



Randall Road Improvements Study

Community Advisory Council

Meeting #9

July 17, 2008

9:30 am

Lake in the Hills Village Hall

600 Harvest Gate

Lake in the Hills, IL



HDR



Agenda for Meeting #9

- Introductions
- Approval of April 10, 2008 Meeting Notes
- Summary of CAC Meeting #8
- Review Alternatives
- Review Preliminary Level 3. Detailed Evaluation Results
 - Complete the Aesthetics/Visual Evaluation
- Focus for CAC Meeting #10



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GATEWAY TO MCHENRY COUNTY

Introductions

- Modify membership list as required to account for:
 - Incorrect or outdated information
 - Changes in Representation
 - New members



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Comments to Meeting Notes?

- Discussion of CAC #8 meeting notes
 - Approval of CAC #8 meeting notes



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Summary of CAC Meeting #8

- Reviewed Alternative Packages for Level 3. Detailed Evaluation and CAC membership provided comments
 - Proposed ROW information not shown
 - Traffic Operations not complete
 - Alternative 1 – SPUI
 - Alternative 2 – Grade Separated Turning Lanes
 - Alternative 3 – Additional Turning Lanes
 - CFI
 - Pedestrian Options
- Reviewed Environmental Resources in Study Area





GATEWAY TO MCHENRY COUNTY

Since we last met...

- 4 Primary Alternatives being considered in addition to a pedestrian option and HOV option
- Traffic operations have been conducted using two different software programs
- Geometry has been revised based on operations results
 - Turning lane/bay storage needs, auxiliary lanes, etc.
- Impacts have been calculated for each alternative per the eval. criteria



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GATEWAY TO MCHENRY COUNTY

Since we last met...

- Each alternative was divided into 2 sections
 - South section, County Line to Miller
 - North section, North of Miller to Ackman
- South Section is dependent on Algonquin improvements
- North Section is dependent on Village-Angela-Alexandra improvements
- Aids in the development of a Preferred Alternative



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GATEWAY TO MCHENRY COUNTY

Review Alternatives

■ Alternative 1

● South Section

- **SPUI at Algonquin**
- **Auxiliary Lanes (a 4th lane) are provided SB between Bunker Hill and Harnish and NB between Acorn and Miller**
- **Close Stonegate**
- **Access: closing 13 on Randall and 10 on Side Streets**

● North Section

- **Signalize Angela**
- **Close Village and Alexandra**
- **Access: closing 2 on Randall**



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GATEWAY TO MCHENRY COUNTY

Review Alternatives

■ Alternative 2

● South Section

- **Grade Separated Turning Lanes at Algonquin**
- **Close Stonegate**
- **Access: closing 11 on Randall and 18 on Side Streets**

● North Section

- **Signalize Angela with Continuous Green T**
- **Close Village and Alexandra**
- **Access: closing 2 on Randall**



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GATEWAY TO MCHENRY COUNTY

Review Alternatives

■ Alternative 3

● South Section

- **Additional Turning Lanes at Algonquin**
- **Signalize Stonegate**
- **Access: closing 1 on Randall and 3 on Side Streets**

● North Section

- **Signalize Angela**
- **Convert Village and Alexandra to Rin/Rout**
- **Access: No closures**



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GATEWAY TO MCHENRY COUNTY

Review Alternatives

■ Alternative 4

● South Section

- **Continuous Flow Intersection (CFI) at Algonquin**
- **Convert Stonegate to Rin/Rout**
- **Access: closing 7 on Randall and 9 on Side Streets**

● North Section

- **Signalize Angela**
- **Convert Village and Alexandra to Rin/Rout**
- **Access: No closures**



