# Planning for Transit-Friendly Land Use

## A Handbook for New Jersey Communities

NJTRANSIT

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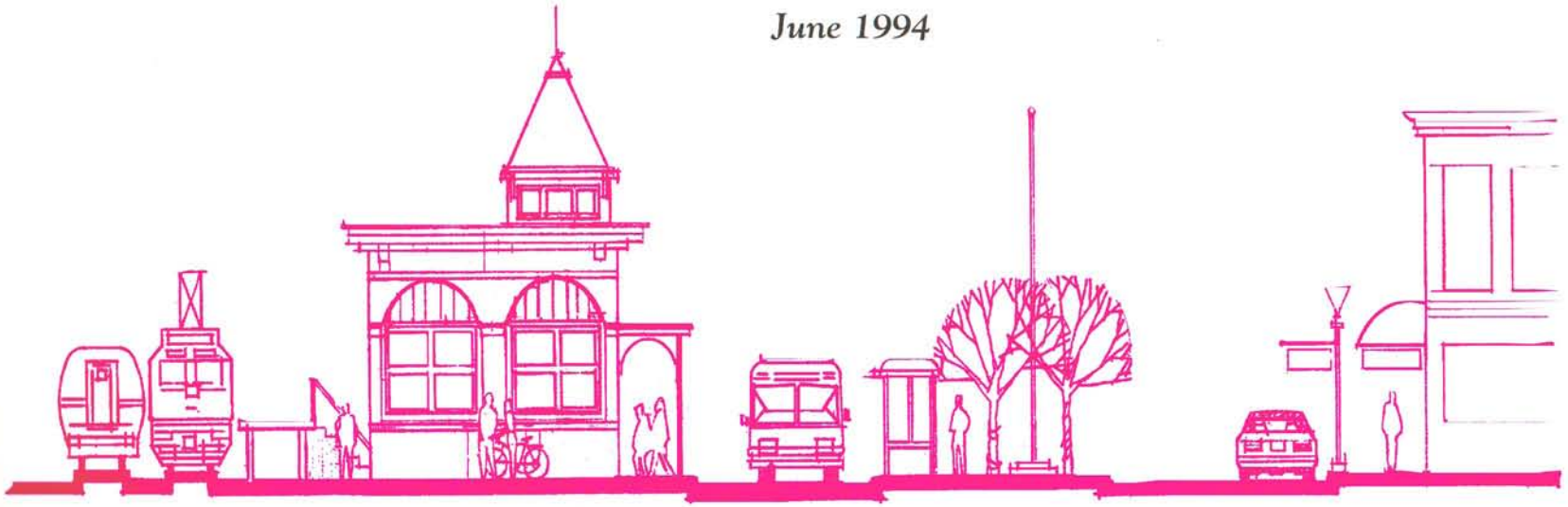
*June 1994*

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# TABLE OF CONTENTS

## Chapter 1 – Summary



## Chapter 2 – Land Use and Development Patterns



## Chapter 3 – Pedestrian and Bicycle Access and Circulation



## Chapter 4 – Vehicular Access, Circulation, and Parking

## Chapter 5 – Qualities of the Station Area Environment



## Chapter 6 – Implementation Tools and Techniques



## Chapter 7 – Sample Master Plan for Station Area



## Chapter 8 – Appendices

*This Handbook has been prepared by NJ TRANSIT as a guide to New Jersey communities that wish to consider the implementation of "transit friendly" land use plans around their transit stations, along their major transit corridors, and for proposed new areas of development.*

# Chapter 1 – Summary

## 1.1 The Goal of this Handbook

***The Handbook has been specifically designed to assist elected and appointed planning officials, members of planning and zoning boards, technical planning staff members, community representatives, and individual citizens interested in improving the relationship between land use planning and transit.***

Through the use of the strategies, techniques and tools described in this Handbook, you can plan your community in ways that create a more vibrant pedestrian-friendly streetscape, enhance economic vitality of the area, encourage modes of transportation in addition to, or even instead of, private automobiles, and contribute to a special identity of your community.

These modes of travel include heavy rail vehicles (trains), subways, light-rail vehicles (trolleys and people movers), buses, vans, and ferries; for purposes of this Handbook, they are collectively referred to as "transit."

As the most densely populated state in the nation, New Jersey has assumed an active role in planning its future, recognizing the need to balance land use, transportation, and open space interests in an environmentally sensitive manner. "Transit friendly" planning can be one of a community's most effective tools in achieving this balance and managing growth and change.


## 1.2 What does "transit-friendly" mean?

***What is "transit-friendly" planning? It is creating an environment around a transit stop or station that supports pedestrian and transit use. That is done by providing for a mix of land uses, in a safe, clean, vibrant, and active place.***

Throughout this Handbook, communities that accomplish the goal of implementing plans with patterns of development and circulation that encourage transit use are referred to as "transit-friendly".

"Transit-friendly" planning also involves designing outlying large-scale employment and residential complexes so that transit can effectively and efficiently serve them. This is done by clustering buildings and by creating a transit-friendly internal circulation system.

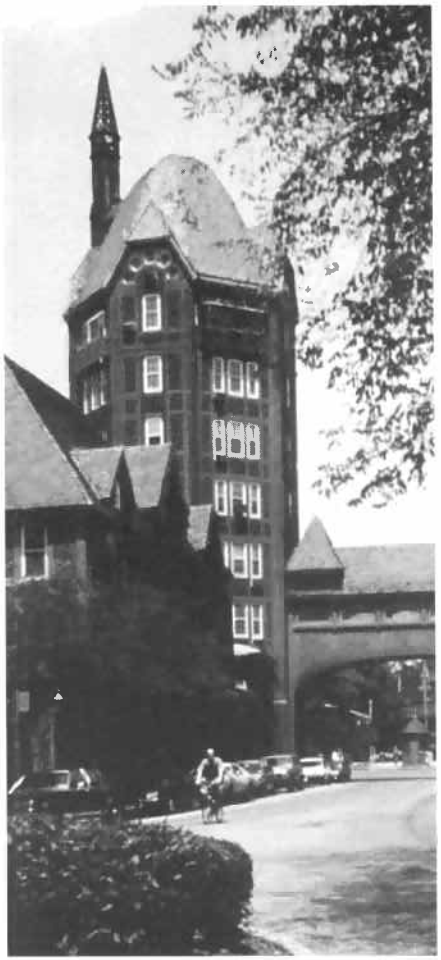
The goal of "transit-friendly" planning, whether transit is existing or new, is to re-examine land use and development patterns, in appropriate areas, with an eye towards moving from a large-lot, auto-dominated, dispersed, single-use pattern of development, to a pattern with a mix of land uses that easily relate to pedestrian activity and that have a focal point, or "center," near to or at the station itself.

In the case of bus routes or light rail transit corridors, the transit-friendly pattern of development may extend linearly along the route of service, with clusters of activity at the individual stops.

Making your community "transit-friendly" means making land use decisions that encourage residents to use transit as an alternative to the automobile for at least one or more of their trips between home, work, shopping, school, or services. It also means organizing land uses in a way that encourages workers, visitors and others coming to your community to use transit.

*Single-use, dispersed auto dominated development patterns are not transit-friendly and are discouraged.*

*Forest Hills, NY below, provides an early example of clustering multiple land uses and densities around transit to create an active pedestrian environment.*



*In Newark, the variety and density of land uses close to transit encourages workers to choose transit as their primary means of travel.*

*Residents, workers, visitors, and other travellers will be encouraged to take transit based on the presence of some or all of the following:*

- A transit station or stop that is a **visible point of identity** for the neighborhood, district, or community it serves;
- **Access to the transit station** or stop that is along clear, direct and convenient routes;
- Continuous and safe sidewalks and pathways that make **pedestrian access** easy;
- Bike paths and storage locations that encourage **bicycle access;**
- Safe and comfortable **places to wait** and to meet others with whom you are travelling for a part of your trip;
- Major **points of origin or destination** for transit riders that are in easy and interesting walking distance of the transit station or stop;
- **A mix of land uses,** including retail, housing and/or offices and other employment centers, and perhaps also such special uses as governmental offices, schools and health care facilities, or tourist or recreation locations;
- **Essential services and conveniences** that are located in, or in close proximity to, the transit station, such as a day care center or dry cleaning shop, facilitating "trip-linking" and thus eliminating the need to make additional stops during the trip;
- Safe, well-lit, attractive areas for all-day **parking, drop-off and pick-up, and direct transfer** between modes of transit;
- An overall **environment that is active, human scaled, and visually diverse** and interesting, where people are encouraged to walk; and,
- A sense of **safety, security, and predictability.**

*The Westfield, NJ station serves as a local landmark and a point of civic pride.*

*Bicycle access and storage are crucial to developing "transit-friendly" plans.*


*The varied and interesting streetscape in Metuchen, NJ encourages pedestrian activity.*

*Well designed drop-off and parking areas, as in WMATA's Metro system, facilitate auto to train transfer.*

## Why Transit ?

Last year, across the State of New Jersey, people took over 175 million trips on buses or trains. In doing so, they helped in many ways to contribute to the quality of life in our state. Their choice – to travel by transit rather than by private automobile – brings many benefits:

- Transit encourages pedestrian activity at and around train stations and bus stops, contributing to the vitality and activity of the communities it serves.
- Planning land use in relation to transit can be a powerful force in managing and directing growth and change.
- Transit, through its ability to transport more passengers in each vehicle, makes more effective use of existing investments in rail and road systems, reducing the need for new lanes, new signal systems, new or widened rights-of-way, and additional capital investments in the transportation infrastructure.
- Fewer vehicle trips mean less congestion, less total travel time, and less impact on air quality.

## Why Plan for Land Use Around Transit Stops and Stations?

Despite these advantages, communities are often concerned about the effects of planning for transit. They worry that it will bring undesirable change, in the form of more traffic, more people, and/or inappropriate development. The combined result may, they believe, threaten the very qualities of the community they hold dear. This fear need not be realized. Instead, careful planning for the areas which adjoin or surround transit stations and stops can both reinforce a community's planning goals and help implement its plans. Among the results of planning around transit facilities might be:

- An improved or enhanced station setting that helps establish community identity;
- Increased economic development opportunities with a stable market;
- A rational basis for defining where growth and change should and should not occur;
- Increased presence of convenience retail, such as delis and video stores and services, such as day care and dry cleaners, that serve the community at large, not just the transit riders;
- Strengthened connections between the community and the station for walkers and bicyclists;
- A heightened sense of shared responsibility for the interaction between transit owners and operators and community members and representatives; and,
- A greater sense of security.

## 1.3 How is transit-friendly planning achieved?

***The basic focus of "transit-friendly" planning is the "transit planning area," which is generally defined as the area within a reasonable walking distance of an existing or proposed transit stop or station.***

Reasonable walking distance can vary, based on such factors as topography, sense of safety and security, and presence of interesting activity along the route of walking, but it is generally understood that most people will walk from 5 to 15 minutes to get to or from a transit station or stop.

This walk time corresponds to approximately 1/4 mile to 1/2 mile. A circle with 1/4 mile radius contains 125 acres; a circle with a 1/2 mile radius, 500 acres.

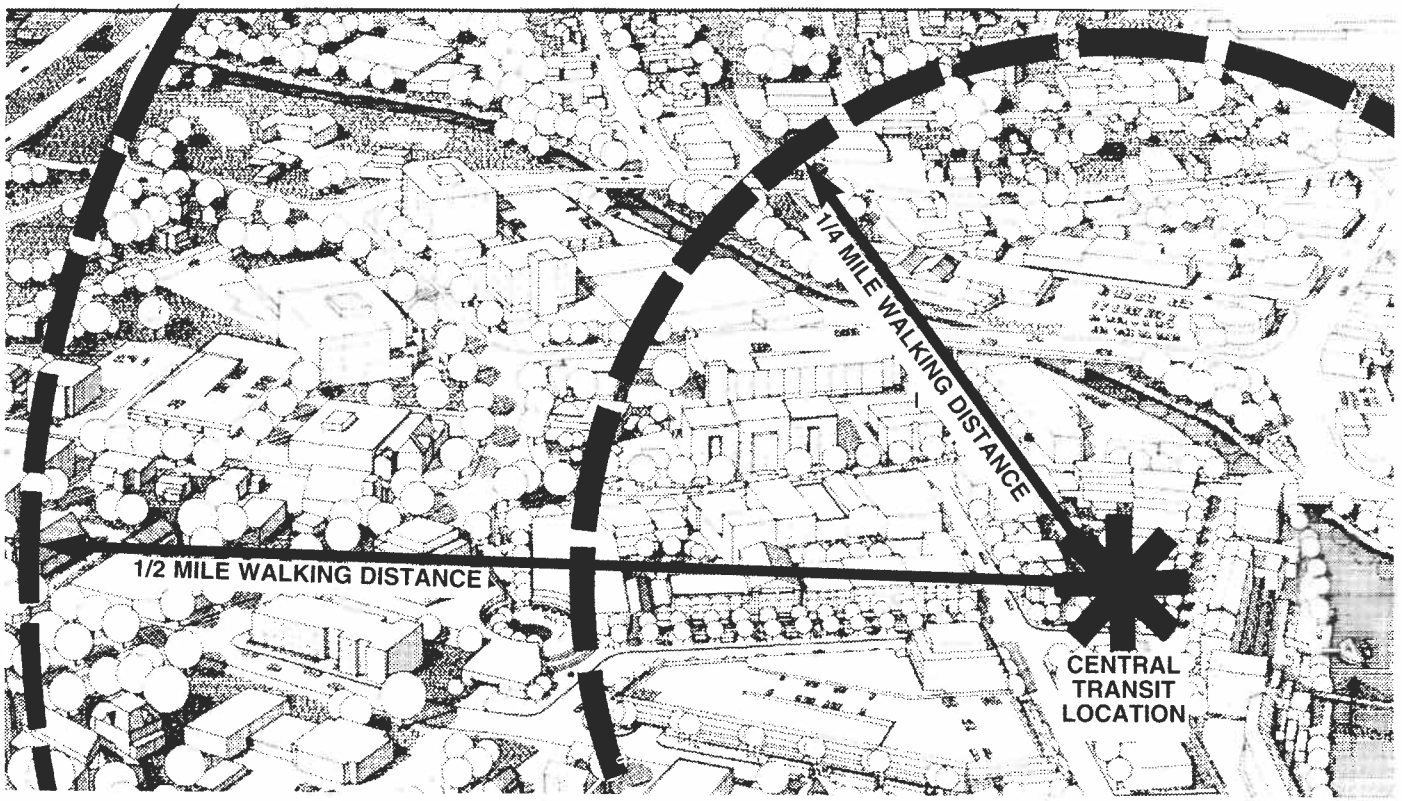
The size and extent of a transit planning area may also vary, based on built conditions and natural or built boundaries. Transit areas generally include both publicly and privately owned land. Publicly owned land may be exempt from local land use control; therefore, techniques implemented to achieve transit area planning goals will vary based on land ownership.

A Station Area Plan is a document created and approved by a municipality for the station area. This Handbook gives examples of how to prepare a Station Area Plan.

The Station Area Plan may be implemented through a Station Area Zone. The plan can be implemented through revisions to the Zoning Ordinance and Site Plan Approval Ordinance (see Appendices "A" and "B", Chapter 8).

Other implementation tools for achieving transit-friendly design, including site plan approvals, circulation plans, joint development, etc., are also presented in this Handbook.

*The transit planning area should initially be defined based on walking distances of approximately 1/4 mile to 1/2 mile.*



## 1.4 Transit and the New Jersey Statewide Plan

*As a regional issue, transportation planning is directly addressed in the NJ State Development and Redevelopment Plan.*

The (1992) State Plan notes that

*"in our suburban and rural areas, we should encourage locations and patterns of development that...relieve the dependence on the automobile as the sole means of travel."*

and that

*"we should, for instance, enhance the enormous economic power and growth potential of our major cities and urban areas and build better transportation linkages among our cities, suburbs, outlying employment/ residential centers and major transportation terminals."*

The State Plan is in line with recent Federal initiatives which have also begun to address questions of improved infrastructure and intermodal transit opportunities.

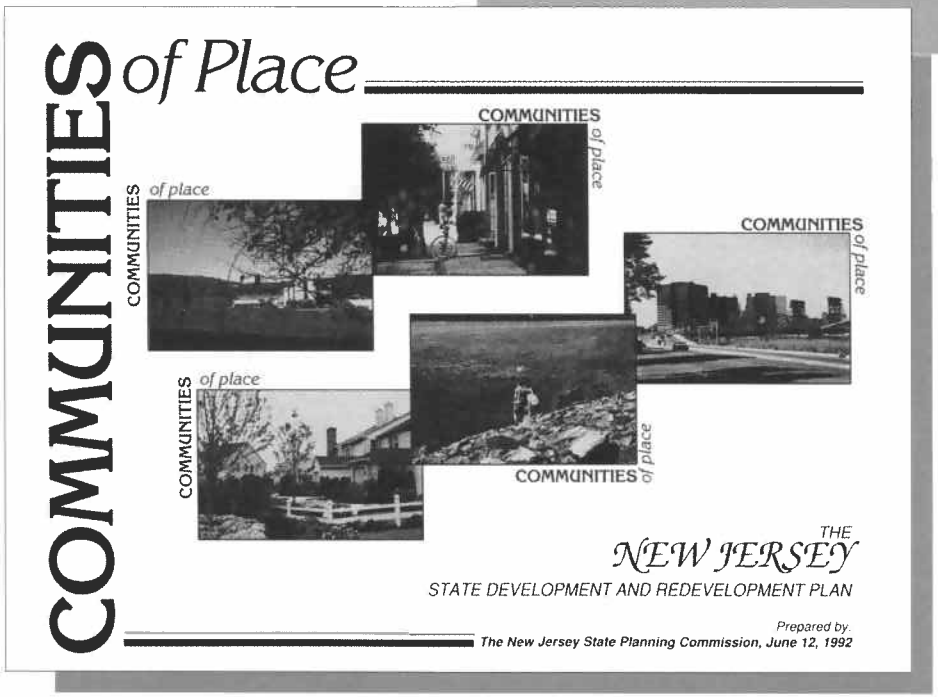
National transportation policies, notably the Clean Air Act (1990) and the Intermodal Surface Transportation Efficiency Act of 1991 known as "ISTEA", have focused attention on the need to provide for, and encourage, increased ridership on public transit, thereby reducing the dependence on private automobiles.

These public actions at the State and Federal level, make it increasingly clear that the continued development and improvement of a well planned public transit system, supported by transit-friendly municipal design, is critical to New Jersey as it prepares to enter the 21st century.

### Transportation Policies of the New Jersey State Development and Redevelopment Plan

*Policy 2*
Strengthen the linkages between transportation planning and land use planning. Transportation system improvements should underpin land use planning objectives.

*Policy 17*
Employ transportation planning, facilities and services as development and redevelopment tools to shape growth and leverage economic development opportunities



## 1.5 Contents of the Handbook

***The Handbook presents techniques to reinforce four basic strategies that encourage high-quality living and working environments, help create a sense of place, enhance community identity, provide attractive and efficient access to transit facilities, and offer shared amenities for transit users and the community at large. The four strategies are:***

*With ground floor retail, and a mix of uses adjoining a train station, Market Square, Lake Forest, IL, is an example of a successful "transit-friendly" district.*

*At Falls Church, Arlington County, VA, the issues of access, parking, and intermodal transfer have been carefully considered in the design of this "park-n-ride".*

**Organizing Land Uses to Support Transit**

*Effective organization and mix of land uses around transit facilities can help to eliminate the need to make trips by automobiles, reducing the need to provide parking, and promoting additional pedestrian activity.*

Strategic mixing of land uses, such as residential, commercial, and retail service uses all in close proximity, can permit trips that might otherwise occur separately to be made as one. Specific

*Portland, OR's Transit Mall has helped create a special identity for the downtown district.*

design techniques can produce a pedestrian-oriented place that will also encourage transit use.

**Emphasizing Pedestrians (and other non-motorized modes of access)**

*Whether travelling by train, bus, ferry, trolley, bike, or automobile, all transit users are pedestrians during significant parts of their journey.*

Pedestrian movement can create a link between transit facilities and adjacent spaces and land uses. It is the pedestrian street level activity that is often credited with giving a community a sense of place. Therefore, a key to a transit-friendly environment is a pedestrian-friendly environment.

**"Taming" the Automobile**

Transit facilities require access that is at least partially dependent upon the automobile.

*By implementing traffic calming techniques, however, the automobile interface with the transit facility can be designed so that it does not impede pedestrian movement or interfere with adjacent neighborhoods or districts.*

Parking lots and structures can be designed as good neighbors to other adjacent uses.

**Creating a Sense of Place and a Sense of Stewardship**

*Successful planning for areas around transit stations and stops can produce a neighborhood or district where there is a sense of orientation, a feeling of safety and security, and an environment that is attractive and well maintained.*

In order to successfully integrate the benefits of the previous three strategies, a partnership can be developed that fosters an increased level of responsibility and interest. This can be accomplished when the transit operator, the municipality, and the community share a sense of "stewardship" for the station area based on common goals.

These four strategies are further discussed in Chapters 2 through 5 of this Handbook.

## 1.6 Does this Handbook apply to my community?

***For purposes of this Handbook, six transit areas types have been defined. Most communities will recognize their station area as generally falling into one of these types:***

**The Urban Center,** an area of intense development and a major employment location.

There should be residential uses and retail activity as well. Typically, the station will be served by express as well as local service. The station will generally accommodate more than one mode and may be a point of transfer between feeder lines and major regional service. Some parking for station users may exist, but it is often displaced by more intensive uses over time. *Examples: Newark, New Brunswick*

**The Regional Hub**, a significant area of development, although one that is smaller than an Urban Center. It may be a concentration of jobs or residences, or both. Like the Urban Center, it is typically served by both express and local transit service, and provides a point of transfer between feeder lines and regional routes. Some retail activity may also be present. Parking for commuters using the transit services is also provided. *Examples: Summit, Westfield*

**The Traditional Town, Village, or Hamlet,** is a residential community organized, usually historically, with a focal point and a center that in some way provides a sense of community identity. This center varies from community to community, ranging from open space, to train station, to retail center, to civic and governmental center. It includes residential and retail uses, with professional offices, and institutional and/or civic activity. From a transit point of view, depending on its size and regional location, the town, village, or hamlet may be served by local transit service; if it also serves a larger commuter-shed, there may be regional service as well. *Examples: South Orange, Bernardsville*

**The Single-Use District or Neighborhood,** is an area where one use, such as single-family homes, suburban offices, or industrial uses predominates. These areas are generally dispersed rather than centered around the station or stop. They also include parking to serve commuters. Transit service may be local and/or express. It may accommodate a substantial commuter ridership without having realized the benefits of a mixed-use, centered place. *Examples: Hazlet, Short Hills*

**The Suburban Multi-Use Area,** a suburban area with no central focus and a mixture of land use types and intensity. These areas are dispersed, with some local concentrations. The station may accommodate some bus access. Transit service is usually local. These areas can be "retrofit" where feasible to achieve a better focus and more efficient land use pattern. *Examples: Edison, Convent Station*

**The Park-and-Ride Site,** defined for purposes of this Handbook as a station and parking facility, with little or no additional development beyond passenger amenities and services. The station may accommodate intermodal transfers, such as bus-to-rail or local bus-to-express bus. Transit service may be local and/or express. A park-n-ride site is specifically designed to accommodate an efficient move between car and transit, rather than a mixed-use environment. *Examples: Gordon's Corner, Jersey Avenue*

*A significant question that each community must answer is the type of station area and transit-friendly design it wishes to have in the future, as well as the type of station area it has now.*

*To help you determine how transit-friendly your community is, check your score on the "Transit-Friendly Checklist" at the end of this chapter.*

*When classifying the six general types of station areas previously described, it became apparent that two major forms of settlements predominate in New Jersey: the more traditional centered model represented by the typical early 20th century city or town; and the more recently occurring non-centered development exemplified by a typical residential suburb or a park-n-ride facility. The distinction between these two primary patterns of development is significant, especially regarding the implications each has for transit and access to transit.*

## Centers

Originally, centers were quite often based on some form of transit or, at a minimum, a significant road network. These locations tend not to be single use. Rather, a variety of uses (although sometimes located in distinct districts) are located within a centered development.

The size and scale of centers can range greatly from the largest urban concentrations such as Newark to small rural hamlets like Newfoundland. Centers tend to be the focus of activity for the adjoining environs, providing essential services as well as employment and retail opportunities. Land uses in centers tend to be compact and of higher densities than surrounding areas.

*The following matrix offers a more detailed description of the six transit area types based on both the planning characteristics of the larger area as well as of the transit area itself.*

## CENTERS

| | Urban Center | Regional Hub | Traditional Town, Village, or Hamlet |
|---|---|---|---|
| **General Characteristics of Planning Areas** | ■ Population - 40,000+<br>■ Jobs - 40,000+<br>■ Jobs: Dwellings - 1:1<br>■ Compact central core of commercial and community services<br>■ Pedestrian orientation<br>■ Relatively high density | ■ Population - 5,000 - 40,000<br>■ Jobs - 5,000+<br>■ Jobs: Dwellings - 1:1<br>■ Compact central core of commercial and community services<br>■ Pedestrian orientation<br>■ Mid to high density | ■ Population - 1,000 to 25,000<br>■ Area - 2 square miles<br>■ Compact center with community services in station planning area |
| **Typical Characteristics of Transit Areas** | ■ Multiple modes of transit available<br>■ Walking is a significant mode of access<br>■ Parking provided, but may be limited<br>■ Passenger services available<br>■ Convenience retail at station<br>■ Service area 10 miles or greater | ■ Multiple modes of transit available<br>■ Walking is a significant mode of access<br>■ Parking provided, but may be limited<br>■ Passenger services available<br>■ Convenience retail at station<br>■ Service area generally within 5-10 miles | ■ May have bus transfer except in in the case of a Hamlet<br>■ Walking is an important mode of access<br>■ Parking is provided<br>■ Convenience retail may be nearby<br>■ Service area generally within 2 - 5 miles, except in the case of a Hamlet |

## Non-Centers

Non-centers are a modern phenomena, the most common and well-known examples being the post World War II suburb. These forms of development are typified by a dispersion of land uses and a lack of any discernible hierarchy.

Quite often, a non-center is single use and lacks a specific focus of activity.

Densities tend to be lower than in centers and infrastructure systems less developed. Transit within non-centers tends to be less efficient because of the increased stops required to collect users resulting in decreased opportunities for high capacity transit.

Users are often unable to access transit as pedestrians, and are required to drive to transit because of non-existing or poor pedestrian connections. Nonetheless transit in non-centers is feasible. Suburban rail stations and park-n-rides meet a crucial transit need. In some cases, they can be the focus of future regional centers, as incremental redevelopment occurs.

## NON-CENTERS

| | Single Use District or Neighborhood | Suburban Multi-Use Area | Park-n-Ride |
|---|---|---|---|
| **General Characteristics of Planning Areas** | ■ Uses ranging from predominantly residential to predominantly commercial and retail. Most often in the form of single use districts<br>■ Density can range from 3-5 residential units per acre to mid-to-high density commercial uses<br>■ Usually no central core | ■ Commercial, retail, residential land uses<br>■ No commercial core | ■ Station and parking uses only<br>■ May have convenience retail and/or passenger amenities |
| **Typical Characteristics of Transit Areas** | ■ May have bus transfer<br>■ Walking access limited (10% to 20 % share); parking provided<br>■ Convenience retail may be nearby<br>■ Service area generally within 2 to 5 miles | ■ May have bus transfer<br>■ Walking may be a mode of access<br>■ Parking provided<br>■ Convenience retail may be nearby<br>■ Service area generally within 2 to 5 miles | ■ May have bus transfer<br>■ Significant parking<br>■ Limited walking<br>■ Service area generally within 10 miles or greater |

## 1.7 Which transit supportive planning techniques will work in my community?

***As the New Jersey State Development and Redevelopment Plan shows, the size, density and function of municipalities throughout the state differ greatly. From rural hamlets to large urban concentrations, the range of settlements is quite varied.***

*Once you have determined which transit area type your community is, or wishes to become, you will find techniques applicable to that type throughout Chapters 2-5.*

To develop specific transit-supportive planning and design policies for every unique circumstance that may potentially occur within the state would be a nearly impossible task. Rather, the techniques described in Chapters 2, 3, 4, and 5 have been targeted to the six transit area types described in Section 1.6.

The "thread" that ties these techniques together is the underlying concept of moving urban patterns and policies in New Jersey toward more transit-supportive and less auto-dominant forms of organization.

By developing a generic set of techniques with applicability to a wide range of situations, a large degree of flexibility has been provided. This flexibility is important to ensure that the unique conditions and circumstances that create much of the character of New Jersey communities are maintained and even enhanced.

### How to Use this Handbook

*This Handbook will equip you – whether you use it frequently, consult it on an ongoing basis, or occasionally flip through it – with a wide range of generic strategies that should allow you to achieve transit-friendly planning and municipal design.*

The Handbook is organized to meet the varying needs of different users. Some users may want to better understand why their community should become more "transit-friendly"or get an overview of land use planning strategies available. Others may want specific input regarding the details of a Station Area Plan or a Transit Area Zone.

The sections of the Handbook are organized for sequential or individual use. This initial section (Chapter 1) is an overview of the objectives and contents of the Handbook. The next four chapters present strategies and techniques that may be appropriate to your specific community.

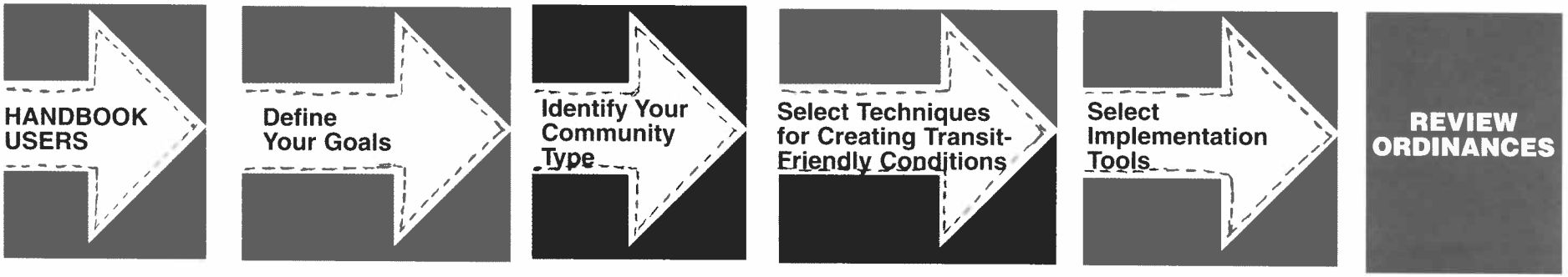
Chapter 2 focuses on land-use strategies that can encourage transit-friendly areas. Chapter 3 proposes strategies for enhancing pedestrian safety and encouraging pedestrian movement. Chapter 4 details techniques for vehicular movement and parking. Chapter 5 discusses how to achieve overall environmental qualities in the station area.

Chapter 6 identifies tools for implementing the transit-friendly techniques presented in the preceding chapters. Finally, Chapter 7 offers an example of a sample transit-friendly Master Plan for a Station Area.

The Appendices in Chapter 8 include additional technical material such as model zoning, site plan, and redevelopment ordinances; sources for funding; coordination procedures; and a bibliography. Lastly, a Glossary of selected terms will familiarize you with key transit and planning related terms.

## HOW TO USE THIS HANDBOOK

*This activity/flow diagram will help you chart your path through the Handbook, based on the information you seek.*




- Appointed/ Elected Officials
- Community Groups
- Planning/ Design Professionals
- Business Interests/ Developers
- Governmental Agencies
- Institutions
- Others

- Develop a Station or Transit Area Plan
- Plan development within a transit area or suburban residential employment center
- Find "transit-friendly" standards to use as a reference when reviewing development or land use actions
- Update Zoning Ordinance or Master Plan Ordinance with text that reinforces "transit-friendly" planning
- Find Implementation Techniques to reinforce "transit-friendly" planning
- Plan for the addition of new transit to your community

- Urban Center
- Regional Hub
- Traditional Town, Village or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use District
- Park-n-Ride

- Land Use and Development Patterns
- Pedestrian and Bicycle Access and Circulation
- Vehicular Access, Circulation and Parking
- Qualities of the Station Area Environment

- Transit Area Plan
- Circulation Plan
- Zoning Ordinance
- Site Plan Approval Ordinance
- Station Site Plan
- Land Acquisition
- Amenities Enhancement Program
- Public/Private Partnerships
  - Special Improvement District
  - Joint Development
  - Satellite Transportation Center

- Model Master Plan Ordinance Language
- Model Zoning Ordinance Language
- Model Site Plan Ordinance Language
- Model Redevelopment Plan Ordinance Language

# "Transit Friendly" Checklist

The following checklist is provided to assist municipal representatives in deciding how transit-friendly their current Zoning Ordinance, Site Plan Ordinance, Redevelopment Ordinance, and Master Plan are. The completed checklist can be used as a guide when a community is undertaking revisions to these ordinances, or is reviewing a major new development project.

The checklist can help to determine if these implementation mechanisms encourage physical conditions that are compatible with transit use. The checklist is not intended to be scientific, but rather aims to provide a sense of a community's commitment to transit. Rather than offering a passing or failing grade, the checklist helps to identify community elements in need of attention if a community wishes to become more transit-friendly.

Questions answered with a "no" indicate that the documents being reviewed may be deficient in these specific areas, and thought should be given to incorporating a coordinated system of "transit-friendly" regulations. Questions answered with a "yes" indicate that your community has begun to incorporate "transit-friendly" considerations in planning for the municipality.

Questions answered with a "partly" response indicate areas in your current regulations that may be in need of further attention and improvement. For an example of a transit-friendly Zoning Ordinance, see Appendix "A".

### Existing Institutional Mechanisms

1. Are goals and policy statements that encourage transit use or transit-compatible development incorporated in your community's Master Plan or Zoning Ordinance?
   ❑ YES ❑ PARTLY ❑ NO
2. Are incentive mechanisms (i.e. bonuses, parking reduction, etc.) offered to encourage transit-compatible development?
   ❑ YES ❑ PARTLY ❑ NO
3. Are any of the following mechanisms that might encourage transit-compatible development or redevelopment included in your municipal land use or zoning ordinance?
   - Special Districts
   - Overlay Zones
   - Planned Unit Developments

   ❑ YES ❑ PARTLY ❑ NO

### Land Use

4. Are active pedestrian-generating land uses encouraged to concentrate in activity centers or within walking distance of transit facilities?
   ❑ YES ❑ PARTLY ❑ NO
5. Are a mix of land uses, especially residential, commercial, and retail, encouraged within walking distance of activity centers or transit facilities?
   ❑ YES ❑ PARTLY ❑ NO
6. Are large areas of single use zones discouraged?
   ❑ YES ❑ PARTLY ❑ NO
7. Are multiple compatible land uses permitted within buildings near transit operations?
   ❑ YES ❑ PARTLY ❑ NO
8. Are convenience retail and service uses encouraged on the lower levels of buildings in activity centers or adjacent to transit facilities?
   ❑ YES ❑ PARTLY ❑ NO

### Density

9. Are relatively higher densities encouraged in activity centers or near transit facilities, with a gradual decrease in density away from these centers?
   ❑ YES ❑ PARTLY ❑ NO

## Integration of Land Use and Transportation

| Residential Use | Commercial Use | Transportation Compatibility |
|---|---|---|
| 15 to 24+ Units/Acre | 150+ Employees/Acre | Supports rail or other high capacity service. |
| 7+ Units/Acre | 40+ Employees/Acre | Supports local bus service. |
| 1-6 Units/Acre | 2+ Employees/Acre | Supports cars, car pools and vanpools. |

10. Do the densities mandated near transit facilities, by the various municipal ordinances, support transit use? (use the above chart as a guide)
❑ YES ❑ PARTLY ❑ NO

**Site Planning/Design**

11. Are continuous sidewalks that radiate from your community's center to outlying districts encouraged?
❑ YES ❑ PARTLY ❑ NO

12. Are site designs that encourage buildings to cluster near transit facilities encouraged?
❑ YES ❑ PARTLY ❑ NO

13. In non-centers, are site designs that encourage buildings to cluster in centralized groupings encouraged?
❑ YES ❑ PARTLY ❑ NO

14. In centers, are buildings encouraged to locate at the street line, thus defining and enclosing the primary pedestrian paths?
❑ YES ❑ PARTLY ❑ NO

15. Are larger developments or redevelopments encouraged to conform to existing block patterns and provide multiple access points for pedestrians?
❑ YES ❑ PARTLY ❑ NO

16. Are subdivisions encouraged to conform to grid or modified grid patterns without cul-de-sacs or dead ends?
❑ YES ❑ PARTLY ❑ NO

**Parking**

17. Are parking requirements reduced or shared parking provided for uses in close proximity to transit?
❑ YES ❑ PARTLY ❑ NO

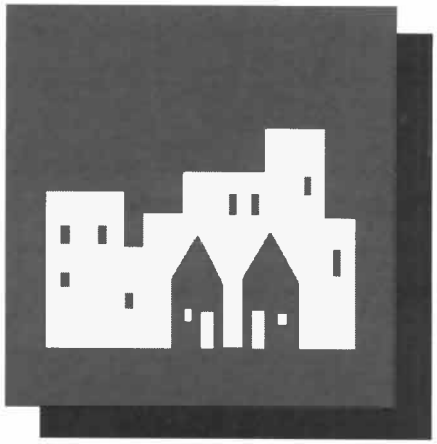
18. Is structured parking encouraged over surface lots in higher density centers?
❑ YES ❑ PARTLY ❑ NO

19. Are surface parking lots encouraged to be located off of main streets and away from front lot lines?
❑ YES ❑ PARTLY ❑ NO

20. If high capacity transit systems exist, are large commercial uses encouraged to provide shuttle service when located beyond walking distance from the facility?
❑ YES ❑ PARTLY ❑ NO

**Joint Development**

21. Are key development sites adjacent to a planned or existing transit facility designated for transit compatible uses, densities and designs?
❑ YES ❑ PARTLY ❑ NO



# Chapter 2 – Land Use and Development Patterns

***Historically, the relationships between land use and transportation were quite clear and efficient. Communities were organized so that the goods they produced could easily be shipped to others, by road, river, lake, or ocean, as the particular geographic circumstance dictated. Personal travel generally occurred by the same route. The relationships were based on the functional requirements of directly and efficiently moving goods and people, as well as on the limited availability of alternative modes of travel and transport.***

*This chapter, and the three that follow it, present a series of planning tools and techniques that can encourage transit-supportive conditions within your community.*

*These techniques are organized into four major "focus areas":*

- *Land Use and Development Patterns*
- *Pedestrian and Bicycle Access and Circulation*
- *Vehicular Access, Circulation, and Parking*
- *Qualities of the Station Area Environment*

As the road network began to expand throughout our country to accommodate increased automobile and truck use, this relationship between land use and transportation changed. The proliferation of the private automobile, as well as the increased number of cars per household, led to the creation of new patterns and densities of development. In the past 40 to 50 years, land use development patterns have generally taken the form of large-lot, decentralized, single-use districts, connected by a maze of roadways. Zoning and other government regulations have reinforced this trend.

As undeveloped land has become scarce and roadways have become more congested, people have begun to reexamine the original land use patterns within traditional "centered communities." In New Jersey this effort has been strongly supported by the New Jersey State Development and Redevelopment Plan. The opportunity now exists to redefine and develop new patterns of development that encourage active, safe, pedestrian-oriented communities that support, and are supported by, transit.

**Individual municipalities have the power to begin influencing land use patterns, densities, the general character of their communities, and eventually the overall quality of life, while at the same time encouraging increased ridership on transit systems that have been the focus of major public investments.**

Specific benefits of reconsidering the relationship between land use and transit may include:

- a more active and revitalized center of activity and identity for each community;
- improved retail, service, housing, and employment opportunities;
- an improved pedestrian environment;
- a reduction in the number and length of automobile trips; and,
- improved air quality and attainment of the requirements of Federal Clean Air Act Amendments.

The following six policies, (2.1-2.6) each with multiple techniques, suggest methods for creating land use patterns and relationships that will improve the quality of life in your community and encourage conditions compatible with transit use.

## 2.1 Create a Pattern of Development that is Supportive of Transit Service

***The way land uses are laid out in relation to a transit facility or route is key to the success of efficient transit services.***

Uses that are oriented to the transit services and facilities, with physical and visual connections, will encourage transit usage.

Physical conditions that encourage pedestrian activity and that create a "sense of place" benefit both the community and transit.

### TECHNIQUES

**Create a Pattern of Development with Frequent Streets and Pedestrian Rights-of-Way**

Frequent opportunities for access encourage ease of movement to and from the station area. The creation of small development blocks punctuated by pedestrian/vehicular or pedestrian easements will result in a system of circulation that facilitates access to and within the station area.

