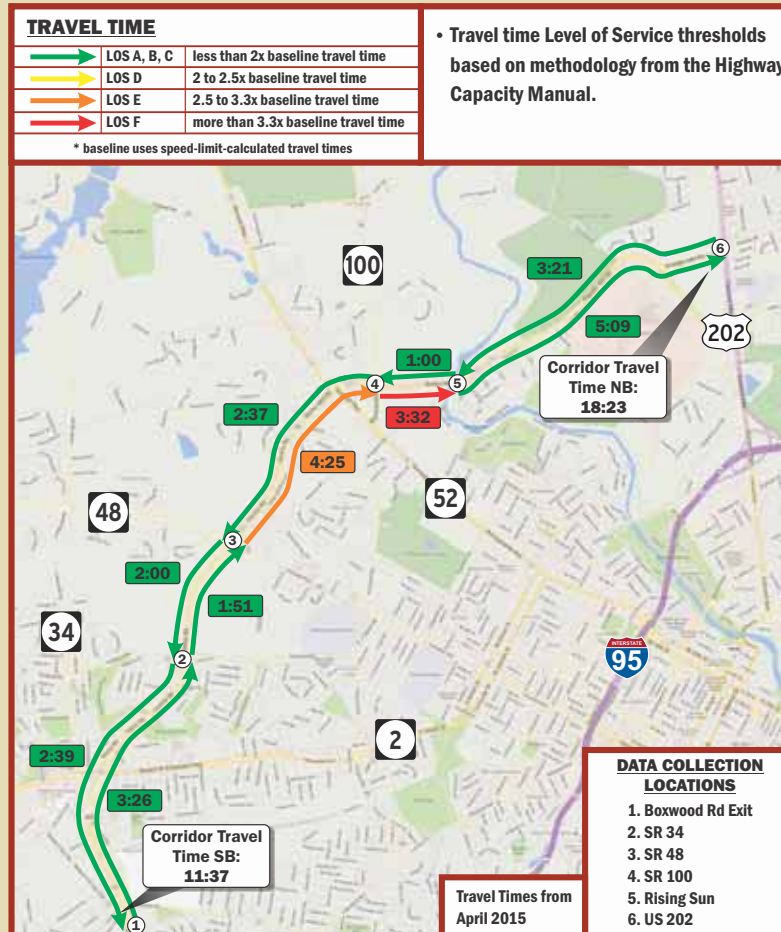


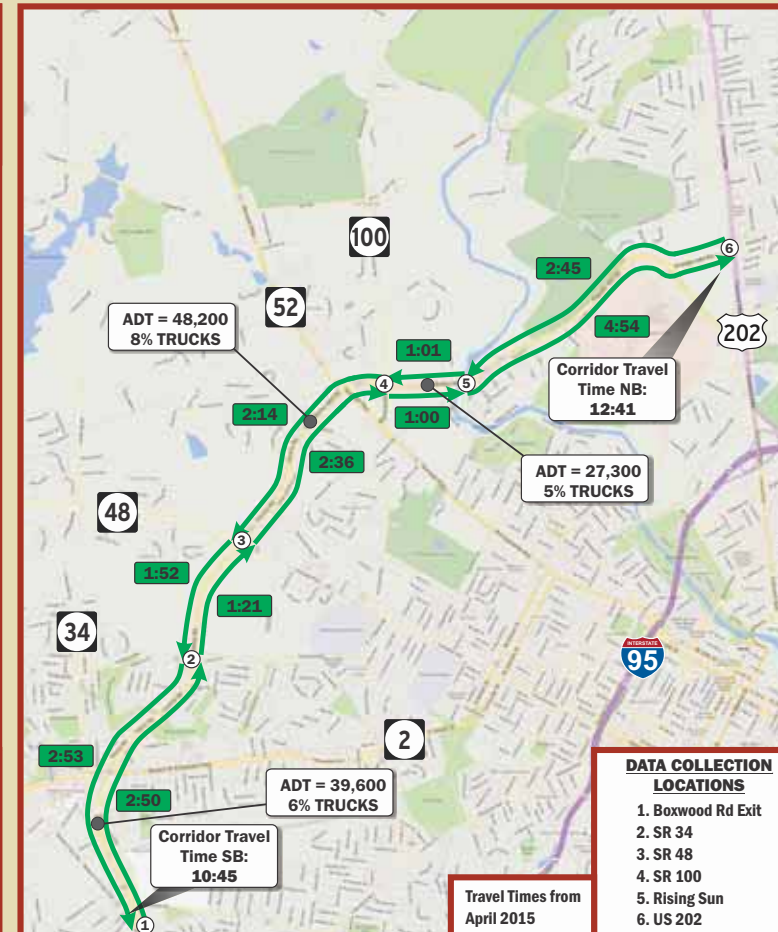
Key Points

- The heaviest volumes occur Monday-Friday.
- The SR 141 Corridor experiences well defined AM & PM weekday peaks, with lighter volumes during off-peak hours and weekends.
- Traffic volumes on SR 141 south of SR 52 range from 40,000 - 50,000 vehicles per day.
- Traffic volumes on SR 141 north of SR 52 are notably lower, approximately 27,000 vehicles per day.
- Peak hour traffic volumes on SR 141 typically fluctuate by 5-10% from day-to-day throughout the work week.
- Compared to off-peak (middle of the day) travel conditions, in the AM peak hour, it takes motorists about 6 extra minutes to travel the length of the SR 141 Corridor from SR 2 to US 202. In the opposite (southbound) direction, the difference is only about 1 minute.
- During the middle of the day, traffic is able to move freely along the SR 141 Corridor at the posted speed limit with little delay at any traffic signal.
- Compared to the off-peak (middle of the day) travel conditions, in the PM peak hour it takes motorists about 6 extra minutes to travel the length of the SR 141 Corridor from SR 2 to US 202. In the opposite (southbound) direction, the difference is similar; about 5 extra minutes.

