

**Item #4A:**

**Village President Underwood**

**Aptakistic Road Widening - SIG Meeting #2 - April 26, 2013**



## APTAKISIC ROAD

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### **STAKEHOLDER INVOLVEMENT GROUP (SIG) MEETING #2**

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**Meeting Date/Time:** April 25, 2013  
6:00 PM – 8:00 PM

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**Meeting Location:** Buffalo Grove Village Hall  
50 Raupp Blvd.  
Buffalo Grove, Illinois 60089

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**Invited to Attend:** LCDOT, CBBEL, Images, Inc., Stakeholder Involvement Group  
Membership

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#### **Agenda:**

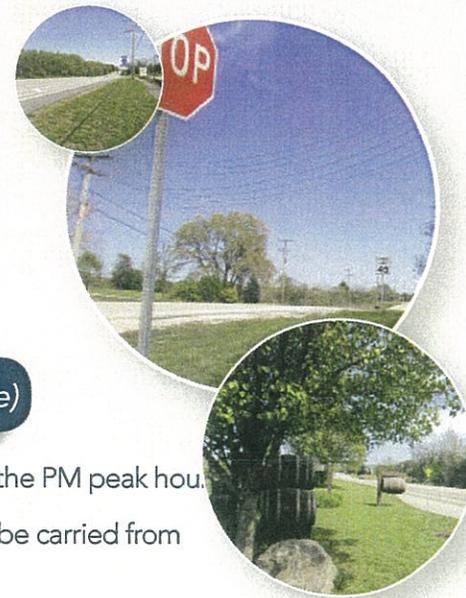
- I. Stakeholder Involvement Group (SIG) Meeting #1 Review**
- II. Aptakistic Road Project Problem Statement**
- III. Traffic Analysis Presentation**
- IV. Group Exercise**
  - a. 3-Lane Footprint**
  - b. 5-Lane Footprint**
  - c. Corridor Enhancements**
- V. Next Steps**

# CONCEPT ALTERNATIVES COMPARISON

APRIL 25, 2013

## 2040 No-Build Compared to Existing Conditions

- Brandywyn intersection delay increases up to 98%
- Eastbound travel delay increases up to 46%
- Bridlewood egress delay increases up to 36%
- Hilltop Road egress delay increases up to 81%
- Twin Oaks egress delay increases up to 95%



## 2040 Build Concept Alternatives (Brandywyn to Buffalo Grove)

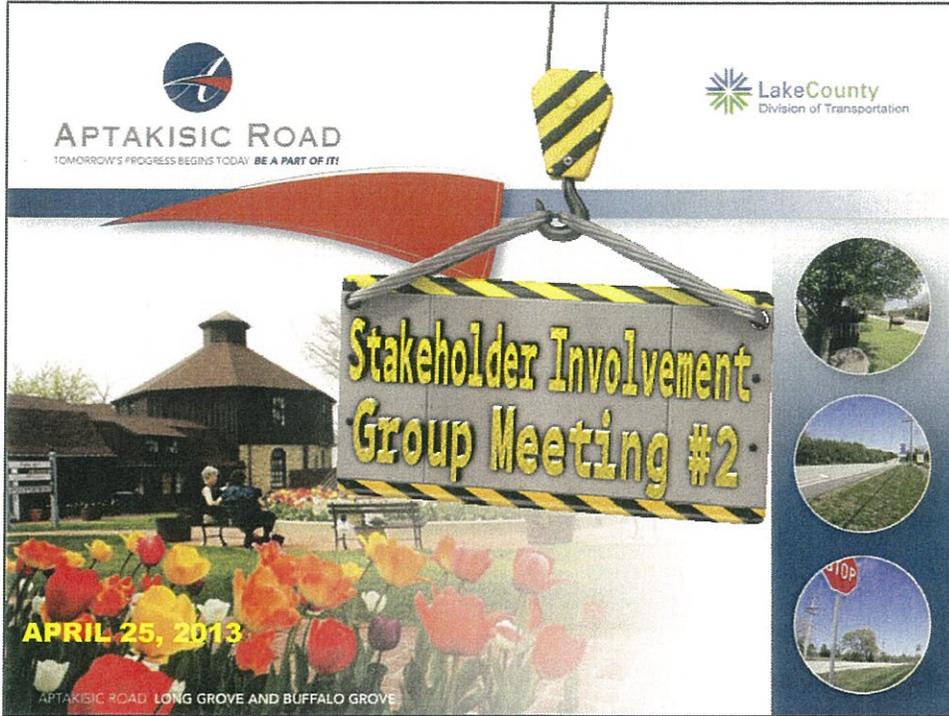
- Brandywyn intersection 3-Lane Concept has LOS E & 5-Lane Concept has LOS C in the PM peak hour
- Based on intersection analysis LCDOT has concluded that the 5-Lane concept must be carried from Buffalo Grove through the Brandywyn intersection