This pattern of frequent streets and blocks allows for ease of access to and through the varying land uses, while limiting "left over space" between uses on a single block.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- Site Plan Ordinance
- SID
- Station Site Plan

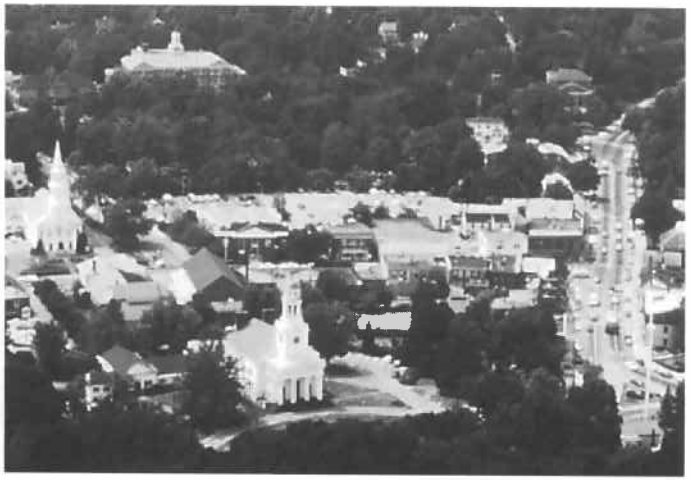
**Improve Pedestrian Connections**

Enhance sidewalks and other paths with frequent points of connection and multiple routes of approach.

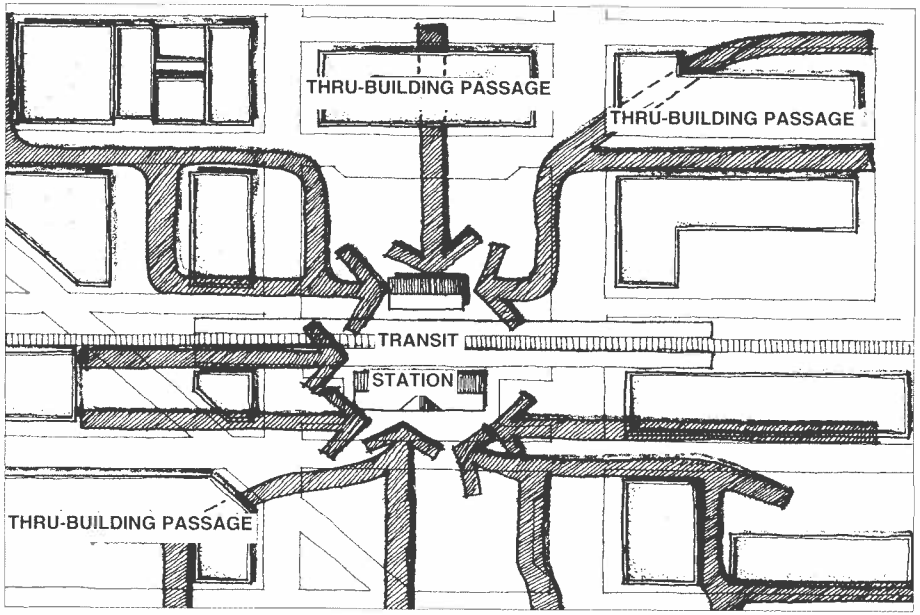
The creation of multiple pathways lined with uses that create visual interest and

*Sprawling development patterns encourage auto dependency, are not efficient for transit service, and lack the vitality and energy of centered "Communities of Place". This type of development is discouraged.*

*Centered communities can be more easily serviced by transit, allow people the opportunity to access and travel within the station area as pedestrians, and provide a focus for the surrounding region. This development pattern is preferred.*



*Create and maintain multiple pathways within the station area, that quickly, safely, and in an interesting manner guide users to and from the station.*




*A central fountain acts as a visual focal point for the surrounding commercial development for transit users exiting the nearby Courthouse Square Station, Arlington County Virginia, on the WMATA transit system.*

activity offers pedestrians a choice of movement patterns to and through the station area to their destination. These choices also expand the potential number of pedestrians who can use the system to access specific points in an efficient and timely manner.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- Site Plan Ordinance
- SID
- Station Site Plan

### Create Visual Focal Points

Identify the station or key landmarks within the station area as focal points for pedestrian paths and roadways leading to the station area.

These elements will help create an identity for the station area and provide the pedestrian and driver with a sense of orientation. Visual corridors into the station area and to important structures should be clearly defined as part of a station area plan or the master plan. When redevelopment efforts occur within a community, these structures or icons should receive special attention.

**Implementation**

This technique may be implemented through the following mechanisms:

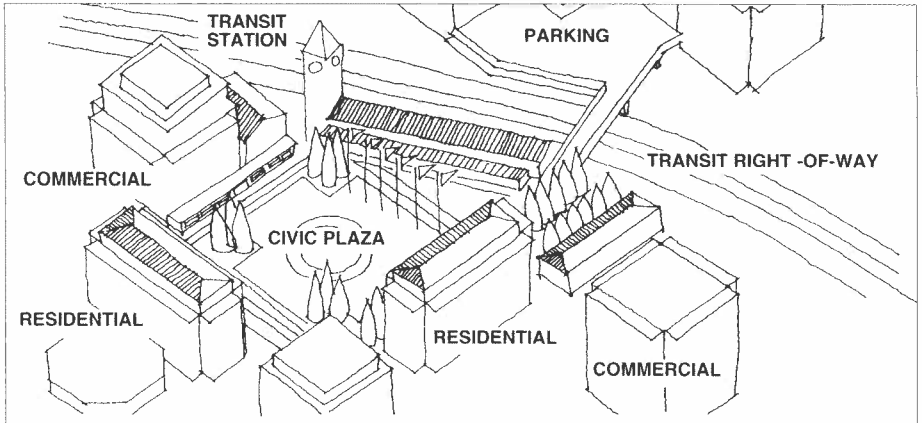
- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- SID

### Utilize Open Space

Use appropriately sized and designed public open space to help define the station area or activity center as a focal point of the community. Well planned and programmed open spaces often take on a civic role within a community, becoming locations for public events, a place to eat lunch, or a "forecourt" or waiting area for the transit facility. These spaces should be well defined by buildings and other structures and be integrally related to pedestrian paths.

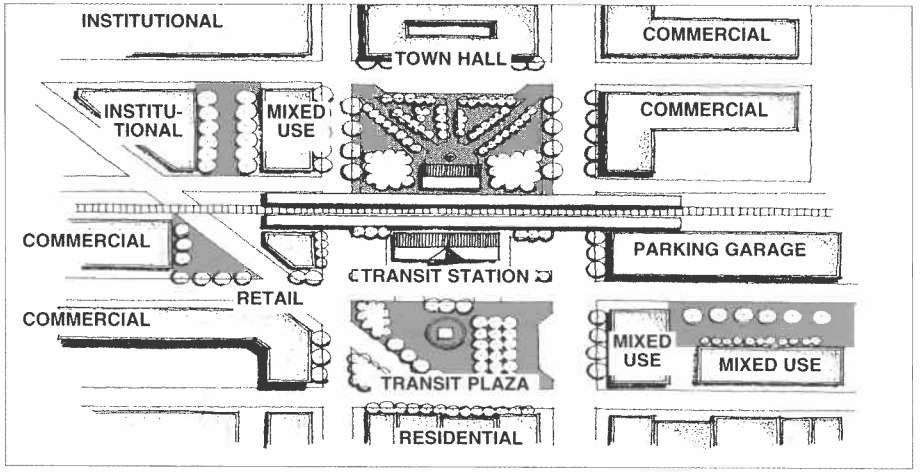
Open space location and design should reinforce the activities that are generated by surrounding land uses. Residential areas have increased needs for active recreation, while commercial uses generate demand for passive open space such as village greens or civic plazas. Access to sunlight within spaces should be maximized.

A clear ongoing plan for maintenance should also be created. If open spaces are not well maintained and




**Open Space as an Organizing Element**

*Open spaces should be well defined by buildings, located along well travelled pedestrian paths, and adjacent to activity generating land uses.*




*When used appropriately, open space can become a focus of the station area, improving the transit experience as well as the community itself.*

programmed, they may become a blight instead of an amenity.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- SID
- Land Acquisition
- Station Site Plan
- Amenities Enhancement
- Public/Private Partnerships

### Make the Transit Facility a Focal Point of Activity

Make the transit facility a functional focal point of the station area. This action will also encourage "trip linking," which is the ability to visit several destinations during one journey.

To help enhance the area as an activity center, the location of public facilities such as libraries, post offices, police dispatch centers, government or municipal centers, daycare centers, or educational facilities within the station itself or directly adjacent to it, should be investigated. Those public uses that generate pedestrian activity throughout the day (e.g. libraries and post offices) should be given preference along with those that are open 24-hours a day, such as taxi stands, all-night delis, and police stations. Such uses are important to creating a sense of security and surveillance around the station.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- Site Plan Ordinance
- SID
- Station Site Plan

**Application**

The focus of this group of techniques is the purposeful creation of relationships and linkages between land uses and transit that are mutually supportive. Because of this, these techniques can be generically applied and adapted to the following station area categories:

- Urban Center
- Regional Hub
- Traditional Town, VIllage, or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use Area

*Viewed from NJ TRANSIT's Madison station, this local post office generates pedestrian activity during the station's off hours helping to create a sense of security and surveillance in the station area.*

## 2.2 Introduce Land Uses in the Station Area and Along Transit Routes that will Generate Transit Ridership, Peak and Off-Peak

***The more uses near a station or along a bus route that attract people, the more potential transit users there will be. The appropriate mix of uses may be as important as the uses themselves. Care should be taken, therefore, when deciding which uses to encourage over others in the station area.***

Adding residential uses to a station area can help the land use mix, since it provides a potential base group to use the retail, amenities and community services during evening and weekend hours. Residential uses situated in the station area vicinity can produce riders if there are destinations (e.g., jobs, shopping) that are accessible by transit. Decreasing private automobile trips and increasing walking and transit trips contribute to potential reductions in traffic congestion and air pollution.

In outlying suburban areas, employment centers near transit stations or corridors may none the less generate relatively high auto use. In these cases, an effort needs to be made to emphasize the connection to the station – such as employer-supplied shuttle service, development directly adjacent to the station, or mandatory decreased parking at the job site.

Suggested land uses may include:

- higher density residential uses that would serve as all day trip generators
- concentrated commercial uses such as offices, that can create a market for retail uses and transit ridership
- uses that may provide ridership in off-peak hours, (i.e., midday, evening hours, and weekends) such as retail, services, entertainment, recreation, education, and health care.

| LAND USE | PEAK TRAVEL | OFF-PEAK TRAVEL |
|---|---|---|
| Low Density Residential | ● | |
| High Density Residential | ● | ● |
| Commercial Office | ● | |
| Destination Retail | | ● |
| Entertainment Uses | | ● |
| Institutional Uses | ● | ● |

*Understanding the general travel/time characteristics of land uses can help in encouraging a mix of uses that will create transit activity throughout the day.*

### TECHNIQUES

#### Consider Peak vs. Off-Peak Ridership

Identify land uses that generate riders in both peak and off-peak periods.

A mix of uses that generate riders throughout the day will insure a level of constant activity within the station area. This brings vitality as well as a sense of personal safety to the area, and helps support local retail establishments. The table on this page shows the general travel-time characteristics of selected uses.

| LAND USE / TRANSIT COMPATIBILITY MATRIX | URBAN CENTER | REGIONAL HUB | TOWN, VILLAGE OR HAMLET | SINGLE USE DISTRICT | SUBURBAN MULTI-USE AREA | PARK-N-RIDE |
|---|---|---|---|---|---|---|
| Center Office | ■ | ■ | ■ | | | |
| Suburban Office | | | ■ | ■ | ■ | |
| Local Services | ● | ● | ● | ● | ● | ● |
| Medical Offices | ● | ● | ● | ● | ● | ● |
| Hospitals | ■ | ■ | ■ | ■ | ● | |
| Hotels/Motels | ● | ● | ● | ● | ● | |
| Movie Theatres | ● | ● | ● | ● | ● | ● |
| Restaurants | ● | ● | ● | ● | ● | ● |
| Local Shopping Center | ● | ● | ■ | ■ | ● | |
| Regional Shopping Center | ■ | ■ | | ■ | ■ | |
| Convenience Retail | ● | ● | ● | ● | ● | ● |
| Gym/Health Club | ● | ● | ● | ● | ● | ● |
| Residential | | | | | | |
| 0 - 7 Units per Acre | | ● | ● | ■ | ● | |
| 7 - 15 Units per Acre | ● | ■ | ■ | ■ | ■ | |
| 15 - 24 Units per Acre | ■ | ■ | ■ | ■ | ■ | |
| 24 Units + per Acre | ■ | ■ | ■ | ■ | ■ | |
| Regional Recreational | ■ | ■ | ■ | ■ | ■ | ● |
| Cultural Facilities | ■ | ■ | ■ | ■ | ● | |
| Day Care Centers | ● | ● | ● | ● | ● | ● |
| Colleges/Universities | ■ | ■ | ■ | ■ | ■ | |
| Governmental Agencies | ■ | ■ | ■ | ■ | ● | |
| Other Institutions | ■ | ■ | ■ | ■ | ● | |
| Manufacturing | ● | ● | ● | ■ | ● | |
| Auto Repair/Service | ● | ● | ● | ● | ● | ■ |

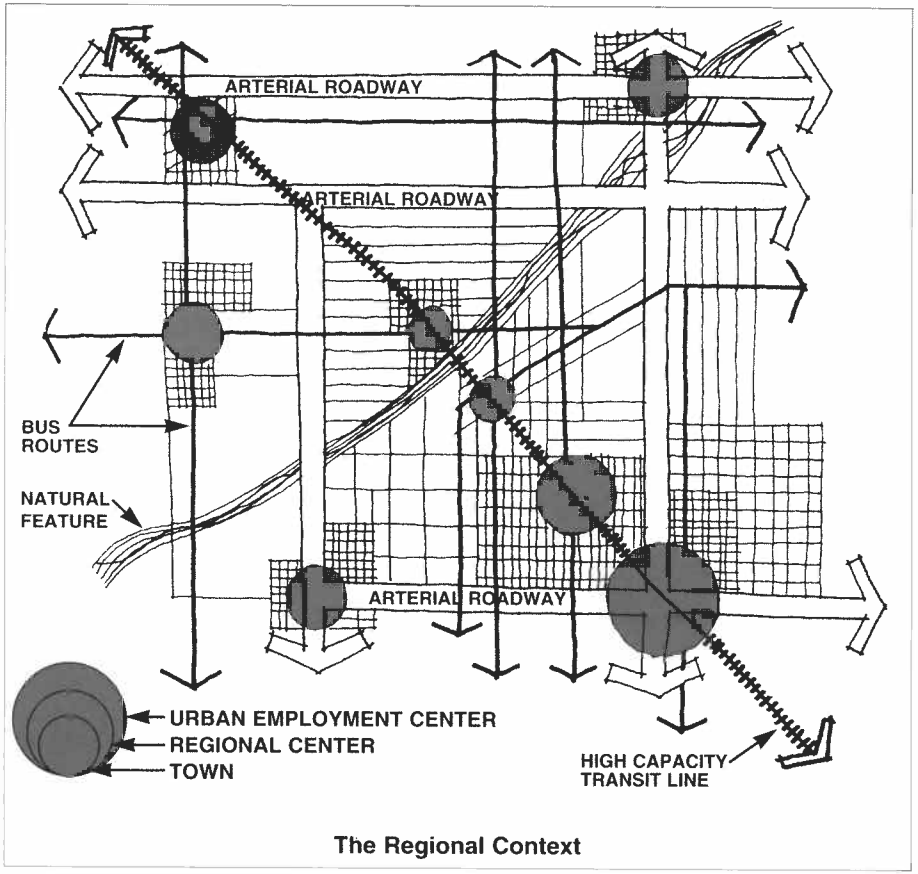
■ **Compatible as a Primary Use**

A Primary Use is an essential or highly desirable use within the Station Area.

● **Compatible as a Supporting Use**

A Supporting Use is a desirable or contributing use within the Station Area.

*Use this matrix as a guide to determine the general types of land uses that may be appropriate within your "transit-friendly" community. The more diverse the transit compatible uses within your community, the greater the potential for "trip linking".*




**The Regional Context**

*Be aware of your community's regional context to insure that local land uses have a sufficient market and that existing transit can adequately serve these uses.*

### Encourage Complementary Land Uses

Identify land uses that complement each other and the adjacent area.

In employment centers, offices might be augmented with daycare, restaurants, retail, and theaters; in residential areas, and perhaps at park-n-ride facilities, consideration might be given to such uses as daycare, pharmacies, convenience stores, dry cleaners, and auto service shops.

The mix of land uses selected should reflect the type of transit serving your community. For instance, medium-density housing may be a more appropriate use in a smaller community with less frequent local transit service than a large commercial use.

### Limit Land Uses

When making plans for a station area, review land use and development plans for the larger region. This review is to ensure that land uses in the station area are not undermined by similar development nearby, and thus ensures that the stability of the station area remains intact.

Centers depend on retail uses for creating activity and a sense of place. A realistic assessment needs to be undertaken to determine what a community's market area might support. Controls should be established, through zoning and site plan approval, to limit competing centers within a community.

#### Implementation

All of these techniques can be implemented through:

- Zoning Ordinance
- Station Area Plan

#### Application

The focus of this group of techniques is the introduction of transit compatible land uses within the station area. These techniques can be widely applied to the following range of station areas in New Jersey:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use Area

## 2.3 Encourage a Mix of Uses within the Station Area and Along Major Transit Routes to Reduce Dependence on the Auto

***A mix of uses on sites surrounding train and bus facilities can stimulate pedestrian activity. This in turn, can enliven an area and further reduce automobile trips, and consequently air pollution, by allowing people to undertake multiple activities on foot.***

For example, a mix of land uses, such as offices with retail and services, allows employees to take care of day-to-day errands within walking distance of their jobs; this could potentially help limit automobile trips outside of work hours.

### TECHNIQUES

#### Concentrate a Mix of Land Uses

Concentrate a mix of land uses at a scale and density appropriate for the community to produce a high level of pedestrian activity.

Rather than spreading out activity-generating uses over a large area and diluting their impact, these uses should be collected within defined areas for maximum impact.

Encourage new uses to locate along blockfronts near the transit facility to provide a focus for the community. Uses should be concentrated along major pedestrian routes that lead to the transit facility.

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- SID
- TDR/TDC

#### Application

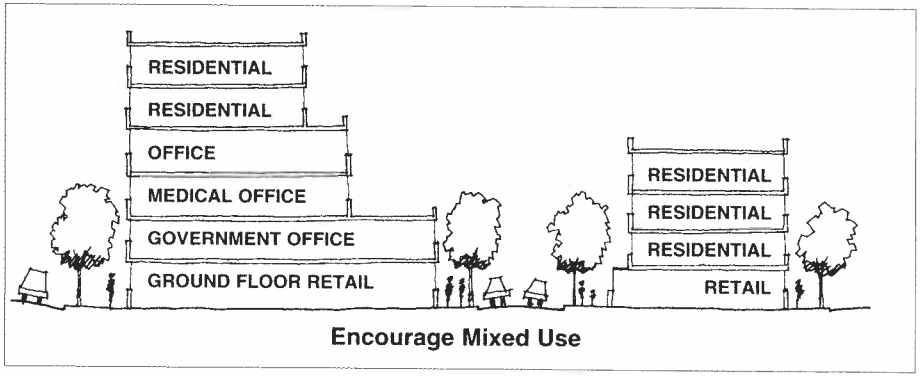
This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area

#### Create Continuous Activity

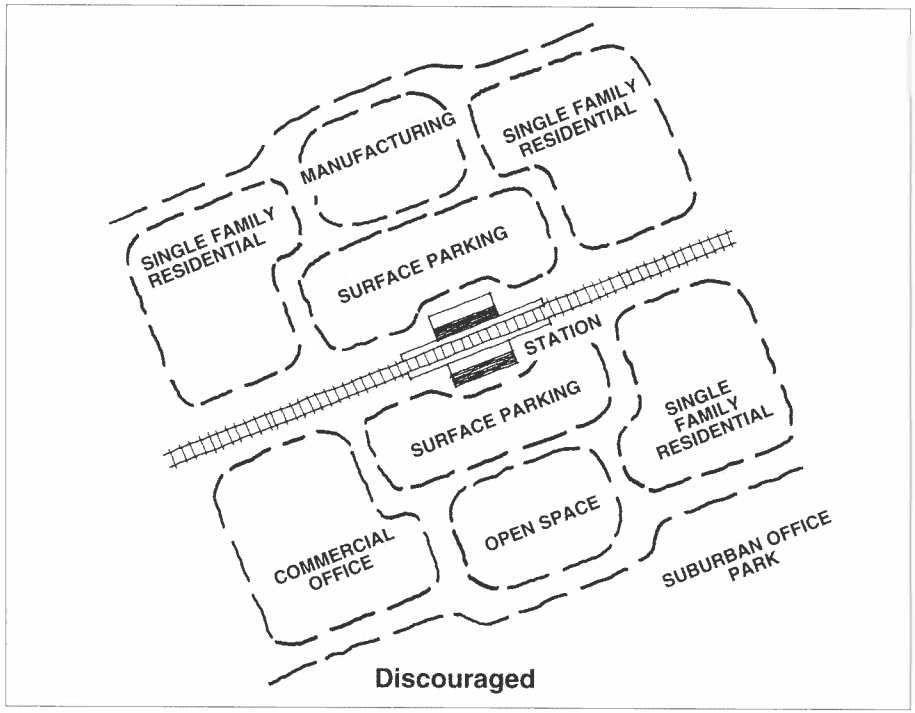
Identify land uses that generate continuous pedestrian activity over the course of the day and night. Examples of such uses include convenience retail, services, clothing stores, a variety of restaurant types from diners to more formal dining establishments, institutional uses such as colleges or hospitals, or entertainment uses such as movie theaters. Locate such uses on the ground floor of a building accommodating other pedestrian-generating uses, so that the surrounding streets benefit from the activity of people coming and going.

*A mix of land uses within smaller buildings helps generate increased pedestrian activity.*



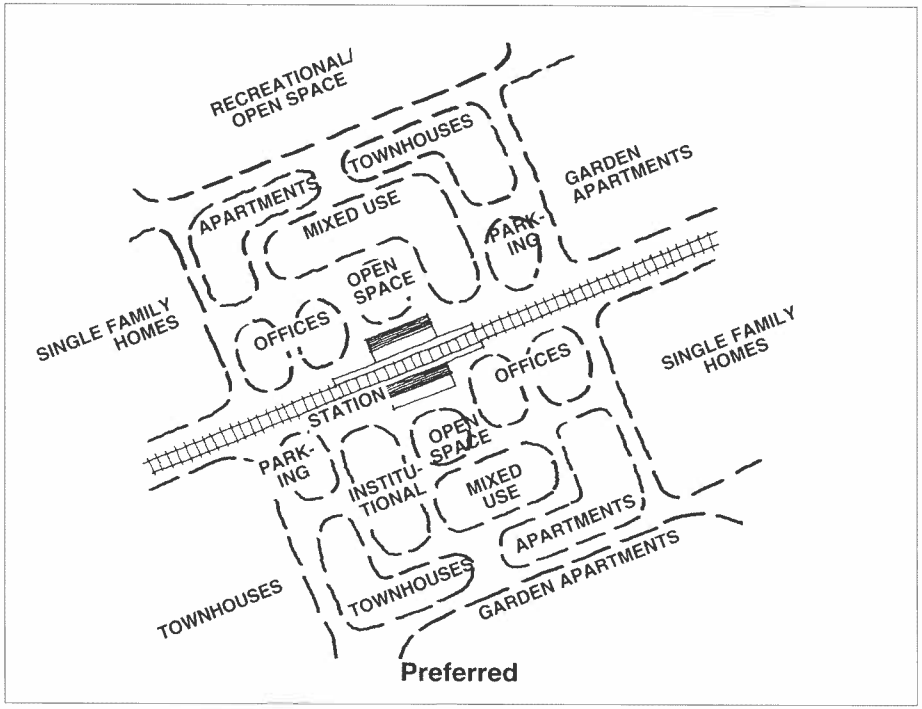
**Encourage Mixed Use**

*Located only a short walk from NJ TRANSIT's New Brunswick station, (foreground) Rutgers University generates transit use throughout the day.*




**Discouraged**

*Within a station area, large districts zoned for single uses do not encourage transit use, are inactive for large periods of the day, and require multiple trips to complete daily activities*




**Preferred**

*With reduced parking requirements, smaller mixed-use districts within the station area encourage transit use and permit "trip linking" to complete daily activities.*

### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- SID

### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area

## Encourage Multiple Use

Discourage the zoning of large areas for single uses only. Contemporary conventional planning has often resulted in large tracts of land zoned for single uses. This practice leaves communities with areas that are inactive for long periods of the day or evening and has required residents and tenants to make multiple trips to different neighborhoods to conduct their daily activities. A variety of uses should be provided within individual districts whenever possible.

### Implementation and Application

This technique may be implemented through the Zoning Ordinance, and may be applied to all station area categories.

## 2.4 Implement Design Standards to Improve the Quality of the Public Environment

***The physical character of the station area and its surroundings has a direct relationship to the quality of the experience of pedestrians passing through it as well as the number of transit users who may choose to walk to transit rather than use an alternative mode of transportation.***

Focusing on improving the pedestrian level amenities and connections will require a reconsideration of current thinking about the configuration, relationship, and connections of land uses in suburban environments. Where appropriate, opportunities must be investigated that elevate the pedestrian at least to an equal level with the auto in terms of planning priorities.

### TECHNIQUES

#### Develop A Pedestrian Circulation Plan

Establishing design standards begins with the identification of a pedestrian circulation plan for the station area.

A plan of this nature should clearly note a coordinated system of pedestrian and bicycle paths connecting the outlying districts to the station area for a walking distance of one-quarter to one-half of a mile. With the plan in place, incremental improvements can begin to enhance the quality of the pedestrian environment.

The plan should be coordinated with the Zoning Ordinance and the Site Plan Ordinance to encourage private sector changes that support pedestrian activity.

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan

#### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Single Use District or Neighborhood
- Park-n-Ride

#### Encourage Pedestrian Activity

Encourage pedestrian-generating uses at the ground floor levels of both single- and multi-story buildings to activate the area surrounding a transit facility or along a route. These uses should serve both transit users and the surrounding community, to help ensure their economic viability and success. On-street parking in

*Adjacent to the NJ TRANSIT station, Metuchen's main street offers a pleasant environment conducive to pedestrians travelling to and from the station.*

*Pedestrian-generating ground floor uses encourage street life and activate the areas surrounding transit stations or bus stops.*

appropriate locations should be available during off-peak hours so individuals from the whole community can use this resource during the day. Pedestrian-oriented uses may include:

- convenience stores
- video rental stores
- pharmacies
- dry cleaners
- variety stores
- hardware stores
- banks
- photocopying
- grocery stores
- bakeries
- shoe repair
- food take-out
- restaurants
- post office

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance
- SID

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area

### Restrict Ground Floor Uses

Restrict office space at the ground floor level along key pedestrian ways.

Long expanses of street-level office space without multiple entries or visual interaction with the street create "dead zones" along pedestrian paths and should be discouraged. Encourage, instead, pedestrian-oriented uses that activate the street with customer traffic, especially those uses that are open beyond normal 9 am to 5 pm business hours.

When it is unavoidable to locate office space at the ground floor level, it should be designed with a maximum of visual variety. Individual building bays should be articulated, windows with views to more active uses within the building should be provided, and devices such as awnings should be used to create a traditional "streetscape."

**Implementation**

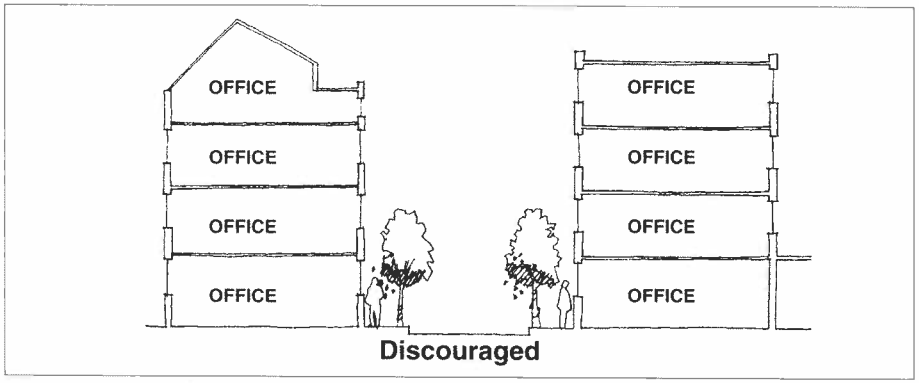
This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance
- SID

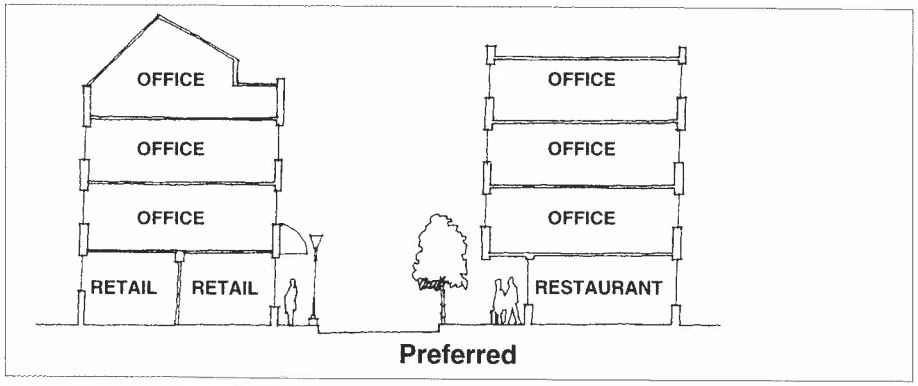
**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area




*Office uses at the ground floor level of major pedestrian streets add little to the streets' vitality and activity.*




*Replacing office space at the ground floor level with active pedestrian-oriented uses creates a lively and more secure street environment.*

*The character and activity level of this street, approaching the train station could have been enlivened if this building had provided pedestrian-oriented uses at the ground level.*

## Balance Architectural Variety with Continuity

Encourage architectural variety within an overall framework of design continuity.

The visual variety created by building elements such as storefront entrances, canopies, and signage, helps to shorten the sense of walking distances and reduce the monotony of pedestrian trips.

Buildings should include, at the street level, design elements that encourage pedestrian interest such as large display windows, multiple entries, and clear signage. Building entries may be recessed into the facade and partially covered, allowing pedestrians to congregate or escape inclement weather.

### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance
- SID

*This streetfront along Boston's Back Bay maintains a continuity of materials and style while providing a comfortable level of visual variety at the street level.*

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area

### Regulate Design of Parking Structures

Control the location and limit the size of parking lots and structures along key pedestrian ways.

Parking structures are a poor generator of off-peak pedestrian activity; because of functional requirements, the architectural treatment of their lower levels often consist of blank walls. Parking structures should be limited to not more than one-third of the street frontage of a lot and, when possible, should be located completely behind buildings. When parking structures are unavoidable along key pedestrian ways within a major commercial area, a "veneer" of pedestrian-generating uses (i.e. shallow retail shops and services) should be incorporated at ground level to activate the street. If this cannot be accomplished, the parking structure should be designed with a handsome, pedestrian-friendly facade, masking the parking within.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- Site Plan Ordinance
- SID

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Suburban Multi-Use Area

### Control Ground Floor Building Treatments

Require a high percentage of glazing and multiple entries along street level uses on key pedestrian routes.

Pedestrians prefer active pathways with a variety of visual amenities. These paths also tend to be perceived as safe and secure due to the volume of pedestrian activity and "eyes on the street" surveillance provided by the occupants of the ground floor space.

A minimum of 50% of the ground floor level of buildings along major pedestrian streets should be composed of clear transparent glass. Building entries should occur at least once for each 50' or less of lot frontage. If grilles or gates are used when businesses are closed, open grilles that still permit a view into the shop or storefront are encouraged. This will increase the level of light and visual interest on the sidewalk.

**Implementation**
This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance

**Application**
This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Park-n-Ride

### Regulate Building Height and Setback

Require that the profile of buildings and structures fronting along key pedestrian paths help to define these routes, while reinforcing a human-scale environment.

Within the station area, buildings should be located at the street line, and their heights should relate to the context of the area. Taller buildings and towers should be set back above a street wall base.

As distance from the station area increases, buildings can be set back from the street line, and other features such as landscaping or fences can define and give scale to pedestrian paths.

In the case of very tall buildings, a setback of not more than 20' from the street line should be permitted. For some uses that attract a high percentage of auto trips, such as large retail establishments or supermarkets, deeper setbacks may be in order. In these instances, however, parking should be restricted or limited within the setback.

**Implementation and Application**
This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance

and may be applied to all categories of station area types.

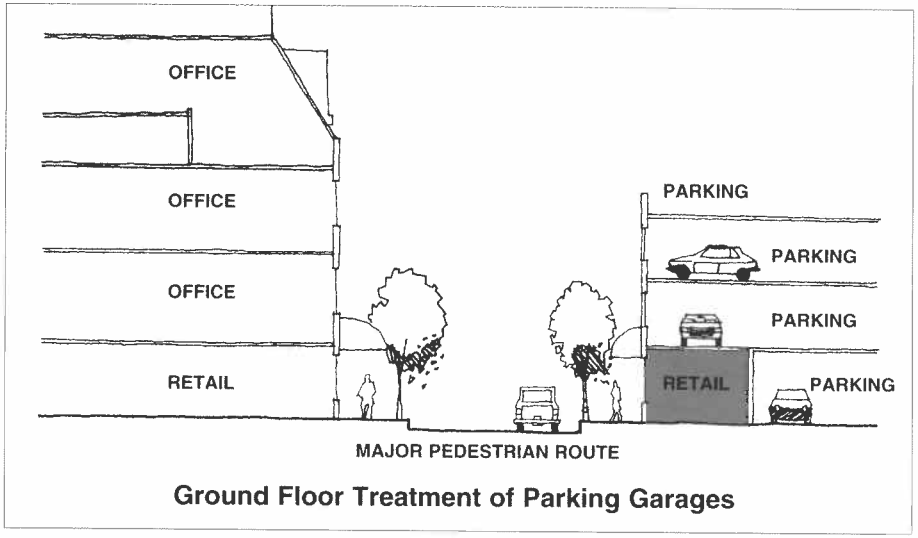
### Upgrade Streetscape Treatments

Improve the streetscape along key pedestrian paths with planting, special ground treatments, lighting, and clear signage.

The more interesting and aesthetically pleasing the walk to and from the station area is, the more pedestrians are likely to consider walking to transit as a viable alternative to driving.

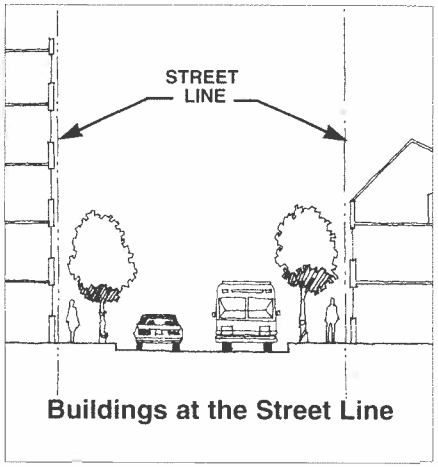
At key points along these paths or at the juncture of intersecting paths, opportunities should be provided for pedestrians to stop and rest or reach

*Parking structures along major pedestrian routes should consider incorporating active ground floor uses along the street frontage.*

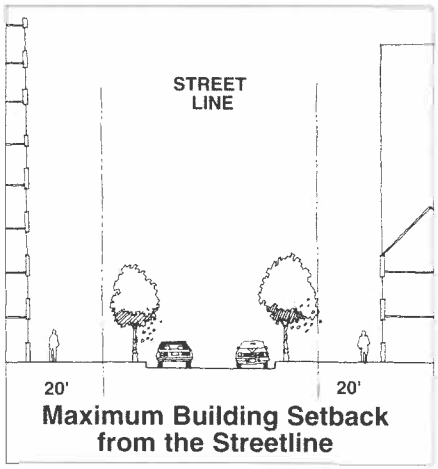



**Ground Floor Treatment of Parking Garages**

*The large expanse of windows in this storefront encourages browsing and window shopping and allows people inside to maintain a casual surveillance of street activity.*




*Buildings located at or near the street line define and enclose the street as an outdoor public space providing order, scale, and enclosure.*




*In the case of very large buildings or narrow streets, buildings may be set back as much as 20 feet from the street line.*

*The Transit Mall in downtown Portland, Oregon offers an example of a highly refined streetscape treatment along a major mixed-use transit corridor.*

services and convenience retail. These small "pockets" should be interspersed along pedestrian routes culminating at the center of the station area, with an increased concentration of services and amenities. These "pockets" should be distinguished by changes in the paving materials, additional street furniture such as benches, water fountains, and bicycle racks; increased lighting; and special landscape treatment.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Circulation Plan
- Site Plan Ordinance
- SID
- Station Site Plan
- Amenities Enhancement
- Public/Private Partnerships

**Application**

Through the physical manipulation of the built environment, pedestrian activity can be increased and the quality of this activity can be improved. While the exact design treatments and scale of built form may vary by station area type, the general concept of improving the quality of the pedestrian environment is applicable in all station area types.

## 2.5 Plan for an Appropriate Intensity of Uses in the Station Area and Along Transit Corridors

***A mix of land uses should be distributed throughout the station area at appropriate densities to help define a viable center as well as to support increased use of transit.***

Densities will vary based on the type of station area, land use, and distance from the station. In general, the intensity of use should be greatest close to the transit facility. As the distance from the transit facility increases, density can be gradually decreased.

An increase of density must occur in a coordinated manner based on the goals of the specific community. In some instances, increased density may entail mid-rise office buildings, while in others it may simply be residential townhouses. The primary objective is to move away from the practice of encouraging large lot, auto-dependent, dispersed development, and toward a more concentrated, pedestrian-friendly pattern of development.

### TECHNIQUES

#### Develop a Plan

Develop a station area plan or transit corridor plan that anticipates greater land use intensity in the station area.

Density changes should be coordinated with other issues crucial to the existence of the station area. These issues include transit service, traffic capacity, parking, and pedestrian amenities.

A plan that addresses all these issues can allow for a planned incremental approach to increased density, while at the same time mitigating any potential adverse effects.

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Land Acquisition
- Site Plan Ordinance
- Public/Private Partnerships

#### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area
- Park-n-Ride

*The Village Mews townhouse development, adjacent to NJ TRANSIT's South Orange train station, exemplifies an appropriate increase in density within a station area.*

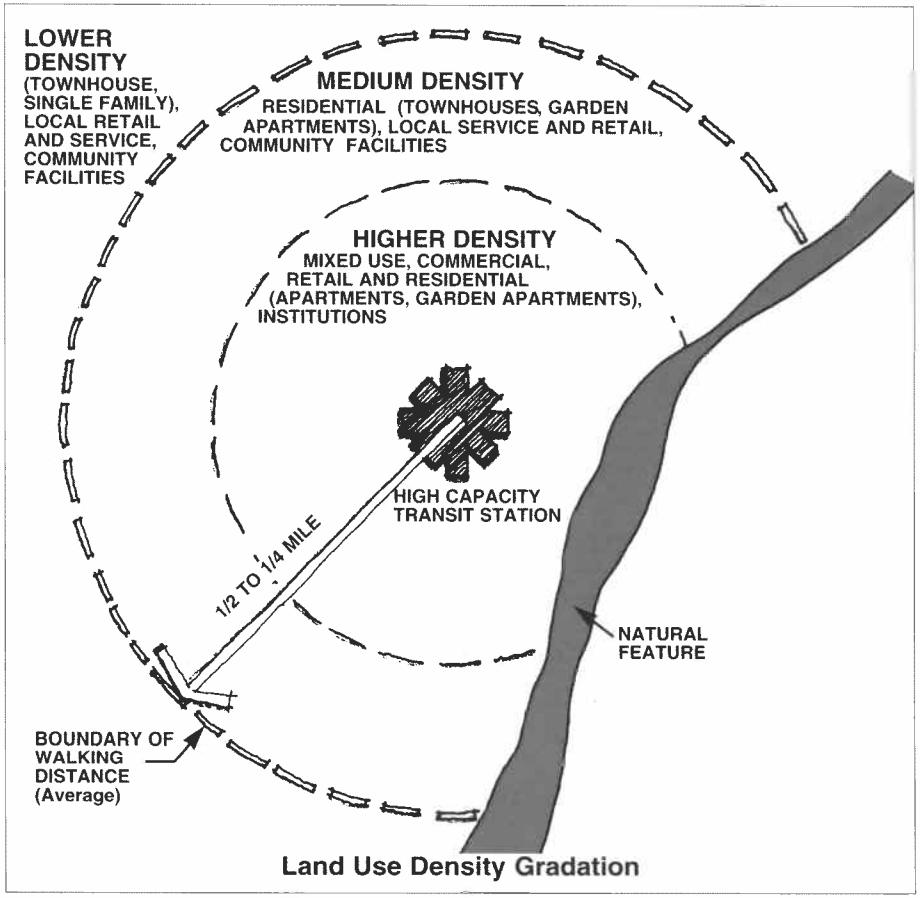
### Plan for Increased Land Use Intensity

In areas near transit stations, increase the permitted intensity of land uses.

