CITY COUNCIL MEETING
November 29, 2010

Request for Removal of On-Street parking on City R.O.W. - Jackson Boulevard

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Presentation Topics

- Project Background Information
- Review the Proposed Design of the SD44
- Current Issues of Existing Intersection (Jackson Blvd & Mt View)
- Brief Overview of All Proposed Options
- Review of On-Street Parking Study
- Comparison of Final Two Remaining Options and request for City Council concurrence

Jackson Boulevard

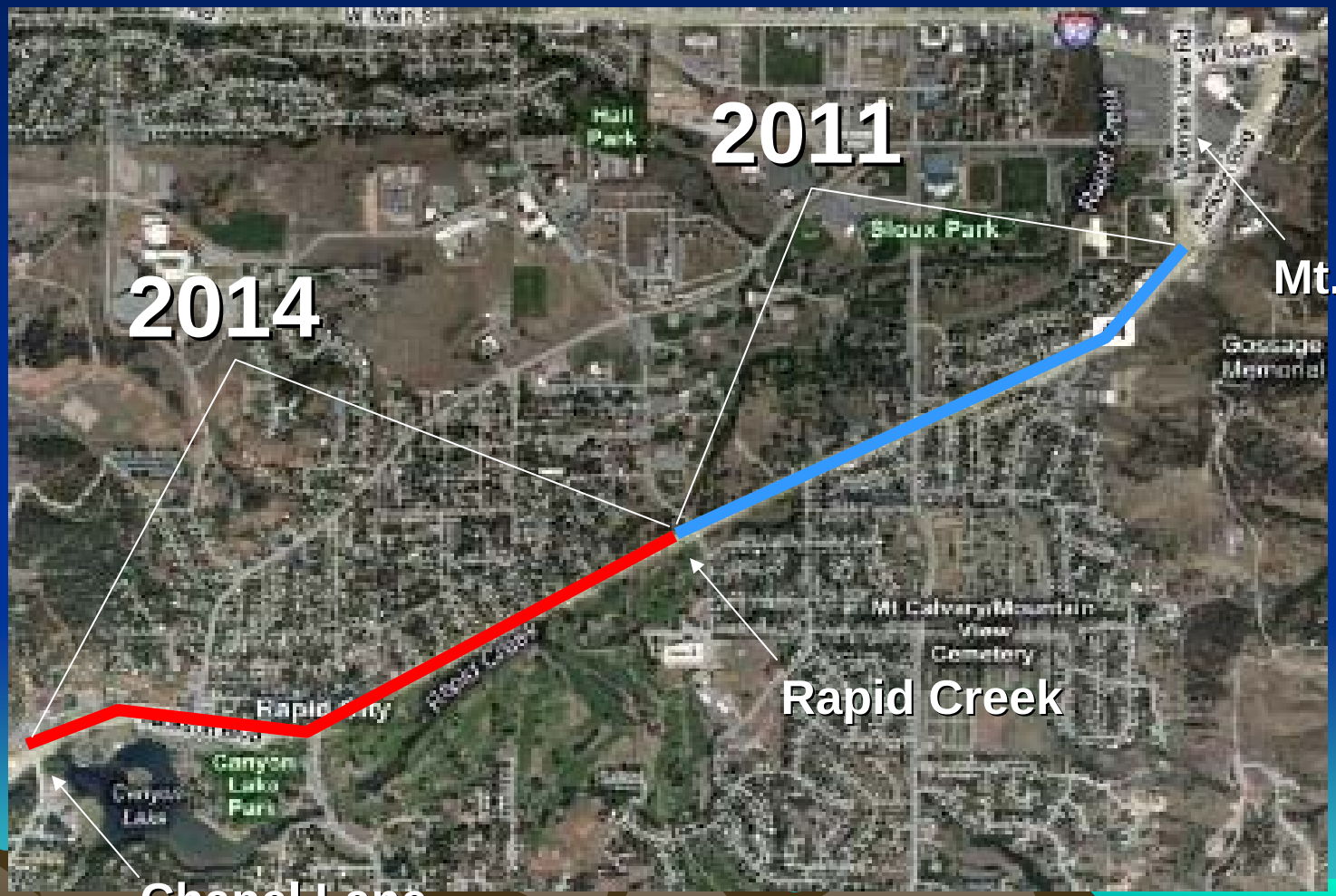
BACKGROUND INFORMATION

- Originally constructed in 1963
- Concrete Pavement repairs in 1992 and 1999.
- Pavement in poor condition throughout
- Current Traffic :
  - 11,000 vehicles/day west of Sheridan Lake Road
  - 21,000 vehicles/day east of Sheridan Lake Road
- Projected Traffic (2027): 15,000 and 29,000 vehicles/day
- Truck Traffic: 4.3 %
- Posted Speed Limit 35 mph