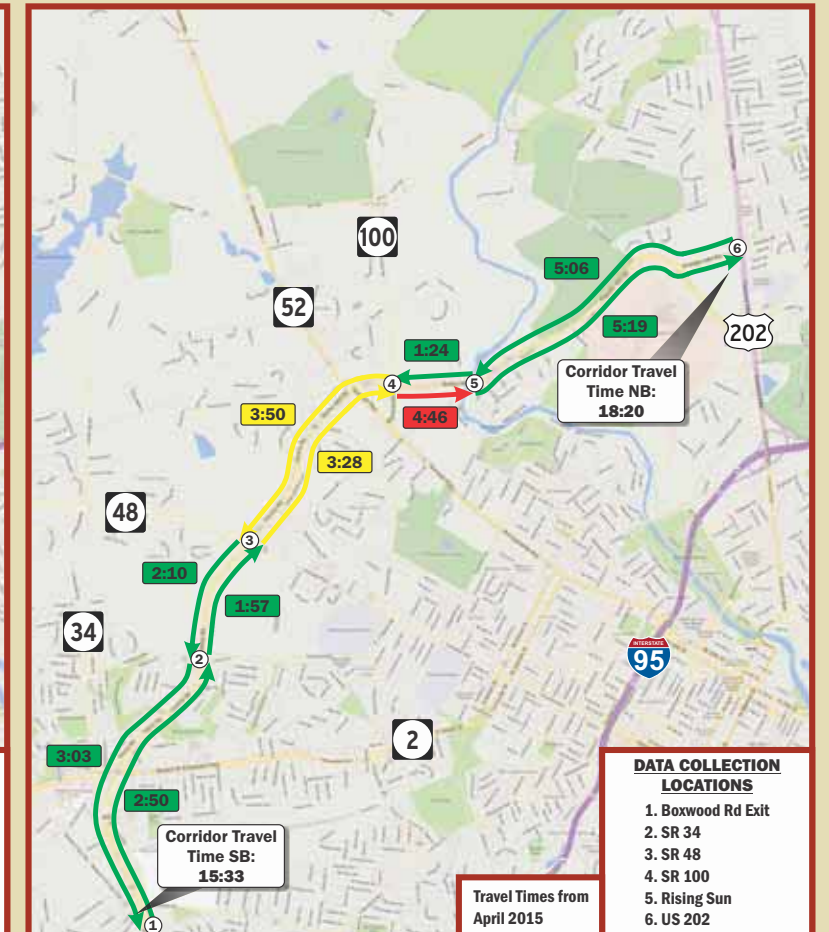
AM Peak - 7:30 AM - 8:30 AM



Off-Peak - 10:00 AM - 11:00 AM

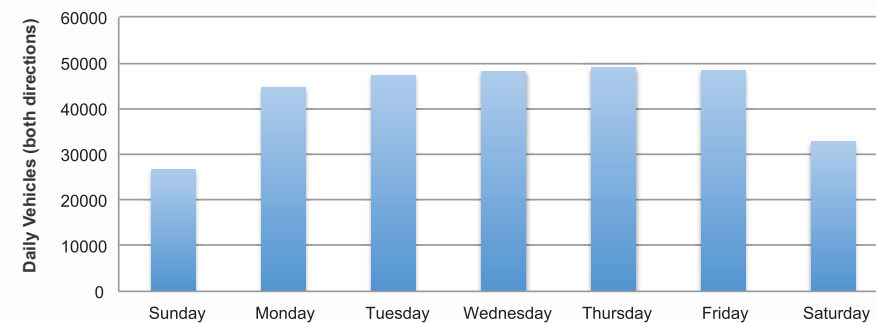


PM Peak - 4:45 PM - 5:45 PM

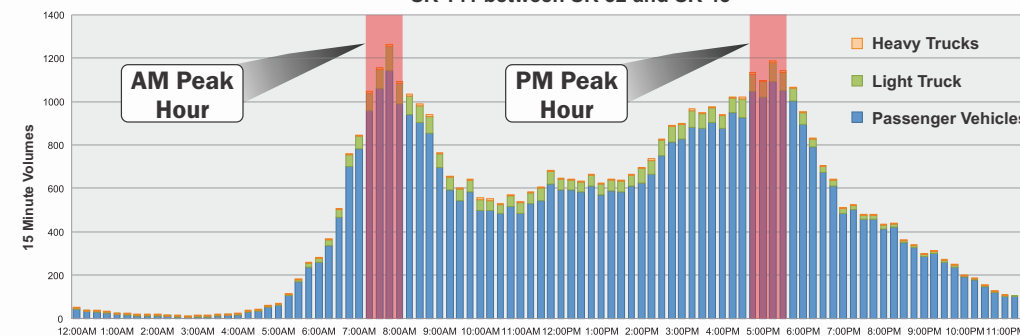


Average Volumes - April 2015

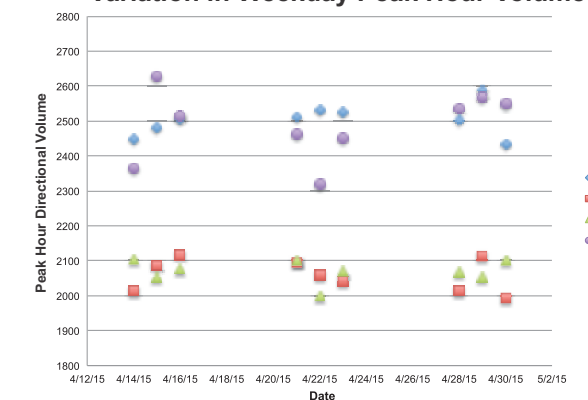
Average Volume by Day of Week
SR 141 between SR 52 and SR 48