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Review Alternatives

■ Pedestrian Options

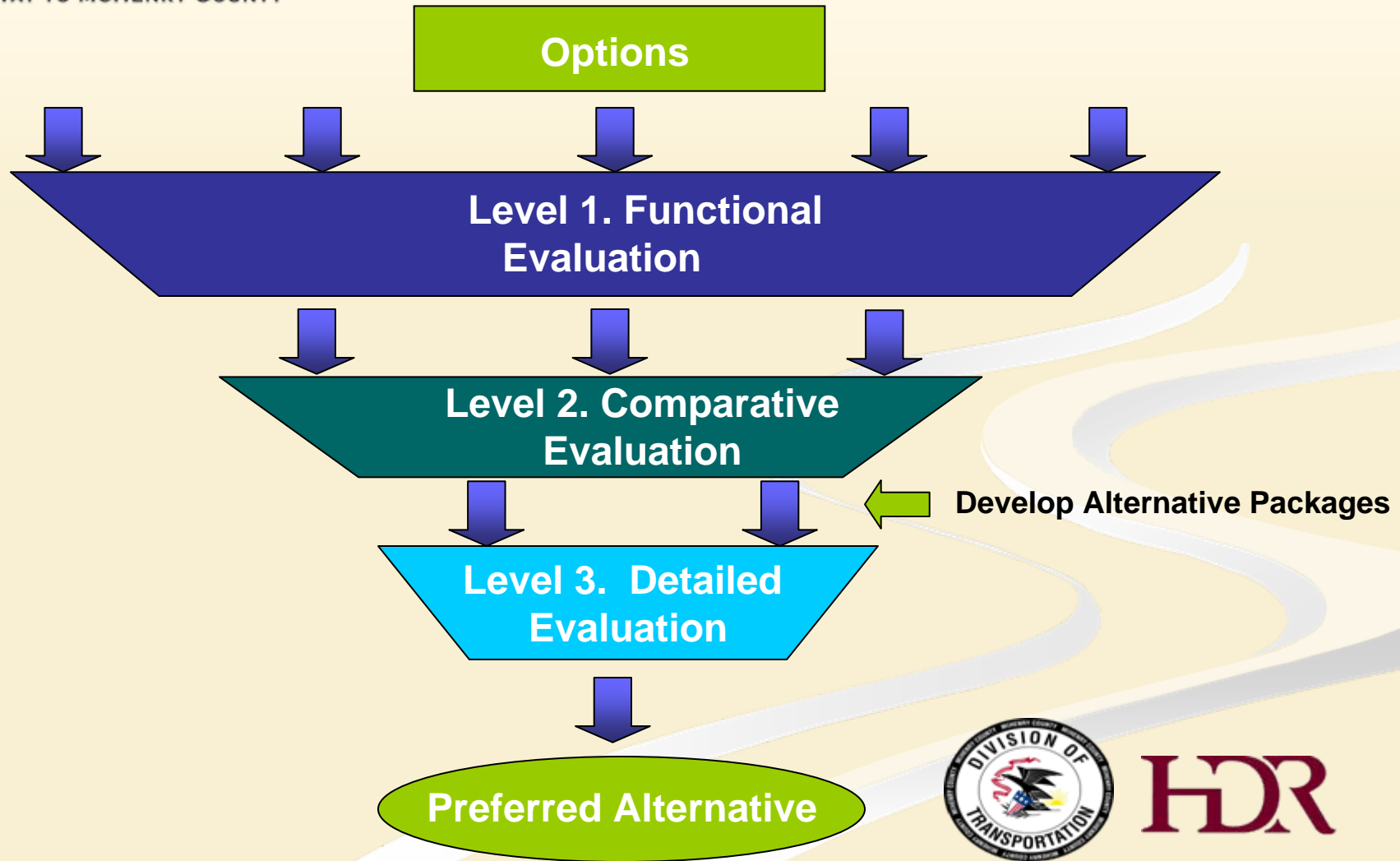
- Evaluated with Alternative 1-SPUI
- Impacts can be relatively applied to any alternative
- East and West Multi-use Paths
- Underpass at WoodsCreek connecting parks
- Overpasses at Bunkerhill/Huntington, Miller, Angela

■ HOV Option

- Evaluated with Alternative 2
- Evaluated based on Traffic Operations only, footprints same
- Results can be relatively applied to other alternatives



Evaluation Process





Preliminary Results

Level 3. Detailed Evaluation

- Results presented by *Alternative* and by *Section*
- There is no ranking of *Alternatives*
- These results will be presented at a *Public Meeting* on *Tuesday, September 23*
- Once all comments have been addressed a *Preferred Alternative* will be developed
- The *Preferred Alternative* could be:
 - 1 of the 4 *Alternatives* presented today, or
 - A combination of options presented in the *Alternatives*