Land use density is not always a reliable indicator of the level of use on a particular property. For example, five housing units evenly distributed over a ten acre site will result in a density of 0.5 units per acre. However if these same five units are clustered on two of the ten acres, the actual density remains the same, but an effective density of 2.5 units per acre is created.

In addition to reviewing land use density, the actual intensity of use should also be examined.

This technique may be applied to the following station area types:




Land Use Density Gradation

*Land use density should gradually decrease with distance from the transit facility.*

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Land Acquisition
- Site Plan Ordinance
- Public/Private Partnership

#### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area
- Park-n-Ride

### Create a Density Gradation

Decrease land use density with distance from the station. A gradation of density is important in creating a physical hierarchy and integrating the station area into the larger community.

Higher density uses such as commercial offices and multiple dwellings should be encouraged in close proximity to the station. With distance from the station, these uses should be reduced, and less dense uses, such as single family dwellings located at the margin of walking distance, should predominate.

A useful technique for creating a density gradation is

to establish a growth boundary within your community. Within this boundary increased densities and more intense land uses should be encouraged. Outside of the boundary, land use density should be gradually diminished. The growth boundary may be established based on a reasonable walking distance from the community center.

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Land Acquisition
- Site Plan Ordinance
- Public/Private Partnerships

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area
- Park-n-Ride

### Encourage a Physical Transition

Delineate the physical transition from station area densities to less dense uses on the periphery.

Physical cues should create a smooth transition from the station area to surrounding areas. Local roadway widths should diminish upon leaving the station area and entering lower density residential neighborhoods.

Streetscape treatments should reflect the changing character of the neighborhoods. Heavily travelled streets in the station area should maintain a high percentage of hard surfaces while streets in residential areas should be more appropriate to their landscaped residences.

**Implementation**

This technique may be implemented through the following mechanisms:

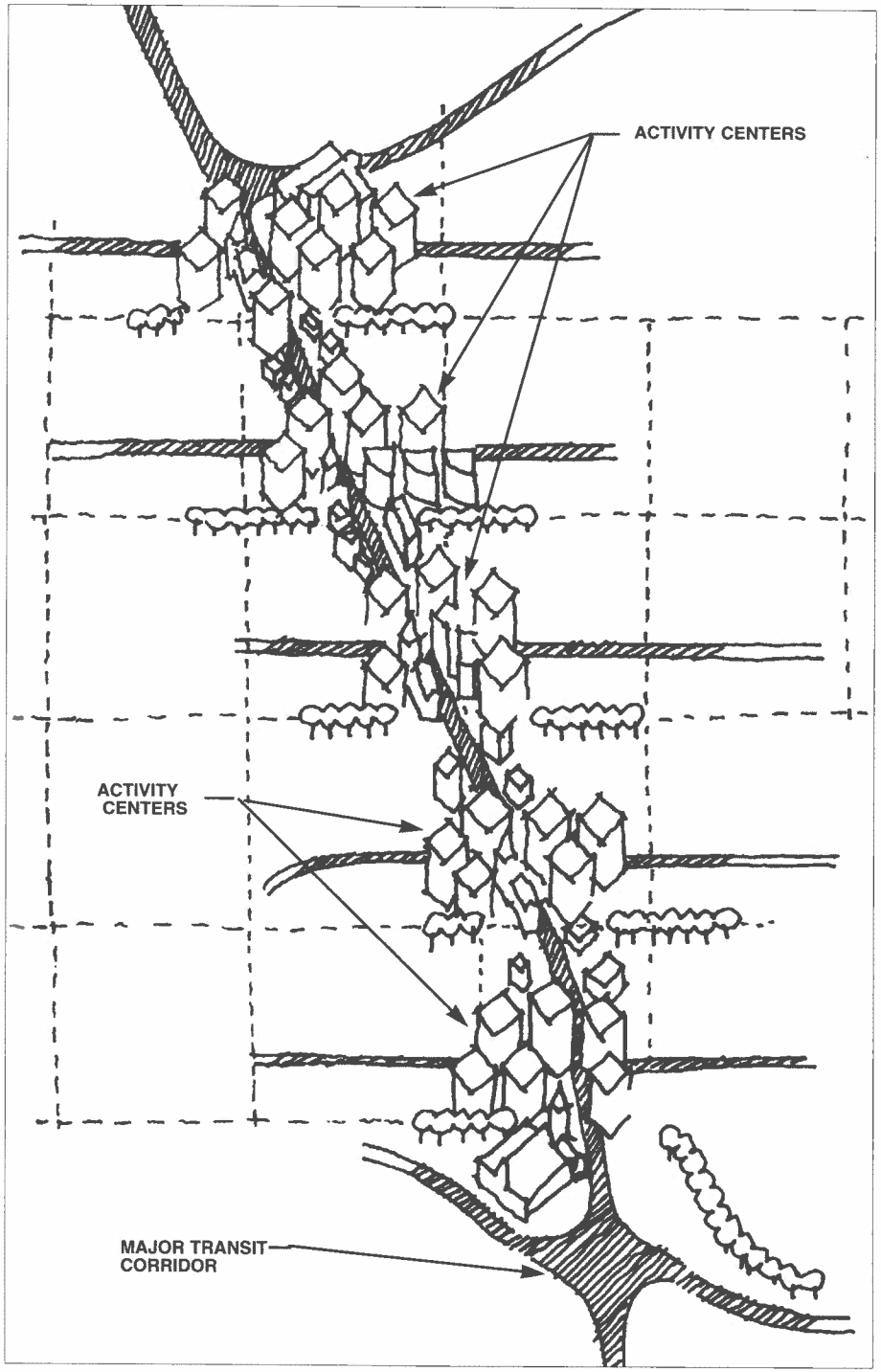
- Zoning Ordinance
- Station Area Plan
- Land Acquisition
- Site Plan Ordinance
- Public/Private Partnerships

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area
- Park-n-Ride

*In Ballston, Virginia, higher density development was limited to the area around the transit station to insure the integrity of the surrounding lower density neighborhoods.*




*Locate higher density uses along major transit corridors, with increased density at key areas with particularly good transit access or intermodal transfer opportunities.*

### Distribute Activity

Distribute continuous activity along linear transit routes. To encourage bus ridership, higher density land uses such as multiple dwellings and commercial offices, and uses that generate continuous activity should be located along major bus corridors. Perpendicular to these routes, densities should decrease as distance increases.

Active uses such as institutions (e.g., universities, hospitals or retail developments, etc.) should be located within walking distance of these routes to encourage ridership during off-peak hours.

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Land Acquisition
- Site Plan Ordinance
- Public/Private Partnership

#### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use Area

## 2.6 Identify Key Development Opportunities Related to Existing and Future Transit

***Opportunity for change and the creation of "transit-friendly" municipal design is greatest in "centers" and other areas where development occurs near existing transit facilities. This can be encouraged by municipalities willing to plan for the future and anticipating joint development opportunities.***

### TECHNIQUES

#### Identify Opportunities to Focus Development at and Around Transit Stations

Designate specific sites at or adjacent to a station as transit development sites, rather than encouraging development in peripheral areas.

Development opportunities should be prioritized in coordination with existing plans and zoning. Development activity should concentrate at existing or planned transit facilities, and radiate outward from this hub.

By virtue of their proximity to transit, these sites should have reduced parking requirements and/or increased densities. These advantages will create added incentive to develop these sites before others.

#### Implementation

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance
- Special Improvement District (SID)
- TDR's and TDC's
- Land Acquisition
- Station Site Plan
- Public/Private Partnerships

#### Application

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use Area

#### Review Joint Development Options

Identify opportunities that may exist to undertake joint development at/or near transit facilities.

Private owners, governmental agencies, or NJ TRANSIT may have properties beyond those necessary to carry out their mission and may be willing to discuss the possibility of joint development as part of an overall station area or transit corridor plan.

*High density development at and around Penn Station Newark reflects the easy access to the vast transit network centered on this station.*

*Recent development in downtown New Brunswick has been located in close proximity to the NJ TRANSIT station seen in the left foreground.*

Joint development opportunities could include a range of land uses, including joint-use parking facilities.

**Implementation**

This technique may be implemented through the following mechanisms:

- SID
- Land Acquisition
- Public/Private Partnerships

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Suburban Multi-Use Area
- Park-n-Ride

### Consider Redevelopment

Consider redevelopment of existing buildings, as well as new infill development.

Many transit facilities are located in what are now peripheral areas of a community, sometimes surrounded by dilapidated or inefficiently utilized properties. Redevelopment of these areas should be considered as one alternative in planning the future.

**Implementation**

Redevelopment may be implemented through the following mechanisms:

- SID
- TDR's and TDC's
- Land Acquisition
- Public/Private Partnerships
- Zoning Ordinance
- Station Area Plan
- Site Plan Ordinance

**Application**

This technique may be applied to the following station area types:

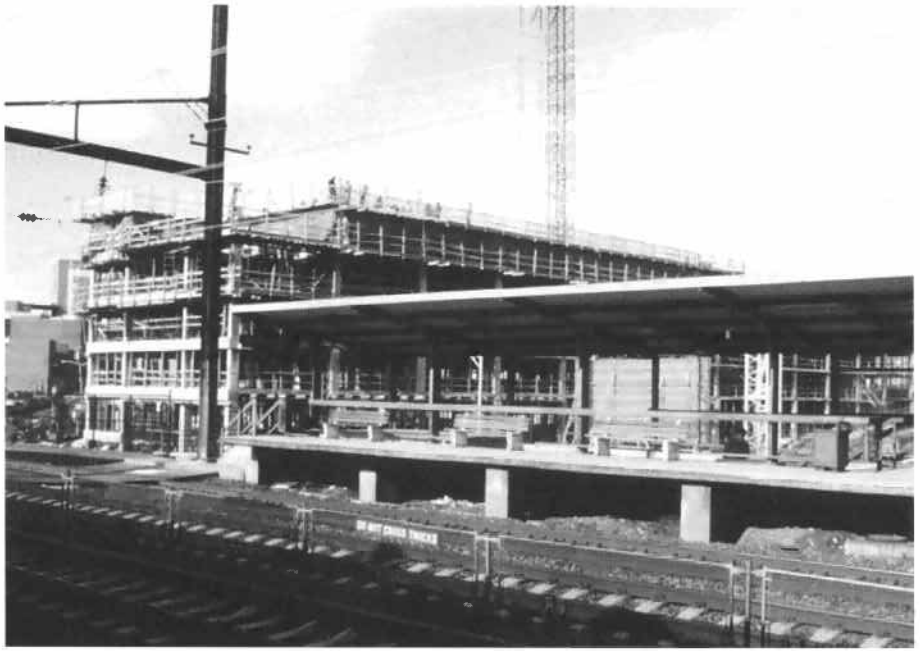
- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Suburban Multi-Use Area

### Utilize Structured Parking

Consider the option of replacing surface parking lots with structured parking.

In densely developed areas, where land is scarce and land costs are high, it may be desirable to reduce or replace surface lots with structured parking. Structured parking might also be appropriate in a joint development scenario, in conjunction with a commercial or institutional development. In this case, the structured parking can be jointly utilized both by the development's employees and transit users.

During the initial phases of redevelopment, surface parking lots may be used as an interim use. The lots and adjacent uses should be planned and designed for an eventual change over to structured parking as densities and land costs increase.



*Adjacent to the NJ TRANSIT New Brunswick train station this development parcel will eventually incorporate institutional, commercial and parking uses.*

**Implementation**

This technique may be implemented through the following mechanisms:

- Zoning Ordinance
- Station Area Plan
- Site Plan Approval Ordinance
- SID
- Land Acquisition
- Public/Private Partnerships

**Application**

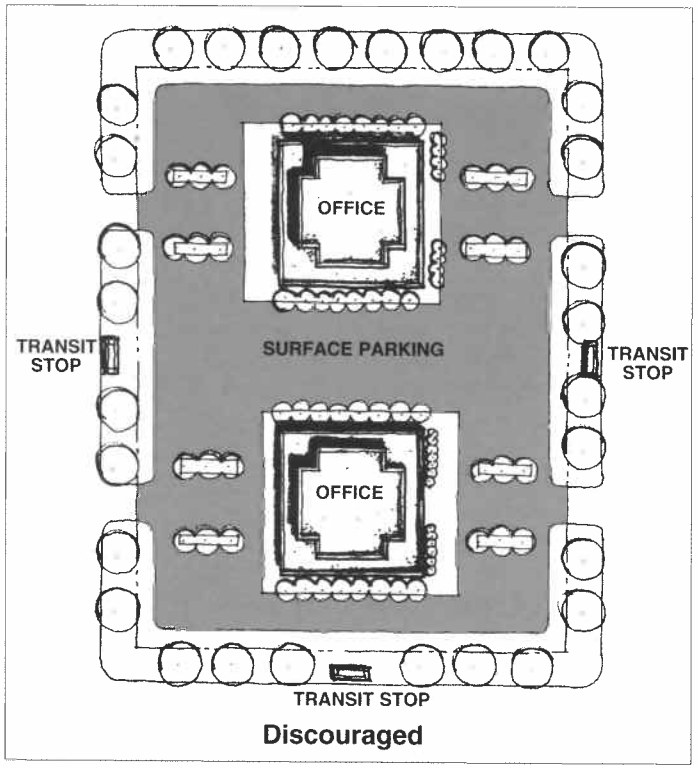
This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Suburban Multi-Use

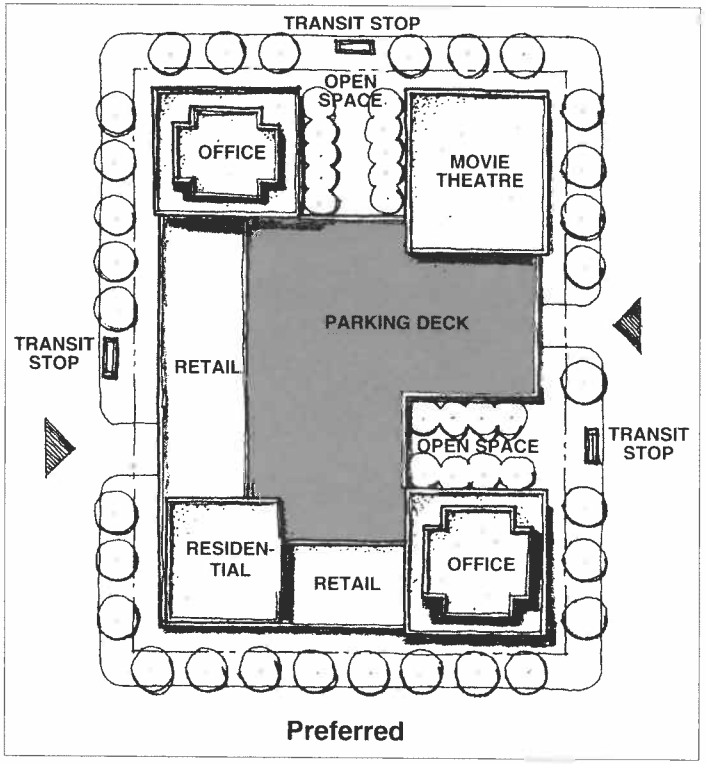
**Encourage Communication**

Provide for a clear transfer of information with NJ TRANSIT and other transit providers serving the area.

- Identify potential rail and bus ridership that could be generated from proposed station area improvements and proposed development plans for incremental development phases and ultimate build out;
- Review the impact of increased ridership on the transit system; and,
- Identify bus routes that may assist in linking uses and that might provide important intermodal links.




*Single land uses surrounded by surface parking are inefficient users of land and do not maximize the potential of transit.*




*Multiple land uses with a jointly developed parking deck provide opportunities for shared parking and create transit destinations.*

**Implementation**

This technique may be implemented through public/private partnerships.

**Application**

This technique may be applied to the following station area types:

- Urban Center
- Regional Hub
- Traditional Town, Village, or Hamlet
- Single Use District or Neighborhood
- Suburban Multi-Use Area
- Park-n-Ride

# Chapter 3 – Pedestrian and Bicycle Access and Circulation

***Pedestrian access to transit facilities plays an important role in design of circulation plans at both the "macro" (station area) and "micro" (station site) scales. In the larger context, pedestrian circulation plans must be developed which encourage walking as a form of access and circulation. At the neighborhood scale, pedestrian circulation must be integrated into the process of planning or enhancing residential subdivisions and commercial sites.***

All transit passengers are pedestrians at some point during their commute. Whether one walks from a place of residence to a transit stop, or from a commuter park-n-ride to a transit station, the common link is the pedestrian experience.

Particularly in suburban and rural areas, pedestrian circulation is typically an afterthought in the planning process. Pedestrian access and circulation must be inviting and easily accessible if the use of mass transit is to increase.

Pedestrian access requirements will differ depending on the type of transit facility, traffic characteristics, and surrounding land use. In all cases however, pedestrian access should be friendly and defensible.

*Pedestrian and bicycle access are given priority in this Davis, California neighborhood.*


*At both ends of their journey, all transit users are pedestrians*

## 3.1 Provide for Increased and Improved Pedestrian Circulation Opportunities

***Separate, direct, and continuous access routes for pedestrians between the station area and surrounding land uses can provide an impetus for increased transit use.***

Pathways should follow the most direct routes and should be safe, well lit, and easily identifiable for pedestrians. The development of site specific guidelines to be considered during site plan design or capital improvement planning can ensure the implementation of enhanced pedestrian circulation opportunities.

### TECHNIQUES

**Locate Walkways Carefully**

Locate walkways in a manner which provides unimpeded access to commercial buildings, residences, and commercial or retail uses from transit stations, or streets with a transit stop.

Providing clear and direct pathways between stations and passenger destinations can increase the desirability of transit as a mode of travel. Walkways should be designed to be direct and continuous, and to minimize unnecessary turns, jogs or meandering. The width of these walkways should be designed in accordance with anticipated traffic; while a four-foot width may be adequate for low density residential areas, a five-foot minimum width is necessary as land use intensity increases.

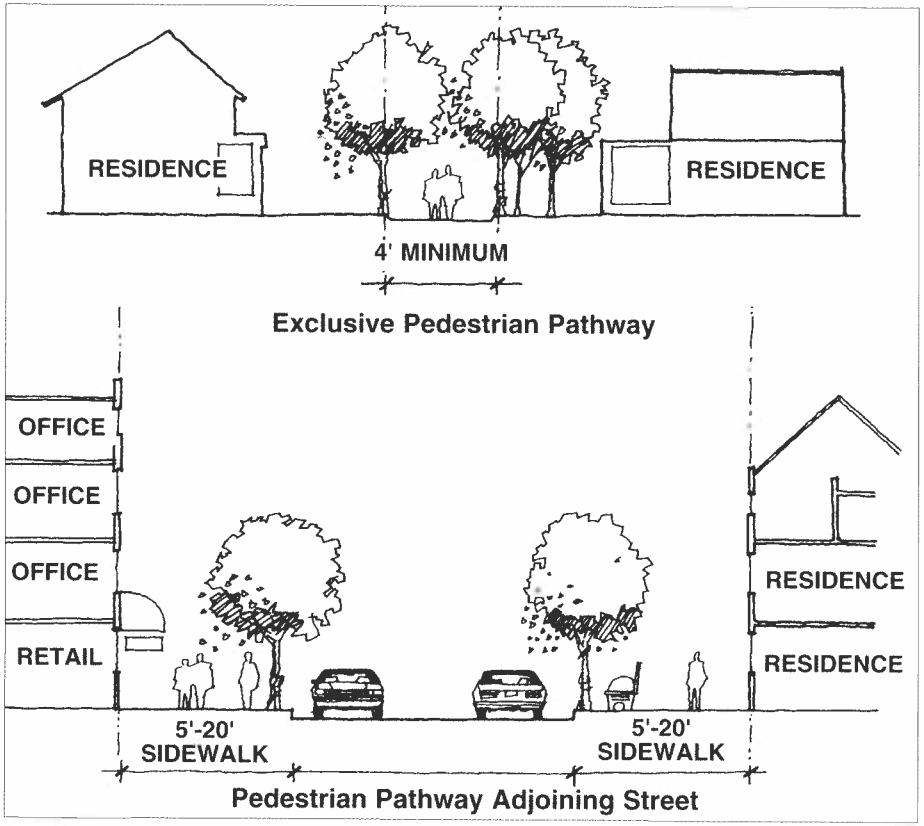
**Facilitate Easy and Direct Access to Transit Stops from Office or Retail Uses**

Bus stops should be located within short walking distances of the front door of offices and large retail uses. The walk to the bus stop should be shorter than the walk to the nearest parking space. Facilities for queuing passengers should be made by either providing larger entry spaces within the building, covered canopies or shelters. A pullout bay should be provided and clearly marked as a "no parking" zone.

**Balance Pedestrian Flow through Parking Lots**

Balance the location and flow of parking with pedestrian circulation, emphasizing the movement of pedestrians. Pedestrian circulation should be given a high priority when designing parking facilities. Access through parking facilities for pedestrians should not be burdensome, and should avoid barriers such as earthen berms,

*Require pedestrian walkways to be incorporated into all new developments; walkway widths will normally range from a minimum of 4 feet to a maximum of 20 feet.*



parked cars, and structures. Different parking lot layouts support different parking needs: a semi-circular parking lot layout allows for easy ingress and egress for short-term and kiss-n-ride parking; a rectilinear parking lot configuration allows commuters to find parking spaces, sometimes with the help of a signed or labeled grid, with a minimum of complication. Parking lots should be carefully designed with the needs of each user in mind.


*A bus picks up and discharges passengers directly at the front door of the Norwalk Mall, Norwalk, Connecticut.*

### Reduce Average Walking Distances

Reduce distances between residential areas and transit stops to reflect the average walking distance of pedestrians.

Transit patronage can be increased by reducing the distances passengers have to walk to reach a train station or bus stop. The average pedestrian will travel ten to fifteen minutes, and in some areas as much as twenty minutes, to reach a commuter rail station and approximately five minutes to reach a local bus stop. Dedicated rights-of-way in new developments can allow for mid-block shortcuts, further reducing walking distances for pedestrians.

#### Implementation

Government agencies and private developers should incorporate these principles into the capital improvement plan and the site plan/ subdivision design. Developing regulations and guidelines within the land development ordinances will enhance overall pedestrian facilities.

#### Application

Pedestrian circulation planning must be incorporated throughout the entire range of station areas. Specific treatments may differ between urban and rural settings, yet the overall concept remains the same.

## 3.2 Encourage Walking and Bicycling as Alternative Modes of Station Access

*Pedestrians and cyclists can be encouraged to travel greater distances when they feel secure and when they are in an interesting environment.*

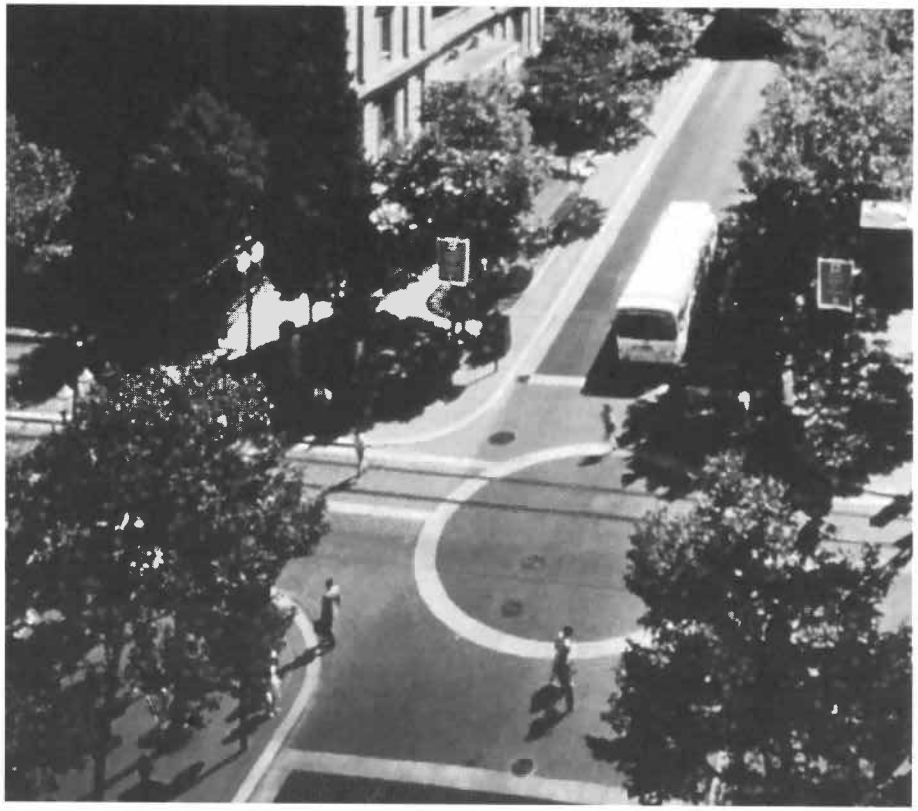
Implementation of a program to identify, sign, and make secure, interesting paths leading directly to transit stops and stations, can increase system usage.

Since all transit passengers are pedestrians at some point during their commute, it is important to provide a clear and direct route for them. Natural and built barriers can discourage walking; removing them may be desirable if it can be accomplished inexpensively and with minimal effort.

### TECHNIQUES

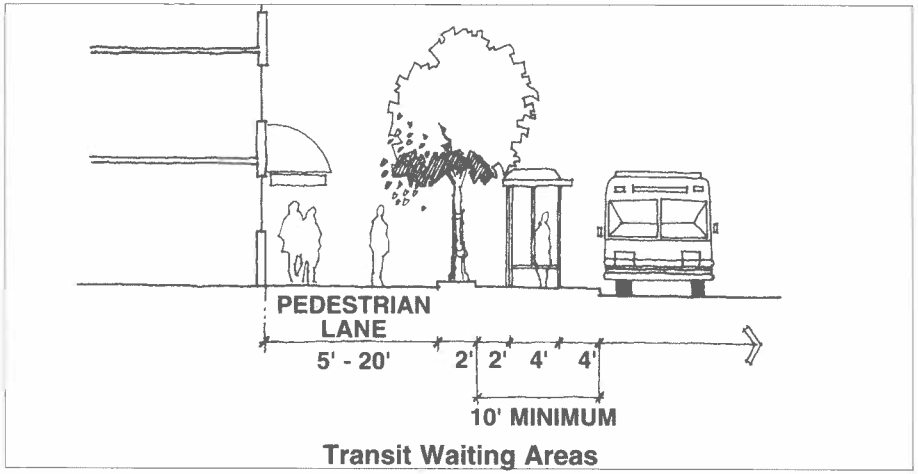
**Minimize Pedestrian/Vehicular Conflicts**

Provide convenient, readily identifiable crosswalks and phased traffic signals to accommodate pedestrian movements. Prolonged waits at intersections can frustrate pedestrians and discourage them from walking to their destination. Signal phasing should give priority to pedestrian movements, reduce wait time, and minimize potential safety problems. Crosswalks should be clearly identified by techniques such as pavement marking, pavement variations, and signage.



*Clearly marked crosswalks direct pedestrians to safe street crossings along the length of the Portland Transit Mall in Oregon.*

*Pedestrian pathways should be attractive, direct, and foster a sense of personal security. Building entries should open directly on to pathways to encourage activity and provide "exits" from the street in case of emergency.*



Transit Waiting Areas

*Create separate waiting areas for transit users that do not conflict with nearby pedestrian traffic.*


*Consideration should be given to establishing a network of bikeways that would link the various portions of your community with transit.*

### Encourage Pathway Accessibility

Pedestrian pathways must be accessible to all people, including the elderly, persons with disabilities, and young children. All pathways should be designed in compliance with the Americans with Disabilities Act. Compliance with these requirements facilitates better access for all pedestrians. When designing new pedestrian pathways, particular attention should be given to people with special needs. Design elements may include increased width for wheelchair passage and dropped curbs for access.

### Design Safe and Defensible Pathways

Ensure that pedestrian ways are safe, adequately lit, well maintained and that they present an image of "defensible space." Pedestrians are unwilling to negotiate pathways where they feel unsafe. Provision of pedestrian scale lighting and ensuring that pathways are visible from the surrounding community will instill a sense of security and confidence in pedestrians.

### Use Buffers to Improve the Pedestrian Experience

Incorporate buffers between roadways and sidewalks.

Consider landscaping and the provision of sidewalks set back from the curbline on major streets to increase pedestrian safety. On secondary streets where on-street parking is encouraged, parked cars serve as a buffer between the road and the sidewalk.

These provisions can increase pedestrian safety while protecting the pedestrian from being splashed by passing vehicles. At the same time, be careful not to create visual barriers that result in unsafe conditions when pedestrians or cyclists are obstructed from view.

### Design Waiting Areas

Provide waiting areas for transit riders in a location that does not impede pedestrian circulation.

When planning for designated waiting areas and shelters at transit stops, consider the requirement for pedestrian through traffic, and avoid creating new obstructions. Techniques can include overall sidewalk widening and the placement of shelters in a setback area beyond the sidewalks.

### Promote Bicycling

Facilitate bicycling as a mode of transportation to transit stops or stations. Provide a network of bikeways linking the station area and major transit corridors with residential areas, employment

centers, institutional uses and community facilities.

Bicycle access to transit stations can be adversely affected by barriers such as potholes, lack of bicycle grates on storm sewer inlets, and inadequate or insecure bicycle storage racks at the station. These disincentives to bicycle travel should be minimized or eliminated.

### Provide Bicycle Storage at Transit Facilities

Secure bicycle parking facilities at the transit station will encourage users to bicycle ride as one leg of their transit trip.

Bicycle racks or lockers located at the transit facility in an unobtrusive manner offer safe, secure and convenient storage space for bike users. The location of the lockers or racks should be coordinated with existing bicycle paths and should have clear signage directing users to them.

### Consider Separation of Vehicular and Pedestrian Movements

In extreme cases of potential pedestrian/vehicular conflict, utilize grade separation to remove pedestrian pathways from vehicular and transit traffic routes, if no other viable alternative exists.

Such techniques are generally undesirable and costly, and should only be utilized as a last resort when other measures prove unfeasible. Attempts to maintain pedestrians at street level should be given priority. The techniques to separate traffic may include pedestrian bridges or tunnels. Careful planning is necessary to ensure that these spaces remain safe, defensible, and well maintained.

#### Implementation

Land development ordinances should be amended to recognize the value of providing unimpeded circulation patterns for both pedestrians and bicyclists. The incorporation of proper design standards within local site plan subdivision regulations will assist in obtaining this goal.

#### Application

Walking and bicycling are more likely to be modes of access as one moves closer to an urban area. Rural areas will have a limited number of such commuters, depending on existing and proposed land uses within the station area.

*Bicycle access to transit is of little use if secure storage facilities are not available. Both bicycle racks and storage lockers are provided at the Metuchen, NJ station, top two images, and adjacent to the Pentagon City station in Arlington County, Virginia (WMATA), bottom image.*


# Chapter 4 – Vehicular Access, Circulation and Parking

*The success of a transit system depends on its users being able to readily reach the station area by a variety of transportation modes, such as bus, auto, bicycle or walking. Therefore, it is of paramount importance that vehicular traffic is safely and efficiently accommodated by the street network surrounding a station; that it create minimal conflicts with pedestrians; that an appropriate amount of parking be available; and that the character of the area not be undermined by vehicular traffic.*

The ability to integrate the competing requirements of alternative modes of access to a transit facility is key to the success of the facility and the quality of life in the community. The type of transportation facility (e.g. park-n-ride vs. urban center) within your community will, to a large degree, dictate the vehicular characteristics to be encountered when attempting to implement transit-supportive planning policies. For instance, a park-n-ride will normally have a very high parking demand while a large urban station will have more users arriving on foot or by other transit modes. These characteristics, however, can be organized to create conditions that work for both your community and the transit users.

*In heavily trafficked areas, prioritized access to the station and station area for buses and HOVs may reduce traffic conflicts and can allow greater numbers of people to reach transit.*

*Easy access to connecting buses at the New Brunswick Station allows many Rutgers University students to use transit as their primary means of reaching the school.*

# 4.1 Encourage Intermodal Transfers Between Various Modes of Transit

***The ability of passengers to transfer easily between modes of transit plays a key role in encouraging transit ridership.***

Improving the physical relationship between different transportation modes will reduce the inconvenience associated with transfers. Intermodal transfers are simplified by designing clear and convenient transfer opportunities.

## TECHNIQUES

### Encourage Convenient Intermodal Transfer

Design transit facilities to allow convenient intermodal transfer opportunities.

A coordinated transit system, linking bus stops and transit stations, will allow additional opportunities for riders to reach their destination without using automobiles.

The location of bus stops should not exceed a maximum of 660 feet (1/8 mile) and should preferably be within 250 feet of the point of transfer. This distance allows a walking transfer of no more than two and a half minutes, and preferably less than one minute.

### Consider Implementing Exclusive Bus and HOV Lanes at the Station

Provide exclusive bus lanes, entrances and exits, and pickup and drop-off areas if traffic volumes warrant.

Giving preference to bus and High Occupancy Vehicles (HOV) when entering and exiting the station area can help to increase ridership by getting greater numbers of people to and from the station efficiently. In addition, separate ingress and egress reduces potential modal conflicts, while increasing pedestrian and vehicle safety.

### Implementation

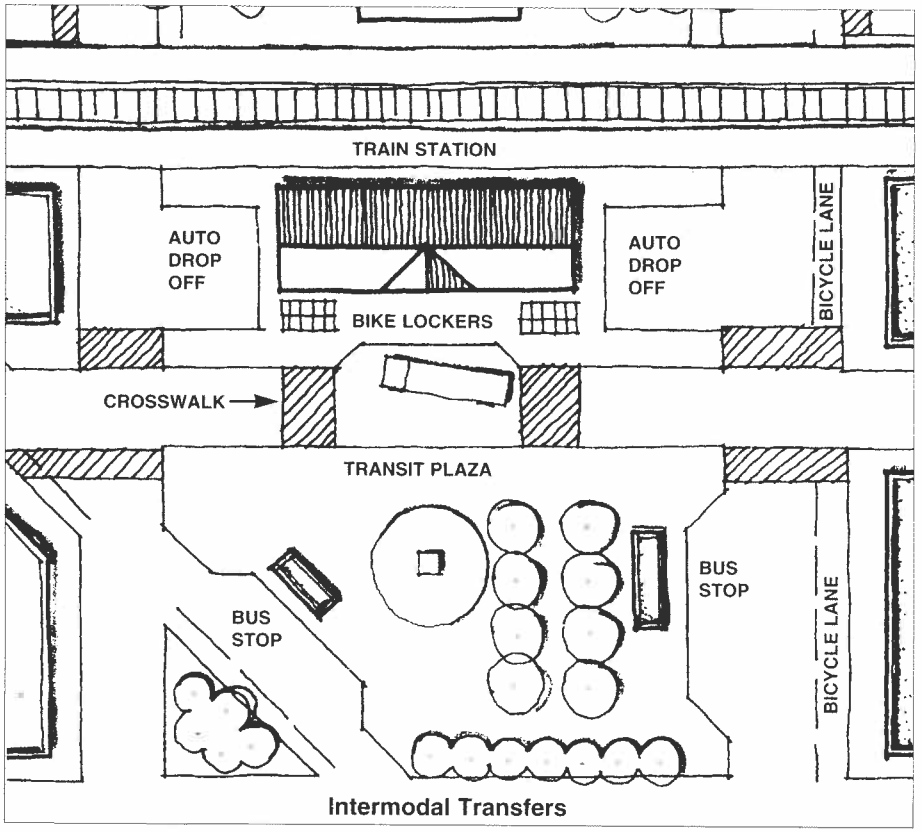
These techniques can best be implemented as transit facilities are planned, or as part of the site plan and subdivision review process for developer proposals.

Federal Clean Air Act and the New Jersey Air Pollution and Traffic Congestion Act, and the State Development and Redevelopment Plan Consistency Review also encourage intermodality.

### Application

Opportunities for "intermodality" will likely decrease as distances from an urban center increase. However, linkages between various modes of transportation are available throughout the range of station areas in New Jersey.

*Intermodal transfers can be facilitated in the station area by providing prioritized and adjacent access for connecting buses and bicycles; convenient and secure bicycle storage; and, easily accessible auto drop-off areas.*



Intermodal Transfers

## 4.2 Establish Hierarchical Circulation Patterns that Support Transit Operations and Promote Ridership

***Circulation plans developed during subdivision design and capital improvement planning should consider accommodating bus service and pedestrians seeking access to transit stops or stations.***

Many new commercial developments and subdivision designs encourage the use of autos and discourage pedestrian circulation and transit use by providing dead end streets and cul-de-sacs, serpentine roads which are difficult for buses to navigate, and do not provide "the shortest distance between two points" for pedestrian access. Transit-friendly subdivision and commercial development design will provide residents with transportation choices, a pedestrian environment, and reduced reliance on the automobile.

### TECHNIQUES

#### Create a Hierarchy of Streets by Designing Each Street to Suit its Specified Function Within the Station Area

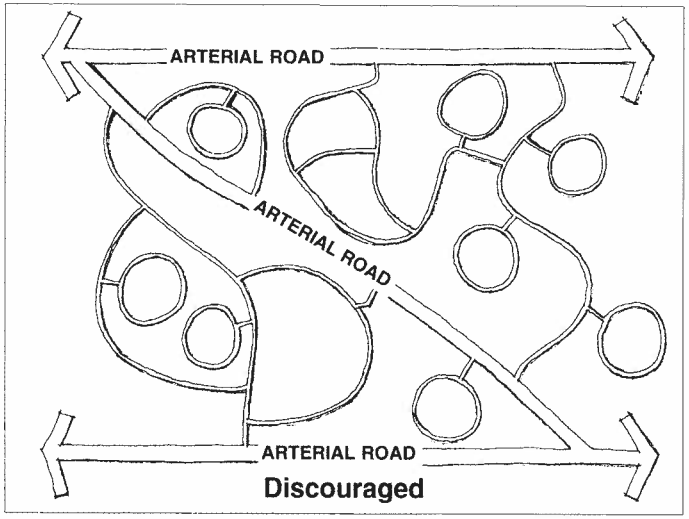
All streets should not be created equal. A key planning activity is the identification of the appropriate function for each vehicular right-of-way. For example, a station area should include arterial streets, collector streets, minor or local streets, marginal access streets, and alleys (see Glossary of Selected Terms for definitions of, and distinctions between, these different types of streets).

#### Encourage Street Patterns that Promote Efficient and Continuous Circulation

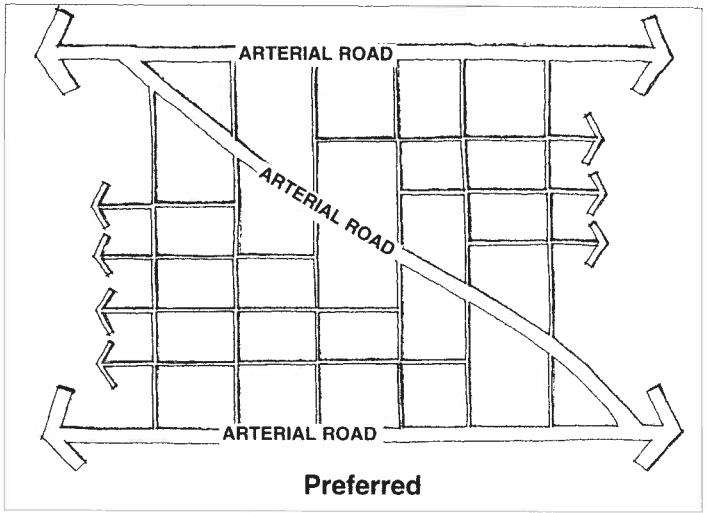
Develop street patterns for efficient transit circulation.

Establish a street hierarchy within new developments that

*Meandering street patterns with numerous cul-de-sacs and dead ends, do not maximize the opportunities for transit access.*




*Hierarchically organized street patterns allow for increased access to neighborhoods by transit vehicles and permit pedestrians to more easily and quickly walk to transit stops.*



maximizes opportunities for the operation of public transportation vehicles and access by pedestrians and bicycles. Transit vehicles cannot operate in cul-de-sacs or on excessively steep, narrow, winding streets. Therefore, street design of principal, arterial, and collector streets should accommodate the needs of public transportation vehicles. On arterial roads, maximum grades should not exceed 7%, and on local roads grades should not exceed 8%.

Passenger-collection points must be within a 5 -10 minute walk of residences, necessitating frequent cross streets and the avoidance of numerous culs-de-sac. Without these provisions, bus routes serving an area become excessively lengthy and time consuming, thereby discouraging transit ridership or resulting in long walks to the transit stop.

### Encourage a Priority of Circulation

Formulate circulation plans for new development which reflect an emphasis on transit.

Preference should be given first to pedestrians and bicyclists, then to transit and High Occupancy Vehicles, and lastly, to private autos.

Walking distances to transit stops or stations from adjacent development should be as direct as possible. Bicycle routes and High Occupancy Vehicle lanes should be given preference in the overall priority. Street design should also reflect this hierarchy.

