

Route 110 Charrette



Berlin, New Hampshire

April 2011

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Design Charrette for Route 110 Reconstruction Project

April 29/30 2011



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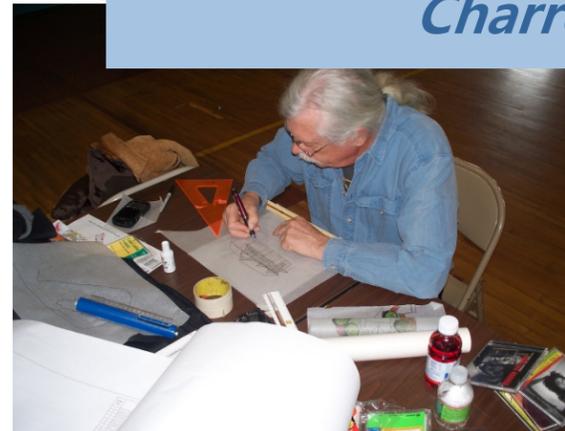


Existing Third Avenue

Listening Sessions and Site Walks



Charrette Team at Work



Final Presentation of Recommendations



What is a Design Charrette?

Simply stated, a design charrette is a brainstorming session where lots of ideas are brought forth by both professional designers and local citizens, in an attempt to resolve a problem of local interest. Because of the compressed time frame, the recommendations reached are usually conceptual. Recommendations present the relationship of different plan elements, as opposed to the details of how a particular building or roadway would actually be constructed. The charrette process blends the broad experience of design professionals with local citizens' detailed knowledge of their community to produce a plan of action to address a particular development issue within the community. The charrette provides an overall framework in which final solutions can be developed and gives a direction against which future decisions can be measured. The Berlin charrette was a two-day workshop that produced a number of design ideas and possible solutions, which are documented in this booklet to be used as a starting point in the design process.

The Charrette Process

The charrette process encompassed two days of collaboration between the citizens and City of Berlin, the design team and the NH DOT. The first day of the charrette included the design team listening to members of the community and town officials, during two 'listening sessions', and conducting site walks through out the project area. During the second day the team assembled for an intense brainstorming of ideas to address the project issues and ideas from the community, culminating in the generation of sketches, concepts, and implementation strategies

Day One: Design team members, officials from the NH Department of Transportation, City officials, and community members met in the Recreation Department. In the morning and afternoon, the team held two public listening sessions and a site walk, at which members of the community raised concerns and described their wishes for the Route 110 Reconstruction project. This sharing of knowledge and vision provided the design team with a better understanding of the local issues.

Day Two: On Saturday morning, the design team members convened to strategize. Taking the information they had gathered during the listening sessions and the site walk, the charrette team worked together to address the issues voiced by the community while incorporating the engineering plans and standards from the NH Department of Transportation. Through conceptual sketches and plans the design team communicated their ideas and recommendations during a final presentation held later that afternoon at a public forum.

Route 110 Reconstruction Project Overview

The relocation of NH Route 110, with the purpose of connecting it to NH Route 16, east of the Canadian National Railroad, (CNRR) tracks, has been studied in Berlin in various forms since the 1950s. Many plans have been explored, with some plans swinging the roadway north of Cates Hill, joining Route 16 near the Milan town line. The current plan, produced by the New Hampshire Department of Transportation (NHDOT), aligns the roadway along the northern edge of The Avenues neighborhood. As part of the work, the state will acquire and demolish 29 structures along the route. The project begins at the CNRR underpass near the police station on Green Street, then proceeds up Green Street onto First Avenue. At that point the route cuts northwesterly to intersect with Hillside Avenue at a new T-intersection. Hillside Avenue will no longer connect to Second Avenue or Mannering Street. The new route then proceeds past the Guay Brothers garage site and through the location of two former green tenement blocks to a slightly re-aligned Third Avenue. Along Wight street it is widened and straightened, with homes on the north side acquired all the way to Morneau Movers. The road then proceeds northwesterly past the former Converse Shoe factory to a bottling plant and the

