Agenda

• Welcome
• Working group guidelines
• Schedule and anticipated end product
• Working group discussion
• Technical presentations
• Public comment
Agenda

- Technical presentations
  - Past studies
  - Safety
  - Traffic congestion
  - Land use trends
  - Walking and bicycling
  - Current DelDOT projects
Working group guidelines

• **Expectations**
  - Participate actively throughout the process
  - **10 members must be present to meet**
  - Represent broader views in addition to individual views
  - Offer suggestions to DelDOT and Sussex County
Working group guidelines

• **How we treat each other**
  • Each member has an equal right to speak and ask questions.
  • Each member is encouraged to share individual viewpoints. Individual opinions are valid whether others agree with them or not.
  • We will listen to, respect and seek to understand the views of others, particularly those perspectives that differ from our own.
  • Disagreements will be explored, not suppressed.
  • We will be courteous when addressing other committee members, staff and consultants.
  • We will refrain from interrupting each other, staff or consultants.
  • We will keep our comments relevant to the topic under discussion.
  • We will focus on opportunities for the future, not past issues.
How we make recommendations

Any recommendation(s) offered by the working group are governed by Delaware Code under the Freedom of Information Act (FOIA) sections 10001 and 10004. The areas relevant to the actions of the working group are:

- There must be a majority of members present to vote on any recommendations. There are 18 working group members so there must be at least 10 members present to take a vote.
- A recommendation will move forward if a majority of the members present vote in favor.
- All votes will be public votes.
• How we communicate
  • Ideas discussed within the working group should not be presented as representing the position of the working group without the agreement of the working group.
  • When speaking about the work of the working group outside of meetings, members are speaking for themselves only unless speaking from approved documents or positions of the working group.
  • In order to comply with FOIA, email communications between members of the working group should be sent through the DeIDOT project team.
Schedule and end product

• Phase 1
  • Identify transportation needs
  • Collaborate in developing concepts/recommendations to address those needs

• Future phases will focus on how those concepts could be implemented
Schedule and end product

• January and February: Identify transportation needs
• March: Conduct public workshop to present transportation needs and obtain public input
• April, May, and June: Develop concepts to address transportation needs
• July: Obtain working group consensus on concepts
• August or September: Conduct public workshop to present concepts
End product

- Chart describing problems and potential solutions to address those problems
- Ideally, we will have short-, medium-, and long-term suggestions
- Several short-term solutions have already been implemented
End product

- Out-of-the-box ideas are OK for Phase 1
- Keep in mind that realistically, to be built, recommendations must:
  - Address identified needs
  - Comply with applicable state and federal guidelines to protect the safety of travelers
  - Meet the requirements of permitting agencies (air quality, wetlands, historic properties, etc.)
  - Be fiscally reasonable
Working Group Discussion of Transportation Needs
Working group discussion

Please share your observations regarding transportation needs
Past Studies

Jeff Riegner, WRA
Past studies

What we heard from you

• Get a fresh start

• Don’t reinvent the wheel, use data and insights gained from previous studies

We can do both
Relevant past studies

- Integrated Land Use and Transportation: Observations for Coastal Sussex County, 2002
- SR 1 Land Use/Transportation Study, 2003
- East/West Routes Study, 2004
- Western Parkway Study, 2006-2008
- Lewes Scenic and Historic Byways Corridor Management Plan, 2015
Relevant past studies

Studies are on the website at 5points.deldot.gov
Traffic Safety and Congestion

Matt Buckley, WRA
Safety – crash type

- Increasing severity
- Increasing congestion-related crashes
Safety – monthly variation

Five years of data

July & August spikes
Safety – daily variation

Five years of data

Friday & Saturday spikes
Safety – crash location

Five years of data

Minos Conaway Rd, Old Mill Rd & Nassau Rd: 64 crashes

Nassau bridge: 11 crashes

Five Points vicinity: 351 crashes

Wescoats Rd & Dartmouth Rd signals: 229 crashes

Postal Rd, Midway Outlets & SR 24 signals: 561 crashes
Prior study – Sussex TOMP

- Publicized 2015 county-wide snapshot
  
  **Travel Time Reliability, Summer Weekend**

  - SR 1: most unreliable
  - SR 1: most congested
Disclaimer on Level of Service (LOS)

• **Highway Capacity Manual**
  - LOS calculation does not account for turn bay overflow, demand starvation and queue spillback
  - Demand vs. volume vs. capacity
    - Congested roads (e.g., SR 1): counting departing vehicles may result in “capacity-constrained” traffic volumes lower than demand

• For operations, DelDOT supplements LOS with system processing and travel time data
  - Bluetooth collection stations
  - Signal system loop detectors
  - Pedestrian pushbutton actuation reports
  - Green time utilization reports
Corridor full of bottlenecks

Summer Saturday capacity-constrained LOS

Legend:
- LOS A/B; “under capacity”
- LOS C; “near capacity”
- LOS D; “at capacity”
- LOS E; “over capacity”
- LOS F; “extremely over capacity/failing”
Northern bookend – Five Points
Southern bookend – Rehoboth Ave
- Five Points and Rehoboth Avenue signals are perceived as the biggest challenges
- Congestion snowballs from one signal to the next
- Current hot spots are generally south of SR 24
- Substantial capacity gains may be very difficult without addressing each kink in the hose
- Latent demand – i.e., “If you build it, he will come.” – Field of Dreams
Lowest summer weekday higher than all but a dozen non-summer days
Southbound SR 1 trends

Year-round corridor; narrowing beach season gaps

DAILY TRAFFIC
JAN 1 – DEC 31, 2017

WEEKENDS

WEEKDAYS
US 9 traffic very consistent year round.

