

NH 125 Plaistow-Kingston Access Management

Plaistow and Kingston,
New Hampshire

Prepared for **New Hampshire Department of Transportation and
Federal Highway Administration**



Prepared by **VHB/Vanasse Hangen Brustlin, Inc.**
Bedford, NH

October 2006

NH 125

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Suite 607
Bedford Farms Drive
Bedford, NH 03110**

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Introduction

There was a time when state agencies and municipalities could design safe and efficient roadway systems with little or no coordination with the local planning agencies and boards who were responsible for land use and development decisions. However, in recent years both state agencies and municipalities have come to recognize that there is a much better way. The better way is through the implementation of access management. Access management balances mobility and access, so as to improve the efficient movement of traffic while enhancing safe and efficient access to and from abutting properties. However, to be effective, access management requires that land use planners and roadway designers work together.

The New Hampshire Department of Transportation (NHDOT), the Town of Plaistow, and the Town of Kingston each recognize that access management is the key to preserving, maintaining, and enhancing the NH 125 corridor and therefore are working collaboratively to implement a long-term access management solution for the corridor. This partnership began with the *Feasibility Study for the NH 125 Corridor in Plaistow and Kingston, New Hampshire*.¹ The study, which was completed in 1999, evaluated the corridor's existing and future transportation needs and developed a comprehensive plan and program of improvements and strategies to meet those needs. A critical element of the recommended long-term plan was the incorporation of corridor access management strategies.

Based on the findings and recommendations of the Feasibility Study, the NHDOT, again working closely with the towns of Plaistow and Kingston, has developed a plan to upgrade NH 125 from the East Road/Joanne Drive intersection in Plaistow to the NH 111 intersection in Kingston. The project consists of the reconstruction and widening of NH 125 from its current two lanes to four travel lanes - two through lanes in each direction with a center median - from East Road in Plaistow to Hunt Road/Newton Junction Road in Kingston. North of Hunt Road/Newton Junction Road, the cross section would transition to a single lane in each direction. A raised center median would separate directional flow throughout the five-lane section with median openings provided to accommodate left-turn movements. Exclusive left-turn lanes, traffic signal control, and full access/egress would be provided at nine major intersections. In recognition of the importance of access management, the NHDOT not only incorporated a series of access management elements into the plan, but also prepared this accompanying NH 125 Access Management Manual.

The purpose of this manual is to provide the towns of Plaistow and Kingston a planning tool that will allow each town to better manage future growth along the NH 125 corridor. The manual describes the various access management elements that have been incorporated into the plan as well as provides a series of land use guidelines that can be adopted by each town and incorporated into their standard land use regulations. Also included are the locations of future connector roadways that can be constructed, in part or in total, by private developers as

development proposals are presented to the respective municipal Planning Boards. Lastly, the manual provides a Memorandum of Understanding, which solidifies the mutual commitment of the NHDOT and the towns of Plaistow and Kingston to access management along this important corridor.

What is Access Management?

"Access management is the systematic control of the location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway."² Along a busy commercial corridor such as NH 125, a well conceived access management plan would improve the efficient movement of traffic while enhancing the safe and efficient access to and from abutting properties. Some specific benefits of access management include:

- Safer and more efficient access to properties,
- Fewer and less severe automobile crashes,
- Fewer auto/pedestrian conflicts,
- Less congestion,
- Reduced travel delays,
- Reduced fuel consumption,
- Increased and preserved traffic capacity,
- Enhanced corridor aesthetics,
- Enhanced community character, and
- Preserved neighborhood integrity.

Through numerous public meetings and workshops, the towns of Kingston and Plaistow and the NHDOT concluded that any upgrade of the NH 125 corridor should incorporate a comprehensive access management plan. The primary elements of the access management plan include: a raised center median, well-spaced traffic signals, connector roadways, jug-handles, directional median openings, emergency vehicle turnarounds and the layout of a controlled access right-of-way (CAROW).

Beyond the specific access management elements that the NHDOT incorporated into the NH 125 roadway design, to be successful, the towns of Kingston and Plaistow need to integrate access management as a long-term planning tool. The purpose of this manual is to provide that tool that will establish a consistent set of guidelines and standards that can be used to guide future development along the corridor.

¹ *Feasibility Study for the NH 125 Corridor in Plaistow and Kingston*; Vanasse Hangen Brustlin, Inc., 1999

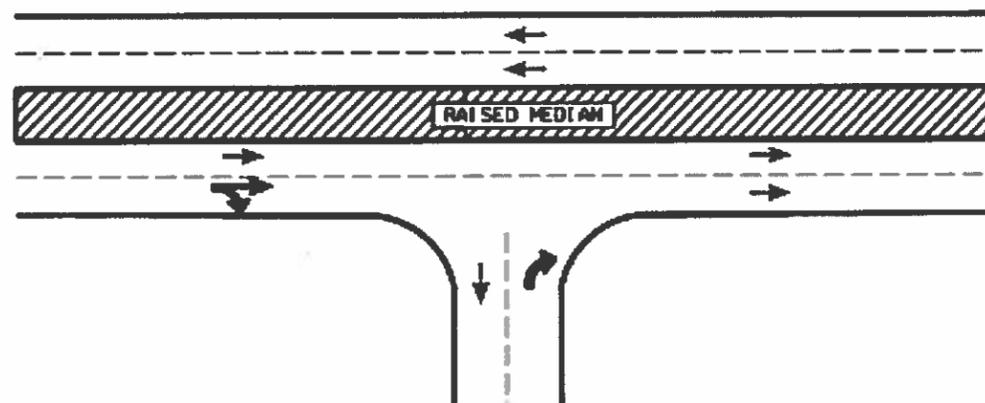
² *Access Management Manual*; Transportation Research Board, Washington, D.C. 2003

Access Management Elements

There are many access management techniques that can be used to improve the efficient movement of traffic while enhancing the safe and efficient access to abutting properties. Some of the specific access management elements that the NHDOT has incorporated into the planned upgrade of the NH 125 corridor are described as follows.

Raised Center Median

A raised center median can be a very effective access management tool because it not only separates directional traffic flow, but more importantly it eliminates uncontrolled left-turn movements. Left-turn movements adversely impact traffic flow and are far more likely to be involved in vehicular crashes than right-turn movements. The placement of a raised center median has the effect of restricting driveway and side street turning movements to right-turn in and right-turn out.



The project will include a raised center median from East Road in Plaistow to the Hunt Road/Newton Junction Road intersection in Kingston. Median openings and exclusive left-turn lanes would be provided at eight signalized intersections along this section of the corridor. A series of directional median openings and emergency vehicle median openings will also be provided throughout. The directional median openings and emergency vehicle turnarounds are described in subsequent paragraphs. To enhance the character of the corridor and to introduce a "traffic calming" element (i.e. reduce travel speeds), the raised center median will be landscaped.

Traffic Signal Spacing and Coordination

With the planned raised center median, most left-turn movements will need to be accommodated at well-spaced traffic signals. The spacing of signalized intersections can have a dramatic influence on the safe and efficient movement of traffic along a corridor. Management of signal spacing includes planning for the frequency of signals, as well as the uniformity of their spacing.

The project will provide six additional signalized intersections (proposed service road opposite the old Drive-In site, Danville Road, and Old County Road in Plaistow; and Kingston Road Extension/Roadstone Drive, Debra Road/Colonial Road, and Hunt Road/Newton Junction Road in Kingston), which will be coordinated where possible. Most of these intersecting side roads will be widened to provide exclusive turning lanes. Three of these intersections (Kingston Road Extension/Roadstone Drive, Debra Road/Colonial Road, and Hunt Road / Newton Junction Road) will be realigned to reduce turning conflicts and create four-way intersections. One of these intersections is a new signalized intersection that would access a proposed service road in Plaistow; opposite the old Drive-In property located approximately 0.4 miles north of the East Road intersection.

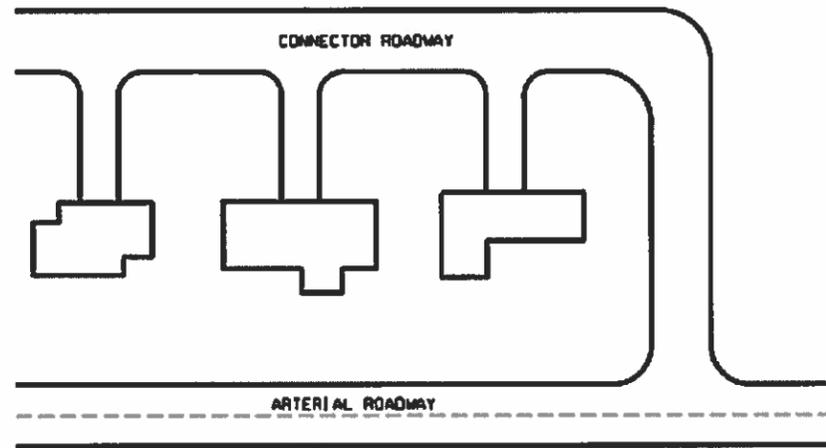
To attain the maximum efficiency from a coordinated traffic signal system, traffic signals should be spaced between one-quarter mile and one-half a mile apart. Along the undeveloped and developing sections of the highway, development should be carefully planned so as to minimize the need for additional signals, and to ensure that minimum spacing standards are maintained. Large developments should be required to submit traffic impact analyses to determine the need for and location of new traffic signals, among other issues.

Connector Roadways

Having established the locations of the signalized intersections, which given the placement of the center raised median will serve to accommodate most of the corridor's left-turn movements, connector roadways can be used to provide numerous properties access to the signalized intersections. The NHDOT, as part of the NH 125 project, will be constructing two connector roadways.

The first of these connector roadways will be located on the east side of NH 125 in Plaistow. The new roadway will extend from the Auto Exchange northward to Old Road and will parallel NH 125 providing connections to the rear of several existing businesses. The existing driveway that runs between the Village Curtain Shops and John Deere, located approximately 0.4 miles north of the East Road intersection, will be widened to accommodate separate turn lanes at the intersection. A traffic signal would be installed at its intersection with NH 125.

The second of these connector roadways is the extension of Kingston Road northerly along the east side of NH 125 in Kingston such that the extended roadway would intersect NH 125 at a new signalized intersection opposite Roadstone Drive. The new connector roadway layout follows a portion of existing Granite Road to minimize impacts to a steep hill to the east. Kingston Road extension will be widened at the intersection to provide separate turn lanes. The connector roadway would provide access to the numerous existing businesses and properties along its length.



In addition to the two connector roadways that are to be constructed by the NHDOT, this report identifies a series of other future connector roadways. It is presumed that in most cases, the roads will be constructed with private funds and in a “piecemeal” fashion as part of the on-site and off-site improvements that each community may require in the approval process. There may be some roadways that serve the public need, and to that extent warrant the expenditure of public funds for implementation.