Jackson Boulevard

PROPOSED DESIGN

Project Locations



Jackson Boulevard

Estimated Total Costs

(do not include new City utilities)

- Rapid Creek to Mountain View (2011)
  - estimate - $ 7.5 Million
- Chapel Lane to Rapid Creek (2014)
  - estimate $ 7.1 Million

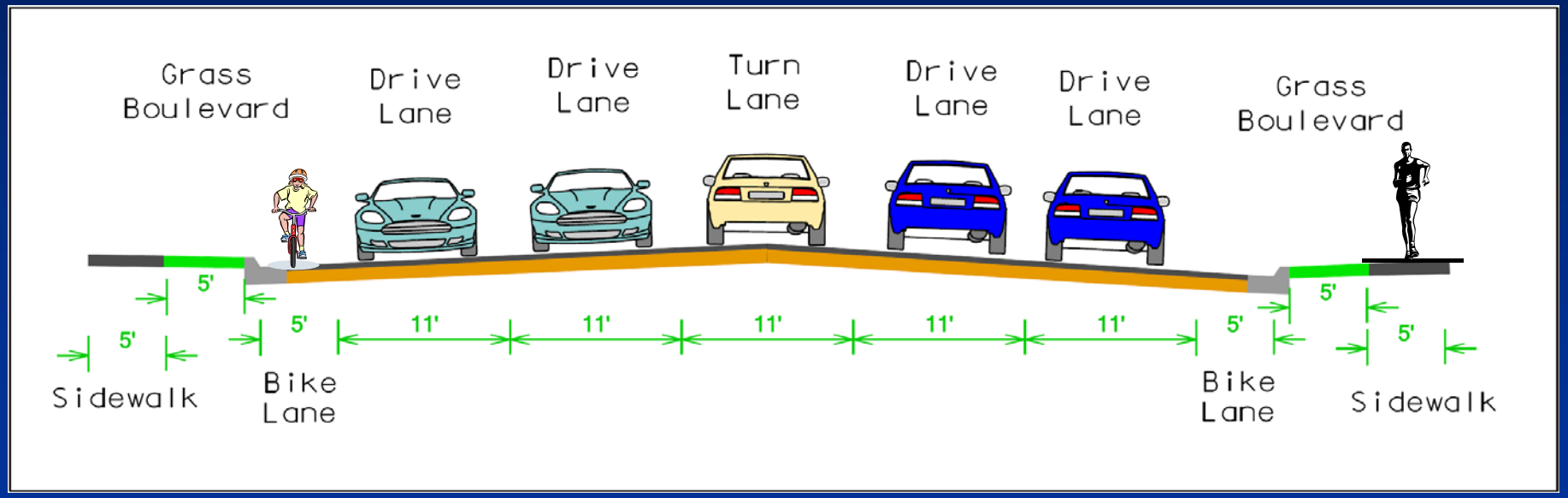
SCOPE OF WORK

Complete Reconstruction

- Concrete Pavement with Bike Lanes
- Sidewalk
- Storm Sewer
- Lighting
- Traffic Signals
- 2 Water Mains - City
- Sanitary Sewer - City

