Preparation of this report has been financed by the Delaware Valley Regional Planning Commission Transportation Community Development Initiative program, as well as by the City of Woodbury funds.
EXECUTIVE SUMMARY

In July of 2005, the City of Woodbury and Ragan Design Group began the two yearlong process of conducting a transit hub feasibility analysis. The purpose of the study is to take the planning and analysis, as well as consensus building, which will promote and facilitate the establishment of a transportation center in the City of Woodbury. Specifically, the study evaluated the potential benefits to the City of Woodbury and Gloucester County of constructing a transit hub on South Barber Avenue.

Public participation in the feasibility study was a vital component in the analysis process. Ragan Design Group and elected officials from the City of Woodbury met with community members and local business owners to gather public input on whether a transit hub is needed and would be utilized in Woodbury. Ragan Design Group also provided bi-monthly presentations and reports to the City of Woodbury and NJ Transit during the study.

The first part the study assessed the existing land uses, transportation network, demographical, topography and economic conditions along South Barber Avenue. With the assistance from public and private stakeholders, the Steering Committee concluded that in order for the transportation center to be successful, the site must have the following components.

- Availability of Land for Ancillary Development;
- Existing Zoning and Land Use;
- Circulation of Pedestrians and Vehicular Traffic;
- Economic Viability of a Transit Village; and
- Development Impacts on Surrounding Neighborhoods and the Environment.

After the components were established, the Steering Committee developed a plus/minus scoring process to select the best site based on the criteria noted-above. The Steering Committee’s preferred location (Option B) to build a transportation hub is Block 104, Lot 6, on South Barber Avenue approximately in the middle of Railroad Avenue and Evergreen Avenue.

Secondly, the study evaluated the viability of Woodbury as a passenger rail station stop, should the Delaware River Port Authority (DRPA) or NJ Transit move forward with plans to extend a commuter rail line into Gloucester County. Overwhelmingly, the residents and elect-officials believe the City of Woodbury needs a multimodal transportation center connecting NJ Transit buses with the potential passenger rail line on South Barber Avenue. From a long term planning perspective, the City of Woodbury wants to integrate the proposed bus transit station with all future modes of public of transportation. The Woodbury Multimodal Transportation Center would function as a comprehensive transportation facility capable of supporting the mobility needs of both County and local travelers.
The final part of the analysis process was the development of conceptual designs to analyze how the multimodal transit center would function on South Barber Avenue. Conceptual perspectives and floor plans were designed to create a multimodal transportation center on Option B along with new building development on ancillary parcels that are currently vacant or underutilized. The designs were developed to show some of the options that are available on Option B with regards to building size, bus circulation, parking and site configuration, as well as to present a range of possible development potential and ratables that would be produced by the transportation center.

Implementing a multimodal transportation center on South Barber Avenue is clearly dependent on a phasing process and commuter rail service coming to Woodbury. During the first phase, Woodbury should create a transit-oriented redevelopment plan or new zoning classification for the land along South Barber Avenue. Immediately following the adoption of a transit-oriented zoning regulation, the City of Woodbury should work with NJ Transit and reroute buses to accommodate the new transportation hub. As the first phase develops and the commuter rail comes to Woodbury, the city can couple the train station with the existing bus station and create a comprehensive multimodal transportation center. The center would be the gateway entrance for commuters from South Jersey to Pennsylvania.
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1. INTRODUCTION

1.1 Study Description
As Gloucester County and its municipalities continue to grow exponentially, local officials and transportation agencies must plan for the long-term mobility needs of the County. There are six New Jersey Transit (NJ Transit) bus routes that traverse the City of Woodbury. Woodbury has become the de facto transportation hub of Gloucester County; however, no fixed-transit facility exists in the County. Commuters and buses lack a central transfer point and a fixed station. The need for a transit hub in Gloucester County, specifically in Woodbury, has been well-documented over the last ten years. Studies conducted by the Delaware Valley Regional Planning Commission (DVRPC), NJ Transit and Gloucester County Planning Department have presented information and analysis about the need for a bus hub in Gloucester County. While the first steps in establishing the general need for a transit hub in Gloucester County have been taken, in order to bring the transit station to fruition, this study analyzed a portion of South Barber Avenue in the City of Woodbury to determine whether it was feasible to create both a fixed-transit facility and transit oriented development (TOD) in southern Woodbury.

This particular site specific transit hub feasibility analysis is only the first step in the overall system planning, design and funding process to implement transit improvements in the City of Woodbury and Gloucester County. Each subsequent step of the process must be done well and in conjunction with the Federal Transit Authority (FTA), the New Jersey Department of Transportation (NJDOT) and NJ Transit funding guidelines/requirements. The project goals of this Bus Hub Feasibility Study include:

1. Review and analyze all relevant traffic and transit related studies that have been conducted for Woodbury and Gloucester County over the last ten years.
2. Interact with transportation and planning staff and officials from Woodbury City, Gloucester County, NJ Transit and other interested agencies an attempt to reach a planning consensus on a locating a TOD in southern Woodbury.
3. Prepare maps that depict existing uses and existing zoning in the target area as well as existing bus routes through Woodbury.
4. Evaluate site geometry, road alignment and traffic patterns on S. Barber Avenue for the bus hub, specifically the sites known as the Conrail yard and the Potato Packing Plant.
5. Assess the current parking demand for transit and forecast potential parking requirements to for a TOD.
6. Design a circulation plan that provides safe circulation and access for pedestrians, cyclists and vehicles.
7. Recommend specific land use policy changes for the target area, based on the particular circumstances and market potential in Woodbury, that are TOD supportive (such as mixed use development).
8. Prepare an illustrative plan for the TOD target area to serve as a flexible guide for future development.
9. Discuss with the Planning Board and the City Council the possibility of creating a redevelopment zone around the proposed bus hub site in order to
ensure implementation of the TOD plan and to encourage desirable
development.
10. Prepare a strategy for advancing the proposal in cooperation with stakeholder
agencies, including probable funding sources.

1.2 Study Area
The study area (Figure 1) is located in the southern region in the City of Woodbury. The
boundaries of the study area are Broad Street to the East; South Barber Avenue to the
North, Evergreen Avenue to the West; and the Evergreen Traffic Circle/Woodbury
Heights Township to the South. The total area of the study area is 142.31± acres. The
area is a mix of industrial, commercial, and residential land uses. The bulk of the
analysis was concentrated within a quarter mile of the parcels on South Barber Avenue
including the railroad tracks, underutilized-maintenance yard, potato packing plant and a
partially-vacant shopping center. The Consolidated Rail Corporation (Conrail) owns a
majority of the parcels (12.83 acres including ROW) within the study area. The parcels
are used for storage and maintenance areas for the railroad cars. For the most part, the
study area is zoned Commercial (C1 and C2) and Light Industrial (IND). The area that
was developed into a multimodal transportation center is 9.38 acres.

1.3 Purpose of the Study
The DVRPC commissioned this Transit Hub Feasibility Analysis in 2005 to examine the
possibility of creating and developing a transit hub in the southern section of the City of
Woodbury to meet the needs of Gloucester County. The purpose of the study is to take
the planning and analysis, as well as consensus building, which will promote and
facilitate the establishment of a transit hub in the City of Woodbury. Specifically, the
study evaluated the potential benefits to the City of Woodbury and Gloucester County of
constructing a transit hub in the southern portion of the City. The study assessed the
existing land use, circulation, demographical, community/environmental impacts and
economic conditions. Secondly, the study evaluated the viability of Woodbury as a
passenger rail station stop, should the Delaware River Port Authority (DRPA) or NJ
Transit move forward with plans to extend a commuter rail line into Gloucester County.
Thirdly, a conceptual design was developed to analyze how the transit hub program
would function.

