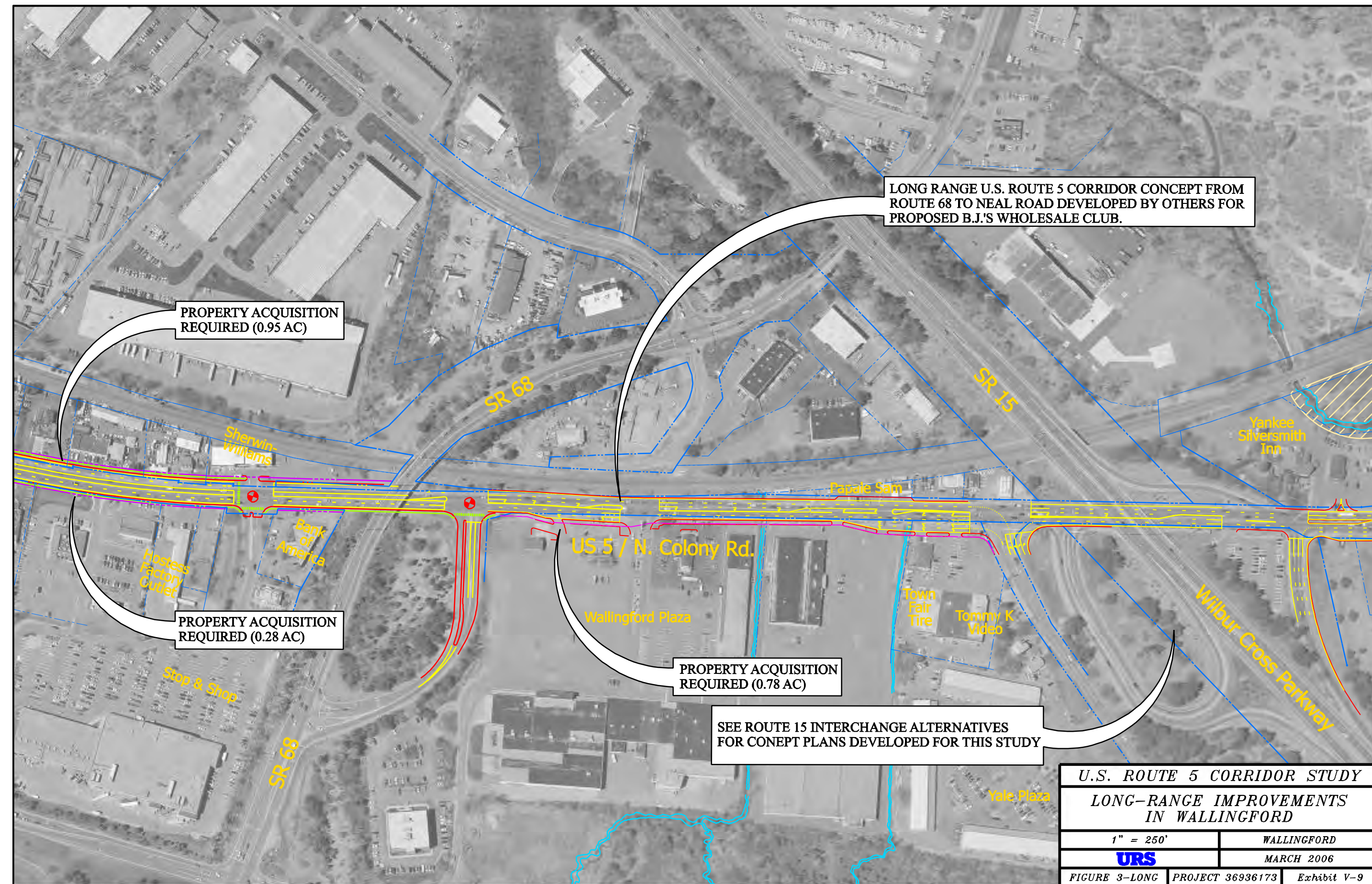


U.S. ROUTE 5 CORRIDOR STUDY	
LONG-RANGE IMPROVEMENTS IN WALLINGFORD	
1" = 250'	WALLINGFORD
URS	MARCH 2006
FIGURE 1-LONG	PROJECT 36936173 Exhibit V-7

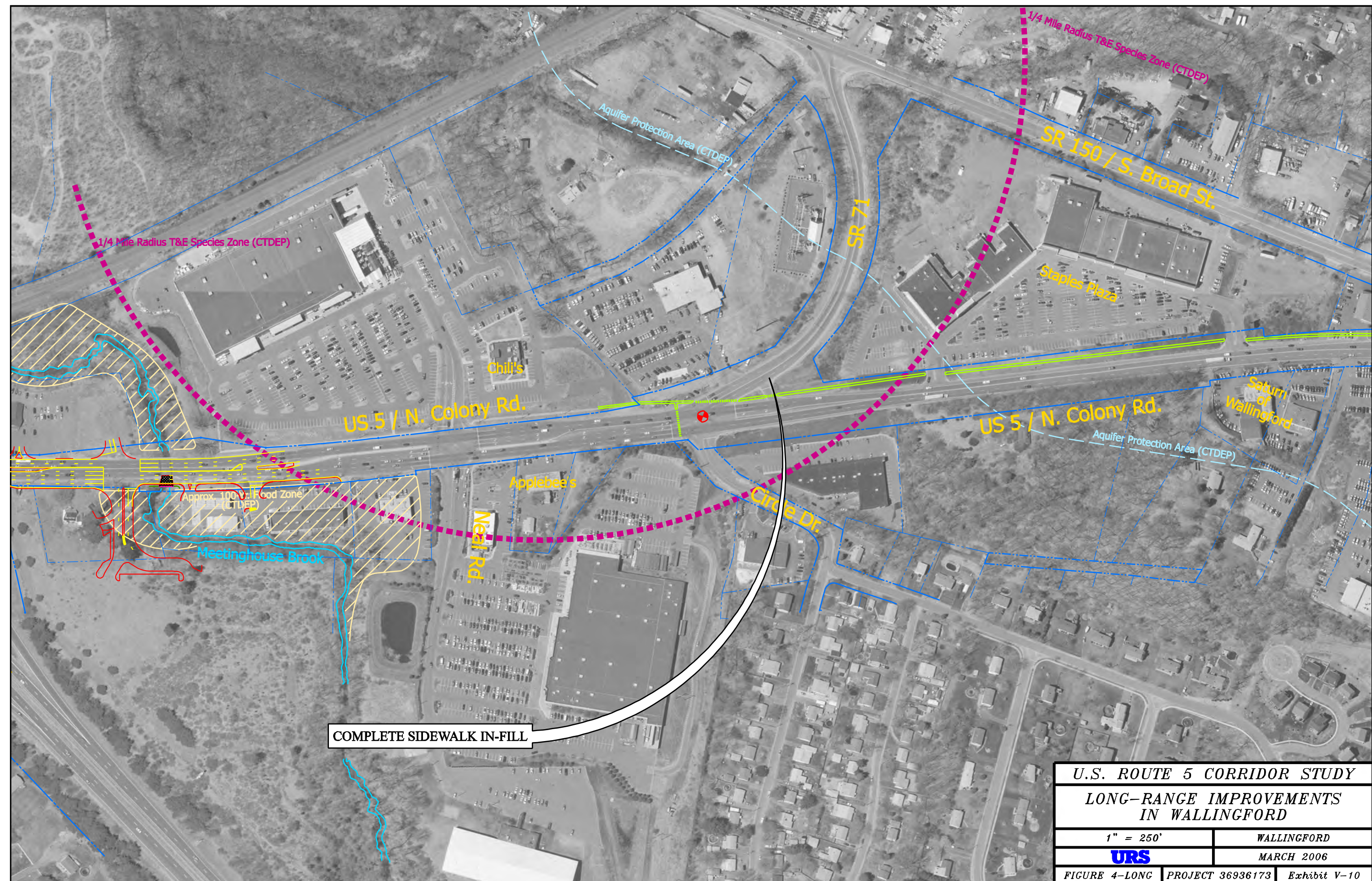












...Figure 4-Long-W.dgn 9/12/2006 10:45:27 AM



The specific location where the five-lane roadway section begins north of North Street is flexible, and it is noted that the northbound and southbound transitions need not be designed at the same locations along US 5. Thus, the location of the lane transitions can be adjusted based on right-of-way availability. However, the ultimate improvement should provide a five-lane roadway section as far south as possible to maximize the benefits to businesses along US 5.

- Between Ives Road and the Stop & Shop driveway, widen US 5 to provide a five-lane roadway section consisting of two travel lanes in each direction and a center two-way left turn lane.
- Between the Stop & Shop driveway and the Route 15 southbound ramp terminal, widen US 5 to achieve a five-lane roadway section consisting of two travel lanes in each direction and a center two-way left turn lane.

These improvements were initially formulated by others and presented to Town and State officials as part of a proposal to develop a new Lowes (home improvement store) at the movie theater site along US 5. Although the development itself did not materialize, the package of improvements was recognized as the practical limit of possible US 5 widening, and the level of improvement necessary to respond to long-range traffic demand.

- Complete the construction of in-fill sidewalk improvements throughout the corridor, and provide additional crosswalks and pedestrian actuation at signalized intersections where required.

In addition to the improvements described above, two additional measures were formulated as potential improvements to be implemented if warranted by development activity and/or traffic conditions:

- Analysis of projected traffic conditions indicates that the US 5/Ives Road/Pent Highway intersection will operate at an acceptable LOS if the existing offset geometry is maintained. However, if traffic operations become more congested than currently anticipated, or if development activity places operational demands on this intersection, it is feasible to realign the Ives Road approach to intersect US 5 opposite Pent Highway, creating a conventional four-legged intersection. This improvement would eliminate the irregular travel paths associated with the offset roadway geometry, and split signal phasing for minor street approaches to US 5. Doing so would create additional reserve capacity at this intersection by streamlining operations on all approaches, reducing overall delay, and enhance traffic progression along US 5.
- Based on investigations conducted by Town of Wallingford officials, traffic operations at the US 5/Beaumont Road intersection do not presently warrant the installation of a traffic signal. However, future conditions may see increased volumes on Beaumont Road as a result of pending or future development projects on vacant or underutilized properties abutting Beaumont Road. Because this development activity is considered likely to occur, the long-range improvement plan includes signalization of the US 5/Beaumont Road intersection.

### Yale Avenue / Route 15 Interchange

The current configuration of the Route 15 northbound ramp terminals and Yale Avenue at

US 5 has been in operation and has experienced significant levels of congestion for decades. Prior attempts to pursue improvements at this interchange by the Town and CDOT proved unsuccessful.

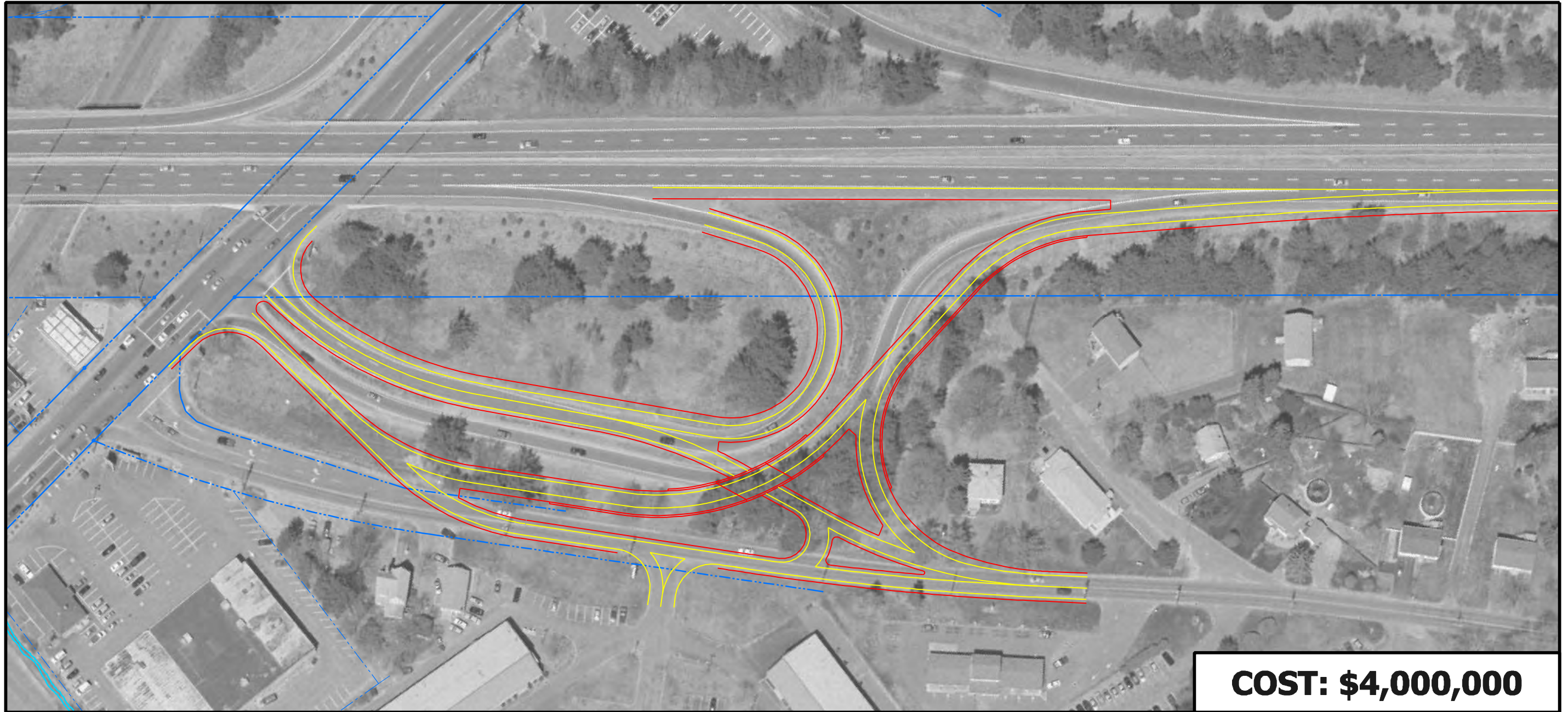
Traffic operations, localized access, and the design of these roadways are linked to several sensitive issues:

- § Yale Avenue is a Town road that provides the only direct access between US 5 and North Main Street Extension, both of which are the primary north-south arterials within northern Wallingford.
- § Yale Avenue provides direct access to a somewhat isolated pocket of residential properties flanked by the Wilbur Cross Parkway on the north and a broad expanse of commercial development to the south. Ideally, access to commercial developments should be enhanced or at least preserved at current levels. Conversely, increased traffic on Yale Avenue may be detrimental to residential properties located along Yale Avenue.
- § CDOT traditionally prefers to maintain ramp connections directly to State highways instead of Town roads.
- § Increased traffic flow on Yale Avenue may have the effect of exacerbating geometric deficiencies elsewhere in the vicinity, notably at intersections along North Main Street Extension at Yale Avenue, Route 68, and perhaps other locations.
- § Changes to the accessibility of Yale Avenue and the Route 15 northbound ramps may have significant effects on travel patterns, capacity, and delay on Route 68, Barnes Road, North Main Street Extension, and US 5.

To respond to these various issues and to address the need for interchange area improvements, the Study Team formulated four improvement options. These are illustrated in Exhibits V-11 through V-14, along with a summary of advantages, disadvantages, and estimated construction cost for each. The common advantage of all four options was the elimination of one traffic signal along US 5, and the enhancement of traffic operations at the remaining single signal.

These four design options were presented to the public during the January 10, 2006 Public Information Meeting, and were subsequently discussed among Study Team members. Input regarding each was noted as follows:

- § Option A (On-Ramp Grade Separation) - This was the most expensive option considered, but is thought to provide the most favorable (streamlined) operations for traffic oriented to and from northbound Route 15. It received negative comments from Study Team members regarding (1) an inability to accommodate trips oriented to Yale Plaza directly from Main Street Extension and westbound Yale Avenue; and, (2) an inability to directly accommodate trips exiting Yale Plaza oriented to northbound Route 15. It was the only option that received any comment stemming from public review of the alternatives, and that comment was positive in nature.
- § Option B (Right-In/Right-Out at US 5) - This was the least expensive option, but was deemed to have a very disruptive effect on access to and from properties abutting Yale Avenue. It received negative comments from Study Team members regarding the lack of left turn access to or egress from US 5, restricting degrees of mobility that are deemed to have high value.



**COST: \$4,000,000**

**ADVANTAGES:**

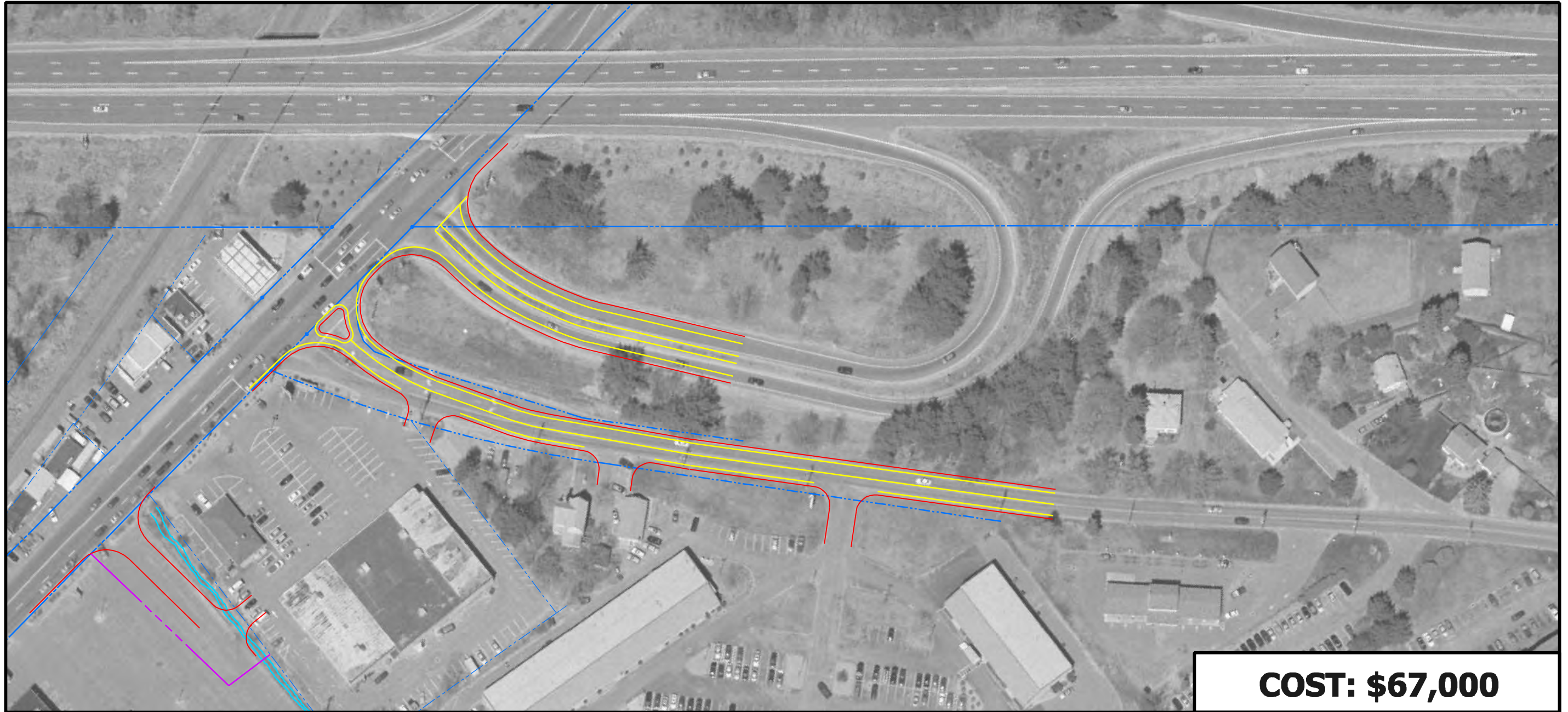
- + PRESERVES ACCESS TO YALE AVENUE AND ROUTE 15
- + PRESERVES AREA TRAFFIC PATTERNS
- + ELIMINATES CLOSELY SPACED INTERSECTIONS ON U.S. 5

**DISADVANTAGES:**

- RELATIVELY HIGH CONSTRUCTION COSTS
- VISUAL IMPACTS
- POTENTIAL PRIVATE PROPERTY IMPACTS

U.S. ROUTE 5 CORRIDOR STUDY		
INTERCHANGE ALTERNATIVE A		
1" = 100' (APPROX.)	WALLINGFORD	
URS	JANUARY 2006	
INTERCHANGE ALTERNATIVES.DGN	PROJECT 36936173	Exhibit V-11





**COST: \$67,000**

**ADVANTAGES:**

- + **RELATIVELY LOW CONSTRUCTION COSTS**
- + **STREAMLINES TRAFFIC FLOW ON U.S. 5**
- + **PRESERVES ACCESS TO ROUTE 15**

**DISADVANTAGES:**

- **SIGNIFICANTLY ALTERS ACCESS TO/FROM YALE AVE**
- **WOULD DIVERT TRAFFIC TO OTHER CONGESTED AREAS**
- **POTENTIAL TO VIOLATE RIGHT-IN/RIGHT-OUT OF YALE AVE**

**U.S. ROUTE 5 CORRIDOR STUDY**

**INTERCHANGE ALTERNATIVE B**

**1" = 100' (APPROX.)**

**WALLINGFORD**

**URS**

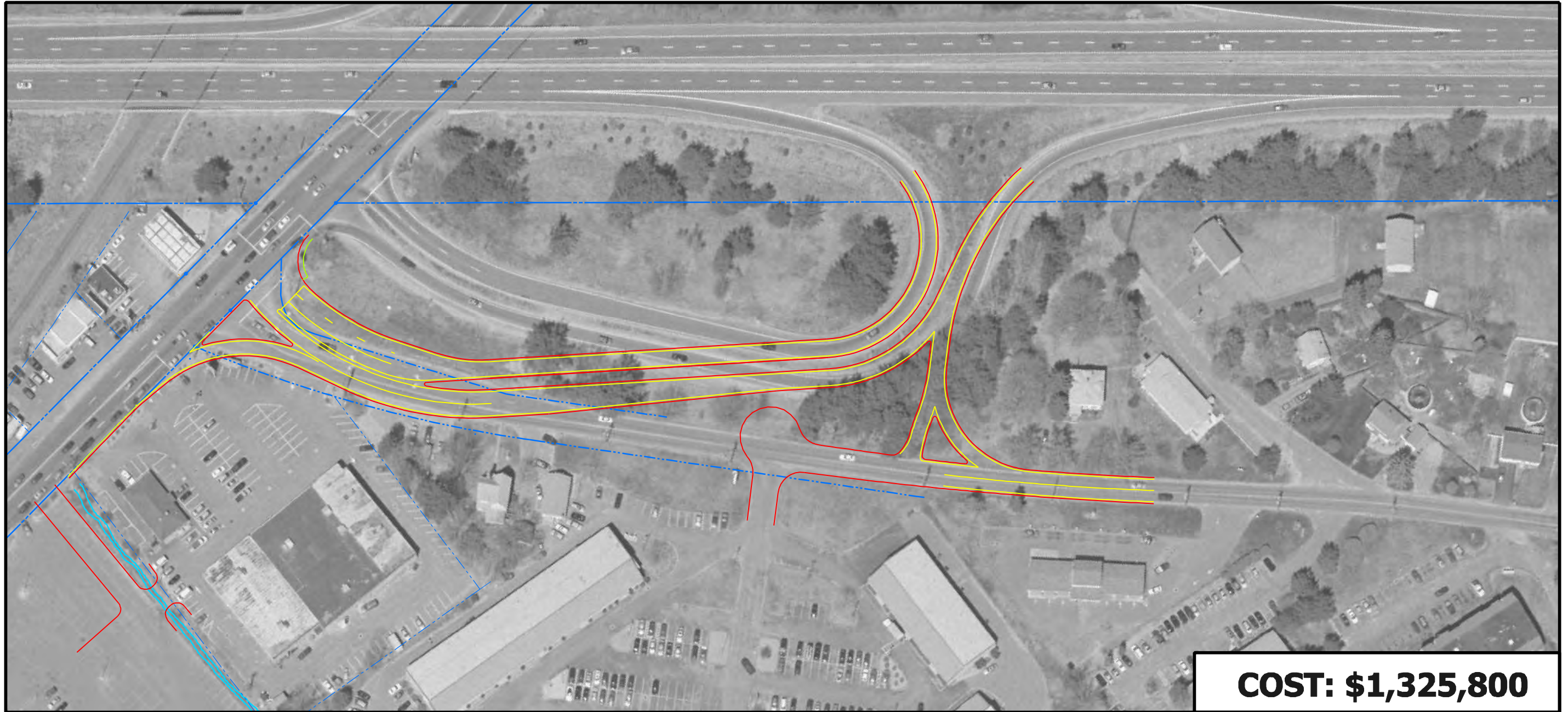
**JANUARY 2006**

**INTERCHANGE  
ALTERNATIVES.DGN**

**PROJECT 36936173**

**Exhibit V-12**





**COST: \$1,325,800**

**ADVANTAGES:**

- + PRESERVES ACCESS TO ROUTE 15
- + STREAMLINES TRAFFIC OPERATIONS ON U.S. 5
- + REDUCES TRAVEL DEMAND THROUGH YALE AVE. RESIDENTIAL AREA
- + REDUCES CLOSELY SPACED INTERSECTIONS ON U.S. 5

**DISADVANTAGES:**

- SIGNIFICANTLY ALTERS ACCESS TO/FROM YALE AVE PROPERTIES
- HIGH VOLUME DIVERSION OF TRAFFIC TO OTHER CONGESTED AREAS

**U.S. ROUTE 5 CORRIDOR STUDY**

**INTERCHANGE ALTERNATIVE C**

**1" = 100' (APPROX.)**

**WALLINGFORD**

**URS**

**JANUARY 2006**

**INTERCHANGE  
ALTERNATIVES.DGN**

**PROJECT 36936173**

**Exhibit V-13**





**COST: \$2,787,500**

**ADVANTAGES:**

- + PRESERVES ACCESS TO ROUTE 15 & YALE AVE
- + STREAMLINES TRAFFIC OPERATIONS ON U.S. 5
- + REDUCES CLOSELY SPACED INTERSECTIONS ON U.S. 5

**DISADVANTAGES:**

- HIGH VOLUME LEFT TURN ONTO ROUTE 15 FROM YALE AVE IS A CAPACITY CONCERN
- SHORT QUEUING LENGTH BETWEEN U.S. 5 AND RAMP INTERSECTION WILL CAUSE CONGESTION

U.S. ROUTE 5 CORRIDOR STUDY		
INTERCHANGE ALTERNATIVE D		
1" = 100' (APPROX.)	WALLINGFORD	
URS	JANUARY 2006	
INTERCHANGE ALTERNATIVES.DGN	PROJECT 36936173	Exhibit V-14



- § Option C (Yale Avenue Cul-de-Sac) - As with Option B, terminating the direct connection between Yale Avenue and US 5 was considered by Study Team members to be an overriding negative consequence of this option.
- § Option D (Ramp Relocation to Yale Avenue) - This layout was considered by Study Team members to achieve a satisfactory balance of retaining access to Yale Avenue, abutting properties, northbound Route 15, and US 5. However, there remain concerns with (1) the ability of this layout to accommodate peak period traffic volumes and queuing on Yale Avenue of traffic entering northbound Route 15; (2) the consequences of addition demand on Yale Avenue created by enhanced access to the Route 15 ramps; and, (3) the ability to provide adequate queue storage on US 5 oriented to eastbound Yale Avenue.