Weekday Volumes per 15 Minutes
SR 141 between SR 52 and SR 48

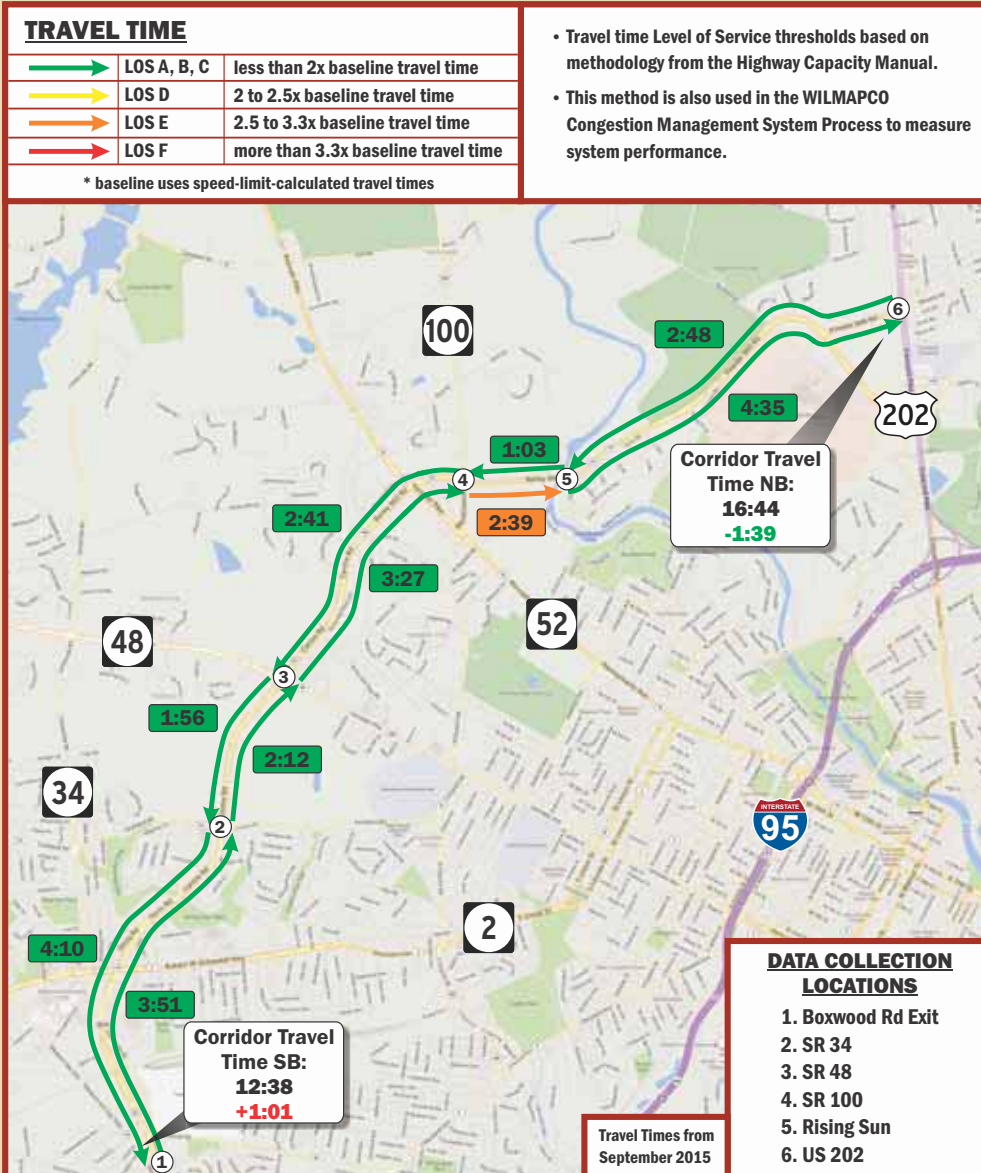


Variation in Weekday Peak Hour Volumes

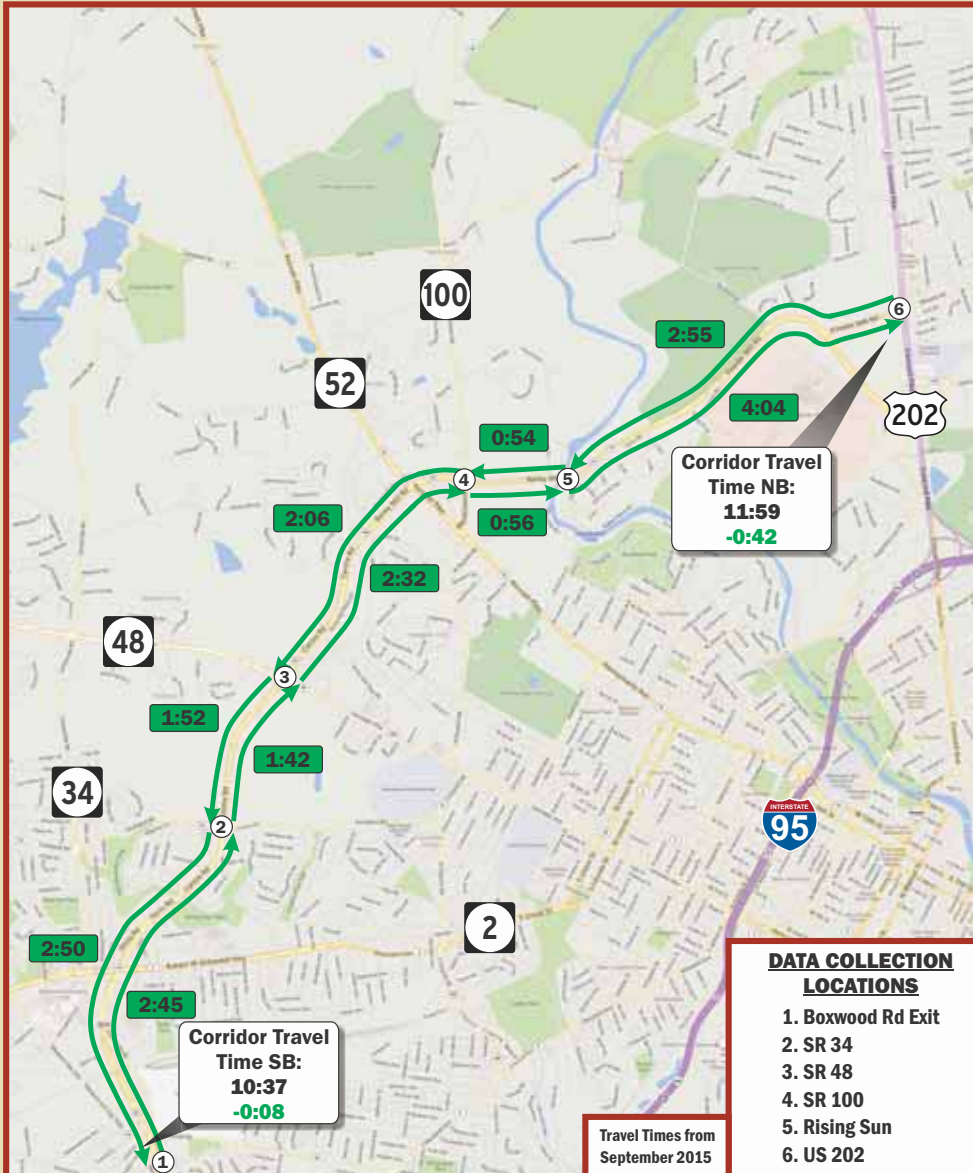


September 2015 Travel Conditions (with Recent Signal Retiming)