---

1 Studies have shown that the core area of a TOD is within a quarter mile of the multimodal facility.
Within the quarter mile radius is the highest mix of density of uses and is where the core of the commercial
exchange takes place.
Figure 1: TCDI Study Area
2. PUBLIC OUTREACH AND AGENCY COORDINATION

2.1 Public Outreach
The public participatory planning process was essential to the successful completion of the study. Ragan Design Group and officials from the City of Woodbury met with community members and local business owners to gather public input on whether a transit hub is needed and would be utilized in Woodbury. These interest groups were asked several questions regarding their perception of public transit in Gloucester County and Woodbury, ridership potential, and the shortfalls with taking public transit.

2.2 Agency Coordination
Agency coordination was also vital to the successful completion of this study. In addition to the community meetings, Ragan Design Group and the City of Woodbury conducted open forum meetings with elected officials and representatives from transit agencies. To streamline the meeting process, a Steering Committee was organized after the initial kick-off meeting to ensure all the deadlines and goals were met. The Steering Committee was comprised of city council members, members of the Economic Development Committee, the Mayor, representatives from NJDOT, NJ Transit, Gloucester County Planning Department, the City of Woodbury and surrounding business owners. In total, there were seven outreach meetings held to procure private and public input.

<table>
<thead>
<tr>
<th>Focus Area</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood One</td>
<td>Walnut Street School</td>
<td>9/15/2005</td>
</tr>
<tr>
<td>Neighborhood Two</td>
<td>Evergreen Avenue School</td>
<td>10/20/2005</td>
</tr>
<tr>
<td>Neighborhood Three</td>
<td>City Council Chambers</td>
<td>10/27/2005</td>
</tr>
<tr>
<td>Neighborhood Four</td>
<td>Woodbury Child Development Center</td>
<td>9/24/2005</td>
</tr>
<tr>
<td>Neighborhood Five</td>
<td>West End School</td>
<td>10/6/2005</td>
</tr>
<tr>
<td>Business Association</td>
<td>Woodbury Country Club</td>
<td>9/21/2005</td>
</tr>
<tr>
<td>Merchant’s Association</td>
<td>City Council Chambers1</td>
<td>10/24/2005</td>
</tr>
<tr>
<td>Overall Community</td>
<td>Woodbury High School</td>
<td>2/15/2006</td>
</tr>
<tr>
<td>NJ Transit</td>
<td>City Council Chambers</td>
<td>4/24/2007</td>
</tr>
</tbody>
</table>

2.3 Summary of Meeting Comments

- Overwhelmingly, the community groups stated that bus traffic along Broad Street, especially around the High School and Underwood Memorial Hospital, was a problem. The buses frequently stop along Broad Street causing traffic problems in Woodbury and add to travel times. Both transit riders and car drivers agreed the bus bays should be installed to improve traffic flow on major roads such as Broad Street and Cooper Avenue.
- Residents, who depend on NJ Transit for work and travel, indicated that they would like to see more bus trips into Philadelphia. They also would like to have ticket booths placed in government buildings.

- Transit riders indicated that there was a lack of way-finding signs for public transit. They would like to see improvements to transit shelters and benches.

- Residents stated that riding a bus was not as convenient as driving to work. A good portion of the residents drives to work alone because it is quicker and more convenient.

- According to some meeting participants, there is a negative stereotype attached to people who ride the bus. They opined that there were not enough transit riders in Woodbury to justify the development of a transit center.

3. EXISTING CONDITIONS

3.1 Land Use
As previously noted in the study, the area encompasses an array of land uses (Figure 2). To the East there are a significant number of majestic well-maintained historic homes, impressive streetscapes, small retail stores and open space. To the South and West, there are large-scaled industrial complexes, mixed-use buildings on Broad Street and single family detached homes. Below is chart land use chart.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parcels</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartments</td>
<td>4</td>
<td>1.24</td>
</tr>
<tr>
<td>Commercial</td>
<td>53</td>
<td>13.56</td>
</tr>
<tr>
<td>Commercial Office</td>
<td>1</td>
<td>0.99</td>
</tr>
<tr>
<td>Commercial Residential</td>
<td>3</td>
<td>0.41</td>
</tr>
<tr>
<td>Duplex</td>
<td>12</td>
<td>1.54</td>
</tr>
<tr>
<td>Industrial</td>
<td>14</td>
<td>21.04</td>
</tr>
<tr>
<td>Institutional</td>
<td>17</td>
<td>5.66</td>
</tr>
<tr>
<td>Office</td>
<td>41</td>
<td>5.30</td>
</tr>
<tr>
<td>Private Vacant Land</td>
<td>63</td>
<td>8.80</td>
</tr>
<tr>
<td>Public Recreation Land</td>
<td>9</td>
<td>16.54</td>
</tr>
<tr>
<td>Public Vacant Land</td>
<td>3</td>
<td>0.48</td>
</tr>
<tr>
<td>Railroad</td>
<td>7</td>
<td>12.83</td>
</tr>
<tr>
<td>Senior Residential</td>
<td>11</td>
<td>2.89</td>
</tr>
<tr>
<td>Single Family Residential</td>
<td>288</td>
<td>34.29</td>
</tr>
<tr>
<td>Townhouses</td>
<td>33</td>
<td>4.81</td>
</tr>
<tr>
<td>Twins</td>
<td>29</td>
<td>1.97</td>
</tr>
<tr>
<td>Vacant Building</td>
<td>14</td>
<td>9.97</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>602</td>
<td>142.31±</td>
</tr>
</tbody>
</table>

Figure 2: Existing Land Use
3.2 Roadway Circulation

3.2.1 New Jersey Route 45/Broad Street
Woodbury is laid out in a traditional grid network with a main street (New Jersey Route 45/Broad Street) running through the downtown in a North – South direction. New Jersey Department of Transportation (NJDOT) classifies it as principal arterial highway that serves both regional and local traffic in southern New Jersey. Recently, consultants, Dewberry-Goodkind, Inc., produce a report for the NJDOT in which they analyzed the feasibility of operating Route 45 as a one lane by direction with a small continuous center left turn throughout the City of Woodbury. The report recommended both Short and Mid-Range Implementation Strategies including construction of bulb-outs, road stripping, and light/traffic signage improvements. As to the feasibility of operating Route 45 with a left hand turning lane, Dewberry encouraged the City of Woodbury to submit a Problem Statement to the NJDOT requesting a Concept Development (CD) project that would conduct a more comprehensive evaluation of the 3-lane concept. As of June 2006, Woodbury has not pursued this Concept Development from NJDOT.

3.2.2 South Barber Avenue
South Barber Avenue is a two lane road which runs diagonally in the western portion of Woodbury from North to South. It provides a regional link connecting Woodbury Heights with downtown Woodbury.

3.2.3 Local Network
As previously noted, Woodbury’s roadway network was designed in a grid configuration with the main vehicular circulation (Figure 3) routes running in a North-South direction such as Broad Street and South Barber Avenue. East-West roads, such as Railroad Avenue, are local routes that provide access to residential areas of the City. Evergreen Avenue is a cross-town collector road that provides access to other adjacent municipalities including Deptford.
Figure 3: Circulation
3.2.4 Bus Level of Service and Ridership Frequency

Currently, the only mode of mass transit in Woodbury is bus service, which constantly competes with pedestrian crossings, automobiles and trucks for space on Broad Street. There are six NJ Transit bus routes (Figure 4) that traverse the town; the 401, 402, 410, 412, 455, and 463. For the most part, all these bus routes travel northbound on Broad Street heading towards employment hubs in the City of Camden and Philadelphia, PA. The bus passengers mostly come from the southern Gloucester County towns such as Gloucester City, Paulsboro, and Washington Township. The South Jersey Transportation Authority (SJA) provides service to employment centers in Gloucester County such as Pureland Industrial Park, Mid-Atlantic Suburban Office Park and the United Parcel Service (UPS) Regional Facility in Lawnside (Camden County).