### City of Meriden

The long-range improvements recommended in the City of Meriden are illustrated in Exhibit V-15 thru V-17, and are described as follows:

- § Realign Gypsy Lane to intersect US 5 opposite the Green Road approach. This improvement will allow the elimination of split signal phasing for the side road approaches, and enhance traffic operations at this location. Additionally, the proposed improvement includes the addition of a dedicated right-turn lane along northbound US 5 to accommodate the right-turn maneuvers onto Green Road.
- § Construct minor pavement widening at the southwest corner of the US 5 / Hall Avenue intersection, providing more generous curb geometry for wheel paths of turning trucks and buses.
- § Realign Ann Street to intersect US 5 opposite the Gale Avenue approach. This improvement will allow the elimination of split signal phasing for the side road approaches, and enhance traffic operations at this location.
- § Complete the construction of in-fill sidewalk improvements throughout the corridor, and provide additional crosswalks and pedestrian actuation at signalized intersections where required.

## VI. Program Costs and Funding Requirements

Construction cost estimates were developed for short- and long-range improvements identified in this study. Estimates were based on concept-level design work illustrated in Sections IV and V of this report.

### Cost Estimation Procedure

CDOT's standardized procedures for preliminary engineering cost estimating were used to develop the construction cost estimate for each component of the improvement plans.

Costs include the following general categories:

- Pavement reconstruction (excavation, base course, binder course, wearing course, milling);
- Drainage (pipes, catch basins, manholes, sedimentation chambers, box culverts, trench excavation, bedding);
- Curbing (bituminous in Wallingford, precast or cast-in-place concrete in Meriden);
- Sidewalk (concrete, all locations);
- Retaining walls (assumed cast-in-place, with structure excavation);
- Restoration (topsoil, turf establishment or sod, and landscaping);
- Traffic signal improvements (minor modification, major modification, or new);
- Trafficperson (uniformed police officer);
- Pavement markings; and,
- Environmental remediation (where work is adjacent to a property supporting a land use or business type commonly associated with a need for remediation).

The estimates also include costs for clearing and grubbing, maintenance & protection of traffic, mobilization, construction staking, landscaping, and minor items as a percent of pay item totals. Cost percentage factors were included for contingencies, incidentals, and utility relocation work. Finally, costs were factored into the overall estimates for surveying, engineering design, construction engineering/inspection, and environmental studies.

Unit prices for construction activities were based on CDOT guidelines, prior project experience, and engineering judgment. All costs are computed in 2006 dollars. No attempt was made to compute inflationary effects of the project development schedule because the schedule of implementation and duration of construction work are both uncertain at this time.

The costs associated with right-of-way acquisitions are not included in the construction cost values. Right-of-way costs are tabulated separately, and are discussed in Section VII of this report.

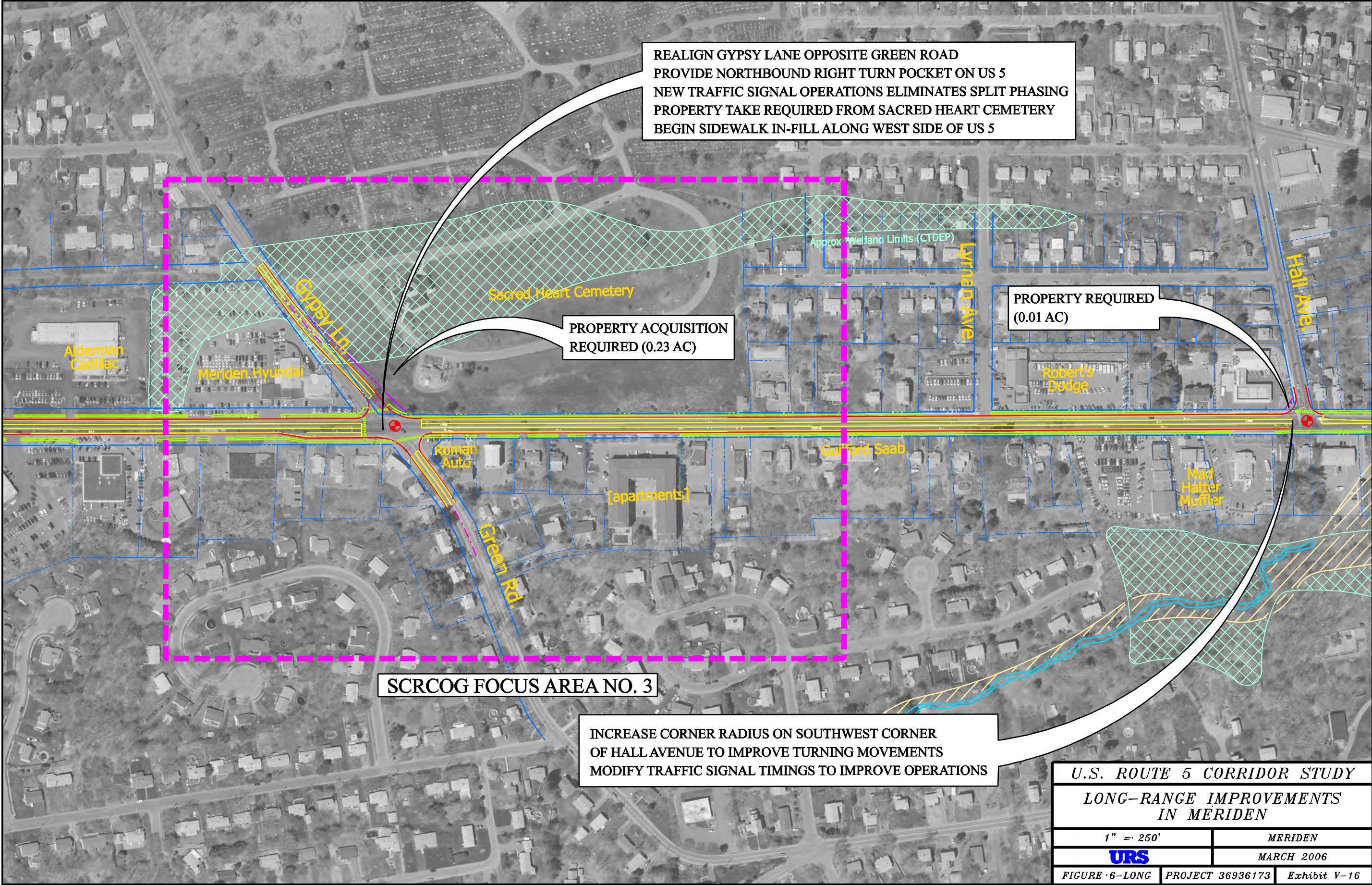
### Short-Range Improvements

Exhibit VI-1 provides a summary of estimated costs associated with pursuing the short-range improvement recommendations. The total cost of all short-range improvements in Wallingford are estimated at \$1,270,000, and improvements in Meriden are estimated at

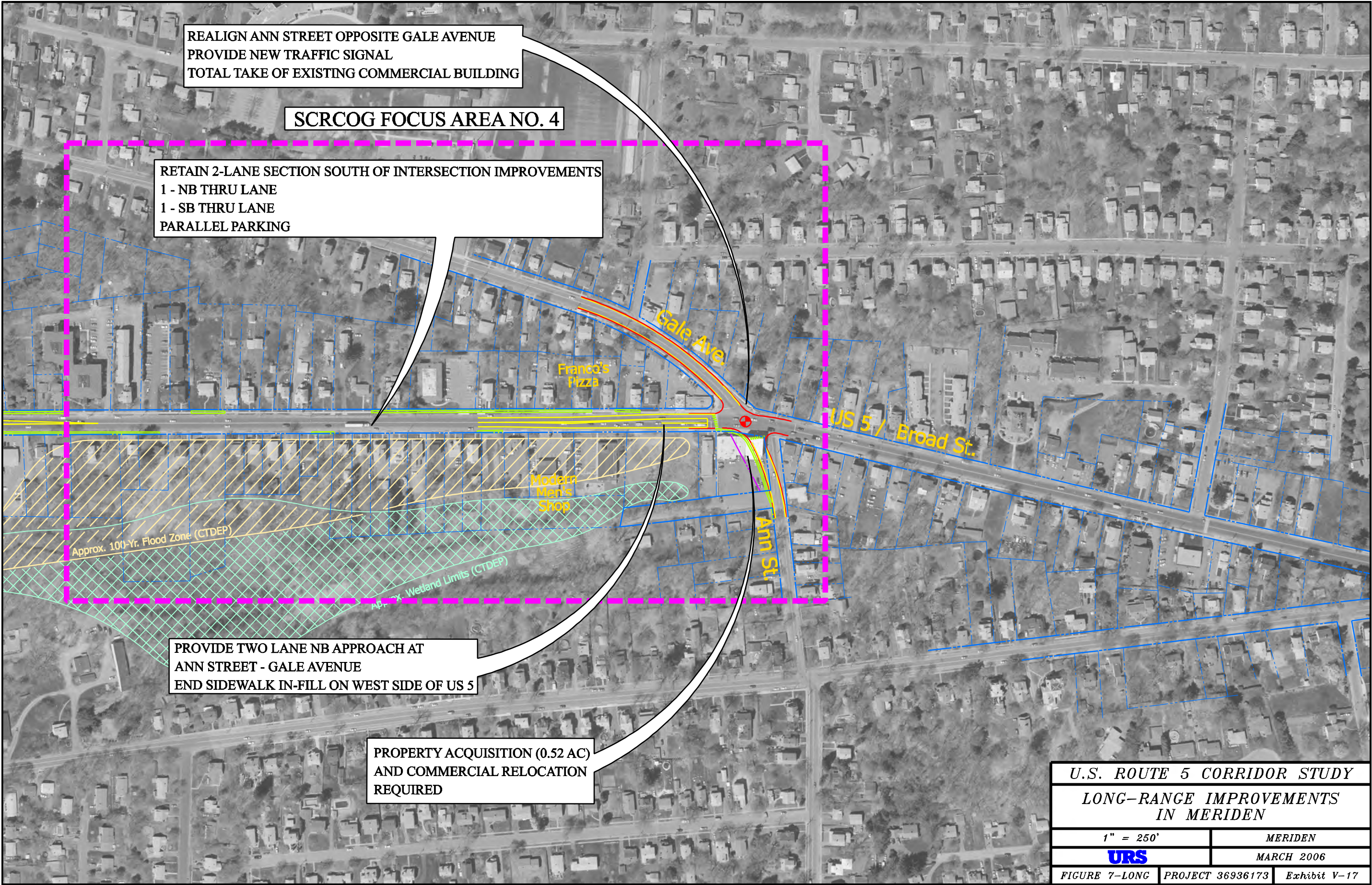












U.S. ROUTE 5 CORRIDOR STUDY		
LONG-RANGE IMPROVEMENTS IN MERIDEN		
1" = 250'	MERIDEN	
<b>URS</b>	MARCH 2006	
FIGURE 7-LONG	PROJECT 36936173	Exhibit V-17



## EXHIBIT VI-1

## Summary of Estimated Construction Costs for Short-Range Improvements

US5 Planning/Preliminary Design Study  
 Wallingford and Meriden, Connecticut  
 South Central Regional Council of Governments

URS Corporation

March 2006

p:\scrcog\wp\rpt\final\finalrpt\_cost\_matrix.xls

Location and Type of Improvement			Cost of Short-Range Improvements [1]	
WALLINGFORD	Improvements to US5, North Street to Route 68	<ul style="list-style-type: none"><li>Restripe US5 to provide 3-lane roadway section</li><li>Minor widening of US5 at stream crossing near Beaumont Rd</li><li>Modify signals at N. Plains Hwy. / Cedar Ln. and Metro Plaza driveway</li><li>Sidewalk in-fill (partial)</li></ul>	\$1,040,000	
	Improvements to US5, SR 15 northbound ramps to Vicinity Neal Road	<ul style="list-style-type: none"><li>US5 widening, signal modifications, and other improvements pursuant to STC permit for BJ's development</li></ul>	\$0 [2]	
	Improvements to US5, SR 71 / Circle Drive to Wallingford Town Line	<ul style="list-style-type: none"><li>Sidewalk in-fill</li></ul>	\$230,000	
	Total Estimated Cost of Improvements, Town of Wallingford			\$1,270,000
MERIDEN	Improvements to US5, Meriden City Line to Ann St.	<ul style="list-style-type: none"><li>Restripe US5 for 3-lane section (Harte Chevrolet parcel to Hall Ave.)</li><li>Modify signals at Gypsy Ln. &amp; Hall Rd.</li><li>Sidewalk in-fill (partial)</li></ul>	\$710,000	
	Total Estimated Cost of Improvements, City of Meriden			\$710,000
	Total Estimated Cost of Improvements, CORRIDOR			\$1,980,000

[1] Costs reflect pavement box widening of US5 using full-depth bituminous pavement and milling and overlay of existing pavement.

Costs include allowances for utility relocations, environmental studies, contaminant remediation, landscaping, and professional services.

Costs do not include right-of-way acquisition

Costs developed using CDOT guidelines for concept-level estimation; All costs are in 2005 dollars.

Programming as separate discrete projects may result in higher incremental construction costs.

[2] Cost of improvements to be borne by the developer, at no cost to the Town of Wallingford or State of Connecticut

\$710,000. Summaries of cost estimates for short-range improvements are compiled in Appendix A.

### Long-Range Improvements

Exhibit VI-2 provides a summary of estimated costs associated with the long-range improvements recommended by this study. The total cost of all long-range improvements in Wallingford are estimated at \$12,145,000, excluding the cost of improvements to Yale Avenue or the Route 15 northbound ramps. The cost of long-range improvements in Meriden are estimated at \$2,450,000. Summaries of cost estimates for long-range improvements are compiled in Appendix B.



## EXHIBIT VI -2

## Summary of Estimated Construction Costs for Long-Range Improvements

US5 Planning/Preliminary Design Study  
 Wallingford and Meriden, Connecticut  
 South Central Regional Council of Governments

URS Corporation

March 2006

p:\scrcog\wp\rpt\final\finalrpt\_cost\_matrix.xls

Location and Type of Improvement		Cost of Long-Range Improvements [1]
WALLINGFORD	Improvements to US5, North Street to Beaumont Rd. n Widen US5 to provide 5-lane section n Modify existing signal at Metro Plaza driveway n New signals at North Plains Highway / Cedar Lane and at Beaumont Road n Realign Cedar Lane n Sidewalk replacement, as needed	\$5,255,000
	Improvements to US5, Ives Road / Pent Highway to Barnes Road (SR 68) n Widen US5 to provide 5-lane section n New signal at Stop & Shop driveway n Sidewalk in-fill (partial)	\$4,330,000
	Improvements to US5, Barnes Road (SR 68) to SR 15 northbound ramps n Widen US5 to provide 5-lane section n Yale/SR 15 ramp improvements indeterminate	\$2,350,000 [2]
	Improvements to US5, SR 15 northbound ramps to Vicinity Neal Road n US5 widening, signal modifications, and other improvements pursuant to STC permit for BJ's development	\$0 [3]
	Improvements to US5, SR 71 / Circle Drive to Wallingford Town Line n Sidewalk in-fill	\$210,000
<b>Total Estimated Cost of Improvements, Town of Wallingford</b>		<b>\$12,145,000</b>
MERIDEN	Improvements at Gypsy Lane / Green Road n Realign Gypsy Lane n New signal at Gypsy Ln / Green Rd n Widen for NB right turn lane n Sidewalk in-fill (partial)	\$1,280,000
	Improvements at Hall Avenue n Improve corner curb return radius to facilitate turning movements n Modify signal at Hall Avenue n Sidewalk in-fill (partial)	\$270,000
	Improvements at Gale Avenue / Ann Street n Realign Gale Avenue and Ann Street n New signal at Gale Avenue / Ann Street n Sidewalk in-fill (partial)	\$900,000
<b>Total Estimated Cost of Improvements, City of Meriden</b>		<b>\$2,450,000</b>
<b>Total Estimated Cost of Improvements, CORRIDOR</b>		<b>\$14,595,000</b>

[1] Costs reflect pavement box widening of US5 using full-depth bituminous pavement and milling and overlay of existing pavement.

Costs include allowances for utility relocations, environmental studies, contaminant remediation, landscaping, and professional services.

Costs do not include right-of-way acquisition

Costs developed using CDOT guidelines for concept-level estimation; All costs are in 2005 dollars.

Programming as separate discrete projects may result in higher incremental construction costs.

[2] Represents cost of work on US 5, exclusive of improvements to Yale Avenue or the northbound Route 15 ramps.

[3] Cost of improvements to be borne by the developer, at no cost to the Town of Wallingford or State of Connecticut

## VII. Right-of-Way Impacts

The following documents the study activities aimed at quantifying the extent and cost of right-of-way impacts associated with short- and long-range improvement recommendations. Right-of-way impacts and associated costs should be considered conceptual in nature, reflecting the planning-level accuracy with which right-of-way lines, property lines, and roadway geometry were laid out for this study.

### Impact Estimation Procedure

Study Team members conducted a detailed review of each parcel for which impacts were forecast as a result of implementing the long-range improvements. Data regarding parcel size, building area, assessed value, and land cost per square foot were obtained from municipal assessor's records.

Property impacts were estimated based on the layout of proposed improvements, and generalized design practices for setting new right-of-way lines relative to newly improved corridor features. (For example, it is common practice to establish new right-of-way one foot beyond the outer edge of newly constructed sidewalk.) Impacts to each parcel were considered from several different perspectives, including the acquisition area (on both a square footage basis and a percent-of-total basis); the degree to which on-site parking is eliminated or otherwise impacted; the degree to which parcel access is affected; and the degree to which site operations may be affected.

The methodology for estimating right-of-way costs was discussed with CDOT staff, and reflects the usual and customary nature and magnitude of expenses incurred by the State in executing right-of-way actions for transportation projects. These include the following costs:

- Property purchase (assumed at 150% of fair market value);
- CDOT expenses (transaction processing);
- Residential relocation expenses (for acquisition takes only, includes replacement housing, rent supplement, moving expenses); and,
- Business relocation expenses (for total acquisition only, includes business reestablishment and moving expenses).

### Short-Range Improvements

The short-range improvements were formulated in ways that avoided the need for right-of-way acquisitions. Thus, there are no right-of-way acquisition needs associated with the recommended short-range improvements.

During construction, there may be a need to acquire a right to enter parcels in order to accomplish minor construction activities (sidewalk construction, minor grading, restoration, utility adjustments, curb returns, etc.). Property owners are generally not compensated for granting such rights.

## Long-Range Improvements

In Wallingford, the long-range improvements would affect an estimated 49 individual properties. This includes 47 partial acquisitions and/or permanent easements that are generally strips of land located along parcel frontage areas, measuring approximately 3.57 acres in total. The estimated cost of the partial acquisitions in Wallingford is \$1,789,000.

Of the 49 parcels impacted in Wallingford, two full property acquisitions and relocations are required:

- The Sam Papale (retail) development, located on the west side of US 5 south of the Yale Avenue intersection. At present, operation of this site requires the use of portions of existing highway right-of-way. The site is triangular in shape, and provides minimal setbacks on each side. Widening of US 5 along the Papale frontage would eliminate most site circulation patterns, and would not allow for safe ingress/egress movements to or from the site. Relocation of the US 5 widening further east is not possible due to physical constraints posed by the Route 15 overpass and other buildings. The cost to acquire this parcel and relocate the occupant is estimated at \$489,000.
- The Bank of America development, located on the east side of US 5 at the Stop & Shop driveway. Widening of US 5 at this location would impact on-site parking which is already reported to be insufficient for current site operations. It is not likely possible to reconfigure the site to provide replacement parking, or at least materially limit the number of lost parking spaces. Relocation of the US 5 widening further west is not possible due to physical constraints posed by the Route 68 overpass. The cost to acquire this parcel and relocate the occupant is estimated at \$1,438,000.

In Meriden, the long-range improvements would affect an estimated 3 parcels. Two of these are partial takes that are corners of parcels located at intersection (one to accommodate a partial relocation of Gypsy Lane, and the other to improve curb return geometry at the Hall Avenue intersection.) The area of these two acquisitions totals approximately 0.23 acres, and the total cost to acquire these partial acquisitions is estimated at \$30,000.

Only one full property acquisition and relocation is estimated to be required to accommodate the long-range improvements in Meriden:

- Multiunit retail development, located on the east side of US 5 at the Ann Street/Gale Avenue intersection. The location of the building on the site presents a physical conflict with the relocated Ann Street approach. While this impact could be avoided with the relocation of the Gale Avenue approach, such an alternative would result in substantial impacts to (and likely relocations of) 4 residential properties, as well as an exaggerated and undesirable horizontal curvature on Gale Avenue. The cost to acquire this parcel and relocate the occupants is estimated at \$863,000.

In all, implementation of the long-range recommendations would affect an estimated 52 parcels, three total property acquisitions, and partial acquisitions impacts to 3.8 acres of developed property. Total right-of-way related costs for work in both communities is estimated at \$4,609,000.

## VIII. Public Involvement

The following documents public involvement activities undertaken during the course of this study.

### SCRCOG Website

Throughout the study, SCRCOG has posted information on its website regarding the status of the US 5 study, and select work products prepared by Study Team members.

### Public Information Meeting

Prior to the Public Information Meeting (PIM), SCRCOG issued a news release identifying the time, date, and place of the meeting, as well as the agenda and purpose of the meeting. The press release was issued approximately one week prior to the PIM. A direct mail and direct e-mail effort was conducted concurrently to announce the PIM to approximately 200 Town, City, and State officials, abutting property owners, and major stakeholders.

The PIM was held at Il Monticello's Restaurant on the evening of January 10, 2006, located on US 5 near the Town/City line. The meeting agenda included the following key elements:

- 6:30 - 7:00 pm - Public open house session
- 7:00 - 8:00 pm - Presentation followed by public question-and-answer session
- 8:00 - 9:00 pm - Public open house session continued

The meeting was attended by representatives of SCRCOG, the Town of Wallingford, the City of Meriden, and URS Corporation. Approximately 45 citizens attended, and were actively involved in discussion of the project. Comment forms were made available to all attendees in a format suitable for return mailing to URS.

### Response to Public Comments

In the three weeks following the PIM, the Study Team received approximately 11 comment forms by mail from PIM attendees. All comment forms containing questions, requests for additional information, or copies of PIM exhibits were answered with letters and relevant enclosures. Copies of all public comments and response letters were distributed to all Study Team members.

### Wallingford Town Council Meeting

At the request of the Wallingford Town Engineering Department, URS staff attended a televised meeting of the Wallingford Town Council to report on study findings and recommendations. The presentation produced meaningful interaction with Town Council members, and was productive in disseminating study-related information to Town officials and Town residents unable to attend the PIM.