Street systems should be designed with narrow secondary and local streets which contain on-street parking. Transit vehicles should be able to be accommodated on arterial, collector, and primary streets. On-street parking should be located so that it does not conflict with transit vehicle operation. The street hierarchy should feed into itself efficiently, and with a minimum of confusion, in order to allow for the efficient circulation of both transit and private vehicles.

### Improve Street and Intersection Design

Design streets and intersections to accommodate and give preference to transit vehicles, pedestrians, and bicycles. This is known as "traffic calming." One example of a "traffic calming" technique is to reduce widths of streets when possible to favor pedestrians over non-transit vehicles. Narrower cartways, slower vehicle speeds, and wider sidewalks will encourage pedestrian activity. Other specific actions might include:

- providing a coordinated network of bicycle lanes, with the transit station as the central destination or origin
- providing signal-controlled pedestrian crosswalks at all major intersections
- allowing on-street parking as a buffer between pedestrians and vehicular traffic

Street design should include provisions for high occupancy vehicles. Collector and arterial roads should be designed with bus pullouts and sidewalks for pedestrian use. Intersections should be designed with curb return radii that accommodate bus turning movements but still allow pedestrians to easily cross the street. Queue-jump lanes and possibly signal pre-emption should be provided at intersections to allow for high occupancy vehicle preference.

## Encourage the Use of Mandated Pullout Bays

Include transportation amenities, such as bus pullouts, into street network design.

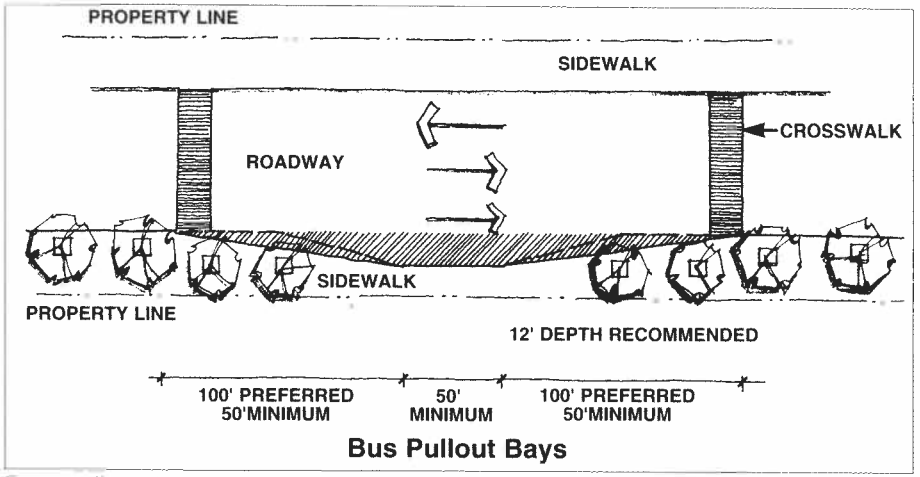
Bus pullout bays should be incorporated into the initial design of roadways, and should be retro-fitted, where possible, into the existing street network. Establishment of pullout bays increases safety for both transit riders and through traffic, by reducing potential vehicle conflicts.

NJ TRANSIT can work with communities to identify locations for, and design, bus pullout bays. Shelters should be provided to protect pedestrians from inclement weather.

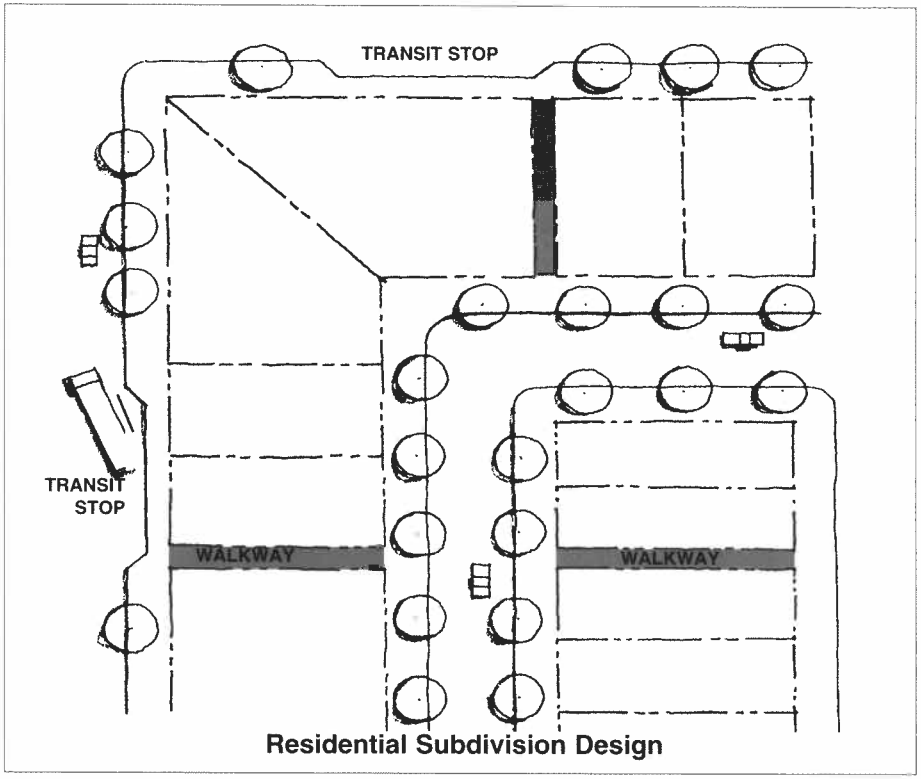
## Avoid Physical Barriers

Avoid designs which incorporate physical barriers between developed land uses and transit stops or stations.

Pedestrian traffic is of paramount importance to the success of any transit station. Avoid creating physical barriers such as berms, walls or fences between residences or commercial developments and transit stops. The removal of physical barriers which block direct and safe pedestrian access to the station or transit stop from surrounding development can result in increased reliance on transit service.




*Bus pullout bays designed to the above standards will decrease potential vehicular conflicts by removing buses from the active traffic lane during passenger pick-up and discharge.*




*Subdivision design should incorporate walkways that allow direct pedestrian connections to transit stops.*

### Link Transit Stops

Link transit stops or stations to residential subdivisions by a network of pedestrian pathways.

Providing walkways which link various sections of the subdivision to collector or arterial roads with bus stops will result in more efficient pedestrian circulation. Walkways should be identified during the initial design phases and preserved through an easement.

### Encourage Clustered Development

Suburban office developments should be configured to capitalize on centralized bus stops.

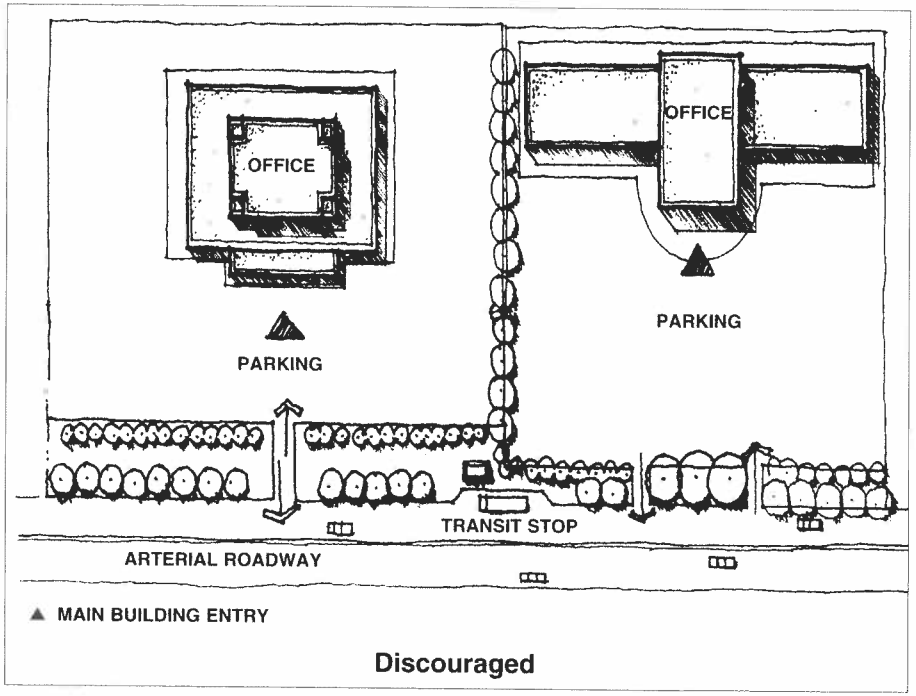
Typically, suburban office developments are planned independently of each other, requiring large amounts of parking for each development and less efficient bus access. The clustering of these independent developments into a planned and centralized configuration permits easier transit access, a larger concentration of users, and the potential for decreasing the overall parking supply. The potential also exists to link a series of these planned developments with service roads to further increase the efficiency of transit service.

### Implementation

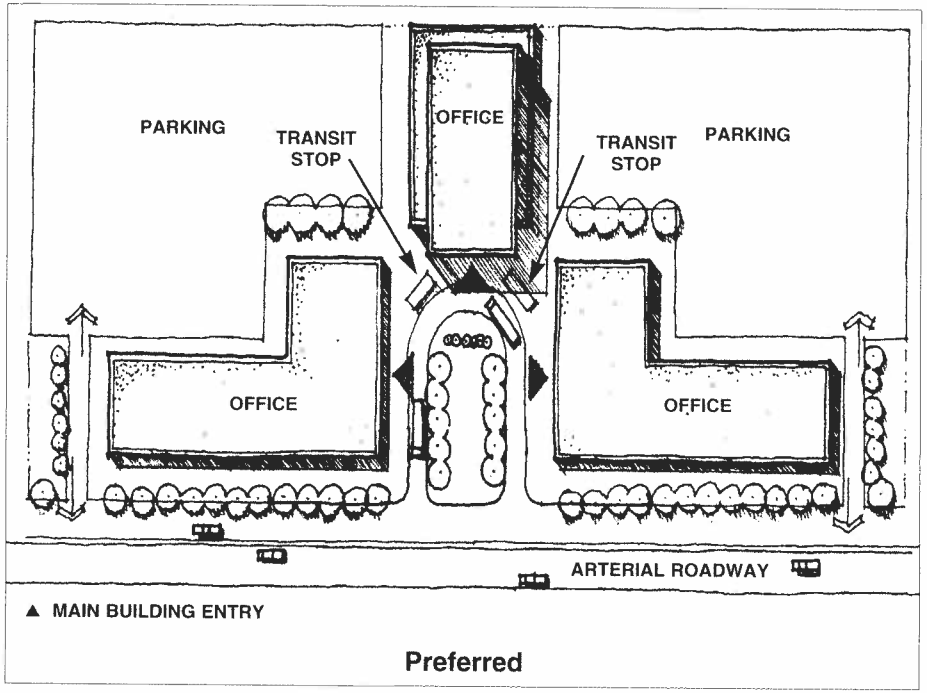
The inclusion of proper circulation patterns can be addressed in the circulation element of the municipal Master Plan, local and county design standards, as well as being incorporated into the capital improvement planning/design process.

### Application

Establishing circulation patterns that support transit use should be applied throughout the State.




*Distinct suburban commercial developments, surrounded by parking and distant from transit stops, encourage auto use over transit use.*



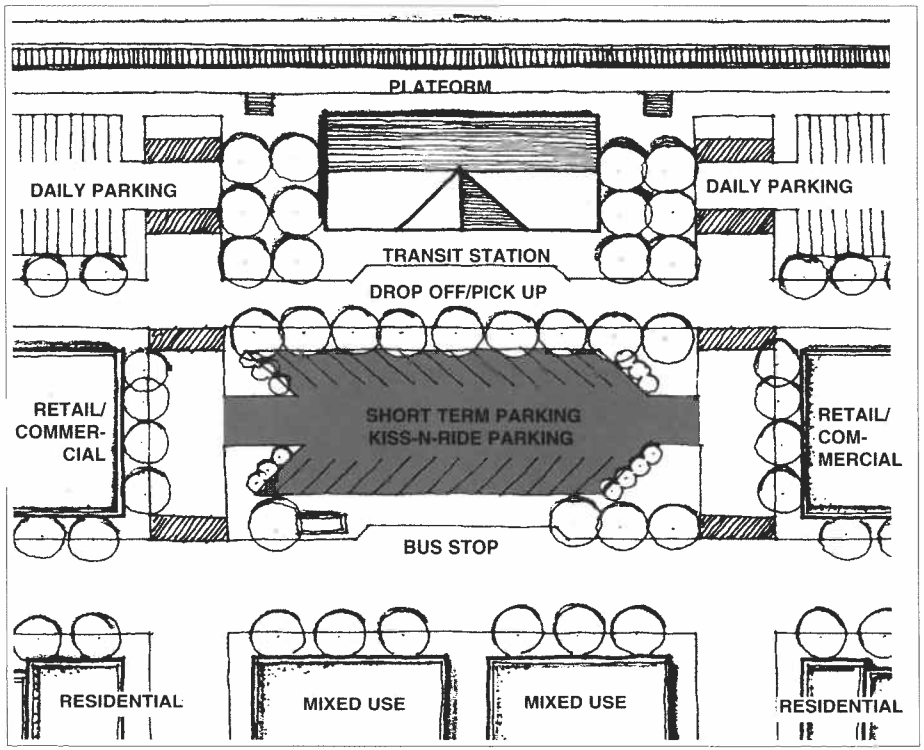

*Clustered commercial developments with reduced parking requirements, centered on easily accessible transit stops, encourage the use of transit.*

## 4.3 Encourage Parking Location and Design that Provides Shared or Joint-Use Facilities, Allows for the Productive Reuse of Land, and Integrates Parking into Communities in an Unobtrusive Manner

*Careful accommodation of parking requirements is essential to a successful station area plan.*

Long-term commuter parking can be shared with short-term local business parking during off hours, allowing for a more efficient use of land that would otherwise be devoted to additional parking. Structured parking can be jointly developed or operated to serve a multitude of uses, both private/commercial and transit related.

Development around transit stations can promote the station area as an activity center for a variety of non-transit uses, thereby increasing pedestrian activity, and instilling a sense of security in transit users. Benefits to both local businesses and transit ridership are likely, as possibilities for multiple destinations in a single trip are increased.




*Within the station area, conveniently located short-term or kiss-n-ride parking can be shared with adjacent land uses during non-peak hours.*

### TECHNIQUES

#### Maximize the Use of Short Term Parking and Kiss-n-Ride Areas

Provide sufficient "kiss-n-ride" facilities that can be used by local merchants during non-peak hours for short-term parking.

The provision of short-term "kiss-n-ride" areas reduces rush-hour vehicle conflict and congestion around stations by providing a designated drop-off area, which is often under-utilized during off hours. Combining "kiss-n-ride" parking and short-term local merchant parking during off-peak hours can increase parking lot efficiency while reducing costly infrastructure duplication. "Kiss-n-ride" areas should be close to station entrances and adjacent businesses to encourage sharing.

#### Encourage Shared Daily Parking Facilities

Establish commuter parking in locations convenient to both commuters and local businesses.

Long-term parking serving commuters and local patrons

can increase both transit ridership and store revenues by combining potential markets. These parking facilities could be interspersed throughout the station area, in locations convenient to both the station and local businesses.

This integration provides for the possibility that parking will be used during off-peak transit hours by local users.

### Physically Integrate Parking

Provide well-designed parking integrated and dispersed within the station setting.

Parking should be designed so as not to overwhelm the station area. Providing separate access to each parking area reduces rush-hour congestion. Distinctions should be made between commuter permit parking, daily parking, and short-term parking.

### Establish Maximum Parking Requirements

Limit the supply of parking in non-residential areas where transit exists to encourage the use of transit. Large amounts of non-commuter parking in close proximity to transit facilities discourages transit use.

Parking requirements for commercial office uses typically range from 3 to 4.5 spaces per 1,000 square feet of gross floor area, and for large retail establishments from 4 to 5 spaces per square feet of gross leasable land. These maximum requirements should be reduced in accordance with the Station Area Parking Reduction Schedule, below which follows. These reductions are based on progressive new standards which reflect the importance of a linkage between land use planning and transit planning.

### Specify the Location of Surface Parking Lots

To alleviate visual impact and to prevent pedestrians from having to walk through lots to access a building's main entry, locate parking lots to the rear or sides of buildings.

With parking lots located to the rear or side of buildings, the traditional community fabric of streetwall buildings can be preserved. Buildings directly adjoining the sidewalk

## STATION AREA PARKING REDUCTION SCHEDULE

| | Approximate Percent Reduction* | | |
|---|---|---|---|
| | Office Use | Non-Residential (non-office) Use | Residential Use |
| Transit Corridor | 10% | 5% - 10% | 5% - 10% |
| Station Influence Area | 5% - 15% | 5% - 10% | 15% - 20% |
| Transit Node | 5% - 25% | 10% - 15% | 25% - 30% |
| Multi-Modal Transit Hub | 60% | 25% | 60% |

**Transit Corridor**

An area within a 1/4 mile radius of a bus or light rail route with headways of 15 minutes or less during peak periods.

**Station Influence Area**

An area approximately within a one - two mile radius of a station, such as the stations on the Morris and Essex Lines.

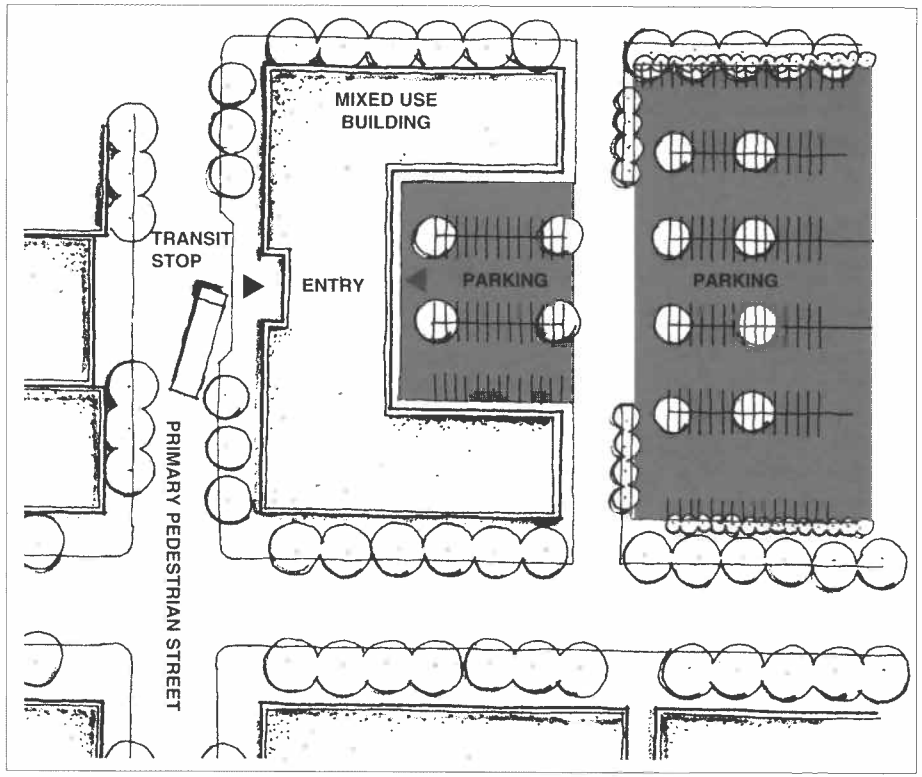
**Transit Node**

An area within a 1/4 mile radius of a fixed guideway station, such as the Summit Station, (light rail, commuter, or rapid transit).

**Multi-Modal Transit Hub**

An area within a 1/4 mile of a multi-modal downtown transit station. At "Multi-Modal Transit Hubs", (such as Newark, Jersey City, Hoboken, or Atlantic City) parking may also be reduced by as much as 60% for non-residential, non-office uses, reflecting the proximity and high use of transit systems.

*Variable ranges reflect density of land use; i.e., reductions may be at lower end of range in less dense locations.




*Locate parking to the rear and sides of buildings to help diminish its visual impact and potential physical conflicts with pedestrians.*

*Landscaping around surface parking lots helps to visually integrate the lot with its surrounding context.*

can stimulate pedestrian activity. Along primary pedestrian streets, parking lots should not occupy more than one-third of the lot frontage.

With the building located at the street line, direct visual and physical connections between the main entry and nearby transit stops should be encouraged. Such pedestrian connections can be identified by the use of signage, pavement variations, lighting, or landscaping. Locating buildings on the street line reinforces the importance of walking as the primary mode of access for transit users.

### Create Small-Scale Residential Parking and Kiss-n-Rides

Due to the design and density of existing subdivisions, walking distances may be excessive to reach transit. In these cases, small scale (less than 50 spaces) parking lots or kiss-n-ride areas at the entrance to, or in an area near, the transit stop may be appropriate.

### Develop Landscaping Guidelines for Surface Parking Lots

The provision of appropriate landscaping around surface parking lots helps to integrate the lot with the surrounding streetscape, and acts as a buffer to the activity within.

Perimeter planting around surface parking lots should obscure views of vehicles within the lot but should still allow people to see in and out. Low dense plantings with taller, ornamental trees along a parking lot's edges will fulfill this requirement.

Landscaping within the lot should provide shade along pedestrian walkways that lead to adjoining sidewalks. Walkways are usually provided in especially large lots to improve convenience and safety for pedestrians.

#### Implementation

Developing zoning and land use regulations which support and encourage shared parking can greatly increase its desirability. Municipalities or counties should consider operating joint facilities whenever feasible. This can be accomplished through parking authorities or through a partnership with the transit agency.

#### Application

Whenever opportunities exist for shared or joint use parking opportunities they should be explored. This may occur in large urban centers, small villages or hamlets. The degree to which opportunities exist may increase as the setting moves toward suburban or urban station areas.

## 4.4 Institute Transportation Management Plans that Give Preference to Vehicles Bound for the Station Area

*Transportation management plans are an effective technique to favor transit and pedestrian travel, and to improve circulation in and around the station area by prioritizing these modes as alternatives to the auto.*

Vehicle conflict is also reduced by the separation of high occupancy vehicles and automobiles. Implementation of transportation system management plans are simple, cost effective techniques to reduce station area congestion while limiting capital expenditures.

### TECHNIQUES

#### Provide priority treatment for transit and High Occupancy Vehicles

Providing transit priority lanes can enhance transit efficiency, often resulting in time savings of between 5 and 30 minutes. Vehicle conflict is reduced by the separation of routes designated for transit and high occupancy vehicles, and by the implementation of other roadway improvements, such as vehicle turning lanes.

#### Provide Direct Vehicular Linkages

Provide direct links between major commuter arterial roads and "park-n-ride" facilities.

Provision of direct access to these facilities may reduce traffic congestion on local roadways, thereby decreasing travel time. Commuter road and "park-n-ride" links should avoid conflict with major pedestrian and transit routes.

Curb cuts for vehicles should not be permitted within 50' of intersections; along primary pedestrian streets, they should be prohibited completely.

#### Limit On-Street Maneuvering

Limit on-street parking and driveways at key conflict points near the transit station which might hinder the efficient movement of pedestrians, transit, or other vehicles accessing the facility. At key conflict points, on-street parking can result in increased delays for transit and high occupancy vehicles, by restricting the free flow of traffic on commuter roads. A greater emphasis should be placed on off-street parking for those land uses abutting transit routes.

The location of driveways to off-street parking areas should be limited to secondary streets and alleyways to avoid conflict with other transit vehicles.

#### Consider Using One-way Streets

Consider the establishment of a one-way street system within the station area to reduce congestion.

One-way street patterns, if developed properly, can serve to channel traffic along designated routes. Reducing congestion and redirecting traffic in the station area will lead to a more efficient circulation system that benefits commuters and residents of the community alike.

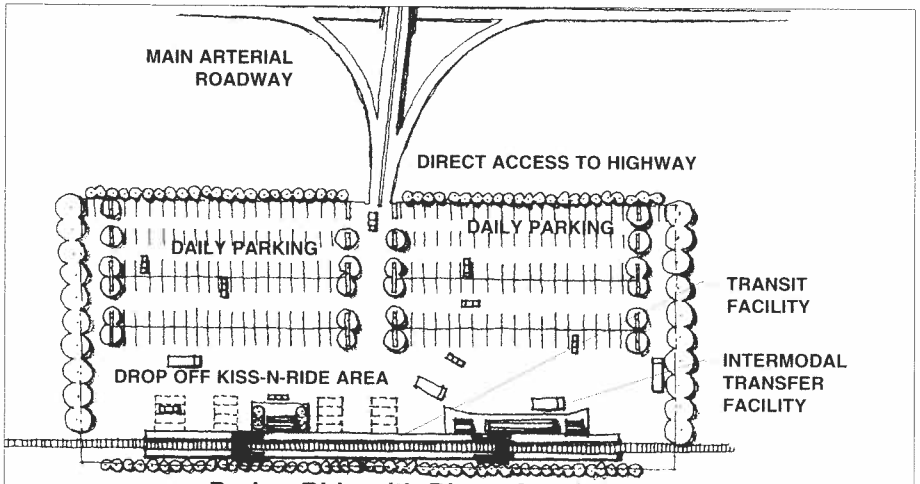
#### Implementation

Municipal or county level traffic management plans can be instituted in a variety of ways. Local plans can begin with the municipal Master Plan, while adoption of design standards for new development can assist in the overall effort.

#### Application

Traffic management systems are most effective in locations having greater traffic volumes.

*Direct vehicular linkages between major arterial roads and large park-n-ride lots help to increase access to transit and divert traffic from overloaded local streets.*

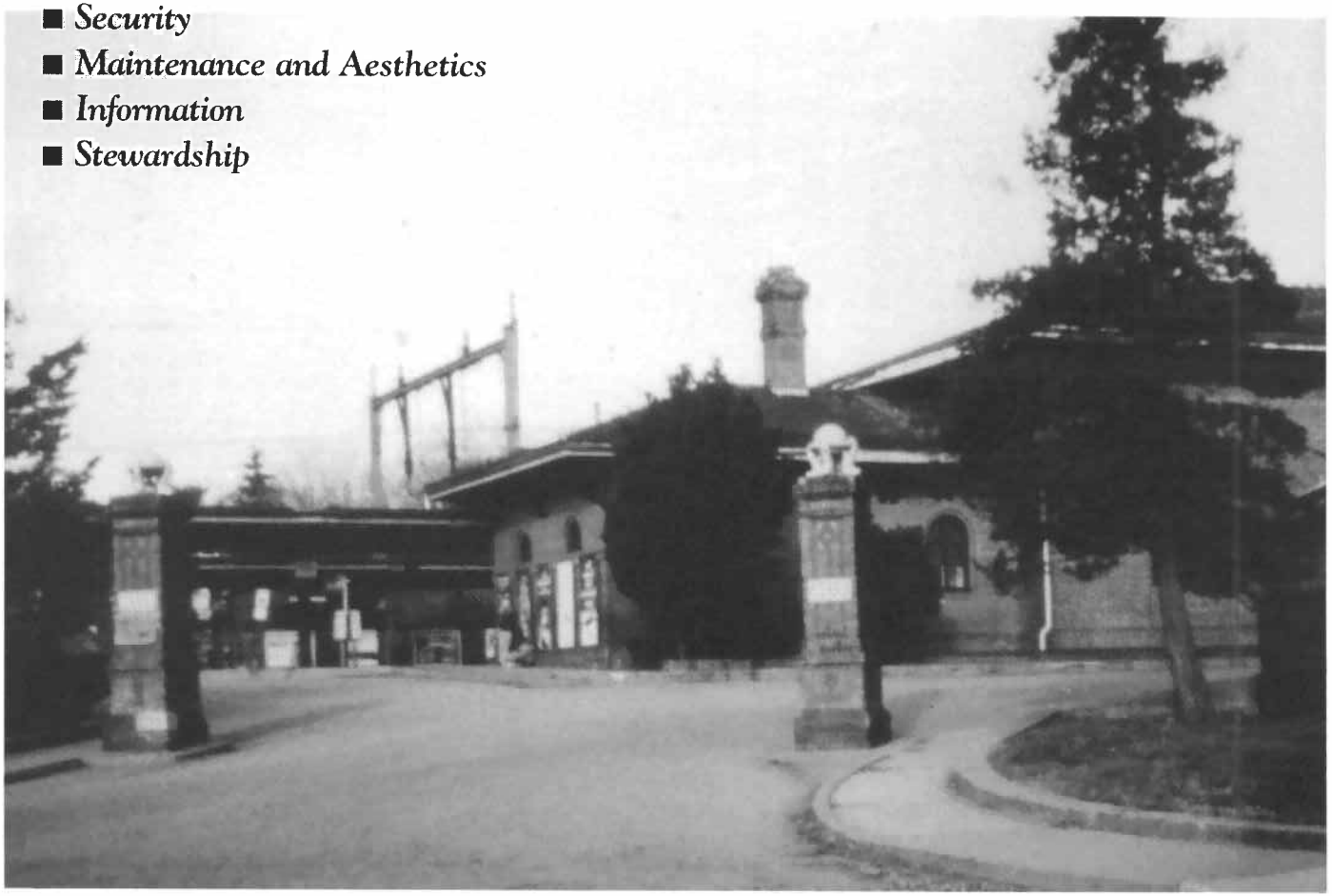


Park-n-Ride with Direct Arterial Access

# Chapter 5 – Qualities of the Station Area Environment

*This chapter discusses the relationship between a station and its surrounding area, some of the important characteristics which affect how people feel about transit in their communities, and what communities can do to influence these characteristics. It focuses on the issues in which there is shared jurisdiction and responsibility and, most importantly, on those goals which will be best achieved if there is a working partnership between a community and the transit provider. The qualities discussed are:*

- *Order and Orientation*
- *Security*
- *Maintenance and Aesthetics*
- *Information*
- *Stewardship*



*The gateway pillars of NJ TRANSIT's Morristown station provide a visual cue to transit users directing them to and from the station.*

## 5.1 Provide a Sense of Arrival, Order, and Orientation within the Station Area

***Transit users, whether walking out of a train station or stepping off of a local bus, should be able both to orient themselves to the community they have arrived in, and to gauge quickly the character of that community. They should feel that they have arrived.***

The ability to determine where you are and how to walk or get a bus to your next destination is crucial to creating a station area that is comfortable and a place to which users will want to return.

### TECHNIQUES

#### Reinforce Sight Lines

Establish sight lines to and from the station to orient the traveller. Let travellers see where the community is as they leave a station building; upon exiting the station building, their attention should be focused towards the physical center of the community.

Streets should be used to enclose vistas of the community's center, important public buildings, monuments or open spaces. The key is to create a sense of personal orientation for the traveller and to make the community uniquely memorable. If this is not immediately possible, clear signage informing the travellers where they are, and orienting them to the activities in town should be provided.

- Do trees, signs or fences block the view to town? Trees can be trimmed and fences or signs moved to clear the line of sight.
- Do buildings block the view corridors? As part of comprehensive station area redevelopment plans, consider the opportunity to create new building patterns which open up view corridors.
- Is the station area too open, leaving no guidance as to direction? Orientation can be enhanced by strategically placing vegetation, signs or street furniture to direct one's view.
- In areas of varied topography, new development should use the slope of the land to create visual landmarks.

#### Create Pedestrian Linkages

Establish pedestrian linkages and encourage their use.

People orient themselves to communities by moving through them. Encouraging residents to walk to, through,

*The watch tower of the Tudor style South Orange Fire House provides a landmark and orienting feature for travellers arriving at the NJ TRANSIT train station shown in the foreground.*

and around the station area will help them feel that the station area is an integral part of their community. Forcing pedestrians to cross wide traffic-jammed arterial roads or large expanses of surface parking will discourage them from exploring the station area.

(For further discussion of pedestrian access opportunities, see Chapter 3.)

**Implementation**

Programs to create a sense of arrival and orientation at stations require that a partnership be established between the local municipality, business groups, civic associations, and the transit operator. The transit provider will have the chief responsibility for providing clear signage and information within the station building or at a transit stop. The municipality will have responsibility beyond this point. However, both can help each other to achieve their objectives.

Opportunities to address issues of orientation will be greatest during either the construction of a new station, the reconstruction of an existing one or, most importantly, during the major redevelopment of an existing station area. Issues of arrival and orientation should be defined as important goals of any such major reconfiguration of the station or its surrounding area.

However, smaller measures such as indicating surrounding street names above the exit doors inside the station, and clearly marking street names on adjacent streets can be implemented to provide greater clarity to the station area environment and improve the visibility of the station to the community and of the community to the station.

**Application**

A sense of arrival or orientation should be an objective at all transit facilities. The level of effort required, and the opportunities available will differ substantially, based on the unique site characteristics of each facility.

At major terminal facilities in large cities, where the amount of activity going on is great and the number of transit users is large, it is important to orient the traveller, and provide him with a sense of where he is in relation to where he wants to go in the city.

Often, the responsibility for providing a sense of orientation and arrival stops at the station door. It is important that the transit provider and the local municipality work together to develop programs and features which establish a strong link between the station and the community. This can be done by providing:

- informational maps displayed both inside and outside of the station, identifying key locations in the city and how to reach those destinations by either walking or taking transit;
- trail blazing signs on the street providing direction to activity centers; and,
- clearly marked street names.

While the needs may be less at smaller facilities, bus stops, and local rail stops, the number of traditional cues may also be substantially fewer. With little activity, and only limited numbers of riders getting on or off, a rider may be left feeling very isolated and alone unless strong orienting cues are available.

## 5.2 Provide a Safe and Secure Environment within the Station Area

***Safety and security are essential - both at the transit facility and in the surrounding area. A traveller should not fear leaving the safety of the transit station or bus.***

Actual and perceived safety are equally important. Without the perception of a safe environment, riders will be deterred from using the transit system, and a process of decay and decline can rapidly evolve. Security measures should focus on creating "defensible spaces" through design and selection of appropriate materials and landscaping.

### TECHNIQUES

**Create "Defensible Space"**

"Defensible space" is a concept that encourages public areas to be designed in a manner that provides a sense of personal safety, while discouraging opportunities for criminal activity.

Public space should immediately be perceived as safe and secure by potential users. Without this, people will rarely choose to use the space or travel through it. Actions to encourage defensible space could include:

- providing direct and unobstructed views to major destination points through the space;
- encouraging adjacent users to maintain large windows to create the sense that the space is constantly under visual inspection;
- choosing plantings and street furniture that do not create secluded and visually separated areas; and,
- locating or redesigning the space to be an integral part of a heavily traveled and active street network.

**Facilitate Police Presence**

Coordinate security operations and maintain a public police presence in station areas. Local officials and residents can meet regularly with local police to assure that effective policing is available. The scale of policing required at or around a transit facility should be directly linked to the scale of the community, the volume of transit activity, and the history of security problems. Your community may:

- establish a policy on frequency of police visits to the station area;
- increase police presence during off-peak hours when there are fewer people and less "self surveillance";
- provide pay telephones (in working order) in train stations and throughout the station area, and clearly post emergency numbers; and,
- provide, when possible, municipal police sub-stations, at or adjacent to, rail stations or transit centers.

*Located in NJ TRANSIT's Newark Broad Street station, this transit police station creates a sense of security for all who pass through the area.*

### Create Activity

Increase the number of people in the station area. People feel safer and are safer when there are other people around. It is especially important to expand the level of activity during off-peak periods, and to make what activity there is as visible as possible. This can be done by:

- providing activity generating services in the station area;
- concentrating the activity present into defined visible areas;
- establishing off-hour waiting areas;
- providing windows to look out onto travelled pedestrian paths;
- encouraging employees to keep their eyes open;
- scheduling routine maintenance activities during periods when fewer transit users are present to increase the station area population; and,
- encouraging 'round-the-clock services, such as taxi companies, to establish offices in the station in order to increase the level of late night activity.

#### Implementation

Good communication between the transit operator and municipal police officials is critical. Encouraging police visits will be easier if the station is along a convenient travel path for officers, hence the value of having a police sub-station in the station area.

The process of creating activity at the station involves continuing communication among the transit operator, the local municipality, and its business community. Land use techniques discussed in Chapter 2 will be especially valuable in generating activity.

*At the entrance to the Harvard Square Station in Cambridge, Massachusetts, high levels of pedestrian street activity create a sense of safety.*

#### Application

Providing security is critical at all transit locations. Provision of a municipal police sub-station in or near a busy transit center or town rail station will provide increased surveillance at the station, while providing the community with convenient access to the police.

In New Jersey, borough or township municipal buildings have frequently been located adjacent to train stations. This provides convenient proximity to public services, while increasing the presence of the municipality at the train for station users. It also increases the public presence, especially since the municipal building often incorporates the police station.

Creating a sense of security at less busy transit stops will depend largely on the character of the surrounding community. Providing clear visibility and establishing activity in the station area is especially important at locations where the number of transit patrons will be lower.

## 5.3 Provide an Attractive and Well Maintained Station Area

***The perception of safety is intricately linked to the aesthetic quality of the environment. People feel safer (rightly or wrongly) in an environment which is attractive and well cared for. Consequently, the quality of maintenance provided in the station area will directly affect a person's perception of security.***

The value of frequent and regular maintenance in making people feel secure in their environment has been well documented; it is the key to successful theme parks, shopping centers, and private entertainment facilities which generate extensive amounts of public activity. The public environment demands the same level of care. A consistent, high standard of maintenance should be provided throughout the station area.

We all know litter won't mug you, but it can make you feel threatened. Burn holes and scratch marks in plexiglas windows, broken or boarded-up windows, and graffiti all make an area appear to be uncared for, and therefore unsafe. While operational maintenance is critical to a station facility, a continuing effort should be made to assure that the aesthetic features of the station area are maintained and enhanced, where possible.

### TECHNIQUES

**Maintain All Areas**

Maintain all public areas within the vicinity of the station.

Neither transit users nor the citizens of a town care who has jurisdiction over a particular portion of the station area. They simply want the entire area to be well maintained. This means that the station, the public areas around it, and adjoining private property must all be kept in a good state of repair and cleanliness.

- Use low maintenance materials to reduce maintenance costs.
- Use attractive materials - aesthetics and maintenance are linked in the public eye.
- Maintain effective communication between the different parties involved.
- Organize local volunteers to assist in routine maintenance activities of public property.
- Strictly enforce ordinances requiring the repair and maintenance of private properties surrounding transit facilities.
- Use Community Development Block Grant or NJ Economic Development Authority funds to provide grants or loans to property owners facing expensive repairs. (See Appendix "D".)

**Develop a Scheduled Maintenance Program**

Establish a scheduled maintenance program providing for regular and frequent maintenance of the entire station area.

A scheduled maintenance program should include:

- definition of responsibilities of the municipality, private property owners, and other groups;
- establishment of a maintenance checklist, reviewed frequently; and,
- a plan for existing downtown business associations, to assure that all parties are meeting their scheduled responsibilities.

**Encourage Station Area Upgrades**

Prepare a station area improvement plan.

Periodically, conditions in the station area should be re-

*Transit systems and their surroundings can be designed to minimize paved areas and maximize "green areas", as shown here along the St. Charles streetcar line in New Orleans, LA.*

examined to identify additional improvements which could be made to the visual environment. A joint program is required involving the transit agency, for the station site proper, and the local municipality, to work with surrounding property owners and to take responsibility for the public environment of sidewalks, streets, and parks. Actions which may be taken include:

- providing grants or loans to property owners in commercial areas for facade improvements;
- upgrading street furniture, including lighting, in the station area; and,
- identifying areas where new vegetation can be provided and welcoming garden clubs and environmental groups to establish plantings in the station area.

### Eliminate Unneeded Pavement

Organize vehicular areas and remove unnecessary paving. Past management practices have frequently resulted in the paving of areas which are not needed for parking or vehicular circulation.

In areas where there has been unnecessary paving, these areas should be converted to pedestrian or planted areas, as appropriate. They will look better, and frequently they will be easier to maintain. To implement this change:

- identify roadway areas actually needed for parking and access purposes;
- determine if there are remaining unused or unneeded roadway areas;
- unused areas may be used to support pedestrian movements or create public spaces;
- provide pedestrian/ vehicular separation and pave non-roadway areas with an alternative material such as brick, concrete paver blocks, or crushed stone; and,
- use excess areas not needed for pedestrian purposes, for planting or landscape.

#### Implementation

Ensure that ordinances requiring the repair and maintenance of private property have been adopted, and then vigorously enforce them in station areas.

Periodically retain designers to identify methods by which the aesthetic quality of a station area can be enhanced. The review should not be limited to within the property line of the station, but reach into the community.

#### Application

Providing attractive and well maintained station areas should be a goal in all types of communities. What changes from community to community will be the priorities and focus of these activities. Whereas cleaning up graffiti might be a priority in an urban center, providing new plantings and landscaping might be the focus of a small town. Each community should establish its own priorities, based on particular needs and conditions.

## 5.4 Provide Information About Transit Service

***Signs should provide critical directional and schedule information. Current information about the location and time of transit services should be conspicuously posted.***

The absence of essential information can make a traveller feel extremely insecure. Where is the town? How do I catch a bus or a taxi? Where are the tracks? When does the next bus or train come? How frequently do they run?

Decision points should be anticipated so that critical information will be available where it is needed. Providing information once is not sufficient: materials must be maintained and constantly updated. Given competition from the automobile, transit users must feel secure in knowing that they will be able to complete a trip in a timely and efficient manner, and without getting lost.