<table>
<thead>
<tr>
<th>Bus Route</th>
<th>Starting</th>
<th>Ending</th>
<th>Ridership Frequency</th>
<th>Route Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 401</td>
<td>Salem</td>
<td>Philadelphia</td>
<td>348</td>
<td>Varies from 30 Minutes to over 60 Minutes</td>
</tr>
<tr>
<td>401</td>
<td>Philadelphia</td>
<td>Salem</td>
<td>335</td>
<td>Over 60 Minutes</td>
</tr>
<tr>
<td>402</td>
<td>Pennsville</td>
<td>Philadelphia</td>
<td>330</td>
<td>Over 60 Minutes</td>
</tr>
<tr>
<td>402</td>
<td>Philadelphia</td>
<td>Pennsville</td>
<td>349</td>
<td>Over 60 Minutes</td>
</tr>
<tr>
<td>410</td>
<td>Bridgeton</td>
<td>Philadelphia</td>
<td>594</td>
<td>Varies from 50 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>410</td>
<td>Philadelphia</td>
<td>Bridgeton</td>
<td>501</td>
<td>Varies from 15 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>412</td>
<td>Glassboro</td>
<td>Philadelphia</td>
<td>673</td>
<td>Varies from 15 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>412</td>
<td>Philadelphia</td>
<td>Glassboro</td>
<td>631</td>
<td>Varies from 15 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>455</td>
<td>Paulsboro</td>
<td>Cherry Hill Mall</td>
<td>373</td>
<td>Varies from 30 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>455</td>
<td>Cherry Hill Mall</td>
<td>Paulsboro</td>
<td>365</td>
<td>Varies from 30 Minutes to 60 Minutes</td>
</tr>
<tr>
<td>463</td>
<td>Woodbury</td>
<td>Avondale</td>
<td>157</td>
<td>60 Minutes</td>
</tr>
<tr>
<td>463</td>
<td>Avondale</td>
<td>Woodbury</td>
<td>181</td>
<td>60 Minutes</td>
</tr>
</tbody>
</table>

Source: NJ Transit provided the ridership numbers and detailed route descriptions. The frequency numbers were gathered by NJ Transit throughout March 2007.
Figure 4: NJ Transit Bus Routes in Woodbury
3.2.5 Additional Special Transit Services in Gloucester County
A large percentage of transit riders are elderly and handicapped persons. Gloucester County and NJ Transit partner together to provide special transit services for county residents 60 years or older, disabled and Medicaid eligible persons. Gloucester County Special Transportation Services provides door to door transportation to all locations located within the County and limited services in to Camden County and Philadelphia, PA. The services are available for non-emergency medical appointments, dialysis, physical and mental therapies, evening and Saturday dialysis (Medicaid only), competitive and non-competitive employment (limited), welfare to work, post-secondary education (limited), Medicaid services, Veterans services, and social and recreational activities (limited).

3.2.6 Travel Mode
According to the 2000 American Journey to Work Survey, 75 percent of Woodbury residents drive alone to work, 11 percent carpooled and 6 percent use public transportation. Of the commuters in Woodbury, 52 percent commute to employment centers in Gloucester County, 21 percent commute to Camden County, 11 percent commute to Pennsylvania and 16 percent commuter to other employment areas.

3.3 Parking
During the neighborhood and business community meetings, there was perception in Woodbury that there was lack of parking in the downtown area and around the Underwood Medical campus. Windshield surveys and site visits indicated that there were under-utilization parallel parking spots on streets and behind municipal buildings.

3.4 Traffic Volumes
Traffic Volumes are used to determine the number, movements, and classifications of roadway vehicles at a given location. These data can help identify critical flow time periods and impacts from land development.
### Table 4: Traffic Volumes

<table>
<thead>
<tr>
<th>Road Name</th>
<th>From</th>
<th>To</th>
<th>Date</th>
<th>AADT</th>
<th>Count Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooper St</td>
<td>North Broad St</td>
<td>Green St</td>
<td>2002</td>
<td>14,693</td>
<td>Both</td>
</tr>
<tr>
<td>North Broad St</td>
<td>Cooper Rd</td>
<td>Hopkins St</td>
<td>2002</td>
<td>19,019</td>
<td>Both</td>
</tr>
<tr>
<td>North Broad St</td>
<td>Hunter St</td>
<td>Cooper St</td>
<td>2002</td>
<td>23,300</td>
<td>Both</td>
</tr>
<tr>
<td>Red Bank Ave</td>
<td>North Broad St</td>
<td>Green St</td>
<td>2002</td>
<td>12,457</td>
<td>Both</td>
</tr>
<tr>
<td>Red Bank Ave</td>
<td>North Broad St</td>
<td>Tatum St</td>
<td>2002</td>
<td>10,822</td>
<td>Both</td>
</tr>
<tr>
<td></td>
<td>N Of Co 534</td>
<td></td>
<td>1998</td>
<td>31,413</td>
<td>South</td>
</tr>
<tr>
<td></td>
<td>N Of Co 534</td>
<td></td>
<td>1998</td>
<td>29,013</td>
<td>North</td>
</tr>
<tr>
<td>Barber Ave</td>
<td>Tr 553, Evergreen Ave</td>
<td>Tr 708 Railroad Ave</td>
<td>2000</td>
<td>6,450</td>
<td>Both</td>
</tr>
<tr>
<td>Broad St</td>
<td>Tr 644</td>
<td>Tr 534</td>
<td>1999</td>
<td>25,833</td>
<td>Both</td>
</tr>
<tr>
<td>Cooper St</td>
<td>Tr 553</td>
<td>NJ Turnpike</td>
<td>1999</td>
<td>20,870</td>
<td>Both</td>
</tr>
<tr>
<td>Cooper St</td>
<td>Tr 45</td>
<td>Woodland Ave</td>
<td>1999</td>
<td>14,946</td>
<td>Both</td>
</tr>
<tr>
<td>Glassboro Woodbury Rd</td>
<td>663, Barber Ave</td>
<td>Cooper St</td>
<td>2000</td>
<td>19,784</td>
<td>Both</td>
</tr>
<tr>
<td>Broad St</td>
<td>Tr 534 Cooper St</td>
<td>Tr 551 Kings Hwy</td>
<td>2001</td>
<td>24,803</td>
<td>Both</td>
</tr>
<tr>
<td>Broad St</td>
<td>Tr 644 Red Bank Ave</td>
<td>Tr 642 Hessian Ave</td>
<td>2001</td>
<td>21,021</td>
<td>Both</td>
</tr>
<tr>
<td>Evergreen Ave</td>
<td>Barber Ave</td>
<td>Hesters Ave</td>
<td>2001</td>
<td>17,981</td>
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</tr>
<tr>
<td>Evergreen Ave</td>
<td>Tr 644 Red Bank Ave</td>
<td>Tr 640 Cooper St</td>
<td>2001</td>
<td>22,184</td>
<td>Both</td>
</tr>
<tr>
<td>Evergreen Rd</td>
<td>Cooper St</td>
<td>Tr 663 Barber Rd</td>
<td>2001</td>
<td>18,361</td>
<td>Both</td>
</tr>
<tr>
<td>Hessian Ave</td>
<td>Tr 45 Howell Ave</td>
<td>Tr Tatum St</td>
<td>2001</td>
<td>5,154</td>
<td>Both</td>
</tr>
<tr>
<td>Lafayette Ave</td>
<td>Stuart St</td>
<td>Packard Ave</td>
<td>2001</td>
<td>251</td>
<td>Both</td>
</tr>
<tr>
<td>Mantua Ave</td>
<td>Tr 650 S. Evergreen Ave</td>
<td>Tr 551 Salem Ave</td>
<td>2001</td>
<td>20,048</td>
<td>Both</td>
</tr>
<tr>
<td>S Barber Ave</td>
<td>Railroad Ave</td>
<td>S Evergreen Ave</td>
<td>2001</td>
<td>3,391</td>
<td>Both</td>
</tr>
<tr>
<td>Salem Ave</td>
<td>Mahley Dr</td>
<td>Tr 45 Mantua Ave</td>
<td>2001</td>
<td>9,453</td>
<td>Both</td>
</tr>
</tbody>
</table>

*Source: Final Traffic counts were procured from the DVRPC website ([www.dvrpc.org](http://www.dvrpc.org)) in June 2007.*

### 3.5 Economic Trends

Median income, median household value, and unemployment are three key indicators of the economic health of a community.