## IX. Future Study Needs

Additional study is needed to further investigate operational benefits, and impacts to localized traffic patterns associated with the various Route 15 interchange design options. Further study may reveal still other improvement options that address travel needs and corridor constraints in other or more effective ways. Follow-up study activities should ideally include the following tasks:

- Additional data collection (traffic volume counts, accident experience, etc.) at additional intersections such as North Main Street Extension at SR 68, SR 68 at Barnes Road, Yale Avenue at North Main Street Extension, and North Main Street Extension at Wallingford Plaza east perimeter driveway;
- Trip assignments to reflect revised travel patterns associated with each interchange design option;
- Additional capacity analyses to evaluate the need for and quantify physical improvements needed at locations beyond the US 5 corridor;
- Cost estimates for peripheral improvements associated with each interchange design option;
- Continued coordination with CDOT and Wallingford officials;
- Contact with individual property owners expected to be directly affected by interchange design options;
- Supplemental public involvement to present findings and recommendations focusing on Route 15 interchange improvements; and,
- Documentation of study process, findings, and recommendations.



## Appendix A

### Short-Range Improvement Construction Cost Estimates

**URS Corporation**  
**U.S. Route 5 Corridor Study**  
**Wallingford and Meriden, Connecticut**  
**Town of Wallingford - Short-Term Improvements - North Street to Route 68**  
**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20\text{-}\$40$ ; $500\text{-}2500\text{CY}/\$12\text{-}\$20$ ; $2500\text{-}5000\text{CY}/\$10\text{-}\$18$ ; $>5000\text{CY}/\$10\text{-}\$16$ ]	333	CY	\$40	\$13,330
Rock Ex. [ $<500\text{CY}/\$38\text{-}\$95$ ; $500\text{-}2500\text{CY}/\$25\text{-}\$50$ ; $2500\text{-}5000\text{CY}/\$25\text{-}\$50$ ; $>5000\text{CY}/\$18\text{-}\$32$ ]		CY		
Borrow [ $<500\text{CY}/\$15\text{-}\$30$ ; $500\text{-}5000\text{CY}/\$8\text{-}\$18$ ; $>5000\text{CY}/\$6\text{-}\$14$ ]		CY		
Trench Ex. [ $0'\text{-}4'\text{-}\$12\text{-}\$20/\text{CY}$ ; $0'\text{-}10'\text{-}\$15\text{-}\$24/\text{CY}$ ; $0'\text{-}15'\text{-}\$30/\text{CY}$ ; $0'\text{-}20'\text{-}\$35/\text{CY}$ ]	242	CY	\$18	\$4,350
Rock in Trench Ex. [ $\$50\text{ - }\$150/\text{CY}$ ]		CY		
Drainage; Pipe (12") [ $\$42$ ]	172	LF	\$42	\$7,220
Drainage; Pipe (24") [ $\$58$ ]	800	LF	\$58	\$46,400
Drainage; Catch Basins [ $\$1400$ ]	8	EA.	\$1,400	\$11,200
Drainage; Double Catch Basins [ $\$1600\text{-}\$2000$ ]	2	EA.	\$1,800	\$3,600
Drainage; Sed. Chambers [ $10'\text{x}4'\text{-}\$15000$ ; $13'\text{x}7'\text{-}\$24000$ ; $18'\text{x}12'\text{-}\$45000$ ]	1	EA.	\$15,000	\$15,000
Bedding Material [ $<100\text{ CY-}\$30/\text{CY}$ ; $500\text{-}1000\text{CY-}\$24/\text{CY}$ ; $>1000\text{CY-}\$20/\text{CY}$ ]	98	CY	\$30	\$2,950
Milling of Bituminous Concrete $0''\text{ - }4''$ [ $\$4.00/\text{SY}$ ]	1,578	SY	\$4	\$6,310
Superpave [ $<100\text{T-}\$85/\text{T}$ ; $100\text{-}1500\text{T-}\$75/\text{T}$ ; $1500\text{-}5000\text{T-}\$70/\text{T}$ ; $>5000\text{T-}\$60\text{-}\$65/\text{T}$ ]	418	T	\$75	\$31,340
Subbase [ $<500\text{CY}/\$24\text{-}\$40$ ; $500\text{-}2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	167	T	\$40	\$6,670
Temporary PCBC [ $\$28/\text{LF}$ ]		LF		
Curbing; BCLC [ $\$3\text{-}\$8$ ]	1,600	LF	\$6	\$9,600
Curbing; Concrete [ $\$18\text{-}\$28$ ]		LF		
Guide Railing; R-B (350) [ $\$16.50$ ]		LF		
Guide Railing; Anchors [ $\$500\text{-}\$650$ ]		EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	3,767	SY	\$65	\$244,830
Furnish & Place Topsoil [ $<1000\text{ SY-}\$6.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$5.00/\text{SY}$ ; $>5000\text{ SY-}\$3.75/\text{SY}$ ]	1,589	SY	\$5.00	\$7,940
Turf Establishment [ $<1000\text{ SY-}\$2.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$1.40/\text{SY}$ ; $>5000\text{ SY-}\$0.80/\text{SY}$ ]	1,589	SY	\$1.40	\$2,220
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	640	HR	\$50	\$32,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ]		LF		
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area]		SF		
Structure Ex. [ $<100\text{ CY-}\$60/\text{CY}$ ; $100\text{-}1000\text{CM-}\$27/\text{CY}$ ; $>1000\text{ CY-}\$18/\text{CY}$ ]		CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40\text{-}\$70$ ] / Slope Paving [ $\$100/\text{SY}$ ]	500	SF	\$100	\$50,000
Traffic Signals; New [ $\$75,000\text{-}\$100,000$ ]	0	EA.		
Traffic Signals; Major Modification [ $\$50,000$ ]	0	EA.		
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.		
Pavement Markings	27,463	LF	\$0.50	\$13,730
Environmental Remediation	50	LF	\$280	\$14,000
ESTIMATED PAY ITEM SUBTOTAL				\$522,700
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$10,500
M & P of Traffic (3%)		3%		\$15,700
Mobilization (7.5%)		8%		\$39,200
Construction Staking (1%)		1%		\$5,200
Landscaping (10%)		10%		\$52,300
Minor Items (20%)		20%		\$104,500
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$227,400
TOTAL PAY ITEM SUBTOTAL				\$750,100
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M-}7\%$ ; $>\$5\text{M-}5\%$ ]		5%		\$38,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1\text{-}\$5\text{M}/15\%$ ] [ $\$5\text{-}\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$53,000
UTILITIES				\$35,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (3%)		3%		\$22,500
Design (10%)		10%		\$75,000
Construction Engineering & Inspection (8%)		8%		\$60,000
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$2,800
PERCENTAGE BASED COST SUBTOTAL				\$160,300
Estimated By: C. Granatini				
Checked By: <i>twill</i>				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$1,036,400

**URS Corporation**  
**U.S. Route 5 Corridor Study**  
**Wallingford and Meriden, Connecticut**  
**Town of Meriden - Short-Term Improvements - Town Line Plaza to Ann Street**  
**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20\text{-}\$40$ ; $500\text{-}2500\text{CY}/\$12\text{-}\$20$ ; $2500\text{-}5000\text{CY}/\$10\text{-}\$18$ ; $>5000\text{CY}/\$10\text{-}\$16$ ]		CY		
Rock Ex. [ $<500\text{CY}/\$38\text{-}\$95$ ; $500\text{-}2500\text{CY}/\$25\text{-}\$50$ ; $2500\text{-}5000\text{CY}/\$25\text{-}\$50$ ; $>5000\text{CY}/\$18\text{-}\$32$ ]		CY		
Borrow [ $<500\text{CY}/\$15\text{-}\$30$ ; $500\text{-}5000\text{CY}/\$8\text{-}\$18$ ; $>5000\text{CY}/\$6\text{-}\$14$ ]		CY		
Trench Ex. [ $0'\text{-}4'\text{-}\$12\text{-}\$20/\text{CY}$ ; $0'\text{-}10'\text{-}\$15\text{-}\$24/\text{CY}$ ; $0'\text{-}15'\text{-}\$30/\text{CY}$ ; $0'\text{-}20'\text{-}\$35/\text{CY}$ ]		CY		
Rock in Trench Ex. [ $\$50\text{-}\$150/\text{CY}$ ]		CY		
Drainage; Pipe ( $12''\text{-}15''\text{-}24''\text{-}48''$ ) [ $\$42/\$45/\$58/\$110$ ]		LF		
Drainage; Catch Basins [ $\$1400$ ]		EA.		
Drainage; Double Catch Basins [ $\$1600\text{-}\$2000$ ]		EA.		
Drainage; Sed. Chambers [ $10'\text{x}4'\text{-}\$15000$ ; $13'\text{x}7'\text{-}\$24000$ ; $18'\text{x}12'\text{-}\$45000$ ]		EA.		
Bedding Material [ $<100\text{ CY-}\$30/\text{CY}$ ; $500\text{-}1000\text{CY-}\$24/\text{CY}$ ; $>1000\text{CY-}\$20/\text{CY}$ ]		CY		
Milling of Bituminous Concrete $0''\text{-}4''$ [ $\$4.00/\text{SY}$ ]		SY		
Superpave [ $<100\text{T-}\$85/\text{T}$ ; $100\text{-}1500\text{T-}\$75/\text{T}$ ; $1500\text{-}5000\text{T-}\$70/\text{T}$ ; $>5000\text{T-}\$60\text{-}\$65/\text{T}$ ]		T		
Subbase [ $<500\text{CY}/\$24\text{-}\$40$ ; $500\text{-}2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]		T		
Temporary PCBC [ $\$28/\text{LF}$ ]		LF		
Curbing; BCLC [ $\$3\text{-}\$8$ ]		LF		
Curbing; Concrete [ $\$18\text{-}\$28$ ]		LF		
Guide Railing; R-B (350) [ $\$16.50$ ]		LF		
Guide Railing; Anchors [ $\$500\text{-}\$650$ ]		EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	3,523	SY	\$65	\$229,020
Furnish & Place Topsoil [ $<1000\text{ SY-}\$6.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$5.00/\text{SY}$ ; $>5000\text{ SY-}\$3.75/\text{SY}$ ]	2,936	SY	\$5	\$14,680
Turf Establishment [ $<1000\text{ SY-}\$2.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$1.40/\text{SY}$ ; $>5000\text{ SY-}\$0.80/\text{SY}$ ]	2,936	SY	\$1.40	\$4,110
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	320	HR	\$50	\$16,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ]		LF		
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area]		SF		
Structure Ex. [ $<100\text{ CY-}\$60/\text{CY}$ ; $100\text{-}1000\text{CM-}\$27/\text{CY}$ ; $>1000\text{ CY-}\$18/\text{CY}$ ]		CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40\text{-}\$70$ ]		SF		
Traffic Signals; New [ $\$75,000\text{-}\$100,000$ ]		EA.		
Traffic Signals; Major Modification [ $\$50,000$ ]	2	EA.	\$50,000	\$100,000
Traffic Signals; Minor Modification [ $\$5,000$ ]		EA.		
Pavement Markings	17,765	LF	\$0.50	\$8,880
ESTIMATED PAY ITEM SUBTOTAL				\$372,700
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$7,500
M & P of Traffic (3%)		3%		\$11,200
Mobilization (7.5%)		7.5%		\$28,000
Construction Staking (1%)		1%		\$3,700
Landscaping (10%)		10%		\$37,300
Minor Items (20%)		20%		\$74,500
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$162,200
TOTAL PAY ITEM SUBTOTAL				\$534,900
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M-}7\%$ ; $>\$5\text{M-}5\%$ ]		5%		\$27,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1\text{-}\$5\text{M}/15\%$ ] [ $\$5\text{-}\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$37,000
UTILITIES				
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$10,700
Design (10%)		10%		\$53,500
Construction Engineering & Inspection (8%)		8%		\$42,800
PERCENTAGE BASED COST SUBTOTAL				\$107,000
Estimated By: <i>clawell</i>				
Checked By: <i>hmm</i>				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$705,900

## Appendix B

### Long-Range Improvement Construction Cost Estimates



## URS Corporation

## U.S. Route 5 Corridor Study

Wallingford and Meriden, Connecticut

Town of Wallingford - Long-Term Improvements - North Street to Beaumont Road

## PRELIMINARY COST ESTIMATE

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20\text{-}\$40$ ; $500\text{-}2500\text{CY}/\$12\text{-}\$20$ ; $2500\text{-}5000\text{CY}/\$10\text{-}\$18$ ; $>5000\text{CY}/\$10\text{-}\$16$ ]	6,931	CY	\$16	\$110,900
Rock Ex. [ $<500\text{CY}/\$38\text{-}\$95$ ; $500\text{-}2500\text{CY}/\$25\text{-}\$50$ ; $2500\text{-}5000\text{CY}/\$25\text{-}\$50$ ; $>5000\text{CY}/\$18\text{-}\$32$ ]	0	CY		
Borrow [ $<500\text{CY}/\$15\text{-}\$30$ ; $500\text{-}5000\text{CY}/\$8\text{-}\$18$ ; $>5000\text{CY}/\$6\text{-}\$14$ ]	0	CY		
Trench Ex. [ $0'\text{-}4'\text{-}\$12\text{-}\$20/\text{CY}$ ; $0'\text{-}10'\text{-}\$15\text{-}\$24/\text{CY}$ ; $0'\text{-}15'\text{-}\$30/\text{CY}$ ; $0'\text{-}20'\text{-}\$35/\text{CY}$ ]	5,473	CY	\$17	\$93,030
Rock in Trench Ex. [ $\$50\text{ - }\$150/\text{CY}$ ]	0	CY		
Drainage; Pipe (12" - 15" - 24" - 48") [ $\$42/\$45/\$58/\$110$ ]	3,990	LF	\$45	\$179,550
Drainage; Catch Basins [ $\$1400$ ]	34	EA.	\$1,400	\$47,600
Drainage; Double Catch Basins [ $\$1600\text{-}\$2000$ ]	14	EA.	\$1,800	\$25,200
Drainage; Sed. Chambers [ $10'\text{x}4'\text{-}\$15000$ ; $13'\text{x}7'\text{-}\$24000$ ; $18'\text{x}12'\text{-}\$45000$ ]	2	EA.	\$24,000	\$48,000
Bedding Material [ $<100\text{ CY-}\$30/\text{CY}$ ; $500\text{-}1000\text{CY-}\$24/\text{CY}$ ; $>1000\text{CY-}\$20/\text{CY}$ ]	532	CY	\$24	\$12,770
Milling of Bituminous Concrete 0" - 4" [ $\$4.00/\text{SY}$ ]	16,176	SY	\$4	\$64,700
Superpave [ $<100\text{T-}\$85/\text{T}$ ; $100\text{-}1500\text{T-}\$75/\text{T}$ ; $1500\text{-}5000\text{T-}\$70/\text{T}$ ; $>5000\text{T-}\$60\text{-}\$65/\text{T}$ ]	7,164	T	\$65	\$465,630
Subbase [ $<500\text{CY}/\$24\text{-}\$40$ ; $500\text{-}2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	3,077	T	\$24	\$73,840
Temporary PCBC [ $\$28/\text{LF}$ ]	0	LF	\$28	
Curbing; BCLC [ $\$3\text{-}\$8$ ]	8,180	LF	\$6	\$49,080
Curbing; Concrete [ $\$18\text{-}\$28$ ]	0	LF		
Guide Railing; R-B (350) [ $\$16.50$ ]	0	LF	\$17	
Guide Railing; Anchors [ $\$500\text{-}\$650$ ]	0	EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	4,833	SY	\$65	\$314,170
Furnish & Place Topsoil [ $<1000\text{ SY-}\$6.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$5.00/\text{SY}$ ; $>5000\text{ SY-}\$3.75/\text{SY}$ ]	4,511	SY	\$5	\$22,560
Turf Establishment [ $<1000\text{ SY-}\$2.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$1.40/\text{SY}$ ; $>5000\text{ SY-}\$0.80/\text{SY}$ ]	4,511	SY	\$1.40	\$6,320
Sodding [ $\$10/\text{SY}$ ]	0	SY	\$10	
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	3,200	HR	\$50	\$160,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ]	4,090	LF	\$40	\$163,600
BoxCulverts: New Structure [ $\$210/\text{SF of Area}$ ]	1,380	SF	\$210	\$289,800
Structure Ex. [ $<100\text{ CY-}\$60/\text{CY}$ ; $100\text{-}1000\text{CM-}\$27/\text{CY}$ ; $>1000\text{ CY-}\$18/\text{CY}$ ]	307	CY	\$27	\$8,280
Retaining Wall; Cast-in-Place Concrete [ $\$60.40\text{-}\$70$ ]	0	SF		
Traffic Signals; New [ $\$75,000\text{-}\$100,000$ ]	2	EA.	\$100,000	\$200,000
Traffic Signals; Major Modification [ $\$50,000$ ]	1	EA.	\$50,000	\$50,000
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.	\$25,000	
Pavement Markings		LF	\$0.50	
Environmental Remediation	453	LF	\$280	\$126,840
ESTIMATED PAY ITEM SUBTOTAL				\$2,511,900
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$50,200
M & P of Traffic (3%)		3%		\$75,400
Mobilization (7.5%)		8%		\$188,400
Construction Staking (1%)		1%		\$25,100
Landscaping (10%)		10%		\$251,200
Minor Items (20%)		20%		\$502,400
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$1,092,700
TOTAL PAY ITEM SUBTOTAL				\$3,604,600
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M-}7\%$ ; $>\$5\text{M-}5\%$ ]		5%		\$180,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1\text{-}\$5\text{M}/15\%$ ] [ $\$5\text{-}\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$252,000
UTILITIES				\$470,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$72,100
Design (10%)		10%		\$360,500
Construction Engineering & Inspection (8%)		8%		\$288,400
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$25,400
PERCENTAGE BASED COST SUBTOTAL				\$746,400
Estimated By: C. Granatini				
Checked By: <i>Lawell</i>				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$5,253,000

**URS Corporation**  
**U.S. Route 5 Corridor Study**  
**Wallingford and Meriden, Connecticut**  
**Town of Wallingford - Long-Term Improvements - Ives Road to Barnes Road - With Ives Road Re-Alignment**  
**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20-\$40$ ; $500-2500\text{CY}/\$12-\$20$ ; $2500-5000\text{CY}/\$10-\$18$ ; $>5000\text{CY}/\$10-\$16$ ]	6,774	CY	\$16	\$108,390
Rock Ex. [ $<500\text{CY}/\$38-\$95$ ; $500-2500\text{CY}/\$25-\$50$ ; $2500-5000\text{CY}/\$25-\$50$ ; $>5000\text{CY}/\$18-\$32$ ]	0	CY		
Borrow [ $<500\text{CY}/\$15-\$30$ ; $500-5000\text{CY}/\$8-\$18$ ; $>5000\text{CY}/\$6-\$14$ ]	0	CY		
Trench Ex. [ $0'-4'-\$12-\$20/\text{CY}$ ; $0'-10'-\$15-\$24/\text{CY}$ ; $0'-15'-\$30/\text{CY}$ ; $0'-20'-\$35/\text{CY}$ ]	3,459	CY	\$17	\$58,800
Rock in Trench Ex. [ $\$50 - \$150/\text{CY}$ ]	0	CY		
Drainage; Pipe (12") [ $\$42$ ]	795	LF	\$42	\$33,390
Drainage; Pipe (24") [ $\$58$ ]	2,650	LF	\$58	\$153,700
Drainage; Catch Basins [ $\$1400$ ]	21	EA.	\$1,400	\$29,400
Drainage; Double Catch Basins [ $\$1600-\$2000$ ]	8	EA.	\$1,800	\$14,400
Drainage; Sed. Chambers [ $10'\times4'-\$15000$ ; $13'\times7'-\$24000$ ; $18'\times12'-\$45000$ ]	2	EA.	\$24,000	\$48,000
Bedding Material [ $<100\text{CY}-\$30/\text{CY}$ ; $500-1000\text{CY}-\$24/\text{CY}$ ; $>1000\text{CY}-\$20/\text{CY}$ ]	339	CY	\$30	\$10,180
Milling of Bituminous Concrete $0'' - 4''$ [ $\$4.00/\text{SY}$ ]	11,800	SY	\$4	\$47,200
Superpave [ $<100\text{T}-\$85/\text{T}$ ; $100-1500\text{T}-\$75/\text{T}$ ; $1500-5000\text{T}-\$70/\text{T}$ ; $>5000\text{T}-\$60-\$65/\text{T}$ ]	6,296	T	\$65	\$409,260
Subbase [ $<500\text{CY}/\$24-\$40$ ; $500-2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	2,887	T	\$24	\$69,290
Temporary PCBC [ $\$28/\text{LF}$ ]	0	LF	\$28	
Curbing; BCLC [ $\$3-\$8$ ]	6,450	LF	\$6	\$38,700
Curbing; Concrete [ $\$18-\$28$ ]	0	LF		
Guide Railing; R-B (350) [ $\$16.50$ ]	500	LF	\$17	\$8,250
Guide Railing; Anchors [ $\$500-\$650$ ]	2	EA.	\$600	\$1,200
Concrete Sidewalk [ $\$65/\text{SY}$ ]	3,027	SY	\$65	\$196,730
Furnish & Place Topsoil [ $<1000\text{SY}-\$6.50/\text{SY}$ ; $1000-5000\text{SY}-\$5.00/\text{SY}$ ; $>5000\text{SY}-\$3.75/\text{SY}$ ]	5,444	SY	\$5	\$27,220
Turf Establishment [ $<1000\text{SY}-\$2.50/\text{SY}$ ; $1000-5000\text{SY}-\$1.40/\text{SY}$ ; $>5000\text{SY}-\$0.80/\text{SY}$ ]	5,444	SY	\$1.40	\$7,620
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	2,880	HR	\$50	\$144,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ; Local Roads $\$30/\text{LF}$ ]	3,150	LF	\$30	\$94,500
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area] - Box Culvert Extension	0	SF		
Structure Ex. [ $<100\text{CY}-\$60/\text{CY}$ ; $100-1000\text{CM}-\$27/\text{CY}$ ; $>1000\text{CY}-\$18/\text{CY}$ ]	0	CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40-\$70$ ]	0	SF		
Traffic Signals; New [ $\$75,000-\$100,000$ ]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [ $\$50,000$ ]	1	EA.	\$50,000	\$50,000
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.	\$25,000	
Environmental Remediation	1,250	LF	\$280	\$350,000
ESTIMATED PAY ITEM SUBTOTAL				\$2,000,200
Percentage Based Pay Items				
Clearing and Grubbing Roadway (2%)	2%			\$40,000
M & P of Traffic (3%)	3%			\$60,000
Mobilization (7.5%)	8%			\$150,000
Construction Staking (1%)	1%			\$20,000
Landscaping (10%)	10%			\$200,000
Minor Items (20%)	20%			\$400,000
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$870,000
TOTAL PAY ITEM SUBTOTAL				\$2,870,200
Percentage Based Miscellaneous Items				
CONTINGENCIES [ $\$5\text{M}-7\%$ ; $>\$5\text{M}-5\%$ ]	5%			\$144,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1-\$5\text{M}/15\%$ ] [ $\$5-\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]	7%			\$201,000
UTILITIES				\$466,000
Professional Services				
Surveying (2%)	2%			\$57,400
Design (10%)	10%			\$287,000
Construction Engineering & Inspection (8%)	8%			\$229,600
Environmental Studies (20% of Environmental Remediation Costs)	20%			\$70,000
PERCENTAGE BASED COST SUBTOTAL				\$644,000
Estimated By: T.A. Walb				
Checked By: K.M. Mentz				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$4,325,200