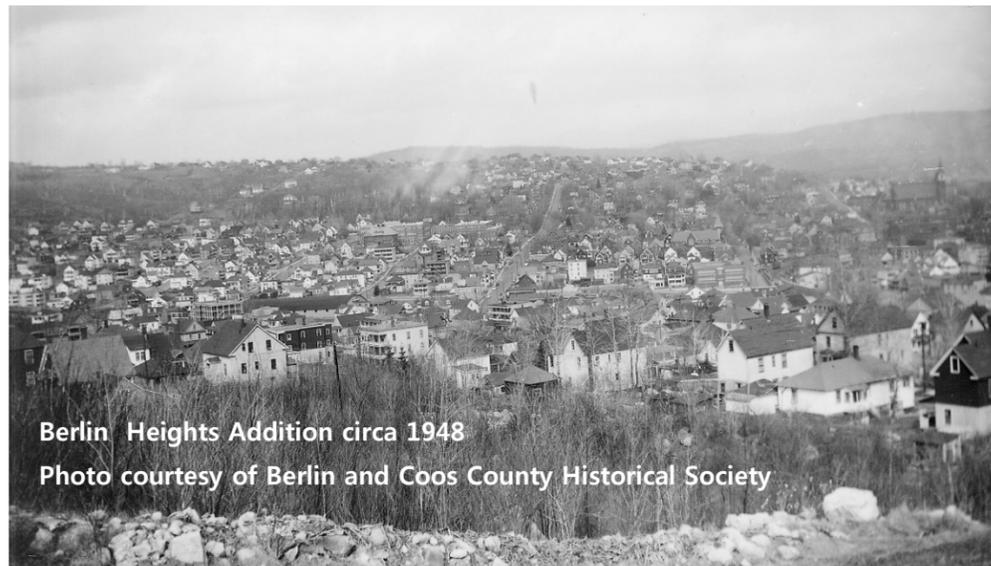
current car wash. It is expected that the acquisitions and demolition will occur in 2011 and the project construction started in 2012, completed by 2013.

The Berlin Charrette was part of a package to mitigate the new road's impacts on the historic neighborhood of Berlin Heights Addition. This neighborhood, commonly known as *The Avenues*, was designed and platted in 1892 –1893. With a mix of single family homes, duplexes, and triple deckers it was largely built out by 1920. The population was diverse, with a mix of



Russian, Italian, French Canadian, and Irish families living side by side. The basic charge to the Charrette Design Team was to explore ways that the impacts of

this new road might be mitigated as it passes along the edge of this historic neighborhood. The Avenues are laid out on grid-iron street pattern. Much of the new road will slice through the street pattern, on a diagonal, creating a series of triangular or 'sawtooth' shaped parcels along it's axis. These parcels will be surplus to the needs of the road reconstruction. The design team recognized the opportunity for a variety of uses for these spaces, which are described in detail on the following pages.