#### 3.5.1 Median Income
As of the 2000 US Census, the City’s per capita income is lower than the County and the State. The City’s median incomes are also lower than those of the County and the State.

### Table 5: Median Income

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Per Capita Income</th>
<th>Median Income</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Woodbury City</td>
<td>$21,592</td>
<td>$41,827</td>
<td>$53,630</td>
</tr>
<tr>
<td>Gloucester County</td>
<td>$22,708</td>
<td>$54,273</td>
<td>$62,482</td>
</tr>
<tr>
<td>New Jersey</td>
<td>$27,006</td>
<td>$55,146</td>
<td>$65,370</td>
</tr>
</tbody>
</table>

*Source: 2000 Census, SF-3 for City, County, and State, DP-4*

### 3.5.2 Median Household Value

The median housing value for the City in 2000 was $97,100. It must be pointed out that the data expressed is well over six years old and housing values have increased dramatically over the past three years.

### Table 6: Value of Residential Units

<table>
<thead>
<tr>
<th>Value</th>
<th>Number of Units</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 – 50,000</td>
<td>47</td>
<td>2.1</td>
</tr>
<tr>
<td>$50,000 – 99,000</td>
<td>1,221</td>
<td>53.3</td>
</tr>
<tr>
<td>$100,000 – 149,000</td>
<td>700</td>
<td>30.5</td>
</tr>
<tr>
<td>$150,000 – 199,000</td>
<td>180</td>
<td>7.9</td>
</tr>
<tr>
<td>$200,000 – 299,000</td>
<td>97</td>
<td>4.2</td>
</tr>
<tr>
<td>$300,000 – 499,000</td>
<td>47</td>
<td>2.1</td>
</tr>
<tr>
<td>$500,000 – 999,000</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>$1,000,000+</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,292</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: 2000 Census, SF-3 for City, County, and State, DP-4*

### 3.5.3 Unemployment Rate

Currently the City of Woodbury has over 6,000 jobs within its borders. Underwood Hospital is the largest employer in the County with 1,700 +/- employees. The County of Gloucester maintains their offices, The County Justice Complex, County Police, all in the City of Woodbury with another 550 jobs. The Gloucester County Times employs 260, the Woodbury School District has 220 employees, and the City has 190 employees. According to the 2000 Census, the unemployment rate (3.1%) in Woodbury was slightly lower than Gloucester County (4.1%).
3.6 Evaluation of Existing Plans and Studies

3.6.1 Woodbury Master Plan
The City of Woodbury adopted a new Master Plan in December 2006 in which it was recommended that the City adopt a redevelopment plan for the southeastern area of the city between South Evergreen Avenue and Barber Avenue for a transit station. The master plan cited evidence that residents were upset of the lack of a central transit location to purchase tickets and transfer buses. The master plan recommended the South Barber location because of available land and the underutilization Conrail and potato packing plant parcels.

3.6.2 Gloucester County Transportation Plan
In 2002, the Gloucester County Planning Department published a new Transportation Plan in which it addressed public transit shortfalls within the County. The first initiative within the plan called for the establishment of a Transportation Terminal in Woodbury because of its centralized location to receive and address transportation requests from transit-dependent populations. The plan recommended the City of Woodbury as a bus hub is due to the high frequency of public transportation in these areas. The plan stated the following

“The terminal would promote the sharing of office and parking space with transportation providers such as: Access Link, social service agencies, private operators and possibly municipal bus services. NJ Transit fixed route bus service would serve the Terminal location as well (the need for better coordination of NJ Transit bus schedules in the Woodbury/Westville area would need to be addressed). The Terminal would serve as a central clearinghouse to address transportation requests, be a NJ Transit ticket agency as well as offer bathroom facilities and shelter from inclement weather. The Terminal would ideally be a 24 hour, 7 day per week operation with state-of-the-art technology to track vehicles and efficiently schedule trip requests amongst various transportation providers.”

3.6.3 1-295/U.S. Riverfront Transportation Corridor Study for Gloucester County; October 2002
DVRPC has initiated (with cooperation from local and county officials) two studies that focused in part on the possible location of a bus terminal in Woodbury. The 2002 study included analysis of four alternative sites, with an evaluation of criteria that influence the feasibility of each site. The study also inventoried potential funding sources to advance the proposal.

3.6.4 Implementing Transit-Oriented Development: DVRPC; December 2004
The second study conducted by DVRPC analyzed existing public transit facilities that had the presence of public transit lines (rail or bus) and available vacant within a one-mile quarter radius of the TOD. The study looked into ways of better achieving TOD at sites by analyzing master plans, access, restate development potential and other tangible

Woodbury Transit Hub Feasibility Analysis
Ragan Design Group
factors. The report opined that Woodbury was an excellent location for TOD and that the City of Woodbury, Gloucester County, and NJ Transit should evaluate four sites for a transit hub facility. The sites they recommended were the intersection of Hunter Street and Broad; the intersection of Railroad Avenue and Cooper Street; the intersection of Red Bank Avenue and North Broad Street; and South Barber Avenue between Railroad Avenue and South Evergreen Avenue. The report briefly discussed strengths and weaknesses at each site and recommended that a more detailed analysis be conducted at each site.

4.0 TRANSIT HUB FEASIBILITY

The purpose of this report was to determine whether developing a transit hub was feasible on South Barber Avenue. The Steering Committee evaluated the following four sites on South Barber Avenue to select the most feasible location:

- Eastside of South Barber Avenue between Railroad Avenue and Evergreen Avenue (Option A)
- Westside of South Barber Avenue between Railroad Avenue and Evergreen Avenue (Option B)
- Intersection of South Barber Avenue and Railroad Avenue (Option C)
- Intersection of South Barber Avenue and Evergreen Avenue (Option D)

The Steering Committee with the help of the community developed a criteria screening process to determine which site would ensure that transit hub would be successful. The objective of the criteria was to ensure that the site would provide opportunities for development, reduce conflicts between buses, cars and pedestrians and improve the overall character of South Barber Avenue. The Steering Committee came to a consensus that the following criteria would be essential in developing a transit hub on South Barber Avenue:

- Availability of Land for Ancillary Development;
- Existing Zoning and Land Use;
- Circulation of Pedestrians and Vehicular Traffic;
- Economic Viability of a Transit Village; and
- Development Impacts on Surrounding Neighborhoods and the Environment.

After the criteria was established, the Steering Committee developed an objective process to select the best site based on the criteria noted above. The following plus/minus matrix was created and evaluated based on the criteria at each site.