### TECHNIQUE

#### Provide Transit Information

Provide information in the station area regarding the transit facility and transit services.

Anticipate questions which users will ask. Posted transit information should include:

- directional signage for train tracks, bus route locations, etc.;
- up-to-date timetables available in the station as well as at nearby street level businesses;
- large-type timetables posted on rail platforms and at bus shelters, with pocket-sized versions available for the rider to take away;
- local connecting bus information and schedules, with telephone numbers for additional information;
- prominently posted telephone numbers where additional transit information can be secured or direct phone lines to transit information services; and,
- information about activities at various destinations along the line.

#### Implementation

Much of the responsibility for establishing a comprehensive information program to serve transit users rests with the transit provider. However, municipalities can be helpful in defining the needs which exist. Frequently, local residents will have excellent anecdotal information regarding problems which are encountered regarding the adequacy of information.

#### Application

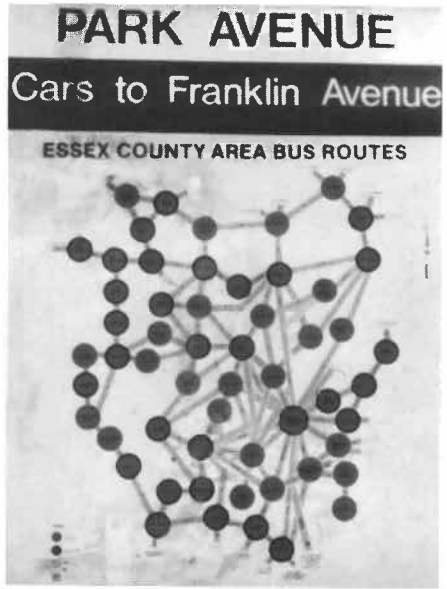
At major urban terminals, where the degree of complexity and the number of visitors is greatest, sophisticated information services should be provided. Large-scale vicinity maps, an information clerk, interactive displays, signage directing patrons to taxis and buses, and other information will be required.

Municipalities need to match the complexity of information within a terminal with clear signage on surrounding streets so that transit patrons won't feel abandoned after leaving the station.

Remember to keep the level of information provided appropriate to your station area type. In a village center, for example, where most of what goes on is visible from the door of the station, only a limited amount of material may be required. Any information which a user might reasonably want, especially that required to orient the visitor, should be readily available.

Providing adequate information is especially difficult along a bus route. The spread out nature and low density of usage at most stops limit the amount of information that can routinely be provided. However, at major stops vicinity maps can be provided on bus shelters, and directional signage to major attractions should be offered.

*Information signs should be located at critical decision points along the transit user's journey.*



## 5.5 Encourage Community Stewardship of the Station Area

*The station area should look like people care about both their station and their community.*

*During Maplewood, NJ's "First Night" celebration, local residents helped to decorate an underpass at the NJ TRANSIT station.*



How can your community participate in decisions affecting your station area?

What opportunities can be provided to give community members a "sense of ownership" of the station?

"Community" means more than just transit employees and riders. "Community" includes residents, merchants, workers, property owners, employers, and the children of users of the station, who should enjoy visiting it with their families and, as they grow older, be encouraged to use the transit services offered.

### TECHNIQUES

#### Allow for the Exchange of Community Information

Provide community information and displays developed by the community. Local community groups or institutions should consider displaying community information at train stations, transit centers or within the station area; even bus shelters can incorporate a community bulletin board.

Local institutions can highlight their activities as well as their presence in the community. For example, Rutgers University should have a presence at the New Brunswick Station; New Jersey state government at Trenton; and Seton Hall University at both South Orange and Mountain Stations; etc.

This technique enhances the sense of arrival at a town or city, and lets the resident and visitor alike feel that they are welcome and belong. They should be able to answer these questions:

- what services are available, what are the local landmarks, what values are important to the community?
- is this community a residential community, a business community, a resort community?
- is theater important to the community? music? outdoor activity?
- what makes the community unique?

Specific actions to undertake may also include:

- providing a vicinity map at a large scale;
- providing illustrated directional information boards to major attractions (the ticket agent or newsstand operator will probably know the ten

destinations for which directions are most frequently asked); and,
- establishing obvious pathways to major destinations.

### Consider Community Improvement Initiatives

Allow community groups to improve the station area and its environs.

Community groups can be encouraged to decorate barren portions of the station area, provided that coordination and continuing oversight is provided by the owners of the property.

- Garden Clubs or environmental groups could be encouraged to landscape the station area and maintain the plantings.
- Tunnels and overpasses frequently can become dreary places. Can community groups add life to these spaces? In Maplewood, the local community painted a mural in the pedestrian tunnel which has helped that station become more a part of its community.
- Local merchants or businesses can be encouraged to sponsor amenities such as artwork, building upgrades, or improved street furniture and seating.
- Local neighborhood groups can provide "Adopt-a-Stop" services at bus stop shelters, cleaning them, picking up litter, planting flowers and reporting more serious problems to the transit operator.

### Encourage Community Activities

Program community activities at train stations, bus terminals, or at adjacent open spaces to bring people and activity into the station area.

Stations are public buildings. During the middle of the day, in the evening and on week-ends, when commuting demand is reduced, various community events could be scheduled, including:

- Garden Club exhibits
- Hobby clubs
- Local non-profit information centers
- Public meetings (if space is available)
- Block parties/dances or outdoor concerts in the parking lot
- Farmers' Markets
- Concerts

### Provide Symbols of the Community

Provide artwork illustrating features of the community.

Murals, statues, montages and other displays can improve the aesthetic quality of a station area and, at the same time, express values or noted characteristics of a community.

- Hang pictures of the community's landmarks.
- Change the images from time to time to show that the community has more than a limited supply of landmarks.
- Ask local not-for-profit institutions to donate posters symbolizing their purposes.

#### Implementation

The process of implementing a stewardship program for a station area requires that a partnership be developed between the transit provider (in most instances NJ TRANSIT); the local municipality; and, local business groups, institutions, and civic groups. Partnerships involve more than holding meetings at which separate sets of objectives are shared by various interested parties. Instead, leadership and time must be expended to develop understanding, respect, and trust for the varying interests and concerns of each of the participants in a stewardship program. The funding required to implement local stewardship programs will frequently be modest. As with many activities involving volunteerism, transit stewardship initiatives offer the potential of generating more benefits than the simple sum of the investments would equal.

#### Application

Stewardship techniques may be applied at all transit facilities. However, the approach taken in developing stewardship will differ based upon the location of the facility, its function, the nature of the community, and the amount of existing community interest in the transit facility.

A major terminal such as Newark Penn Station will warrant a complex management approach and can support a sophisticated programming schedule. A local rail station may warrant a more informal approach. In communities where interest is high, responsibility for programming may be delegated to a not-for-profit business or a civic association.

Stops along local bus lines may require less substantial or sophisticated programs. However, as indicated in the techniques, opportunities are available to work with neighborhood groups or local businesses to provide a sense of stewardship over a local stop.

# Chapter 6 – Implementation Tools and Techniques

## 6.1 Introduction

*This chapter presents a kit of tools for communities to use to implement the "transit-friendly" and transit-compatible planning techniques for station areas and transit routes that have been identified and discussed in previous chapters of this Handbook.*

The implementation tools described can be utilized by municipalities to translate policies and techniques into land use patterns and infrastructure that can strengthen the economic base of a community while, at the same time, increasing transit ridership.

The implementation tools discussed in this chapter are:

- Station Area Plan
- Circulation Plan
- Zoning Ordinance
- Site Plan Approval Ordinance
- Station Site Plan
- Land Acquisition
- Transfer of Development Rights and Transfer of Development Credits
- Amenities Enhancement Programs
- Public-Private Partnerships, including Special Improvement District, Joint Development, and Satellite Transportation District programs

Through this survey of implementation tools, Handbook users can acquaint themselves with the measures available to municipalities and the applicability, legal requirements, and previous success of these devices. Each municipality can choose the combination of tools most useful in achieving its community goals and most appropriate for its type of station area or transit route.

As previously noted, NJ TRANSIT is not subject to municipal land use regulation, based on the doctrine of sovereign immunity. Although NJ TRANSIT routinely advises municipalities of proposed improvement projects, this is done in the spirit of cooperation and courtesy and not to obtain municipal approval.

## 6.2 Station Area Plan

*The Station Area Plan is a portion of the Land Use Element of a municipal Master Plan, adopted by the Planning Board after a public hearing to solicit community input. The Station Area Plan identifies and establishes an area around a train or transit station for which particular land use objectives and development principles (different from those in the underlying zoning) are defined. These controls form the basis for the special Station Area Zone in the Zoning Ordinance.*

### Application

The Station Area Plan proposes specific land uses for the station area. These might include:

- housing and office/commercial use, at sufficient density to increase transit ridership;
- provision for retail and service uses to provide amenities to riders;

- mixed use zones;
- parking and drop-off areas; and,
- open space or planting areas for visual amenity.

The Station Area Plan is a useful tool for all categories of station areas. The plan may recommend implementation measures, such as a Special Station Area Zone, which would permit or require particular zoning techniques. Measures which might be recommended by the Station Area Plan are:

- delineation of the "Station Area", within which certain land uses would be mandated or encouraged;
- delineation of specific tracts for housing, retail and service, employment centers, parking, and open space;
- implementation measures such as a special Station Area Zone, a Planned Development District, a Special Improvement District, (SID) or a redevelopment project; and,
- proposals for land acquisition for parking or open space. Public spaces such as parking areas, parkland, or a historic site shown on an adopted Master Plan, can be reserved for municipal purchase for one year subsequent to development approval (see Section 6.7, Land Acquisition).

### Examples

The *Princeton Junction Town Center Sub-Plan* **(West Windsor)** proposes to link land use with transit to create a town center focal point around the train station. Other municipalities have included the station area in a business district plan **(Lyndhurst).** On a larger scale is the Secaucus/Allied Junction Rail Transfer Station Plan for a public/private transit facility and commercial complex in **Secaucus.**

### Sources For More Information

*New Jersey Municipal Land Use Law (MLUL),* Article 3, Master Plan (C.40:55D-28); Reservation of Public Areas (C.40:55D-44).

*Transit-supportive Land Use Planning Guidelines,* Ontario, 1992. Chapter 2, also pp 75-6.

*Land Use in Commuter Rail Station Areas: Analysis and Final Report,* Northeastern Illinois Planning Commission and METRA (undated), pp 55-72.

*Princeton Junction Town Center Plan,* West Windsor Township (adopted 1993).

## 6.3 Circulation Plan

*The Circulation Plan is an element of a community's Master Plan, showing locations and types of facilities for all modes of transportation. It is adopted by the Planning Board after a hearing for public input. The Circulation Plan forms the basis for requiring off-site street improvements and for reserving land for future streets.*

### Application

A Circulation Plan uses text, charts, and maps to examine conditions of existing transportation facilities, including rail and bus lines and their stations or terminals. It includes:

- standards and recommendations for auto, bus, and truck travel on the street system;
- recommendations for transit systems (rail, bus and subway or light rail, if any);
- projections of future traffic volumes and transit ridership, based on land use plans, transportation trends, and proposed service improvements; and,
- measures to accommodate increases in traffic and ridership.

The Circulation Plan should address the

interface between auto and mass transit with recommendations for improvements such as park-n-ride lots (both location and layout), rail station upgrading and bus stop facilities. Plan elements addressing transit might include:

- recommended improvements in service such as the institution of a bus or jitney connection to rail stations, or routing of bus lines to serve industrial or office park developments;
- proposed location, size, and possible layout of park-n-ride facilities for train and bus riders; (Prior to incorporation in the Circulation Plan, NJ TRANSIT should be consulted to review proposed park-n-ride locations and layout for compatibility of access with existing or proposed service, and for pedestrian and vehicular safety issues.)
- proposed road widening, lane striping or signalization improvements needed to facilitate auto and pedestrian access to transit stations; and,
- future physical pedestrian access improvements, including provisions for Americans with Disabilities Act (ADA) and for rider amenities created by any one of the other tools described in this chapter.

All categories of rail station areas as well as bus lines and other mass transit systems should be considered in the local Circulation Plan.

### Examples

Although many municipalities in New Jersey have proposed or adopted Circulation Plans, most of them currently need updating. Circulation plans recently developed include:

- the Circulation Element of the **Pompton Lakes** Master Plan;
- the **Weehawken** Waterfront Master Plan, which includes rail and road proposals;
- the **Princeton Junction** Town Center Plan, which uses the rail station as a focus, and has a Circulation Analysis section which constitutes a Circulation Plan for the rail station area; and,
- the **Millstone Borough** Circulation Study, which focuses on the village center.

### Sources For More Information

*Managing Transportation in Your Community*, NJ DOT, 1989.

*NJ MLUL*, Article 3 (C. 40:55D 28b.(4).

*Communities of Place, State Development and Redevelopment Plan*, 1992, "State Policies: Transportation".

*Transit-supportive Land Use Planning Guidelines*, Chapters 3 and 4.

*Land Use in Commuter Rail Station Areas*, pp 59-62, 66-69.

## 6.4 Zoning Ordinance

*The Zoning Ordinance is the principal tool for implementing a Station Area Plan and certain elements of the Circulation Plan. It is adopted by the governing body of a municipality after referral to the Planning Board for comment. Amendments to the Zoning Ordinance may be initiated by public entities, concerned community groups, or private developers. Often the Planning Board, sometimes with the aid of its consultant, develops a major amendment to the Zoning Ordinance. The language is checked by the municipal or Planning Board attorney before introduction.*

### Application

A special Station Area Zone, established either as an "overlay" district or a new zone, is a good tool for implementing a Station Area Plan or

other Master Plan recommendations for development of private property surrounding a station area. A Station Area Zone could provide designated areas for rider-related retail and service uses and/or rider-generating uses such as employment centers or apartments and townhouses. Alternatively, the Station Area Zone could provide for these uses mixed within the zone, with restrictions on total square footage or percentage of each use, to assure the desired mix. One way this could be done is by establishing a Planned Commercial Development (PCD) for predominately commercial or office use, or a Planned Unit Development (PUD) where residential and other uses are required to have a minimum size (10 acres for a PUD) and to be developed as a single entity with common open space. Planned Developments are best suited to sites controlled by one owner.

The Zoning Ordinance can use an array of measures to implement station area planning. These include:

- the Zoning Map, showing either zoning for specific land uses or a Station Area Zone or Planned Development District, both of which may be "overlay" zones;
- text delineating uses permitted in each zone, and the special regulations for a Station Area Zone or a Planned Development;
- special bulk regulations relating to the building envelope, height, and setbacks, particularly suited to the Station Area;
- regulations governing zoning lot conditions, such as minimum size, building coverage, yards, etc.;
- parking standards for the various uses, taking into consideration possibilities for shared parking and reductions from normal standards due to transit use or requirements of the Clean Air Act (the use of maximum permitted parking standards rather than minimum requirements could be used to achieve reductions in required parking);
- special standards for signage in the station area;
- provisions to encourage rider services or rider-generating uses, such as increased density, floor area bonuses, or reduced parking requirements; and,
- geometric standards for parking lots and other site plan approval standards, if these are not in a separate ordinance.

**Examples**

The **Princeton Junction** Town Center Plan recommends a special district overlay zone to implement its station area plan. **Weehawken** has a PUD District for its waterfront area. **Clifton** has planned development districts for certain areas where mixed use is planned. Many towns have a separate business zone for the "downtown" area. **Wyckoff** has a special business zone for an area changing from residential use to business uses.

**Sources For More Information**

*NJ MLUL*, Article 8, Zoning, C.40:55D-62-65,67.

*Managing Transportation in Your Community*, pp 20-36.

*Princeton Junction Town Center Plan*, pg 33.

*Weehawken Township Zoning Ordinance.*

*City of Clifton Zoning Ordinance.*

*Wyckoff Township Zoning Ordinance.*

*Transit-supportive Land Use Planning Guidelines*, pp 77-8, 93.

## 6.5 Site Plan Approval Ordinance

*The Site Plan Approval Ordinance gives a Planning Board the power to review development applications in order to assure that they meet standards established by the ordinance. When the Board of Adjustment reviews an application for a use variance, that board has site plan approval power.*

### Application

The Site Plan Ordinance can either be part of the Zoning Ordinance or a separate document.

As a separate ordinance, it has less stringent requirements for granting "exceptions" to the standards than if it were part of the Zoning Ordinance, which requires a variance procedure to allow a departure from the standards. A separate Site Plan Ordinance is often combined with the Subdivision Ordinance, since many of the standards required for each by the Land Use Law are the same. A Site Plan Approval Ordinance may be used to make the areas surrounding the station safe and attractive, as well as to ensure that large-scale employment and residential complexes are transit friendly, through standards for:

- bus access and internal circulation;
- location of structures;
- driveways and sidewalks;
- parking;
- landscaping and buffer zones; and,
- lighting.

Requirements for off-site water, sewer, drainage, and street improvements can save municipal costs when major development or redevelopment takes place. If planned development is contemplated, special regulations in the Site Plan Ordinance are required.

Site plan approval power covers a range of measures that can be used to implement transit-friendly design policies. Site Plan Ordinance provisions required by the Municipal Land Use Law include:

- standards for streets, sidewalks, utilities, street lights, outdoor lighting, shade trees, fire hydrants and drainage facilities;
- standards for safe and efficient vehicular and pedestrian circulation, parking and loading, such as requirements for sidewalks linking parking and stores;
- provisions ensuring suitable size, shape and location of areas reserved for public use;
- standards for screening, landscaping and location of structures; and,
- provisions for reserving open space in a Planned Development.

Other provisions permitted by the Statute include requirements for off-site improvements, such as drainage or street improvements necessitated by the development, and provisions for planned development regarding common open space, density increases, timing of development, and encouraging flexibility in layout and design.

The Site Plan Approval Ordinance is an essential tool in implementing policies for all station area types, and transit-friendly land use development.

### Examples

**Weehawken** has a Site Plan Ordinance which includes a section for special regulations for a waterfront planned development including light rail and a transportation center.

### Sources for More Information

*NJMLUL*, Article 6, Subdivision and Site Plan Review and Approval (C.40:55D-37 et.seq).

*Subdivision and Site Plan Handbook.* Center for Urban Policy Research, Rutgers, The State University, 1989.

*Managing Transportation in Your Community,* pp 29-36, 42-51.

*A Guide to Planning Boards and Zoning Boards of Adjustment,* New Jersey Planning Officials, 1990. pp 85-100.

*Land Development Review Ordinance,* Weehawken, Township, N.J., with amendments.

*The Growth Management Handbook,* Exactions and Impact Fees. MSM Regional Council, 1989.

## 6.6 Station Site Plan

*The Station Site Plan is a detailed plot plan showing proposals for a new rail station building or improvements to the existing station (or bus terminal). The plan would include the platform area, parking facilities and any existing or proposed structures on the station property. The Station Site Plan may be accompanied by explanatory text.*

### Application

Adoption of the Station Site Plan by the Planning Board, as part of either the Station Area Plan or the Land Use Element, forms the basis for future public action, particularly if all or part of the station site is owned by the municipality. Adoption of a Station Site Plan as part of the Master Plan would indicate Planning Board endorsement.

Improvements guided by the Station Site Plan, to the station area, the station building proper, or the parking facility, may be undertaken by the municipality, a station tenant, or a property owner. The Station Site Plan can be used as the basis for bids by prospective station tenants.

It should be noted that any changes made to a building or an area with historic landmark status must be reviewed with the State Historic Preservation Officer (SHPO), and that NJ TRANSIT is not subject to municipal land use laws.

Improvements which might be shown on the Station Site Plan include:

- additional land to be acquired;
- new, enlarged or redeveloped parking areas, including bike parking, drop-off areas, facilities for the disabled and landscaping; and,
- existing or proposed open space or landscaped areas adjacent to the station.

The Station Site Plan can be used in implementing a variety of goals and policies for all station types.

### Examples

Site plan changes for **East Orange** and **West Windsor** are being developed.

### Sources for More Information

Transit-supportive Land Use Planning Guidelines, pp 63-7.

## 6.7 Land Acquisition

*Land for station area improvements may be acquired for a public purpose by a municipal, county or state government or agency. Land may either be purchased from a willing seller or acquired through "eminent domain". "Eminent domain" is a process by which property needed for a public purpose is condemned and paid for at a price determined to be fair market value; land acquisition price may be settled through arbitration if necessary.*

### Application

If the Master Plan shows future streets or public areas within a proposed development,

the Planning Board (or Board of Adjustment) may require the street or area to be shown on the site plan or subdivision before approval. Should the municipality decide to acquire this property for public use, it has one year from the approval date to contract to purchase, or to start condemnation proceedings to acquire, the land. As part of a Station Area Plan, municipalities may acquire land when there is a need for:

- a parking lot, if no land is available on the station site or adjacent public property;
- a park or plaza, to enhance the station area or serve as a focus for station area development;
- property determined to be in an "area in need of redevelopment" in order to clear any deteriorated buildings, assemble larger development parcels, and provide for public/private improvement programs; and,
- road widening in rail station areas.

Land acquisition is available as a tool to improve any station area type.

### Examples

The **City of Passaic** has acquired a fire-damaged area for commercial redevelopment. **Fair Lawn** purchased property for road widening to improve traffic flow through the retail areas adjacent to the Radburn station. The **City of Elizabeth** and NJ TRANSIT have reserved land to construct an open space in front of the station, a bus terminal, and a commuter parking structure.

### Sources For More Information

*Local Redevelopment and Housing Law, Comprehensive Housing and Redevelopment Tax Exemption Law, and Comprehensive Tax Abatement and Exemption Law.*

New Jersey Statutes on Eminent Domain.

*NJMLUL*, Reservation of Public Areas (C.40:55D-44)

## 6.8 Transfer of Development Rights/Transfer of Development Credits

*The implementation tools of Transfer of Development Credits (TDC's) and Transfer of Development Rights (TDR's) are an extension of planning tools developed to protect land uses or preserve open space on a parcel of land. One way this can be done is to transfer the development potential attributed to that parcel to another piece of property that can accept additional development.*

### Application

The implementation tool of Transfer of Development Credits (TDC's) allows development rights generated by a property to be transferred to, and developed on, a non-contiguous property. The property from which the development credits have been removed is generally required to be protected by a conservation easement dedicated to the municipality. TDC's must be authorized by the municipal zoning ordinance and a planning process created to facilitate transfers. The decision to both transfer and receive development credits is voluntary.

With Transfer of Development Rights, the rights to development associated with a piece of property can only be fully realized if they are transferred out of a "sending" district into a "receiving" district. Since the TDR process is mandatory and can limit a property owner's ability to develop his own property, except at a much lower density, its use is limited in New Jersey to jurisdictions where it has been specifically authorized by law.

In New Jersey, the concepts of TDC's and TDR's have been limited to the purpose of advancing land conservation objectives, either for open space or farmland protection. The TDR provisions have only been authorized in two specific areas of southern New Jersey having unique land qualities. TDC's usually require that the land from which development rights have been removed be permanently protected from development through the dedication of a conservation easement. In some instances, the land has been dedicated to the municipality in fee simple.

Both TDC's and TDR's could be used to advance concepts of Transit Area Development. Probably the most important method would be to require the application of transit area planning techniques within "receiving zones" created under TDR's or TDC's. Zoning and planning procedures which provide for the transfer of development credits, whether permissive or mandatory, must establish appropriate conditions governing how the increase in density should be managed within the "receiving" areas. Since increased development densities can usually be better supported if transit services are available, and since higher densities are desirable to support transit, the availability of transit is often an important condition used for determining areas which are appropriate for consideration as "receiving" sites. The mere presence of transit however, is not sufficient to capture transit ridership or ameliorate increased land use densities. The land needs to be developed in a pedestrian friendly fashion which promotes transit use.

Development ordinances which create receiving zones under either a TDC or TDR system could be structured to require the application of transit area planning techniques as part of a successful request for transfer of rights.

Development ordinances governing site planning in TDR or TDC receiving zones can require that transit area planning techniques be applied as part of any development application making use of transferred development credits. Specific proofs of pedestrian linkages or continuity, reduction in parking ratios for adjacent development, streetscape improvements, mixed or multiple use requirements, etc. can be required.

TDC's may also be important as a planning technique within a transit planning area. Numerous public spaces are required to support transit oriented development, including land for park-n-ride purposes, bus loading and operation, pedestrian linkages, and public areas such as open spaces. At the same time, higher densities of development and mixed uses are also desirable.

**Examples**

TDC's have recently been applied as part of a development proposal in **West Windsor** Township in Mercer County. Development rights on a private golf course were transferred to a Route 1 office and retail complex. The Route 1 Corridor site was within the county's designated regional development center, where increased development was considered desirable. The TDC process allowed for shifting development from one area of the township to another area where development was more appropriate. The process used was strictly voluntary.

Two TDR programs have been authorized to date within New Jersey. In the **Pinelands**, the Pinelands Commission has established an exclusive TDR system under which development rights in preservation areas can be sold, and property owners in development areas can purchase those rights. The Pinelands Commission has established a development credits "bank" to facilitate the

transfer between sellers of development rights and potential purchasers of those rights. The second TDR system exists in **Burlington County** where an experimental TDR system has been authorized, to encourage farmland preservation in areas of the county with highly productive agricultural soils.

To date, neither TDC's or TDR's have been employed specifically for the purpose of furthering transit oriented development.

## 6.9 Amenities Enhancement Programs

*Revitalization of the station area can be aided by community volunteers and other workers at little or no cost to the municipality. Fixed amenities in the area surrounding a station, such as benches, planting, and attractive waste containers, as well as services such as clean-up and maintenance can be provided by volunteer groups or by persons assigned to community service by the courts or low-risk prisoners from county jails. Work by community groups increases public awareness of, and commitment to, the rail station area.*

### Application

A transit station and the area surrounding it can be made more attractive, visually and functionally, through projects such as:

- design and implementation of seasonal planting projects for the station site or adjacent park areas by garden clubs;
- provision of attractive street furniture, such as waste containers, signage elements, street planters, or trees by merchant associations and Chambers of Commerce;
- installation of benches adjacent to the station area by local civic groups (sometimes with advertising to help cover the cost);
- periodic clean-up campaigns by scouts or other groups;
- incidental painting of the transit station and other public buildings by low-risk prisoners or persons assigned to community service (these groups can also help with other projects listed);
- painting of murals or other decoration on station walls, tunnels or overpasses by high school art classes or art clubs; and,
- occasional fund raising activities conducted by civic or school groups.

Amenities enhancement is applicable to all station area types. It should be noted, however, that all volunteer work needs to be coordinated with, and follow, historic preservation guidelines and specifications, when applicable. Enthusiastic community volunteer groups need always to be sure they are adhering to all applicable government rules and procedures.

### Examples

Inmates of the **Bergen County** and **Passaic County** jails have been assigned to paint or repair public and semi-public buildings in several towns. Many local Chambers of Commerce or merchant associations have provided benches or waste receptacles. A volunteer group painted a mural on the station underpass in **Maplewood.**

### Sources For More Information

*Land Use in Commuter Rail Station Areas, p 35.*

"Crew of Inmates is Sprucing up Paterson Schools", The Record, 8/25/93 p. B-4.

County Sheriffs' offices.

Municipal Court Clerks.

## 6.10 Public/Private Partnerships – Special Improvement District (SID)

*A Special Improvement District (SID) is an area designated by ordinance in which a special property assessment is imposed for the purpose of promoting the economic and general welfare of the district. The device is generally used in downtowns, where merchants, owners, and municipal officials work together to improve and promote the district.*

### Application

New Jersey's SID law does not require the consent of property owners to create a Special Improvement District, but successful districts depend on a consensus among the participants. The law does require a "District Management Corporation" to determine what improvements are to be made and how the assessment funds are to be spent. The municipality may contribute funds to the district or to special projects; federal or private grants under various programs are also available to qualifying areas. Since the 1984 SID Law was passed, 15 districts have been created in New Jersey, and six more are planned.

SID funds for a rail station area district could be used to:

- formulate a plan for improvement of the district, including integration of the station with the commercial area;
- hire a district manager to oversee the business improvement project, provide ideas, work on promotion, recruit new businesses to the area, and coordinate stewardship projects at the station;
- install improvements such as "focal point" plazas, special pavers for sidewalks, landscaping, distinctive street lighting, or street furniture;
- provide matching funds for new signage, awnings or storefronts, with the merchant or owner paying half;
- promote the district through group advertising, flyers, or special events; and,
- clean up and maintain streets, parking lots, and sidewalks.

SIDs are useful in station areas with business districts where commercial revitalization will both increase trade and enhance transit ridership.

### Examples

**Cranford** established a SID for its central business district in 1985, the first in the State. Its success in revitalizing the district has increased pride in the township. **Englewood's** SID, focusing on maintenance, clean-up, and promotion of the downtown has resulted in increased business. **Bradley Beach** is planning two SIDs, one for the rail station and one for the adjacent downtown. **Red Bank** has a successful SID that extends to the rail station. **South Orange** is considering a SID for its station area.

### Sources for More Information

*New Jersey Planner,* "SIDs - Special Improvement Districts; Putting Life into Old Downtowns" December, 1992.

*New Jersey Municipalities,* "Cooperative Efforts Can Revitalize N.J.'s Downtowns", February, 1992.

*N.J. Statutes, 1984 District Management Act* (C.40:55-65 et.seq)

*Woodbridge-Raritan Main Street Association*

## Joint Development

*A Joint Development is a planning and financial partnership among a developer and one or more public agencies, such as a municipality and/or a transit agency. For example, a retail developer agrees to make a capital contribution to upgrade the transit system, which in turn increases his profits by delivering the work force and store*

*customers. The municipality gains higher revenue from real estate taxes, and increased transit use mitigates traffic impacts.*

### Application

Joint Developments which include transit have been used mostly in urban or developing suburban areas. Developer contributions have included:

- a new transit station serving the development;
- direct connections between the station and the new development;
- improvements to the existing station, such as an expanded station building or new bus lanes;
- commuter parking lots or structures;
- infrastructure improvements, such as road improvements and recharge basins, to mitigate development impacts;
- payments to aid in the redevelopment of the surrounding area; and,
- land lease payments to the transit agency.

The transit provider may negotiate with the developer to improve the terms of the "deal" for both parties, trading either access rights or land for developer improvements. Some agencies utilize developer competitions through solicitation of proposals; others seek a developer for a concept plan, then work out the final plan with the municipality and the developer.

### Examples

NJ TRANSIT arranged for the purchase of **Newark Penn Station** from Amtrak through a private investor company. The process has allowed NJ TRANSIT to assume full control of the station and to improve the physical condition, security, ambiance, retail services, and non-fare box revenue to support NJ TRANSIT's operating costs, while also encouraging increased use of the transit system.

At the **Trenton** train station, an 1,800 car parking garage is being built pursuant to a ground lease between NJ TRANSIT and a private parking operator. The project will enhance the urban revitalization potential of parcels east of the train station, and will encourage commercial development in the future on adjacent NJ TRANSIT property.

The **City of Elizabeth** and NJ TRANSIT have embarked on a joint development project that will combine a 20-acre commercial and residential development project with improved transit services in the midtown area of the city. This transportation, commercial, and real estate project will help revitalize the city with new jobs, housing, and retail space, while the more attractive environment and higher density of commercial and residential development should generate more transit usage.

## Satellite Transportation Center

*"Satellite Transportation Center" is the name given by the Bergen County Department of Planning and Economic Development to its version of joint development applicable to mature suburbs. The Satellite Transportation Center (STC) is defined by Bergen County as a development or redevelopment capable of benefitting from private investment in transit capacity. The concept was tested by the Department for application to the County's mature suburbs using a Federal grant, a team of consultants and an advisory committee of transportation agencies including NJ TRANSIT.*

*The transit element of an STC is a local site used to change travel modes, most often from walking or auto to transit or carpool, usually incorporating a commuter parking lot and a bus stop shelter. This transit element lessens the auto congestion otherwise induced by the development, thus serving as a growth*

*management tool. Cooperation among the developer, municipality, and transit provider is seen as essential in the planning process.*

### Application

In mature suburbs, the STC is an excellent device to:

- overcome municipal objections to development which would otherwise increase traffic;
- obtain a mix of uses, by developing office or other employment centers close to existing medium-to-high density residential areas and new, improved or relocated rail and/or bus stations;
- relocate a rail station close to highways and bus routes, or bring bus routes closer to rail stations; and,
- aid in redeveloping blighted or under-utilized land near rail lines.

### Examples

**Bergen County** examined three sites (winnowed from a potential 58) for economic feasibility, then developed site plans, working with municipal officials, the property owner, and the County's consultants. In **Fair Lawn**, the plan included developing a vacant site on Route 208 for four-story offices and apartments, a commuter parking lot (connected to the nearby Radburn Station by a covered walkway), and a bus stop shelter to serve existing and re-routed bus lines.

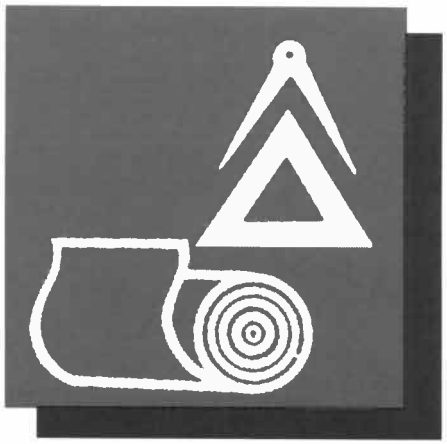
At an industrial park in **Saddle Brook**, the proposal included redevelopment with office and retail uses, a hotel, a Township Hall, day care center and park, a relocated rail station, a regional park-and-ride facility, and extensive road improvements, including ramps from the adjacent Route I-80 and the Garden State Parkway.

Redevelopment plans for a supermarket/department store site in **Hackensack** proposed a mixed-use development with office, retail and residential uses, a park-and-ride lot, a relocated train station, and a bus shelter. Current economic conditions have delayed the start of all this work. Changes in the plans to suit new market conditions may be necessary if development is pursued in the future.

### Sources for More Information

*Bergen County Satellite Transportation Center Study*. Bergen County Department of Planning and Economic Development, 1990.

*Satellite Transportation Center Study Briefing Book*. Bergen County Department of Planning and Economic Development, 1990.



# Chapter 7 – Sample Master Plan for Station Area

## 7.1 Adapting Model Station Area Plan Language to Local Conditions

*The purpose of this chapter is to introduce a key tool for implementation which sums up all the policies and principles outlined in the previous chapters of the Handbook. This tool is the Station Area Plan, which is an element of the municipal master plan; it is developed and adopted by the Planning Board. The sample Station Area Plan which follows can serve as a useful guide for incorporating the planning techniques recommended in this Handbook.*

Most communities will want to use the services of a planning staff or consultant in developing their Plan, since most planning boards lack the time, and/or the technical expertise, to undertake this task on their own. The staff member or consultant should meet with the Board or a Board Committee on a regular basis during the planning process to present sections of the plan and to get Board input and comments.

When the Station Area Plan is drawn up to the Board's satisfaction, a formal public hearing must be held. The Area Land Use Map and other plan maps such as a circulation plan or proposed zoning map are vital tools in presenting the Board's recommendations. The Board considers the comments of the citizens and affected landowners and merchants and may revise the plan before formally adopting it by resolution.

Developing and adopting a Station Area Plan is estimated to take six months to a year, depending on the Planning Board's workload, the complexity of the Plan and community participation and response. The use of staff or a consultant greatly speeds the process. The advice and constructive suggestions of the Board's attorney, especially where complex regulations may be proposed, can also save time. Some Planning Boards hold extra work sessions when developing plans or ordinances. This also can reduce the time involved when the Board's development review workload is heavy.

## 7.2 Sample Master Plan for Station Area

### Introduction

*The sample Station Area Plan can easily be adjusted to plan for more or less intensive use so as to suit various station types. It can also be adapted to bus terminal areas.*

*The sample plan presented in this Handbook uses the fictional "Town of Greenwood", with a variety of problem areas near the station, so as to provide several examples of how to use the planning techniques in a local Station Area Plan.*

The first step in planning is to investigate and analyze existing conditions, in order to identify assets as well as problems of the area under consideration. Your community-wide Master Plan will have done this for the town as a whole, and may have given attention to the Station Area as well.

From this analysis, the Planning Board should develop goals for improving the station area while meeting community needs, then devising strategies to meet these goals. The strategies will be translated into a specific detailed plan for land use and pedestrian and vehicular traffic. The plan will usually also include recommendations for housing, community facilities, and economic development. Applicable techniques presented in previous chapters of this Handbook will be incorporated into the plan.

Finally, the Station Area Plan will recommend implementation measures to achieve the goals for the station area, including zoning, site plan ordinance changes, and other devices such as redevelopment ordinances or the establishment of a Special Improvement District, as appropriate. These and other implementation strategies are presented in more detail in Chapter 6.

Public input and consensus are essential to the success of any community plan. If the people directly affected by the changes proposed are opposed to these changes and have not had an adequate opportunity to be heard, there is less chance of the plan being implemented. Meeting with the public is useful to the Planning Board in developing goals, and also in explaining to affected merchants, landowners, and citizens how implementation of the plan can benefit them. Public views should be sought through well-publicized meetings or questionnaires at the beginning of the planning process and again before any proposals are put into final form. (For an example of a checklist to evaluate how "transit-friendly" your community is, see Chapter 1 of this Handbook.) A formal public hearing on the Station Area Plan is required by New Jersey law before the plan can be adopted by the Planning Board.

# Greenwood Station Area Plan

## (Fictional) Town of Greenwood, New Jersey

### Overview

The Greenwood Station Area Plan proposes a strategy to revitalize the area by developing uses which will both increase trade in the Greenwood central business area and encourage transit ridership. The plan also aims to:

- create a stronger sense of community in the area, by using the rail station as a focus;
- redevelop the old industrial area north of the railroad; and,
- preserve the area's residential neighborhoods.

The Greenwood Station Area Plan encompasses the area generally within a one-half mile radius of the railroad station. The boundaries of the area are High Street, State Highway 200, Greenwood Brook, and the Green River which forms the Town's western boundary. The major streets are Greenwood Avenue and Main Street, which intersect a block from the station and divide the Station Area into quadrants of approximately equal size.

### Existing Conditions

#### Land Use

The core of the Station Area is Main Street, the principal business and shopping district in this part of the Town. Stores also extend along Greenwood Avenue for a block on each side of Main Street. The rail line runs parallel to Greenwood Avenue, one block north of it. North of the tracks are the station and its

parking lot, off Main Street. The station is hidden by an old industrial area which extends west of the station, along the tracks. The area has a mixture of small factories, warehouses, automotive uses, and a few residences; two of the buildings have been vacant for several years. Beyond the industrial area and west of Main Street, is a vacant tract of 18 acres, now zoned for office and research uses. (For a diagrammatic map of the downtown core, see next page.)

Two neighborhoods of single-family homes on 50- and 60-foot-wide lots occupy the two quadrants east of Main Street. The Town Hall, Library, and two churches separate the Greenwood Center (southerly) neighborhood from the rail line. The Valley neighborhood to the north has homes backed on the rail line, but their deep, wooded rear yards serve as a buffer. Each neighborhood has an elementary school and playground.

The quadrant south of the railroad, west of Main Street is a residential area, primarily composed of one and two family homes, with a garden apartment development located between Greenwood Avenue and the tracks. The homes in this area are among the oldest in the Town, but they are well-maintained and in sound condition. Most homes were developed on 50-foot lots, but some are on double lots, making room for infill development. At the edge of this section is a large park and the community swimming pool.

The business area suffers from competition from newer shopping centers in other sections of the Town. Another general problem is the lack of a unifying character for the retail area. The west side of Main Street has stores in one or two-story buildings at the street line, while on the east side there is a mixture of small homes, street-line stores, and doctors' and lawyers' offices in converted homes which are set back from the street. The area has lost the supermarket which served as its anchor, and some of the basic neighborhood services and retail stores have moved away. Aside from a diner and a stationery store with newspapers, there are no establishments such as dry cleaning, shoe repair or photo shops that provide convenient services for commuters.

### Traffic and Transit

Greenwood Avenue and Main Street are County arterial roads which connect with neighboring municipalities. The roads have two traffic lanes and two parking lanes for most of their length in the Station Area. Parking is prohibited only near the intersection. Traffic on these roads is congested at peak commuter hours, especially when the train blocks the grade crossing at Main Street. Traffic is constricted the rest of the day because of the heavy use of short-term, on-street parking. Many businesses have little or no off-street parking.

Both a local and a New York bus line serve the Station Area. These run from south of the Station Area along Main Street to Greenwood Avenue (one block south of the station) and along Greenwood Avenue east of Main Street. The local bus connects several sections of the Town to the station area, but does not serve the section north of the railroad. The Town minibus brings senior citizens from throughout the Town to the doctors and the municipal facilities in the area.

There are two stations on the rail line which serves the Town. At the Greenwood Station, rail service is good, with trains stopping at the station in the morning and evening rush hours. However, the other station a mile away has larger parking facilities and a greater concentration of residents within walking distance. This station has four additional trains which stop there.