## 2040 Build Concept Alternatives (IL Route 83 to Brandywyn)

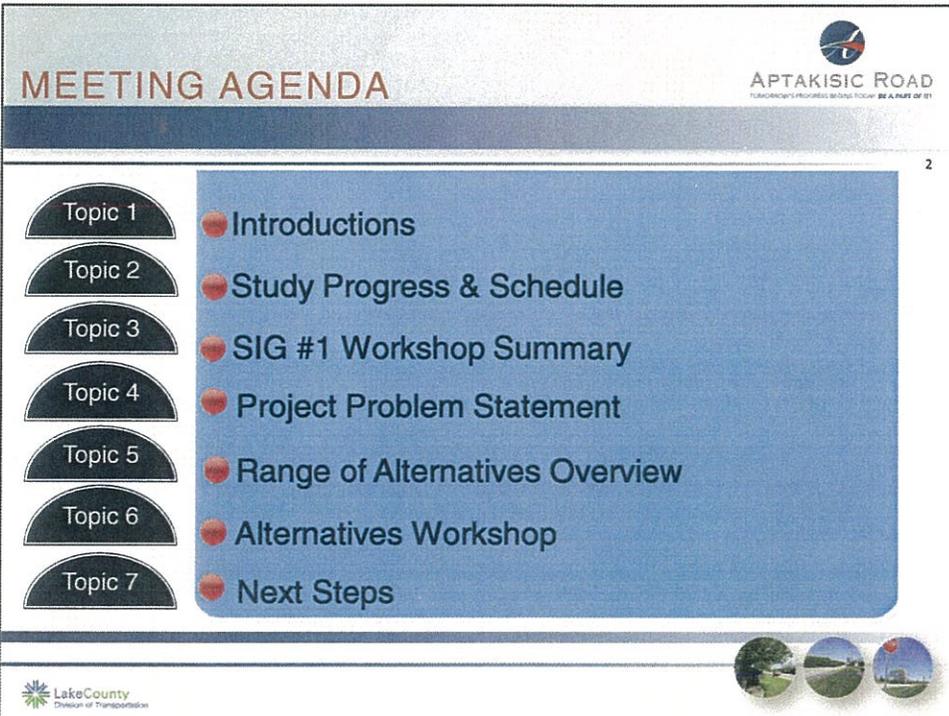
- Accessibility improvements with both the 3-Lane concept and 5-Lane concept compared to No-Build
- 3-Lane and 5-Lane concepts are comparable for travel time and delay on Aptakisic Road, with the 5-Lane concept performing slightly better
- Bridlewood, Hilltop and Twin Oaks egress is improved with 3-Lane and 5-Lane concepts as compared to No-Build
- 5-Lane concept provides more gaps, longer gap time, and longer average gap time than the 3-Lane concept

## Property Acquisition

- 5-Lane concept results in 2.4 acres of direct right-of-way impact and the 3-Lane concept has 1.5 acres



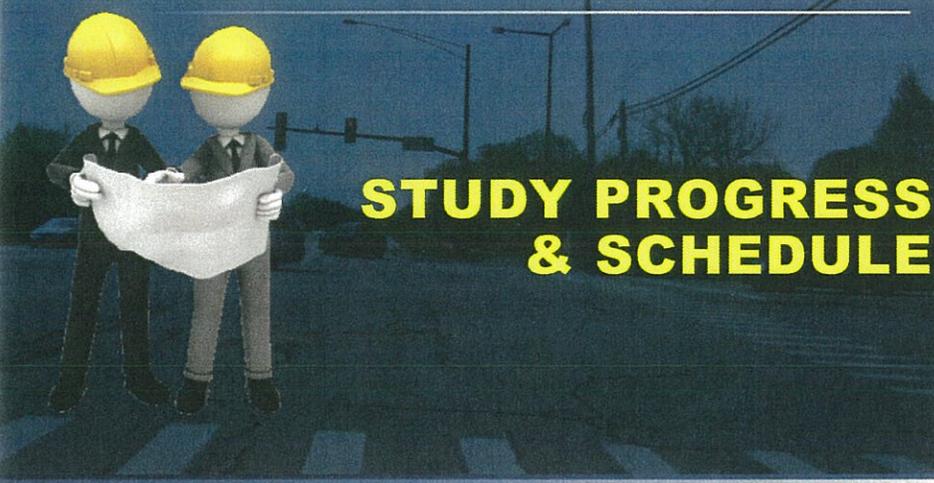
The poster features the APTAKISIC ROAD logo at the top left with the tagline "TOMORROW'S PROGRESS BEGINS TODAY BE A PART OF IT!". To the right is the Lake County Division of Transportation logo. A central graphic shows a yellow and black striped sign hanging from a crane hook. The sign reads "Stakeholder Involvement Group Meeting #2". Below the sign, a photograph shows a large wooden barn with a cupola, surrounded by a field of colorful tulips. The date "APRIL 25, 2013" is printed in yellow. At the bottom, it says "APTAKISIC ROAD LONG GROVE AND BUFFALO GROVE". On the right side, there are three circular inset images: the top one shows a road with trees, the middle one shows a road with a guardrail, and the bottom one shows a stop sign.