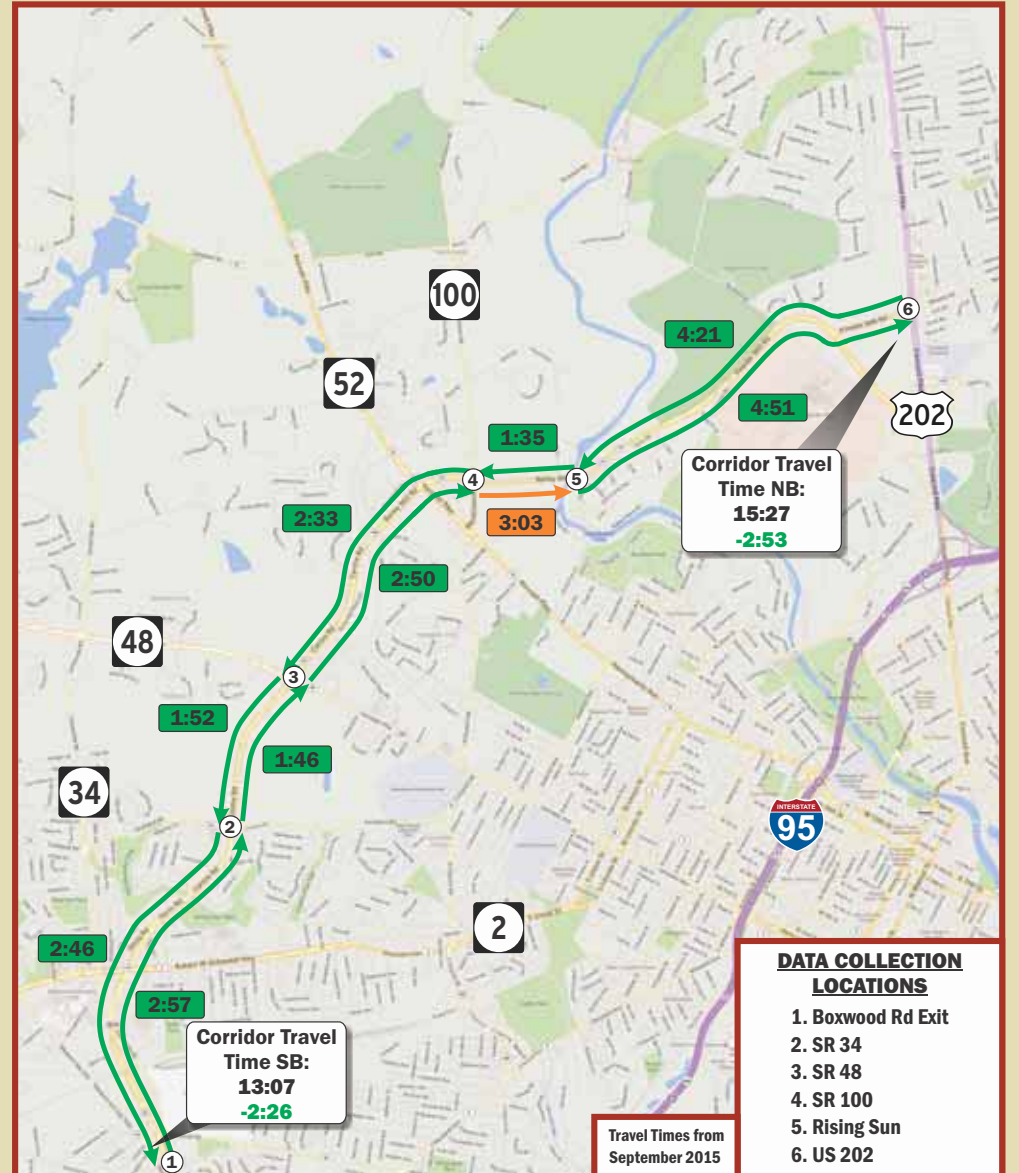
AM Peak - 7:30 AM - 8:30 AM (after signal retiming)



Off-Peak - 10:00 AM - 11:00 AM (after signal retiming)



PM Peak - 4:45 PM - 5:45 PM (after signal retiming)



Key Points

- DeIDOT's Signalized Corridor Optimization Program aims to maximize the efficiency of Delaware's roadways through technology
- At the 1st SR 141 Informational Session, several comments were received regarding the operation and efficiency of the traffic signals along the SR 141 Corridor
- In Summer 2015, DeIDOT modified the signal timings on the SR 141 Corridor to improve the progression of vehicles along SR 141
- Signal cycle lengths were also reduced resulting in less delay for the side streets
- The results shown above, measured in early September 2015 (when volumes were within 2% of the volume shown on the prior board), indicate that:
 - Peak direction travel times improved by 9% to 16% along the entire corridor
 - Eastbound travel times improved by 23% to 29% between SR 48 and Rising Sun Lane