The locations of future connector roadways, which are depicted in the purple color on the figures provided at the end of the report, include the following:

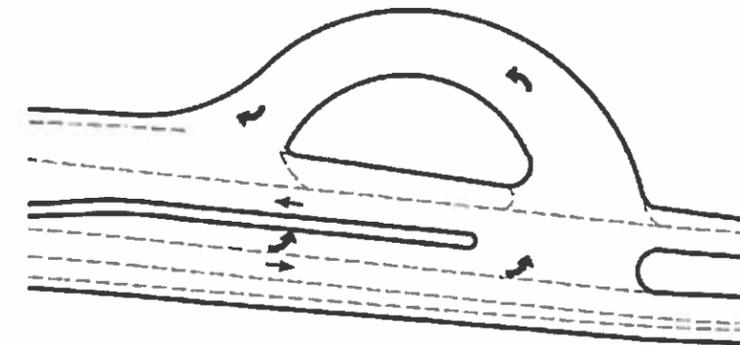
- The former Drive-In site located on the west side of NH 125 opposite the east side connector roadway that is being constructed by the NHDOT in Plaistow. Access to the parcels on the west side would be provided at the new signalized intersection.
- The properties on the west side of NH 125 to the rear of Dorre Road and Roadstone Drive in Kingston. Access to these parcels would be provided at the new traffic signal at Roadstone Drive/Kingston Road Extension intersection.
- On the east side of NH 125 north of the Kingston Road Extension intersection in Kingston. Access would be provided at the new traffic signal at the Roadstone Drive/Kingston Road Extension intersection.

- On the east side of NH 125 north of Happy Hollow Lane extending northward to Landscapers Depot in Kingston. Access to these properties would be provided at the new realigned and signalized intersection of Debra Road and Colonial Road.
- On the east side of NH 125 north of Folly Brook Terrace extending northward to intersect NH 125 opposite NH 111. Access to these properties would be provided at the signalized intersection with NH 111.

Jug-handles

The use of jug-handles can be an effective access management tool to allow vehicles, particularly trucks, to safely reverse direction in areas where raised medians are provided. Three jug-handles are proposed to be constructed for trucks to reverse direction along the NH 125 corridor. Jug-handles would be located in the northeast quadrant of the NH 125/Joanne Drive intersection, on the east side of NH 125 opposite Walton Road, and on the west side of NH 125 just north of the Hunt Road/Newton Junction Road intersection.

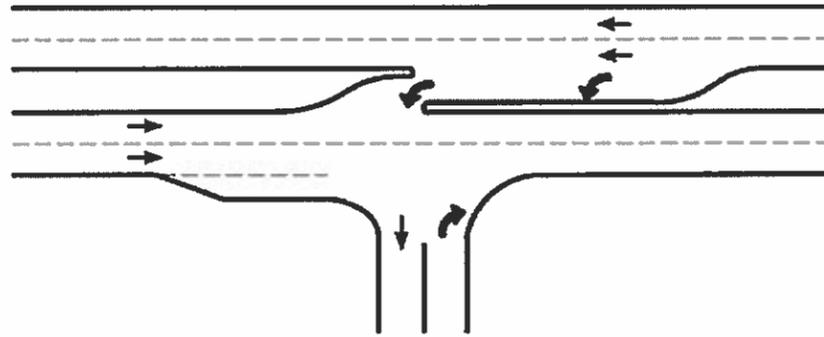
Slip lanes will be provided at two signalized intersections to provide additional opportunities for large trucks to reverse direction. These slip lanes will be located in the southeast quadrant of the NH 125/Kingston Road Extension intersection and the northwest quadrant of the NH 125/Debra Road intersection.



Directional Median Openings

Despite the traffic operational and safety benefits of a raised center median, commercial business owners often express concern with their use because raised medians can inhibit direct customer access to businesses. To provide good access into commercial driveways or side streets while still restricting the more problematic left-turn movement onto the main roadway, some communities are now using directional median openings. Directional median openings allow motorists to turn left from the corridor onto a particular side street or driveway while prohibiting left-turn movements onto the corridor.

Nine directional median openings will be constructed along NH 125 between NH 121A in Plaistow and the Hunt Road / Newton Junction Road intersection in Kingston. These median openings will allow left turns to enter selected driveways or side roads, but will not allow left turns to exit these locations.



Municipal Land Use Regulations and Access Management

Overview

While communities are becoming increasingly concerned about the effects of development on community character, quality of life and the costs of providing services (transportation), conventional regulatory practices have only perpetuated these land development problems. The clearest evidence of this trend is the cycle of functional obsolescence created by strip commercial developments along major arterials such as NH 125. Clearly, the practice of strip zoning major corridors has been widespread. Ease of accessibility and expedience are the primary reasons for such zoning. The extension of utilities along highway rights of way further promotes this pattern of development, and commercial developers favor these locations because of the low development costs and ready supply of customers.

As this form of development intensifies, the growing number of curb cuts (driveways) and resultant turning movements will conflict with the intended function of arterials - to move people and goods safely, quickly and efficiently. Unlike downtown centers, commercial strips are rarely designed for pedestrians or transit, and due to the linear development pattern, pedestrian amenities are largely unsuccessful.

The result of strip development is reduced level of service of the arterial which is typically remedied by adding lanes and other expensive retrofitting measures to try to maintain the capacity of the corridor for regional traffic. Heavy traffic coupled with undesirable traffic control measures often cause businesses to relocate from the corridor, increasing vacancies and lowering property values. The initial costs borne by the developers of strip commercial corridors are low, yet the long-term public costs to remedy the effect of development on the corridor are substantial.

This cycle and pattern of development is widespread, but not inevitable; it directly relates to the lack of adequate regulatory and access controls and inherent deficiencies in current planning and regulatory practice.

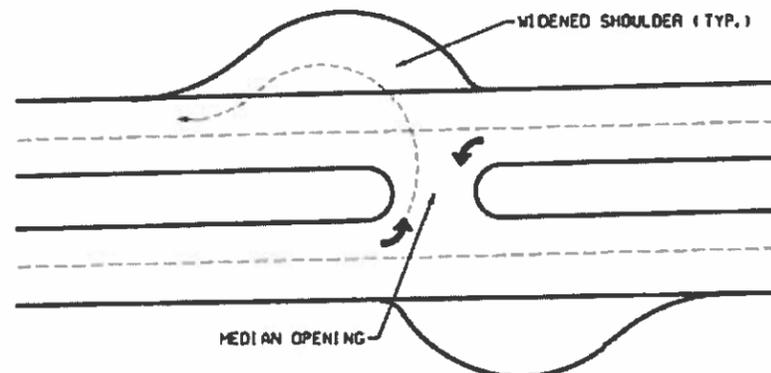
The following sections examine regulatory techniques that support multiple aspects of access management.

General Land Use Recommendations

Future land use along the NH 125 corridor within Plaistow and Kingston must be considered in the context of the overall master planning in these communities. In general, both communities consider some future development along NH 125 to be important to their

Emergency Vehicle Turnarounds

To provide opportunities for emergency vehicles to reverse direction, four median openings with widened shoulders will be constructed along NH 125 between Old County Road in Plaistow and the Hunt Road/Newton Junction Road intersection in Kingston. These emergency vehicle breaks in the median, in addition to the signalized intersections and other median breaks would provide ample opportunity for emergency vehicles to reverse direction along this two-mile segment of NH 125. A widened shoulder would also be provided at the NH 125/Old County Road and NH 125/Roadstone Drive intersections to permit emergency vehicles to reverse direction at signalized intersections.



economic development and diversification of tax base. Future land use policy however can and should be designed to minimize traffic impacts on the corridor. In this context, the following general land use recommendations are proposed:

- Plaistow should increase building setback requirements for new development and redevelopment along the corridor to at least 100 feet from the NH 125 centerline.
- Kingston should consider adopting multi-tiered zoning districts along NH 125 to affect greater control over the type and intensity of uses allowed.
- Both communities should, to the extent practical, encourage future development to be located in centers or nodes and in planned developments. Conversely, the towns should discourage linear strip development between major development nodes. To facilitate nodal development the towns should encourage the development of service roads to access land behind the first tier of roadside development, and to consolidate and perhaps eliminate existing driveways on NH 125.

The Regulatory Aspects of Strip Development

No state agency has the authority to prevent strip development, or to prohibit access to land abutting state highways. The NHDOT has jurisdiction over access to state highways, but its authority is limited. NHRSA Chapter 236 regulates driveways and other accesses to state highways including the permitting process, sight distance, the number of permitted driveways, drainage, and maximum geometric standards for commercial and residential driveways. However, the NHDOT cannot prevent strip development. Driveway permits issued by the NHDOT do not override local regulatory requirements.

Absent state regulation of strip development, only local government can control development along state highways. Local governments have the authority to prepare and adopt Master Plans and Zoning Ordinances to guide development patterns and limit or prohibit strip development. Additionally, through proper and appropriate Subdivision and Site Plan Review Regulations, local governments can enact access management controls to regulate the placement and design of driveways.

Land Use Guidelines

The access management tools contained in this report are both preventative (i.e. designed to be implemented prior to the development of NH 125), and restorative (i.e. designed to increase the efficiency of existing points of access). The tools contained herein may be inserted via

amendment into Plaistow's and Kingston's existing regulatory scheme, including zoning, site plan review, and subdivision regulations.

STANDARDS

Zoning

SETBACKS. Adequate setbacks should be required to allow for flexibility in locating driveways, future frontage road construction, adequate driveway throat length, and to accommodate future right-of-way and/or roadway widening including the addition/extension of sidewalks or bicycle paths/shoulders. The NH 125 ROW varies in width; it is therefore suggested that setbacks be measured from the centerline of the highway. It is recommended that building setbacks be no less than 100'. Additionally, undeveloped front yards should be required to be no less than 40' in width (larger where ROW is narrower).

FRONTAGE. Increasing minimum frontage requirements effectively reduces the potential number of access points onto NH 125. It is recommended that 250 feet be the minimum frontage requirement for lots within zoning districts where the minimum lot size is less than or equal to 1 acre. Lots in districts requiring larger minimum lot sizes should be required to have a minimum frontage of 400'.

DRIVEWAY TURNAROUND AREAS. This regulatory requirement may be added to a Zoning Ordinance, although it may also be adopted as a Selectmen's Ordinance, as it will be largely applied to private residential driveways. A driveway turn-around would eliminate the necessity to back onto NH 125, reducing the potential for collision.