Pedestrian traffic, except to the rail station, has declined as the neighborhood shopping stores have been replaced with offices and business services. There are no provisions for bicyclists. There has been no demand for bicycle paths and there is no room for them on the narrow streets. The only bicycle rack in the area is at the library, and it is seldom used.

*Note: The outline of existing conditions for your community can be made more detailed and should be accompanied by maps and tables showing land use, an analysis of stores by type, transit facilities, traffic volumes, and street capacities. Copies of a base map showing lots and structures (a scale of 1" = 30' is good for this purpose) should be utilized to record existing and proposed uses and other conditions.*

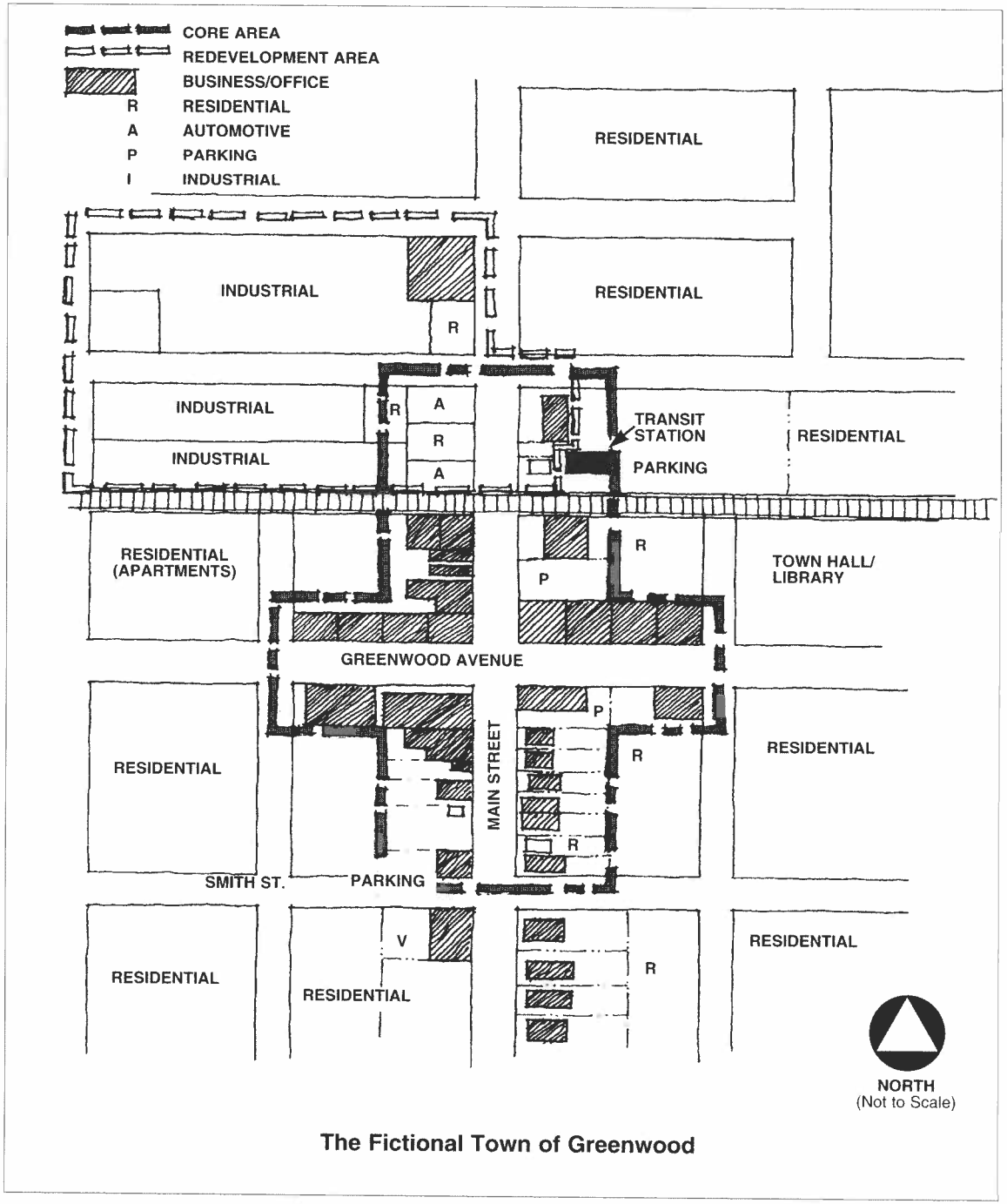
### Opportunities and Strengths

A review of the existing conditions shows that the Greenwood Station Area has a good potential for revitalization. Community facilities which draw people to the area are an asset, and the residential neighborhoods are sound. There is a need to attract more neighborhood and commuter service shopping facilities to the area in order to increase trade. The deteriorating industrial area to the north and west of the station, which discourages station use and isolates it from the business area, needs to be upgraded or redeveloped. The business district needs improvements in parking and appearance.

## Goals

The following goals have been developed for the Greenwood Station Area. They can be used as a guide to developing your revitalization plan:

- Increase trade in the business area to return it to a neighborhood shopping status;
- Encourage the creation of a pedestrian-oriented town center with the station as a focal point;




**The Fictional Town of Greenwood**

**Diagram of Downtown Core (Existing Conditions)**

- Maximize the impact and visibility of the first phases of revitalization work by focusing it on a "core area" close to the station;
- Add residential and office uses at increased densities within walking distance of the shopping and transit facilities to stimulate pedestrian activity, enliven the business area, reduce auto trips and generate transit riders;
- Encourage additional measures to reduce traffic congestion and meet clean air standards; and,
- Preserve established residential neighborhoods, allowing for appropriate infill development.

Additional goals for other situations might include:

- Reduce traffic congestion as development intensifies, by planning for growth or increased density in the station area and along bus routes, and by planning for land uses that have the potential to generate transit riders;
- Encourage pedestrian activity by improving the quality of the pedestrian environment;
- Increase transit ridership by encouraging commuter services near the station or key bus stops, and by reducing traffic congestion in these areas.

## Development Strategy

The primary goal of the Station Area Plan is to increase trade in the Greenwood central business area, and to restore its image as a town center. The strategy to achieve this goal has two main objectives: to locate more potential customers in the area by adding apartments and offices; and to provide the types of retail and services, as well as the enhanced atmosphere, which will attract additional customers.

These two objectives reinforce each other: a larger customer base will draw merchants to the area to provide neighborhood and commuter shopping services and will create the incentive to merchants to improve their stores and the streetscape; conversely, the larger the variety of services provided, and the more pleasant the surroundings, the more likely the area is to draw shoppers.

The other goals also reinforce the goal of increasing trade in the Station Area. Pedestrian activity provides a lively atmosphere which can draw more shoppers. Reducing traffic congestion will also make the area a more pleasant place to shop. Integrating the station with the shopping area will attract more transit riders to the stores, provided that the services commuters need are offered.

The policies proposed to carry out the development strategy are summarized in the land use, design, and circulation and parking plans, which follow.

## Land Use Plan

To carry out the strategy for the Station Area, the Station Area Land Use Plan proposes to organize land use into a core area for shopper and commuter business and a peripheral area for other land uses. Within the core area, incentives would be provided to attract neighborhood and commuter-serving retail and service stores. In the peripheral area, existing neighborhoods would be preserved and apartments and office buildings would be encouraged north of the railroad on vacant and redeveloped land. Priority should be given to revitalization work in the core area close to the station to maximize the impact and visibility of the improvements.

### Core Area

The core area is defined as the block fronts of Main Street, extending from one block north of the railroad to two blocks south of it, as well as the business area along Greenwood Avenue,

one block to the east and west of Main Street. This is a narrow zone extending about 1,500 feet in length. The older commercial buildings are two stories in height, but since 1950 only one-story buildings have been permitted. Many one and a half story residences, about half containing offices on the ground floor, are also part of the business area fabric, which is patchwork in nature.

New policies are needed to encourage neighborhood retail and service stores to locate in the core area. These businesses would attract commuters on their way to or from the train or the bus. The greater the number and variety of neighborhood businesses concentrated in the core area, the more shoppers will be attracted to it, since all their needs can be met in one place. Similar uses reinforce each other while strengthening the concept of a town center; disparate uses dilute the "shopping center" atmosphere. The following policies are proposed:

- Reserve the first floor of business buildings for retail stores and service establishments that generate pedestrian traffic and serve neighborhood residents and commuters. These uses include retail sales of small goods; personal and household services such as dry cleaning, shoe repair, hairdressers, photo shops, and day care centers; certain business services that also serve residents, such as copy shops, fax and mailing services; restaurants and bars; and financial institutions. Also permitted in the core area would be public facilities such as the Post Office, Town offices, parks, and recreation buildings.
- Encourage the most-needed neighborhood shopping and commuter services, by permitting a second floor to be used for either office or residential use, provided that the first floor is reserved for the uses most needed in the area. These include: laundromat; dry cleaner; shoe repair; bar; hairdresser; convenience food store; coffee shop; restaurant; delicatessen; newspaper store; film processing; photocopying and fax services; package mailing service; post office; video rental; drugstore; hardware store (not over 10,000 square feet); and, day care center. Residential use above stores would be subject to the density and minimum room size regulations for the garden apartment zone and a deed restriction would need to be placed on the property to insure the continuance of one of the listed uses on the ground floor.
- Permit a reduction in required parking spaces for all uses within the Station Area, in recognition of the pedestrian traffic these uses receive from neighborhood residents and transit riders. (For reduction rates, refer to the Parking Reduction Schedule in Section 10.5.2 of the Model Zoning Ordinance, Appendix "A".) To further attract trade, merchants and owners should be encouraged to cooperate in working toward the Design Plan described below.

**Station Vicinity Improvements**

The rail station is a handsome building hidden away in drab surroundings. The building is barely visible from Main Street since an old boarded-up commercial building separates it from the street. Major access to the station building is from the commuter parking lot to the east. The area along the railroad, on the north side of the tracks west of the station, is an old run-down industrial area with a mixture of small factories, auto services, and a few homes. Two of the factories are vacant.

The Station Area Plan proposes that part of this area be redeveloped with stores and small office buildings replacing the dilapidated structures along Main Street and to the west of it, thus establishing a "Redevelopment Area", The conditions appear to meet the

requirements for designating the Main Street frontage and some adjacent area as an "area in need of redevelopment". A major supermarket has been looking for a site in the Town. Promise of redeveloping the area and providing more customers nearby might induce the market to locate in the redevelopment area or at another site in the Station Area. The remainder of the industrial area could be designated as a rehabilitation area or could be gradually upgraded through the site plan approval process as owners apply for additions or new uses.

As part of the redevelopment process, it is proposed to demolish the boarded-up commercial building which separates the station from Main Street, and replace it with a landscaped pedestrian plaza. The plaza would have walkways radiating from the station to the Main Street sidewalk. Landscaping would include shade trees, flower beds, benches, a lawn area, and a central paved area with a fountain. The plaza could be used for special events connected with sales promotions for the Main Street merchants. It could have an information kiosk with material describing town services and amenities, and transit information and schedules.

The station parking lot should be refurbished with shade trees and provided with a bus stop and shelter and a separate "kiss-n-ride" drop-off area for transit riders, as detailed in the Circulation and Parking Plan.

## Peripheral Area

### Residential Uses

Homes and apartments in the peripheral area are sound. Infill development in the neighborhood west of Main Street should be encouraged by recognizing the predominant lot size and rezoning the area from 60-foot to 50-foot lots. Now, almost all variance requests for lot size reductions are granted under New Jersey case law. Infill development can result in an area upgrading as neighbors of the new homes are motivated to improve their properties. The garden apartment development on Greenwood Avenue is well buffered from the railroad by its parking lot and screening. The apartments are newer than the residences in the rest of this neighborhood and are in excellent condition.

### Business Uses

The business blocks south of the core area should be free of the restrictions proposed for the core area. These blocks include mostly non-neighborhood establishments, such as the newspaper office, a dance studio, several business service establishments, and real estate, doctors' and law offices. The Design Plan extends to these blocks, however, since the same improvements in appearance and parking facilities are needed here.

### Mixed Use Site

The vacant tract north of the industrial area is proposed for a mixed use development of apartments and office buildings. The Housing Element for the Master Plan has designated a portion of this site for affordable housing and proposes 250 units in three and four story buildings with a portion of 20% set-aside for 50 low and moderate income units to help the Town meet its affordable housing obligation. The housing should be on the part of the site closest to Main Street in order to be near both the existing residential development and the shops and stations. The height proposed is greater than the height of most apartment buildings in town, but this configuration will concentrate the housing near the Main Street shops and the railroad, and will provide more green space and separation from the office portion of the development.

The rear of the site is proposed for four-story office buildings limited through bulk requirements, so as not to overburden Main

Street's traffic carrying capacity. The concentration of additional residents and employees near the business district and rail station would both increase the merchant's trade and encourage pedestrian and transit travel, thus reducing the traffic impact of the new development. The new office buildings provide an opportunity for reverse commuter use of the railroad.

The mixed use site could be rezoned from its present Research/Office Park designation to provide separate areas for the apartments and offices; alternatively, a Planned Unit Development (PUD) Zone could be created. A PUD would allow the developer more flexibility in layout and design, but would provide sufficient control over the percentage of land utilized for the various uses, including open space.

## Design Plan

A design plan is proposed for the Greenwood Center Business District as a means of identifying it and making it more attractive to shoppers, especially to pedestrians. The Design Plan also integrates the rail station into the business district.

Two elements of the Design Plan for the core area have been suggested in the Land Use Plan: the encouragement of two-story buildings and the integration of the station with the business district through clearance and reuse, including the provision of a pedestrian plaza between the station and Main Street.

To mark the other end of the core area, another pedestrian open space is proposed for the front of the vacant lot near the corner of Smith Street, at the southerly end of the core area. The open space would be a shallow area in front of the proposed parking lot; landscaping would separate the parking from the seating area of the plaza.

Other elements of the Design Plan are intended to create a unifying landscape and building treatment. The planting of flowering fruit trees along Main Street within the Station Area will both beautify and identify the district. The creation of a unifying landscape and walkway treatment in the front yards of the set-back buildings on the east side of Main Street will tie these disparate elements together. These buildings are small residences, or former residences, with offices on the first floor. The Design Plan calls for their eventual replacement with two-story buildings at or near the street line and with no side yards. The zone change permitting the increased height and bulk should make this plan economically feasible as the area revives as a neighborhood and commuter shopping center.

The Design Plan also calls for the continuation of the fruit tree planting for the length of the business district outside the core area and for in-fill planting of shade trees along the streets bordering the Station Area in places where street trees are not now provided.

There is no off-street parking provided in front of any building in the business district now and the Zoning Ordinance should be changed so that none is permitted. The Circulation Plan which follows calls for an expansion and connection of parking behind the stores with limited access drives from Main Street, in order to foster pedestrian safety and to promote a more continuous facade of store fronts as a design feature. The Zoning Ordinance now requires no front yard. This provision should be strengthened, so that only a limited front yard is permitted, thus requiring additions and new buildings to be brought to or near the street lot lines.

## Circulation and Parking Plan

### Reducing Congestion

Implementing measures to ease traffic congestion in the business district is an important goal of the Station Area Plan. The congestion is a deterrent to shoppers who come by car, and also reduces the appeal of the area for pedestrians.

New land uses planned for the station area are located close to the station to encourage residents and employees to use transit or to walk, but it is recognized that a certain amount of increased traffic must be expected. Several measures are proposed to ease congestion.

### Off-Street Parking

An Off-street Parking Plan is proposed to increase the number of spaces and reduce the number of driveways by joining all parking lots and removing the rear yard garages that are still present behind some offices. As parking lots are connected, either voluntarily or through the site plan approval process, which can require adherence to the adopted Circulation Element, many Main Street driveways can be eliminated. New driveways from side streets at the ends of the blocks are proposed. New curb cuts on Main Street will not be needed under the Off-street Parking Plan, and they should be prohibited. Additional spaces can be gained through access to rear yards which now have no connection to the street.

The additional off-street parking will ease the congestion caused by frequent turnover in the on-street spots. It may not be possible to eliminate on-street parking, since it is expected that the additional off-street capacity will be utilized by the increased trade expected. However, if a parking structure should be provided in the future, parking on one side of Main Street should be eliminated.

To further increase off-street parking, it is proposed that part of the long-vacant lot at the southerly end of the core area be utilized for a combination of parking and pedestrian plaza as suggested above. The lot has 200 feet of frontage on Main Street. It is proposed to purchase half of the lot so as to leave the owner a developable property. Purchase is expected to be through a combination of Town funds and monies raised through the Special Improvement District taxes. This new lot could initiate the program of the inter-connected parking lots.

***Note:*** *A map showing the off-street parking plan should be included and adopted as part of the Station Area Plan.*

### Bus Stop

A bus stop for both local and commuter bus lines is located near the intersection of Main Street and Greenwood Avenue. This stop should be moved to the rail station to reduce congestion at this intersection, be closer to the proposed apartments and office buildings, and provide for an easy transfer from bus to train. The bus stop should be located so as not to interfere with parking or with pedestrian traffic to the rail station. A bus shelter with route and schedule information should be provided.

### Traffic Signal Coordination

Congestion can be reduced by coordinating the Greenwood Avenue/Main Street traffic signal with the grade crossing gates. As the train approaches, the light for Main Street should change to red so that cars do not block the intersection and prevent the flow of Greenwood Avenue traffic. The light should remain red for Main Street until the crossing gates are raised. Part of the funds for this improvement might be secured through a State or Federal grant or from the developer of the new apartment/office

complex as an off-site improvement to mitigate the impact of the increased traffic that the development will produce. (See Appendix "D", Chapter 8, for a list of funding sources available for transit-related initiatives.)

### Improvements to Areas Adjacent to Station

The pedestrian plaza described in the Land Use Plan section will greatly improve the station's visibility and pedestrian accessibility. To make the plaza more of a focal point for the shopping district, a flagpole, business district logo sign, or a row of banners could be installed near the Main Street sidewalk. These banners could also continue down Main Street. The municipally-owned station parking lot should be landscaped with evergreens at its boundaries with the adjacent residential area, to serve as a buffer, but openings should be left for pedestrian access to the station. Shade trees should be installed at the ends of parking bays to break up the large macadam area. Crosswalks, in a material to match the plaza pavement, should connect the ends of parking bays to the station building and platform. Similar pedestrian walks along the edges of the parking lot should link the station to the adjacent residential areas.

A "kiss-n-ride" drop-off area for transit riders could be provided between the station building and the bus stop to serve both modes of transportation.

### Pedestrian Circulation

Ample sidewalks along the shopping streets make for good pedestrian circulation. The proposed station plaza and pedestrian walks will improve access to the station from several directions. The grid system of streets in the Station Area makes for convenient pedestrian circulation along the sidewalks throughout the area.

### Bicycle Facilities

Because of the relatively narrow and heavily trafficked arterial roads in the area, bicycle access is constrained. A bicycle lane on Main Street, north of the core area, might be possible since no parking is allowed there. This would have to be approved by the County since Main Street is a County road. A sheltered bicycle rack or lockers should be provided at the station building. If it is well used, the provision of bicycle paths, where practicable, should be further explored. A survey of transit riders and the general public could be made to determine the extent to which bicycle lanes would be used, if provided.

## Implementation Measures

The adopted Station Area Plan forms the basis for the improvement of the Greenwood Center Business District and the Station Area. A variety of implementation measures are needed to translate the plan into the changes needed to revitalize the area. These measures involve both government and private undertakings.

The Zoning Ordinance and the Site Plan Approval Ordinance are the basic tools for implementing the Station Area Plan. Specific zoning provisions regarding zoning and site plan approval for the Core Area and for parts of the Peripheral Area are suggested in the Station Area Plan. To incorporate the incentives and restrictions proposed to stimulate business, an Overlay Zone is recommended. Through this device, the underlying regulations would remain but the additional requirements and incentives of the Overlay Zone would become effective whenever new development is proposed. A map of the Overlay Zone boundaries and the regulation as to use, setbacks, height, density and parking lots would be adopted as a Zoning Ordinance amendment. A division of the Overlay Zone into Core Area and Peripheral Area sections to match those of the Station Plan is recommended,

since some of the regulations are different for the two areas.

Rezoning will be needed to permit apartments and office buildings in the vacant Office-Research Zone parcel. As noted earlier, this can be done either by creating two separate zones with appropriate regulations based on the Station Area Plan, or by instituting a Planned Unit Development (PUD) Zone. The latter would involve changes to both the Zoning and Site Plan Approval Ordinances, as required by the Municipal Land Use Law.

In this case, where the Station Area Plan calls for an intensity of office use which will not overburden the carrying capacity of Main Street, but that intensity has not been determined, a PUD would be appropriate. The developer would submit a general development plan for the site. The plan would comply with the standards set forth in the PUD Ordinances for the percentages of area to be devoted to apartments, offices, and common open space, for determining intensity of office use, and for other controls such as density or height. The general development plan would include a traffic study. The Planning Board would then review the development plan and work out any changes desired with the developer.

Boundaries of the PUD Zone, and standards regarding the type, intensity and density of land uses would be incorporated in the Zoning Ordinance. Provisions regarding the reservation of open space, the timing of development if staged development is planned, and the findings required for approval by the Planning Board would be incorporated in the Site Plan Approval Ordinance.

### Redevelopment

The first step in redeveloping the old industrial area adjacent to the station would be a determination by the Planning Board, ratified by the Town Council, that the area is in need of redevelopment under one or more of the standards set forth in the Local Redevelopment and Housing Law. Then a Redevelopment Plan would be drawn up and adopted by ordinance. The plan would set forth the proposed uses and bulk requirements and identify the areas to be acquired. If uses and bulk requirements are not in accordance with zoning, the Plan would constitute an overlay zoning district for the redevelopment area and would amend the Zoning Map.

The Town would seek one or more developers to redevelop the property according to the Redevelopment Plan. The developer could be selected through a competition which could include conceptual site plans and architectural drawings. It is recommended that the developer chosen be directed to attempt to purchase the property through private transactions, and to seek action from the Town if he is not successful. In this case, the Town would condemn the property and sell it to the developer for the purchase price.

### Special Improvement District

The merchants and property owners in the Greenwood Center business district have recently asked the Town Council to create a Special Improvement District (SID) to raise funds to improve the area. The merchants have expressed interest in a design plan similar to that of the Station Area Plan. Through a SID, a special property tax is imposed for the purpose of promoting the economic and general welfare of the District. A District Management Corporation determines what improvements are to be made and how the funds are to be spent.

A Special Improvement District would be the best tool to implement the Design Plan described above.

## Relationship to County, State, and Local Plans

The Station Area Plan is in agreement with the goals and objectives of the County Master Plan and the State Development and Redevelopment Plan, specifically as to concentrating development and redevelopment in centers and in areas already provided with the necessary infrastructure. The Station Area Plan is not considered to have any effect on the Master Plans of contiguous municipalities.

## 7.3 Adopting Model Ordinance Language

*Zoning and site plan approval ordinances are adopted by the municipal governing body after a public hearing. Since New Jersey law requires that a zoning ordinance be based on an adopted land use plan element and housing element of a master plan (except under certain conditions), the Planning Board is often assigned the task of developing the ordinance. The Site Plan Approval Ordinance also is frequently drawn up by the Planning Board, since it has the primary responsibility for administering the ordinance. Site plan approval regulations are often part of the Zoning Ordinance rather than a separate document.*

The local ordinances should be based on the Station Area Plan. The model ordinances, set forth in the Appendices which follow, are designed to serve as a guide for your community's work. These models may be used as guides for developing plans and ordinances to suit local conditions. Ordinances can be developed by the municipality's planning staff or consultant, the Planning Board or municipal attorney, a committee of the Planning Board, or any combination of these. If the ordinances originate with the Planning Board, they should be reviewed by the Board's attorney before being recommended to the governing body. For Model Zoning Ordinance Language for a station area, Model Site Plan Approval Ordinance Language for a Station Area Zone, or Model Redevelopment Plan Ordinance Language, see Appendices "A", "B", and "C" respectively.

The governing body reviews the proposed ordinance and may make changes based on policy decisions or on recommendations of the municipal attorney (who reviews the ordinance for legal form if he or she has not originated it). Next, the governing body must refer the ordinance to the Planning Board, which has 35 days to report on consistency with the Master Plan and any other matter it deems appropriate. The governing body may change the language, based on the Board's advice, before it publishes the ordinance and holds the required public hearing. If changes made as a result of public input at the hearing are substantive, rather than technical, the ordinance must be re-advertised and another hearing held.

As with the Station Area Plan, the length of time necessary to develop and pass a zoning or site plan ordinance can take six months to a year, depending on the amount of professional help and the work load of the Planning Board and governing body.

# Chapter 8 – Appendices

## Appendix "A"

### Model Zoning Ordinance Language for Station Area

#### Introduction

*The model Zoning Ordinance language which follows is intended to provide a basis for a local zoning ordinance amendment for a Station Area Zone based on individual municipal aims and conditions. The local ordinance should be developed by the Planning Board, preferably after adoption of a Station Area section of the Master Plan. The Board's planning consultant and/or attorney should help with developing the Ordinance language and their attorney should check it for legal integrity.*

The model ordinance is appropriate for most station types. The standards would have to be changed somewhat so as to be suitable for an Urban Center or Single Use District or Neighborhood. Some sections of the ordinance will not apply to the latter. Parts of the model will not apply to a Park-and-Ride Station, unless it is desired to develop the surrounding area for residential use or economic development. The model ordinance can also be adapted for bus terminal areas for local and commuter buses.

There are two approaches to translating a Station Area Plan into zoning: establishment of an Overlay Zone, and replacement of the existing zone through a map and text change.

An Overlay Zone is appropriate where the municipality has zones for various uses in the Station Area and finds no need to change zone boundaries. The controls of the underlying zoning districts would remain in effect, except as modified by the Overlay Zone, as development or redevelopment takes place. A replacement of the existing zone is appropriate where the municipality wishes to encourage mixed use development or redevelopment and/or wishes to provide for uses not previously permitted.

This model reserves a central area, adjacent to the station, for shopper and commuter business in a Station Area Core Zone. Other desired uses are permitted in a Station Area Peripheral Zone comprising the remainder of the area covered by the Station Area Plan. Housing can be separated from other uses by appropriate setbacks and landscaped buffers. Minimum lot sizes can be made large enough to provide for substantial developments where land is available for development or redevelopment, in order to avoid a confusing or incompatible mix of uses.

The model zoning ordinance is designed to provide a range of purposes, land uses, and incentives from which each municipality can choose to suit its particular circumstances and objectives. The model assumes that the regulations for the Station Area Zone will be in a separate article of the local Zoning Ordinance ("Article 10" is used here as an example) and uses a standard modern "multi-decimal" system for sections and sub-sections. A Definition section is found in Section 10.7 for terms which might differ from those of the local ordinance. This can be modified to conform to the local ordinance system. In the model:

(language in parentheses is an example)

[language in brackets is alternative or optional text]

*Italics identify a note which is not part of the Ordinance language.*

# Basis for Station Area Zoning

## Article (10) Station Area (SA) Zones or [Station Overlay (SAO) Zones]

### 10.1 Purposes

The general purpose of the Station Area Zones [Station Area Overlay Zone] is to implement the Station Area Plan element of the Master Plan. The specific purposes are:

a) to provide for land uses and facilities beneficial to both the community and to transit users;

b) to increase use of the rail station;

c) to concentrate [a mix of] retail, office, residential, public, [light industrial] and open space uses within walking distance of each other and the rail station, in order to increase convenience for residents, shoppers, commuters and employees and to reduce auto traffic by providing an environment conducive to pedestrians, bicyclists, and transit users;

d) to provide for land uses that will generate and encourage transit ridership;

e) to revitalize the Station Area [or local name such as Greenwood Section] and enhance economic vitality [encourage economic development] through zoning incentives;

f) to provide for the safe and efficient flow of pedestrian and vehicular traffic, emphasizing a pedestrian-oriented environment;

g) to preserve established residential neighborhoods in and adjacent to the Station Area;

h) to provide for visual amenity, and to reinforce a sense of place or center;

*and, where applicable, if the Housing Element shows an affordable housing site in the Station Area:*

i) to provide for the development of affordable housing to aid (Greenwood) in meeting its affordable housing obligation.

### 10.2 Zoning Map

The boundaries of the Station Area Core (SA-C) Zone and the Station Area Peripheral (SA-P)Zone [Station Area Overlay (SAO) Zone] are delineated on the Zoning Map of the (Borough, City, etc. of _____ ), revised _____ (date), which accompanies, and is hereby made part of this Ordinance.

*The Core Zone should be an area surrounding the station or on one side of the tracks and including the station, depending on local conditions and plans. The Peripheral Zone covers the remainder of the Station Area.*

*Or*

The boundaries of the Station Area Core (SA-C) Zone and the Station Area Peripheral (SA-P) Zone [Station Area Overlay (SAO) Zone] are delineated on the amendment to the Zoning Map of the (Borough, City, etc. of _____), dated _____ which accompanies and is hereby made a part of this Ordinance.

*This alternative is for a drawing of a section of the Zoning Map showing the Station Area Zone and its surroundings.*

*Note: We do not recommend a metes and bounds description since this is difficult for the general public to visualize. In all cases, the Zoning Map should be kept up-to-date.*

*USES - To replace current zoning with Station Area Zones*

### 10.3 Permitted Uses

In order to further the purposes of the Station Area Zones, only the uses set forth in the following sections are permitted.

#### 10.3.1 Permitted Principal Uses in the SA-C Zone

In order to reserve the core area of the Station Area Zone for retail and service uses and other uses generating pedestrian traffic or serving commuters, only the following principal uses

are permitted in the SA-C Zone:

a) Commuter parking facilities and passenger drop-off and pick-up areas;

b) Retail sales, but excluding the sale of building material, plumbing supplies, motor vehicles, boats or swimming pools, saunas, jacuzzi, hot tubs, and similar items; [and furniture and large appliances such as refrigerators and washing machines];

c) Personal and household services and business services as defined by this Ordinance;

d) Restaurants and similar establishments selling food and/or beverages [except as Ordinance];

e) Day care centers, including nursery schools;

f) Public buildings such as municipal offices, a police station, library, post office, museum, [school] and similar uses that directly serve the public, but excluding [schools and] facilities such as a public works garage, water treatment plant, electric transformer station, and uses of a similar nature;

g) [Non-profit private elementary and secondary schools];

h) Banks and savings and loan institutions;

i) Publicly or privately-owned open spaces, such as parks and plazas available to the general public;

j) Publicly-owned outdoor active recreation facilities;

k) [Townhouses and apartment buildings as permitted in the (Affordable Housing Zone)]

10.3.2 Permitted Principal Uses in the SA-P Zone

a) Offices buildings, as permitted in Section ___ of the Zoning Ordinance;

b) Townhouses, as permitted in Section___ of the Zoning Ordinance, except that the density must be (10) units per acre; *Density may be higher but should not be lower.*

c) Apartment buildings, as permitted in Section ___ of the Zoning Ordinance except that the density shall be (15) units per acre; *Density may be higher but should not be lower.*

d) Colleges, universities and commercial schools;

e) Houses of Worship *(unless a conditional use in the Zoning Ordinance);*

f) All uses permitted in the SA-C Zone;

g) Retail, service and other uses not permitted in the SA-C Zone, as permitted in the (General Business Zone) as set forth in Section ___ of the Zoning Ordinance;

h) Clubs and meeting places for community groups as permitted in Section ___ of the Zoning Ordinance;

i) [Light industry uses as permitted in the (Light Industry) Zone];

j) [public and private non-profit elementary schools] *(if not a permitted use in the SA-C Zone or a conditional use).*

10.3.3 Conditional Uses in the SA-C Zone

The following uses are permitted as Conditional Uses provided that such uses are located on a floor other than the street level floor of a building:

a) Business and professional offices;

b) Apartment units above the street level of a building [subject to the controls for apartments set forth in Section ___ of the Zoning Ordinance, except for the regulations for lot size, lot width and setbacks, and any other regulations which the Planning Board may determine are not consistent with apartment units in a mixed use building].

*or, to permit apartment units as an incentive:*

10.3.3[A] Conditional Uses of the SA-C Zone

In order to encourage certain uses providing services to commuters in close proximity to the rail station, apartment units shall be permitted on the second or higher story of any building in the SA-C Zone, subject to the following conditions:

a) That the street floor of such building be reserved for one or more of the following uses: dry cleaner, laundromat, shoe repair, barber, hairdresser, convenience food store, supermarket, not over 50,000 square feet in floor area, restaurant, delicatessen, newspaper store, film processing, photocopying, package mailing service, post office, video rental, drugstore, hardware store not over 10,000 square feet in floor area, health club or day care center;

b) That apartment units shall be subject to the density and room size [floor area] regulations set forth in Section ___ of the Zoning Ordinance *[or the desired regulations may be listed here or the language in the 10.3.3b) alternate above may be used];* and,

c) That a deed restriction approved by the Planning Board Attorney be placed on property on which residential use is permitted as a conditional use above the first floor, so as to restrict the first floor uses to those listed, unless the apartment use is discontinued.

*Note: See Bulk and lot regulations and parking regulations for alternative incentives.*

10.3.4 Conditional Principal Uses in the SA-P Zone

a) Automobile service stations, including car washing establishments, subject to the conditions set forth in Section ___ of the Zoning Ordinance;

b) Nursing homes and hospitals, subject to the conditions set forth in Section ___ of the Zoning Ordinance;

c) [Public and private non-profit elementary and secondary schools, as permitted in Section ___ of the Zoning Ordinance;] *(if not a permitted use)*

d) Houses of Worship, as permitted in Section ___ of the Zoning Ordinance *(if not a permitted use)*; and,

e) Single-family [and two-family] homes, provided that such homes are located no closer than 1/2 mile to the railroad station property.

10.3.5 Permitted Accessory Uses

Uses customarily accessory and incidental to any permitted or conditionally permitted use shall be permitted, provided however, that no outdoor storage shall be permitted.

10.3.6 Conditional Accessory Uses

The following accessory uses are permitted as conditional uses:

a) Public or private parking facilities as an accessory to more than one principal use, provided that the Planning Board determines that the number of parking spaces provided equals the sum of the spaces for each use served by the parking lot as required by the Zoning Ordinance, or, if the uses served have non-overlapping operating hours or different peak use hours, that adequate assurances exist that the number of parking spaces provided will accommodate the requirements of all the uses served;

b) Parking structures of no greater than (4) levels are permitted as a conditional use, approved by the Planning Board, provided that the following conditions are met:

- at least (25)% of the spaces are reserved for commuters;

- the parking structure is located in the rear yard(s) of a building or group of buildings;
- no parking structure shall be located on a corner lot, if such lot has a side lot line which is the street line of a major [arterial] street as designated by an adopted Master Plan or as established by ordinance; and
- where a parking structure is adjacent to a street, an evergreen landscaped buffer at least five feet in width shall be provided.

*USES - To provide for a Station Area Overlay Zone. This section is a substitute for Section 10.3 where an overlay zone is desired.*

### 10.3[A] Permitted Uses

All uses permitted in the Zones underlying the Station Area Overlay Zone are permitted except as modified by the provisions of this Section.

10.3[A].1 Permitted Principal Uses

In order to further the purposes of the Station Area Overlay Zone, only the following principal uses are permitted within (1,000) feet of the railroad station property: *[and, if retail and service are planned for only one side of the railroad track:* on the (east) side of the (Mainline) railroad tracks:] *This language reserves the core area for retail/service uses and other uses generating pedestrian traffic and/or serving commuters.*

a) through l): *list the same uses as for 10.3.1.*

10.3[A].2 Conditional Principal Uses

*or, to permit apartment units as an* incentive.

10.3[A].2.1 Residential Uses

The following uses otherwise permitted in the underlying zones within the Station Area Overlay Zone are permitted only as Conditional Uses, provided the conditions listed for each are met:

a) Townhouses, provided that the density shall be (10) units per acre; *Density maybe higher (12 units per acre is preferred) but should not be lower.*

b) Apartment buildings, provided that the density shall be (15) units per acre; *Density may be higher but should not be lower.* and,

c) Single-family [and two-family] homes, provided that such homes are located no closer than 1/2 mile to the rail station property.

10.3[A].2.2 Conditional Uses within the Core Area

10.3[A].2.2[A] Conditional Uses as Incentives

*These sections are the same as for 10.3.3 and 10.3.3[A].*

10.3[A].3 Permitted Accessory Uses

10.3[A].4 Conditional Accessory Uses

*These sections are the same as 10.3.5. and 10.3.6.*

*Lot and Bulk Regulations for SA-C and SA-P Zones:*

### 10.4 Lot and Bulk Regulations

In the Station Area (SA) Zones, lot and bulk regulations as shown on the (Schedule of Lot and Bulk Requirements), Section_____ of the Zoning Ordinance shall apply as shown in the following table, except as amended by Subsections 10.4.1 through 10.4.3:

10.4.1 Regulations Within the Core Station Area Zone

The following exceptions to the regulations in Section 10.4 shall apply in the Core Station Area Zone:

10.4.1.1 Height

An additional story shall be permitted to provide for apartment units when such units are permitted as a conditional use by Section 10.3.2.2(A).

10.4.1.2 Front yard

*Where buildings are now at the street line or*

| Use | Applicable Requirements |
|---|---|
| Business uses | Same as the (B-1 Neighborhood Business Zone) [B-2 Downtown Business Zone] |
| Townhouses | Same as the (TH Town House Zone) |
| Apartment Buildings | Same as the (GA Garden Apartment Zone) [R-4 Apartment Zone] |
| Office Buildings | Same as the (B-1 Office Zone) [OP Office Parks Zone] |
| Industrial and Warehouse Uses | Same as the (I-1 Industrial Park Zone) |
| Single-Family [and Two-family] Homes | Same as the (R-1-3 Single-family Zone) [and R-2 Two-family Zone, respectively] |
| Other uses permitted the SA Zone such as schools, houses of worship, day care centers | Same as the (R-1-3 in the in in Single-family-Zone) [B-2 Downtown Business Zone] |
| Uses conditionally permitted in the SA Zone | Same as the (B-2 Downtown Business Zone) subject to any special lot and bulk restrictions which are conditions of the use |

*where new development or redevelopment is expected to take place:*

No front yard is required; all new buildings shall be at the street line, except where set back not more than (10) feet to form a pedestrian plaza, which plaza shall be at least (25) feet in width measured parallel to the street line. There shall be no more than one such plaza for each 200 feet of street frontage and there shall be at least 100 feet between plazas.

*or, where setback for existing buildings is greater:*

10.4.1.1.2[A] Front yard

The front yard shall be the same as for adjacent buildings, or, where adjacent buildings have different setbacks, the same as the building closer to the street line; except that for a corner building, the front yard may be reduced by up to (10) feet provided that the front line of the new building or addition is at least 50 feet in width measured parallel to the street line.

10.4.1.3 Side yards

No side yards are permitted unless necessary to provide access to parking behind the building or deemed necessary by the Fire Safety Officer for fire fighting access.

### 10.4.2 Regulations for Townhouses and Apartment Buildings

The following exceptions to the regulations set forth in Section 10.4 shall be permitted in Station Area Zones:

*Appropriate adjustments in setbacks, coverage and floor area ratio should be made if an increase in density has been permitted. In the case of apartments, the municipality may consider allowing an increased number of stories in lieu of decreasing setbacks and increasing coverage. For example:*

#### 10.4.2.1 Front yard

The required front yard for townhouses and apartment buildings shall be reduced from (30) to (25) feet.

#### 10.4.2.2 Height

The number of stories permitted for garden apartment buildings shall be increased to (three) stories.

*For large areas subject to development or redevelopment:*

#### 10.4.2.3 Lot Area and Width

In order to provide for orderly development, prevent undue mixing of land uses and provide for the quiet enjoyment of residents in

townhouse and apartment developments, the minimum lot size for any Townhouse or Apartment Building development shall be (5)acres and the minimum lot width shall be (300) feet.

**10.4.3 Regulations for Business, Office and Industrial Uses in the Station Area Peripheral Zone**

The following exceptions to the regulations set forth in Section 10.4 shall apply:

**10.4.3.1 Building Coverage**

The permitted coverage may be increased by up to (10) percentage points (e.g. from 40% to 50%) when parking is reduced as required or permitted by Sections 10.5.2 or 10.5.4.

**10.4.3.2 Floor Area Ratio**

The Floor Area Ratio may be increased by 10% (e.g. from 2.0 FAR to 2.20 FAR) when parking is reduced as required or permitted by Sections 10.5.2 or 10.5.4.

*For infill areas subject to development or redevelopment:*

**10.4.3.3 Lot Area and Width in Established Business and Industrial Areas**

In established business and industrial areas, where redevelopment or infill development takes place on a single lot, the minimum lot requirements shall be the same as the lot area and width of the existing lot.

*For large areas where mixed use is permitted:*

**10.4.3.4 Lot Area and Width in Areas of New Development or Redevelopment Outside of Established Business and Industrial Areas**

In order to provide for orderly development and to prevent undue mixing of land uses, the minimum lot requirements shall be as follows:

| | |
|---|---|
| business, office or industrial development | lot area - (3) acres<br>lot width at the street line-(200)feet |

*Lot and Bulk Regulations for a Station Area Overlay Zone:*

**10.4[A] Lot and Bulk Regulations**

In the Station Area Overlay Zone, the lot and bulk regulations for underlying zones shall apply, except as set forth below.