- +1 meant the above criterion would have a positive impact for the transit hub
- 0 meant the above criterion would have a neutral impact for the transit hub
- -1 meant the above criterion would have a negative impact for the transit hub

Table 7: Criteria Screening Scores
### Option Comparison Table

<table>
<thead>
<tr>
<th></th>
<th>Option A</th>
<th>Option B</th>
<th>Option C</th>
<th>Option D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of Land for Ancillary Development</td>
<td>-1</td>
<td>+1</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>Existing Zoning and Land Use</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Circulation of Pedestrians and Vehicular Traffic</td>
<td>-1</td>
<td>-1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Economic Viability of a Transit Village</td>
<td>0</td>
<td>+1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Development Impacts on Surrounding Neighborhoods and the Environment</td>
<td>1</td>
<td>1</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>Totals</td>
<td>-1</td>
<td>1</td>
<td>-2</td>
<td>-2</td>
</tr>
</tbody>
</table>

The individual scores were summed to produce a total score for each location, and were evaluated to determine its transit hub feasibility. The evaluation process included windshield surveys, site visits, aerial images, and stakeholder input.

After comparing the sites against the criteria and an intensive evaluation process, the Steering Committee came to a consensus that the most viable location was Option B, the Westside of South Barber Avenue between Railroad Avenue and Evergreen Avenue.

#### 4.1 Availability of Land for Ancillary Development

The Steering Committee’s preferred location (Option B) to build a transportation hub is Block 104, Lot 6, (Figure 5) on South Barber Avenue approximately in the middle of Railroad Avenue and Evergreen Avenue. The 4.32 acres parcel is irregular in form and is bounded by Conrail railroad tracks to the West, a well established single family residential neighborhood and Railroad Avenue to the North, an active Conrail railroad corridor and South Barber Avenue to the East, and a vacant commercial parcel and gas station to the South. In 2005, the parcel assessed value is $172,800. It is approximately 200 feet deep and 1,058 feet long. The site is relatively flat with a slight incline towards the railroad tracks to the West. Currently, there is a Conrail substation located on the northern tip of the site and several railroad cars to the southwest. The surface is a mix of stone, black gravel and dirt. Conrail owns another parcel, Block 104, Lot 4, which is 2.76 acres. The site is landlocked between Conrail’s Railroad ROW. Excluding Railroad ROW, Conrail owns 7.11 acres within the study area.
Figure 5: Option “B”

- Conrail Parcels
- Gloucester County Packing Company (3.66 acres)
- Sickel’s Shopping Center
- Gloucester County Packing Company (0.53 acres)
- Private Vacant Land (0.87 acres)
- Option “B” Block 104, Lot 6 (4.32 acres)
The key aspect that made this parcel so attractive to the Steering Committee was the availability along and near South Barber Avenue for development and commuter parking. There are a number of ancillary land parcels available for redevelopment and parking. To the South of the site there is an empty Shell gas station which is approximately 0.43 acres. In 2005, the assessed value of the property was $193,400. The said parcel could be developed into a gateway sign welcoming people to Woodbury and the transit village. Gateways are decorative entrance points into a municipality that function as the “front door” to a community. Gateways foster all forms of circulation by clearly indicating the routes to nodes in the City.

To the East of Option “B”, there is a large ancillary land parcel owned by Gloucester County Packing Company. It is approximately 3.66 acres, level with a potential wetland on its easterly boundary. The owners indicated that they were very much in favor in bringing TOD to the South Barber Avenue. They also indicated that they would entertain the possibility of selling their property and relocating to another location in Woodbury. As of 2005, the assessed value of the property was $691,200.

4.2 Existing Zoning and Land Use
The site is currently zoned Industrial in Woodbury’s Zoning Ordinance. Table 8 lists the pertinent zoning regulations in Woodbury’s Industrial zone.

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Lot Size</td>
<td>Detached: 7,500</td>
</tr>
<tr>
<td></td>
<td>Semidetached: 5,500</td>
</tr>
<tr>
<td></td>
<td>Attached: 4,000</td>
</tr>
<tr>
<td>Minimum Lot Frontage</td>
<td>Detached 60 feet</td>
</tr>
<tr>
<td></td>
<td>Semidetached 45 feet</td>
</tr>
<tr>
<td></td>
<td>Attached 35 feet</td>
</tr>
<tr>
<td>Front Setback</td>
<td>25 feet</td>
</tr>
<tr>
<td>Minimum Side Yard</td>
<td>Detached building: 12 feet for any one yard; 20 feet for the total of both side yards. (2) Semidetached building: 12 feet.</td>
</tr>
<tr>
<td>Minimum rear yard width</td>
<td>20 feet</td>
</tr>
<tr>
<td>Maximum Lot Coverage</td>
<td>60 percent</td>
</tr>
<tr>
<td>Maximum Height</td>
<td>60 feet</td>
</tr>
<tr>
<td>Parking</td>
<td>based upon the gross square footage of the floor area of the use</td>
</tr>
</tbody>
</table>

The current zoning and land use are not compatible for a TOD, but there are plenty of opportunities to create transit friendly land uses and zoning within the study area. To foster TOD, the City has two viable policy options. First they can create a special TOD zoning classification and rezone the entire study area to Transit Mixed Use Zoning (TMU). Transit-Oriented municipalities are adding TMU to their Land Development Ordinances because the zoning enables the property owner to develop with the
appropriate density and mix of uses to maximize utilization of the land adjacent to transit hubs which facilitate a community environment that is an exciting destination. Rezoning an area to TMU, requires an enduring team effort involving partnerships between developers, community stakeholders, city governments and public agencies.

Secondly, Woodbury can create an overlay zoning by adopting a redevelopment plan for the area. The overlay zone or ordinance does not change the existing zoning for a property owner; however, it provides more flexibility for the redeveloper if certain sections of the land development ordinance cannot be met. Many cities throughout New Jersey have adopted Redevelopment Plans to facilitate TOD including Rahway, Morristown and Bayonne. These TOD-focused redevelopment plans have improved substandard commercial areas around transit centers and have lead to the creation of mixed-use developments which have increased the cities' economic viability and ratables.

### 4.3 Circulation

#### 4.3.1 Bus Circulation
At this time, no bus routes travel on South Barber Avenue by Option B. The nearest bus route is the 412 which travels up South Evergreen Avenue, turns West onto East Barber Avenue, then it moves North onto Broad Street and into downtown Woodbury. All six bus routes converge at the intersection of Cooper Avenue and Broad Street where they head north into downtown Woodbury. In order for the transit hub to work at Option B, local officials must work with NJ Transit to reroute bus service in Woodbury. Analysis will have to be conducted to determine the financial cost to NJ Transit. At this time, NJ Transit has not made a decision about conducting a financial feasibility study into rerouting the bus services.

It was recognized that the South Barber Avenue is fairly far from downtown Woodbury and Underwood Memorial Hospital. The study group participants stated that no one would ever walk that distance. It was recommended that a shuttle bus line be created to transport commuters to downtown Woodbury and the Hospital campus. The City of Denver, CO and its transportation agency, Regional Transportation District (RTD), formed a partnership in the 1990s and created a free shuttle. The shuttle makes frequent stops within walking distance of some of the city’s most popular destinations including employment centers, shops, transit stations, and sports venues. The free shuttle is a viable solution to bringing transit riders to downtown Woodbury and other activity centers.

#### 4.3.2 Vehicular and Pedestrian Access
At present, the only vehicular access into the site is via Evergreen Avenue or Railroad Avenue. Vehicles travel quickly along South Barber Avenue and there are no sidewalks for pedestrians. The roadway system and development patterns in the study area do not encourage walking and cycling.
By rezoning the area and changing the land uses on South Barber Avenue to a more pedestrian-friendly environment, redevelopment patterns can occur that promote walking and cycling. Typically, within a transit village, vehicular travel speeds are slower, there are ample sidewalks with pedestrian street activity, and the development is more compact; thus, creating a pedestrian and cycling-friendly environment.