SIGNS. While sign regulation is not typically a component of an access management regulatory scheme, two very specific tools are offered for consideration. Off-premise signs, not limited to billboards, create visual confusion, which in turn can have the potential of creating traffic hazards. It is recommended that along the NH 125 corridor, off-premise signs not be permitted. Freestanding signs should be sufficiently regulated so that they provide adequate information without causing confusion for the traveling public. Specific setback requirements must be based upon several factors, including the posted speed of the road, building setback requirements, dimensional standards for size including area and height, and lighting method.

ACCESS MANAGEMENT OVERLAY DISTRICT. The use of overlay districts as a method for managing access along commercial corridors is rapidly increasing across the United States and will likely become a useful planning tool in New Hampshire. The tool is used to overlay a special set of requirements onto an existing District, while retaining the underlying zoning and its associated requirements. Language that specifies standards for the Access Management Overlay District is integrated into the Zoning Ordinance while corridors (overlays) are designated on the zoning map. Overlay District requirements may address a myriad of access

management issues including joint access, interconnecting driveways, driveway spacing, as well as limitation on new driveways.

MIXED-USE ZONING. For the purposes of this report, mixed-use zoning means allowing a broad and diverse range of land uses both within established districts, and throughout the town. The purpose of creating a broad mixture of uses is to reduce the number of vehicle-trips necessary for work, shopping, recreation and other purposes, all of which contribute to reduced levels of service. Many communities are identified as, and have made concerted efforts to become residential bedroom communities. The residents of these communities, because employment and other opportunities are scarce or non-existent, must travel out of town to meet their needs. Similarly, allowing mixed land uses within zoning districts can have the same effect of reducing the number of trips generated, at least within the district.

Site Plan and Subdivision Review

MINIMUM DISTANCE BETWEEN DRIVEWAYS. The minimum distance between driveways on the same or opposing side of NH 125, including all road intersections shall be measured from the centerline of the driveways at the right-of-way line and shall be a function of the posted speed in accordance with the following table:

MINIMUM DISTANCE BETWEEN DRIVEWAYS

Highway Speed	Minimum Spacing
35	150'
40	185'
45	230'
50	275'

SOURCE: "Access Management for Streets and Highways," Federal Highway Administration, 1982

The centerlines of all new driveways should be aligned with driveways, and road intersections on the opposing side of NH 125, if they exist. If such an alignment is not feasible, the driveways shall be offset in accordance with the above minimum spacing criterion.

DRIVEWAY WIDTH. Commercial driveways shall not exceed 36 feet in width, measured perpendicular to the driveway at its narrowest point. The driveway shall be flared at the property line with minimum radii of 25 feet. All driveway entrances (regardless of the presence of curbing on NH 125) shall be curbed from NH 125 to at least the end of the radii at the driveway throat.

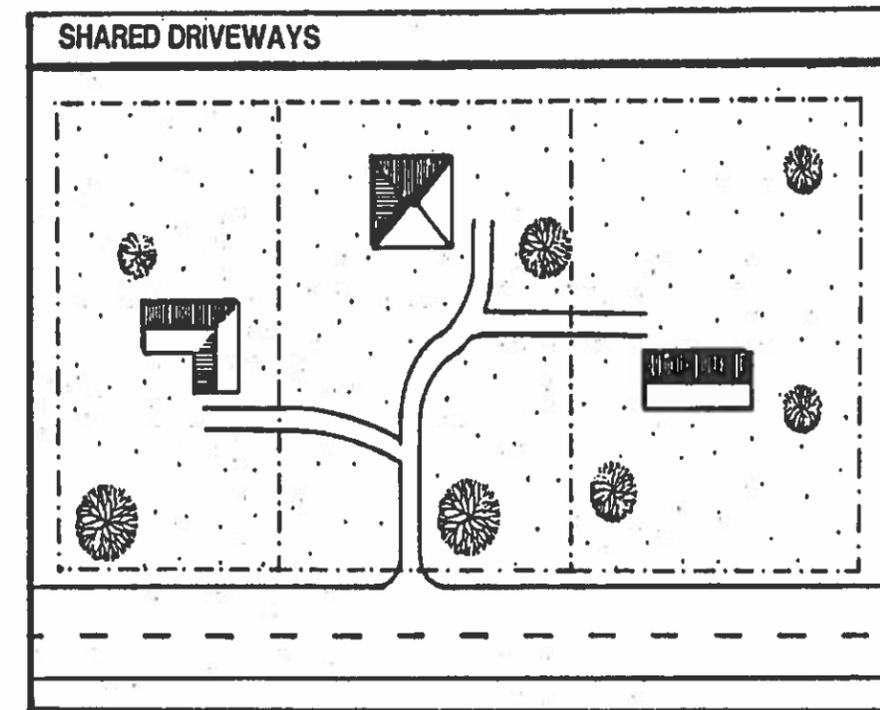
MAXIMUM NUMBER OF DRIVEWAYS PER LOT. Lots which have frontage only on NH 125 shall be allowed a single driveway, except that two, one-way driveways may be substituted for a

singular full access driveway, provided that the minimum required distance between driveways can be met.

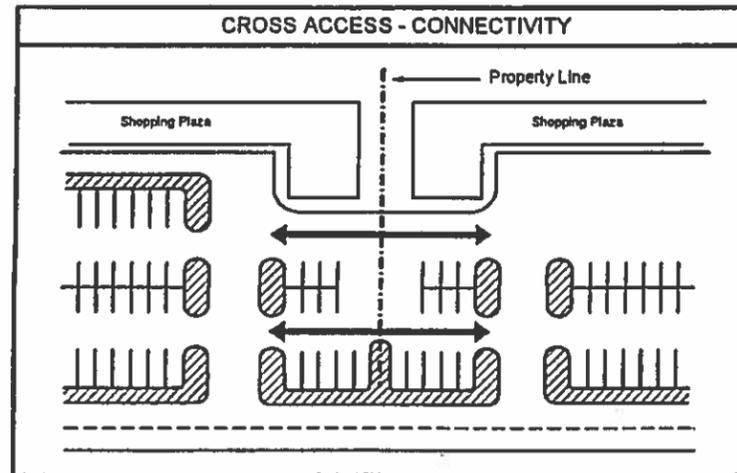
SHARED DRIVEWAYS. In order to minimize the number of driveways along NH 125, shared driveways shall be encouraged for adjacent sites. The following (OPTIONAL) dimensional requirements may be reduced if shared driveways are provided as follows:

- The minimum lot size and the minimum road frontage shall be reduced by a total of 10% if the entire site is accessed by a single shared driveway with an adjacent site.
- The minimum lot size and the minimum road frontage shall be reduced by a total of 20% if the entire site is accessed by a single shared driveway with an adjacent site on a highway other than NH 125, and which is appropriately zoned for the use.

This Site Plan Review Regulation would necessitate an amendment to the relevant section of the Zoning Ordinance.



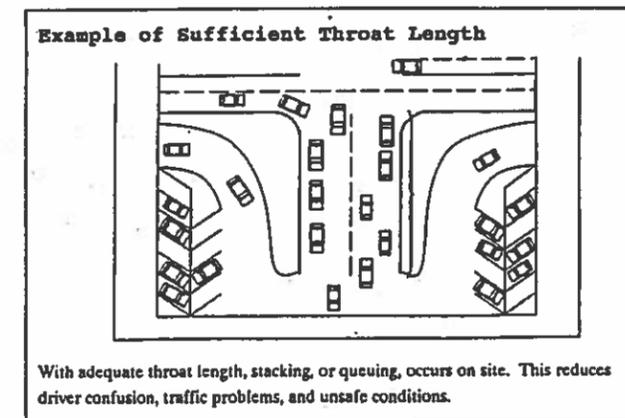
INTERCONNECTING DRIVEWAYS. All projects subject to Site Plan Review shall provide interconnecting driveways or easements for future construction of driveways that will provide and promote vehicular and pedestrian access between adjacent lots, without accessing NH 125 to all property lines, and shall be designed to provide safe and controlled access to adjacent developments where they exist. Every effort should be made by the Planning Board to require construction of these driveways in anticipation of future developments.



ACCESS TO LOTS WITH MULTIPLE FRONTAGES. Lots with frontage on both NH 125 and an adjacent or intersecting road shall not be permitted to access NH 125, except where it can be demonstrated that other potential access points would cause greater environmental or traffic impacts.

ADEQUATE ON-SITE CIRCULATION AND STORAGE. Adequate number of parking spaces, aisle widths, raised medians, and tractor-trailer access, promotes safe and efficient movement into and out of the site.

DRIVEWAY (THROAT) LENGTH. The minimum length of a driveway shall be of adequate length to accommodate the queuing of the maximum number of vehicles, as defined by the peak period of operation identified in a traffic study. The driveway shall be designed to accommodate the free flow of traffic onto the site so as to minimize the chance of vehicles backing onto NH 125.



LANDSCAPING, BUFFERING. Landscaping and buffering are especially important along road frontages, and within parking lots. Adequate buffers and properly designed landscaping assists in the identification of driveway entrances and necessary signage, in addition to controlling light diffusion onto abutting properties. Landscaping located within raised medians separating aisles of parking spaces controls internal lot circulation and establishes safe and efficient traffic patterns.

CORNER CLEARANCES. Lots with frontage on NH 125 and an adjacent or intersecting road, which, due to environmental or traffic impacts, can not access the adjacent or intersecting streets shall comply with the following standards:

Minimum Standards for Corner Clearance		
Distance	Signalized Intersection - feet	Stop Sign Controlled Intersection - Feet
A	230	115
B	115	115
C	230	85
D	230	115

The above dimensions assume a 30 mph operating speed. For rural and other high speed roads, clearances shall be two times as great as the numbers shown.

Source: "Transportation and Land Development," Institute of Transportation Engineers, 1988.

Master Plan

INTRODUCTION. Access management is an important component in the overall planning for the future of a community. It is a tool that can be used to better facilitate the movement of people, goods and services within and through communities. Ideally, access management should be developed as a product of the Master Plan. Proper access management standards are best implemented after a community has determined:

- **Land Patterns.** Where development should be encouraged and where it should be limited. Of paramount importance, future land use decisions will likely have more of an impact on traffic conditions than access management alone in reducing future traffic problems on arterial highways;
- **Traffic Flow.** The extent to which arterial traffic volumes have increased in recent years and are likely to increase in the future; and
- **Plan's Relationship to Access Management.** How the community's transportation and land use policies can be enhanced by sensible access management standards.

PURPOSE OF THE MASTER PLAN. A local Master Plan is an important policy document that establishes the desired future pattern of development. There are a number of ways in which the Master Plan can address access management issues and establish a basis for an effective access management program.