The slide is titled "MEETING AGENDA" in a large, bold, sans-serif font. In the top right corner, it features the APTAKISIC ROAD logo and tagline. A small number "2" is in the top right corner of the slide area. The agenda items are listed on the left side, each in a dark semi-circular button. To the right of these buttons is a blue rectangular box containing the details for each topic, each preceded by a red circular bullet point. At the bottom left is the Lake County Division of Transportation logo, and at the bottom right are three circular inset images showing road scenes.

Topic	Agenda Item
Topic 1	● Introductions
Topic 2	● Study Progress & Schedule
Topic 3	● SIG #1 Workshop Summary
Topic 4	● Project Problem Statement
Topic 5	● Range of Alternatives Overview
Topic 6	● Alternatives Workshop
Topic 7	● Next Steps

  
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# STUDY PROGRESS & SCHEDULE

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## PROJECT PROCESS/PHASES

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### Phase 1 Study Process



Identify Transportation Issues → Purpose & Need → Identify Possible Alternatives → Alternatives Evaluation → Preferred Alternative

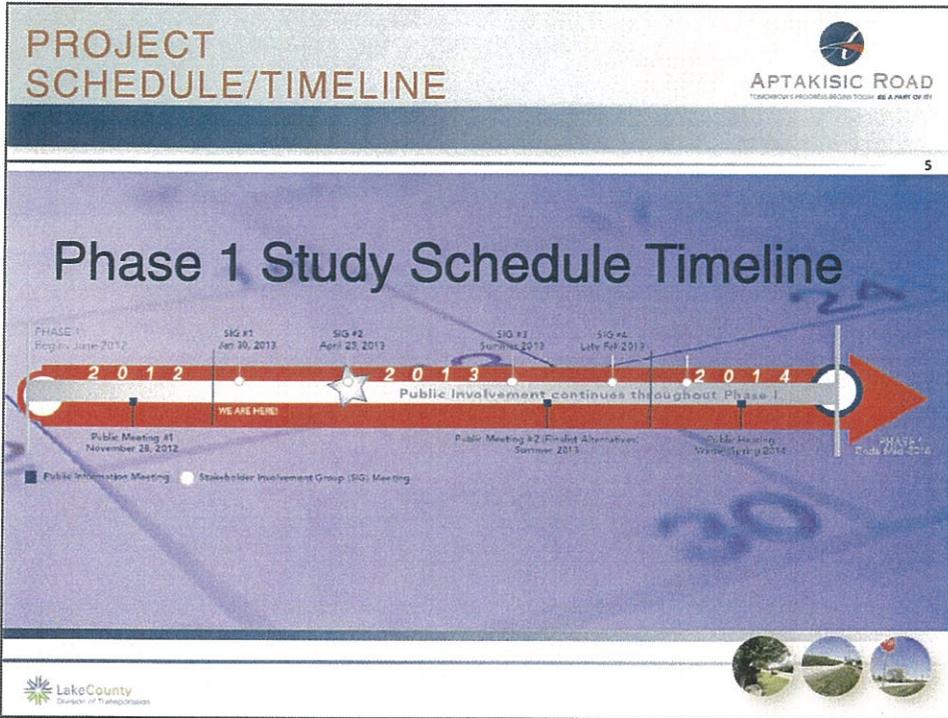
Develop Problem Statement → Purpose & Need

COMMUNITY & PUBLIC INVOLVEMENT

We are here

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# SIG #1 SUMMARY



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- Held January 30, 2013
- Project Scope & Limits
- Project Process Overview
  - SIP/SIG/CSS
- Workshop Conducted
  - Issues/Concerns
  - Goals/Objectives