**10.4[A].1 Business Zone(s) within (1,000) feet of the Station Property [and on the (east) side of the (Mainline) railroad tracks]**

**10.4[A]1.1 Height**

One story [2,3,4, etc. stories], except that an additional story shall be permitted to provide for apartment units, when permitted as a conditional use above certain uses, by Section 10.3[A].2.2[A].

**10.4[A].1.2 Front yard**

**10.4[A].1.3 Side yards**

**10.4[A].1.4 Coverage**

**10.4[A].1.5 Floor Area ratio**

*These sections are the same as for 10.4.1.2 to 10.4.1.5 above, except for the regulations for lot size which are not applicable.*

**10.4[A].2 Townhouse and Apartment Zones**

**10.4[A].3 Office and Industrial Zones**

*These sections are the same as for 10.4.2 and 10.4.3, above.*

## 10.5 Off-Street Parking Requirements

**10.5.1 Number of Spaces**

The parking requirements set forth in the following shall be considered to be the maximum number of parking spaces required in the Station Area Zone. See the "Parking Reduction Schedule" in Section 10.5.2, following, for parking space reductions recommended by facility type located within a station area or transit corridor.

## GUIDELINES FOR OFF-STREET PARKING REQUIREMENTS FOR NONRESIDENTIAL USES

| Use | Maximum Off-Street Parking Spaces* |
|---|---|
| Assembly, Manufacturing and other Industrial uses | 1 per 800 sq.ft. GFA |
| Bar | 1 per 2 seats |
| Bowling Alley | 4 per alley |
| Car Wash | 10 per washing lane |
| Fiduciary institution | 1 per 300 sq.ft. GFA |
| Hotel | .7 per guest room + 1 per 100 sq.ft. GFA non-room area |
| House of Worship | 1 per 3 seats |
| Library 1 per 300 sq.ft. GFA | |
| Medical Center | 1 per 250 sq.ft. GFA |
| Nightclub | 1 per 3 seats |
| Offices | |
| Under 50,000 sq.ft. GFA | 4.5 per 1,000 sq.ft. GFA |
| 50,000-99,999 sq.ft. GFA | 4 per 1,000 sq.ft. GFA |
| 100,000+ sq.ft. GFA | 3.5 per 1,000 sq.ft. GFA |
| Research | 1 per 1,000 sq.ft. GFA |
| Restaurant | 1 per 3 seats |
| Fast food establishments | 1 per 30 sq.ft. GFA |
| Retail store | 1 per 200 sq.ft. GFA |
| Schools | |
| Elementary per teacher and staff | 2 per classroom, but not less than 1 |
| Intermediate per teacher and staff | 1.5 per classroom, but not less than 1 |
| Secondary per teacher and staff | 2.5 per classroom, but not less than 1 |
| Service station | 4 per bay and work area |
| Shopping center | |
| Under 400,000 sq.ft. GLA | 4 per 1,000 sq.ft. GLA |
| 400,000-599,999 sq.ft. GLA | 4.5 per 1,000 sq.ft. GLA |
| 600,000+ sq.ft. GLA | 5 per sq.ft. GLA |
| Storage areas | 1 per 5,000 sq.ft. GLA |
| Theater | 1 per 3 seats |
| Theater in shopping center | 1 per 4 seats |
| Warehouse, receiving, shipping | 1 per 5,000 sq.ft. GFA |

*See "Parking Reduction Schedule" in Section 10.5.2, for recommended reductions by land use located within a station area or transit corridor.

Notes: GFA = Gross floor area
GLA = Gross leasable area

*Source: Listokin, David and Walker, Carole The Subdivision and Site Plan Handbook, Center for Urban Policy Research, New Brunswick 1989.*

## SUGGESTED PARKING STANDARDS FOR OTHER NON-RESIDENTIAL USES

| Use | Maximum Off-Street Parking Spaces* |
|---|---|
| Doctors' or dentists' offices | 1 per 100 sq.ft. net floor area |
| Funeral home | 10 per parlor |
| Hospitals | 3 per bed plus one per each 10 outpatients |
| Motor vehicle sales rooms and lots | 1 per 1,000 sq.ft. indoor and outdoor sales area |
| Nursing homes | 1 per 2 beds |
| Places of public assembly | 1 per 3 seats |
| Retail, alternate standard | 1 per 120 sq.ft. of sales area |
| Retail, large items such as furniture, floor coverings and major appliances | 1 per 400 sq.ft. of net floor area |
| Service establishments, personal, household and business | 1 per 200 sq.ft. of net floor area |
| Storage areas for retail, service or other establishments using net floor area standards | 1 per 1,000 sq.ft. of net floor area |

Note: Net floor area means the total floor area of all floors including basements but excluding stairwells, elevator shafts, toilet rooms, corridors bounded by permanent partitions, non-food preparation areas of accessory cafeterias, permanent wall thicknesses and other areas which the approving agency determines as not generating parking needs.

*Source: Various New Jersey Zoning Ordinances.*

## SUGGESTED PARKING STANDARDS FOR RESIDENTIAL USES

| Use | Maximum Off- Street Parking Spaces per Unit* |
|---|---|
| Single-family detached unit | 2.5 per unit |
| Garden Apartment / Condominium | |
| Studio | 1 per unit |
| 1 Bedroom | 1.8 per unit |
| 2 Bedroom | 2 per unit |
| 3 Bedroom | 2.1 per unit |
| Townhouse | |
| 1 Bedroom | 1.8 per unit |
| 2 Bedroom | 2.3 per unit |
| 3 Bedroom | 2.4 per unit |
| High Rise Apartment Building | |
| Studio | 0.8 per unit |
| 1 Bedroom | 1.3 per unit |
| 2 Bedroom | 1.9 per unit |
| 3 Bedroom | 2.1 per unit |

*See "Parking Reduction Schedule" in Section 10.5.2, for recommended reductions by land use located within a station area or transit corridor.

*Sources: Listokin, David and Walker, Carole The Subdivision and Site Plan Handbook, Center for Urban Policy Research, New Brunswick 1989, and various New Jersey Zoning Ordinances.*

### 10.5.2 Reduction of Spaces

The maximum parking requirements set forth in the three tables in Section 10.5.1, shall be reduced within a Station Area or Transit Corridor in accordance with the Station Area Parking Reduction Schedule, below. These reductions are based on progressive new standards which reflect the importance of a linkage between land use planning and transit planning.

## STATION AREA PARKING REDUCTION SCHEDULE

| | Approximate Percent Reduction* | | |
|---|---|---|---|
| | Office Use | Non-Residential (non-office) Use | Residential Use |
| Transit Corridor | 10% | 5% - 10% | 5% - 10% |
| Station Influence Area | 5% - 15% | 5% - 10% | 15% - 20% |
| Transit Node | 5% - 25% | 10% - 15% | 25% - 30% |
| Multi-Modal Transit Hub | 60% | 25% | 60% |

**Transit Corridor**
An area within a 1/4 mile radius of a bus or light rail route with headways of 15 minutes or less during peak periods.

**Station Influence Area**
An area approximately within a one - two mile radius of a station, such as the stations on the Morris and Essex Line.

**Transit Node**
An area within a 1/4 mile radius of a fixed guideway station, such as the Summit Station, (light rail, commuter, or rapid transit).

**Multi-Modal Transit Hub**
An area within a 1/4 mile of a multi-modal downtown transit station, i.e., Newark Penn Station. At "Multi-Modal Transit Hubs", (such as Newark, Jersey City, Hoboken, or Atlantic City) parking may also be reduced by as much as 60% for non-residential, non-office uses, reflecting the proximity and high use of transit systems.

**Variable ranges reflect density of land use; i.e., reductions may be at the lower range in less dense locations..*

### 10.5.3 Shared Parking

For mixed-use developments, a shared parking approach to the provision of off-street parking shall be required where feasible, as determined by the approving agency. The methodology used by the developer to calculate the number of parking spaces required shall take into consideration the methods recommended in Shared Parking, published by the Urban Land Institute (1984) or other recognized standards, acceptable to the approving agency.

Any developer of a place of employment or public assembly shall undertake a study, conducted by a transportation planner or engineer, to determine the modal split for travel by its employers and/or visitors. Based on the expected distribution of travel modes, a parking requirement shall be determined and approved by the appropriate municipal agency. The agency shall require the applicant to construct or pave only the number of parking spaces determined to be necessary, based on the agreed-upon results of the modal split study. From time to time, the building inspector may conduct site visits to confirm that the amount of parking provided is being utilized by the development, and, in fact, that the parking remains sufficient to meet the needs of the development. If at any time it is determined that this is no longer the case, the construction of additional parking spaces may be required to meet the demand.

*Note: It is suggested that municipalities review their parking requirements to determine if they are excessive when measured against recent guidelines as set forth in The Subdivision and Site Plan Handbook (Rutgers, 1989), above. The book notes that some of these requirements are "informed estimates at best" and that the availability of mass transit and urban vs. suburban location can affect the number of spaces. However, we note that standards for industrial and suburban municipalities are often excessive for today's automated facilities. This NJ TRANSIT Handbook adds suggested standards for some uses not covered by the Rutgers list. The Rutgers list has been modified to combine similar uses.*

*See also: Development and Implementation of a Downtown Parking Management Program Based on Highway Capacity - The Jersey City, New Jersey, Experience by Thomas W. Marchwinski and Suzanne Mack, for a method of calculating office reduction percentages.*

## 10.6 Signs, Awnings and Canopies

In order to produce a sense of unity while allowing for visual interest, the regulations in this section shall apply to signs, awnings and canopies for business and office uses in the Core Area of the Station Area [Overlay] Zone. These regulations shall supersede the regulations in Section ___ of the Zoning Ordinance, as to permitted business and office signs, sign dimensions and placement, and awnings and canopies. Other regulations in Section ___ as to lighting, temporary signs, prohibited sign devices, and other matters not specifically covered in this ordinance, shall supplement the regulations in this Section 10.6.

### 10.6.1 Permitted Signs

Only the following signs are permitted:

#### 10.6.1.1 Principal Signs

One principal sign for the purpose of identifying and advertising the use of the premises is permitted on the front facade of the premises. Where there is a use with an entrance in a facade other than the front facade, facing on a parking lot, that parking lot facade may have a second principal sign.

Where a use is located at the corner of a building and the use has frontage on two streets, two principal signs are permitted, one on each street facade, provided, however, that a second sign shall not be permitted on a street facing a residential zone.

**10.6.1.2 Signs Required by Law**

Any sign, including a license or permit, required by law to be exhibited by the occupant of the premises, is permitted and such sign shall not count in the total permitted sign area.

**10.6.1.3 Window Signs**

A sign painted on, attached to, or placed within two feet of the inside window glass is permitted on each window on the first floor of any business premises, provided that such sign shall be limited to 20 percent of the area of each window and that there shall be no more than one sign in each window. A window within a frame consisting of head, jambs and sill or equivalent members shall be considered one window, whether or not divided by muntins, mullions or dividers placed on one side of the window glass.

**10.6.1.4 Arcade signs**

Where the first floor of a building has a permanent architectural overhanging shelter, arcade or colonnade, a sign no larger than one foot high by four feet long shall be permitted. Such sign shall be hung below the overhang or arcade, perpendicular to the building. The sign area of such arcade sign shall be included in the total sign area permitted by the Zoning Ordinance for a particular use.

**10.6.1.5 Directory Signs**

Offices or other uses on the second or higher floor of a building or any use on the first floor which does not have frontage on a street or parking lot facade of the building shall be permitted one directory or tenant identification sign for each such use. All such signs shall be placed on the wall at the entrance to the use and all signs for businesses using the same entrance shall be grouped together at such entrance, abutting each other, and shall be uniform in appearance and materials. Each such sign shall be no more than two square feet in area nor more than eight inches in height.

**10.6.1.6 Banners**

One banner is permitted for each retail or service use located at the first floor level of a building. Such banner shall not exceed three feet by three feet in outside dimension and shall not bear the business name or the business logo, only a picture symbolizing the business; a banner may also be purely decorative, with no picture or writing. Such banners shall be hung on a pole attached to the building, such pole to be either parallel to the ground or projecting upward at an angle to the building wall. The lowest part of any banner shall be no lower than seven feet from the ground level at the building facade. Such banners are in addition to any limits on sign size.

**10.6.1.7 Signs Above the First Floor**

Where there is a business or office floor above the first floor not the same as the business below, each such business shall be permitted one sign not more than 18 inches high nor more than three feet long, such sign to be placed or painted on the window of the business or office.

**10.6.1.8 Signs Permitted in Residential Zones**

Signs permitted in residential zones are permitted as regulated in Section ___ of the Zoning Ordinance.

*Note: This is a sampling of the usual types of signs permitted. Where there are local regulations for other sign types such as*

*theater marquees or sidewalk signs, they may be included by reference or the regulations may be altered to suit the Station Area and included here.*

**10.6.2 Placement of Principal Signs**

A principal sign shall be attached securely to the facade of the storefront of the business advertised, installed parallel to the wall to which it is attached and shall not extend more than 12 inches from the structural face of such wall. The bottom of a principal sign shall be at least eight feet from the ground level beneath the sign and the top of the sign shall be no higher than one foot above the first floor ceiling of the premises.

**10.6.3 Sign Dimensions**

The maximum vertical dimension of a principal sign shall be two feet. The maximum width of a principal sign shall not exceed 90 % of the width of the storefront premises to which it is attached. When a sign is permitted on the face of an awning or canopy, the area of the principal sign shall be reduced by the area of the awning or canopy sign. The area of all other permitted signs shall be in addition to the permitted area of principal signs.

**10.6.4 Awnings and Canopies**

**10.6.4.1 Awnings**

Awnings shall be permitted to be attached to a building facade, provided that no awning shall extend more than six feet from the wall to which it is attached nor extend over the sidewalk within the right-of-way for more than four feet nor extend closer to the curb line than one foot. Awnings shall be made of fabric such as canvas, exclusive of structural members and shall be retractable, with a mechanism capable of being operated on a daily basis. The lowest part of any awning shall be a minimum of seven feet above the walkway or other surface below the awning.

10.6.4.2 Awning Signs

An unlighted horizontal sign on the flap or vertical portion of an awning is permitted provided that such sign does not exceed a height of eight inches nor a length of one-half of the length of the flap or vertical portion of the awning.

10.6.4.3 Canopies

Canopies shall be permitted to be attached to a building facade provided that no canopy shall extend more than four feet from the wall of the building to which it is attached, nor closer to the curb line than one foot. Canopies may be constructed of rigid building material or of plastic or fabric on a rigid, fixed frame. The lowest part of any canopy shall be a minimum of seven feet above the walkway or other surface below the canopy.

10.6.4.5 Awning and Canopy Placement

If an awning or canopy is pre-existing on a building or a group of attached buildings with their facades in the same plane, any awning or canopy subsequently attached to such building or group of attached buildings shall be of the same vertical dimension and placement on the building as the existing awning or canopy to the extent practicable. If this is not practicable, then the top of the awning or canopy shall be at the same height as the top of the existing awning or canopy.

## 10.7 Definitions

The definitions in this section shall apply to this Ordinance, unless the text indicates otherwise.

**"Approving Agency"**

The Planning Board or the Board of Adjustment whichever agency has jurisdiction over the application for development.

*Note: The Board of Adjustment considers a site plan approval application or other development application in lieu of the*

*planning board when a use variance or other "d" variance is involved. "Municipal agency" is also used for "approving agency" in some ordinances.*

**"Business service establishment"**

A business primarily engaged in rendering non-repair services such as advertising, photo copying, package mailing, building cleaning or equipment rental to business enterprises on a fee or contract basis, but such services may also be offered to the general public.

**"Commercial parking"**

A privately owned lot or structure for the parking of automobiles which is available to the general public and operated for gain.

**"Window"**

Any opening, covered by glass, plastic or other transparent material, in the exterior wall of any building for the purpose of admitting light. A window within a frame, consisting of head, jambs and sill or equivalent members, shall be considered one window regardless of muntins mullions or dividers.

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*Note: These definitions may already appear in the local zoning ordinance; if so, they need not be repeated here.*

# Appendix "B"

## Model Site Plan Approval Ordinance Language for Station Area Zone

### Introduction

The model Site Plan Approval (SPA) Ordinance language is intended to provide a basis for a local ordinance amendment to establish special site plan regulations for the Station Area Zone. The local ordinance may already incorporate some of these standards; any standard already included in the local requirements does not have to be repeated in the special regulations. The local SPA Ordinance may stand alone or be part of the Zoning Ordinance. This model is adaptable to either form.

As with the model Zoning Ordinance, the local SPA Ordinance should be developed by the Planning Board, or by the Board's attorney and/or planning consultant, working with the Board or a committee of the Board. The attorney should check the proposed ordinance for legal integrity.

The model Site Plan Ordinance language is appropriate for most station types and bus terminal areas. The suggested standards may be changed so as to be suitable for local conditions. Standards for buffers and landscaping may need to be modified for Urban Center station types in order to keep costs low enough to attract redevelopment, but should be retained to the greatest extent possible, to provide the green areas most needed in urban environments.

The model ordinance format is designed as a separate article of a freestanding SPA Ordinance (we have used Article 12 as an example), but is easily adapted to the SPA section of the Zoning Ordinance. The model uses a standard "multi-decimal" system for sections and sub-sections. This can be modified to conform to the system used in the local ordinance. As in the Zoning Ordinance model:

(language in parentheses is an example)
[language in brackets is alternative or optional text]
*Italics identify a note which is not part of the ordinance language.*

## Basis for Site Plan Approval Ordinance

### Article 12 Special Regulations for Station Area (SA) Zones or [Station Area Overlay (SAO) Zones]

#### 12.1 Purposes

The purpose of this Article is to provide site plan standards specifically designed to implement the Station Area Element of the Master Plan. Specific purposes are:

a) to encourage transit use by providing for convenient access to transit stations and bus stops, and by requiring design standards to accommodate buses;
b) to provide for the safe and efficient flow of pedestrian and vehicular traffic, emphasizing a pedestrian-oriented environment;
c) to provide for visual amenity;
d) to reinforce a sense of place or center;
e) to separate conflicting land use by the use of planted buffer areas, or other devices; and,
f) to improve local air quality by encouraging the use of alternative transportation modes, such as public transit, van pools, bicycles, and walking, and through maximizing the use of plant material.

#### 12.2 Applicability

The standards set forth in this Article shall be

in addition to those set forth in Article (11) of this Ordinance, except that the standards in this Article for buffering, parking lot landscaping and pedestrian facilities [include other items covered by both Articles] shall replace such standards set forth in Article (11).

## 12.3 Site Design Standards

### 12.3.1 Development Design

Design of the development shall take into consideration all existing local and regional plans for the site and the surrounding community. Site plans for developments of one acre or more may be submitted to NJ TRANSIT for its advice and comments concerning the relationship of the development to NJ TRANSIT facilities and services.

### 12.3.2 Conformity with Master Plan

If the Station Area Plan or other element of the Master Plan shows designated streets, public drainage ways, flood control basins, or public areas including pedestrian rights-of-way, parks, playgrounds, public open spaces, or sites for public structures within a proposed development, the approving agency, before approving the site plan, may require that such streets, rights-of-way, basins or public areas be shown on the site plan in location and sizes suitable to their intended uses. The reservation and compensation provisions of the Municipal Land Use Law, C40:55D-44, shall apply to all such facilities except for streets, flood control basins, or public drainage ways necessitated by the development and required for final approval.

### 12.3.3 Building Location

Buildings, excluding parking structures and accessory structures, shall be located as close to the street lines of the lot as practicable while complying with the setback [yard] requirements of the Zoning Ordinance. Parking structures, where permitted, and accessory structures shall be located behind other buildings and away from street lot lines to the extent practicable.

### 12.3.4 Off-street Parking Location

Off-street parking shall not be located between any principal building and the front street line of the lot. On corner lots, off-street parking shall not be located between a principal building and the side street line where another location is practicable.

*If there is a Historic Structure, Site, or District in the Station Area:*

### 12.3.5 Historic Structures and Sites

Historic Structures and sites, as listed on federal or State registers of historic places or as shown on or listed in the current adopted Master Plan or any adopted element thereof, shall be preserved to the extent consistent with the reasonable utilization of the lot and in accordance with applicable state and/or local regulations.

*Where there is an official historic preservation commission, add:*

The approving agency shall forward every site plan application submitted for development in historic districts or on historic sites designated on the zoning or official map or in any component element of the Master Plan to the Historic Preservation Commission. The Historic Preservation Commission may provide its advice in oral testimony at any hearing on the application, or in a written report explained at the hearing.

*If the zoning ordinance designates and regulates historic sites or districts pursuant to the Municipal Land Use Law (40:55D-65) also add:*

The approving agency shall require consistency with the Zoning Ordinance regulations for historic sites or historic districts including the design criteria and guidelines for such sites or districts.

## 12.4 Streets, Sidewalks and Pedestrian Paths

### 12.4.1 Street Design

Any street within the development intended to carry buses or high-occupancy vehicles, or any such off-site or off-tract street required to be reconstructed or improved under Article____of the Site Plan Approval Ordinance, shall be designed with vertical and horizontal geometry and pavement section, according to the following standards.

**STANDARDS FOR ROADWAY DESIGN**

| | |
|---|---|
| Minimum Grade | 0.5% |
| Maximum Grade | 8.0% |
| Maximum Grade, within 50' of Intersection | 5.0% |
| Minimum Centerline Radius | 300 feet |
| Minimum Tangent between Reverse Curves | 150 feet |
| Minimum Curb Radii | 42 feet |
| Minimum Pavement Width | 28 feet, with no parking permitted<br>36 feet, with parking on one side of the street<br>44 feet, with parking on both sides of the street |

Any off-site or off-tract street required to be reconstructed or improved under Article____ of the Site Plan Approval Ordinance shall be provided with bus pullouts at existing bus stop locations. [Bus stop locations on such streets shall be provided with shelters.]

### 12.4.2 Intersection Design

Any street within the development intended to carry buses or any such off-site or off-tract street required to be constructed or improved under Article____ of the Site Plan Approval Ordinance shall have curb return radii of at least 45 feet at any intersection with a street designated as a bus route.

### 12.4.3 Driveway Intersections with Streets

Driveway openings to state highways shall comply with the State Highway access management code. Driveway openings to County roads shall comply with any access management code adopted by the County. [Driveway openings to municipal streets shall conform to the municipal street Access Code in effect at time of Site Plan Approval.] In any case, driveway openings to streets carrying transit vehicles shall be avoided whenever possible.

### 12.4.4 Sidewalk and Pedestrian Walkway Design

a) Where pedestrian walkways or sidewalks shown on the Station Area Plan or other element of the Master Plan are within a proposed development, the site plan shall show such paths or sidewalks at the

locations shown on the Station Area Plan or Master Plan, to the extent practicable.

b) Pedestrian walkways shall be provided between bus stops and building entrances, and, where practicable, between rail stations or bus terminals and adjacent buildings. Such pedestrian connections shall be identified by pavement variation, ground-level lighting, or landscaping.

c) Pedestrian-way easements (10) feet wide, through the center of blocks more than 600 feet long, may be required by the approving agency in order to provide convenient pedestrian access to transit stops, a station, to shopping. or other community facilities.

d) Where practicable, pedestrian walkways shall be raised above the grade of streets, drives, parking lots, and other paved areas. Where pedestrian walks cannot be raised, they shall be constructed of a material that is different from the adjacent pavement. Except where pedestrian walks and sidewalks cross streets and driveways, such walks shall be landscaped along their full length. Walks and sidewalks shall be adequately lighted. The approving agency may require appropriate signs indicating the direction to transit stations or other points of interest as it deems necessary.

e) Walkways shall be designed to be direct and continuous.

f) Walkways and sidewalks shall be a minimum width of four feet. Where parked cars might overhang a sidewalk or walkway, the minimum width shall be increased to five feet. The approving agency shall require an increased width near pedestrian generators and employment centers.

g) Walkways and sidewalks shall be designed to comply with the requirements of the Americans with Disabilities Act (ADA).

## 12.5 Parking Design Standards

### 12.5.1 Conformance to Master Plan

If the Station Area Plan or Circulation Element of the Master Plan shows an off-street parking plan for the area covered by a proposed site plan, the approving agency shall require that the parking layout on the site plan conform as closely as is practicable to such Master Plan element. Where immediate conformance is not practicable, the approving agency shall require that the parking plan be adaptable to future conformance to the Master Plan.

### 12.5.2 Connections Between Parking Lots

Where possible, connections or provisions for future connections to abutting parking lots, serving retail or service uses, shall be shown on the site plan.

### 12.5.3 Pedestrian Circulation

Pedestrian walkways shall be provided connecting parking areas to the buildings they serve by the most direct route. The walkways shall be unencumbered by parked cars, berms or plantings. Walkway standards set forth in Subsection 12.4 shall apply to parking lot walkways.

### 12.5.4 Commuter Drop-off Parking Areas

Any parking lot serving retail or service establishments, accommodating more than (20) cars, and located within (200) feet of a rail station, bus terminal, or long-distance bus stop shall provide for a passenger drop-off area available during certain hours, if demand warrants. Such drop-off area shall be located in that portion of the parking lot closest to the transit stop. Appropriate signs shall be supplied by the municipality, clearly indicting which spaces are for commuter drop-off use. The signs shall limit drop-off and pick-up to off-peak hours or when the retail establishments are closed. If stores served by

the parking lot are open during all or part of the evening commuter hours, the sign may indicate that pick-up or drop-off of passengers is not permitted during those hours.

#### 12.5.5 Parking Priority at Employment Centers

Where any office, industrial, warehouse, institutional or other use is projected to employ 50 or more persons, parking areas shall be designed and located so as to facilitate transit, bicycle and pedestrian access. Parking spaces closest to the building entrances, in order, shall be reserved for:

- people with disabilities (all types of parking);
- van pool vehicles; and,
- car pool vehicles.

Bicycle lockers and/or stands shall be provided as close to building entrances as possible [and may be located in front of the building]. If the building is served by a public bus line or if a company bus is expected to transport employees, a bus pullout or parking area and a bus shelter shall be provided as close to a building entrance as possible, either within the street right-of-way or on the site.

#### 12.5.6 Commercial Parking Lots

Commercial parking lots designed for both commuter and shopper or other non-commuter use shall be divided into sections for commuter and non-commuter use. The sections shall be separated by a 5-foot landscaped buffer strip. The sections shall have separate access, where practicable. Parking lots, or sections thereof, devoted to commuter parking may have a parking stall width of 8.5 feet, instead of the width required by Section ____ of the Site Plan Ordinance.

### 12.6 Landscaping and Buffer Areas

#### 12.6.1 Landscape Plan

A landscape plan (prepared by a certified landscape architect) shall be submitted with each site plan in the Station Area Zone [Station Area Overlay Zone]. The plan shall identify existing and proposed trees, shrubs and ground covers and other landscape or streetscape elements including walls, fences, benches, planters, and sidewalk trash receptacles.

#### 12.6.2 Street Trees

Where street trees are not already present at the required minimum spacing interval, shade trees or flowering fruit trees shall be installed by the developer. Where the Station Area Plan has identified a specific type of tree or a specific species for streets bordering the Station Area, or for certain streets within the Station Area, the type or species identified by the Station Area Plan shall be planted wherever additional trees are needed to meet the standards. All trees on both sides of a street, within a block, shall be the same species, except that where spacing of shade trees exceeds 40 feet, small ornamental trees may be placed between larger trees.

#### 12.6.3 Buffering

##### 12.6.3.1 Function and Material

Buffering shall provide a year-round visual screen in order to minimize adverse impacts. It may consist of fencing, evergreens, berms, mounds, or combinations thereof to achieve the same objectives.

##### 12.6.3.2 When Required

Every development shall provide sufficient buffering when topographical or other barriers do not provide reasonable screening and when the Planning Board determines that there is a need:

- to shield neighboring properties from any adverse external effects of a development; or
- to shield the development from negative impacts of adjacent uses.

In multi-family residential developments, when building design and siting do not provide

privacy, the Planning Board may require landscaping, fences, or walls to screen dwelling units from the parking for privacy. Buffers shall be measured from side and rear property lines, excluding driveways.

**12.6.3.3 Amount Required**

a) Where more-intensive land uses abut less intensive uses, a buffer strip (15) feet in width shall be required.

b) Parking lots, garbage collection and utility areas [and loading and unloading areas] shall be screened around their perimeters by a buffer strip a minimum of (5) feet wide.

c) Where residential developments abut higher-order streets, (collectors or arterials), adjacent lots shall front on lower-order streets, and a landscaped buffer area shall be provided along the property line abutting the road. The buffer strip shall be a minimum of (15) feet wide, or wider where necessary, for the health and safety of the residents. It shall include both trees and shrubs.

**12.6.3.4 Design**

Arrangement of plantings in buffers shall provide maximum protection to adjacent properties and avoid damage to existing plant material. Possible arrangements include planting in parallel, serpentine, or broken rows. If planted berms are used, the minimum width at the top of the berm shall be (4) feet, and the side slope angle shall be no greater than 30 degrees to the horizontal.

**12.6.3.5 Planting Specifications**

Plant materials shall be sufficiently large and planted in such a fashion that a year-round screen at least (eight) feet in height shall be produced within three growing seasons. All plantings shall be installed according to accepted horticultural standards.

**12.6.4 Parking Lot Landscaping**

**12.6.4.1 Amount Required**

Parking lot street frontage screening and perimeter screening shall be a minimum of five feet wide.

**12.6.4.2 Location**

The landscaping shall be along the perimeter of the parking lot. All landscaping shall be placed so as not to obstruct sight lines.

**12.6.4.3 Plant Type**

Evergreens shall be used along the perimeter of the lot for screening. The area between trees shall be mulched, planted with shrubs or ground cover, or covered with paving material. Any area that will be under the overhang of vehicles shall be covered with mulch or paving material.

**12.6.5 Walls and Fences**

a) Walls and fences shall be erected where required for privacy, screening, separation, security, erosion control, or to serve other necessary and reasonable functions.

b) The design and materials used shall be functional and compatible with existing and proposed development.

c) No fence or wall shall be constructed or installed so as to constitute a hazard to traffic or safety or to bar or obstruct access to a transit station or bus stop.

**12.6.6 Street Furniture**

a) Street furniture such as, but not limited to, trash receptacles, benches, and phone booths, shall be located and sized in accordance with function.

b) The different street furniture components shall be compatible in form, material, and finish. Design and materials shall be coordinated with existing and proposed site architecture. Selection of street furniture shall take into consideration function, durability, maintenance, and long-term cost.

## 12.7 Site Lighting

a) Site lighting shall be provided in accordance with the standards set forth in the following tables:

b) Lighting for safety shall be provided at intersections, along walkways, at entryway, between buildings, and in parking areas.

c) Spacing of standards shall be equal to approximately four times the height of the standard.

d) The maximum height of standards shall not exceed the maximum building height permitted, or 25 feet, whichever is less.

e) The height and shielding of lighting standards shall provide proper lighting without hazard to drivers or nuisance to residents, and the design of lighting standards shall be of a type appropriate to the development and the municipality.

f) Spotlights, if used, shall be placed on standards pointing toward the building rather than on the buildings and directed outward.

**PARKING LOT ILLUMINATION**

| Activity Level | Lux | Foot Candles |
|---|---|---|
| Low activity[1)] | 2 | 0.2 |
| Medium activity[2)] | 6 | 0.6 |
| High activity[3)] | 10 | 0.9 |

[1)] Examples include Neighborhood shopping, industrial employee parking, church or recreational facility parking.

[2)] Examples include community shopping centers, office parks, hospital parking areas, cultural civic or recreational events, and residential complex parking.

[3)] Examples include major cultural or civic events, major league athletic events, regional shopping centers and fast food facilities.

*Excerpted from Listoken, David and Walker, Carole, The Subdivision and Site Plan Handbook, New Brunswick 1989.*

**PEDESTRIAN WALKWAY ILLUMINATION**

| Walkway Classification | Minimum Average Horizontal Levels-Lux | Average Levels for Special Pedestrian Safety-Lux |
|---|---|---|
| Roadside Sidewalks | | |
| Commercial areas | 10 | 22 |
| Intermediate areas | 6 | 11 |
| Residential areas | 2 | 5 |
| Walkways Distant from Roadways | | |
| Walkways and stairways | 5 | 5 |
| Pedestrian tunnels | 43 | 54 |

*Source: Listoken, David and Walker, Carole, op.cit.*

# Appendix "C"

## Model Redevelopment Plan Ordinance Language

### Introduction

The model Redevelopment Plan Ordinance language is intended only as a framework to document the issues that must be addressed by the Redevelopment Plan. Some sections, such as those covering land use and building requirements, will need to be much more detailed.

Declaring an area in need of redevelopment gives the governing body an array of powers, including acquisition and clearing of land and buildings and adoption of very detailed plans, which can supersede the zoning.

The first step in creating a Redevelopment Plan Ordinance is to declare the area "in need of redevelopment". The Planning Board at the direction of the governing body, determines whether the area meets one or more of the standards set forth in the local Redevelopment and Housing Law for declaring a redevelopment area. These standards include predominately substandard or obsolescent buildings; abandoned buildings; lack of utilization of areas because of faulty titles or diverse ownership; or areas of over five acres where buildings have been destroyed by fire, storm or other casualties.

After a public hearing, the Planning Board recommends whether the area should be declared in need of development. The governing body makes the declaration by resolution and either directs the Planning Board to formulate a Redevelopment Plan or has it formulated by a consultant or redevelopment agency. If the latter occurs, the Planning Board must review the Plan before the governing body adopts it by ordinance.

## (Fictional) Town of Greenwood Station Area Redevelopment Plan Ordinance

### Section 1. Objectives

The primary objective of the Greenwood Station Area Redevelopment Plan is to eliminate the substandard, unsafe, dilapidated and obsolescent building conditions in the Greenwood Station Redevelopment Area and to replace, or rehabilitate and reuse the buildings to provide for a mixed use commercial development, which will aid in the revitalization of the Greenwood center business district and promote the use of the rail station in accordance with the Greenwood Station Area Plan element of the Master Plan. Specific objectives are:

a) to provide retail and service establishments which will serve the residents and transit riders in the area and strengthen the adjacent business district; such establishments shall include a 50,000 square foot supermarket which is expected to attract other stores to the area;

b) to provide for offices or residences above the stores on Main Street and to rehabilitate and reuse industrial buildings as small office buildings;

c) to provide landscaped open spaces and pedestrian walks focused on the rail station and to provide a pedestrian plaza and park adjacent to the station in order to provide a focal point for the business area and to help establish a "sense of place";

d) to establish an intensity of use compatible with that of the two-story portion of the adjacent business district, but allowing for adequate off-street parking; and,

e) to reduce traffic congestion by promoting use of the rail station and bus lines.

## Section 2. Proposed Land Use

The following uses shall be required:

a) A supermarket of approximately 50,000 square feet shall be constructed on lot #1 fronting on Main Street as designated on the Land Use Map which accompanies and is part of this Ordinance. The supermarket shall have a loading zone and off-street parking, as required, for supermarkets by the Greenwood Zoning Ordinance;

b) A landscaped pedestrian plaza and park shall be developed on lot #5 fronting on the east side of Main Street adjacent to the rail station building and platform;

c) The gasoline station and auto repair shop on lot #2 fronting on the west side of Main Street shall be refurbished and remain, since it is the only such facility in the vicinity and is used by residents, commuters, and employees;

d) A two-story building for retail and service shops on the street level and apartments or offices above shall be developed on lot #6 fronting on the east side of Main Street. The store tenants shall be restricted to those neighborhood and commuter-service shops permitted by sub-section 10.3.3 of the Zoning Ordinance; all other regulations of that sub-section as to apartment density and room sizes and deed restrictions shall apply. Parking for the building shall be accessed from the side street with no access from Main Street; and,

e) The vacant buildings on lots #3 and #4 shall be rehabilitated and converted to office space.

## Section 3. Building Requirements

Bulk regulations shall be as set forth in the Zoning Ordinance for the zone in which a building is located as modified by the Station Area Overlay Zone. Building materials for new construction or for re-facing of existing

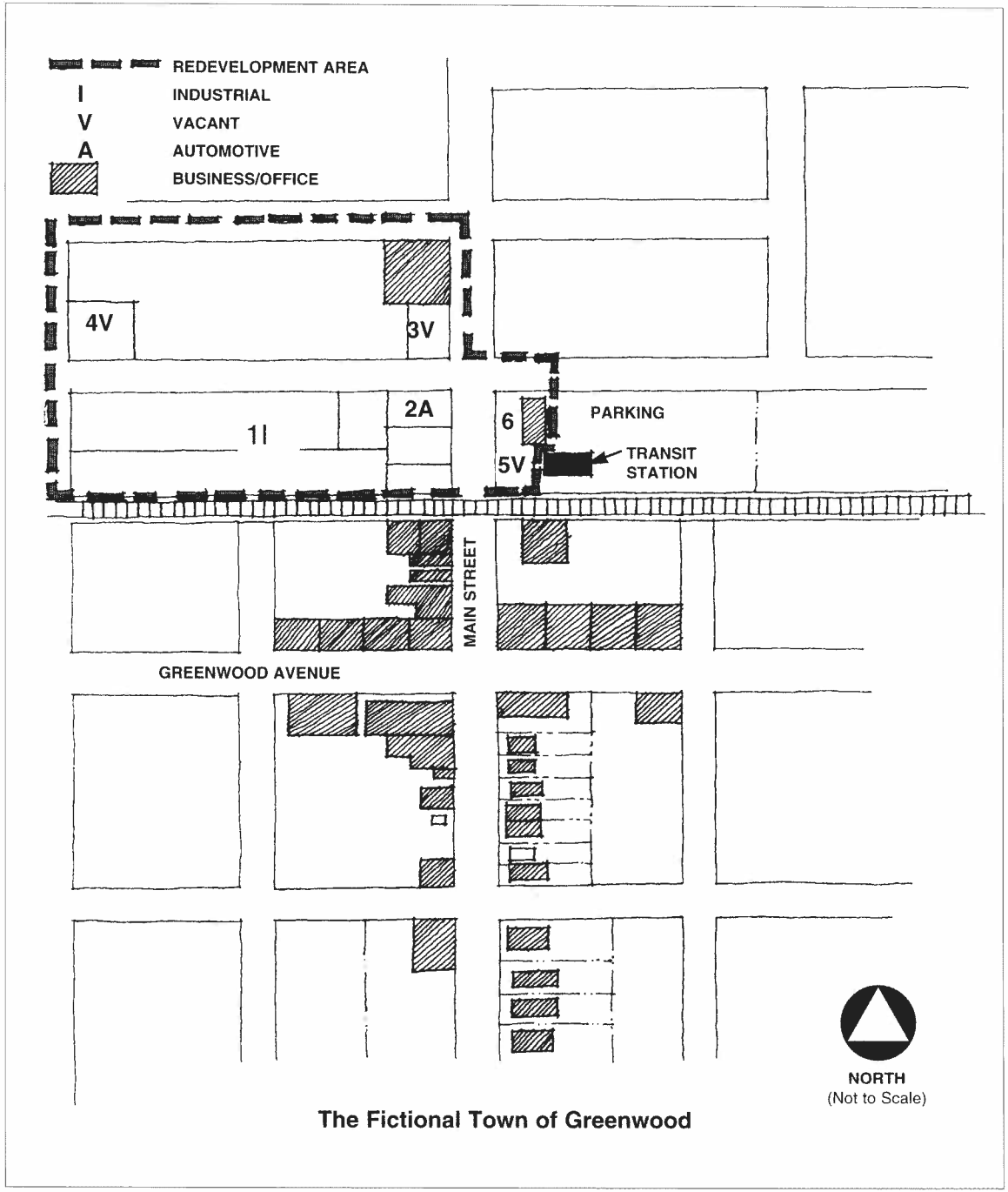


**Diagram of Redevelopment Area**

buildings fronting upon or visible from Main Street shall be of red brick or brick veneer to match the brick of the rail station building as closely as practicable.

### Section 4. Parking and Landscaping

Parking and landscaping requirements shall be as set forth in the Zoning Ordinance for the zone in which a building is located, as modified by the Station Area Overlay Zone. The required street trees on Main St. shall be Bradford Pear, planted at 30-foot intervals. The required street trees on other streets within the redevelopment area shall be Red Maple.

### Section 5. Properties to be Acquired

The Town of Greenwood intends that the developer selected to carry out the redevelopment plan shall attempt to acquire all of the property within the redevelopment area through private transactions. If the developer is unable to acquire any property, then the developer may request the Town to institute public actions, including condemnation, to acquire such property or properties and sell them to the developer for rehabilitation or reuse in accordance with the redevelopment plan.

### Section 6. Relocation of Residents

Two households in the Redevelopment Area will need relocation. Assistance in finding appropriate housing will be provided by the Greenwood Social Assistance Department. A wide variety of decent, safe and sanitary housing is available in Greenwood. Some apartments and homes are affordable to those in the upper range of moderate-income households. If the households needing relocation are found to need a rent subsidy, the County Housing Authority will be asked to provide a Section 8 or another subsidy. Households displaced by government action have priority for subsidy funds. (See Appendix "D" for funding sources.) All State and Federal relocation laws will be observed in providing relocation assistance.