Regional Mobility - Arterial Operations

- Synchro/HCS was used to help develop storage lane needs and signal timing
- VISSIM was used to determine intersection delay and Level of Service (A-F)
- Cannot compare Synchro operations results to VISSIM operations results
 - Synchro evaluates intersections as isolated
 - VISSIM evaluates operations as a network





Regional Mobility - Arterial Operations

- IDOT Acceptable LOS = D
- Several intersections have the same geometry but different delay
 - Timings optimized for best corridor operations
 - Green times for traffic signals will vary per movement
- Overall
 - 2 Alternatives will operate better than existing
 - All alternatives operate significantly better than no-action





Regional Mobility - Arterial Operations

■ North Section

- Continuous Green-T operates better than conventional traffic signal
- Access closures and traffic diversion affects operations of both Angela and Ackman



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Regional Mobility - Arterial Operations

■ South Section

- Algonquin Improvements affect operations between Harnish and Miller
 - **Bottlenecks/Weaving Issues**
 - **Access**
- Polaris/Acorn
 - **Alternative 1 vs Alternative 2**
 - **Alternatives 1 and 4 vs Alternatives 2 and 3**
- Algonquin





Regional Mobility - Arterial Operations

■ South Section continued

- Stonegate

- Bunkerhill/Huntington

- **Alternative 1 vs Alternative 2**

- **Alternatives 1 and 2 vs Alternatives 3 and 4**

- Harnish

- **Alternative 3**



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Regional Mobility - HOV Arterial Operations

- Poor Operations
- Weaving issues
- Arterial HOV lanes hard to enforce/monitor

INTERSECTION	ALTERNATIVE 2			
	WITH HOV		NO HOV	
	Delay	LOS	Delay	LOS
Ackman	41 s	D	39 s	D
Angela	26 s	C	8 s	A
Miller	116 s	F	33 s	C
Polaris / Acorn	127 s	F	45 s	D
Algonquin	33 s	C	25 s	C
Stonegate				
Bunker Hill	100 s	F	46 s	D
Harnish	44 s	D	34 s	C
County Line	46 s	D	47 s	D
Total Delay	1142 Hours		593 Hours	



Local Access/Deficiencies

- Travel time
- Ease of Maintenance
 - Traffic signals
 - Length of Structures
- Access Points Eliminated/Modified along Corridor



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GATEWAY TO MCHENRY COUNTY

Community Values

- New Right of way (ROW)
- Estimated Capital Costs
 - Does not include ROW/relocation costs or special geotechnical needs (floating pavement)
- Public Support
- Potential Relocations
 - May be increased based on access
- Parking Impacts