GOALS AND POLICIES. The goals and policies established in the Master Plan can directly address strip development by making recommendations such as:

- Designate compact growth areas and limit the amount of development that can occur along less developed/rural arterials;
- Prohibit strip development along NH 125 (and other arterials where appropriate), including a proliferation of single lot development;
- Include standards in the Site Plan Review and Subdivision Regulations to ensure that development along NH 125 does not significantly reduce traffic safety and increase traffic congestion;
- Require traffic impact analyses for all Site Plan Review and Subdivision applications exceeding a certain threshold;
- Address alternative modes of transportation such as bicycles, buses and trains. Transportation Demand Management (TDM) options such as vanpools, carpools, as well as the provision of bicycle lanes, pedestrian amenities and bus stops may also be included.

FUTURE LAND USE PLAN/MAP. The town's future land use plan/map should include recommended zoning districts that direct growth away from NH 125, where possible. Land

abutting NH 125 may be down-zoned while more appropriate growth areas are rezoned to allow for a denser pattern of development.

Frontage/Service Road Provisions

The NH 125 Access Management Plan is an advisory tool of sufficient detail (parcel specific) which delineates present and future connections; joint accesses; intersections, including present and future plans signalization; and frontage/service roads. The purpose of the Plan is to provide for the orderly development/redevelopment of the corridor in compliance with the access management standards adopted by each town. Prospective developers of properties along the corridor should be required to incorporate and construct the appropriate components of the Plan into their development plans.

The planning and development for future frontage/service roads involves the adoption and coordination of several of the tools presented in this report. The intended difference in the meaning of frontage and service roads merely relates to the physical location of the road. Frontage roads are roads that run parallel to the arterial, providing access to those businesses that now front on this road, instead of directly accessing the arterial while service roads are generally located further from the arterial. The proper development of frontage/service roads will require coordination with the following:

- Establish the need for an Access Management through the Transportation and Land Use Chapters of the Master Plan.
- Prohibit direct arterial access through the Access Management Plan.
- Require ample front setbacks, free of structures and parking lots through the Zoning Ordinance.
- Identify NH 125 as an Overlay District through the Zoning Ordinance.
- Provide Allowances for constructing front services roads in the applicable buffer areas through Site Plan Regulations.

Memorandum of Understanding

The following is a sample Memorandum of Understanding, which describes the purpose, understanding and joint responsibility of the NHDOT and the Towns of Plaistow and Kingston.

**MEMORANDUM OF UNDERSTANDING
FOR
COORDINATING HIGHWAY ACCESS MANAGEMENT**

BETWEEN

**NEW HAMPSHIRE, DEPARTMENT OF TRANSPORTATION
AND
THE TOWN OF _____**

This Memorandum of Understanding is made between the State of New Hampshire, Department of Transportation (hereinafter referred to as "DEPARTMENT") and the Town of _____ (hereinafter referred to as "TOWN" and entered into on _____.

The Parties to this Understanding witness that:

WHEREAS, the DEPARTMENT has the statutory responsibility and permitting authority, under RSA 236, to issue driveway access permits on state highways; and

WHEREAS, the TOWN, has the *statutory authority, pursuant to RSA 237:13, V, for highways under their jurisdiction to issue driveway and access permits, where the Planning Board regulates the subdivision of land under RSA 674:34; additionally under RSA 674, the Town may regulate the use and site development of property adjoining the highway;* and

WHEREAS, the DEPARTMENT and the TOWN mutually recognize the continuing necessity to plan and coordinate future land use and access to highways, in order to preserve highway capacity and public safety, and;

WHEREAS the DEPARTMENT and the TOWN mutually recognize and agree that the preserving the safety and maximizing the capacity of state highways is in the public interest,

THEREFORE, BE IT RESOLVED, that the following provisions of this Memorandum of Understanding are agreeable to all parties;

Article I: Statement of Purpose

The DEPARTMENT and Town enter into this Understanding to improve access management of state highways within its boundaries. For the purposes of this Understanding, access management shall include coordination in the planning, design, control, and determination of access points to facilities, and in the issuance of driveway access permits.

Article II: Scope of Understanding:

The provisions of this Understanding shall apply to all state highways or segments of state highways located within the Town as identified in Town access management plan and agreed upon by the Town and the Department (List as follows:)

Article III: Joint Responsibilities

1. It shall be the joint responsibilities of the DEPARTMENT and the TOWN to develop and adopt agreed upon procedures for the coordination between site plan approvals and driveway access permits.
2. The TOWN and the DEPARTMENT may establish an Access Management Technical Guidance Committee for the purpose of coordinating the concurrent review of site plans and driveway access permit applications to ensure their conformance with state and local access management plans and/or standards.

Article IV: Responsibilities of the TOWN

1. Access management standards developed, adopted, and/or enforced by a Town shall not conflict with best practices for access management where a state highway is involved. These standards may take the form of zoning ordinances, site plan review, subdivision regulations and requirements, roadway construction standards, or a combination of these, and shall be applied to all future development and redevelopment of land accessing state highways. Such standards shall be developed in consultation with the DEPARTMENT and Regional Planning Commissions. Copies of all such standards, and subsequent amendments thereto, shall be provided to the DEPARTMENT to be kept on file at the Central and District Offices.
2. Where appropriate and necessary as determined by the Town, the Town may develop, in cooperation or consultation with the DEPARTMENT, adopt, and amend site or parcel-specific access management plans for specific highway corridors or segments. Such plans shall define the number, as well as, general location and design of future access locations to be permitted on specific parcels or sites. The Plans, and any subsequent amendments thereto, shall be forwarded to the DEPARTMENT to be kept on file at the Central and District Offices. The number, location, and design of access points shall be consistent with the Department's "Policy for the Permitting of Driveways and Other Accesses to the State Highway System".

3. In the event that waivers or variances to the adopted access management standards or plans are proposed, the Town shall inform the DEPARTMENT of such waivers or variances prior to local approval of the plans. Notice will be made prior to the issuance of the local approval and with sufficient time to allow for comment from and consultation with the DEPARTMENT.
4. The Town shall notify the DEPARTMENT District Engineer upon receipt of any development proposal or change of use that will require a state driveway access permit and solicit input regarding access design.
5. The Town shall require that driveway access(es), including type, design, number, and location, be permitted only in accordance with its adopted access management standards and any applicable site-specific access plans.
6. The Town shall coordinate and cooperate with the Department throughout the development/driveway permitting process (including approval of access development), as described in the procedures set forth in Article III Section 1.

Article V: Responsibilities of the DEPARTMENT

1. The DEPARTMENT's Design Bureaus and District Engineer will provide information, technical assistance, and advice to the TOWN in the development of local access management standards and site or parcel level access management plans.
2. The DEPARTMENT District Engineer shall notify the TOWN designee upon receipt of any application for driveway access permits and scheduled scoping meetings by transmitting a copy of such application or meeting notice, along with a request for comments. On Department sponsored projects, the Department's Project Manager will bear the responsibility to notify the TOWN of the Department's intentions.
3. The DEPARTMENT District Engineer shall coordinate and cooperate with the municipality throughout the development/driveway permitting process (including issuance of drive permits), as described in the procedures set forth in Article III Section 1.

Article VI: Effective Date and Amendments to Memorandum of Understanding

1. This Understanding shall become effective upon execution by the DEPARTMENT and the TOWN and shall remain in force until terminated under provisions of Article VII, or until superseded by a new Understanding.
2. This Understanding may be amended from as facts or circumstances warrant or as may be required by state or federal laws, administrative regulations, or other orders or guidelines having the full force and effect of law.

Article VII: Termination of Understanding

The DEPARTMENT or TOWN may terminate this Understanding by giving ninety (90) day written notice of such termination to the other party.

IN WITNESS WHEREOF, the parties have hereto caused this Understanding to be executed by their proper officers and representatives.

FOR THE TOWN OF _____:

Planning Board

by _____ Date _____
Chair

Board of Selectmen

by _____ Date _____
Chair

FOR STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION:

by _____ Date _____
District Engineer

by _____ Date _____
Commissioner

Legend:

-  Travel Way of Proposed Roadway
 -  Shoulder of Proposed Roadway
 -  Proposed Roadway Traffic Median
 -  Proposed Sidewalk
 -  Access Points to Proposed Roadway
 -  Approximate Limit of Slope Work
 -  Conceptual Future Connector Roads - By Others
 -  Proposed Driveway Connections (Locations to be Determined)
 -  Prop Driveway Connections - By Others
 -  Existing Pavement
 -  Existing Tree and/or Brush Line
 -  Water (Stream, Rivers, Ponds etc.)
 -  Buildings
 -  Buildings To Be Removed
 -  Wetlands
 -  State, County, City and Town Lines
 -  Floodplain
 -  Floodway
 -  Existing Easement Lines
 -  Proposed Easement Lines
 -  Existing R.O.W. (Right-of-Way)
 -  Proposed R.O.W.
 -  Existing C.A.R.O.W. (Controlled Access)
 -  Proposed C.A.R.O.W.
 -  Existing L.A.R.O.W. (Limited Access)
 -  Proposed L.A.R.O.W.
 -  Historic District
 -  Historic Parcel
 -  Existing Signal
 -  Proposed Signal
- 




Vanasse Hangen Brustlin, Inc.