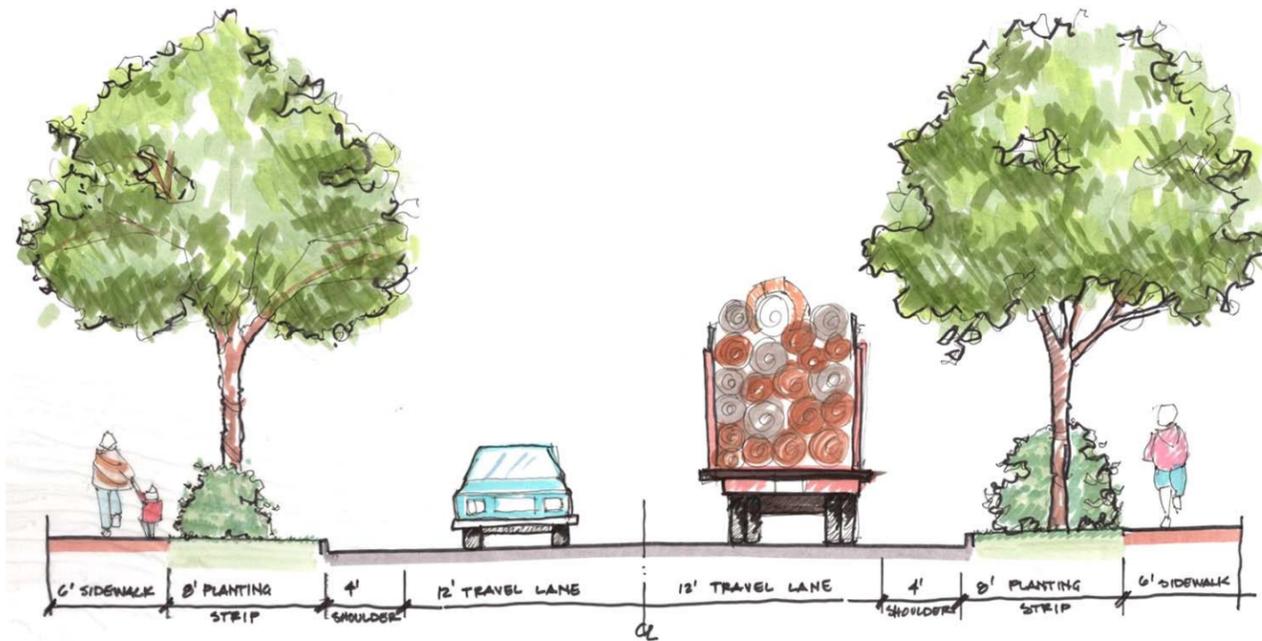


Typical Roadway Cross Sections

From the CNRR underpass on Green Street to Morneau Movers west of Third Avenue, the road will be constructed in a sixty foot Right of Way (ROW). The original DOT engineering calls for the cross section of the road to be as follows:

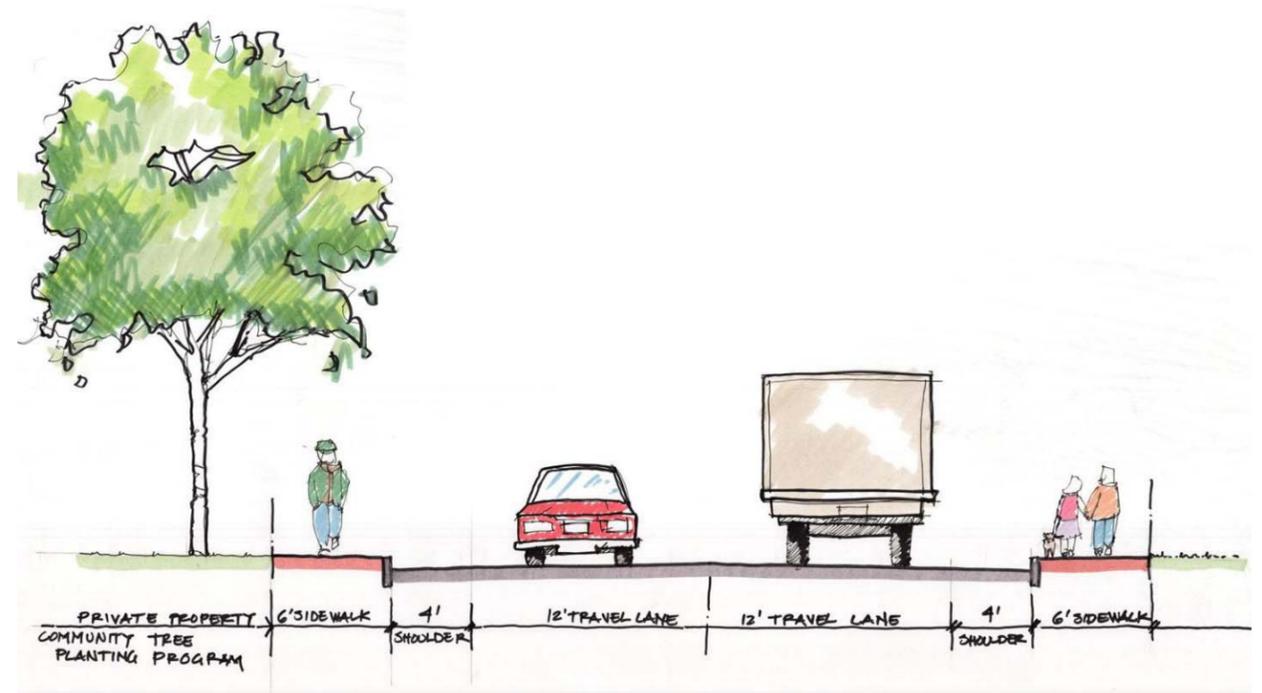
- 8' Sidewalks
- 6' Planting Strips (between sidewalk and road)
- 4' Shoulders
- 12' Travel Lanes

The design Team Strongly recommends that the dimensions for the sidewalks and the planting strip be reversed, the sidewalks to be 6' wide and the planting strip to be 8' wide. This will provide adequate sidewalk space and a significantly larger planting strip for pedestrian /vehicular separation



Typical Cross Section - Green Street to Morneau Movers

Reducing the 4' shoulder was also considered to give sidewalks more room where the ROW becomes tighter. However a convincing argument was made during one of the public sessions that this space should remain 4' to allow for safer bicycle travel.



**Typical Cross Section -
Morneau Movers to Project Limits @ Carwash**

From Moreau Moves to the end of the project at the bottling plant and carwash, the project will be constructed within a narrower forty-four foot ROW. There will be some minor acquisitions along this stretch but the majority of the project will be constructed in the existing ROW.