4.3.3 PATCO/ NJ Transit Light Rail
In October 2005, STV prepared a report titled, _South Jersey to Philadelphia Transit Study_, for the DRPA and PATCO to assess the need for commuter rail system in southern New Jersey. Under Alternative Three, PATCO or a modified PATCO (possibly NJ Transit) train would begin in Glassboro and travel North on the existing Conrail ROW into Woodbury, merge onto the existing PATCO high speed line in Camden and finally cross the Ben Franklin Bridge into Philadelphia. This alternative would more likely discourage sprawl and build upon existing pre-existing streetcar suburbs. However, there are concerns from residents about the amount of at-grade crossings. Recently, DRPA signed a consultant to study the Alternative Three route in more detail. At this time, there have been no indications that any agency has taken the initiative to conduct the next step in the FTA process, an Alternative Analysis (AA).

The commuter rail would provide a convenient, high-speed and high-capacity alternative to bus service for Gloucester County residents who travel to Camden and Philadelphia. By locating the bus hub near the potential train station, Woodbury would be creating an energetic multimodal transit development. Buses would remain an essential element in the transit circulation plan.

4.4 Economic Viability of a Transit Village
At present, Sickel’s Shopping Center is the only large retailer in the study area. The shopping center had its façade replaced in early 2006. The center still struggles to maintain tenants and remains vacant. A transit hub along South Barber Avenue and a redeveloped Sickel’s Shopping Center would increase Woodbury’s economic viability. During the meeting process, business owners emphatically stressed that there was a severe disconnect between local business owners and the City. They opined that the City does not do enough to attract shoppers and tourist to the area; thus, they are unable to compete against the Deptford stores. A majority of the business owners were in favor of the transit hub because they believe a centralized mixed-use community along South Barber Avenue could help their businesses. A transit hub could help promote economic vitality in Woodbury by encouraging travelers to stop, parking their car, and patronize local businesses and attractions.

4.5 Development Impacts on Surrounding Neighborhoods and the Environment
The overall level of support for a transit center was mixed. For the most part, the overall City’s perception was that the transit hub would be an asset to the community. Business owners and residents were in favor of the location because it would not add to the existing traffic problems downtown. Moreover, neighborhood groups favored redeveloping the underutilized part of town and adding new commercial nodes. Neighborhoods to the West have a natural buffer created by Conrail’s ROW. No
development could occur on that side of the transit village. Neighborhoods to the East of Evergreen Avenue, welcomed the concept of a transit village, new development and the possibility of redeveloping the Sickel’s Shopping Center. However, residents near the Railroad Avenue were not in favor of the transit hub. They feared it would increase crime and loitering within the area.

Since the proposed transit hub would likely be constructed with Federal capital funding, it would require an appropriate level of NEPA environmental documentation. It appears that there are no wetlands or floodplains on the Conrail parcels. However, there is a stream and potential wetlands near the Gloucester County Packing Company. If the plan were to move forward, a wetlands delineation would be required prior to any development around the area. A brief review of NJDEP’s website did not indicate that there were hazardous materials on the Conrail parcels. There are several Brownfield sites in Woodbury, but none are located in the immediate area of South Barber Avenue.

5.0 CONCEPTUAL DESIGN APPROACH

Through extensive study, planning, design, and public feedback gathered during the Study process, Option B was confirmed as the best location for a multimodal facility because it would take advantage the site geometry and existing transportation infrastructure. A conceptual design was developed to analyze how the multimodal transit center would function on South Barber Avenue.

5.1 Phase One – Construction of Mixed-Use Transit Hub Facility (1-3 years)

The objective of Phase One is to acquire land from Conrail and construct a mixed-use transit facility with an attached structured parking. Phase One includes:

- A transportation facility with the main entrance to the bus located on the western end of the parcel to avoid conflicts with commuters’ vehicles queuing on South Barber Avenue. A ticket booth is in the building along with benches, tables and bathrooms for commuters. There will be several commercial stores (café, dry cleaner, etc.) fronting South Barber Avenue to shield the bus bays from the street.

- The attached parking garage is four stories with parking on floors three through four. The structure will have an elevator for commuters.

- The one-way configuration of the bus loop is counterclockwise and provides a covered curbside stop to provide protection from the weather and to purchase tickets. There are seven bus bays with clear access points for commuters. Cars will enter the parking structure from the opposite side to prevent conflicts between buses and pedestrians.

- A free shuttle loop is used to transport commuters from the transportation center to downtown Woodbury.
Finally, a pedestrian path towards the currently inactive railroad corridor is established to permit a connection to a possible future rail station. The area could also be used as a quick passenger drop-off.

Figure 6: Proposed Transit Hub Facility
5.2 Phase Two –Commuter Rail and Transit Oriented-Development (7 -15 Years)

A Multimodal Transportation Center
One of the main purposes for this study was to create a vision, guidelines, and obtain community support to redevelop an underutilized section of the City into a multimodal transit hub serving the City of Woodbury and all of South Jersey. The essence of a multimodal facility is to bring together buses, trains, and pedestrians into one common place. The transit-friendly place provides safe access for pedestrians and vehicles. It offers convenient transit transfers and protection from inclement weather. By combining NJ Transit with the potential PATCO commuter rail line into one strategic location, it will create an integrated network of transportation that will improve the overall use of federal and state transportation dollars. Moreover, a multimodal transit hub will enhance the economic vitality of Woodbury and Southern New Jersey by providing commuters better access to jobs and commerce, recreation and entertainment venues.

There are no specific federal or state design standards for developing multimodal transportation facilities. Recently, states and the federal government have been placing more emphasis on creating multimodal transportation centers instead of the norm – single alternative transportation use (bus, passenger rail). The Woodbury Multimodal Transportation Center incorporated the following design elements:

- Safe walkable design for pedestrians.
- The train station is the focal feature along South Barber Avenue.
- A diverse mixture of uses in close proximity including office, residential, and retail.
- It provides safe access points for buses, vehicles and pedestrians.
- Parking structures are hidden from the main street, but still provide sufficient parking for commuters and shoppers.

A conceptual design was created for a multimodal transportation center on South Barber Avenue utilizing a portion of the Conrail land, Gloucester County Packing Company parcels and private vacant land (totaling 9.38 acres-See Figure 5). This section below provides a brief description of the multimodal transportation center:

- The bus facility enables users to purchase tickets for the train and NJ Transit bus travel in an enclosed building. Escalators, stairs and elevators will transfer the user to the first floor to access the train station and buses.
- Locating a train station South Barber Avenue involves the construction of a station that can accommodate both PATCO and freight trains. The minimum overhead train clearance would have to be 22 feet.
- Parking is provided on both sides of the train station so that users can get to the station from multiple points.
• The Gloucester County Parking Company lands are acquired and redeveloped into urban-style condos and new office space.

Seven years from now, South Barber Avenue could look like this…

It’s early Monday morning, and commuters are getting their freshly brewed coffee and dropping off dry cleaning at the concierge booth as they wait for their train to Philadelphia.

A young man reads the morning paper when he notices a friend from college getting off a bus. They do some catching-up on their train ride into City.

Residents are able to ride their bikes to the station and lock them in secured lockers while they are at work.

A wife drops her husband off at the passenger at the Kiss-n-Ride location before he heads to work.

A new Class “A” office building has brought an influx of professionals. They eat outside at Bistros and have drinks after work. The whole time, their cars haven’t moved. They are safely secured in the shared-parking structure.

Professionals easily transfer from the parking garage to the train station via the catwalk during inclement weather.

Prior to transferring to their buses or getting into their cars to go home, many commuters pick up fresh produce, cheese, or bread from specialty stores along South Barber Avenue.

Five to six storey mixed-use buildings that create land use diversity. There is constant interaction on the street and pedestrians feel safe with sidewalks and amazing landscaping.