**URS Corporation**  
**U.S. Route 5 Corridor Study**  
**Wallingford and Meriden, Connecticut**  
**Town of Wallingford - Long-Term Improvements - Barnes Road to Wilbur Cross Parkway (SR 15)**  
**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20\text{-}\$40$ ; $500\text{-}2500\text{CY}/\$12\text{-}\$20$ ; $2500\text{-}5000\text{CY}/\$10\text{-}\$18$ ; $>5000\text{CY}/\$10\text{-}\$16$ ]	2,215	CY	\$16	\$35,440
Rock Ex. [ $<500\text{CY}/\$38\text{-}\$95$ ; $500\text{-}2500\text{CY}/\$25\text{-}\$50$ ; $2500\text{-}5000\text{CY}/\$25\text{-}\$50$ ; $>5000\text{CY}/\$18\text{-}\$32$ ]	0	CY		
Borrow [ $<500\text{CY}/\$15\text{-}\$30$ ; $500\text{-}5000\text{CY}/\$8\text{-}\$18$ ; $>5000\text{CY}/\$6\text{-}\$14$ ]	0	CY		
Trench Ex. [ $0'\text{-}4'\text{-}\$12\text{-}\$20/\text{CY}$ ; $0'\text{-}10'\text{-}\$15\text{-}\$24/\text{CY}$ ; $0'\text{-}15'\text{-}\$30/\text{CY}$ ; $0'\text{-}20'\text{-}\$35/\text{CY}$ ]	2,202	CY	\$17	\$37,440
Rock in Trench Ex. [ $\$50\text{ - }\$150/\text{CY}$ ]	0	CY		
Drainage; Pipe (12") [ $\$42$ ]	720	LF	\$42	\$30,240
Drainage; Pipe (24") [ $\$58$ ]	1,500	LF	\$58	\$87,000
Drainage; Catch Basins [ $\$1400$ ]	20	EA.	\$1,400	\$28,000
Drainage; Double Catch Basins [ $\$1600\text{-}\$2000$ ]	4	EA.	\$1,800	\$7,200
Drainage; Sed. Chambers [ $10'\text{x}4'\text{-}\$15000$ ; $13'\text{x}7'\text{-}\$24000$ ; $18'\text{x}12'\text{-}\$45000$ ]	2	EA.	\$24,000	\$48,000
Bedding Material [ $<100\text{ CY-}\$30/\text{CY}$ ; $500\text{-}1000\text{CY-}\$24/\text{CY}$ ; $>1000\text{CY-}\$20/\text{CY}$ ]	208	CY	\$30	\$6,250
Milling of Bituminous Concrete $0''\text{ - }4''$ [ $\$4.00/\text{SY}$ ]	8,311	SY	\$4	\$33,240
Superpave [ $<100\text{T-}\$85/\text{T}$ ; $100\text{-}1500\text{T-}\$75/\text{T}$ ; $1500\text{-}5000\text{T-}\$70/\text{T}$ ; $>5000\text{T-}\$60\text{-}\$65/\text{T}$ ]	2,866	T	\$65	\$186,290
Subbase [ $<500\text{CY}/\$24\text{-}\$40$ ; $500\text{-}2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	1,107	T	\$24	\$26,580
Temporary PCBC [ $\$28/\text{LF}$ ]	0	LF	\$28	
Curbing; BCLC [ $\$3\text{-}\$8$ ]	2,600	LF	\$6	\$15,600
Curbing; Concrete [ $\$18\text{-}\$28$ ]	0	LF		
Guide Railing; R-B (350) [ $\$16.50$ ]		LF	\$17	
Guide Railing; Anchors [ $\$500\text{-}\$650$ ]		EA.	\$600	
Concrete Sidewalk [ $\$65/\text{SY}$ ]	767	SY	\$65	\$49,830
Furnish & Place Topsoil [ $<1000\text{ SY-}\$6.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$5.00/\text{SY}$ ; $>5000\text{ SY-}\$3.75/\text{SY}$ ]	2,083	SY	\$5	\$10,420
Turf Establishment [ $<1000\text{ SY-}\$2.50/\text{SY}$ ; $1000\text{-}5000\text{SY-}\$1.40/\text{SY}$ ; $>5000\text{ SY-}\$0.80/\text{SY}$ ]	2,083	SY	\$1.40	\$2,920
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	1,920	HR	\$50	\$96,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ; Local Roads $\$30/\text{LF}$ ]	1,600	LF	\$30	\$48,000
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area] - Box Culvert Extension	640	SF	\$210	\$134,400
Structure Ex. [ $<100\text{ CY-}\$60/\text{CY}$ ; $100\text{-}1000\text{CM-}\$27/\text{CY}$ ; $>1000\text{ CY-}\$18/\text{CY}$ ]	203	CY	\$27	\$5,470
Retaining Wall; Cast-in-Place Concrete [ $\$60.40\text{-}\$70$ ]	0	SF		
Traffic Signals; New [ $\$75,000\text{-}\$100,000$ ]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [ $\$50,000$ ]	0	EA.	\$50,000	
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.	\$25,000	
Environmental Remediation	500	LF	\$280	\$140,000
ESTIMATED PAY ITEM SUBTOTAL				\$1,128,300
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$22,600
M & P of Traffic (3%)		3%		\$33,800
Mobilization (7.5%)		8%		\$84,600
Construction Staking (1%)		1%		\$11,300
Landscaping (10%)		10%		\$112,800
Minor Items (20%)		20%		\$225,700
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$490,800
TOTAL PAY ITEM SUBTOTAL				\$1,619,100
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M-}7\%$ ; $>\$5\text{M-}5\%$ ]		5%		\$81,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1\text{-}\$5\text{M}/15\%$ ] [ $\$5\text{-}\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$113,000
UTILITIES				\$184,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$32,400
Design (10%)		10%		\$161,900
Construction Engineering & Inspection (8%)		8%		\$129,500
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$28,000
PERCENTAGE BASED COST SUBTOTAL				\$351,800
Estimated By: T.A. Walb				
Checked By: K.M. Mentz				
Date of Estimate: February 27, 2006				
2005 TOTAL ESTIMATED COST				\$2,348,900

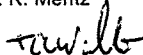


**URS Corporation**

**U.S. Route 5 Corridor Study  
Wallingford and Meriden, Connecticut**

**Town of Wallingford - Long-Range Improvements - Route 15 Interchange Alternative A**

**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20\text{-}\$40$ ; $500\text{-}2500\text{CY}/\$12\text{-}\$20$ ; $2500\text{-}5000\text{CY}/\$10\text{-}\$18$ ; $>5000\text{CY}/\$10\text{-}\$16$ ]	6,266	CY	\$16	\$100,250
Rock Ex. [ $<500\text{CY}/\$38\text{-}\$95$ ; $500\text{-}2500\text{CY}/\$25\text{-}\$50$ ; $2500\text{-}5000\text{CY}/\$25\text{-}\$50$ ; $>5000\text{CY}/\$18\text{-}\$32$ ]		CY		
Borrow [ $<500\text{CY}/\$15\text{-}\$30$ ; $500\text{-}5000\text{CY}/\$8\text{-}\$18$ ; $>5000\text{CY}/\$6\text{-}\$14$ ]	4,000	CY	\$12	\$48,000
Trench Ex. [ $0'\text{-}4'\text{-}\$12\text{-}\$20/\text{CY}$ ; $0'\text{-}10'\text{-}\$15\text{-}\$24/\text{CY}$ ; $0'\text{-}15'\text{-}\$30/\text{CY}$ ; $0'\text{-}20'\text{-}\$35/\text{CY}$ ]	1,279	CY	\$18	\$23,010
Rock in Trench Ex. [ $\$50\text{ - }\$150/\text{CY}$ ]		CY		
Drainage; Pipe (12") [ $\$42$ ]	406	LF	\$42	\$17,050
Drainage; Pipe (24") [ $\$58$ ]	0	LF	\$58	
Drainage; Catch Basins [ $\$1400$ ]	21	EA.	\$1,400	\$29,400
Drainage; Double Catch Basins [ $\$1600\text{-}\$2000$ ]	2	EA.	\$1,800	\$3,600
Drainage; Sed. Chambers [ $10'\text{x}4'\text{-}\$15000$ ; $13'\text{x}7'\text{-}\$24000$ ; $18'\text{x}12'\text{-}\$45000$ ]	1	EA.	\$15,000	\$15,000
Bedding Material [ $<100\text{ CY - }\$30/\text{CY}$ ; $500\text{-}1000\text{CY - }\$24/\text{CY}$ ; $>1000\text{CY - }\$20/\text{CY}$ ]	24	CY	\$30	\$730
Milling of Bituminous Concrete $0''\text{ - }4''$ [ $\$4.00/\text{SY}$ ]	0	SY	\$4	
Superpave [ $<100\text{T - }\$85/\text{T}$ ; $100\text{-}1500\text{T - }\$75/\text{T}$ ; $1500\text{-}5000\text{T - }\$70/\text{T}$ ; $>5000\text{T - }\$60\text{-}\$65/\text{T}$ ]	5,404	T	\$65	\$351,280
Subbase [ $<500\text{CY}/\$24\text{-}\$40$ ; $500\text{-}2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	3,133	T	\$24	\$75,190
Temporary PCBC [ $\$28/\text{LF}$ ]		LF		
Curbing; BCLC [ $\$3\text{-}\$8$ ]	2,125	LF	\$6	\$12,750
Curbing; Concrete [ $\$18\text{-}\$28$ ]		LF		
Guide Railing; R-B (350) [ $\$16.50$ ]		LF		
Guide Railing; Anchors [ $\$500\text{-}\$650$ ]		EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	0	SY	\$65	
Furnish & Place Topsoil [ $<1000\text{ SY - }\$6.50/\text{SY}$ ; $1000\text{-}5000\text{SY - }\$5.00/\text{SY}$ ; $>5000\text{ SY - }\$3.75/\text{SY}$ ]	2,122	SY	\$5.00	\$10,610
Turf Establishment [ $<1000\text{ SY - }\$2.50/\text{SY}$ ; $1000\text{-}5000\text{SY - }\$1.40/\text{SY}$ ; $>5000\text{ SY - }\$0.80/\text{SY}$ ]	2,122	SY	\$1.40	\$2,970
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	640	HR	\$50	\$32,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ]	3,360	LF	\$40	\$134,400
Bridge: New Structure [ $\$275/\text{SF}$ of Deck Area]	1,664	SF	\$275	\$457,600
Structure Ex. [ $<100\text{ CY - }\$60/\text{CY}$ ; $100\text{-}1000\text{CM - }\$27/\text{CY}$ ; $>1000\text{ CY - }\$18/\text{CY}$ ]	627	CY	\$27	\$16,940
Retaining Wall; Cast-in-Place Concrete [ $\$60.40\text{-}\$70$ ] / Slope Paving [ $\$100/\text{SY}$ ]	9,153	SF	\$61	\$558,350
Traffic Signals; New [ $\$75,000\text{-}\$100,000$ ]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [ $\$50,000$ ]	0	EA.		
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.		
Pavement Markings	6,853	LF	\$0.50	\$3,430
Environmental Remediation	400	LF	\$280	\$112,000
ESTIMATED PAY ITEM SUBTOTAL				\$2,104,600
Percentage Based Pay Items	Percentage of Pay Item Subtotal		Total	
Clearing and Grubbing Roadway (2%)	2%		\$42,100	
M & P of Traffic (3%)	3%		\$63,100	
Mobilization (7.5%)	8%		\$157,800	
Construction Staking (1%)	1%		\$21,000	
Landscaping (10%)	10%		\$210,500	
Minor Items (20%)	20%		\$420,900	
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$915,400
TOTAL PAY ITEM SUBTOTAL				\$3,020,000
Percentage Based Miscellaneous Items	Percentage of Total Pay Item Subtotal		Total	
CONTINGENCIES [ $\$5\text{M - }7\%$ ; $>\$5\text{M - }5\%$ ]	5%		\$151,000	
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1\text{-}\$5\text{M}/15\%$ ] [ $\$5\text{-}\$10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]	7%		\$211,000	
UTILITIES			\$35,000	
Professional Services	Percentage of Pay Item Subtotal		Total	
Surveying (3%)	3%		\$90,600	
Design (10%)	10%		\$302,000	
Construction Engineering & Inspection (8%)	8%		\$241,600	
Environmental Studies (20% of Environmental Remediation Costs)	20%		\$22,400	
PERCENTAGE BASED COST SUBTOTAL				\$656,600
Estimated By: K. Mentz				
Checked By: 				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$4,073,600

**URS Corporation**

**U.S. Route 5 Corridor Study  
Wallingford and Meriden, Connecticut**

**Town of Wallingford - Long-Range Improvements - Route 15 Interchange Alternative B**

**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [<500CY/\$20-\$40; 500-2500CY/\$12-\$20; 2500-5000CY/\$10-\$18; >5000CY/\$10-\$16]	178	CY	\$40	\$7,110
Rock Ex. [<500CY/\$38-\$95; 500-2500CY/\$25-\$50; 2500-5000CY/\$25-\$50; >5000CY/\$18-\$32]		CY		
Borrow [<500CY/\$15-\$30; 500-5000CY/\$8-\$18; >5000CY/\$6-\$14]		CY		
Trench Ex. [0'-4'- \$12-\$20/CY; 0'-10'- \$15-\$24/CY; 0'-15'- \$30/CY; 0'-20'- \$35/CY]		CY		
Rock in Trench Ex. [\$50 - \$150/CY]		CY		
Drainage; Pipe (12") [\$42]		LF		
Drainage; Pipe (24") [\$58]		LF		
Drainage; Catch Basins [\$1400]		EA.		
Drainage; Double Catch Basins [\$1600-\$2000]		EA.		
Drainage; Sed. Chambers [10'x4'- \$15000; 13'x7'- \$24000; 18'x12'- \$45000]		EA.		
Bedding Material [<100 CY- \$30/CY; 500-1000CY- \$24/CY; >1000CY- \$20/CY]		CY		
Milling of Bituminous Concrete 0" - 4" [\$4.00/SY]	437	SY	\$4	\$1,750
Superpave [<100T- \$85/T; 100-1500T- \$75/T; 1500-5000T- \$70/T; >5000T- \$60-\$65/T]		T		
Subbase [<500CY/\$24-\$40; 500-2000CY/\$28; >2000CY/\$24]		T		
Temporary PCBC [\$28/LF]		LF		
Curbing; BCLC [\$3-\$8]	690	LF	\$6	\$4,140
Curbing; Concrete [\$18-\$28]		LF		
Guide Railing; R-B (350) [\$16.50]		LF		
Guide Railing; Anchors [\$500-\$650]		EA.		
Concrete Sidewalk [\$65/SY]	200	SY	\$65	\$13,000
Furnish & Place Topsoil [<1000 SY- \$6.50/SY; 1000-5000SY- \$5.00/SY; >5000 SY- \$3.75/SY]	267	SY	\$6.50	\$1,730
Turf Establishment [<1000 SY- \$2.50/SY; 1000-5000SY- \$1.40/SY; >5000 SY- \$0.80/SY]	267	SY	\$2.50	\$670
Sodding [\$10/SY]		SY		
Trafficperson [state or town officer- \$50/hr; Flagger- \$30/hour]	160	HR	\$50	\$8,000
Roadway Lighting [Expressway \$55/LF; Ramps \$40/LF]		LF	\$40	
Bridge: New Structure [\$275/SF of Deck Area]		SF	\$275	
Structure Ex. [<100 CY- \$60/CY; 100-1000CM- \$27/CY; >1000 CY- \$18/CY]		CY	\$27	
Retaining Wall; Cast-in-Place Concrete [\$60.40-\$70] / Slope Paving [\$100/SY]		SF	\$61	
Traffic Signals; New [\$75,000-\$100,000]		EA.	\$100,000	
Traffic Signals; Major Modification [\$50,000]		EA.		
Traffic Signals; Minor Modification [\$25,000]		EA.		
Pavement Markings		LF	\$0.50	
Environmental Remediation		LF	\$280	
<b>ESTIMATED PAY ITEM SUBTOTAL</b>				<b>\$36,400</b>
Percentage Based Pay Items	Percentage of Pay Item Subtotal	Total		
Clearing and Grubbing Roadway (2%)	2%			\$700
M & P of Traffic (3%)	3%			\$1,100
Mobilization (7.5%)	8%			\$2,700
Construction Staking (1%)	1%			\$400
Landscaping (10%)	10%			\$3,600
Minor Items (20%)	20%			\$7,300
<b>PERCENTAGE BASED PAY ITEM SUBTOTAL</b>				<b>\$15,800</b>
<b>TOTAL PAY ITEM SUBTOTAL</b>				<b>\$52,200</b>
Percentage Based Miscellaneous Items	Percentage of Total Pay Item Subtotal	Total		
CONTINGENCIES [\$5M- 7%; >\$5M- 5%]	5%			\$3,000
INCIDENTALS [< \$1M/21%] [\$1-5M/15%] [\$5-10M/12%] [> \$10M/7%]	7%			\$4,000
UTILITIES				
Professional Services	Percentage of Pay Item Subtotal	Total		
Surveying (3%)	3%			\$1,600
Design (10%)	10%			\$5,200
Construction Engineering & Inspection (8%)	8%			\$4,200
Environmental Studies (20% of Environmental Remediation Costs)	20%			
<b>PERCENTAGE BASED COST SUBTOTAL</b>				<b>\$11,000</b>
Estimated By: K. Mentz				
Checked By: <i>Kaw. M.</i>				
Date of Estimate: February 2006				
<b>2005 TOTAL ESTIMATED COST</b>				<b>\$70,200</b>

**URS Corporation**

**U.S. Route 5 Corridor Study**

**Wallingford and Meriden, Connecticut**

**Town of Wallingford - Long-Range Improvements - Route 15 Interchange Alternative C**

**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [<500CY/\$20-\$40; 500-2500CY/\$12-\$20; 2500-5000CY/\$10-\$18; >5000CY/\$10-\$16]	2,190	CY	\$20	\$43,790
Rock Ex. [<500CY/\$38-\$95; 500-2500CY/\$25-\$50; 2500-5000CY/\$25-\$50; >5000CY/\$18-\$32]		CY		
Borrow [<500CY/\$15-\$30; 500-5000CY/\$8-\$18; >5000CY/\$6-\$14]		CY		
Trench Ex. [0'-4' - \$12-\$20/CY; 0'-10' - \$15-\$24/CY; 0'-15' - \$30/CY; 0'-20' - \$35/CY]	1,667	CY	\$18	\$30,010
Rock in Trench Ex. [\$50 - \$150/CY]		CY		
Drainage; Pipe (12") [\$42]	240	LF	\$42	\$10,080
Drainage; Pipe (24") [\$58]	1,140	LF	\$58	\$66,120
Drainage; Catch Basins [\$1400]	16	EA.	\$1,400	\$22,400
Drainage; Double Catch Basins [\$1600-\$2000]	4	EA.	\$1,800	\$7,200
Drainage; Sed. Chambers [10'x4' - \$15000; 13'x7' - \$24000; 18'x12' - \$45000]	1	EA.	\$15,000	\$15,000
Bedding Material [<100 CY- \$30/CY; 500-1000CY- \$24/CY; >1000CY- \$20/CY]	140	CY	\$30	\$4,190
Milling of Bituminous Concrete 0" - 4" [\$4.00/SY]	1,756	SY	\$4	\$7,020
Superpave [<100T- \$85/T; 100-1500T- \$75/T; 1500-5000T- \$70/T; >5000T- \$60-\$65/T]	1,875	T	\$70	\$131,260
Subbase [<500CY/\$24-\$40; 500-2000CY/\$28; >2000CY/\$24]	2,250	T	\$24	\$54,000
Temporary PCBC [\$28/LF]		LF		
Curbing; BCLC [\$3-\$8]	2,240	LF	\$6	\$13,440
Curbing; Concrete [\$18-\$28]		LF		
Guide Railing; R-B (350) [\$16.50]		LF		
Guide Railing; Anchors [\$500-\$650]		EA.		
Concrete Sidewalk [\$65/SY]	400	SY	\$65	\$26,000
Furnish & Place Topsoil [<1000 SY- \$6.50/SY; 1000-5000SY- \$5.00/SY; >5000 SY- \$3.75/SY]	3,433	SY	\$5.00	\$17,170
Turf Establishment [<1000 SY- \$2.50/SY; 1000-5000SY- \$1.40/SY; >5000 SY- \$0.80/SY]	3,433	SY	\$1.40	\$4,810
Sodding [\$10/SY]		SY		
Trafficperson [state or town officer- \$50/hr; Flagger- \$30/hour]	1,920	HR	\$50	\$96,000
Roadway Lighting [Expressway \$55/LF; Ramps \$40/LF]	800	LF	\$40	\$32,000
Bridge: New Structure [\$275/SF of Deck Area]		SF	\$275	
Structure Ex. [<100 CY- \$60/CY; 100-1000CM- \$27/CY; >1000 CY- \$18/CY]		CY	\$27	
Retaining Wall; Cast-in-Place Concrete [\$60.40-\$70] / Slope Paving [\$100/SY]		SF	\$61	
Traffic Signals; New [\$75,000-\$100,000]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [\$50,000]		EA.		
Traffic Signals; Minor Modification [\$25,000]		EA.		
Environmental Remediation		LF	\$280	
<b>ESTIMATED PAY ITEM SUBTOTAL</b>				<b>\$680,500</b>
Percentage Based Pay Items	Percentage of Pay Item Subtotal		Total	
Clearing and Grubbing Roadway (2%)	2%		\$13,600	
M & P of Traffic (3%)	3%		\$20,400	
Mobilization (7.5%)	8%		\$51,000	
Construction Staking (1%)	1%		\$6,800	
Landscaping (10%)	10%		\$68,100	
Minor Items (20%)	20%		\$136,100	
<b>PERCENTAGE BASED PAY ITEM SUBTOTAL</b>				<b>\$296,000</b>
<b>TOTAL PAY ITEM SUBTOTAL</b>				<b>\$976,500</b>
Percentage Based Miscellaneous Items	Percentage of Total Pay Item Subtotal		Total	
CONTINGENCIES [\$5M- 7%; >\$5M- 5%]	5%		\$49,000	
INCIDENTALS [< \$1M/21%] [\$1-5M/15%] [\$5-10M/12%] [> \$10M/7%]	7%		\$68,000	
UTILITIES			\$46,000	
Professional Services	Percentage of Pay Item Subtotal		Total	
Surveying (3%)	3%		\$29,300	
Design (10%)	10%		\$97,700	
Construction Engineering & Inspection (8%)	8%		\$78,100	
Environmental Studies (20% of Environmental Remediation Costs)	20%			
<b>PERCENTAGE BASED COST SUBTOTAL</b>				<b>\$205,100</b>
Estimated By: K. Mentz				
Checked By: <i>hawill</i>				
Date of Estimate: February 2006				
<b>2005 TOTAL ESTIMATED COST</b>				<b>\$1,344,600</b>



**URS Corporation**

**U.S. Route 5 Corridor Study**

**Wallingford and Meriden, Connecticut**

**Town of Wallingford - Long-Range Improvements - Route 15 Interchange Alternative D**

**PRELIMINARY COST ESTIMATE**


<b>Estimated Pay Items</b>	<b>Est. Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total</b>
Earth Ex. [<500CY/\$20-\$40; 500-2500CY/\$12-\$20; 2500-5000CY/\$10-\$18; >5000CY/\$10-\$16]	3,739	CY	\$18	\$67,310
Rock Ex. [<500CY/\$38-\$95; 500-2500CY/\$25-\$50; 2500-5000CY/\$25-\$50; >5000CY/\$18-\$32]		CY		
Borrow [<500CY/\$15-\$30; 500-5000CY/\$8-\$18; >5000CY/\$6-\$14]		CY		
Trench Ex. [0'-4'- \$12-\$20/CY; 0'-10'- \$15-\$24/CY; 0'-15'- \$30/CY; 0'-20'- \$35/CY]	2,548	CY	\$18	\$45,860
Rock in Trench Ex. [\$50 - \$150/CY]		CY		
Drainage; Pipe (12") [\$42]	844	LF	\$42	\$35,450
Drainage; Pipe (24") [\$58]	1,640	LF	\$58	\$95,120
Drainage; Catch Basins [\$1400]	20	EA.	\$1,400	\$28,000
Drainage; Double Catch Basins [\$1600-\$2000]	4	EA.	\$1,800	\$7,200
Drainage; Sed. Chambers [10'x4'- \$15000; 13'x7'- \$24000; 18'x12'- \$45000]	1	EA.	\$15,000	\$15,000
Bedding Material [<100 CY- \$30/CY; 500-1000CY- \$24/CY; >1000CY- \$20/CY]	231	CY	\$30	\$6,930
Milling of Bituminous Concrete 0" - 4" [\$4.00/SY]	3,778	SY	\$4	\$15,110
Superpave [<100T- \$85/T; 100-1500T- \$75/T; 1500-5000T- \$70/T; >5000T- \$60-\$65/T]	3,021	T	\$70	\$211,450
Subbase [<500CY/\$24-\$40; 500-2000CY/\$28; >2000CY/\$24]	3,625	T	\$24	\$87,000
Temporary PCBC [\$28/LF]		LF		
Curbing; BCLC [\$3-\$8]	3,020	LF	\$6	\$18,120
Curbing; Concrete [\$18-\$28]		LF		
Guide Railing; R-B (350) [\$16.50]		LF		
Guide Railing; Anchors [\$500-\$650]		EA.		
Concrete Sidewalk [\$65/SY]	347	SY	\$65	\$22,530
Furnish & Place Topsoil [<1000 SY- \$6.50/SY; 1000-5000SY- \$5.00/SY; >5000 SY- \$3.75/SY]	1,700	SY	\$5.00	\$8,500
Turf Establishment [<1000 SY- \$2.50/SY; 1000-5000SY- \$1.40/SY; >5000 SY- \$0.80/SY]	1,700	SY	\$1.40	\$2,380
Sodding [\$10/SY]		SY		
Trafficperson [state or town officer- \$50/hr; Flagger- \$30/hour]	10,240	HR	\$50	\$512,000
Roadway Lighting [Expressway \$55/LF; Ramps \$40/LF]	2,500	LF	\$40	\$100,000
Bridge: New Structure [\$275/SF of Deck Area]		SF	\$275	
Structure Ex. [<100 CY- \$60/CY; 100-1000CM- \$27/CY; >1000 CY- \$18/CY]		CY	\$27	
Retaining Wall; Cast-in-Place Concrete [\$60.40-\$70] / Slope Paving [\$100/SY]		SF	\$61	
Traffic Signals; New [\$75,000-\$100,000]	2	EA.	\$100,000	\$200,000
Traffic Signals; Major Modification [\$50,000]		EA.		
Traffic Signals; Minor Modification [\$25,000]		EA.		
Environmental Remediation		LF	\$280	
<b>ESTIMATED PAY ITEM SUBTOTAL</b>				<b>\$1,478,000</b>
<b>Percentage Based Pay Items</b>	<b>Percentage of Pay Item Subtotal</b>	<b>Total</b>		
Clearing and Grubbing Roadway (2%)	2%			\$29,600
M & P of Traffic (3%)	3%			\$44,300
Mobilization (7.5%)	8%			\$110,900
Construction Staking (1%)	1%			\$14,800
Landscaping (10%)	10%			\$147,800
Minor Items (20%)	20%			\$295,600
<b>PERCENTAGE BASED PAY ITEM SUBTOTAL</b>				<b>\$643,000</b>
<b>TOTAL PAY ITEM SUBTOTAL</b>				<b>\$2,121,000</b>
<b>Percentage Based Miscellaneous Items</b>	<b>Percentage of Total Pay Item Subtotal</b>	<b>Total</b>		
CONTINGENCIES [\$5M- 7%; >\$5M- 5%]	5%			\$106,000
INCIDENTALS [< \$1M/21%] [\$1-5M/15%] [\$5-10M/12%] [> \$10M/7%]	7%			\$148,000
UTILITIES				\$46,000
<b>Professional Services</b>	<b>Percentage of Pay Item Subtotal</b>	<b>Total</b>		
Surveying (3%)	3%			\$63,600
Design (10%)	10%			\$212,100
Construction Engineering & Inspection (8%)	8%			\$169,700
Environmental Studies (20% of Environmental Remediation Costs)	20%			
<b>PERCENTAGE BASED COST SUBTOTAL</b>				<b>\$445,400</b>
Estimated By: K. Mentz				
Checked By: <i>tw</i>				
Date of Estimate: February 2006				
<b>2005 TOTAL ESTIMATED COST</b>				<b>\$2,866,400</b>