This narrower ROW will not accommodate a planting strip. The Design Team recommends exploring a Community Tree Planting Program, whereby the City would assist abutting property owners in acquiring and planting trees that the property owners would maintain. Not only would trees make this area more attractive, but also vertical elements along the

roadway, such as trees, serve as traffic calming elements. Consistent vertical elements along a road corridor create the perception of a narrower travel lane and causes drivers to slow down. This is undoubtedly a safer condition for all mode of transit, pedestrians,

New Park and Parking on Green Street

One of the comments the Design Team strongly heard during the listening session was the need for more parking near the Recreation Center and Police Station. The new road alignment will create open space on both side of the ROW at Green Street and First Avenue as it turns eastward in front of the Police Station. The north end of Green Street will be realigned to intersect with the new Rt. 110 . The Design team proposed using some of this space on the west side of the intersection for additional parking and a neighborhood gateway landscape feature. The proposal also includes a clearly marked pedestrian crossing at the intersection that uses textured materials and different colored paving to alert drivers to its presence and importance. This paving treatment was recommended at each major intersection along the corridor.



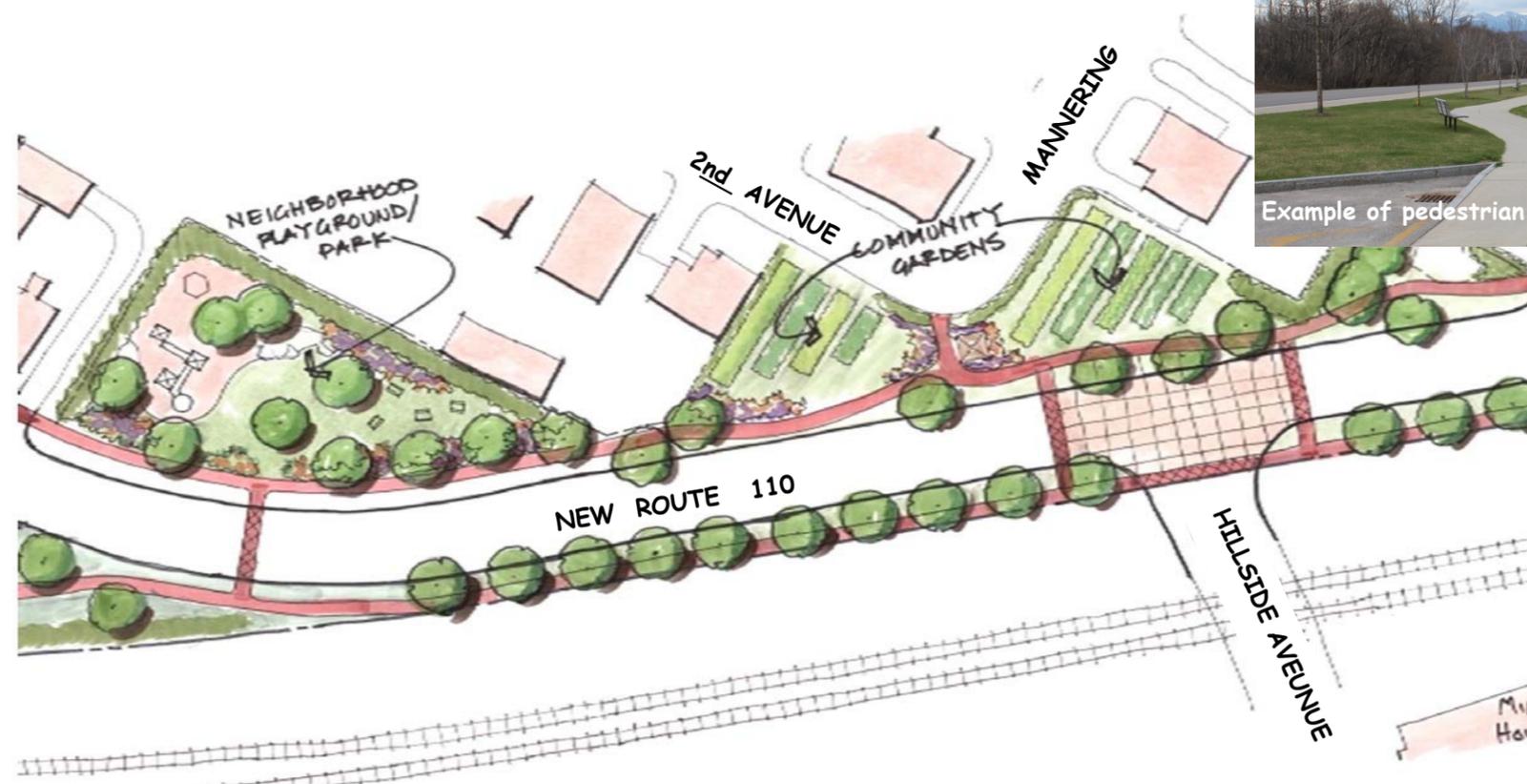
New Park and Parking Concept at Green St. and 1st Avenue