A family boards a train to Philadelphia for the Philadelphia Eagles game with the hopes of a victory over the New York Giants.

Neighborhood residents drop by a new upscale Italian restaurant on South Barber Avenue to meet friends from South Jersey for dinner. They hang around a few hours at a jazz club, dance and take the train home back to Philadelphia. The South Jersey friends take a taxi back to their home.
Figure 7: Perspective of South Barber Ave Transit Center
Figure 8: Proposed Woodbury Transit Village

Bus Exit and Car Access Point

Building “B”
Ramp Access

Building “A”
Pedestrian Crossing

Building “C”

S. Barber Ave

Dedicated Bus Entrance

Building “F”

Building “E”
Existing Buildings

Building “D”

Building “G”

Building “H”

Building “I”

Plaza
Table 9: The Multimodal Transportation Center Program

<table>
<thead>
<tr>
<th>Proposed Use</th>
<th>Function</th>
<th>Office/Retail/Residential Space (SF)</th>
<th>Parking Spaces</th>
<th>Gross Floor Area (SF)</th>
<th>Assessed Value (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building A: Multimodal Transit Facility</td>
<td>The Woodbury Multimodal Facility will provide a safe, efficient and accessible, integrated transportation facility that supports the interface for various existing transportation modes serving the needs of Gloucester County. It will have seven bus bays, ticket booths, restrooms, concierge booth, and several commercial buildings including a bistro, dry cleaner, and flower store. The four storey building will have commercial/office space in the front and an attached shared-parking structure with Build “B”.</td>
<td>54,789</td>
<td>249</td>
<td>109,668</td>
<td>$6.574</td>
</tr>
<tr>
<td>Building B: Commercial/Office</td>
<td>Building “B” is a 4 storey commercial/employment building that shares parking with the Multimodal Transit Center. Young professionals are attracted to its modern architecture style.</td>
<td>75,204</td>
<td>485</td>
<td>238,860</td>
<td>$9.024</td>
</tr>
<tr>
<td>Building C: Conrail Office</td>
<td>Conrail builds a new two storey regional office building to accommodate the new transit facility.</td>
<td>24,078</td>
<td>12</td>
<td>24,078</td>
<td>$2.889</td>
</tr>
<tr>
<td>Building D: Commercial/Office</td>
<td>2-3 Storey upscale designer clothes and restaurants/taverns.</td>
<td>39,000</td>
<td>-</td>
<td>39,000</td>
<td>$4.680</td>
</tr>
<tr>
<td>Building E: Commercial/Office</td>
<td>Five: one storey kiosks (250 sq ft each) for newspapers, magazines and quick snacks</td>
<td>1,250</td>
<td>-</td>
<td>1,250</td>
<td>$0.062</td>
</tr>
<tr>
<td>Building F: Train Station</td>
<td>The Woodbury Train Station is the focal point of the site. There is a clear pedestrian path connection from Building “A” to the train station. From the path, commuters take the escalator up to the train platform. The train platform can accommodate PATCO and Conrail trains. The enclosed station provides protection from the weather, ticket booths, and a sitting area.</td>
<td>20,160</td>
<td>11</td>
<td>20160</td>
<td>$1.330</td>
</tr>
<tr>
<td>Building G: Station Parking</td>
<td>The parking structure augments the existing bus and rail transit with the Multimodal Transit Facility, including a multi-deck parking garage. It also provides shared-parking for Building “H”.</td>
<td>-</td>
<td>452</td>
<td>168,548</td>
<td>$6.780</td>
</tr>
<tr>
<td>Building H: Commercial/Office/Residential</td>
<td>This six storey mixed use office building has a ground floor day-care and professional office space on floors two through six.</td>
<td>59,100</td>
<td>Shared Parking at Building “G”</td>
<td>59,100</td>
<td>$7.080</td>
</tr>
<tr>
<td>Building I: Residential/Commercial</td>
<td>The mixed-use residential building is a vibrant urban building. The building has a Spanish-influenced plaza and rooftop gardens. There are two levels of underground parking for the residents.</td>
<td>158,112</td>
<td>230</td>
<td>234,552</td>
<td>$16.375</td>
</tr>
<tr>
<td>Potential Redevelopment</td>
<td></td>
<td>431,693</td>
<td>1,439</td>
<td>895,216</td>
<td>$54.794</td>
</tr>
<tr>
<td>Ratables for the City of Woodbury (@ 60 %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$32.876</td>
</tr>
<tr>
<td>Actualized Tax Dollars for the City of Woodbury</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$1.676</td>
</tr>
</tbody>
</table>

Woodbury Transit Hub Feasibility Analysis
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Figure 9: First Floor of TOD

- Shared Parking Facility
  - Easy Access to Bus Hub, Train Station and Offices

- Designated Pedestrian Crossing

- Bus Bays

- Ticket Booths and Commercial Stores

- 11 Kiss & Ride Spaces

- Short Term Parking

- Shared Parking Facility: Easy Access to Train Station and Building “H”

- Underground Parking

Woodbury Transit Hub Feasibility Analysis
Ragan Design Group
Figure 10: Second Floor of TOD

- 2nd Floor Office/Retail Space Above the Bus Bays
- Bus Bay Drop-Off Zone for Connection to Train
- Office Space
- Ample Sidewalks for Safe Walking and Window Shopping
Figure 11: Third Floor of TOD

Shared Parking Structure above Bus Bays and Office Space

17 Condo Units Per Floor (6 Storey Building)
Figure 12: Fourth – Sixth Floor of TOD

- Shared Parking Structure for Commuters and Shoppers
- Office/Commercial Buildings Fronting South Barber Avenue
- Plaza for Office Workers and Residents
Figure 13: Illustrative Rendering of the Woodbury Multimodal Transportation Center
6.0 NEXT STEPS AND RECOMMENDATIONS

6.1 Prepare a TMU Zoning Ordinance or Redevelopment Plan
In accordance with New Jersey Redevelopment and Housing Law, City Council and the Planning Board should determine whether the study area is in need of redevelopment. During the needs assessment, it is essential that the City hold public hearings and obtain the community’s input as to whether they are in favor of designating the study area as a redevelopment area. The redevelopment plan should have clear objectives and goals. It should contain regulations on proposed land uses, building requirements, parking and landscaping etc. NJ Transit and NJDOT have technical assistance programs that will assist communities with drafting Redevelopment Plans and ordinances that encourage TODs.

6.2 Pursue “Transit Village” Designation from NJDOT and NJ Transit Village and Improve overall NJ Transit Score
The City of Woodbury and stakeholders should aggressively seek technical assistance from the NJDOT and NJ Transit’s Transit Village Initiative. New Jersey's Transit Village Initiative was created by the New Jersey Department of Transportation and NJ TRANSIT to acknowledge the existence of transit-friendly, smart growth land use practices in designated municipalities that allow for mixed-use development (with a strong residential component) to occur within a quarter-mile to half-mile radius around rail or bus passenger facilities. The Transit Village Initiatives gives designated towns priority access to state grants for urban renewal and transportation improvements. A municipality is designated a Transit Village only after much of the visioning, planning and background work have already been completed on the municipal level, and only when it is poised for redevelopment to begin. Woodbury is an excellent candidate to receive assistance from these agencies because they have existing infrastructure and public transit. The goal of Woodbury should be to receive the coveted Transit Village designation from NJDOT and NJ Transit. The criteria used to determine if a municipality is ready to be designated a Transit Village is the following:

1. A good Transit Village candidate must make a commitment to grow in jobs, housing and population.

2. A designated Transit Village must have a transit facility. This can be a rail or light rail station, ferry terminal, a bus hub or bus transfer station.

3. The candidate for Transit Village designation must have vacant land and/or underutilized or deteriorated buildings within walking distance of transit where redevelopment can take place.