DAILY TRAFFIC
JAN 1 – DEC 31, 2017
Relief valve – Plantation Rd (SB)

DAILY TRAFFIC
JAN 1 – DEC 31, 2017

Traffic ramps up as SR 1 overflows
Relief valve – Plantation Rd (NB)

NB traffic much more predictable; no severe spikes & dips
Land Use Trends

Janelle Cornwell, Sussex County
Five Points area
Site plans, conditional use & subdivisions

- **Arbor-Lyn** – mixed residential off Plantation Road near Route 24
- **Assisted Living Facility** – Plantation Road
- **AutoZone** – new store on Route 1
- **Coastal Club** – several phases – mixed residential
- **Covered Bridge Trail** – single-family housing behind Dutch Acres
- **Days Inn Hotel** – off Route 1
- **Delmarva Power Electrical Substation** – Route 1
- **Dorman** – single-family housing off Mulberry Knoll Road

- **Lewes Crossing - Phase 8** – single-family housing off Beaver Dam Road
- **Love Creek Elementary School** – Route 24
- **Red Clover Walk** – single-family housing off Robinsonville Road
- **Somerset Green** – 53 townhouses off Plantation Road
- **State Police Facility** – Mulberry Knoll Road
- **Vineyards at Nassau Valley** – 189 dwelling units (mix of single family, condo, and apartment)
Five Points Development Activity

Legend
- Tax Parcels
- Five Points Development Activity
- Municipalities

For informational purposes only. Not a complete list of activity.

Development activity

Coastal Club
The Vineyards at Nassau Valley
Lewes
Arbor-Lyn

Covered Bridge Trail
Josef Restaurant
Red Clover Walk

Dorman Subdivision

Lewes

Legend
- Tax Parcels
- Five Points Development Activity
- Municipalities

For informational purposes only. Not a complete list of activity.

Development activity

Coastal Club
The Vineyards at Nassau Valley
Lewes
Arbor-Lyn

Covered Bridge Trail
Josef Restaurant
Red Clover Walk

Dorman Subdivision
Development activity with zoning
Development activity
Pending applications

- Change of zone with conditional use on Plantation Road
- Two other change of zone requests on Plantation Road
- One change of zone request along Route 9
- Several conditional uses
- Several subdivisions
Land use summary

• Many projects are in the pipeline
• The study area continues to see significant development interest, both residential and commercial
• There are hundreds of acres of undeveloped land remaining in the study area
• This study is a good opportunity to better coordinate land use and transportation
Walking and Bicycling

Jeff Riegner, WRA
Walking and bicycling

• Benefits of making walking and bicycling safer, more comfortable, and more convenient
  • Locals benefit because you often make shorter trips
  • Walking and bicycling alone won’t solve the area’s transportation needs, but …
  • If you (or your neighbor) travel by foot or bike, that’s one less car on the road
Walking

• Almost everyone walks every day
• What is needed for people to walk?
  • Sidewalks, at least on busier roads
  • Appropriately controlled crosswalks
  • A continuous route from the beginning to the end of the trip, with no gaps
Sidewalks
Bicycling

• Will people bicycle? YES, if the level of traffic stress from the beginning to the end of their trip is low enough to match their comfort level

<table>
<thead>
<tr>
<th>Strong &amp; Fearless (&lt;1%)</th>
<th>Interested but Concerned (60%)</th>
<th>No Way No How (33%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthused &amp; Confident (7%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 1. Levels of Traffic Stress (LTS)

| LTS 1 | Presenting little traffic stress and demanding little attention from cyclists, and attractive enough for a relaxing bike ride. Suitable for almost all cyclists, including children trained to safely cross intersections. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a slow traffic stream with no more than one lane per direction, or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where cyclists ride alongside a parking lane, they have ample operating space outside the zone into which car doors are opened. Intersections are easy to approach and cross. |
| LTS 2 | Presenting little traffic stress and therefore suitable to most adult cyclists but demanding more attention than might be expected from children. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a well-confined traffic stream with adequate clearance from a parking lane, or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where a bike lane lies between a through lane and a right-turn lane, it is configured to give cyclists unambiguous priority where cars cross the bike lane and to keep car speed in the right-turn lane comparable to bicycling speeds. Crossings are not difficult for most adults. |
| LTS 3 | More traffic stress than LTS 2, yet markedly less than the stress of integrating with multilane traffic, and therefore welcome to many people currently riding bikes in American cities. Offering cyclists either an exclusive riding zone (lane) next to moderate-speed traffic or shared lanes on streets that are not multilane and have moderately low speed. Crossings may be longer or across higher-speed roads than allowed by LTS 2, but are still considered acceptably safe to most adult pedestrians. |
| LTS 4 | A level of stress beyond LTS3. |
Table 1. Levels of Traffic Stress (LTS)