**View of Park /Gateway from Green Street
(Razor's Edge Bld. On Left)**

New Parks on New Roadway

The new roadway project will open significant views and vistas that either were previously blocked by structures or were never observed because of the low volume of traffic on First Avenue. The new roadway will open views to Mount Carberry and the Mahoosucs beyond, as well as to the Presidential Range to the South. The Design Team recommends the establishment of parks, walkways and benches to allow the walking public to take advantage of these new vistas.



At a public listening session local residents requested using the 'left over' parcel as open green space for parks, playgrounds, and community gardens. The Design Team proposed a system of open spaces that is linked by the sidewalk along the roadway. Most of these parcels are located on the west side of the roadway and abut the Avenues neighborhood. The parcels would lend themselves nicely to small parks and community gardens.

Possible Building Relocation

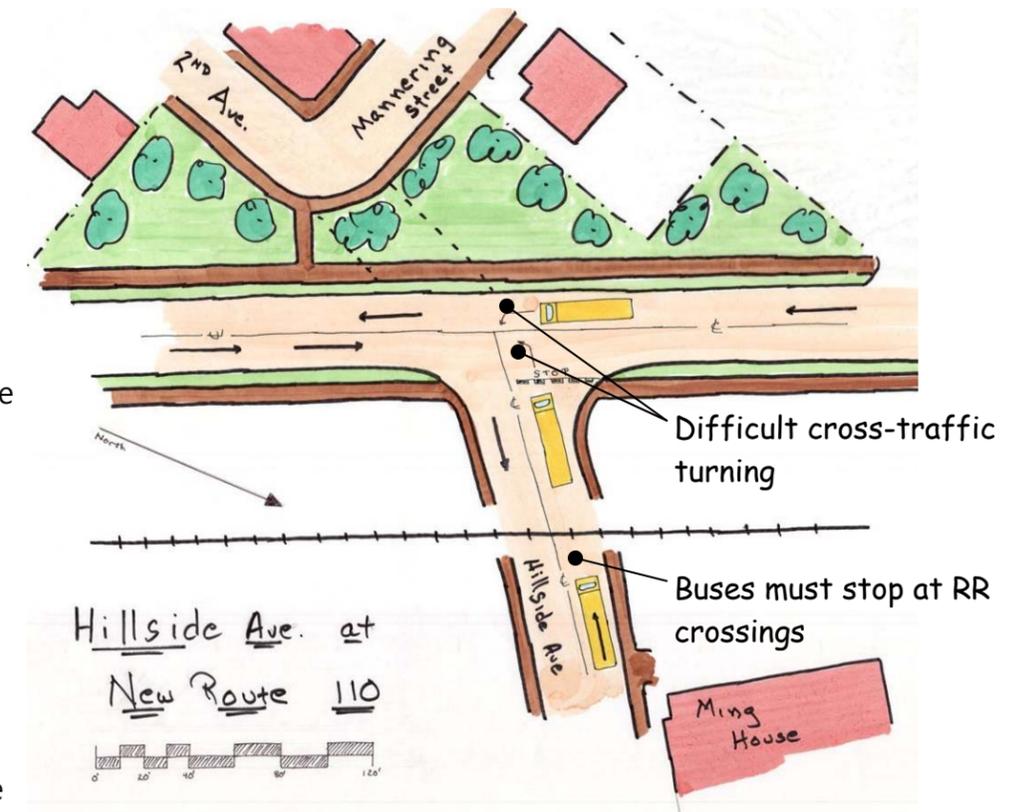
Although many of the properties being acquired and demolished are in sub-standard condition, the Design Team identified one building that might be worthy of relocating. Potentially after the roadway is graded, this property could be offered "as is" to a willing owner, who could then move it to one of the surplus parcels along the roadway. The Design Team identified one possibility at the intersection of Roderick Street and 1st Avenue