### Section 7. Conformance with the Master Plan

The Redevelopment Plan is consistent with the Station Area Plan element of the Greenwood Master Plan and is designed to implement that Plan, which calls for redevelopment of the area covered by the Redevelopment Plan.

### Section 8. Relationship to County and State Plans

The Redevelopment Plan is in agreement with the goals and objectives of the County Master Plan and the State Development and Redevelopment Plan, specifically as to concentrating development and redevelopment in centers and in areas already provided with the necessary infrastructure. The Redevelopment Plan is not considered to have any effect on the Master Plans of contiguous municipalities

### Section 9. Relationship to Local Development Ordinances

The Redevelopment Plan complies with all the regulations of the Zoning, Site Plan, and Subdivision Ordinances of the Town. Therefore, the Redevelopment Plan does not need to contain an amendment to the Zoning Map.

# Appendix "D"

## List of Current State, Federal, and Transit Agency Initiatives and Resources Related to Development Around Transit Facilities

### Transportation Programs

No specific state or federal transportation programs provide resources related to development around train stations.

NJ TRANSIT does have a Real Estate Division which manages development and leasing activities within train stations or on other property which NJ TRANSIT owns, including air rights over rail properties. Federal transit funds may be used to conduct planning and development studies related to transit facilities. As with most federally funded transit programs, such a study would be funded as part of the Section 8 program administered either by NJ TRANSIT or through the Metropolitan Planning Organizations. Municipal requests for Section 8 funding would have to be submitted to the Metropolitan Planning Organization through the County Planning Board.

Unless a direct relationship to a transportation investment can be shown, federal transportation funds cannot be used to construct development projects. In a joint development scenario, it may be possible to share transit related costs with a developer, or for the developer to contribute to transit improvements. For example, in Mount Olive, the developer is sharing the costs of transit related improvements. If lands must be condemned for a new or expanded transit facilities, it may be more efficient to acquire a lot which may be larger than necessary for the station, thus providing the opportunity to undertake adjacent transit related and transit supportive development activities.

Federal and state transportation funds can be used to fund transportation infrastructure surrounding a station. In particular, NJDOT operates a local aid program which can be used to fund local street construction or reconstruction.

The **Intermodal Surface Transportation Efficiency Act (ISTEA)** authorizes expenditure for "transportation enhancement" projects including restoration of historic transportation structures (including train stations), construction of bicycle and pedestrian facilities, and environmental improvements around transportation facilities. ISTEA requires that 10% of a state's Surface Transportation Program (STP) be used for these transportation enhancements. A state may choose to use more of its STP funds for enhancement purposes, and it also may "enhance" projects funded using other federal transportation funding categories. For example, pedestrian and bicycle facilities may be funded in conjunction with a highway project constructed through the National Highway System funding program.

However, funding for enhancement projects is highly competitive, with only about 2% of requested projects being approved for funding. Therefore, it is essential that the justification for the project be carefully considered and the grant program requirements be fully understood.

### Other Funding Sources

A wide array of grant and loan programs are available to promote development activities, and all of these programs can be administered to advance development programs in station areas. Major programs include:

The **Community Development (CD) Block Grant Program** may be used for a wide variety

of housing and commercial development activities. State administration of the program has been divided into two components:

- an entitlement program for municipalities having qualifying demographic characteristics;
- a Small Cities program for competitive grants to other municipalities for projects which qualify for one of two reasons:
  a) to eliminate blight; or,
  b) to provide improvements to areas in which more than 70% of residents have low or moderate income.

**Special Improvement Districts (SIDs)** are special taxing districts which municipalities may establish to assist in providing improvements within specially defined development areas and to pay for the cost of maintenance activities or programming activities. Sometimes also called Downtown Improvement Districts, these districts provide municipalities with the opportunity of providing special services for these types of areas. An advisory committee or corporation is required to oversee the use of funds generated by taxes within SIDs.

*For additional information regarding the federal Community Block Grant (CDBG) Program or the municipal Special Improvement Districts (SIDs), you may contact:*

*CDBG Small Cities Program*
*NJ Department of Community Affairs*
*CN 806*
*Trenton, New Jersey 08625*
*(609) 633-6278*

The **New Jersey Economic Development Authority (NJ EDA)** provides low interest loans for a number of economic development activities. Loan recipients must demonstrate the capacity to repay the loans. EDA supports private development projects and also funds municipal infrastructure investments needed to support development activities. EDA may provide tax exempt financing for development of mass transit commuting facilities by either public or private applicants.

*For additional information regarding NJ EDA development planning and financing assistance, you may contact:*

*New Jersey Economic Development Authority*
*CN 990*
*Trenton, New Jersey 08625*
*(609) 292-1800*

NJDEPE's **Green Acres Program** may be used to finance public open space acquisition and improvements. Green Acres funding is available through combinations of grants and loans.

Some specific application for these and other programs are described on the following page.

| FUNDING PROGRAM | PURPOSE OF PROGRAM |
|---|---|
| **Housing Programs** | |
| NJ Housing & Mortgage Finance Agency | Construction of rental housing |
| NJ Dept. of Community Affairs | Subsidies to low and moderate income households for purchase of housing in order to promote balanced housing programs. |
| Various banks in support of community reinvestment objectives. | Down payment assistance for low and moderate home purchasers |
| US HUD Section 202 program | For construction assistance for senior citizen housing. |
| US IRS Low Income Tax Credits | For construction of low income rental housing developments. |
| Community Development Block Grants | Home Owners Loan Program for improvements and to correct violations.<br>Grant programs to eligible home owners to correct violations.<br>Loans or grants to non-profit corporations to renovate housing or construct new units.<br>Various other qualifying activities. |
| **Economic Development Projects** | |
| Urban Enterprise Zone Program | Taxes received within zone are retained for use in funding community improvements within zone. |
| Community Development Block Grant Program | Variety of economic development purposes, including:<br>■ Acquisition and clearing of land for redevelopment as well as provision of needed infrastructure improvements.<br>■ Merchant facade improvements.<br>■ Building code enforcement efforts. |
| NJ Economic Development Authority | Provides development loans to developers and municipalities. |
| Economic growth bonds | 20 year loans for real estate acquisition<br>10 year loans for plant and equipment |
| Bond financing | In addition to above, taxable bonds may be used to provide businesses with working capital. |
| Urban Centers Small Loans | Loans to existing businesses in commercial districts of targeted municipalities. Loans must be used primarily for renovations. |
| Variety of other programs | EDA provides a wide variety of additional programs which can aid municipalities or businesses in station areas. |
| Green Acres Program | Acquisition and development of public open space to serve station areas.<br>Acquisition and restoration of stream corridors through station area.<br>Development of pathway system on publicly owned open space properties in station area. |

# Appendix "E"

## Outline of Coordination Procedures with Transit and Other State Agencies for Transit Related Development

Preparation and implementation of a successful station area development requires that a municipality coordinate intensively with a number of other public agencies at the state, county and local levels. This section outlines some of the coordination steps which should be considered. Ideally, as planning for the development of the station area evolves, a team should form between the different public partners so that the best possible development can emerge.

The following is just a sample of the agencies which may have to be involved in the development and execution of a plan. Specific circumstances may not require all of these actors to be involved at all station locations. Conversely, many municipalities may require that additional parties be brought into the planning and execution of a station area plan.

### Station Area Master Plan

Development of a station area plan should be conducted in an open environment encouraging participation from all affected parties.

State agencies may not have the staff resources to attend all public meetings required in developing a municipal plan for the station area. However, they may be able to respond to specific requests for information or data.

Generally, the most effective procedure is for a town's planning professional to meet with state agency staff to resolve specific issues during normal working hours and then report written findings back to the municipal planning board.

A station area development plan should:

- identify specific public improvements needed;
- propose municipal, county, and/or creative private financing to pay for such improvements; and,
- identify appropriate public agencies who would implement the improvements.

### Memorandum of Understanding

Once a station area development plan has been adopted, an efficient method of implementing the public components of the plan is to enter into a memorandum of understanding (MOU) between the municipal governing body and each affected agency.

These MOUs would set forth goals, objectives, actions, deadlines and funding responsibilities. For a public agency whose actions are not guided by permit reviews, an MOU may be the only effective means of clearly documenting the role the agency would have in helping to implement the development project.

### Permit Requirements

Once a project has proceeded into the development stage, a large number of permits may be required. Both the time and the cost of project development can usually be minimized by anticipating the permits required for a project. Examples of permits which may be required in association with station area development include:

- County Planning Board Review and Approval

  County planning board review is required for any project which fronts on a county highway or affects a county drainage structure. The drainage provisions of almost all development projects must be approved

by the county since almost all developments will eventually affect a county drainage facility.

- NJDEPE Permits

  A broad range of development permits are managed by NJDEPE including Stream Encroachment Permits, Wetlands Permits, etc. Specific permit requirements required to implement the plan should be identified during the planning process so that applications may be submitted in timely fashion.

- NJDOT Permits

  Properties fronting on a state highway will require a variety of permits from the NJDOT. NJDOT coordinates its permitting function through the Access Review process. Permit coordination with that unit should begin during the plan development process. However, formal review of specific permit requests can only occur when an application or request for review is submitted by the property owner affected.

- NJ TRANSIT

  Because NJ TRANSIT does not have specific permit authority, any formal coordination with NJ TRANSIT must rely upon a memorandum of understanding or specific property agreements, such as leases or easements, if NJ TRANSIT property is affected.

# Appendix "F"

## Selected Annotated Bibliography

**Access By Design: Transit's Role in Land Development,** Maryland Department of Transportation, September 1988, Manual prepared for developers, planners, and engineers to provide information about basic operating criteria and physical access requirements for the MTA's bus system. The document presents threshold criteria for new services, vehicle specifications, operational standards, passenger amenities, and geometric design standards. Included is a "Transit Accessibility Checklist" to help developers determine whether projects meet transit accessibility standards.

**Acting in the National Interest, Transportation Agenda, Surface Transportation Policy Project**

**Arrival Zones: How to make getting there more memorable,** Grady Clay, *Planning,* August, 1991

**An Assessment of Community Planning for Mass Transit** United States Congress Office of Technology Assessment, February 1976

**Ballston, Virginia, Folder of Material on Station Area Development, prepared by the Ballston Partnership** Materials gathered during a field visit to Arlington County Virginia. The Ballston Partnership is a not for profit group that guides the development of Ballston. Ballston is a mixed use development of several million square feet that used a stop on the Washington Metro as an anchor and impetus for its development.

**Bicycle Advocate's Action Kit** The Bicycle Federation of America, 1993

**The Centers Designation Process, Document #99** New Jersey Office of State Planning, Department of the Treasury Report from the New Jersey Office of State Planning that discusses the concept of "Centers" as well as the process for communities to be designated as centers. A hypothetical example of a municipality seeking to become a center is discussed within the context of a sample "Center Designation Report".

**The Changing Apartment Development Market** Urban Land, Terry Jill Lassar, January 1993
Because of the decrease of new apartment construction in the late 1980's and early 1990's a market is developing for new high end multi-family residential units. Unlike apartments previously developed these units tend to incorporate characteristics common to single family units, such as fireplaces, garages, porches, etc. The key input to the success of this market is employment growth within the region.

**The Clean Air Act Amendments of 1990** EPA

**The Commuting Paradox: Evidence from the Top Twenty,** Peter Gordon, Harry W. Richardson, and Myung-Jin Jun, *APA Journal,* Autumn 1991, P. 416

**Communities of Place, State Development and Redevelopment Plan** The New Jersey State Planning Commission, June 12, 1992
The result of a six year process involving the state, county, and municipal levels of government, as well as extensive public input, the report outlines a generalized concept for a future vision (year 2010) of the state's physical development. The report offers a series of policy statements at the state level and creates a resource planning and management structure focused on "Centers" and "Planning Areas". A generalized typology is developed that divides centers into the following types:

- Urban Centers
- Traditional Town, Village, or Hamlet
- Regional Centers

**Core Area Requirements to Support Non-Auto Trips**

Memorandum to Bob Kraml, NJDOT/Eli Cooper, OSP, from Thomas Marchwinski, NJT, November 30, 1992
This memo presents NJ TRANSIT's recommended guidelines for various parameters regarding core areas, including mode splits. These recommendations are based on a review of the proposed Center Core Characteristics and the Regional Center Criteria in the New Jersey State Development and Redevelopment Plan, as well as the 1980 and 1990 Census, 1992 AVO surveys, and suburban regional center studies conducted by the National Cooperative Highway Research Program, other employee travel surveys conducted over the last five years in New Jersey, NJT bus ridership standards, and historic data. Included are Illustrative Characteristics for Town Core Areas and Regional Center Core Areas (PA 1,2,3 and PA 4 and 5). Attached to the memo is a Draft of the Centers Designation Process, Technical Reference Document #94 (New Jersey Office of State Planning, November 1992).

**Designing for Public Transit in Suburban Areas** ITE Compendium of Technical Papers Jerome M. Lutin and John D. Wilkins

Paper discusses the role of public transit in serving suburban commercial development. Guidelines are provided on planning cost-effective ways to extend bus service to suburban locations. Physical design considerations for improving bus access to serve suburban developments are described. Model master plan language for designing public transit in suburban areas is included.

**Designing for Transit, A Manual for Integrating Public Transportation and Land Development in the San Diego Metropolitan Area** Prepared by the Metropolitan Transit Development Board, (MTDB) San Diego, CA, July 1993

**Development and Implementation of a Downtown Parking Management Program Based on Highway Capacity - The Jersey City, New Jersey, Experience** *ITE 1990 Compendium of Technical Papers*, by Thomas W. Marchwinski and Suzanne Mack

**Development-Related Ridership Survey,** Final Report Prepared for Washington Metropolitan Area Transit Authority, by JHK & Associates, March, 1987

**Development-Related Ridership Survey II** Prepared for Washington Metropolitan Area Transit Authority, by JHK & Associates, December, 1989

**Draft Design Guidelines** (for consideration from NJ TRANSIT) Paul Sullivan
A general series of design guidelines for station areas dealing with building height and bulk, streetscape, landscaping, parking, open space, and zoning.

**Eight State-Sponsored Growth Management Programs: A Comparative Analysis**
APA Journal, 1992

**Fairfax County, Virginia, excerpts of interest from Comprehensive Plan (1991); Concept for Future Development and land Classification System (1990); Countywide Policy Element of the Comprehensive Plan (1990)**

**Feasibility Study Of Joint/Multiple Use Of Development Of MTA Commuter Railroad Stations, Final Report** (Excerpts) Prepared for the MTA Real Estate Department. Study examines the potential for joint development adjacent to three suburban MTA Facilities.

**A Framework for Transit Planning in the New York Region**
Regional Plan Association, 1986

**A Global View of Automobile Dependence,** a Book Review, *APA Journal*, Summer 1991, p. 376

**Gridlock: Facing Boston's Transportation Dilemma** Conservation Law Foundation, January, 1989

**The Growth Management Handbook: A Primer for Citizen and Government Planners,** (MSM), 1989 Handbook prepared for the Middlesex Somerset Mercer Regional Council that examines the various aspects of growth management. Handbook presents concepts exploring existing planning structures and techniques vs. concepts and structures based on carrying capacity in graphic format and text. The Handbook also examines the issue of regional vs. local vs. site and the relationships between these three scales.

**Guide to Land Use and Public Transportation: Snohomish County, WA** USDOT, 1989 Handbook prepared by the Snohomish County, Washington Transportation Authority. The Handbook develops an argument for the nexus between land use planning and transit use and suggests ways of better integrating transit within communities. Topics discussed include:

- Public transportation compatible land uses
- Public transportation compatible zoning
- Public transportation compatible subdivision design
- Public transportation compatible site design
- Public transportation compatibility worksheets

**Improving Transportation for New York City Residents,** *The Region's Agenda, A Regional Plan Association Publication,* May 1993.

**Inquiry—Does Growth Pay?**
Urban Land Institute, Rita Curtis
Article talks about the cost/benefit of various types of development for municipalities. A land use hierarchy, based on a review of fiscal impact studies shows that "research office parks, office parks, and studio or one-bedroom apartment and condominium developments generate revenues in excess of costs". Low-density residential development, garden apartments with three or more bedrooms, townhouses, and retail, in general, are a drain on public expenditures. A review of literature has borne out that business pays its way.

**Joint Development at Ballston Metro Center** M. Richard Miller, Urban Land, June 1993.

**Kansas City Urban Design Guidebook: Ways to Promote and Improve the City's Value for Investment, Living and Working**
City Development Department, August, 1978.

**Key Issues in Light Rail Transit Station Planning and Design,** Jerome M. Lutin and Gregory P. Benz, *Transportation Research Record 1361*, p.117-124.

**Land Use and Transportation: The Missing Link,** Marcia D. Lowe, *Worldwatch Institute, Surface Transportation Policy Project Bulletin,* October 1992, p.1.

**Land Use In Commuter Rail Station Areas: Analysis And Final Report, Recommendations For Integrating Commuter Rail Stations With Surrounding Communities, 1992** Northeastern Illinois Planning Commission, METRA Study examines nine station areas and provides a profile of station use characteristics, surrounding land use, and station access characteristics. Stations examined were selected based on system of urban typologies. Guidelines for land use in station areas are provided.

**Land Use in Commuter Rail Station Areas: Guidelines For Communities—Summary Recommendations and General Land-use Patterns to integrate Commuter Rail Stations with Surrounding Communities, 1992** Northeastern Illinois Planning Commission, Metra Summary brochure for public distribution describing the recommendations and general study methodology. A typology is developed that

categorizes the existing and future stations within the METRA system. These categories are:

- Stations in High Density Urban Areas
- Stations in Suburban Central Business Districts
- Stations in areas outside of Suburban CBD's
- Stations in Underdeveloped or Developing Areas
- Stations in Highway Rights-of-way
- Stations in Office/Shopping Complexes

A general series of guidelines concerning land-use, implementation strategies, parking and access, and service amenities are provided and applied to each of the station types.

**Land Use Strategies for More Livable Places.** Prepared by the Local Government Commission, Sacramento, California; written by Steve Weissman and Judy Corbett, June 1992.
This report considers an approach to accommodating California's growth over the next decade through new development that is more "compact," mixed-use, and pedestrian oriented. The report builds on a set of planning principles, known as the Ahwahnee principles, which were developed by a group of architects and designers working with the Commission. The "principles" are presented in three parts: (1) Community Principles, (2) Regional Principles, and (3) Implementation Principles and are considered equally applicable to infill development, redevelopment, and new development. Addressing mobility (transportation) is a critical component of the principles and of this document. Principles directly related to issues of transportation and transit include:

- Community size should be managed so that housing, jobs, daily needs and other activities are within easy walking distance of each other.
- The location and character of the community should be consistent with a larger transit network.
- Streets, pedestrian paths and bike paths should contribute to a system of fully-connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic.
- The regional land use planning structure should be integrated within a larger transportation network built around transit rather than freeways.

**Land Use/Transportation Scenarios Testing: A Tool for the 1990s** Michael Replogle, a paper presented at the 1993 Transportation Research Board Annual Meeting, 1993.

**Light Rail Transit and Effective Land Use Planning: Portland, Sacramento, and San Diego** *Transportation Research Record 1361*, p.75.

**Linking Land Use and Transportation, Papers** AICP/Lincoln Institute, 1993

**Location and Design of Bus Transfer Facilities** Paul Box, *ITE Journal* August 1992

**M, The Magazine of METRO** Fall 1989

**Making the City Observable** Richard Saul Wurman, Walker Center, Minneapolis, MN and MIT Press, 1971

**Managing Transportation in Your Community: A Municipal Handbook** New Jersey Department of Transportation, 1989
Handbook prepared for the New Jersey Department of Transportation that offers guidelines for incorporating good transportation planning concepts at the municipal level. Topics considered include: master planning, zoning, subdivision and site

planning, and reviewing development proposals.

**Managing Traffic on Roads & Waterways** Urban Land, 1990.

**MARTA: So Far So Good,** Bert Roughton, *Planning,* April 1989.

**Mode Enhancement through Land Use Design: Development Strategies to Encourage the Use of Alternative Transportation Modes** (The County of San Diego Department of Planning and Land Use, prepared by Stevens/Garland Associates, Inc., in association with SR Associates, Comsis Corporation, July 1991).
The study's purpose was to identify specific development review mechanisms aimed at achieving an improved balance between the single-occupant vehicle mode choice, and shared vehicular and non-vehicular modes (i.e., carpooling, vanpooling, transit, and walking). The study notes steps that can be taken to optimize land use planning and development to foster greater alternative mode management. Included in the study was an analysis of existing county conditions, review of existing land use policies and development ordinances, and the identification of alternative mode and other development strategies that could be incorporated into the County process. Of particular interest is the "Re-examination of Zoning Practices and the Challenge of a 'New Order' Community Design, "coordination with Mobility and Air Quality Programs," "Interaction of Alternative mode and Parking Strategies. Included at the end of the document is a "Draft Project Design Guidebook," which considers when and how Transportation Demand Management could be included in the County's site plan approval process and suggests which TDM strategies will offer the best trip reduction potential. The guidebook presents a matrix of the effectiveness and costs of selected TDM strategies for different development types, a section on Design Evaluation Factors, and Public Transit Compatibility Worksheets — one to be used by developers, property owners and local jurisdictions, and the other to be used by the Public Transportation Agency.

**Municipal Land Use Law** Chapter 291, Laws of NJ 1975

**Neo-Traditional Neighborhood Design and its Implications for Traffic Engineering** Eva Lerner-Lam, Stephen P. Celniker, Gary W. Halbert, Chester Chellman, and Sherry Ryan *ITE Journal,* 1992
Article provides an overview of current Neo-Traditional Neighborhood Design in North America and summarizes some of the key traffic engineering issues encountered in those projects.

**Neotraditional Town Planning: Cars, Pedestrians, and Transit** Urban Land, 1992
Article examines the relationship between physical planning, auto access, and designing for transit. TND's (Traditional Neighborhood Developments) and TOD's Transit-oriented developments are discussed within the context of the work of their two major proponents: Andres Duany and Peter Calthorpe. The traffic impacts of both types of development are considered.

**The New Suburb: An Examination and Analysis of Recent Proposals, Study of Land Use and Transportation In The Suburbs Report One: July 1991** Center For Urban Transportation Studies and the School of Architecture and Urban Planning The University of Wisconsin-Milwaukee
The report provides an examination of the historical basis for suburban developments and analyzes recent trends and proposals for new suburban developments, especially as they relate to public transportation. The report finds that a study group of ten "exemplar" new or proposed developments were compatible

with public transit because of their higher densities, concentrated demand, and good pathway systems. However there are some limitations in the lack of direct transit routing, turns required, and right-of-way that could be obstacles to easy operation of transit.

**The Next American Metropolis: Ecology, Community, and the American Dream** Peter Calthorpe Princeton Architectural Press, 1993

**Operations and Demand Management Programs to Enhance Mobility**
ITE Conference, 1991

**Planning & Design of On-Street Light Rail Transit Stations** *Transportation Research Record, 1361* p.125
Planning for contemporary light rail transit (LRT) systems often presents the challenge of integrating modern stations into an on-street setting. In this context the planning and design of the station has consequences not only for the alignment and operation of the light rail line, but also for pedestrian movement, traffic flow, and safety. This report examines two keyfeatures of LRT planning and design: the specific feature of the stations and intersections; and second, the configuration of the station tracks and platforms on the street.

**Planning for Joint Development in Los Angeles** James R Gilson and F. Michael Francis, Urban Land June, June 1993

**Princeton Junction Mini Master Plan, March 20, 1992** Lenaz, Mueller & Associates, Planning/Development Consultants
Includes a discussion of rail-oriented community development patterns (pgs. 43-44).

**The Promise Of California's Rail Transit Lines In The Siting of New Housing,** A Report to the State Senate Office of Research, 1990 Case studies of development patterns adjacent to several rail systems are presented. The case is made that under the right conditions medium to high density residential development with supporting retail services may be more desirable than commercial development.

**Public Transportation and Land Use Policy** Boris S. Pushkarev, Jeffrey M. Zupan

**Rail Transit as a Development Tool,** A Draft Paper, Eric Rothman, October, 1992.

**Rail Transit as an Economic Development Tool,** June 1993 NJ TRANSIT - Waterfront Transportation Division

**Rail Transit in North America** a series of maps prepared by Dennis McClendon, Planning, June 1984.

**Rail Station Improvements and Development Opportunities: A Look at the Northeast Corridor** Urban Land, Urban Land Institute, September 1981, Robert M. Byrne and Elizabeth D. Baker
Article presents findings of a ULI study which asked what types of uses are likely to locate around intercity rail station areas and what is the development potential for major regional centers, satellite cities, and independent markets located around rail stations.

**Railroad Rights-of-Way, Potential Development Opportunities** Urban Land Institute, February, 1986

**Regional Plan Association** Annual Report, 1992

**The Renaissance of Rail Transit in America** Regional Plan Association, June 1991
The report discusses the general historical development of rail transit systems in the US and around the world. The role of transit in the future development of urban areas is also discussed. Nine North American cites that have developed rail systems since World War II are profiled. The importance of the nexus between land use and transit planning is emphasized.

**Renovation of Market Square** Architectural Record, March 1993, Steve Hall

Article describes the renovation of Market Square, Lake Forest, Illinois, the country's first planned shopping center. Market Square contains a landscaped plaza, stores set behind an arcaded walkway, apartments and offices on the second floor, and a commuter train station. The renovation provides a lesson in how to plan a successful, mixed use development. By dispersing parking in several small lots around the site, cars are kept from overwhelming the architecture.

**Resolving the Suburban Transportation Dilemma** *The Region's Agenda, A Regional Plan Association Publication,* March 1993.

**A Review of the Transportation Element of Communities of Place: The Interim State Development and Redevelopment Plan for the State of New Jersey** Jeffrey M. Zupan, October 1991
Report reviews the transportation component and implications of the Interim State Plan. Possible implementation steps for the plan's specified transportation policies are offered. A discussion is provided concerning the levels of density inherent in the plans definition of centers and planning areas and their relationship to potential modes of transit. The following criticisms of the plan were offered:

- Policy objectives are too loosely defined to be definitive about whether the RPA thresholds and the objectives are consistent.
- The report ignores the 390 mile, 155 station rail network in New Jersey as a force for channeling compact development.
- Designing for transit is not discussed.
- No recognition is evidenced of difficulties inherent in making transportation demand management strategies work effectively.

**Revitalizing City Centers with Real World Planning** Wayne Ratkovich and Clifford L Ratkovich, Urban Land, June 1993

**San Diego Gets a Grip on Gridlock: City Ordinance Helps Region Manage Growth** Judith Corbett, *Surface Transportation Policy Project Resource Guide,* March, 1993.

**SEPTA "Model" Zoning/Development Standards for Parking and Station Areas,** Article X, Model Zoning Ordinance.

**South Station Transportation Center** *Architectural Record,* July 1981, p. 100.

**Southeast Corridor Tomorrow**
A Report prepared for The Denver Technological Center by Skidmore, Owings & Merrill.

**The Subdivision and Site Plan Handbook,** David Listokin and Carole Walker, Center for Urban Policy Research, Rutgers University, New Brunswick, 1989

**Tony Nelessen's Do-It-Yourself Neotraditionalism** *Planning,* December, 1991. Article discusses Tony Nelessen's approach to working with communities to develop implementable plans. Examines the hands on techniques of visual preference surveys and participatory planning with models and plans manipulated by community members.

**Towns and Town-Making Principles** Andres Duany and Elizabeth Plater Zyberk, 1991.

**Transit Based Approach to Land Use Design** Center for Urban Transportation Studies, University of Wisconsin, Milwaukee, August, 1991.

**Transit-Friendly Land-Use Planning: A Key Ingredient Supporting Urban Environmental Quality and Economic Development,**

Wayne L. McEachern, *Plan Canada,* September 1991, p.15. To a large degree micro and macro levels of planning in Canada have not incorporated considerations that affect or encourage the use of transit. The benefits of incorporating transit into the planning process are clear: environmental benefits of cleaner air

and less traffic; and the economic benefits of increased development opportunities, and efficiency of employee/goods movement. The two main challenges facing planners are: one, "to incorporate transit-friendly policies and designs into plans for newly developing areas"; and two, "retrofitting existing built-up areas during redevelopment planning to better support transit.

**Transit Improvement Zoning District Study, Final Report** NYC Department of City Planning, August, 1985.

**Transit Joint Development in the United States (Monograph 42)** Institute of Urban and Regional Development, August 1992, University of California at Berkeley, National Transit Access Center. Robert Cervero, Peter Hall, and John Landis
A summary of the history and issues associated with transit joint development. Topics covered include:

- A brief history
- Joint-development programs in the US
- Joint development as public policy
- Agency perception of the joint-development process
- Real estate impacts of urban rail transit investments
- Revenue and ridership impacts of joint development

**Transit Land Use & Urban Form** Wayne Attoe, ed., Center for the Study of American Architecture, University of Texas, 1988
Collection of essays and reports from a conference conceived by the Capital Metropolitan Transportation Authority, which serves Austin, Texas. Central question was "how can the Austin area use new transit development as a positive force in shaping the city and the region?" The papers present case studies and thoughtful commentary of many of the issues being dealt with in this Handbook.

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# Glossary of Selected Transit and Land Use Terminology

**Americans With Disabilities Act (ADA)**
Federal civil rights law, enacted in 1990, that mandates the provision of access for persons with disabilities. Title 2 of the law applies to transportation facilities and transit vehicles.

**Automated Fare Control (AFC)**
A system of fare control that utilizes machines to issue tickets in return for a specified fare, or to confirm validity of pre-purchased tickets.

**Bus Turnout**
A paved indentation at the side of a road, designed to allow buses to pick up and discharge without interrupting the continuing flow of traffic.

**Commuter Bus**
Bus service provided along major arterial roads with limited stops accessing a major destination point. This service may be accessed by both pedestrians and people arriving in automobiles. Parking is sometimes provided at bus stops.

**Commuter Rail (High Capacity Rail)**
Heavy gauge rail service accessing major employment centers as well as residential origins. This service can be both local and express, and may be accessed by both pedestrians and automobiles. Large amounts of parking are often associated with stops along this service.

**Express Service**
Transit service between origin and destination with minimum or no stops along its route. Express service is most frequently provided on high capacity transit corridors. It is generally used for longer distance trips, and trips between key destination and/or transfer points.

**Federal Clean Air Act Amendments of 1990**
A Federal law enacted in 1990 that places new Federal controls on all sources of air pollution (including automobiles) which ultimately may affect all Americans. The law includes an implementation strategy, revised in 1992, that establishes air quality improvement goals.

**Feeder Service**
A local transit service that collects or distributes riders and provides a direct transfer to other high capacity transit modes.

**Headway**
The amount of time between transit vehicles operating on a particular transit route. Congestion can be created when headways become too small.

**High Occupancy Vehicle (HOV)**
A vehicle carrying two or more individuals. HOV's are encouraged as a means of decreasing Vehicle Miles Traveled (VMT). Many locations in the country, including New Jersey, have begun to dedicate highway lanes during peak traffic hours to HOV vehicles.

**Intermodal Transfer**
The ability to move from one mode of transportation to another (i.e. bus to train) during a transit journey. It is important that the transfer between modes be easily, safely, and efficiently made, be as short a horizontal distance as possible, (ideally within 250') and use a minimum of vertical changes (stairs,

escalators, elevators). Transit services should be scheduled to minimize transfer wait time.

### Joint Development

A shared effort on the part of two or more parties to develop a piece of property. In terms of transit, this quite often involves a private developer and a transit agency. The development may include parking, commercial uses, retail and/or residential uses. In return for the provision of the property the transit agency may receive a new or improved station facility, additional joint-use parking, the added ridership generated by the development, infrastructure improvements, and/or income.

### Kiss-n-Ride

Easily accessed short term waiting areas at transit facilities for drop-off and pick-up of transit users.

### Local Bus

Bus service that accesses multiple destinations and origins along a fixed route. Stops occur within close proximity of each other. The service may access one or several major destination or transfer points as a feeder service. Local service is most often used by pedestrians in more densely populated areas. Parking is not provided at bus stops.

### Local Service

Transit service that accesses frequent and closely spaced stops along its route. This service offers a high degree of choice and flexibility for its users wishing to access less frequented destination or origin points. It is most often used for short trips.

### Master Plan

A comprehensive long range plan intended to guide the growth and development of a community or region. In New Jersey, the municipal Master Plan is prepared and adopted by the Planning Board. It is periodically updated and includes a survey of existing conditions, analysis and projections, and recommendations. The municipal Master Plan must contain land use and housing elements and a policy statement; it may also address population, economics, infrastructure, transportation, historic preservation, and community facilities.

### Multiple Land Use

Generally refers to different compatible land uses located within a defined area.

### Mixed Use

Generally refers to different compatible land uses located within a single structure or in close proximity to each other.

### New Jersey Air Pollution and Traffic Congestion Act

Legislation establishing a comprehensive program of transportation control measures to deal with traffic congestion and air pollution. The act authorizes the establishment of a "Travel Demand Management Program" requiring employers of 100 or more persons at one location to reduce peak period auto trips, to undertake surveys of the commutation patterns of their employees, and to prepare compliance plans identifying what transportation demand management strategies should be initiated by the employer.

### New Jersey Municipal Land Use Law (MLUL)

The State enabling legislation authorizing municipalities to adopt master plans, approve and administer zoning ordinances, site plan ordinances, and subdivision ordinances. The MLUL establishes conditions governing the operation and administration of municipal planning and development approval agencies.

**New Jersey State Development and Redevelopment Plan**

A policy document prepared in response to the 1986 New Jersey State Planning Act. The plan establishes a series of statewide planning objectives regarding land use, housing, economic development, transportation, natural resource conservation, agriculture and farmland retention, recreation, urban and suburban redevelopment, historic preservation, public facilities and services, and intergovernmental coordination. The plan has been formulated and amended based on a statewide planning process called "Cross-acceptance" that ensures that governments at all levels and the public participate in preparing the plan.

**Park-n-Ride**

A type of transit stop, generally located on the periphery of a heavily urbanized area, that provides a large amount of parking. Intermodal transfers may also be available. The park-n-ride is often situated adjacent to the intersection of, or along, major arterial roads. This transit stop intercepts and decreases vehicular traffic from peripheral areas that might otherwise directly access major urban destination points. Park-n-rides may be served by high capacity bus or rail. The majority of users access this stop by auto.

**Platforms, High**

High Platforms are raised several feet above grade at a train station that allow users to enter or exit the vehicle at the same level as the train floor, or several inches below it. These platforms expedite loading and unloading and allow the train to minimize the amount of time spent at each station.

**Platforms, Low**

Low Platforms at a train station are located at grade or several inches above grade. The transition to the higher train floor must be made by using stairs located in the train, at each entry point. These platforms normally require a longer loading or unloading time than high platforms.

**Rail, heavy**

An electric railway with the capacity for a "heavy volume" of traffic, and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signaling, and high platform loading. Heavy rail is also known as "subway", "elevated" (railway), or metropolitan railway (metro).

**Rail, light**

An electric railway with a "light volume" traffic capacity compared to "heavy rail". Light rail may use exclusive or shared rights-of-way, high or low platform loading, and multi-car trains or single cars. Also known as "streetcar", "trolley car", and "tramway". Light rail is generally considered to be distinct from automated guideway transit, or "AGT" or monorail. Specifically, light rail usually assumes that there is an operator of the vehicle, an essential element for a system operating in mixed traffic.

**Right-of-Way**

A corridor of land acquired by reservation, dedication, prescription or condemnation, and intended to be utilized as a road, rail line, utility service, buffer, or similar use.

**Service Area**

The boundaries of an area from within which the majority of transit users will travel to a particular transit facility. Service area is influenced by the level of service provided by the transit facility, the destinations served by the transit facility, the amount of parking available at the transit facility, the quality and convenience of vehicular access and intermodal transfer available to the transit

facility, and the relative location of other competing transit facilities.

### Shared Parking

Parking facilities that can be utilized by transit users as well as the patrons and workers of other adjacent land uses. These facilities work best when the times and characteristics of the multiple users do not coincide or conflict. For instance, a use with a high evening and weekend parking demand, such as a movie theater, would be compatible with transit that has a high weekday and daytime parking use pattern. A primary advantage of shared parking is that the facility may be financed by multiple groups rather than one individual group.

### Signage

A coordinated system of public information (i.e. signs) that includes words or pictures describing location, directions, business names or products, services, or other information of public interest. A good signage system should clearly, creatively, and concisely convey its primary message. Signage should be readable to both pedestrians and motorists and should occur at key decision points for maximum effect. Many municipalities regulate the size, location, materials, and content of signage through their Zoning Ordinance.

### Site Plan Ordinance

A law or regulation adopted by the local municipality or County regulating the development of one or more lots. Specific aspects of the ordinance include: the approval process; application requirements; and, design standards.

### Station Area Plan

A plan developed and approved by a municipality for the station area or transit planning area. It identifies specific actions to encourage transit supportive conditions. The plan should include recommendations for land use, circulation, and design guidelines. The plan can be implemented through a number of implementation mechanisms.

### Street Classification Systems

- **Arterial Streets**
  A street which is normally used for the conveyance of high volumes of vehicular traffic. The roadway generally has controlled access and is restricted from on-street parking. Right-of-way widths are normally 80 to 120 feet, except in the case of large highways.
- **Collector Streets**
  Streets that carry traffic from minor streets to the major system of arterial streets and highways, including the principal entrance streets of a residential development and streets for circulation within such a development. On-street parking is sometimes provided, depending on street width and traffic volumes. Right-of-way widths are normally 50 to 80 feet.
- **Minor or Local Streets**
  Streets that are used primarily for access to the abutting properties. On-street parking is generally permitted. Right-of-way widths are normally 50 to 60 feet.
- **Marginal Access Streets**
  Minor streets which are parallel to and adjacent to arterial streets and highways and which provide access to abutting properties and protection from through traffic. The right-of-way width is approximately 50 feet.
- **Alleys**
  Minor ways that are used primarily for vehicular service access to the back or the side of properties otherwise abutting a street.

### Streetscape

The overall character, design quality, and particular physical elements that occupy the ground level public environment. Streetscape

elements may include the paving materials, curbs, landscaping, lighting, and street furniture such as benches, water fountains, or bicycle racks.

**Streetwall**

The vertical elements that define the edges of public streets. In most instances, streetwalls are the front walls of buildings along the street edge. Streetwalls, however, may also consist of elements that are not buildings, such as landscaping, fences, or other structures. A streetwall helps define the public street by providing enclosure and creating a human-scaled space.

**Structured Parking**

The provision of parking in a building, normally involving at least two levels. Structured parking offers the advantage of increasing parking supply without increasing the amount of land necessary to support it. In urban areas, the increased parking density allowed by structured parking permits open and vacant lots to be developed for higher and better uses.

**Subdivision Ordinance**

A law or regulation, adopted by the municipality's governing body after referral to the Planning Board and a public hearing. A Subdivision Ordinance governs the division of a lot, tract, or parcel of land into two or more lots, tracts, parcels or other divisions of land for sale, development or lease.

**Transit Planning Area or Station Area**

The area within a reasonable walking distance from a transit facility. This distance may extend as far as half a mile from the facility depending on the nature of the surrounding land uses, the sense of safety and security, topography, the quality and connectivity of the pedestrian paths, and the general climate of the region. This area should generally be the focus of efforts when encouraging transit supportive conditions.

**Transportation Management Plan**

A comprehensive plan or program designed to more effectively use existing transportation resources in order either to reduce the existing demand for vehicular travel, or to reduce the future need to expand transportation infrastructure.

**Travel Time**

The amount of time spent in transit from an origin to a destination. Travel time on transit can be affected by the amount of transfers necessary to reach a destination, traffic conditions (in the case of bus service), whether the transit line is operating at or below its optimal capacity, and the mode of transit being used.

**Trip**

A single or one-way movement either to or from a subject property or study area.

**Trip Ends**

The total number of trips entering and leaving a specific land use or site over a designated period of time. (Each trip has two trip ends.)

**Trip Generation**

The total number of trip ends (person trips or vehicle trips) produced by a specific land use or activity.

**Trip Linking**

The ability to visit several destinations during one journey. For instance, one journey consisting of dropping the kids off at school, stopping at the post office, and travelling to work would be an example of trip linking. The advantage of trip linking is that it reduces Vehicle Miles Travelled (VMT's) by consolidating several trips into a single trip.

**Vehicle Miles Traveled (VMT)**

An average number that describes the total number of miles traveled in an automobile per individual for a particular area. An increase in VMT's within urbanized areas generally indicates more traffic and a worsening of air quality.

**Zoning Ordinance**

A municipal ordinance adopted after referral to the Planning Board for comment and a public hearing. The Zoning Ordinance divides a municipality into districts and prescribes land use type, land use relationships, densities, height and setback, bulk distribution, required and accessory parking, loading and servicing requirements, and performance standards, within a defined municipal boundary. In New Jersey, Zoning Ordinances must conform to the requirements set out in the Municipal Land Use Law.

# Notes:

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