<table>
<thead>
<tr>
<th>LTS 1</th>
<th>Presenting little traffic stress and demanding little attention from cyclists, and attractive enough for relaxing bike ride. Suitable for almost all cyclists, including children trained to safely cross intersections. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a slow traffic stream with no more than one lane per direction, or are on a shared road where other vehicles are infrequent. Where with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential, cyclists ride alongside a parking lane, they have ample operating space outside the zone into which doors are opened. Intersections are easy to approach and cross.</th>
</tr>
</thead>
</table>
| LTS 2 | Presenting little traffic stress and therefore suitable to most adult cyclists but demanding more attention than might be expected from children. On links, cyclists are either physically separated from traffic in an exclusive bicycling zone next to a well-confined traffic stream with adequate clearance for turning lane, or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where a bike lane lies between a through lane and turn lane, it is configured to give cyclists unambiguous priority where cars cross the bike lane at car speed in the right-turn lane comparable to bicycling speeds. Crossings are not difficult for |}
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| LTS 4 | A level of stress beyond LTS 3. |
Most local streets are LTS 1, but …
It’s hard to get from one LTS “island” to another.
Summary of walking/bicycling needs

• To encourage more walking and make walking safer, fill gaps in the sidewalk/crosswalk network

• To encourage more bicycling and make bicycling safer, fill in gaps in the LTS 1 or 2 network
Current DeIDOT Projects

John Caruano, DeIDOT
Current DelDOT projects

- SR 1, Minos Conaway Road
  Grade Separated Intersection
- Plantation Road
  Improvements, SR 24 to US 9
- Realignment of Old Orchard Road
  at Wescoats Corner
- SR24, Mulberry Knoll to SR1
- SR24, Love Creek to Mulberry Knoll
## Current DelDOT projects

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Description</th>
<th>Design</th>
<th>Right of way</th>
<th>Construction</th>
<th>Cost</th>
<th>Public workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 1/Minos Conaway Road grade separated intersection</td>
<td>Grade separation, ramps, possible service/frontage roads</td>
<td>2018-2022</td>
<td>2019-2021</td>
<td>2022-2024</td>
<td>$33M</td>
<td>February 15</td>
</tr>
<tr>
<td>Plantation Road, SR 24 to US 9</td>
<td>Turn lanes, bicycle/pedestrian facilities, realignment at northern end near US 9</td>
<td>2018-2022</td>
<td>2021-2023</td>
<td>2024-2026</td>
<td>$20M</td>
<td>February 15</td>
</tr>
<tr>
<td>Realignment of Old Orchard Road at Wescoats Corner</td>
<td>Realignment of Old Orchard Road to intersect Savannah Road opposite Wescoats Road</td>
<td>2018-2020</td>
<td>2019</td>
<td>2020-2021</td>
<td>$4.0M</td>
<td>February 21</td>
</tr>
<tr>
<td>SR 24, Mulberry Knoll to SR 1</td>
<td>Widening to five lanes, improvements to intersecting road approaches</td>
<td>2016-2018</td>
<td>2017-2018</td>
<td>2019-2020</td>
<td>$10.5M</td>
<td>TBD</td>
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<tr>
<td>SR 24, Love Creek to Mulberry Knoll</td>
<td>Widening to five lanes between Mulberry Knoll and schools</td>
<td>2017-2019</td>
<td>2018-2020</td>
<td>2020-2021</td>
<td>$5.3M</td>
<td>TBD</td>
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<td>Georgetown to Lewes Rail with Trail Phase II</td>
<td>Rail with trail from Savannah Road to Nassau Bridge</td>
<td>2018</td>
<td>N/A</td>
<td>2018-2019</td>
<td>$2.3M</td>
<td>N/A</td>
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<tr>
<td>SR 1 signal timing</td>
<td>Ongoing traffic operations efforts to implement and evaluate improved signal timings in spring and summer 2018</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>SR 1 sidewalk stencils</td>
<td>Stencils on sidewalks along SR 1 to encourage bicyclists to slow down and watch for cars at driveways</td>
<td>N/A</td>
<td>N/A</td>
<td>2018</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Links to more detailed information are at 5points.deldot.gov
SR 1, Minos Conaway Grade Separated Intersection; Plantation Road Improvements, SR 24 to US 9
Joint Public Workshop
Thursday, February 15, 2018
4:00 pm – 7:00 pm
Cape Henlopen High School Cafeteria

Realignment of Old Orchard Road at Wescoats Corner
Public Workshop
Wednesday, February 21, 2018
4:00 pm – 7:00 pm
Cape Henlopen High School Cafeteria

[snow dates to be determined]
Public comment
Thank you for your participation!

Josh Thomas
Project Manager
Delaware Department of Transportation
302.760.4834
joshua.thomas@state.de.us

Next meeting
Monday, February 26, 2018
6:00 pm
Location TBD