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GATEWAY TO MCHENRY COUNTY

Community Values

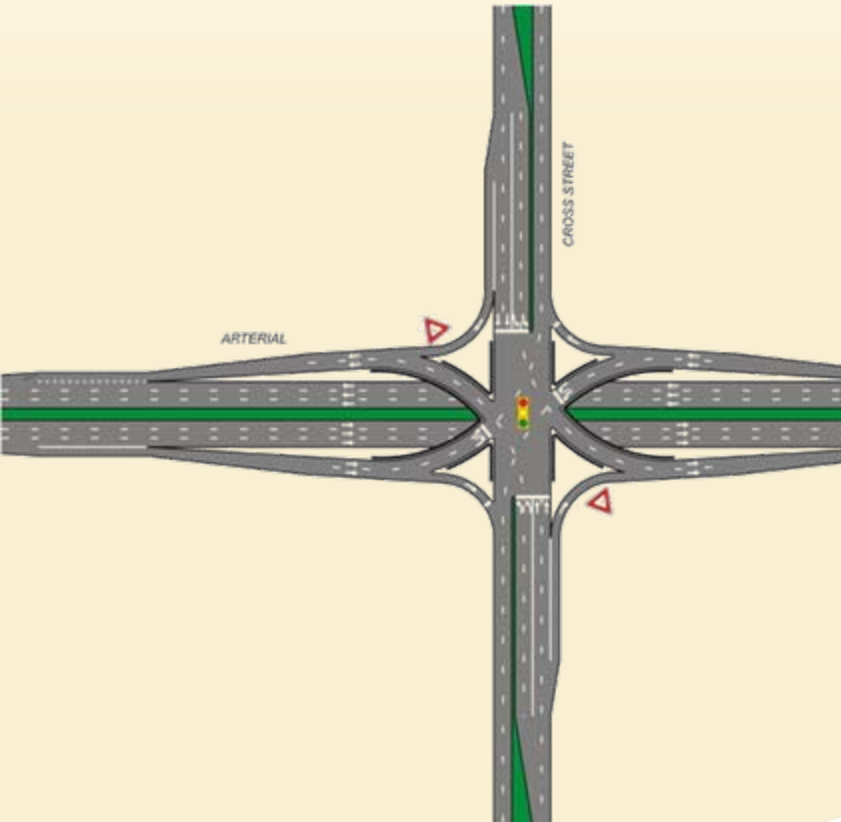
- Aesthetics/Visual – Is the alternative aesthetically/visually pleasing?
 - High – Medium – Low



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Single Point Urban Interchange (SPUI)

- Shown in South Section of Alternative 1





Grade Separated Turning Lanes

- Shown in South Section of Alternative 2
- Unable to locate photos/examples
- Similar to interchange
- Turning Movements take place at an intersection located above an intersection for through movements



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Continuous Flow Intersection (CFI)

- Shown in South Section Alternative 4



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Continuous Flow Intersection (CFI)

- Shown in South Section Alternative 4



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Continuous Flow Intersection (CFI)

- Shown in South Section Alternative 4



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GATEWAY TO MCHENRY COUNTY

Continuous Green - T

- Shown in North Section of Alternative 2





GATEWAY TO MCHENRY COUNTY

Community Values

■ Environmental Impacts

- Parks
- Water Quality
- Stream



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Preliminary Results Pedestrian Options

- Evaluated under Community Values
- Impacts are added to the Alternatives
- Multi-use Path
 - ROW
 - Relocations
 - Parking
 - Environment
 - Agriculture
 - Special Waste
 - Stream





Preliminary Results Pedestrian Options

- Overpasses/Underpass
 - Cost
 - Floodplain
 - Parks
 - Geotechnical





GATEWAY TO MCHENRY COUNTY

Review Alternatives

- Breakout Session (10 minutes each station)
- Visit geometry stations to review Alternatives
 - Proposed ROW based on a closed drainage system with curb and gutter, detention and mitigation needs not considered
 - Alignment shifts to avoid/minimize impacts will be explored with Preferred Alternative
 - Plots labeled to show Level of Service results, storage lane deficiencies, potential relocations and parking acquisitions.
- Ask questions
- Comment on Alternatives
- Seeing the geometry on paper, is there an alternative that stands out in your mind that you really like or dislike?



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Review Alternatives: Remember from Last Time

- Use this opportunity to stand up for your organization.
- Remember: Purpose of CAC is to be a liaison between the public and McHenry County...
- Let us know if you have any issues.



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GATEWAY TO MCHENRY COUNTY

Detailed Evaluation Results

- Aesthetics/Visual Ranking - Is the Alternative aesthetically pleasing?
 - High/Moderate/Low
- Thoughts on materials/results presented today?
 - Is there an alternative that you really like or dislike?
 - Any surprises?



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Focus of CAC Meeting #10 – Thursday, August 28

- Review any changes to the alternatives based on comments
- Review VISSIM simulation models
- Discuss potential issues with the section of Randall between Acorn/Polaris and Village
 - Parks
 - Woods Creek
 - Floodplain
- Prepare for Public Meeting #2 – Anticipated September 23, 2008



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GATEWAY TO MCHENRY COUNTY

Questions or Comments?

- **Next CAC Meeting (#10) – Thursday August 28, 2008**
- Same Location
- Please sign-in if have not done so
- Please leave nametags behind for reuse at next meeting



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