

Selling Medians in Utah

7th Conference on Access Management

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Need for Median Treatment

- Congestion/Traffic Volume
- Identified safety issue
- Proximity to intersection or access



Highway Project Bombshell

- What do people think of when told at a highway open house meeting,

“.... we are recommending a median treatment as part of this project.”

Highway Project Division



Road
User

DOT

Emotion

Decimal Point

Median Design Types

Median Treatments

- Undivided
 - Flush / Painted
- Divided
 - Swale
 - Flush / Painted
 - TWLTL
 - Raised Non-Traversable / Traversable Barrier



What Are the Benefits of Medians?

Safety

- Fewer / Less Severe Accidents
- Less Auto / Pedestrian Conflict

Efficiency

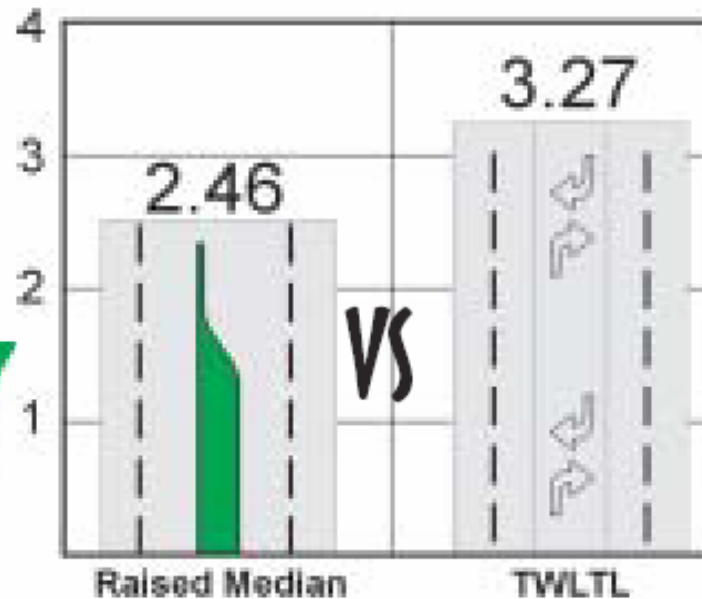
- Less Congestion
- Optimize Built Capacity

Aesthetics

- Room for Landscaping and Pedestrians
- Visual Attractive Corridors
- Less Roadway Pavement

Medians Improve Safety

**Crash Rates for Median Treatments
Florida Crash Study**



25% crash rate reduction

Long, Gan, Morrison, University of Florida 1993

Need to Address Public Perception

- Need to recognize and connect public perception and engineering expectation.
- Identified raised median treatments as most controversial.

Need to Address Public Perception

UDOT Research Project:

- 1 Literature search on factors for need of median application
- 2 Medians Public Involvement Campaign

Research Project 1

- Evaluation of Four Recent Traffic and Safety Initiatives, Vol. II : Developing a Procedure for Evaluating the Need for Raised Medians

A Guide for the Evaluation of Median Treatments (tool for design engineers and planners to estimate implementation of appropriate median treatments)

When to Upgrade?

When is it feasible to upgrade from Undivided or Flush Median to a Divided or Raised facility?



When to Upgrade?

**Annual Midblock Accidents per 1/4 mi Section --
Business or Office Land Use**

Driveways/Mile	Undivided (a)	TWLTL	Raised Median
	ADT 22,500		
30	7-9	7	5
60	8-10	8	6
90	9-12	9	6
	ADT 32,500		
30	9-13	9	7
60	11-14	11	8
90	12-17	12	9

(a) Higher value with parallel parking

Note: Assumes 65% of all accidents are property damage only.



**Annual Delay to Major Street Left-turn and
Through Vehicles**

Driveways/Mile	Undivided	TWLTL	Raised Median
	ADT 22,500		
30	2,200	1,300	1,300
60	2,200	1,400	1,400
90	2,200	1,400	1,400
	ADT 32,500		
30	7,100	3,000	3,100
60	7,800	3,200	3,500
90	8,000	3,200	3,400

Note: Assumes 10% Left Turns per 1320 ft segment



When To Upgrade? TWLTL to Raised Median

Conversion from an TWLTL to a Raised-Curb Median (Business and Office Land Use)

Through Lanes	ADT	Access Pt. Density	Left-Turn Percent per 1,320-ft Segment Length																	
			0	5	10	15	20	30												
4	17,500	30	Site-specific examination required.																	
		60																		
		90																		
	22,500	30							Site-specific examination required.											
		60																		
		90																		
	27,500	30													Site-specific examination required.					
		60																		
		90																		
	32,500	30	Site-specific examination required.																	
		60																		
		90																		
37,500	30	Site-specific examination required.																		
	60																			
	90																			
42,500	30								Site-specific examination required.											
	60																			
	90																			

Note: SWET = Stay with existing TWLTL

Research Project 2

Medians Public Involvement Campaign

- (3) focus groups to determine public perception of medians
- Residents, business owners, elected officials
- Design and print color brochure
- Create 3-5 min. DVD
- Create median information web page