Hillside Avenue Intersection

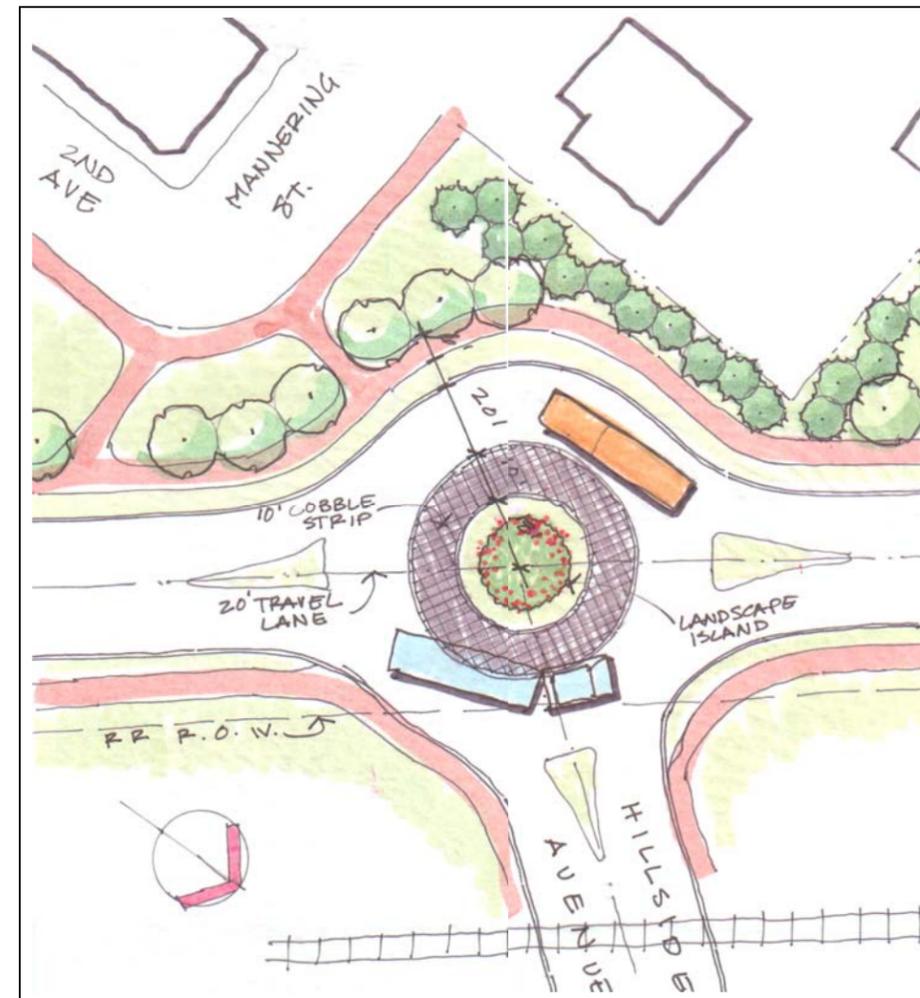
Currently, Hillside Avenue functions as a cross town route, from the Avenues crossing the existing Rt. 110 and the railroad tracks into the downtown area. The new road plan cuts off that connection and creates a T-intersection with Hillside Avenue and Rt. 110, Second Ave. and Mannering will terminate at Rt. 110 on the west side. The Design Team had considerable concerns about the traffic flow issues this connection will create. The observation is that eastbound traffic on Rt. 110 attempting to turn left onto Hillside Ave., heading towards downtown, would have difficulty making the turn due to westbound traffic. Similarly Hillside traffic attempting to enter on to Rt. 110 and head east would be impeded and hold up traffic across the Railroad tracks.

During school commute hours, this traffic flow concern is further compounded by the travel route of school buses. Currently school buses are stored on Third Avenue and must pass through this intersection enroute to and from all public schools west of Hillside Avenue which include the



High School, the Middle School and Hillside Elementary School. School buses are required by Federal Law to come to a complete stop before crossing railroad tracks. The new road configuration would have the buses stopping at the tracks and then again, a few feet away, at the stop sign at Rt. 110. The Design Team and citizens observed four buses drive through this area in a matter of minutes during one of the site walks during the Charrette.

The Team felt this area warranted further consideration and study to understand the affects of the new design. One suggestion is to consider a round-about at the intersection that would eliminate the stop sign and allow for the constant movement of traffic. This approach has been used successfully on many communities throughout New Hampshire to resolve similar traffic issues.