Jackson Boulevard

TYPICAL SECTION

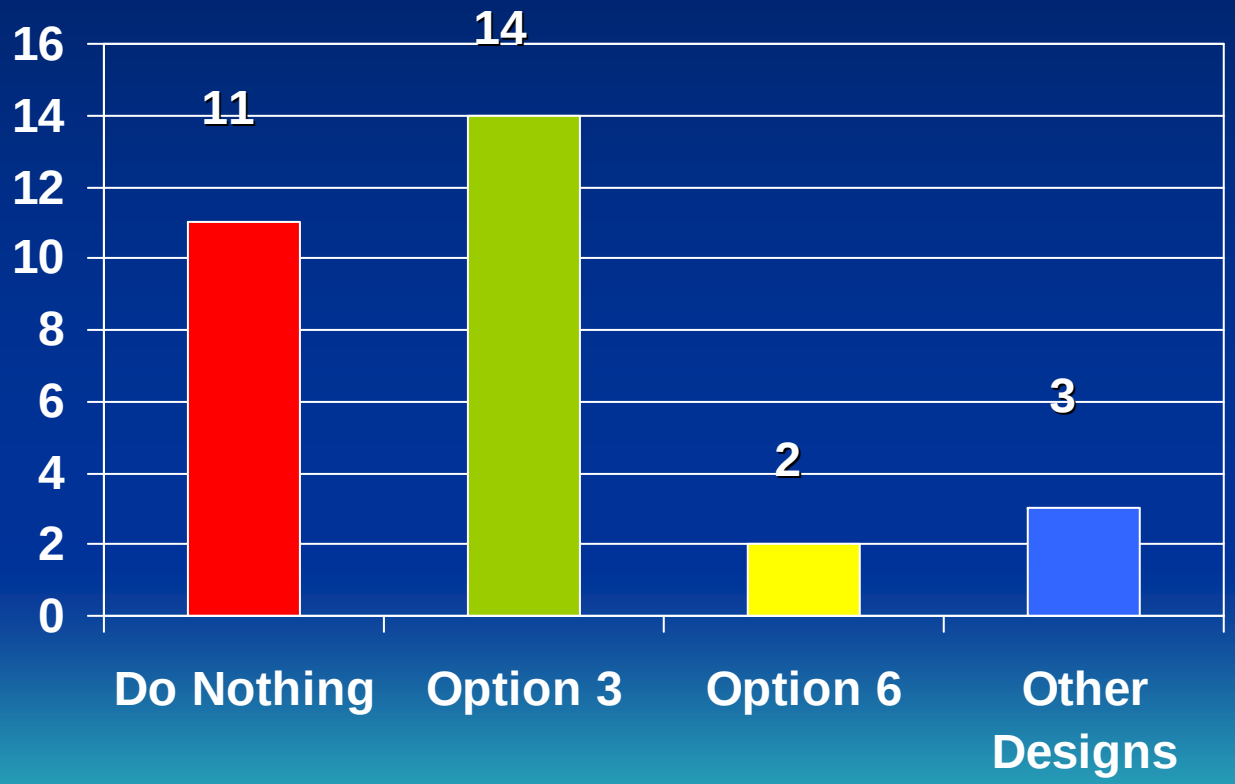


Jackson Boulevard

WORK COMPLETED TO DATE

- Plans nearing completion with exception of the intersection of Jackson Boulevard and Mountain View
- Ten (10) intersection designs have been considered for the intersection of Jackson and Mt. View.
- DOT has worked with Rapid City Engineering and Growth Management staff
- Four (4) Public Meetings have been held, two specifically for the design of this intersection.
- Public input has been gathered

Jackson Boulevard
SUMMARY OF WRITTEN COMMENTS
PUBLIC MEETING HELD ON AUGUST 31, 2010
PUBLIC PREFERENCE ON INTERSECTION DESIGN