Potential Development - No Additional Traffic Studies Needed

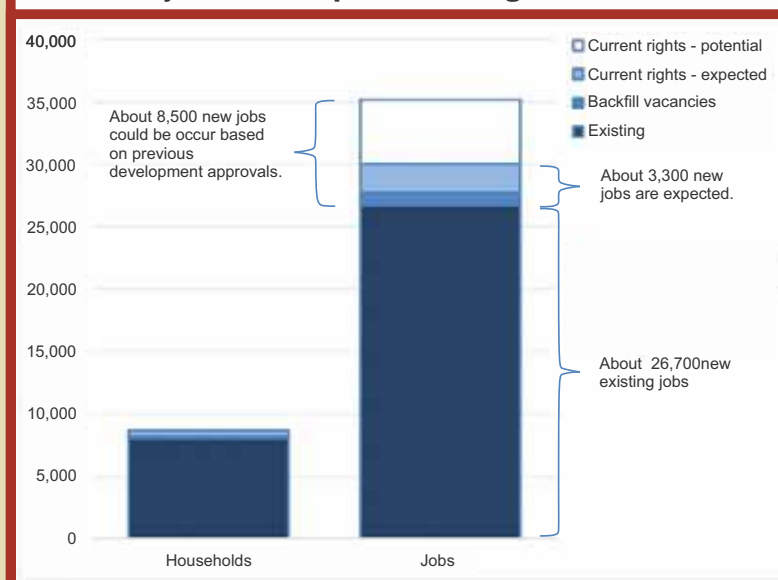


Development that Might Occur without any Traffic Studies				
Map Key	Site	Non-Residential Square Feet	Dwelling Units	Notes
1	AstraZeneca	1,147,859		
2	Dupont Experimental Station	1,069,974		
3	DuPont Chestnut Run	284,950		Under construction
4	Little Falls Centre, Lots 9 & 11	203,500		
5	Little Falls Centre, Lot 4	61,800		
6	Tatnall School	49,144		
7	L. A. Associates	41,106		
8	First Unitarian Church	26,076		Under construction
9	Barley Mill Plaza; Odyssey Charter School	22,000		Gymnasium
10	Barley Mill Plaza; Section 5 Daycare	19,200		Replacing athletic facility
11	Greenville Center	19,093		
12	Wilmington Friends School	17,300		Under construction
13	A. I. DuPont High School	16,093		Auditorium+classroom
14	2701 Kirkwood Highway	9,727		
15	Greenbank Corp, Parcel 2	6,000		
16	2530 Concord Pike Restaurant	5,067		Under construction
17	Columbia Place at Garden of Eden Road	2,800	149	Replacing Pilot School
18	Limerick		23	
19	Little Falls Village II		22	
20	Wagoner's Row		12	
21	Sedgley Farms		8	

Established Gross Floor Area (GFA) through NCC's Record Plan Process

The study area's imbalanced (high) ratio of jobs to housing could continue to worsen without any changes to land use plans or policies. As presented in Public Meeting #1, the map and table at left identify the nearly 3 million square feet of approved non-residential development in the study area that could move forward at any time without any additional transportation impact studies (TIS). About 200 residential units are also approved.

Study Area Development Existing and Potential

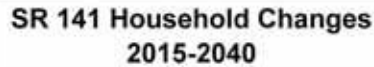
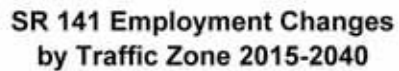


Both existing and future traffic in the study area is largely attributed to development in the study area; less than 5% of the traffic at each end of SR 141 is through traffic. The future traffic growth is expected to consist mainly of:

- **Backfilling of existing vacancies, notably at the Experimental Station and Chestnut Run.** Several moves are lateral: Dupont employees are moving from downtown Wilmington to Chestnut Run and from Chestnut Run to the Experimental Station. Incyte employees are moving from the Experimental Station to the old Wanamaker's site. These shifts will slightly increase study area jobs
- **A portion of the development shown in the table above.** *Due to regional economic conditions, not all the approved development shown in the table above is expected to come online during the next 25 years*



Expected Changes in



- **Considering both approved developments and market conditions, the expected growth in jobs and households is focused in specific locations within the study area.**
- **Job growth is greatest at corporate and institutional campuses including Astra-Zeneca (now J. P. Morgan Chase), the DuPont Experimental Station, Barley Mill Plaza, and Chestnut Run.**
- **The total number of new study area households (about 600) is much lower than the expected increase in jobs (about 300), but is greatest in the northeast (due largely to the Pilot School site development) and southwest corners of the study area.**
- **These changes, along with other growth in the region through the year 2040, are reflected in the travel demand forecasts presented at this meeting.**

A VISION IS:

- The Community's Long-Range Values, Aspirations, and Shared Images for the Corridor.
- The Goals that guide preparation of future plans and strategies.
- The Benchmarks against which specific development and transportation plans and projects can be measured.

THE DRAFT VISION IS BASED ON:

- New Castle County 2012 Comprehensive Plan Update
- Community input from:
 - Stakeholder Interviews
 - June 17, 2015 SR 141 Public Informational Session
- WILMAPCO Long Range Plan
- Delaware Strategies for State Policy and Spending



A DRAFT VISION FOR THE SR 141 CORRIDOR:

- **SR 141 Corridor is a Showplace Combining the Best in:**
 - Sustainable Land Use
 - Context Sensitive Development
 - Multimodal Transportation
- **Open Space, Natural and Historic Resources Remain Critical Assets:**
 - Open Space is Retained
 - Historic and Natural Areas are Protected
 - Access is Available to Recreation Areas
 - Parklands are Connected by a System of Trails
 - The Corridor Remains a Highly Attractive and Unique Gateway to the Brandywine Valley
- **Varied Residential and Commercial Development Exist:**
 - Walkable Multi-Family Communities
 - Spacious Single-Family Homes , Large Lots, Traditional Neighborhoods
 - Small-scale High-quality Shops and Businesses
 - Mixed Use Neighborhoods
 - Residents Living Near Where They Work
- **Multiple Employment Opportunities are Available:**
 - Legacy Industries – Chemicals, Banking, Medicines
 - Emerging Technology
 - Service Providers
- **First Class Institutions Prevail:**
 - Education
 - Medical
 - Arts
 - Historic
- **The Transportation Network:**
 - Serves Local and Short-trips
 - Discourages High-speed Through Traffic
 - Discourages Heavy Vehicle Traffic
 - Discourages Neighborhood Cut-through Traffic
 - Encourage Multimodal Improvements

DRAFT GOALS FOR THE SR 141 CORRIDOR:

- The Draft SR 141 Goals focus on land use, development, redevelopment, and transportation plans and improvements.
- The following Draft Goals should direct land use and transportation decisions and actions translating the SR 141 Vision into reality.

NEW DEVELOPMENT, REDEVELOPMENT and TRANSPORTATION IMPROVEMENTS SHOULD:

- Enhance existing communities
- Support redevelopment of older shopping areas and businesses
- Preserve historic, archeologic and natural resources of the Brandywine Valley
- Enhance safe and attractive places to live, work, play, travel and visit
- Preserve open space



LAND USE PLANS AND POLICIES SHOULD:

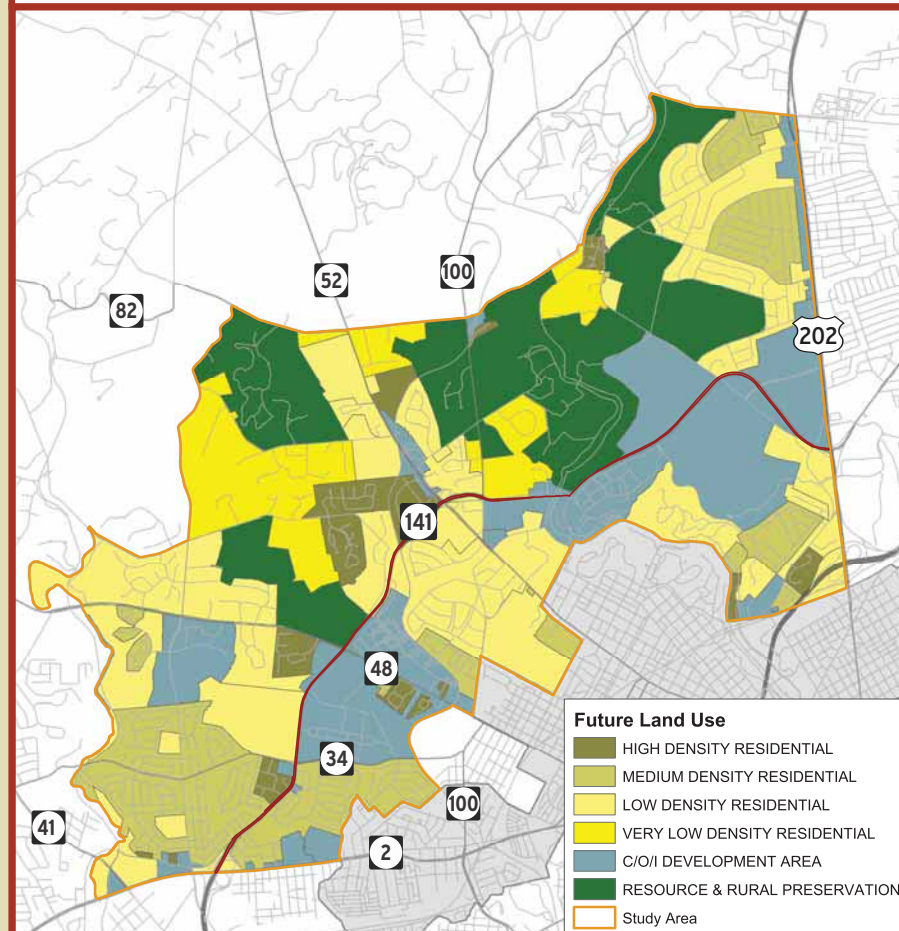
- Attract and retain high-quality businesses and development
- Encourage development with beneficial community amenities
- Protect and preserve valuable natural resources
- Celebrate the historic and aesthetic resources to meet the needs of current and future residents
- Encourage high-quality redevelopment consistent with the rich history of the Brandywine Valley
- Focus on development types and designs to facilitate walking, bicycling and use of transit

TRANSPORTATION ENHANCEMENTS SHOULD:

- Be compatible with DelDOT and New Castle County design guidelines
- Incorporate advanced transportation management techniques
- Improve safety, limit congestion, and enhance multi-modal mobility
- Retain SR 141 as a four lane boulevard
- Encourage local traffic to use SR 141 and discourage the use of local streets

How Might Land Use Be Organized?

New Castle County Land Use Plan for Future Land Use



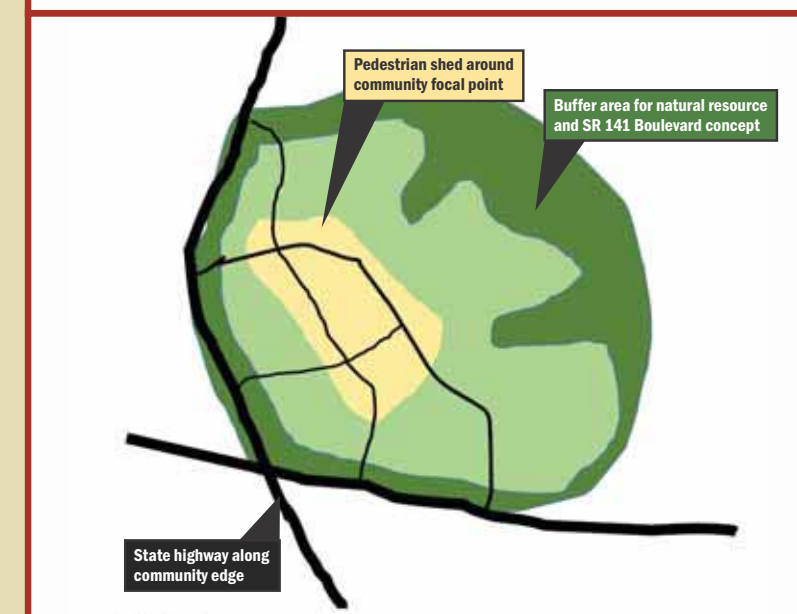
Each of the communities could develop a local community master plan to identify the types and locations of planned development, including a focal “pedestrian shed” of up to one quarter mile in length around which land activity would be oriented. Each plan would also include the provision of an appropriate open space plan to provide sufficient buffering for natural resources, adjacent communities, and the SR 141 boulevard design concept.

Currently, the New Castle County 2012 Comprehensive Plan identifies several areas as appropriate for “C/O/I” or “commercial, office, institutional” development. In the future, four different types of communities might be envisioned:

Town Center and **Village Center** communities would ultimately be subdivided into individual privately owned lots. Given development area sizes, scales, and existing neighbors, a town center concept may be appropriate for future development of the Barley Mill Plaza site, whereas a smaller village center concept may be appropriate for the Dupont Country Club site.

Corporate Campus and **Institutional Campus** communities would likely remain under common corporate ownership for the most part, with infill development occurring among existing buildings. Infill development could still include residential uses to reduce travel needs whether through conventional housing or extended-stay hotels oriented towards the community’s corporate or institutional mission.

Conceptual Layout for Typical Development Area



Town Center and Village Center Concepts

Compact, mixed-use, high quality developments are being built across the United States. One type of compact, mixed-use development is “Transit Oriented Development” in communities that are already more urban and more connected by rail or bus rapid transit than the SR 141 study area will ever be. However, even without a rapid transit line, mixed-use walkable communities are widely shown to generate less traffic than conventional sprawl development. These concepts are evidenced in communities that, like the SR 141 corridor, are at the edges of regions where stakeholders are interested in a balance between attracting high quality jobs to specific areas targeted for development while preserving a high level of natural and cultural resource protection in adjacent neighborhoods.



KENTLANDS

Kentlands, in Gaithersburg, Maryland, at the edge of Montgomery County’s agricultural reserve, provides an example of how a Town Center concept might look and function. The core area of Kentlands defined by its pedestrian shed has a 1.0 Floor Area Ratio, of which about 75% is residential. Narrow streets and short block lengths promote walkability.