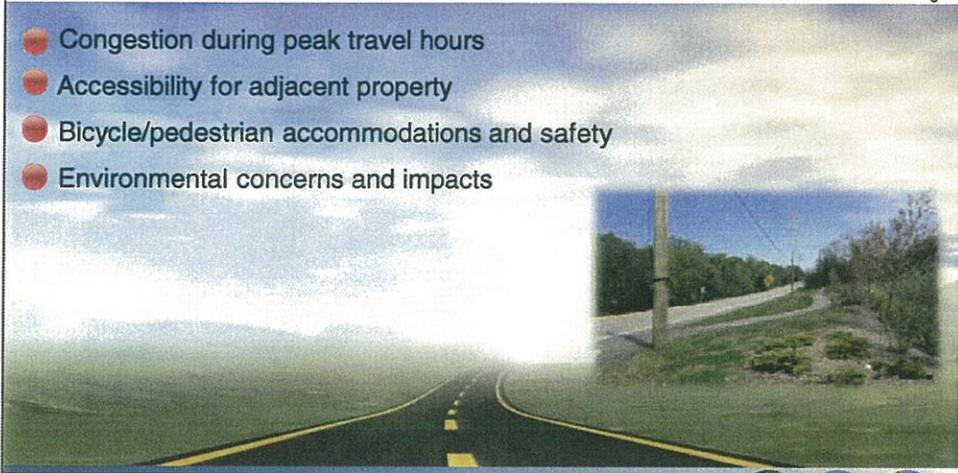


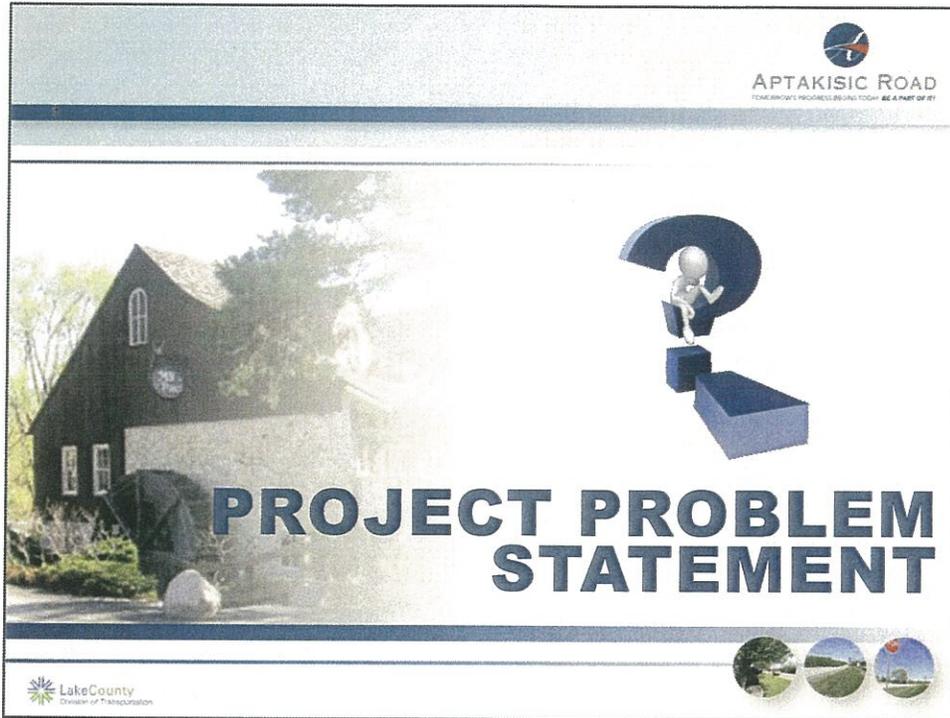
# SIG #1 – COMMON THEMES



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- Congestion during peak travel hours
- Accessibility for adjacent property
- Bicycle/pedestrian accommodations and safety
- Environmental concerns and impacts