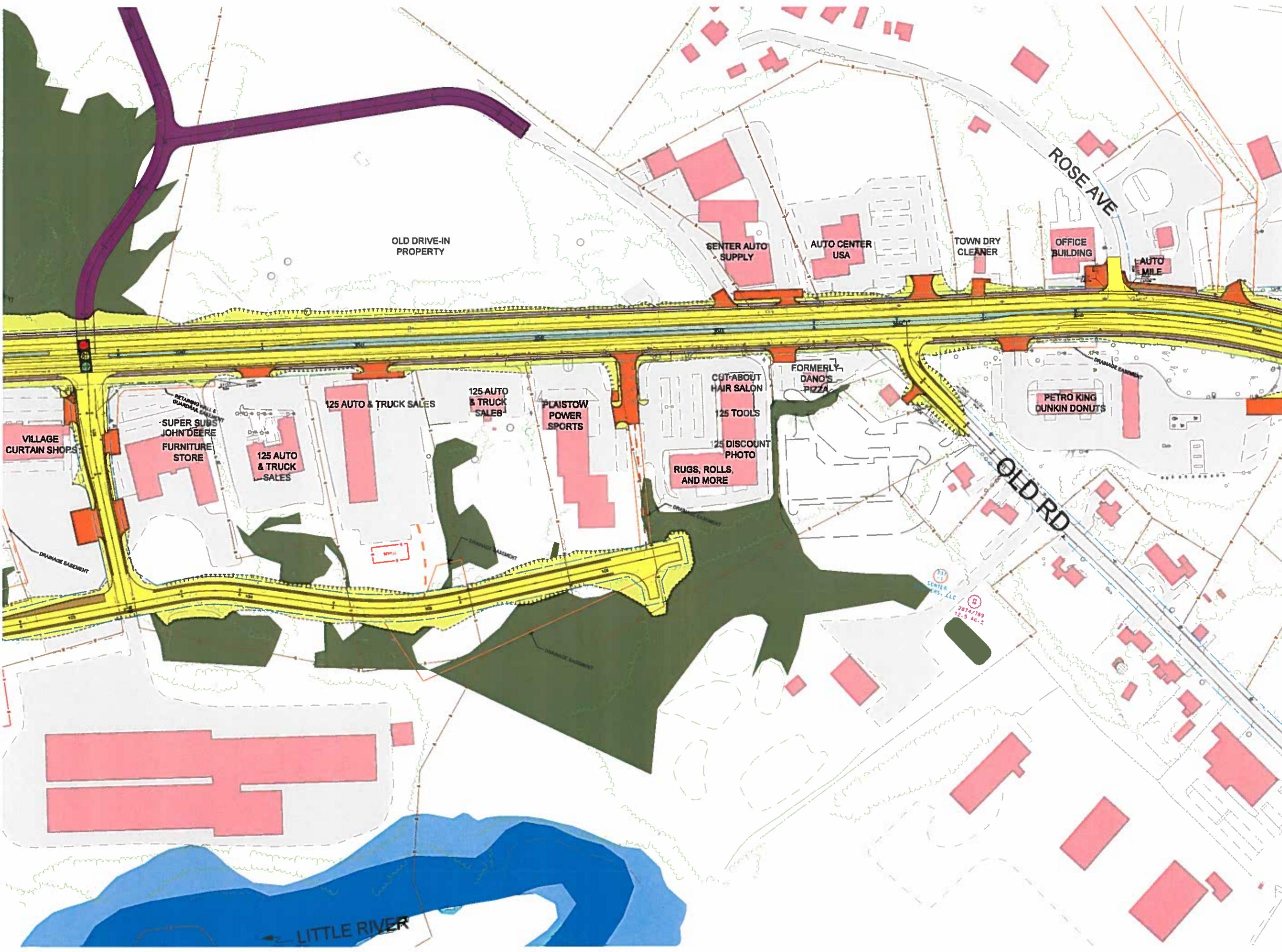
Figure 1
NH 125
Access Management Plan
Station 2033 - Station 2039

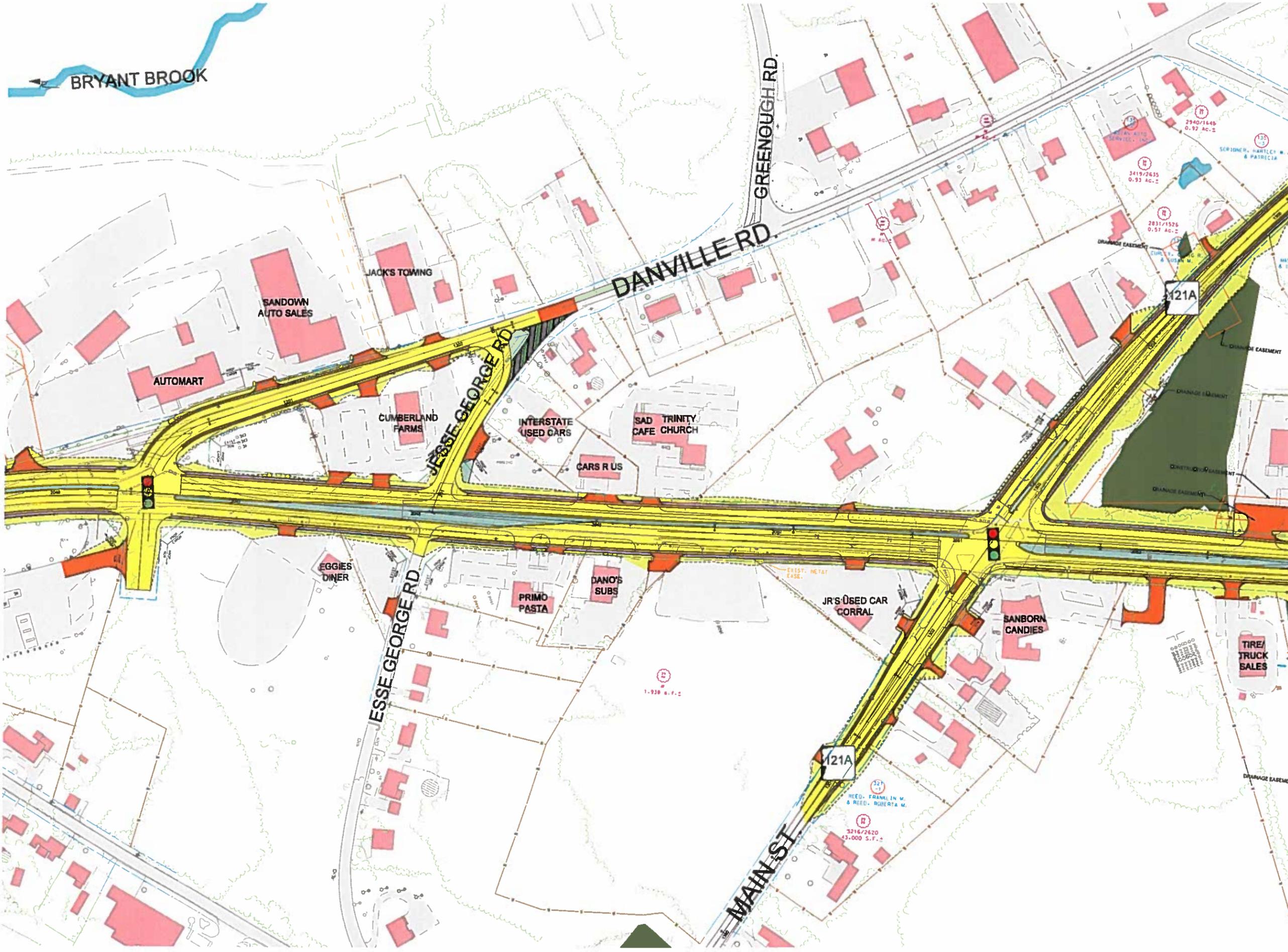
Legend:

- Travel Way of Proposed Roadway
- Shoulder of Proposed Roadway
- Proposed Roadway Traffic Median
- Proposed Sidewalk
- Access Points to Proposed Roadway
- Approximate Limit of Slope Work
- Conceptual Future Connector Roads - By Others
- Proposed Driveway Connections (Locations to be Determined)
- Prop Driveway Connections - By Others
- Existing Pavement
- Existing Tree and/or Brush Line
- Water (Stream, Rivers, Ponds etc.)
- Buildings
- Buildings To Be Removed
- Wetlands
- State, County, City and Town Lines
- Floodplain
- Floodway
- Existing Easement Lines
- Proposed Easement Lines
- Existing R.O.W. (Right-of-Way)
- Proposed R.O.W.
- Existing C.A.R.O.W. (Controlled Access)
- Proposed C.A.R.O.W.
- Existing L.A.R.O.W. (Limited Access)
- Proposed L.A.R.O.W.
- Historic District
- Historic Parcel
- Existing Signal
- Proposed Signal

Vanasse Hangen Brustlin, Inc.

Figure 2
NH 125
Access Management Plan
Station 2040 - Station 2046





Legend:

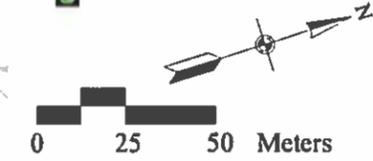
- Travel Way of Proposed Roadway
- Shoulder of Proposed Roadway
- Proposed Roadway Traffic Median
- Proposed Sidewalk
- Access Points to Proposed Roadway
- Approximate Limit of Slope Work
- Conceptual Future Connector Roads - By Others
- Proposed Driveway Connections (Locations to be Determined)
- Prop Driveway Connections - By Others
- Existing Pavement
- Existing Tree and/or Brush Line
- Water (Stream, Rivers, Ponds etc.)
- Buildings
- Buildings To Be Removed
- Wetlands
- State, County, City and Town Lines
- Floodplain
- Floodway
- Existing Easement Lines
- Proposed Easement Lines
- Existing R.O.W. (Right-of-Way)
- Proposed R.O.W.
- Existing C.A.R.O.W. (Controlled Access)
- Proposed C.A.R.O.W.
- Existing L.A.R.O.W. (Limited Access)
- Proposed L.A.R.O.W.
- Historic District
- H Historic Parcel
- Existing Signal
- Proposed Signal

Vanasse Hangen Brustlin, Inc.

Figure 3
NH 125
Access Management Plan
Station 2046 - Station 2052

Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



Vanasse Hangen Brustlin, Inc.

Figure 4
NH 125
Access Management Plan
Station 2053 - Station 2060



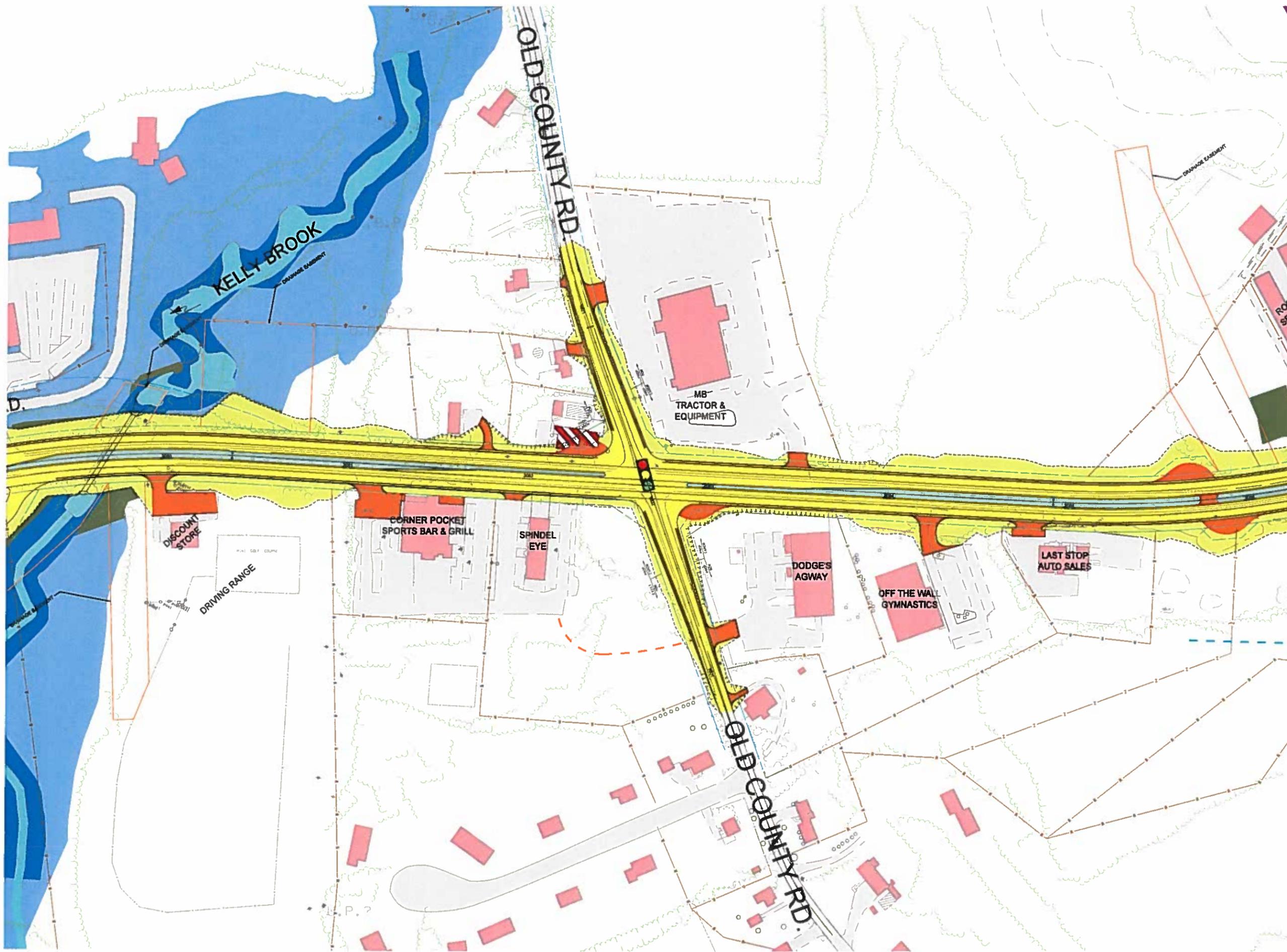
Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