**URS Corporation**

**U.S. Route 5 Corridor Study  
Wallingford and Meriden, Connecticut**

**Town of Meriden - Long-Term Improvements - Gypsy Lane Realignment**

**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20-\$40$ ; $500-2500\text{CY}/\$12-\$20$ ; $2500-5000\text{CY}/\$10-\$18$ ; $>5000\text{CY}/\$10-\$16$ ]	819	CY	\$20	\$16,370
Rock Ex. [ $<500\text{CY}/\$38-\$95$ ; $500-2500\text{CY}/\$25-\$50$ ; $2500-5000\text{CY}/\$25-\$50$ ; $>5000\text{CY}/\$18-\$32$ ]	0	CY		
Borrow [ $<500\text{CY}/\$15-\$30$ ; $500-5000\text{CY}/\$8-\$18$ ; $>5000\text{CY}/\$6-\$14$ ]	1,157	CY	\$17	\$19,680
Trench Ex. [ $0'-4'-\$12-\$20/\text{CY}$ ; $0'-10'-\$15-\$24/\text{CY}$ ; $0'-15'-\$30/\text{CY}$ ; $0'-20'-\$35/\text{CY}$ ]	850	CY	\$17	\$14,440
Rock in Trench Ex. [ $\$50 - \$150/\text{CY}$ ]	0	CY		
Drainage; Pipe (12" - 15" - 24" - 48") [ $\$42/\$45/\$58/\$110$ ]	700	LF	\$45	\$31,500
Drainage; Catch Basins [ $\$1400$ ]	8	EA.	\$1,400	\$11,200
Drainage; Double Catch Basins [ $\$1600-\$2000$ ]	0	EA.	\$1,800	
Drainage; Sed. Chambers [ $10'\times4'-\$15000$ ; $13'\times7'-\$24000$ ; $18'\times12'-\$45000$ ]	0	EA.	\$24,000	
Bedding Material [ $<100\text{CY}-\$30/\text{CY}$ ; $500-1000\text{CY}-\$24/\text{CY}$ ; $>1000\text{CY}-\$20/\text{CY}$ ]	84	CY	\$30	\$2,530
Milling of Bituminous Concrete 0" - 4" [ $\$4.00/\text{SY}$ ]	3,233	SY	\$4	\$12,930
Superpave [ $<100\text{T}-\$85/\text{T}$ ; $100-1500\text{T}-\$75/\text{T}$ ; $1500-5000\text{T}-\$70/\text{T}$ ; $>5000\text{T}-\$60-\$65/\text{T}$ ]	920	T	\$75	\$69,000
Subbase [ $<500\text{CY}/\$24-\$40$ ; $500-2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	178	T	\$32	\$5,690
Temporary PCBC [ $\$28/\text{LF}$ ]		LF		
Curbing; BCLC [ $\$3-\$8$ ]		LF	\$6	
Curbing; Concrete [ $\$18-\$28$ ]	1,350	LF	\$28	\$37,800
Guide Railing; R-B (350) [ $\$16.50$ ]	0	LF		
Guide Railing; Anchors [ $\$500-\$650$ ]	0	EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	950	SY	\$65	\$61,750
Furnish & Place Topsoil [ $<1000\text{SY}-\$6.50/\text{SY}$ ; $1000-5000\text{SY}-\$5.00/\text{SY}$ ; $>5000\text{SY}-\$3.75/\text{SY}$ ]	2,850	SY	\$5	\$14,250
Turf Establishment [ $<1000\text{SY}-\$2.50/\text{SY}$ ; $1000-5000\text{SY}-\$1.40/\text{SY}$ ; $>5000\text{SY}-\$0.80/\text{SY}$ ]	2,850	SY	\$1.40	\$3,990
Sodding [ $\$10/\text{SY}$ ]		SY	\$10	
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	480	HR	\$50	\$24,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ , Local Roadway $\$30/\text{LF}$ ]	1,150	LF	\$30	\$34,500
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area]	0	SF		
Structure Ex. [ $<100\text{CY}-\$60/\text{CY}$ ; $100-1000\text{CM}-\$27/\text{CY}$ ; $>1000\text{CY}-\$18/\text{CY}$ ]	0	CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40-\$70$ ]	0	SF		
Traffic Signals; New [ $\$75,000-\$100,000$ ]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [ $\$50,000$ ]	0	EA.	\$50,000	
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.	\$25,000	
Pavement Markings		LF	\$0.50	
Environmental Remediation	400	LF	\$280	\$112,000
ESTIMATED PAY ITEM SUBTOTAL				\$571,600
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$11,400
M & P of Traffic (3%)		3%		\$17,100
Mobilization (7.5%)		8%		\$42,900
Construction Staking (1%)		1%		\$5,700
Landscaping (10%)		10%		\$57,200
Minor Items (20%)		20%		\$114,300
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$248,600
TOTAL PAY ITEM SUBTOTAL				\$820,200
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M}-7\%$ ; $>\$5\text{M}-5\%$ ]		5%		\$41,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1-5\text{M}/15\%$ ] [ $\$5-10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$57,000
UTILITIES				\$86,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$16,400
Design (10%)		10%		\$82,000
Construction Engineering & Inspection (8%)		8%		\$65,600
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$22,400
PERCENTAGE BASED COST SUBTOTAL				\$186,400
Estimated By: C. Granatini				
Checked By: 				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$1,190,600

**URS Corporation**

**U.S. Route 5 Corridor Study  
Wallingford and Meriden, Connecticut**


**Town of Meriden - Long-Term Improvements - Hall Avenue Intersection Improvements**

**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20-\$40$ ; $500-2500\text{CY}/\$12-\$20$ ; $2500-5000\text{CY}/\$10-\$18$ ; $>5000\text{CY}/\$10-\$16$ ]	126	CY	\$40	\$5,040
Rock Ex. [ $<500\text{CY}/\$38-\$95$ ; $500-2500\text{CY}/\$25-\$50$ ; $2500-5000\text{CY}/\$25-\$50$ ; $>5000\text{CY}/\$18-\$32$ ]		CY		
Borrow [ $<500\text{CY}/\$15-\$30$ ; $500-5000\text{CY}/\$8-\$18$ ; $>5000\text{CY}/\$6-\$14$ ]		CY		
Trench Ex. [ $0'-4'-\$12-\$20/\text{CY}$ ; $0'-10'-\$15-\$24/\text{CY}$ ; $0'-15'-\$30/\text{CY}$ ; $0'-20'-\$35/\text{CY}$ ]	43	CY	\$20	\$850
Rock in Trench Ex. [ $\$50 - \$150/\text{CY}$ ]		CY		
Drainage; Pipe (12" - 15" - 24" - 48") [ $\$42/\$45/\$58/\$110$ ]	30	LF	\$42	\$1,260
Drainage; Catch Basins [ $\$1400$ ]	2	EA.	\$1,400	\$2,800
Drainage; Double Catch Basins [ $\$1600-\$2000$ ]		EA.		
Drainage; Sed. Chambers [ $10'\text{x}4'-\$15000$ ; $13'\text{x}7'-\$24000$ ; $18'\text{x}12'-\$45000$ ]		EA.		
Bedding Material [ $<100\text{CY}-\$30/\text{CY}$ ; $500-1000\text{CY}-\$24/\text{CY}$ ; $>1000\text{CY}-\$20/\text{CY}$ ]	2	CY	\$30	\$50
Milling of Bituminous Concrete 0" - 4" [ $\$4.00/\text{SY}$ ]	444	SY	\$4	\$1,780
Superpave [ $<100\text{T}-\$85/\text{T}$ ; $100-1500\text{T}-\$75/\text{T}$ ; $1500-5000\text{T}-\$70/\text{T}$ ; $>5000\text{T}-\$60-\$65/\text{T}$ ]	164	T	\$75	\$12,310
Subbase [ $<500\text{CY}/\$24-\$40$ ; $500-2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	24	T	\$40	\$960
Temporary PCBC [ $\$28/\text{LF}$ ]		LF	\$28	
Curbing; BCLC [ $\$3-\$8$ ]		LF		
Curbing; Concrete [ $\$18-\$28$ ]	240	LF	\$28	\$6,720
Guide Railing; R-B (350) [ $\$16.50$ ]		LF	\$17	
Guide Railing; Anchors [ $\$500-\$650$ ]		EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	617	SF	\$65	\$40,080
Furnish & Place Topsoil [ $<1000\text{SY}-\$6.50/\text{SY}$ ; $1000-5000\text{SY}-\$5.00/\text{SY}$ ; $>5000\text{SY}-\$3.75/\text{SY}$ ]	694	SY	\$7	\$4,510
Turf Establishment [ $<1000\text{SY}-\$2.50/\text{SY}$ ; $1000-5000\text{SY}-\$1.40/\text{SY}$ ; $>5000\text{SY}-\$0.80/\text{SY}$ ]	694	SY	\$3	\$1,740
Sodding [ $\$10/\text{SY}$ ]		SY		
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	160	HR	\$50	\$8,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ; Local Road $\$30/\text{LF}$ ]		LF		
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area]		SF		
Structure Ex. [ $<100\text{CY}-\$60/\text{CY}$ ; $100-1000\text{CM}-\$27/\text{CY}$ ; $>1000\text{CY}-\$18/\text{CY}$ ]		CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40-\$70$ ]		SF		
Traffic Signals; New [ $\$75,000-\$100,000$ ]		EA.		
Traffic Signals; Major Modification [ $\$50,000$ ]		EA.		
Traffic Signals; Minor Modification [ $\$25,000$ ]	1	EA.	\$25,000	\$25,000
Environmental Remediation	100	LF	\$280	\$28,000
ESTIMATED PAY ITEM SUBTOTAL				\$139,100
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$2,800
M & P of Traffic (3%)		3%		\$4,200
Mobilization (7.5%)		8%		\$10,400
Construction Staking (1%)		1%		\$1,400
Landscaping (10%)		10%		\$13,900
Minor Items (20%)		20%		\$27,800
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$60,500
TOTAL PAY ITEM SUBTOTAL				\$199,600
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M}-7\%$ ; $>\$5\text{M}-5\%$ ]		5%		\$10,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1-5\text{M}/15\%$ ] [ $\$5-10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$14,000
UTILITIES				\$9,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$4,000
Design (10%)		10%		\$20,000
Construction Engineering & Inspection (8%)		8%		\$16,000
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$5,600
PERCENTAGE BASED COST SUBTOTAL				\$45,600
Estimated By: <i>clawell</i>				
Checked By: <i>mm</i>				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$269,200



**URS Corporation**  
**U.S. Route 5 Corridor Study**  
**Wallingford and Meriden, Connecticut**  
**Town of Meriden - Long-Term Improvements - Ann Street Realignment at Gale Avenue**  
**PRELIMINARY COST ESTIMATE**

Estimated Pay Items	Est. Quantity	Unit	Unit Price	Total
Earth Ex. [ $<500\text{CY}/\$20-\$40$ ; $500-2500\text{CY}/\$12-\$20$ ; $2500-5000\text{CY}/\$10-\$18$ ; $>5000\text{CY}/\$10-\$16$ ]	1,376	CY	\$20	\$27,520
Rock Ex. [ $<500\text{CY}/\$38-\$95$ ; $500-2500\text{CY}/\$25-\$50$ ; $2500-5000\text{CY}/\$25-\$50$ ; $>5000\text{CY}/\$18-\$32$ ]	0	CY		
Borrow [ $<500\text{CY}/\$15-\$30$ ; $500-5000\text{CY}/\$8-\$18$ ; $>5000\text{CY}/\$6-\$14$ ]	0	CY		
Trench Ex. [ $0'-4'-\$12-\$20/\text{CY}$ ; $0'-10'-\$15-\$24/\text{CY}$ ; $0'-15'-\$30/\text{CY}$ ; $0'-20'-\$35/\text{CY}$ ]	121	CY	\$20	\$2,420
Rock in Trench Ex. [ $\$50 - \$150/\text{CY}$ ]	0	CY		
Drainage; Pipe (12") [ $\$42$ ]	64	LF	\$42	\$2,690
Drainage; Pipe (24") [ $\$58$ ]	250	LF	\$58	\$14,500
Drainage; Catch Basins [ $\$1400$ ]	2	EA.	\$1,400	\$2,800
Drainage; Double Catch Basins [ $\$1600-\$2000$ ]	2	EA.	\$1,800	\$3,600
Drainage; Sed. Chambers [ $10'\times4'-\$15000$ ; $13'\times7'-\$24000$ ; $18'\times12'-\$45000$ ]	0	EA.		
Bedding Material [ $<100\text{CY}-\$30/\text{CY}$ ; $500-1000\text{CY}-\$24/\text{CY}$ ; $>1000\text{CY}-\$20/\text{CY}$ ]	31	CY	\$30	\$940
Milling of Bituminous Concrete 0" - 4" [ $\$4.00/\text{SY}$ ]	0	SY	\$4	
Superpave [ $<100\text{T}-\$85/\text{T}$ ; $100-1500\text{T}-\$75/\text{T}$ ; $1500-5000\text{T}-\$70/\text{T}$ ; $>5000\text{T}-\$60-\$65/\text{T}$ ]	1,242	T	\$75	\$93,170
Subbase [ $<500\text{CY}/\$24-\$40$ ; $500-2000\text{CY}/\$28$ ; $>2000\text{CY}/\$24$ ]	649	CY	\$28	\$18,170
Temporary PCBC [ $\$28/\text{LF}$ ]	0	LF	\$28	
Curbing; BCLC [ $\$3-\$8$ ]		LF	\$8	
Curbing; Concrete [ $\$18-\$28$ ]	1,190	LF	\$28	\$33,320
Guide Railing; R-B (350) [ $\$16.50$ ]	0	LF	\$17	
Guide Railing; Anchors [ $\$500-\$650$ ]	0	EA.		
Concrete Sidewalk [ $\$65/\text{SY}$ ]	780	SY	\$65	\$50,700
Furnish & Place Topsoil [ $<1000\text{SY}-\$6.50/\text{SY}$ ; $1000-5000\text{SY}-\$5.00/\text{SY}$ ; $>5000\text{SY}-\$3.75/\text{SY}$ ]	1,850	SY	\$5	\$9,250
Turf Establishment [ $<1000\text{SY}-\$2.50/\text{SY}$ ; $1000-5000\text{SY}-\$1.40/\text{SY}$ ; $>5000\text{SY}-\$0.80/\text{SY}$ ]	1,850	SY	\$1.40	\$2,590
Sodding [ $\$10/\text{SY}$ ]		SY	\$10	
Trafficperson [state or town officer- $\$50/\text{hr}$ ; Flagger- $\$30/\text{hour}$ ]	640	HR	\$50	\$32,000
Roadway Lighting [Expressway $\$55/\text{LF}$ ; Ramps $\$40/\text{LF}$ ]	225	LF	\$40	\$9,000
Bridge: New Structure [ $\$210/\text{SF}$ of Deck Area]	0	SF	\$210	
Structure Ex. [ $<100\text{CY}-\$60/\text{CY}$ ; $100-1000\text{CM}-\$27/\text{CY}$ ; $>1000\text{CY}-\$18/\text{CY}$ ]	0	CY		
Retaining Wall; Cast-in-Place Concrete [ $\$60.40-\$70$ ]	0	SF		
Traffic Signals; New [ $\$75,000-\$100,000$ ]	1	EA.	\$100,000	\$100,000
Traffic Signals; Major Modification [ $\$50,000$ ]	0	EA.	\$50,000	
Traffic Signals; Minor Modification [ $\$25,000$ ]	0	EA.	\$25,000	
Environmental Remediation	170	LF	\$280	\$47,600
ESTIMATED PAY ITEM SUBTOTAL				\$450,300
Percentage Based Pay Items		Percentage of Pay Item Subtotal		Total
Clearing and Grubbing Roadway (2%)		2%		\$9,000
M & P of Traffic (3%)		3%		\$13,500
Mobilization (7.5%)		7.5%		\$33,800
Construction Staking (1%)		1%		\$4,500
Landscaping (10%)		10%		\$45,000
Minor Items (20%)		20%		\$90,100
PERCENTAGE BASED PAY ITEM SUBTOTAL				\$195,900
TOTAL PAY ITEM SUBTOTAL				\$646,200
Percentage Based Miscellaneous Items		Percentage of Total Pay Item Subtotal		Total
CONTINGENCIES [ $\$5\text{M}-7\%$ ; $>\$5\text{M}-5\%$ ]		5%		\$32,000
INCIDENTALS [ $<\$1\text{M}/21\%$ ] [ $\$1-5\text{M}/15\%$ ] [ $\$5-10\text{M}/12\%$ ] [ $>\$10\text{M}/7\%$ ]		7%		\$45,000
UTILITIES				\$35,000
Professional Services		Percentage of Pay Item Subtotal		Total
Surveying (2%)		2%		\$12,900
Design (10%)		10%		\$64,600
Construction Engineering & Inspection (8%)		8%		\$51,700
Environmental Studies (20% of Environmental Remediation Costs)		20%		\$9,500
PERCENTAGE BASED COST SUBTOTAL				\$138,700
Estimated By: C. Granatini				
Checked By: 				
Date of Estimate: February 2006				
2005 TOTAL ESTIMATED COST				\$896,900

## Appendix C

### Right-of-Way Cost Computations



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Bethany - Branford - East Haven - Guilford - Hamden - Madison - Meriden - Milford  
New Haven - North Branford - North Haven - Orange - Wallingford - West Haven - Woodbridge

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**SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS**

***Judy Gott, Executive Director***

**To:** US5 Study Committee

**From:** Herbert Burstein

**Date:** February 24, 2006

**Subject:** US5 Study, Right-of-Way Cost, \$4.6 Million

Right-of-way cost estimates complement January, 2006 URS proposals including a basic northbound Wilbur Cross Parkway ramp relocation alternative.<sup>1</sup> Assessment data and standard ConnDOT allowances suggest a \$4.6 million right-of-way allowance including \$2.8 million associated with full takings immediately south of Route 68 (Bank of America, Site 6), south of Yale Avenue (Papales, Site 8) and at Ann Street-Gale Avenue (Site 12) (Figure 1 and Table 1).<sup>2</sup>

*Data*

Data include:

- a URS-provided proposed ROW layer reflecting November, 2005 geometric proposals. A basic five lane section results in an 85 foot wide right-of-way (approximate).
- a URS-provided Wallingford parcel layer (current property lines) compiled via ConnDOT and local data.<sup>3</sup>
- a Meriden-provided parcel layer.
- 2005 Wallingford assessment data (field cards) prepared by Vision Appraisal Technology.
- 2001 Meriden assessment data (field cards) as adjusted to date.



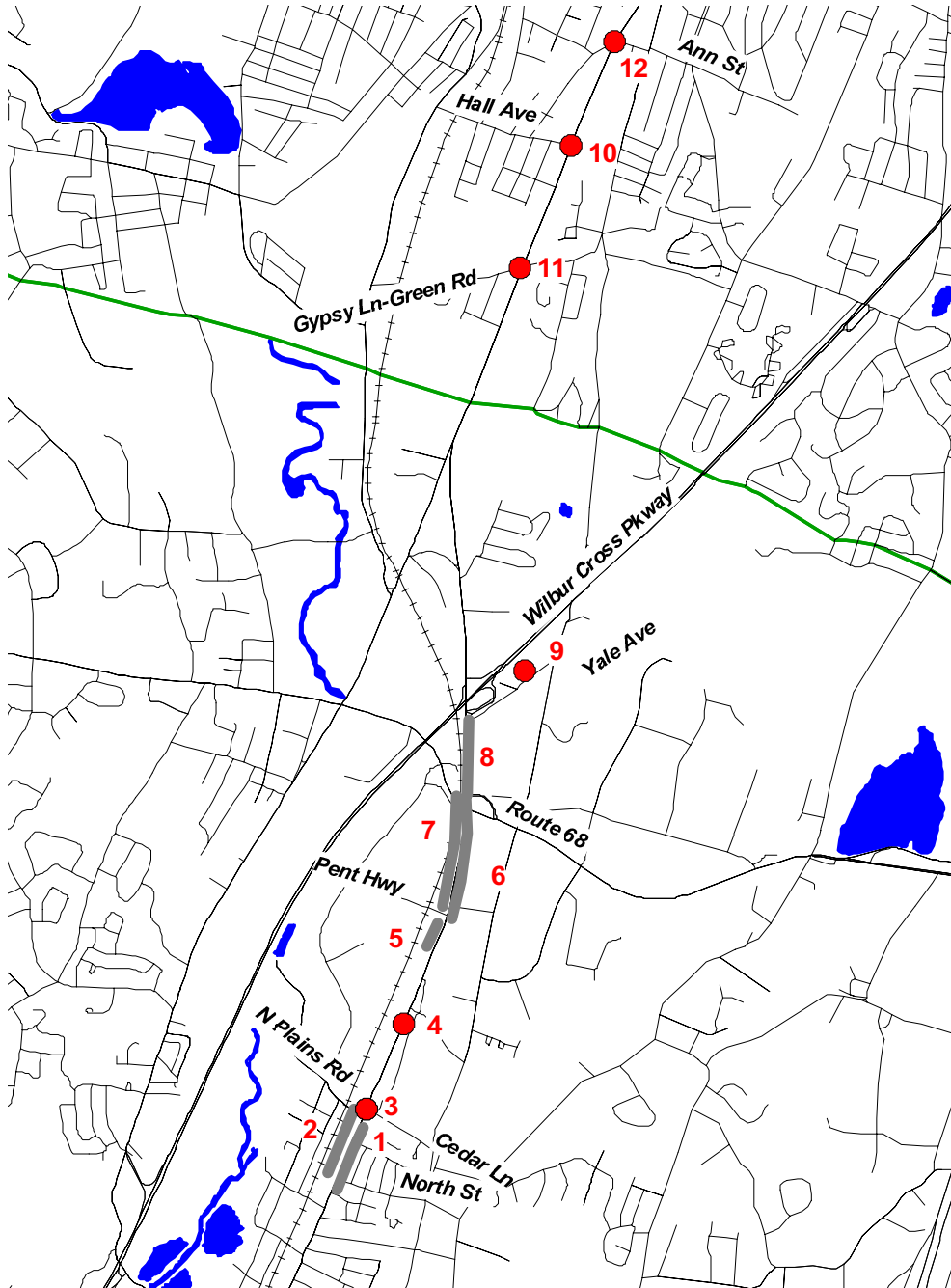


Figure 1: Assessment Data. Numbers indicate “sites” or groups of parcels affected by proposals. Detail follows on page eight.

**Right-of-Way Impact**  
Side Relative to US5  
Cost (\$)

Site (Per Figure 1)	Cost			
	Real Property	ConnDOT Expenses	Relocation	Total
<i>Wallingford</i>				
North Street to Beaumont Road				
1 North St-Cass Ave: East Side	41,000	12,000		53,000
2 North St-Cass Ave: West Side	140,000	25,000		165,000
3 Cedar Lane-North Plains Highway (Realign)	96,000	5,000		101,000
4 Beaumont Road Culvert	51,000	10,000		61,000
Ives Road/Pent Highway to Route 68				
5 South of Pent Highway: West Side	76,000	5,000		81,000
6 Ives Road to Rt 68: East Side	1,455,000	54,000	200,000	1,709,000
7 Pent Highway to Rt 68: West Side	543,000	40,000		583,000
Rt 68 to Yale Avenue				
8 Rt 68 to Yale Avenue: East and West Side)	758,000	32,000	125,000	915,000
9 Yale Avenue, New WCP Ramps	41,000	7,000		48,000
<i>Meriden</i>				
Hall Avenue Radius Adjustment				
10 Hall Avenue	6,000	5,000		11,000
Gypsy Lane-Green Road				
11 Gypsy Lane	14,000	5,000		19,000
Ann Street-Gale Avenue (Full Taking)				
12 Ann Street	507,000	7,000	349,000	863,000
Total	3,728,000	207,000	674,000	4,609,000

*Table 1: Right-of-Way Cost Summary.* Assessment data and standard ConnDOT allowances suggest a \$4.6 million right-of-way allowance including \$2.8 million associated with full takings immediately south of Route 68 (Bank of America, Site 6), south of Yale Avenue (Papales, Site 8) and at Ann Street-Gale Avenue (Site 12).