New Third Avenue Intersection

Third Avenue is currently a seventy-foot wide roadway. When rebuilt it will bend to intersect with the new Rt. 110 alignment as a T-intersection. Given the width of Third Avenue the Design Team recommended adding a landscape island in the center of Third Avenue, creating the start of a boulevard that could be continued as the City sees fit. This would also serve as a neighborhood gateway statement.

In addition, in order to eliminate three driveways in close proximity to each other that would be connecting directly to Third Avenue in the DOT plan, the design team recom-



Current DOT Plan @ Third Avenue/ New Route 110



New Intersection at Third Avenue/ New Route 110

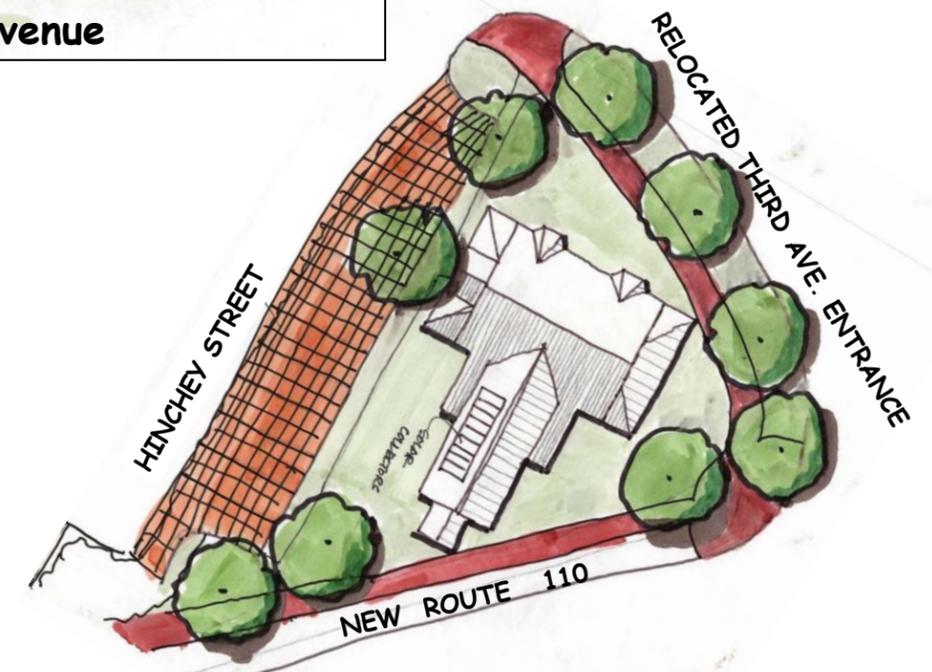
mended creating an 'alley' to give these residents access to Rt. 110 and Third Avenue.

On the southeast side of the Third Avenue/Rt110 intersection a good size parcel will be available for redevelopment. The Design Team presented two ideas for that parcel, a public park space and a commercial development. The location of this parcel lends itself well



New Mixed-Use building viewed from Third Avenue

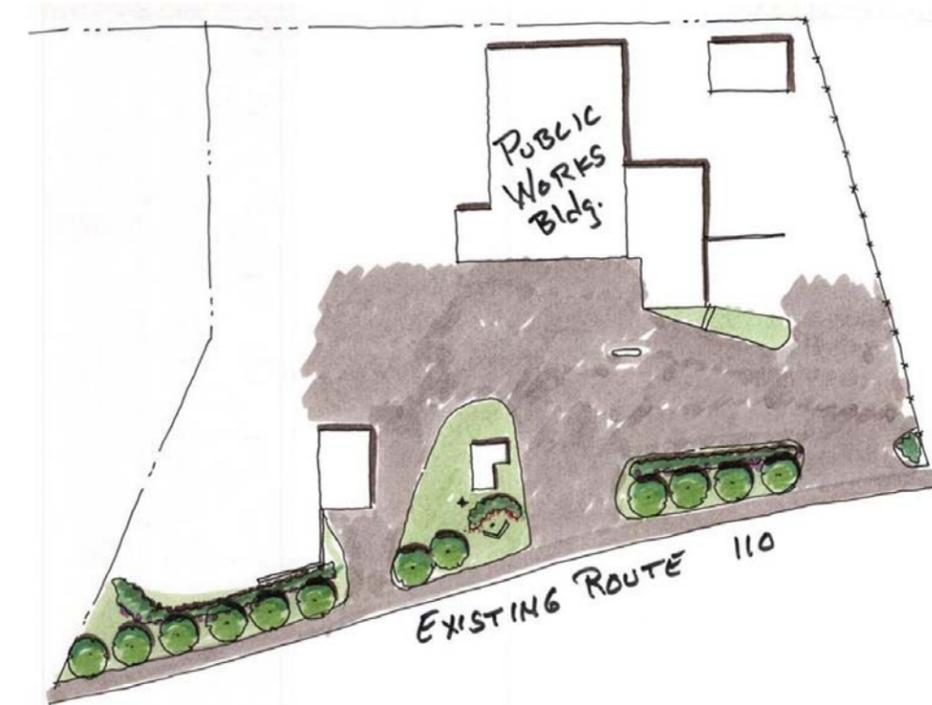
to a small commercial and/or mixed use property. The team recommended that the architecture of a new structure here should reflect the vernacular style of the neighborhood.