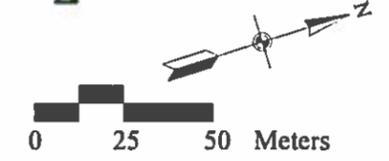
Vanasse Hangen Brustlin, Inc.

Figure 5
NH 125
Access Management Plan
Station 2060 - Station 2066



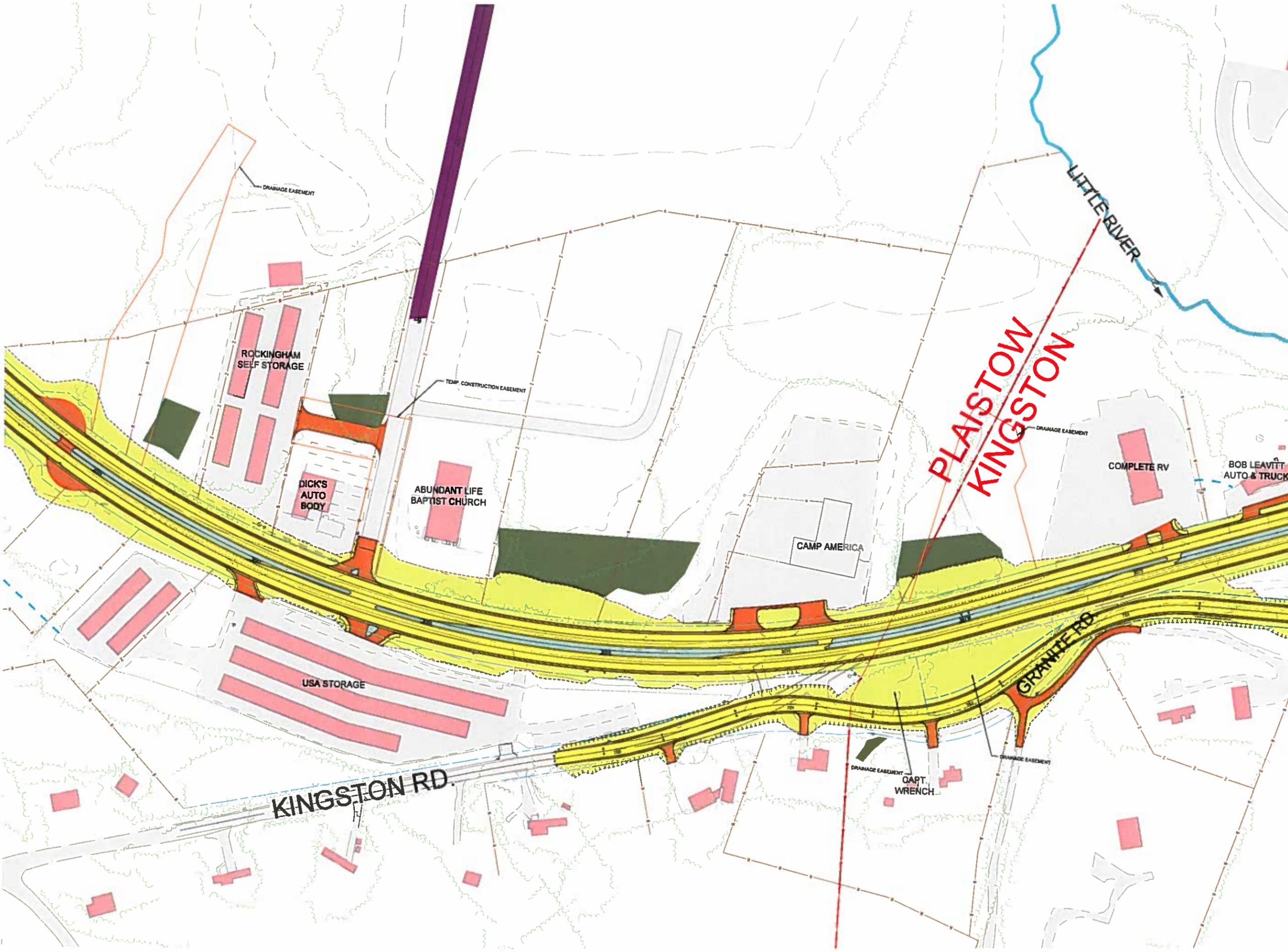
Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



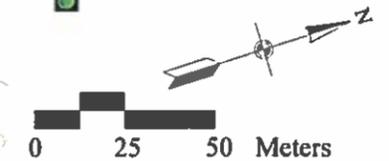
Vanasse Hangen Brustlin, Inc.

Figure 6
NH 125
Access Management Plan
Station 2066 - Station 2072



Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



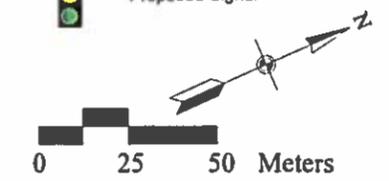
Vanasse Hangen Brustlin, Inc.

Figure 7
NH 125
Access Management Plan
Station 2073 - Station 2080



Legend:

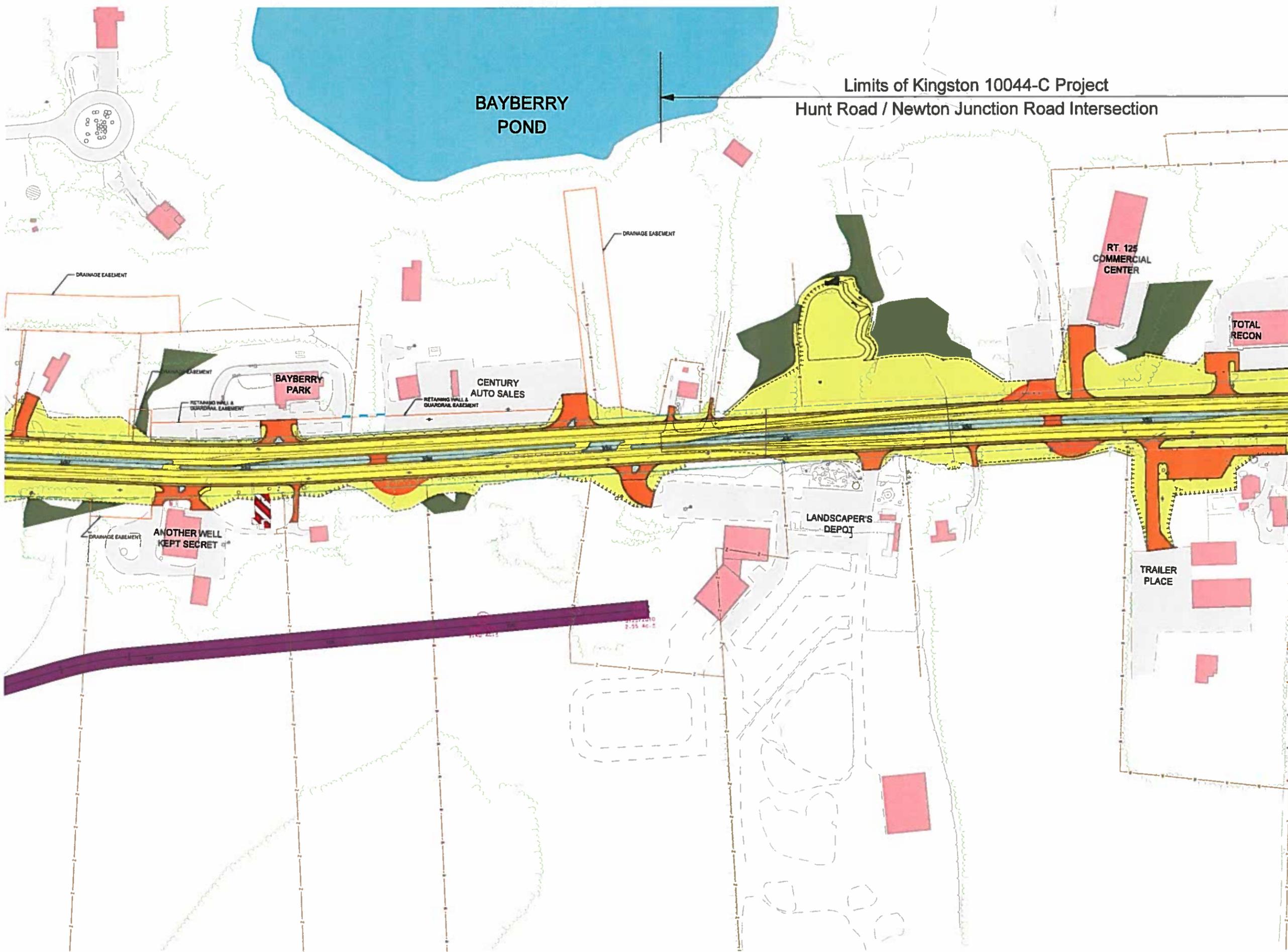
-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds, etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



Vanasse Hangen Brustlin, Inc.

