Access Management: The Challenge of Retrofit… Theory Versus Reality

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Theory Versus Reality

Project Location

Project Location

URBITRAN PRESENTATION
Study Area
Base Network

- Speed limits of 45 mph eastbound and 55 mph westbound
- Six-lane divided cross section
- Left- and right-turn lanes
- Access points as little as 100 feet apart
- Signals closely spaced -- 5 within 1,550 feet
- ADT volume of 66,100 vehicles
- Saturday peak-hour volumes -- 3,100 eastbound and 2,700 westbound
Existing Conditions

- **Traffic Safety** - 0.5 Mile Section of NY27 From Sunrise Promenade to Old Sunrise Highway Has Accident Rates that Exceed the Statewide Average Due to the Frequency and Density of Conflicting Traffic Movements
- **High Traffic Volumes**
- **Frequent Driveways**
- **Closely Spaced Signals**
- **Heavy Left-Turn Movements**
- **Overlapping Traffic Backups**
Overlapping Conflicts

Eastbound Left-Turn Traffic Backs Up from Western Sunrise Mall Driveway and Blocks Unqua Road

Westbound Left-Turn Traffic Backs Up from Unqua Road Past Sunrise Mall Western Driveway
NY27 Near Philips Plaza & Old Sunrise Hwy.

Overlapping Conflicts

Extensive Congestion on Westbound Sunrise Highway Caused by Bottlenecks at Unqua Road, Sunrise Mall, “Sears Center” and Old Sunrise Highway

Long Delay for Motorists Exiting Sunrise Mall

Long Delay for Motorists Exiting “Sears Center”

Entering Left Turn at “Sears Center” backs up and blocks exiting left turn and westbound movement from Old Sunrise Highway

Theory Versus Reality
Theory Versus Reality

Conflicting Traffic Movements & Accidents East of Unqua Road

1 1/2-Year Accident Data

Traffic Conflict Area

- Park Lane
- Sunrise Mall
- Kohl's
- Unqua Rd.

"Sears Center" (Philips Plaza)

NY 27

Old Sunrise Highway

- 28
- 89

"Sears Center" (Philips Plaza)
Project Objectives

- Improve Traffic Safety Along Sunrise Highway
- Improve Traffic Operations Along Sunrise Highway
- Maintain Reasonable Access to Abutting Properties
- Preserve Aesthetics of Area
Concepts:

- Reduce the Number of Conflicting Traffic Movements
- Increase the Spacing between Conflict Points
- Remove Turning Vehicle Queues From Through Lanes
- Add Auxiliary Lanes
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Theoretical Arrangement
Unqua Road

- Provide Additional Through Lane on Westbound NY27
- Increase Left-Turn Storage
- Provide a Raised Separator on Westbound NY27
- Eliminate Eastbound Left Turn into Sunrise Mall Westerly Driveway
Theory Versus Reality

“Sears Center” (Philips Plaza)

- Reconfigure Access
- Revise Internal Circulation
Old Sunrise Highway

- Eliminate Westbound Connection
- Eliminate Traffic Signal on NY27 Eastbound
Major Turning Movements East of Unqua Road

- **Existing**
  - Park Lane
  - Sunrise Mall Westerly Driveway
  - "Sears Center" (Philips Plaza) Driveways
  - Unqua Rd.

- **Theoretical Arrangement**
  - Park Lane
  - Sunrise Mall
  - "Sears Center" (Philips Plaza)
  - Old Sunrise Highway
  - NY 27
Theoretical Alternative --
Issues Raised by Stakeholders

- Additional pavement that pedestrians would need to cross on NY27
- Desire to preserve the character and aesthetics of NY27
- Potential economic impact of access restriction on businesses
- Major internal circulation changes that would be needed for the reconfigured access
- Potential reduction in the number of parking spaces
- Rerouting of some school buses to/from an area school
Theory Versus Reality

Approved Plan

LEGEND:
- CONCRETE MEDIAN
- OFF ROAD LANDSCAPING
- MEDIAN LANDSCAPING
- TRAFFIC SIGNAL
Unqua Road

- Provide Additional Through Lane on Westbound NY27
- Increase Left-Turn Storage
- Provide a Raised Separator on Westbound NY27
Theory Versus Reality

“Sears Center” (Philips Plaza)

- Reconfigure Access
- Eliminate Traffic Signal at Westerly Driveway

Existing

Approved Plan
Old Sunrise Highway

- Relocate Westbound Connection
- Add Traffic Signal on Westbound NY27

Existing

Approved Plan
Theory Versus Reality

Major Turning Movements East of Unqua Road

Existing

Approved Plan
Approved Plan

- Eliminated modifications that were opposed by specific interests
- Appears to be implementable within a reasonable timeframe
- Would improve conditions compared to the no-build scenario
- Does not provide the same level of operational or safety benefits as the theoretical alternative
## Accident Frequency & Reduction

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>Current Number of Accidents *</th>
<th>Estimated Accident Reduction</th>
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</thead>
<tbody>
<tr>
<td><strong>Unqua Road/ Sunrise Mall Westerly Driveway</strong></td>
<td>89</td>
<td>53%</td>
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<tr>
<td><strong>“Sears Center” (Philips Plaza)</strong></td>
<td>13</td>
<td>77%</td>
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<tr>
<td><strong>Old Sunrise Highway</strong></td>
<td>15</td>
<td>48%</td>
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* 1½ - Year Accident Data
## Projected Operations with Approved Plan

<table>
<thead>
<tr>
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<th>SPEED (MPH)</th>
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<tbody>
<tr>
<td></td>
<td>No Build Scenario</td>
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<tr>
<td>Eastbound NY27</td>
<td>8.7 (14.0)</td>
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<tr>
<td>Westbound NY27</td>
<td>6.5 (10.4)</td>
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</tbody>
</table>
Theory Versus Reality

Conclusions/Lessons Learned

- Coordinate land use with available transportation resources.
- Provide the appropriate transportation agency an opportunity to review while there is still a chance to be proactive.
- Assess conditions at locations that extend beyond the immediate vicinity of the site.
- Consider conditions beyond the time of the development review.
- Identify if a supporting road system needs to be developed.
- Include provisions for cross access to allow for internal circulation.
- Identify the long-term implications and cumulative impacts of access-related decisions.