Jackson Boulevard/ Mountain View

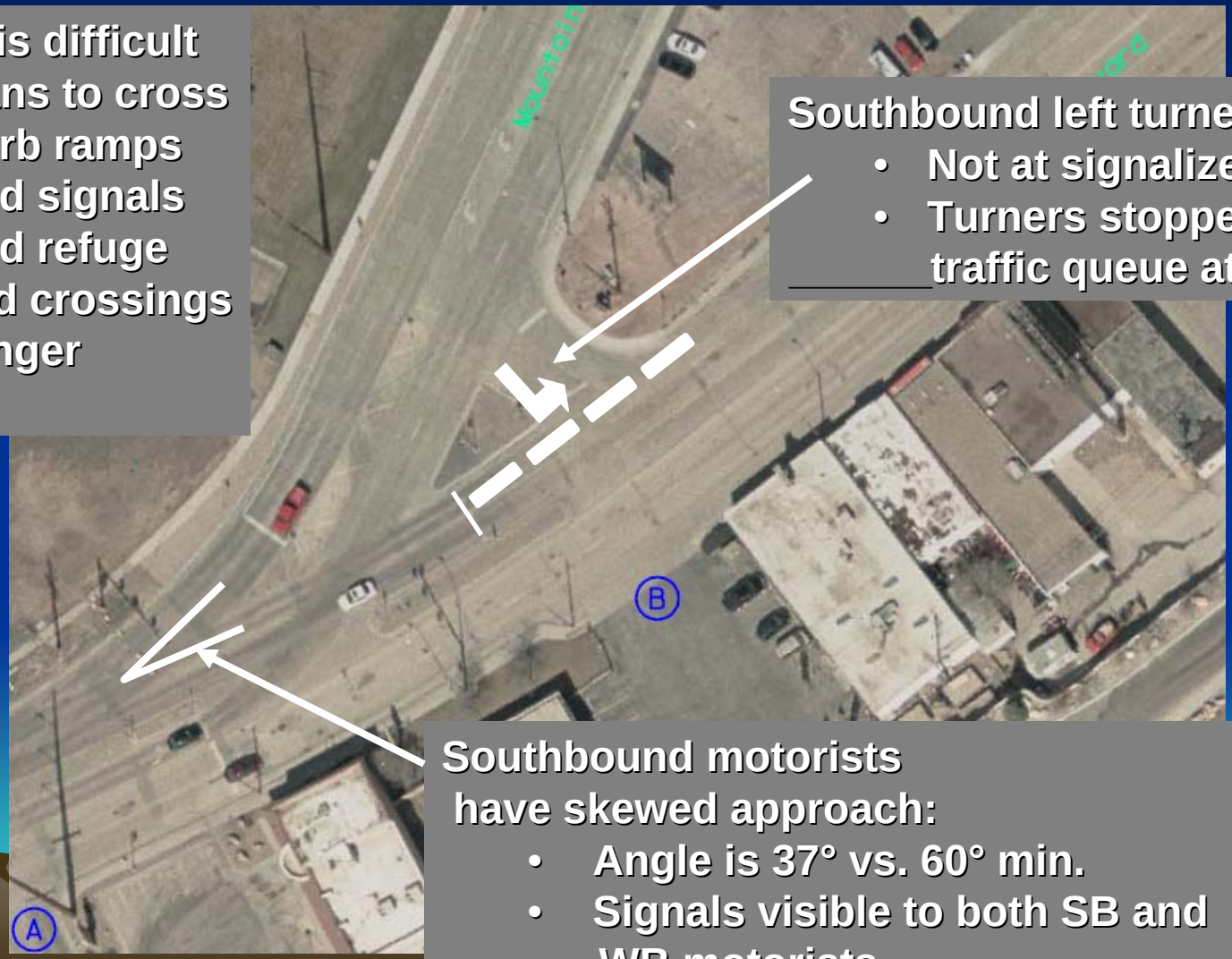
Flaws in existing intersection

Jackson Boulevard/ Mountain View

Flaws in existing intersection

Intersection is difficult for pedestrians to cross

- No curb ramps
- No ped signals
- No ped refuge
- angled crossings are longer



Southbound left turners:

- Not at signalized location
- Turners stopped by westbound traffic queue at signal

Southbound motorists have skewed approach:

- Angle is 37° vs. 60° min.
- Signals visible to both SB and WB motorists

1.3 accidents Per million vehicles (avg. from 2006-2009)