*Cost*

A suggested right -of-way budget reflects:

- SCRCOG-defined (“snapped”) strip or partial takings reflecting the difference between current and proposed rights-of-way—defined as polygons (square feet) and polylines (length).
- real property acquisition costs—square foot-related land costs and/or improvements costs at 150 percent of “fair market value” per standard ConnDOT planning/programming practice.<sup>4</sup> A 1.5 land and improvement multiplier anticipates site specific appraisal adjustments, contingencies and possible court-directed settlements. Appraisals will necessarily reflect Wallingford’s ten-year-old “Route 5 District: RF-40” minimum lot size, front yard and site coverage requirements which impose significant development constraints (Table 2).<sup>5</sup> Most existing uses were rendered dimensionally non-conforming when the RF-40 Zone was introduced in 1996. Widening proposals necessarily increase dimensional non-conformities—moving one Wallingford parcel below the required 40,000 square foot minimum lot size (parcel 24 Site 5, north of Ives Road with approximately 38,000 square feet after a 2,100 square foot taking) and “triggering” a ConnDOT variance request.<sup>6</sup> Eleven (11) other Wallingford parcels subject to strip takes

are now (pre-taking) less than 40,000 square feet—proposed takes range from one to 15 percent of the existing lots (Table 3).

- off-street parking supply impacts. Both current off-street parking supply and “proposed reductions” (plan impacts) are suggested per 2004 statewide aerials and the URS proposed right-of-way layer.<sup>7</sup> Associated costs, if any, are subsumed by the 1.5 multiplier and established via appraisals.
- ConnDOT federal-aid based relocation policies including a homeowner purchase supplement (the difference between acquisition cost and the cost of a comparable unit that meets household needs); a 42-month-long residential rent supplement (the difference between current rent and the market rent for a comparable “decent, safe and sanitary unit”); residential and business moving expenses; and non-residential “reestablishment costs”. Unit costs, including those associated with an Ann Street property (occupancy of residential rental units by unrelated persons), reflect review with ConnDOT Rights-of-Way staff.<sup>8</sup>
- standard ConnDOT costs associated with appraisal, outreach, negotiation, closing and relocation—reflecting an average \$2,000 “per case” (parcel) cost for partial takes with an estimated value of less than \$5,000; \$5,000 for partial takes of \$5,000 or more; and \$7,000 for full takes.<sup>9</sup>

## Zoning

### Selected Provisions

	<i>Meriden</i> C-3	<i>Wallingford RF-40</i>	
		<i>Group A</i> ( <i>Moderate</i> <i>Traffic</i> <i>Generating</i> )	<i>Group B</i> ( <i>Intense</i> <i>Traffic</i> <i>Generating</i> )
Minimum Lot (Sq Ft)	40,000	40,000	40,000
Maximum Lot Coverage (%)	40	30	17
Minimum Front Feet (Width)	100	150	150
Minimum Front Yard (Ft)	15	50	50
Minimum Side Yard (Ft)	15	20	20
Maximum Height (Ft)	75	30	30

*Table 2: Zoning.* C-3 and RF-40 zoning is prevalent along the strip—the latter introduced in 1996 to help dampen traffic generation.



### Partial Takings

Lots Originally Less Than 40,000 Square Feet

Wallingford

#### Basic Data

Site	1	2	2	5	5	5
ID	8	12	13	18	19	21
Occupant(s)	Mutt & Jeffs Café	Wallingford Apizza	New England Dive Center (Retail)	Vacant formerly retail	Nissen Bakery Thrift Store	Wachovia Bank
Tax Map	91	91	105	50	50	63
Tax Block						
Tax Parcel	87	16	6	30	31	36
Address	511 North Colony Rd	552 North Colony Rd	476 North Colony Rd	928 North Colony Rd	926 North Colony Rd	872 North Colony Rd
Lot Sq Ft	12,763	14,000	20,930	16,988	22,651	36,590
Gross Area Bldg Sq Ft	4,344	5,328	2,822	12,952	14,052	7,562
Land Market Value	159,300	161,400	142,500	362,500	368,700	499,100
Building Assessment Value	68,300	145,900	93,300	21,200	90,700	564,100
Cost Land Per Sq Ft	12.48	11.53	6.81	21.34	16.28	13.64
<b>Plan Impact</b>						
Partial Taking (Sq Ft)	629	1,769	985	249	484	811
Length	105	110	117	71	102	102
Front Yard Now	0	0	29	0	0	23
Front Yard Required	50	50	50	50	50	50
Current Set Back	22	42	31	60	60	33
Taking Width	6	15	10	4	5	8
Parking Required	8	10	7	26	29	14
Parking Now	26	25	35	6	51	20
Spaces Taken	3	1	0	0	0	0
Maximum Site Coverage	17	17	17	17	17	17
Current Site Coverage	16	17	9	38	32	10
Site Coverage After Taking	17	20	9	38	32	10
Plan Impact: Minimum Lot Size						
<b>Lot After Partial Taking (Only Under 40,000)</b>						
Lot Size: After Taking (Sq Ft)	12,134	12,231	19,945	16,739	22,167	35,779
Percent Taking of Original Parcel	5	13	5	1	2	2

Table 3: *Smaller Parcels*. Eleven (11) Wallingford parcels subject to strip takes are now (pre-taking) less than 40,000 square feet. Proposed takes range from one to 15 percent of the existing lots.

**Partial Takings**

*Lots Originally Less Than 40,000 Square Feet*

*Wallingford*

**Basic Data**

Site	6	6	6	6	8
ID	28	30	31	46	42
Occupant(s)	Plunkses	Captain Seas	Liberty Bank	Plunkses	Friendlys
	Garage-Towing	(Restaurant)		Garage-Towing	
Tax Map	50	63	63	50	51
Tax Block					
Tax Parcel	33	43	42	32	3
Address	923 North Colony Rd	905 North Colony Rd	909 North Colony Rd	915 North Colony Rd	970 North Colony Rd
Lot Sq Ft	23,958	30,928	29,621	30,056	20,038
Gross Area Bldg Sq Ft	13,116	4,666	7,292	6,948	6,070
Land Market Value	192,800	340,300	290,800	317,500	343,500
Building Assessment Value	220,100	124,300	294,900	199,600	323,000
Cost Land Per Sq Ft	8.05	11.00	9.82	10.56	17.14
<b>Plan Impact</b>					
Partial Taking (Sq Ft)	3,636	2,764	3,009	3,374	3,068
Length	181	143	154	215	202
Front Yard Now	0	20	14	0	5
Front Yard Required	50	50	50	50	50
Current Set Back	25	82	70	37	41
Taking Width	19	18	18	15	15
Parking Required	5	22	9	7	30
Parking Now	10	68	30	20	111
Spaces Taken	0	2	2	6	6
Maximum Site Coverage	17	17	17	30	17
Current Site Coverage	28	7	9	11	15
Site Coverage After Taking	33	8	10	13	18
Plan Impact: Minimum Lot Size					
<b>Lot After Partial Taking (Only Under 40,000)</b>					
Lot Size: After Taking (Sq Ft)	20,322	28,164	26,612	26,682	16,970
Percent Taking of Original Parce	15	9	10	11	15

*Table 3: Smaller Parcels (Continued).*

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<sup>1</sup>Revising a January 6, 2006 SCRCOG memo per January, 2006, URS Figures L-1, L-2, L-3, S-1, S-2, S-3 and Interchange Alternative A reviewed at a February 10 US5 Study Group meeting. Right-of-way cost estimates are a SCRCOG responsibility per a Council-URS “Study” agreement (*Consulting Agreement, US5 Planning/Preliminary Design Study, Wallingford-Meriden*, September 7, 2005).

<sup>2</sup> Planning judgments reviewed at a February 10 US5 Study Group meeting.

<sup>3</sup> In the absence of a Wallingford parcel layer. Council efforts to secure a current parcel layer prepared per a 2005 reassessment (Vision Appraisal Technology) were unsuccessful.

<sup>4</sup> Wallingford and Meriden assessors similarly suggest a 150 percent allowance—largely reflecting their belief that commercial property owners in the US5 corridor will tend to prove relatively aggressive during negotiations.

<sup>5</sup> Town of Wallingford, *Wallingford Zoning Regulations* (Wallingford: Planning & Zoning Commission, Effective September 29, 1985, as amended through October 16, 2005), Section 4.16

<sup>6</sup> Only minimum lot size conditions trigger a ConnDOT variance request per *Connecticut Statutes* Section 48-24. “*Condemning authority to obtain zoning variance for portion of property not taken or take entire unit.* A condemning authority, if acquiring less than the total amount of a single unit of contiguous property, shall, if the remaining portion of such property does not conform to the area requirements of existing zoning regulations, obtain a zoning variance for such remaining portion of property from the local zoning board of appeals before condemning any portion of such property. If such variance is not obtained prior to the taking by the condemning authority, the owner or owners of such single unit of contiguous property shall be reimbursed for the total amount of such unit and the condemning authority shall take title in fee simple to the entire unit of contiguous property.”

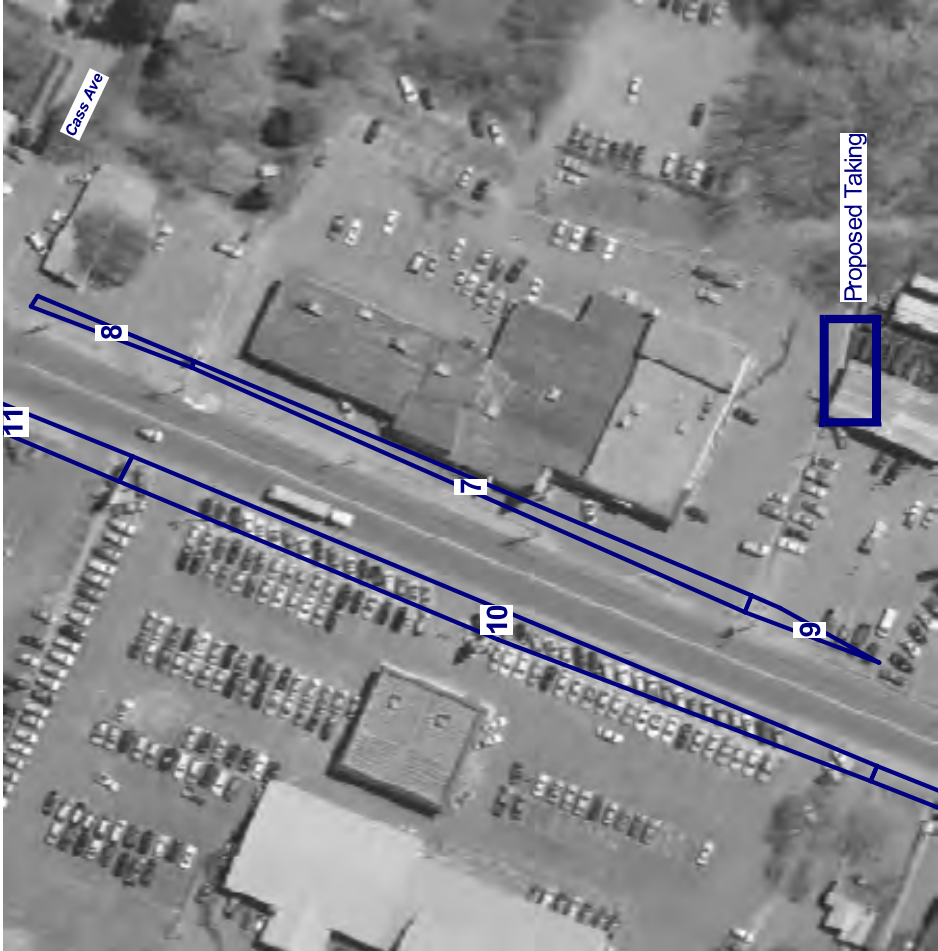
<sup>7</sup> See Town of Wallingford, *Wallingford Zoning Regulations* (Wallingford: Planning & Zoning Commission, Effective September 29, 1985, as amended October 16, 2005), Section 6.11 and City of Meriden, *Code of the City of Meriden* (Meriden: City of Meriden, As Amended Thru September 15, 2005), Chapter 213, Zoning, Section 213.41.

<sup>8</sup> SCRCOG appreciates ConnDOT guidance. Errors, if any, are those of the Council.

<sup>9</sup> Averages mask highly variable parcel-level costs; e.g. many partial takings are acquired by mail without personal contact.



Site 1: North Street-Cass Avenue (East Side) (Strip Takes)



North Street-Cass Avenue  
Wallingford

Cost

Real Property (150% Market)	41,000
ConnDOT Expenses	12,000
Total Cost (Rounded)	53,000

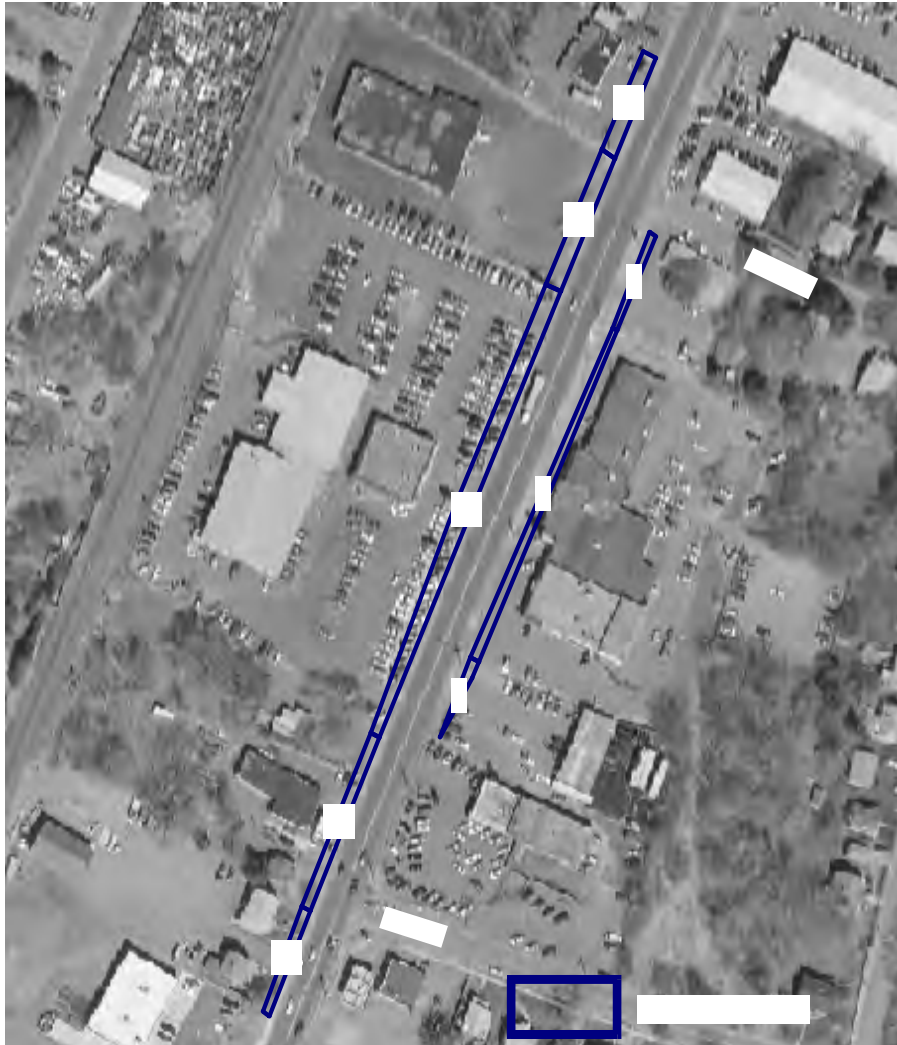
## Site 1: North Street-Cass Avenue (East Side) (Strip Takes)

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### North Street-Cass Avenue Wallingford

Parcel	7	8	9
<b>Basic Data</b>			
Occupant(s)	Warehouse Liquors, Barbarino Pontiac	Mutt & Jeffs Café	Auto Sales, Tire Store
Tax Map	91	91	105
Tax Block			
Tax Parcel	88	87	9
Address	505 North Colony Road	511 North Colony Road	491 North Colony Road
Lot (Sq Ft)	81,457	12,763	63,162
Floor Area (Sq Ft)	25,414	2,092	7,880
Land Market Value \$	449,600	159,300	270,200
Building Market Value \$	1,232,200	68,300	454,700
Land Per Sq Foot \$	5.52	12.48	4.28
<b>Plan Impact</b>			
Taking (Sq Ft)	2,982	629	567
Taking Length (LF)	372	105	88
Current Front Yard (Depth) (Ft)	0	0	0
Front Yard Required (Ft)	50	50	50
Current Set Back (Ft)	9	22	60
Taking Width (Ft from Current ROW)	9	6	9
<b>Parking</b>			
Required Spaces	102	8	32
Current Spaces	75	26	25
Space Reduction (Per Plan)	18	3	6
<b>Site Coverage (Percent)</b>			
Maximum Permitted	17	17	30
Actual	31	16	12
Per Plan	32	17	13
<b>Cost</b>			
Real Property (150% Market)	25,000	12,000	4,000
ConnDOT Expenses	5,000	5,000	2,000
Total Cost (Rounded)	30,000	17,000	6,000

## Site 2: North Street-Cass Avenue (West Side) (Strip Takes)



### **North Street-Cass Avenue (West Side) Wallingford**

#### **Cost**

Real Property (150% Market)	140,000
ConnDOT Expenses	25,000
Total Cost (Rounded)	165,000



## Site 2: North Street-Cass Avenue (West Side) (Strip Takes)

---

### North Street-Cass Avenue (West Side) Wallingford

Parcel	10	11	12
<b>Basic Data</b>			
Occupant(s)	Barberino Kia	Brooks Pharm, Perrettas Tailoring	Wallingford Apizza
Tax Map	91	91	91
Tax Block			
Tax Parcel	14	15	16
Address	500 North Colony Road	508 North Colony Road	552 North Colony Road
Lot (Sq Ft)	135,472	77,537	14,000
Floor Area (Sq Ft)	36,642	23,688	5,328
Land Market Value \$	747,700	428,000	161,400
Building Market Value \$	845,800	797,300	145,900
Land Per Sq Foot \$	5.52	5.52	11.53
<b>Plan Impact</b>			
Taking (Sq Ft)	8,029	2,526	1,769
Taking Length (LF)	496	149	110
Current Front Yard (Depth) (Ft)	0	0	0
Front Yard Required (Ft)	50	50	50
Current Set Back (Ft)	62	150	42
Taking Width (Ft from Current ROW)	18	17	15
<b>Parking</b>			
Required Spaces	90	45	10
Current Spaces	240	70	25
Space Reduction (Per Plan)	38	10	1
<b>Site Coverage (Percent)</b>			
Maximum Permitted	30	17	17
Actual	17	14	17
Per Plan	18	15	20
<b>Cost</b>			
Real Property (150% Market)	67,000	21,000	31,000
ConnDOT Expenses	5,000	5,000	5,000
Total Cost	72,000	26,000	36,000

## Site 2: North Street-Cass Avenue (West Side) (Strip Takes)

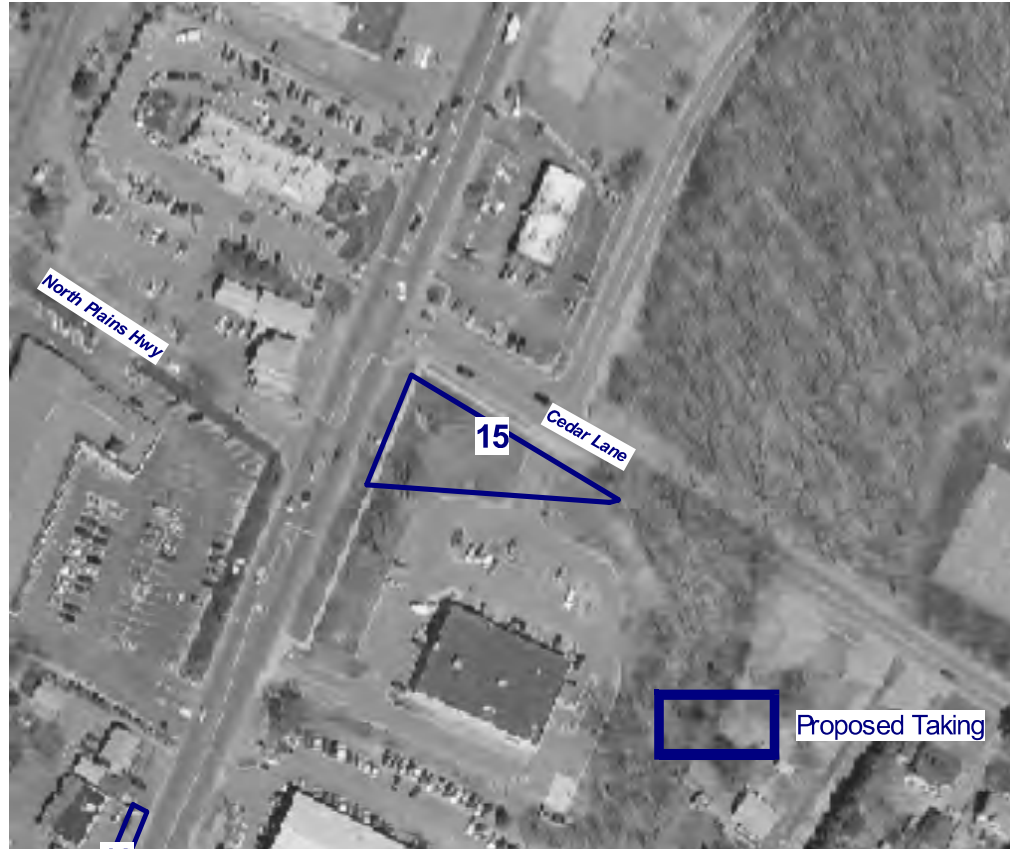
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### North Street-Cass Avenue (West Side) Wallingford

Parcel	13	14
<b>Basic Data</b>		
Occupant(s)	New England Dive Center (Retail)	Citgo Gas
Tax Map	105	105
Tax Block		
Tax Parcel	6	7
Address	476 North Colony Road	478 North Colony Road
Lot (Sq Ft)	20,930	108,900
Floor Area (Sq Ft)	2,822	7,665
Land Market Value \$	142,500	350,100
Building Market Value \$	93,300	353,700
Land Per Sq Foot \$	6.81	3.21
<b>Plan Impact</b>		
Taking (Sq Ft)	985	1,947
Taking Length (LF)	117	192
Current Front Yard (Depth) (Ft)	29	0
Front Yard Required (Ft)	50	50
Current Set Back (Ft)	31	9
Taking Width (Ft from Current ROW)	10	9
<b>Parking</b>		
Required Spaces	7	17
Current Spaces	35	10
Space Reduction (Per Plan)	0	1
<b>Site Coverage (Percent)</b>		
Maximum Permitted	17	30
Actual	9	4
Per Plan	9	4
<b>Cost</b>		
Real Property (150% Market)	11,000	10,000
ConnDOT Expenses	5,000	5,000
Total Cost	16,000	15,000

### Site 3: Cedar Lane-North Plains Highway Realignment (Partial Take)

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#### North Plains Highway-Cedar Lane Realignment Wallingford

##### Cost

Real Property (150% Market)	96,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	101,000

### ***Site 3: Cedar Lane-North Plains Highway Realignment (Partial Take)***

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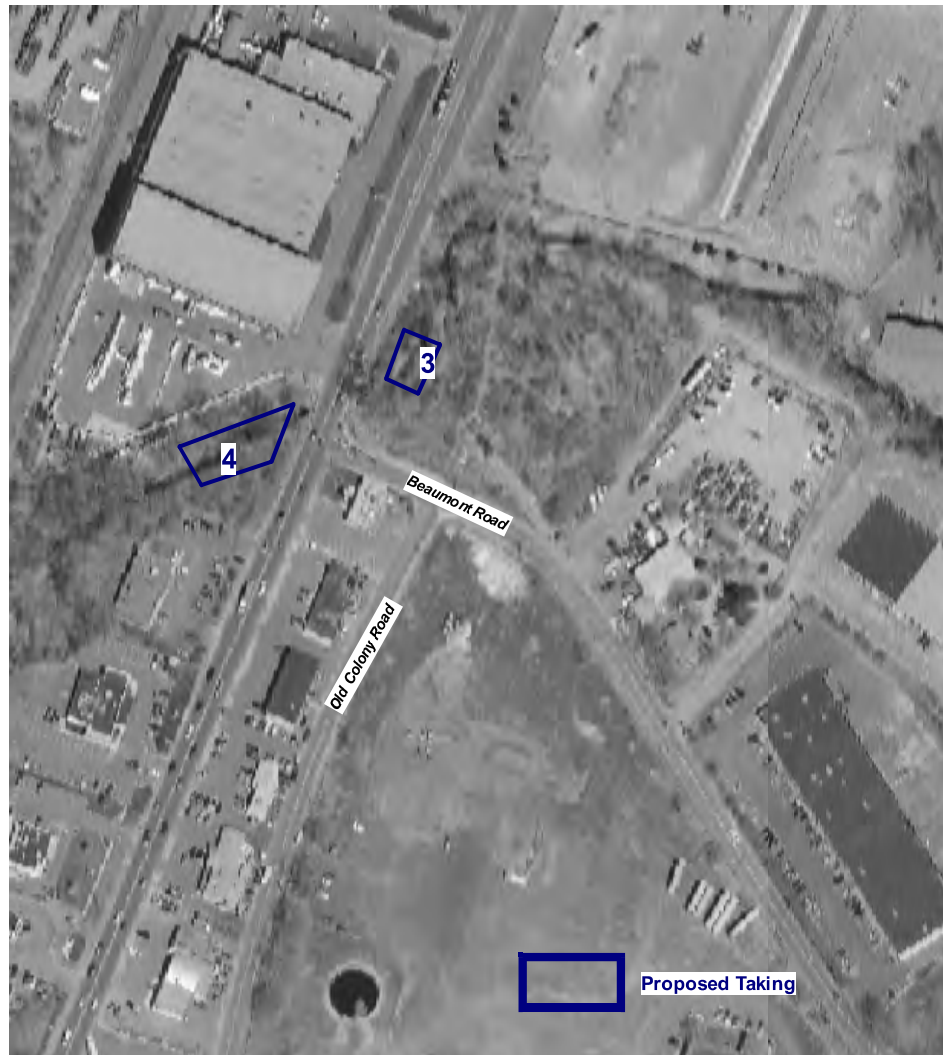
#### **North Plains Highway-Cedar Lane Realignment Wallingford**