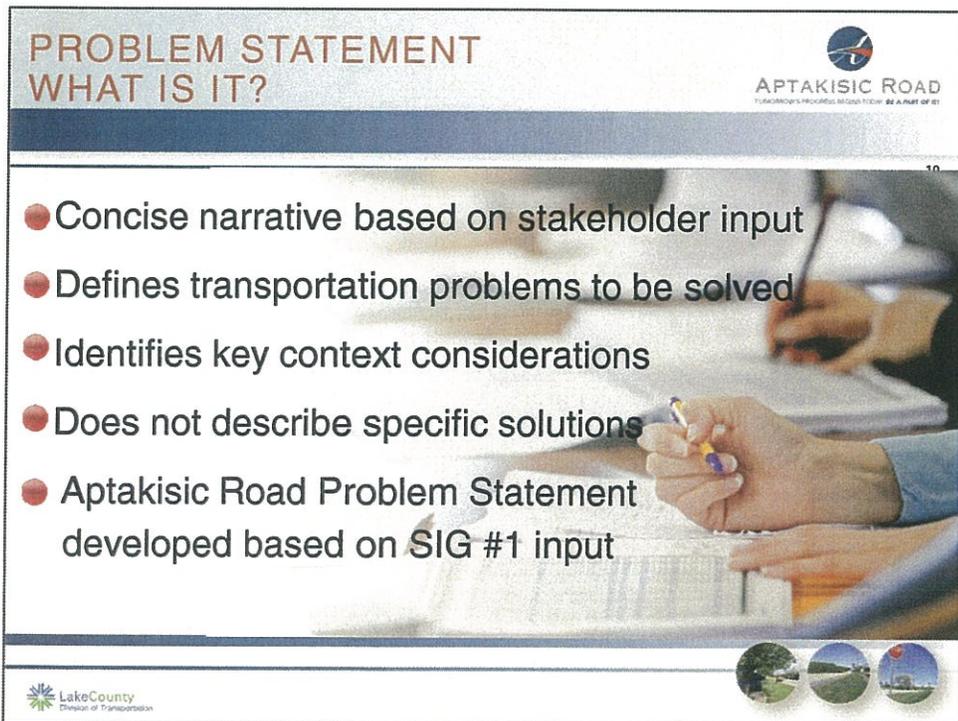


The slide features a background image of a large, dark wooden building with a stone base. In the upper right, there is a 3D graphic of a person sitting on a large question mark. The text 'PROJECT PROBLEM STATEMENT' is prominently displayed in the center. The slide includes the 'APTAKISIC ROAD' logo at the top right and the 'Lake County Division of Transportation' logo at the bottom left. Three small circular images at the bottom right show different road scenes.

**APTAKISIC ROAD**  
TODAY'S PROGRESS IS OUR TOMORROW BE A PART OF IT

# PROJECT PROBLEM STATEMENT

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The slide has a background image of hands writing on a document. The title 'PROBLEM STATEMENT WHAT IS IT?' is at the top left. A bulleted list of five points is in the center. The 'APTAKISIC ROAD' logo is at the top right. The 'Lake County Division of Transportation' logo is at the bottom left. Three small circular images at the bottom right show different road scenes.

## PROBLEM STATEMENT WHAT IS IT?

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- Concise narrative based on stakeholder input
- Defines transportation problems to be solved
- Identifies key context considerations
- Does not describe specific solutions
- Aptakistic Road Problem Statement developed based on SIG #1 input

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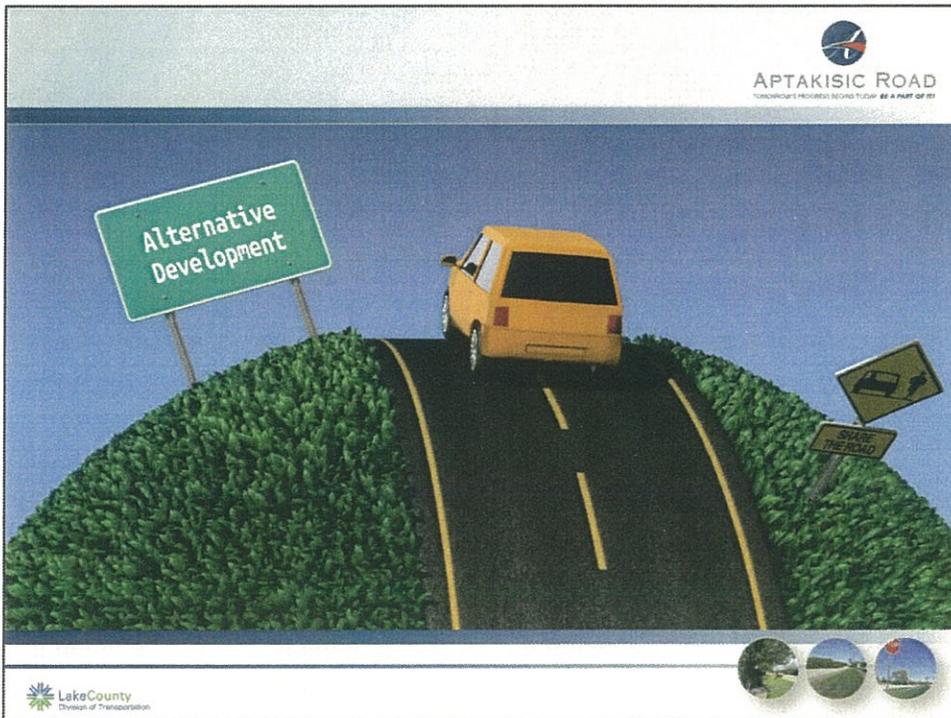
# PROBLEM STATEMENT



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*The goal of this project is to provide an improved transportation system for Aptakisic Road from Buffalo Grove Road to IL Route 83 for current and projected future travel conditions. Improvements to this route are needed to reduce congestion during peak travel periods, improve and protect access to adjacent properties, and provide safe and improved pedestrian and bicycle accommodations and connectivity.*

*It is important that solutions to these transportation deficiencies avoid or minimize impacts to the environment, and preserve quality of life including minimizing adjacent property impacts and fitting the context of the existing land use. The solutions should also consider the effect of the IL Route 83 intersection and traffic calming measures where practical.*