MASHPEE COMMONS

Mashpee Commons, on Cape Cod, Massachusetts, could provide guidance for a Village Center concept. The core of Mashpee Commons contains a mixed-use center with mom-and-pop retailers and residential uses in a nine-block walkable grid with a Floor Area Ratio of about 0.5. Buildings are designed to reflect the historic styles of Cape Cod.

Corporate Campus and Institutional Campus Development Concepts

Conceptual master plans could also be prepared to guide infill development on the many corporate campuses in the study area that are likely to remain primarily, if not entirely, under the control of their current owners for the foreseeable future, including both the institutional campuses of A. I. DuPont Hospital and the Experimental Station, as well as those that are headquarters sites providing high-quality jobs. The concept of encouraging mixed use on these campuses serves several interests:

- Introducing a variety of housing options for campus workers and visitors, such as extended stay hotels or employer-provided residences that minimize travel needs and maximize convenient access
- Providing retail and service amenities such as restaurants and bars, recreational/fitness paths, and open spaces for programmed educational, recreational, and social activities designed to attract and retain creative class employees with both collaborative and healthy spaces within walking distance of the workplace
- Facilitating collaborative relationships with mission-supportive partners such as among business, research and development, and institutes of higher education.

Valley Forge Corporate Center



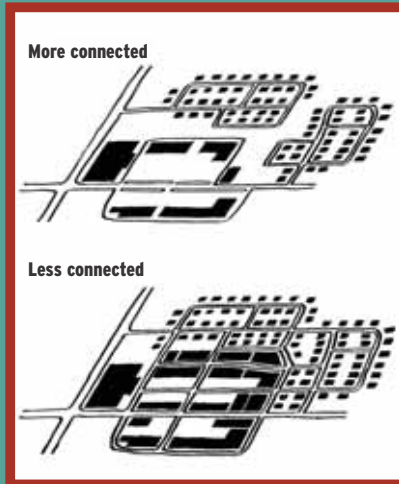
The Valley Forge Corporate Center, adjacent to the National Park in Pennsylvania, plans for infill, mixed-use development organized around two Village Center-style focal points at either end of the 275 acre campus.

Village at Hendrix

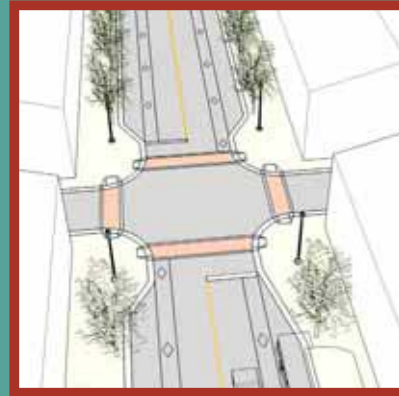


The Village at Hendrix is a mixed-use development being built as a part of Hendrix College expansion in Conway, Arkansas, to improve residence opportunities for students and shopping and dining opportunities for both campus and town.

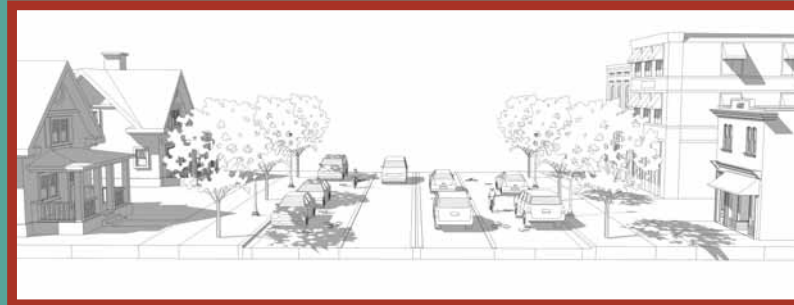
Place Type Design Elements



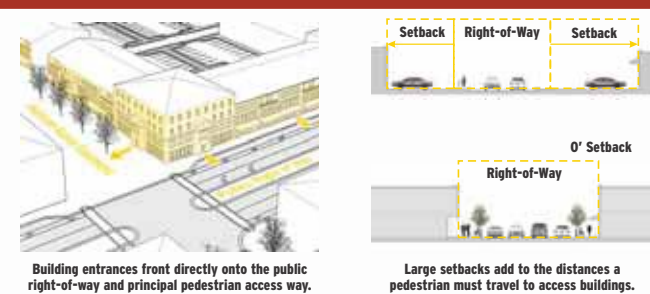
**Connected street networks
reduce travel**



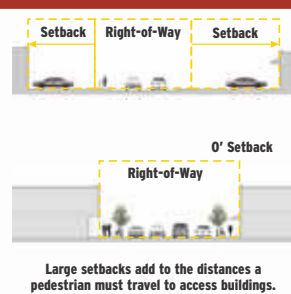
**Pedestrian oriented design
improves safety and comfort**



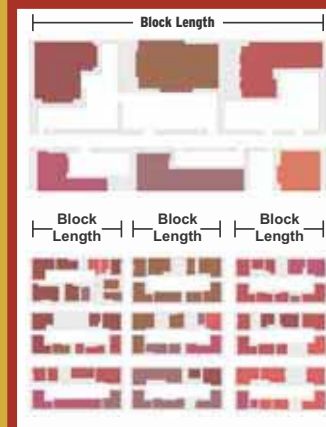
Complete street designs encourage walking and bicycling, context-sensitive design respects front yards in neighborhoods and increases sidewalk widths where mixed-use buildings have street frontage



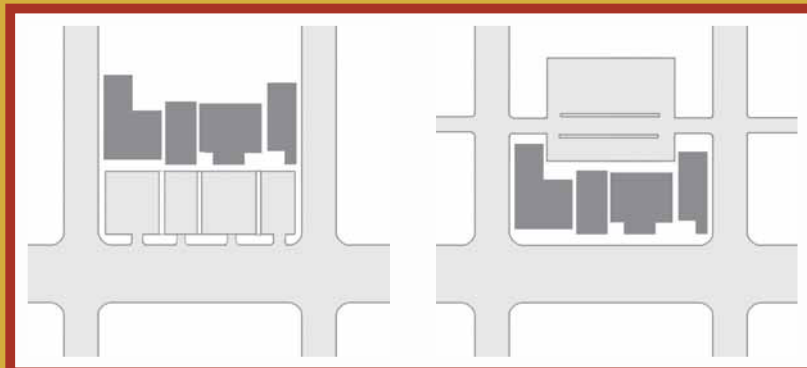
**Building orientation towards an interior main
street emphasizes pedestrian access**