<b>Parcel</b>	<b>15</b>
<b>Basic Data</b>	
Occupant(s)	Rite Aid
Tax Map	91
Tax Block	
Tax Parcel	55
Address	605 North Colony Road
Lot (Sq Ft)	125,453
Floor Area (Sq Ft)	11,628
Land Market Value \$	581,490
Building Market Value \$	820,700
Land Per Sq Foot \$	4.64
<b>Plan Impact</b>	
Taking (Sq Ft)	13,729
Taking Length (LF)	251
Current Front Yard (Depth) (Ft)	58
Front Yard Required (Ft)	50
Current Set Back (Ft)	81
Taking Width (Ft from Current ROW)	81
<b>Parking</b>	
Required Spaces	44
Current Spaces	62
Space Reduction (Per Plan)	0
<b>Site Coverage (Percent)</b>	
Maximum Permitted	17
Actual	9
Per Plan	10
<b>Cost</b>	
Real Property (150% Market)	96,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	101,000



## Site 4: Beaumont Road Culvert (Easement or Partial Take)

---



### Beaumont Road Culvert Wallingford

#### Cost

Real Property (150% Market)	51,000
ConnDOT Expenses	10,000
Total Cost (Rounded Up)	61,000

## Site 4: Beaumont Road Culvert (Easement or Partial Take)

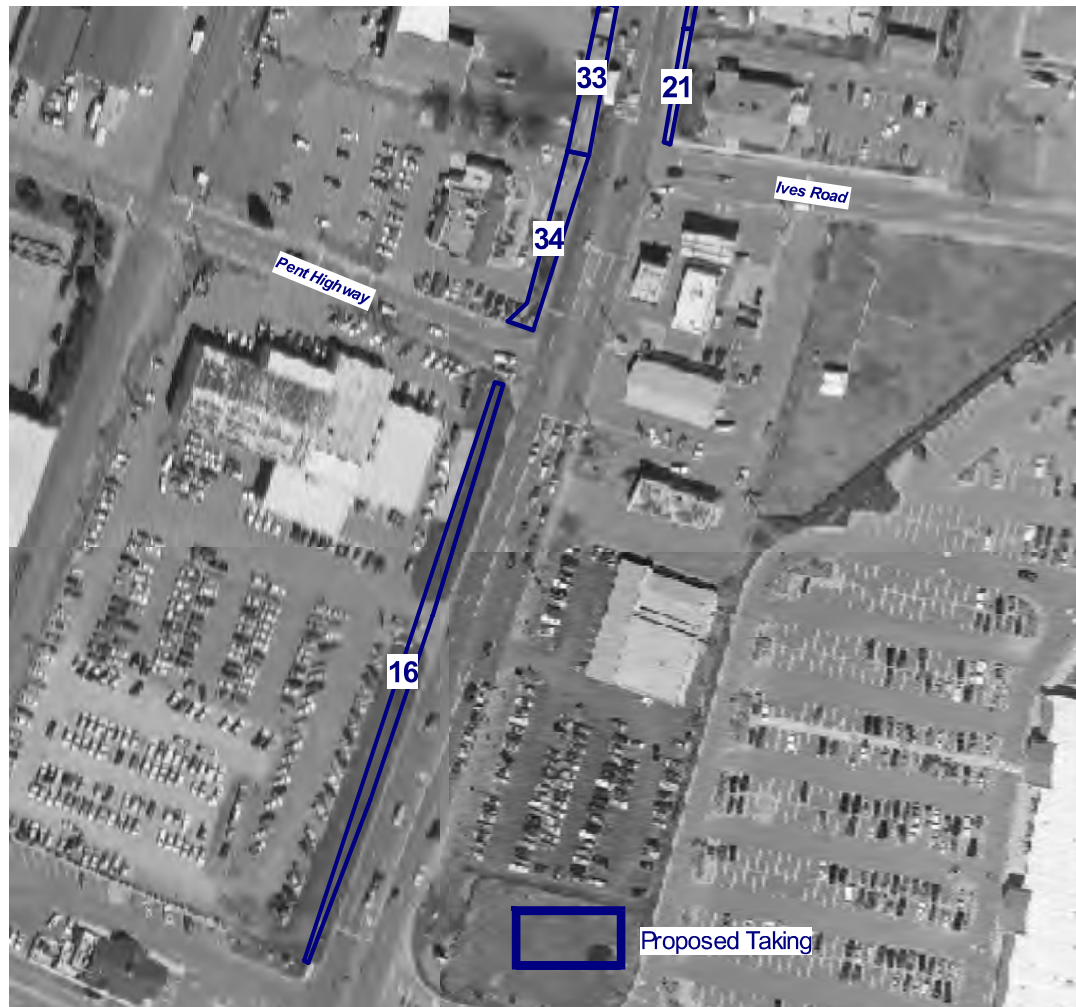
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### Beaumont Road Culvert Wallingford

Parcel	3	4
<b>Basic Data</b>		
Occupant(s)	Vacant	Kamco Lumber
Tax Map	77	77
Tax Block		
Tax Parcel	45	19
Address	801 North Colony Road	780 North Colony Road
Lot (Sq Ft)	100,624	235,224
Floor Area (Sq Ft)	0	92,254
Land Market Value \$	161,200	843,900
Building Market Value \$	0	2,150,400
Land Per Sq Foot \$	1.60	3.59
<b>Plan Impact</b>		
Taking (Sq Ft)	3,500	7,771
Taking Length (LF)	70	81
Current Front Yard (Depth) (Ft)	0	15
Front Yard Required (Ft)	0	50
Current Set Back (Ft)	0	29
Taking Width (Ft from Current ROW)	50	100
<b>Parking</b>		
Required Spaces	0	185
Current Spaces	0	75
Space Reduction (Per Plan)	0	0
Site Coverage (Percent)	0	
Maximum Permitted	0	30
Actual	0	39
Per Plan	0	
<b>Cost</b>		
Real Property (150% Market)	9,000	42,000
ConnDOT Expenses	5,000	5,000
Total Cost (Rounded Up)	14,000	47,000

### ***Site 5: South of Pent Highway (West Side) (Strip Takes)***

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#### **South of Pent Highway (West Side) Wallingford**

##### **Cost**

Real Property (150% Market)	76,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	81,000

## **Site 5: South of Pent Highway (West Side) (Strip Takes)**

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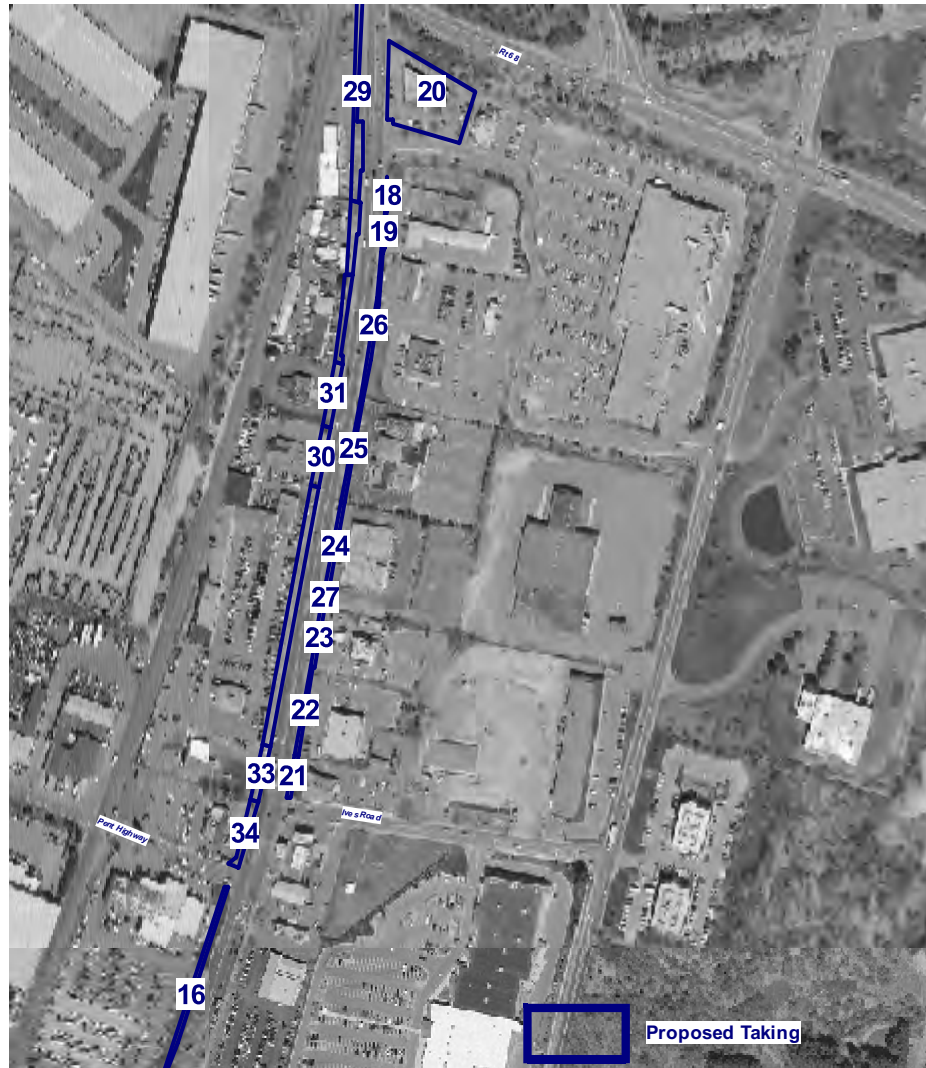
### **South of Pent Highway Wallingford**

<b>Parcel</b>	<b>16</b>
<b>Basic Data</b>	
Occupant(s)	Toyota of Wallingford
Tax Map	63
Tax Block	
Tax Parcel	26
Address	859 North Colony Road
Lot (Sq Ft)	174,240
Floor Area (Sq Ft)	44,646
Land Market Value \$	1,634,600
Building Market Value \$	942,500
Land Per Sq Foot \$	9.38
<b>Plan Impact</b>	
Taking (Sq Ft)	5,351
Taking Length (LF)	537
Current Front Yard (Depth) (Ft)	10
Front Yard Required (Ft)	50
Current Set Back (Ft)	43
Taking Width (Ft from Current ROW)	12
<b>Parking</b>	
Required Spaces	82
Current Spaces	50
Space Reduction (Per Plan)	0
<b>Site Coverage (Percent)</b>	
Maximum Permitted	30
Actual	12
Per Plan	12
<b>Cost</b>	
Real Property (150% Market)	76,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	81,000



## Site 6: Ives Road-Route 68 (East Side) (Strip Take and Full Take)

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### Ives Road-Route 68 Wallingford

#### Partial Taking Cost

Real Property (150% Market)	224,000
ConnDOT Expenses	47,000
<b>Total Cost (Rounded Up)</b>	<b>271,000</b>

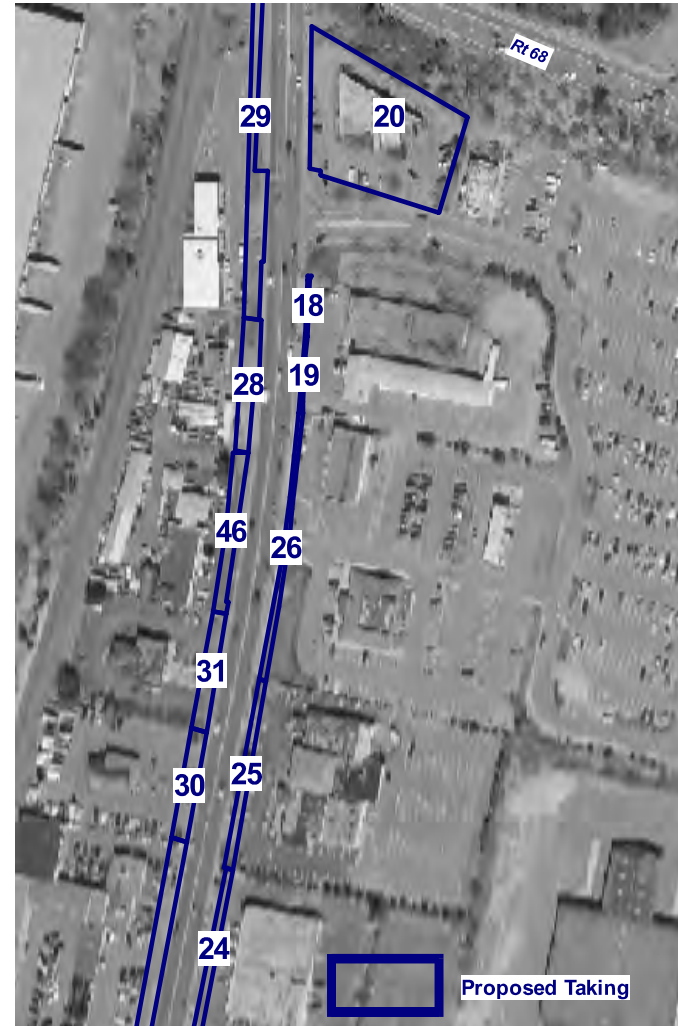
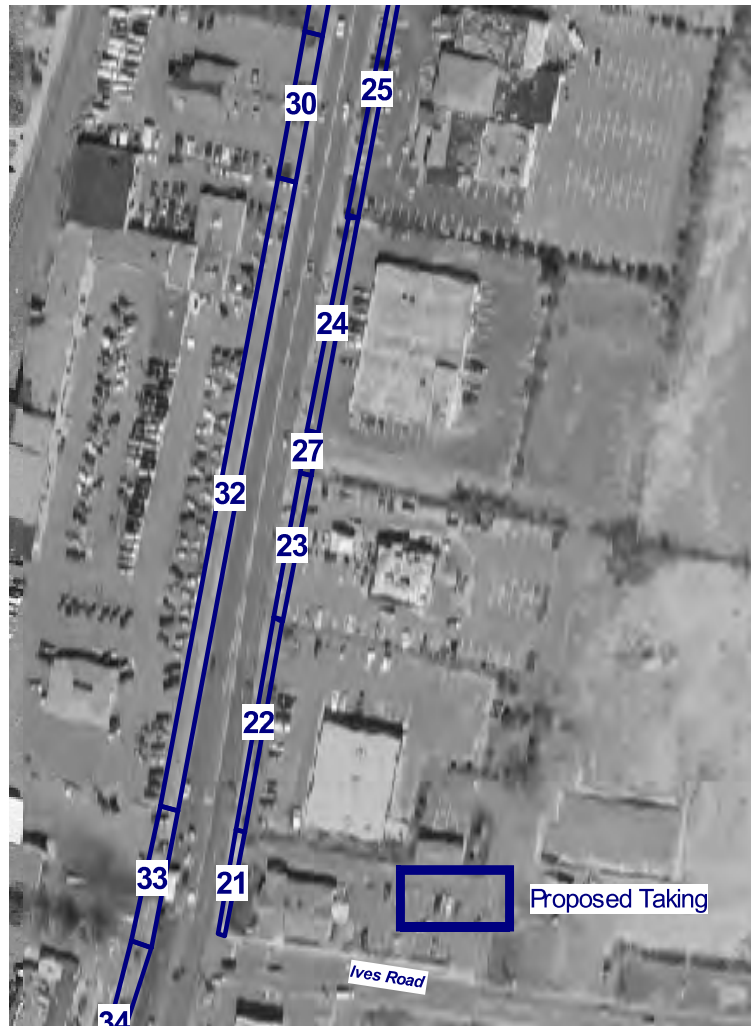
#### Full Taking Cost

Residential Relocation	
Business (Other) Relocation	200,000
Real Property (150% Market)	1,231,000
ConnDOT Expenses	7,000
<b>Total Cost (Rounded Up)</b>	<b>1,438,000</b>

<b>Total Cost (Rounded)</b>	<b>1,709,000</b>
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**Site 6: Ives Road-Route 68 (East Side) (Strip Takes and Full Take)**

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## Site 6: Ives Road-Route 68 (East Side) (Strip Takes)

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### Ives Road-Route 68 Wallingford

Parcel	18	19	21	22
<b>Basic Data</b>				
Occupant(s)	Vacant formerly retail	Nissen Bakery Thrift Store	Wachovia Bank	Advanced Auto Parts
Tax Map	50	50	63	63
Tax Block				
Tax Parcel	30	31	36	37
Address	928 North Colony Road	926 North Colony Road	872 North Colony Road	882 North Colony Road
Lot (Sq Ft)	16,988	22,651	36,590	49,658
Floor Area (Sq Ft)	12,952	14,052	7,562	15,521
Land Market Value \$	362,500	368,700	499,100	534,300
Building Market Value \$	21,200	90,700	564,100	365,200
Land Per Sq Foot \$	21.34	16.28	13.64	10.76
<b>Plan Impact</b>				
Taking (Sq Ft)	249	484	811	1,820
Taking Length (LF)	71	102	102	209
Current Front Yard (Depth) (Ft)	0	0	23	11
Front Yard Required (Ft)	50	50	50	50
Current Set Back (Ft)	60	60	33	65
Taking Width (Ft from Current ROW)	4	5	8	0
<b>Parking</b>				
Required Spaces	26	29	14	30
Current Spaces	6	51	20	53
Space Reduction (Per Plan)	0	0	0	0
<b>Site Coverage (Percent)</b>				
Maximum Permitted	17	17	17	17
Actual	38	32	10	15
Per Plan	38	32	10	16
<b>Cost</b>				
Real Property (150% Market)	8,000	12,000	17,000	30,000
ConnDOT Expenses	5,000	5,000	5,000	5,000
Total Cost (Rounded Up)	13,000	17,000	22,000	35,000

## Site 6: Ives Road-Route 68 (East Side) (Strip Takes)

### Ives Road-Route 68 Wallingford

Parcel	23	24	25	26
<b>Basic Data</b>				
Occupant(s)	Burger King	Various Retail	Villa Capri Banquet Monro Muffler, Gasoline Station	
Tax Map	63	63	63	63
Tax Block				
Parcel	38	39	40	41
Address	888 North Colony Road	892 North Colony Road	906 North Colony Road	914 North Colony Road
Lot (Sq Ft)	46,609	40,075	88,862	124,582
Floor Area (Sq Ft)	6,804	14,437	36,408	21,105
Land Market Value \$	501,500	507,200	956,200	1,475,000
Building Market Value \$	606,100	434,000	987,100	764,100
Land Per Sq Foot \$	10.76	12.66	10.76	11.84
<b>Plan Impact</b>				
Taking (Sq Ft)	1,453	2,117	2,408	2,442
Taking Length (LF)	143	210	247	346
Current Front Yard (Depth) (Ft)	0	0	0	0
Front Yard Required (Ft)	50	50	50	50
Current Set Back (Ft)	91	37	51	45
Taking Width (Ft from Current ROW)	11	11	11	5
Parking	0			
Required Spaces	38	38	239	142
Current Spaces	65	65	113	151
Space Reduction (Per Plan)	2	10	12	0
Site Coverage (Percent)	0			
Maximum Permitted	17	17	17	30
Actual	6	36	20	8
Per Plan	6	38	21	8
<b>Cost</b>				
Real Property (150% Market)	24,000	41,000	39,000	44,000
ConnDOT Expenses	5,000	5,000	5,000	5,000
Total Cost (Rounded Up)	29,000	46,000	44,000	49,000



## Site 6: Ives Road-Route 68 (East Side) (Strip Takes)

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### Ives Road-Route 68 Wallingford

Parcel	27	47
<b>Basic Data</b>		
Occupant(s)	Vacant formerly Parkers Exp Trucking	Stop & Shop
Tax Map	64	51
Tax Block		
Tax Parcel	1	1
Address	890 North Colony Road	930 North Colony Road
Lot (Sq Ft)	294,030	435,600
Floor Area (Sq Ft)	91,904	184,774
Land Market Value \$	3,164,200	4,376,900
Building Market Value \$	49,400	5,393,500
Land Per Sq Foot \$	10.76	10.05
<b>Plan Impact</b>		
Taking (Sq Ft)	443	24
Taking Length (LF)	42	6
Current Front Yard (Depth) (Ft)	0	0
Front Yard Required (Ft)	50	50
Current Set Back (Ft)	454	0
Taking Width (Ft from Current ROW)	10	3
<b>Parking</b>		
Required Spaces	92	n/a
Current Spaces	150	n/a
Space Reduction (Per Plan)	0	0
Site Coverage (Percent)	0	0
Maximum Permitted	30	17
Actual	16	0
Per Plan	16	0
<b>Cost</b>		
Real Property (150% Market)	8,000	1,000
ConnDOT Expenses	5,000	2,000
Total Cost (Rounded Up)	13,000	3,000

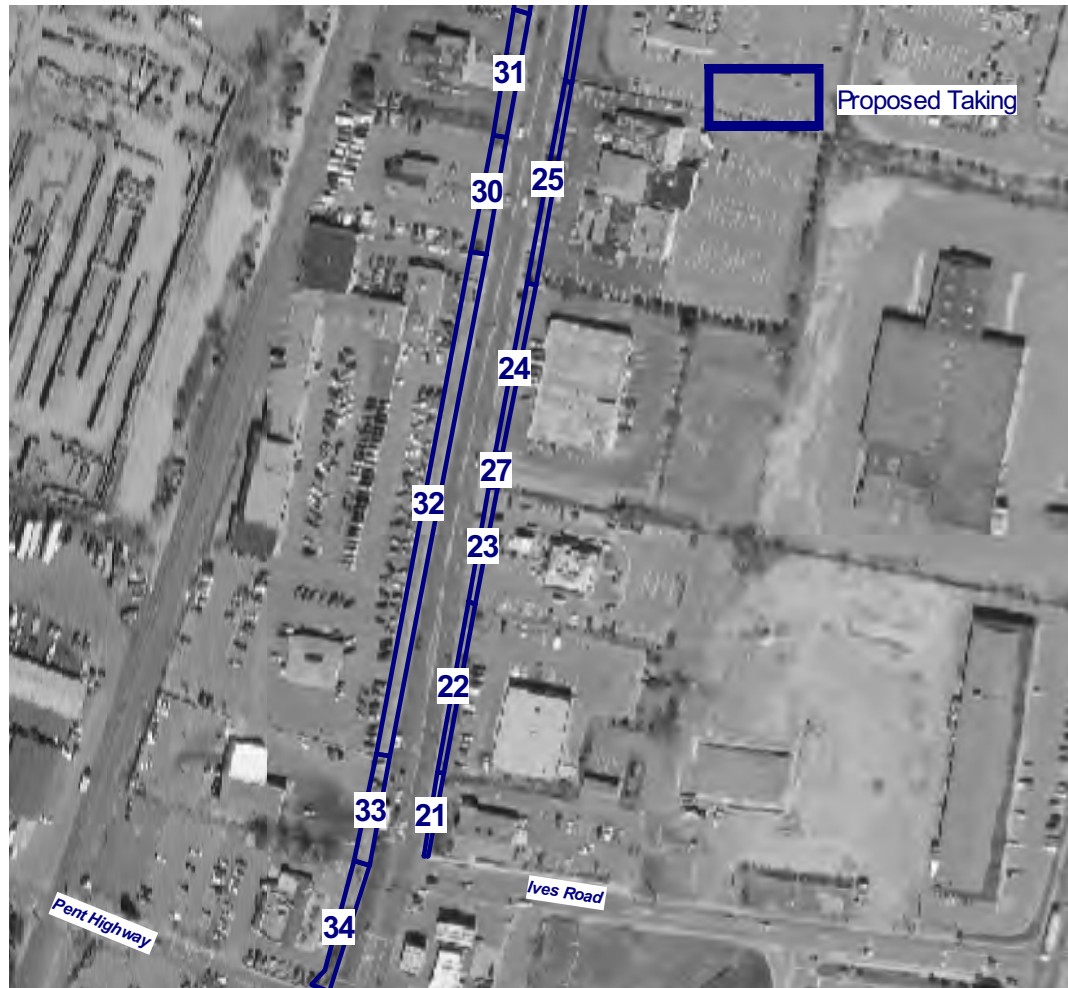
## Site 6: Ives Road-Route 68 (East Side) (Full Take)