## ALTERNATIVES DEVELOPMENT PROCESS

**APTAKISIC ROAD**  
TRAVELER'S PROBLEMS SHOULD NOT BE A PART OF IT

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- Data Collection (Traffic & Crash)**
  - Existing traffic counts & crash data
  - Obtain 2040 Traffic Projections (No-Build & Build)
- Develop Initial Concept Design Alternatives**
  - 3-Lane & 5-Lane
- Comparative Analysis**
  - Travel Performance
  - Impacts

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## ANALYSIS OF EXISTING & 2040 NO-BUILD

**APTAKISIC ROAD**  
TRAVELER'S PROBLEMS SHOULD NOT BE A PART OF IT

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- Brandywyn intersection delay increases up to 98%
- Eastbound travel delay increases up to 46%
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## ALTERNATIVE DESIGN OBJECTIVES



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- Address existing roadway deficiencies
- Level-of-Service (LOS) C at signalized intersection
- Improve accessibility at unsignalized intersections
- Abide by State and County Design Standards



## WHAT IS LEVEL OF SERVICE (LOS)?



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- Level of Service (LOS) is the average delay per vehicle (seconds/vehicle) during peak travel period
- Scale from A (least delay) to F (most delay)
- Standard is to design to LOS C for signalized intersections



## DESIGN CONSTRAINTS

**APTAKISIC ROAD**  
TOMORROW'S PROGRESS BEGINS TODAY BE A PART OF IT

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- **IL Route 83 intersection**
  - No IDOT plans for improvements
  - Modest variations with or without IL 53 extension
- **Buffalo Grove Road intersection**
  - 5 lanes on west leg Aptakisisic Road with additional turn lanes
  - Designed as part of Buffalo Grove Road project
- **General**
  - Limited right-of-way in certain areas

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## ALTERNATIVES ANALYSIS

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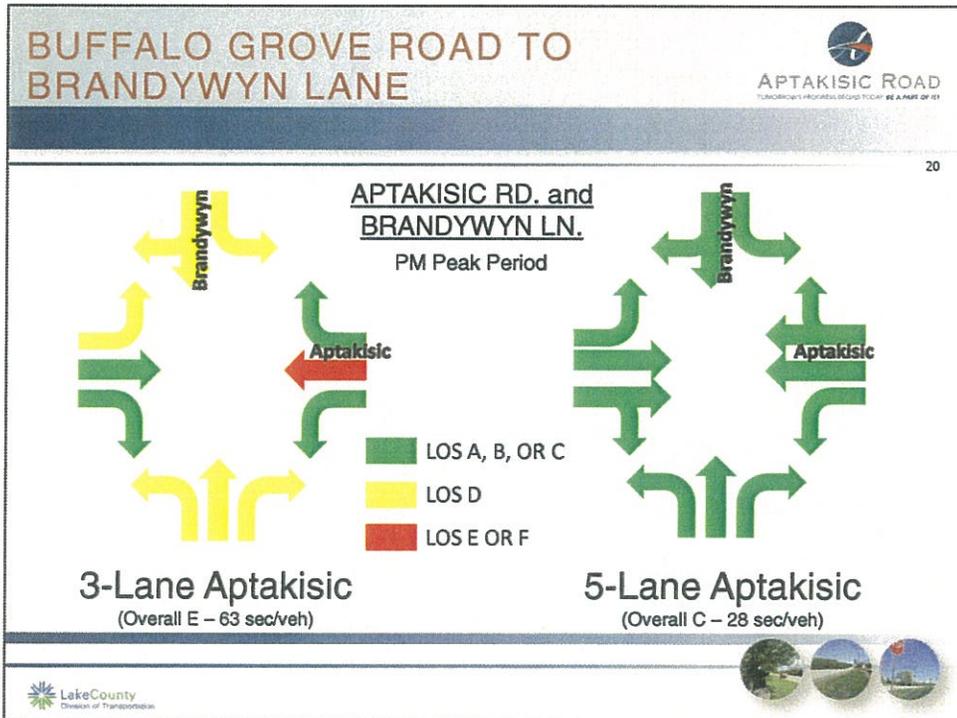
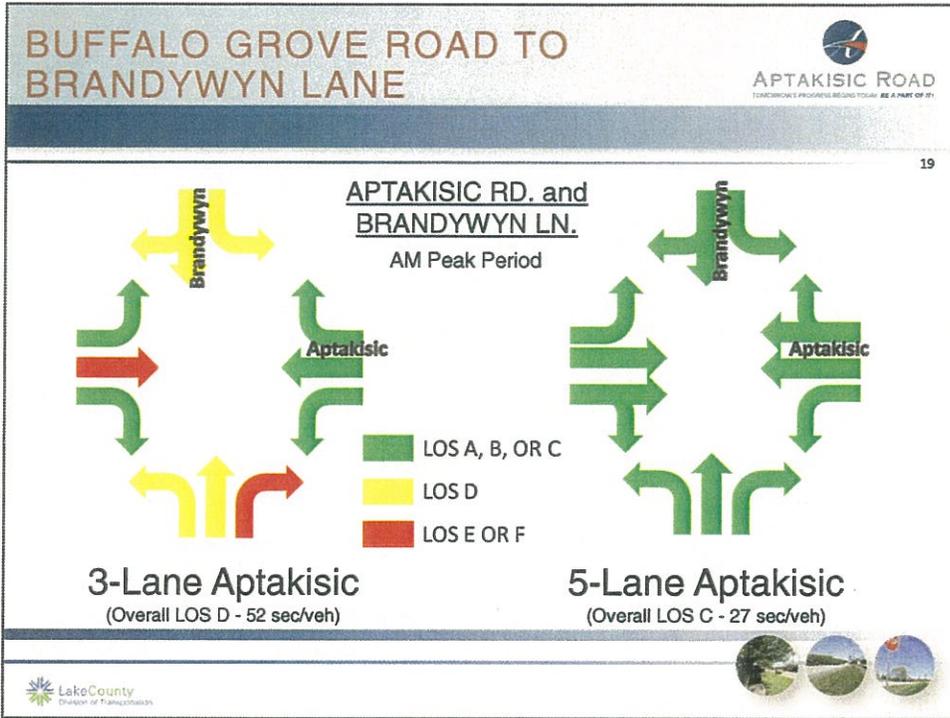