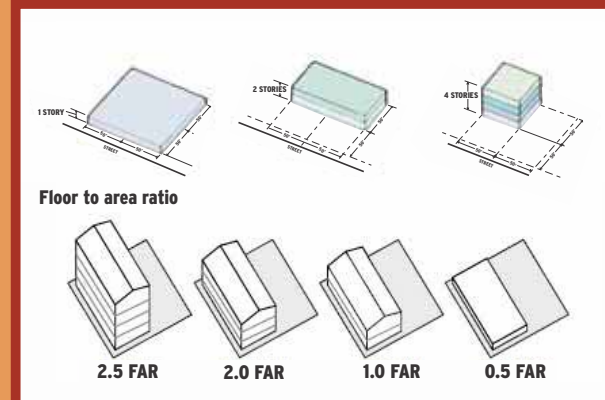
Large setbacks add to the distances a pedestrian must travel to access buildings.



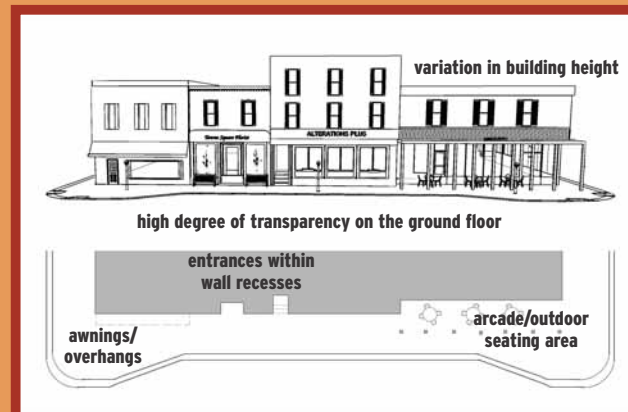
**Shorter blocks
promote walking**



**Parking located behind building frontage to encourage
pedestrian orientation. Shared parking encouraged to
minimize number of needed spaces.**



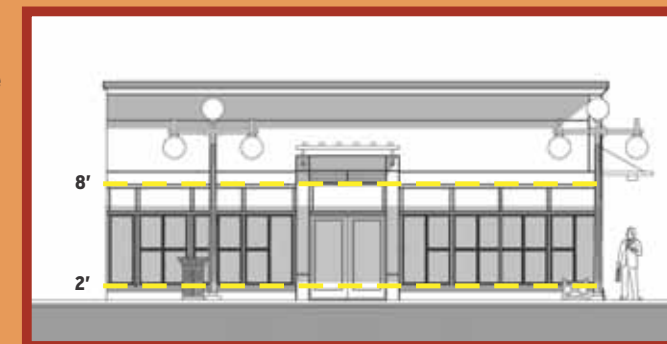
**Floor area ratio describes development
intensity**



**Diversity in
street façade
reduces the
feeling of
massing**



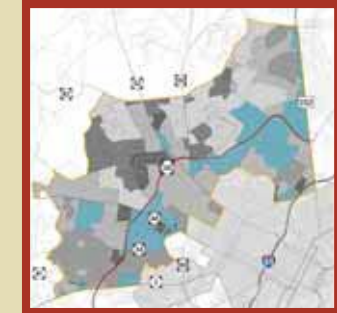
**Vertical mixed use reduces travel needs and facilitates both
daytime and evening activity**



**50-75% transparency ratio increases eyes on
street and pedestrian interest**

Village Center Characteristics

Village Centers provide both an opportunity for community retail and services as well as gathering space for local residents. Village Centers serve a smaller market than Town Centers with buildings typically one to three stories in height.



Commercial and retail uses feature variety of **building facades**. Streets are narrow, with low travel speeds, wide sidewalks, and **on-street parking**.



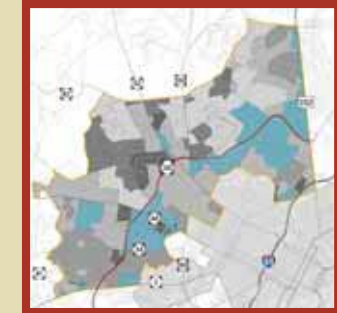
Attached buildings can provide **vertical mixed-use** with community services and retail on the ground floor and residential units above with a variety in **building facades** and **building orientation**.



In retrofitting built environments, parking lots can be divided into **short blocks** to better define a **pedestrian realm** and provide an organizing framework for future infill development.

Town Center Characteristics

Town Centers have more intensity in the pedestrian shed with greater floor area ratios for both residential and commercial/office developments. The additional intensity helps support larger community retail uses like grocery stores and full service restaurants.



Town Centers may be anchored by a key community retail center like a grocery store with **rear parking** emphasizing **pedestrian access**.



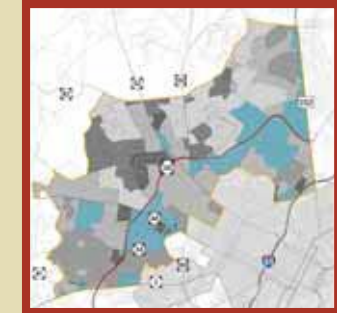
Walkable, mixed-use town centers often incorporate **short blocks** with **narrow streets**, **façade diversity** and street design emphasizing pedestrian connectivity.



Innovative housing may include flexible live-work units, applying **vertical mixed use** within a single owner-occupied or rental unit with high levels of **transparency** to facilitate identity for home-based offices.

Village/Town Center Neighborhoods

Both Village Centers and Town Centers typically include residential neighborhoods within the pedestrian shed, a short walk to the mixed-use center. These neighborhoods can contain a variety of housing types.



Within neighborhoods, local streets have very **slow travel speeds** reinforced by small **building setbacks** and perhaps different streetscaping elements such as the use of brick pavers.



Housing can take a variety of shapes and sizes to provide for a **diversity of resident** ages and needs. For instance, compact cottage designs combine market interests in detached housing and smaller unit sizes.



Attached townhomes can include a variety of **building orientations** and **façade diversity**. On-street parking contributes to pedestrian comfort and slow travel speeds. Additional parking is accessed from rear alleys.

Back to the Future

The design elements for village center and town center place types result in walkable, mixed-use communities – compact and diverse uses that have proven livable and sustainable over decades or even centuries.