Figure 8
NH 125
Access Management Plan
Station 2080 - Station 2086





Limits of Kingston 10044-C Project
Hunt Road / Newton Junction Road Intersection

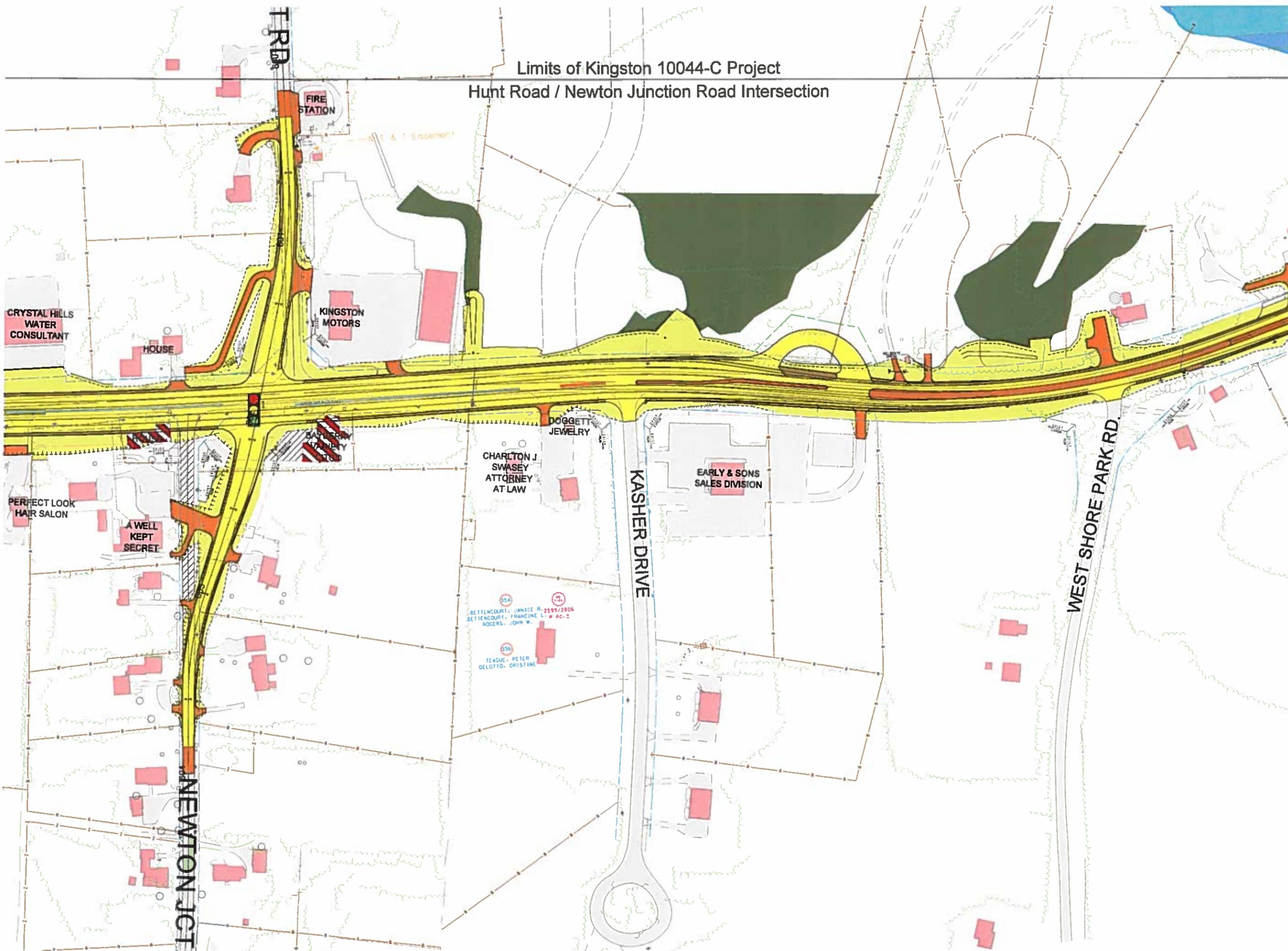
Legend:

- Travel Way of Proposed Roadway
- Shoulder of Proposed Roadway
- Proposed Roadway Traffic Median
- Proposed Sidewalk
- Access Points to Proposed Roadway
- Approximate Limit of Slope Work
- Conceptual Future Connector Roads - By Others
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- Prop Driveway Connections - By Others
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- Buildings
- Buildings To Be Removed
- Wetlands
- State, County, City and Town Lines
- Floodplain
- Floodway
- Existing Easement Lines
- Proposed Easement Lines
- Existing R.O.W. (Right-of-Way)
- Proposed R.O.W.
- Existing C.A.R.O.W. (Controlled Access)
- Proposed C.A.R.O.W.
- Existing L.A.R.O.W. (Limited Access)
- Proposed L.A.R.O.W.
- Historic District
- H Historic Parcel
- Existing Signal
- Proposed Signal

Vanasse Hangen Brustlin, Inc.

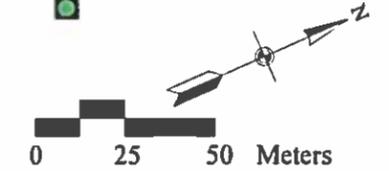
Figure 9
NH 125
Access Management Plan
Station 2087 - Station 2093

Limits of Kingston 10044-C Project
Hunt Road / Newton Junction Road Intersection



Legend:

- Travel Way of Proposed Roadway
- Shoulder of Proposed Roadway
- Proposed Roadway Traffic Median
- Proposed Sidewalk
- Access Points to Proposed Roadway
- Approximate Limit of Slope Work
- Conceptual Future Connector Roads - By Others
- Proposed Driveway Connections (Locations to be Determined)
- Prop Driveway Connections - By Others
- Existing Pavement
- Existing Tree and/or Brush Line
- Water (Stream, Rivers, Ponds etc.)
- Buildings
- Buildings To Be Removed
- Wetlands
- State, County, City and Town Lines
- Floodplain
- Floodway
- Existing Easement Lines
- Proposed Easement Lines
- Existing R.O.W. (Right-of-Way)
- Proposed R.O.W.
- Existing C.A.R.O.W. (Controlled Access)
- Proposed C.A.R.O.W.
- Existing L.A.R.O.W. (Limited Access)
- Proposed L.A.R.O.W.
- Historic District
- H Historic Parcel
- Existing Signal
- Proposed Signal



Vanasse Hangen Brustlin, Inc.

Figure 10
NH 125
Access Management Plan
Station 2094 - Station 2100



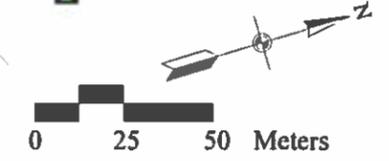
- Legend:**
- Travel Way of Proposed Roadway
 - Shoulder of Proposed Roadway
 - Proposed Roadway Traffic Median
 - Proposed Sidewalk
 - Access Points to Proposed Roadway
 - Approximate Limit of Slope Work
 - Conceptual Future Connector Roads - By Others
 - Proposed Driveway Connections (Locations to be Determined)
 - Prop Driveway Connections - By Others
 - Existing Pavement
 - Existing Tree and/or Brush Line
 - Water (Stream, Rivers, Ponds etc.)
 - Buildings
 - Buildings To Be Removed
 - Wetlands
 - State, County, City and Town Lines
 - Floodplain
 - Floodway
 - Existing Easement Lines
 - Proposed Easement Lines
 - Existing R.O.W. (Right-of-Way)
 - Proposed R.O.W.
 - Existing C.A.R.O.W. (Controlled Access)
 - Proposed C.A.R.O.W.
 - Existing L.A.R.O.W. (Limited Access)
 - Proposed L.A.R.O.W.
 - Historic District
 - Historic Parcel
 - Existing Signal
 - Proposed Signal
- 0 25 50 Meters

Vanasse Hangen Brustlin, Inc.

Figure 11
 NH 125
 Access Management Plan
 Station 2101 - Station 2107

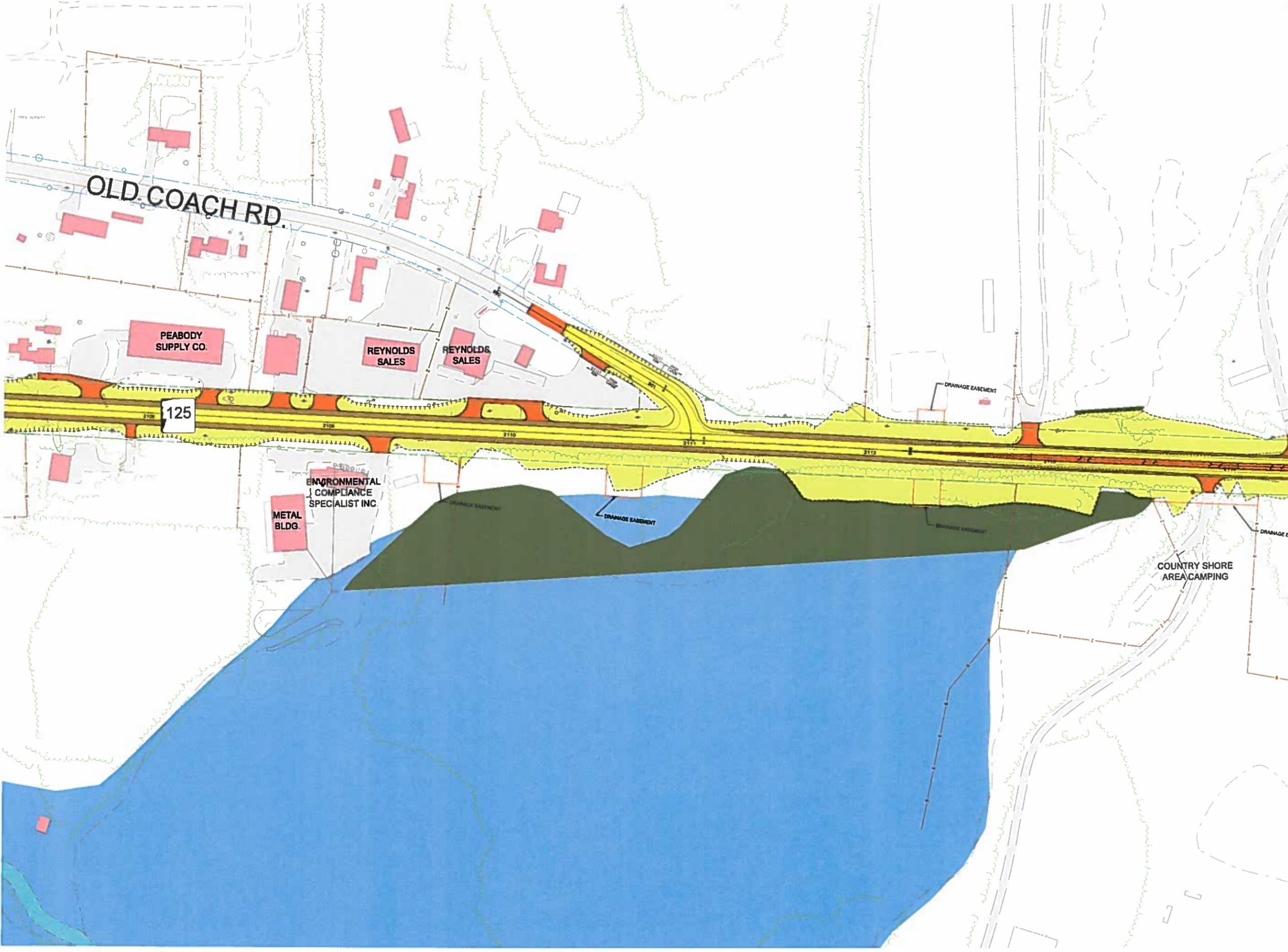
Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
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-  Existing Tree and/or Brush Line
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-  Buildings To Be Removed
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-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



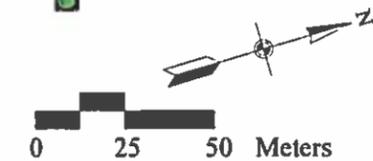
Vanasse Hangen Brustlin, Inc.