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<b>Parcel</b>	<b>20</b>
<b>Basic Data</b>	
Occupant(s)	Bank of America
Tax Map	50
Tax Block	
Tax Parcel	36
Tax Unit	
Address	938 North Colony Road
Lot (Sq Ft)	54,450
Floor Area (Sq Ft)	9,918
Linear Feet	
Land Market Value \$	510,800
Building Market Value \$	309,500
Zone	RF40
<b>To Be Relocated</b>	
Households	0
Commerical or Other (Units)	1
<b>Cost</b>	
Residential Relocation	
Homeowner Replacement Housing Supplement (\$20,000/unit)	
Rent Supplement (42 months, \$200/month)	
Moving Expenses	
Business (Other) Relocation	
Reestablishment	100,000
Moving Expenses	100,000
Real Property (150% Market)	1,230,450
ConnDOT Expenses	7,000
Total Cost (Rounded)	1,438,000

## Site 7: Pent Highway-Route 68 (West Side) (Strip Takes)

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### Pent Highway-Route 68 (West Side) Wallingford

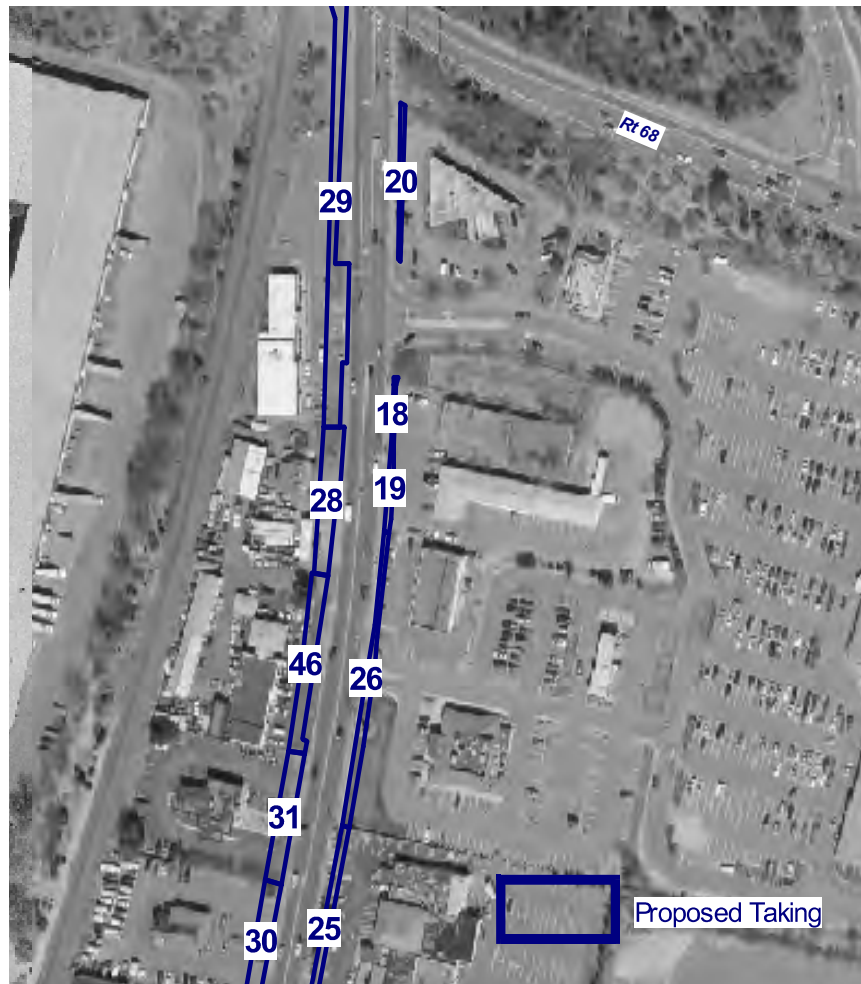
#### Cost

Real Property (150% Market)	543,000
ConnDOT Expenses	40,000
Total Cost (Rounded Up)	583,000

Assuming a partial take at parcel 29 (Sherwin Williams). Full take option illustrated below.

***Site 7: Pent Highway-Route 68 (West Side) (Strip Takes)***

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## Site 7: Pent Highway-Route 68 (West Side) (Strip Takes)

### Pent Highway-Route 68 Wallingford

Parcel	28	29	30	31
<b>Basic Data</b>				
Occupant(s)	Plunkses Garage-Towing	Sherw in Wms Paints	Captain Seas (Restaurant)	Liberty Bank
Tax Map	50	50	63	63
Tax Block				
Tax Parcel	33	34	43	42
Address	923 North Colony Road	927 North Colony Road	905 North Colony Road	909 North Colony Road
Lot (Sq Ft)	23,958	32,234	30,928	29,621
Floor Area (Sq Ft)	13,116	12,740	4,666	7,292
Land Market Value \$	192,800	320,500	340,300	290,800
Building Market Value \$	220,100	359,100	124,300	294,900
Land Per Sq Foot \$	8.05	9.94	11.00	9.82
<b>Plan Impact</b>				
Taking (Sq Ft)	3,636	8,294	2,764	3,009
Taking Length (LF)	181	521	143	154
Current Front Yard (Depth) (Ft)	0	21	20	14
Front Yard Required (Ft)	50	50	50	50
Current Set Back (Ft)	25	47	82	70
Taking Width (Ft from Current ROW)	19	24	18	18
<b>Parking</b>				
Required Spaces	5	21	22	9
Current Spaces	10	17	68	30
Space Reduction (Per Plan)	0	0	2	2
<b>Site Coverage (Percent)</b>				
Maximum Permitted	17	17	17	17
Actual	28	20	7	9
Per Plan	33	27	8	10
<b>Cost</b>				
Real Property (150% Market)	44,000	124,000	46,000	45,000
ConnDOT Expenses	5,000	5,000	5,000	5,000
Total Cost (Rounded Up)	49,000	129,000	51,000	50,000

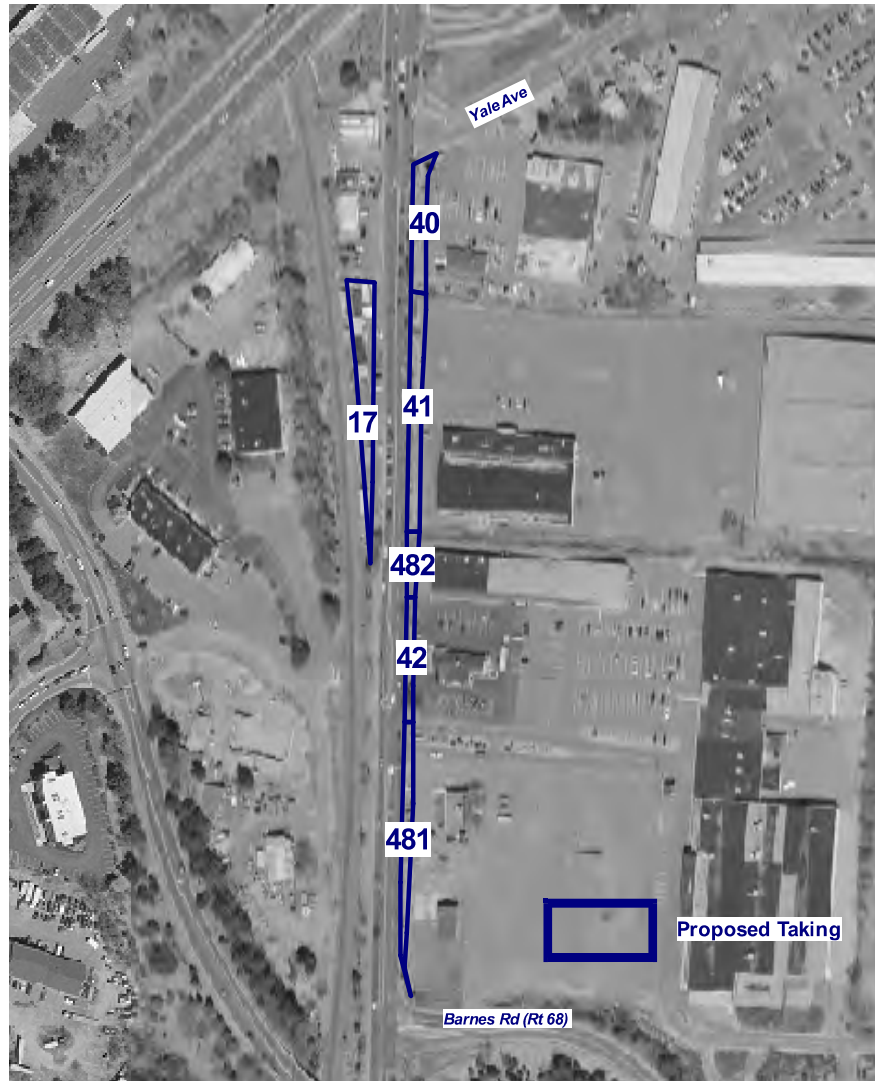
## Site 7: Pent Highway-Route 68 (West Side) (Strip Takes)

### Pent Highway-Route 68 Wallingford

Parcel	32	33	34	46
<b>Basic Data</b>				
Occupant(s)	Merriam Lincoln Mercury	Red Carpet Auto Wash	Gathering Place (Restaurant)	Plunkses Garage-Towing
Tax Map	63	63	63	50
Tax Block				
Tax Parcel	44	45	46	32
Address	895 North Colony Road	891 North Colony Road	865 North Colony Road	915 North Colony Road
Lot (Sq Ft)	140,699	48,352	45,738	30,056
Floor Area (Sq Ft)	69,816	8,028	8,873	6,948
Land Market Value \$	1,320,000	473,000	353,500	317,500
Building Market Value \$	1,078,400	142,200	291,800	199,600
Land Per Sq Foot \$	9.38	9.78	7.73	10.56
<b>Plan Impact</b>				
Taking (Sq Ft)	11,399	2,517	2,700	3,374
Taking Length (LF)	620	134	161	215
Current Front Yard (Depth) (Ft)	0	0	15	0
Front Yard Required (Ft)	50	50	50	50
Current Set Back (Ft)	85	126	60	37
Taking Width (Ft from Current ROW)	18	21	17	15
<b>Parking</b>				
Required Spaces	28	10	40	7
Current Spaces	53	21	62	20
Space Reduction (Per Plan)	0	5	3	6
<b>Site Coverage (Percent)</b>				
Maximum Permitted	30	17	17	30
Actual	23	10	9	11
Per Plan	25	10	9	13
<b>Cost</b>				
Real Property (150% Market)	161,000	37,000	32,000	54,000
ConnDOT Expenses	5,000	5,000	5,000	5,000
Total Cost (Rounded Up)	166,000	42,000	37,000	59,000

## Site 8: Route 68-Yale Avenue (East and West Side) (Strip Takes and Full Take)

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### Route 68 to Yale Avenue Wallingford

#### Partial Taking Cost

Real Property (150% Market)	268,000
ConnDOT Expenses	25,000
Total Cost (Rounded Up)	293,000

#### Full Taking Cost

Residential Relocation	
Business (Other) Relocation	125,000
Real Property (150% Market)	356,400
ConnDOT Expenses)	7,000
Total Cost (Rounded Up)	489,000

**Total Cost (Rounded)** 782,000

## Site 8: Route 68-Yale Avenue (East Side) (Strip Takes)

### Route 68 (Barnes Road)-Yale Avenue Wallingford

Parcel	40	41	42	481	482
<b>Basic Data</b>					
Occupant(s)	Tommy Ks, Wireless Zor T Bow I Lanes, Vacant		Friendlys	Retail	Retail
Tax Map	37	50	51	51	51
Tax Block					
Tax Parcel	25	29	3	3	3
Address	994 North Colony Road	984 North Colony Road	970 North Colony Road	Wallingford Plaza	Wallingford Plaza
Lot (Sq Ft)	103,673	339,332	20,038	542,900	542,900
Floor Area (Sq Ft)	25,058	126,804	6,070	0	0
Land Market Value \$	1,115,600	3,286,800	343,500	0	0
Building Market Value \$	1,405,500	338,200	323,000	0	0
Land Per Sq Foot \$	10.76	9.69	17.14	10.00	10.00
<b>Plan Impact</b>					
Taking (Sq Ft)	5,309	8,333	3,068	5,796	1,787
Taking Length (LF)	251	388	202	447	105
Current Front Yard (Depth) (Ft)	10	0	5	40	40
Front Yard Required (Ft)	50	50	50	50	50
Current Set Back (Ft)	180	48	41	40	40
Taking Width (Ft from Current ROW)	27	22	15	17	17
<b>Parking</b>					
Required Spaces	74	444	30	n/a	n/a
Current Spaces	122	428	111	n/a	n/a
Space Reduction (Per Plan)	11	23	6	0	0
<b>Site Coverage (Percent)</b>					
Maximum Permitted	17	17	17	17	17
Actual	21	27	15	0	0
Per Plan	23	28	18	0	0
<b>Cost</b>					
Real Property (150% Market)	86,000	122,000	79,000	87,000	27,000
ConnDOT Expenses	5,000	5,000	5,000	5,000	5,000
Total Cost (Rounded Up)	91,000	127,000	84,000	92,000	32,000



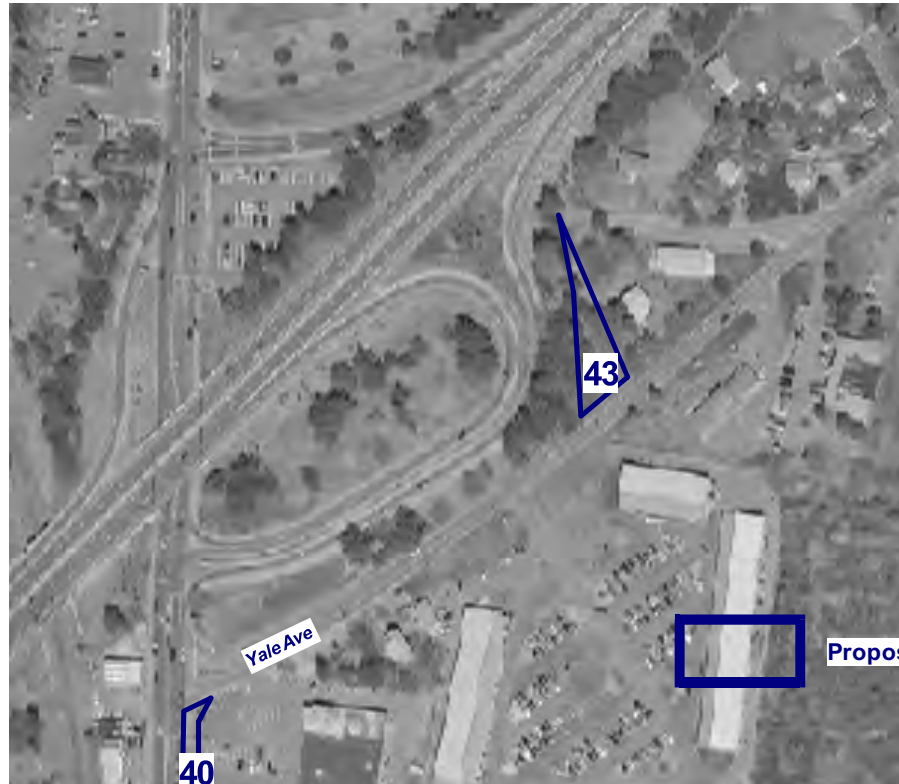
## **Site 8: Route 68-Yale Avenue (West Side) (Full Take)**

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<b>Parcel</b>	<b>17</b>
<b>Basic Data</b>	
Occupant(s)	Papales
Tax Map	57
Tax Block	
Tax Parcel	22
Tax Unit	
Address	991 North Colony Road
Lot (Sq Ft)	14,810
Floor Area (Sq Ft)	756
Linear Feet	
Land Market Value \$	214,800
Building Market Value \$	22,800
Zone	RF40
<b>To Be Relocated</b>	
Households	0
Commerical or Other (Units)	1
<b>Cost</b>	
Residential Relocation	
Homeowner Replacement Housing Supplement (\$20,000/unit)	
Rent Supplement (42 months, \$200/month)	
Moving Expenses	
Business (Other) Relocation	
Reestablishment	75,000
Moving Expenses	50,000
Real Property (150% Market)	356,400
ConnDOT Expenses	7,000
Total Cost (Rounded)	489,000

## Site 9: Yale Avenue (Partial Take)

---



### Cost

Real Property (150% Market)	40,294
ConnDOT Expenses	7,000
Total Cost (Rounded Up)	48,000

Associated with most expensive of several northbound Wilbur Cross Parkway ramp options.

## Site 9: Yale Avenue (Partial Take)

---

### Yale Avenue Wallingford

**Parcel** 43

#### Basic Data

Occupant(s)	Calvary Full Gospel Church & Deacon House
Tax Map	38
Tax Block	
Tax Parcel	14
Address	965 Yale Avenue
Lot (Sq Ft)	57,935
Floor Area (Sq Ft)	4,861
Land Market Value \$	143,700
Building Market Value \$	424,800
Land Per Sq Foot \$	2.48

#### Plan Impact

Taking (Sq Ft)	10,830
Taking Length (LF)	94
Current Front Yard (Depth) (Ft)	54
Front Yard Required (Ft)	50
Current Set Back (Ft)	54
Taking Width (Ft from Current ROW)	irregular

#### Parking

Required Spaces	n/a
Current Spaces	n/a
Space Reduction (Per Plan)	0

#### Site Coverage (Percent)

Maximum Permitted	17
Actual	8
Per Plan	10

#### Cost

Real Property (150% Market)	40,294
ConnDOT Expenses	7,000
Total Cost (Rounded Up)	48,000

## Site 10: Hall Avenue (West Side) (Strip Take)

---



### Hall Avenue (West Side) Meriden

#### Cost

Real Propoerty (150% Market)	6,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	11,000



## Site 10: Hall Avenue (West Side) (Strip Take)

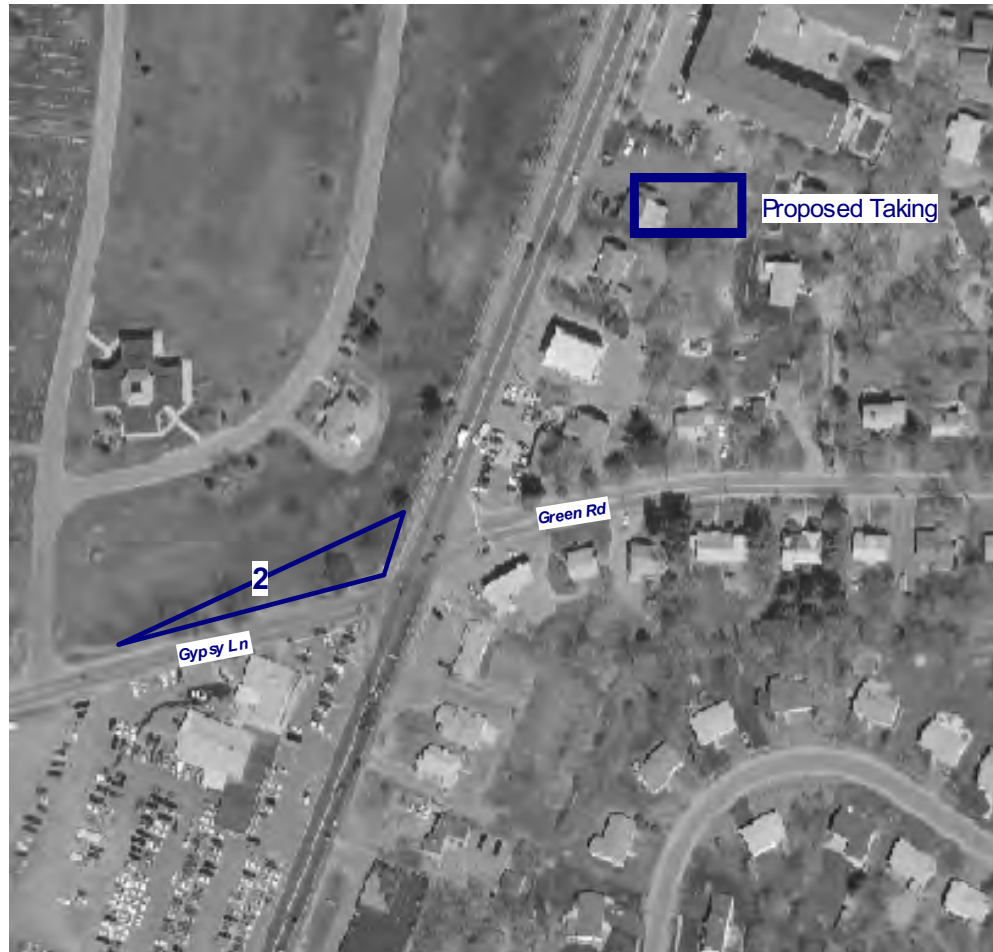
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**Hall Avenue  
Meriden**

<b>Parcel</b>	<b>6</b>
<b>Basic Data</b>	
Occupant(s)	Citgo Gas
Tax Map	230
Tax Block	130
Tax Parcel	147
Address	54 South Broad St
Lot (Sq Ft)	36,719
Floor Area (Sq Ft)	3,600
Land Market Value \$	373,800
Building Market Value \$	405,500
Land Per Sq Foot \$	10.18
<b>Plan Impact</b>	
Taking (Sq Ft)	359
Taking Length (LF)	40
Current Front Yard (Depth) (Ft)	27
Front Yard Required (Ft)	15
Current Set Back (Ft)	73
Taking Width (Ft from Current ROW)	23
<b>Parking</b>	
Required Spaces	7
Current Spaces	9
Space Reduction (Per Plan)	0
<b>Site Coverage (Percent)</b>	
Maximum Permitted	40
Actual	10
Per Plan	10
<b>Cost</b>	
Real Property (150% Market)	6,000
ConnDOT Expenses	5,000
<b>Total Cost (Rounded Up)</b>	<b>11,000</b>

## Site 11: Gypsy Lane-Green Road (Strip Take)

---



### Gypsy Lane-Green Road Meriden

#### Cost

Real Property (150% Market)	14,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	19,000

## Site 11: Gypsy Lane-Green Road (Strip Takes)

---

### Gypsy Lane-Green Road Meriden

#### Parcel

2

#### Basic Data

Occupant(s)	Meriden Catholic Cemeteries
Tax Map	804
Tax Block	135
Tax Parcel	170
Address	250 Gypsy Lane
Lot (Sq Ft)	3,375,464
Floor Area (Sq Ft)	5,680
Land Market Value \$	3,093,900
Building Market Value \$	595,700
Land Per Sq Foot \$	0.92

#### Plan Impact

Taking (Sq Ft)	9,595
Taking Length (LF)	367
Current Front Yard (Depth) (Ft)	159
Front Yard Required (Ft)	15
Current Set Back (Ft)	159
Taking Width (Ft from Current ROW)	57

#### Parking

Required Spaces	n/a
Current Spaces	n/a
Space Reduction (Per Plan)	0
Site Coverage (Percent)	
Maximum Permitted	40
Actual	0
Per Plan	0

#### Cost

Real Property (150% Market)	14,000
ConnDOT Expenses	5,000
Total Cost (Rounded Up)	19,000

## Site 12: Ann Street-Gale Avenue (Full Take)

---



### Cost

Residential Relocation	99,000
Business (Other) Relocation	250,000
Real Property (150% Market)	507,000
ConnDOT Expenses	7,000
Total Cost (Rounded)	863,000

Reflects: (1) residential relocation benefits capped at household level despite likely multiple-occupancy by unrelated persons; (2) Chas Place relocation despite normal bar acceptance of maximum \$20,000 liquidation payment option; and (3) room-based residential relocation cost schedule correlate with multiple occupancy.



## Site 12: Ann Street-Gale Avenue (Full Take)

---

### Parcel

#### Basic Data

Occupant(s)

Retail and Residence

157 Broad St: Chas Place (Bar)  
 163 Broad St: Let's Laundromat  
 165 Broad St: Marisol's Grocery  
 167 (?) Broad St: Sistah, Sistah Hair and Beauty Supplies  
 171 Broad St: Hair Salon  
 9 Apts, Avg 3 persons per unit

Tax Map	221
Tax Block	121
Tax Parcel	77
Tax Unit	79
Address	167 Broad Street
Lot (Sq Ft)	21,920
Floor Area (Sq Ft)	11,670
Land Market Value \$	102,100
Building Market Value \$	235,800
Zone	C3

#### To Be Relocated

Households	9
Commerical or Other (Units)	5

#### Cost

Residential Relocaton	
Homeowner Replacement Housnig Supplement (\$20,000/unit)	0
Rent Supplement (42 months, \$200/month, 9 units)	75,600
Moving Expenses (room based relocation cost, estimated four rooms per unit)	23,400
Business (Other) Relocation	
Reestablishment	50,000
Moving Expenses	200,000
Real Property (150% Market)	507,000
ConnDOT Expenses	7,000
Total Cost (Rounded)	863,000