New Mixed-Use Building

Western Gateway

Gateways to the neighborhood are important, especially as transition points to indicate to drivers that they are entering a dense residential neighborhood. They provide signals to traffic to reduce speeds and to be alert to pedestrians. At the northwest end of the reconstruction project, the Public Works Garage provides an opportunity for one such gateway. The existing re-furbished snow plow painted with the City seal is an excellent beginning for this gateway. The plow and landscaped island it occupies could be augmented with additional landscaping, and perhaps a 'Welcome to the Avenues' sign could be incorporated. The road ROW at this point is much wider than other locations, which presents opportunities on the opposite side of the road to continue the gateway statement.



Gateway Concept at Public Works Garage

Charrette Team Recommendations

Over-arching Issue:

This is a Transportation Corridor, not just a truck route. The Corridor needs to work safely for all users.



Summary:

- Narrow proposed sidewalks to 6', widen planting strips to 8'
- Add walkways, benches, and trees. Collectively these elements will slow down traffic
- Take advantage of the new views that will be opened up, they are beautiful!
- Consider moving, not demolishing, one of the existing houses as a memory of what was there
- Seriously consider the impact of the proposed T-intersection at Hillside Avenue.
- Think about how to best redevelop the Third Avenue intersection
- Consider instituting a community tree planting program
- Think about Gateways at Public Works Garage and Green St.
- Think about the corridor as an multimodal transportation space system
- Make sure the route will be safe for all users, regardless of size or abilities.

Next Steps

As noted in the various presentations what the Design Team has offered is an array of options. Some may fit within the pending project. Some may be deferred until later, with land set aside for their future development. Some may not meet the needs of Berlin and its residents at present. These will all be important options to discuss.

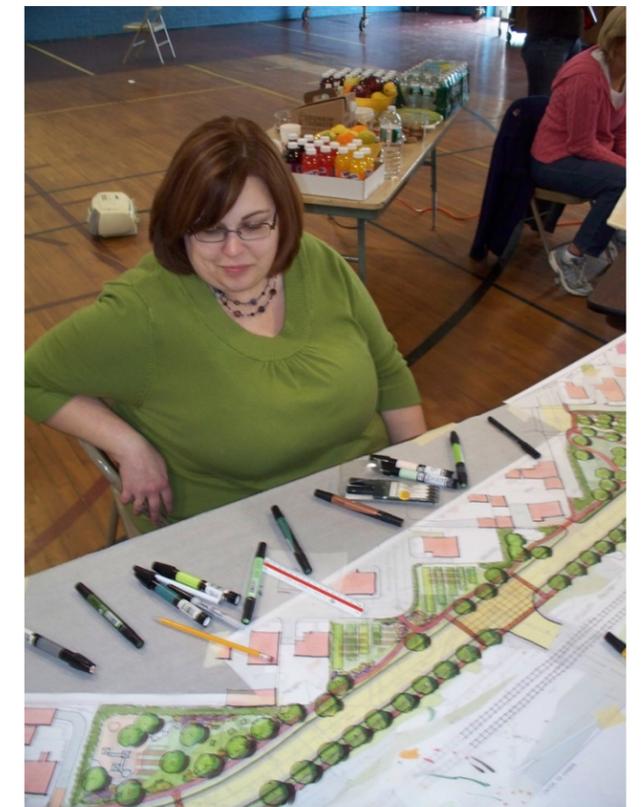
The next steps for this project includes:

DOT and City

- Complete Acquisitions
- Complete Demolition Documentation
- Finalize Design
- Bid Project
- Demolition
- Construction

It is anticipated that this project will be in construction in 2012, to be completed in 2013.

Good Luck!



Current NHDOT Plan