Figure 12
NH 125
Access Management Plan
Station 2108 - Station 2114



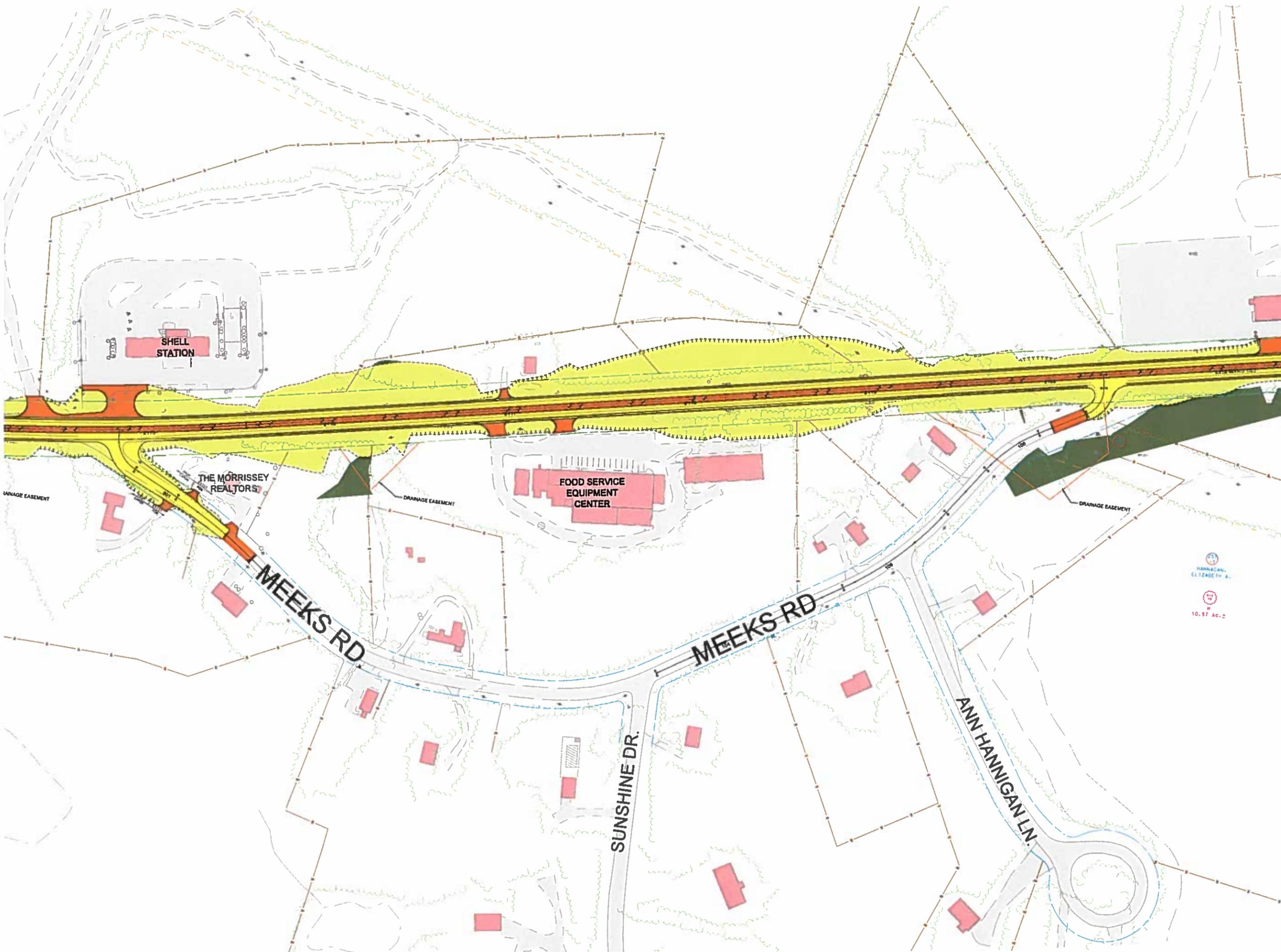
Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



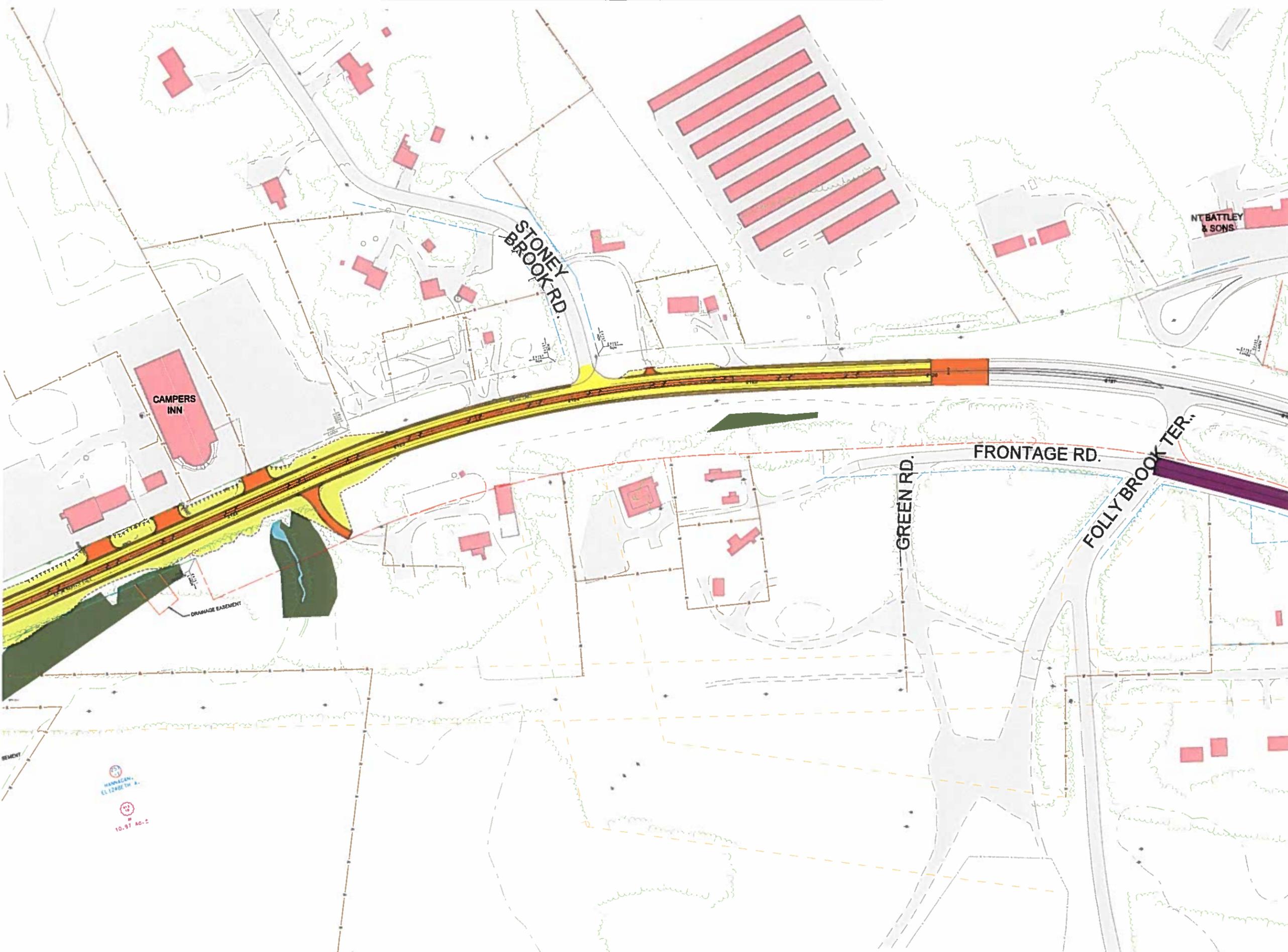
Vanasse Hangen Brustlin, Inc.

Figure 13
NH 125
Access Management Plan
Station 2115 - Station 2121



Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal



Vanasse Hangen Brustlin, Inc.

Figure 14
 NH 125
 Access Management Plan
 Station 2121 - Station 2128

Legend:

-  Travel Way of Proposed Roadway
-  Shoulder of Proposed Roadway
-  Proposed Roadway Traffic Median
-  Proposed Sidewalk
-  Access Points to Proposed Roadway
-  Approximate Limit of Slope Work
-  Conceptual Future Connector Roads - By Others
-  Proposed Driveway Connections (Locations to be Determined)
-  Prop Driveway Connections - By Others
-  Existing Pavement
-  Existing Tree and/or Brush Line
-  Water (Stream, Rivers, Ponds etc.)
-  Buildings
-  Buildings To Be Removed
-  Wetlands
-  State, County, City and Town Lines
-  Floodplain
-  Floodway
-  Existing Easement Lines
-  Proposed Easement Lines
-  Existing R.O.W. (Right-of-Way)
-  Proposed R.O.W.
-  Existing C.A.R.O.W. (Controlled Access)
-  Proposed C.A.R.O.W.
-  Existing L.A.R.O.W. (Limited Access)
-  Proposed L.A.R.O.W.
-  Historic District
-  Historic Parcel
-  Existing Signal
-  Proposed Signal

Vanasse Hangen Brustlin, Inc.

Figure 15
 NH 125
 Access Management Plan
 Station 2128 - Station 2135