**Two Distinct Sections of the Corridor**

- Buffalo Grove Rd to Brandywyn Lane
- Brandywyn Lane to IL Route 83 (Sunset Grove)

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## BUFFALO GROVE ROAD TO BRANDYWYN LANE



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### CONCLUSIONS:

- Three Lane Alternative at Brandywyn provides inadequate capacity
- LCDOT determined that the five lane alternative is required between Brandywyn Lane and Buffalo Grove Road
- Proposed: two 11' thru lanes in each direction, exclusive left turn lanes, shared right turn lanes, 8' bike path on the north, and 5' sidewalk on the south



## WEST OF BRANDYWYN ALTERNATIVE DESIGN CONCEPTS



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### Things to consider:

- Overall travel performance
- Accessibility (ingress/egress)
  - Relative side Street LOS
  - Gap analysis
- Ped/Bike accommodations
- Design Elements
- Impacts
- Long term considerations



## WEST OF BRANDYWYN ALTERNATIVE DESIGN CONCEPTS



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### Travel Performance & Accessibility Results Summary

- Accessibility improvements with both the 3-Lane concept and 5-Lane concept compared to No-Build
- 3-Lane and 5-Lane concepts are comparable for travel time and delay on Aptakistic Road, with the 5-Lane performing slightly better
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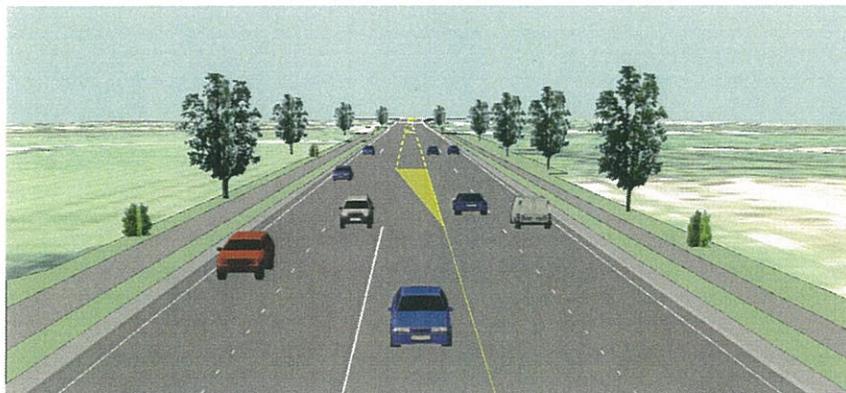