4. A Transit Village candidate must have an adopted land-use strategy for achieving compact, transit-supportive, mixed-use development within walking distance of transit. This land use strategy should be based on transit-oriented development (TOD) principles and can be in the form of a redevelopment plan or zoning ordinance.
5. The candidate must have a strong residential component. This can include mid-rise buildings, townhouses or apartments over first-floor businesses. A wide variety of housing choices within walking distance of transit helps to support transit ridership.

6. A good candidate will have "ready-to-go" projects. This means at least one transit-oriented project that can be completed within three years.

7. In order for a municipality to succeed as a Transit Village, it should demonstrate pedestrian and bicycle friendliness. This means clear, direct pathways from the transit station to shops, offices, surrounding neighborhoods and other destinations.

8. A good candidate views its transit station as the focal point of the community and uses its station plaza as a gathering place for community activities such as festivals, concerts, and public ceremonies and farmers markets.

9. A good candidate includes its transit station in a station area management plan, in a special improvement district (SID) or as part of a Main Street New Jersey designation.

10. A good candidate should strive to minimize automobile use by maximizing the appeal of transit. One example of this is the concierge service in the Metuchen train station. Commuters drop off errands (such as dry cleaning, packages for mailing, etc.) in the morning and pickup items on the opposite side of the tracks on the way home.

11. The candidate should provide commuter parking for residents and non-residents. A Transit Village should also strive to reduce parking requirements near transit stations and implement shared parking solutions wherever possible.

12. The candidate should support local arts and culture. This brings vibrancy and activity to a community. Designating an arts, antique or restaurant district helps make a Transit Village a destination.

13. The candidate should support the historic and architectural integrity of the community by ensuring that new buildings blend in with the existing buildings. This can be done with architectural design guidelines that govern new building facades, window replacements, awnings, lighting and signs.

14. The candidate should consider how to incorporate some affordable housing within walking distance of transit since low and moderate income households rely heavily on public transportation. Woodbury has meet several of the criteria of the Transit Village initiative brings together key state agencies (e.g., New Jersey Department of Transportation, NJ TRANSIT, New Jersey Department of
Environmental Protection, New Jersey Department of Community Affairs, Office of Smart Growth, Council on Affordable Housing, Housing and Mortgage Finance Agency, Main Street New Jersey, New Jersey Economic Development Authority, New Jersey Redevelopment The Transit Village Initiative helps to redevelop and revitalize communities around transit facilities to make them an appealing choice for people to live, work and play, thereby reducing reliance on the automobile.

6.3 Continue the Public Participatory Process
It is imperative that the local officials and stakeholders keep the public abreast as to the status of the transit center and possible PATCO commuter rail. Public participation was essential in conducting this study. Constant interaction with the elected officials and stakeholders in the region is necessary in achieve this project.

7.0 SHORT-TERM SOLUTION

As noted above, DVRPC recommended in their studies, I-295/US 130 Riverfront Transportation Corridor Study (2002) and Implementing Transit-Oriented Development (2004), that the following four sites be evaluated in more detail to determine their potential for transit hub: Hunter Street, Railroad Avenue, Red Bank Avenue and South Barber Avenue. During the study process, NJ Transit officials strongly recommended that the study group briefly\(^2\) investigate the possibility of construct a short term transit hub at one of these sites.

7.1 Hunter Street
The Hunter Street location is in downtown Woodbury and has excellent access to the Hospital and government buildings. During the study process, the study group was advised that the County will be building a new Family Court Building. It would not be feasible to create a short term transit hub at this location. There is not enough land available to construct a transit hub and provide sufficient parking for commuters.

7.2 Railroad Avenue
The site is located at the intersection of Railroad Avenue and Cooper Street. The former Woodbury Train Station is located at this intersection. Although there is an existing parking lot at the site, the site geometry precludes it from future development. There are no opportunities for ancillary development and there would be a significant community impact.

7.3 Red Bank Avenue
The Red Bank Avenue site is located at the intersection of Broad Street and Red Bank Avenue. Currently, there is a CVS, McDonald’s Restaurant and Parking Lot.

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\(^2\) The purpose of this study was to evaluate the feasibility of developing a transit hub on South Barber Avenue. At the request of NJ Transit, the study group conducted a brief analysis for these sites and included it this report for future reference. City of Woodbury can use this analysis as baseline if they select to pursue an analysis of other sites for a transit hub. It is recommended that a more thorough alternative analysis be conducted at these sites in addition to this or any other prior reports.
Underwood Memorial Hospital is located directly across from the site. Observations of site indicated that the CVS parking lot is being utilized as a turn-around and waiting area for NJ Transit buses and overflow parking for Underwood Memorial Hospital employees. This site could possible provide a short-term solution to Gloucester County’s lack of a transfer location.

It is recommended that the City of Woodbury and NJ Transit reach out to CVS and McDonald’s in order to erect a temporary transit hub for commuters. The site should be used as a short-term solution for a bus waiting area. This site has no long term benefits to the City of Woodbury. The site is located in a highly congested area and close to a well-established single family neighborhood. The surrounding single family neighborhoods would be adversely impacted with more traffic in their neighborhood. Moreover, the site does not provide any opportunities for ancillary development. Unlike the South Barber Avenue, the site is completely built-out and there are limited opportunities for redevelopment. Recently, several medical professionals purchased land across from the CVS and Underwood Medical Campus and are planning to build new medical offices.

8.0 CONCLUSIONS

- The current zoning and land use within the core area of the study is not zoned for a TOD, but there are plenty of opportunities to create transit-friendly land uses and zoning within the study area. Woodbury has the power to create a Redevelopment Plan that could implement zoning regulations that will facilitate transit-friendly development. The regulations should require mixed-use buildings, protect open space, and create a pedestrian-friendly environment.

- Land acquisition appears to pose the most significant challenge to the development of the proposed Woodbury transit hub. As noted earlier in this report, the majority of land within the study area is owned by Conrail. The City of Woodbury and NJ Transit must engage in conversation with Conrail to determine the feasibility of purchasing the land from Conrail.

- Woodbury could increase its ratables if the proposed transit hub came to fruition. During the conceptual design process of the study, it became evident that the transit hub would generate significant ratable dollars for the City of Woodbury. Currently, the land within the redevelopment area has an assessed value of $2,713,200.00. The conceptual design projected an assessed value of $54.794 million.

- In order for the transit hub to work at Option B, local officials must work with NJ Transit and reroute bus services in Woodbury. Analysis will have to be conducted to determine the financial cost to NJ Transit. At this time, NJ Transit has not made a decision about conducting a financial feasibility study into rerouting the bus services.
To serve the needs of Woodbury and Gloucester County, an integrated multimodal transit facility is required. If the PATCO commuter rail does come to Woodbury, a facility on South Barber Avenue would increase mobility and accessibility for travelers and which will help meet the region’s travel demand. Moreover, the benefits of such a transit facility would improve the environment, quality of life, and economic vitality of Gloucester County.

If Woodbury, NJ Transit and PATCO should recommend that the multimodal transit facility be developed, the project would need to procure FTA funding to conduct a Project Planning and Development feasibility analysis including operation and maintenance cost analysis, Alternatives Analysis process, NEPA environmental process, and Preliminary and Final Engineering to prepare for construction.

The redevelopment of the recommended site is clearly dependent on the train station being coupled with the bus hub. This multimodal combination creates a well-documented development opportunities herein. The benefits for growth, for new ratables to the City, for a revived downtown, for new commercial, office and residential buildings are extremely exciting for the City of Woodbury and the surrounding areas. This study illustrates that this location is feasible given all the cooperation from the stakeholders. This would truly be a cooperative venture between the public and private sections to bring about significant positive development to the community.
9.0 BIBLIOGRAPHY


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