## WEST OF BRANDYWYN ALTERNATIVE DESIGN CONCEPTS



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### 5-Lane Concept

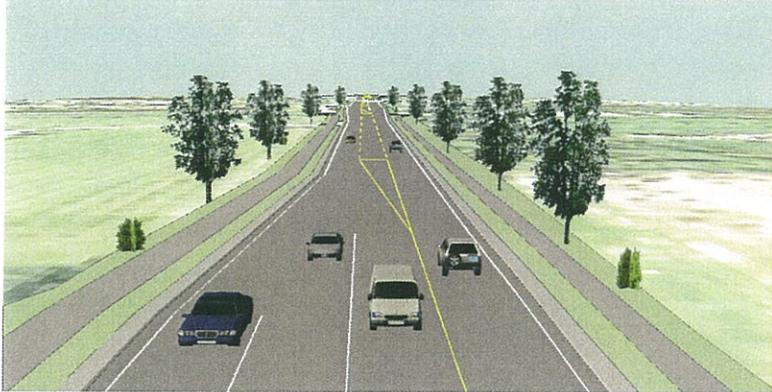


**WEST OF BRANDYWYN  
ALTERNATIVE DESIGN CONCEPTS**

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**3-Lane Concept**



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**WEST OF BRANDYWYN  
ALTERNATIVE DESIGN CONCEPTS**

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- **Property Acquisition Impacts**
  - 5-Lane Alternative – 2.4 acres
  - 3-Lane Alternative – 1.5 acres
  - No Displacements with either alternative
- **Long Term Considerations**
  - With 5-Lane no need for future widening if any improvement to IL Route 83
- **Conclusions**
  - Both the 3-Lane and 5-Lane are viable alternatives with some comparable differences between both

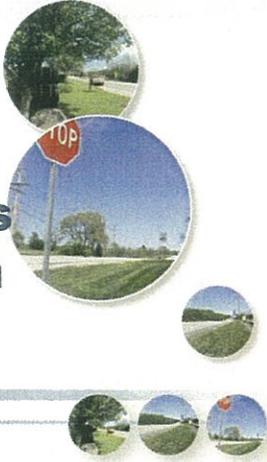
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# Alternatives Comparison Workshop



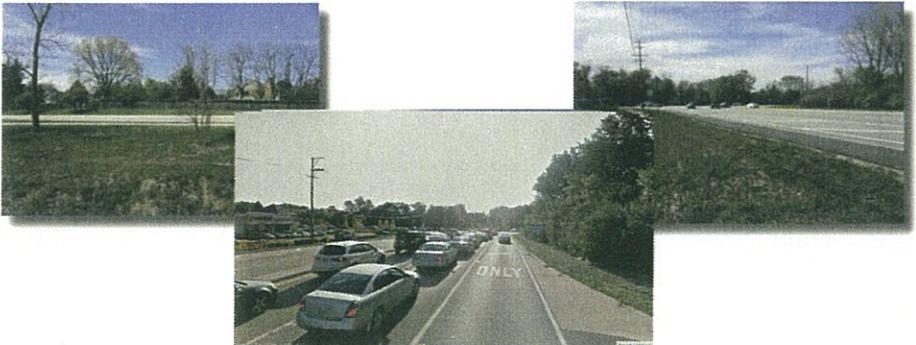


  
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## ALTERNATIVES COMPARISON

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**How do the alternatives address the concerns identified in the Problem Statement?**







## ALTERNATIVES EVALUATION



**APTAKISIC ROAD**  
TRANSPORTATION PROGRAMS BEING TOUGH BE A PART OF IT!

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**Problem Statement Elements:**

- Reduce congestion during peak travel conditions
- Improve and protect access to from adjacent properties
- Provide safe and improved pedestrian and bicycle accommodation and connectivity
- Minimize impacts to environment
- Preserve quality of life
  - Minimize adjacent property impacts
  - Fit context of existing land use
- Effect of IL Route 83 intersection
- Traffic calming measures

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## ALTERNATIVES EVALUATION



**APTAKISIC ROAD**  
TRANSPORTATION PROGRAMS BEING TOUGH BE A PART OF IT!

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- **Based on the Problem Statement elements:  
Compare each alternative**
  - Pros/cons of each alternative based on identified concerns
  - Which alternative best/least addresses important elements
  - Identify alternative refinement considerations
- Provide input on additional key design considerations







## ALTERNATIVES EVALUATION - WORKSHOP



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- As a group, review 3 and 5-lane alternatives independently
- Assess how each alternative addresses the 7 Problem Statement elements
- Suggest any additional refinements, design considerations



# Next Steps

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## NEXT STEPS



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TRANSFORMING PROGRESS BEYOND TODAY. BE A PART OF IT!

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- **Continue alternatives comparison incorporating SIG input and coordination with IDOT and FHWA**  
**SIG #3 (Summer 2013)**
  - Results of LCDOT coordination with IDOT and FHWA
  - Alternatives refinement and Comparison (including crash prediction comparison)
  - Finalist(s) alternative(s)
- **Public Information Meeting #2 (Summer 2013)**
  - Alternatives development and evaluation
  - Public input on finalist(s) alternative(s)



PHASE 1 Begins June 2012

2012: Public Meeting #1 November 28, 2012

2013: SIG #1 Jan 30, 2013; SIG #2 April 25, 2013; SIG #3 Summer 2013; SIG #4 Late Fall 2013; Public Meeting #2 (Finalist Alternatives) Summer 2013

2014: Public Hearing Winter/Spring 2014; PHASE 1 Ends Mid-2014

Public Involvement continues throughout Phase 1

■ Public Information Meeting    ○ Stakeholder Involvement Group (SIG) Meeting





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TRANSFORMING PROGRESS BEYOND TODAY. BE A PART OF IT!