Jackson Boulevard/ Mountain View

Flaws in existing intersection

Jackson Boulevard/ Mountain View

Example of Good Signal Visibility

Jackson Boulevard/ Mountain View

Flaws in existing intersection

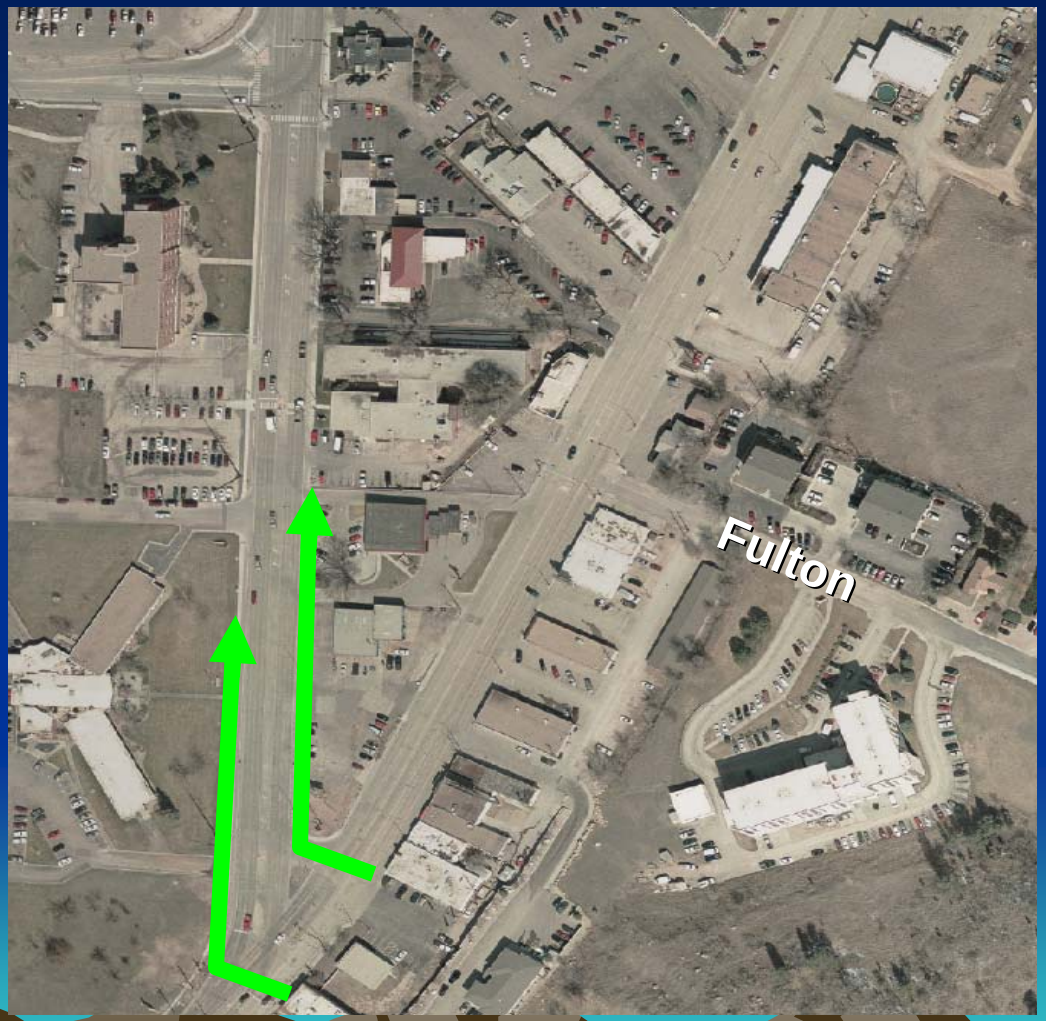
Jackson Boulevard/ Mountain View

Fulton Street for Accessible Pedestrians

Pedestrians must either return to Mt. View or walk through private parking lots.

Jackson Boulevard/ Mountain View

Mountain View for Pedestrians



Pedestrians can stay within ROW

Jackson Boulevard/ Mountain View

Goal for New Intersection

- Square up the intersection - safer for motorists & peds (crossing distances are shorter and conflict is less)
- Improve the visibility of signals for SB and WB motorists (less confusion)
- Provide SB to EB left turn lane that operates within traffic signal - improves traffic flow in area (i.e. - less cutting through Private parking lots)
- Provide pedestrian crossings that are ADA (accessible countdown timers)
- Does not negatively affect nearby intersection operations (Fulton, Canyon Lake Drive, West Main)

Jackson Boulevard/ Mountain View

WEST MAIN AND STURGIS ROAD COMPARISON

.83 accidents Per million vehicles (avg. from 2006-2009)

ANTICIPATED ACCIDENT REDUCTIONS
(Avg. 2006-2009 Data)

- W. Main & Sturgis Road accident rate per million vehicles passing through is 0.83
- Mt. View & Jackson Blvd accident rate per million vehicles passing through is 1.3 and number of accidents is 54
  - With a presumption that some of the same benefits cross over, this would equate to a 64% reduction
  - A 64% reduction equates to 20 less accidents over a 4-year period or 5 accidents per year

Jackson Boulevard/ Mountain View

NEW INTERSECTION

INTERSECTION DESIGN OPTIONS ELIMINATED:

- Option1
- Option 1A
- Option 2
- Option 3A
- Option 3A-COA (Control of Access)
- Option 4
- Option 5
- Option 5A

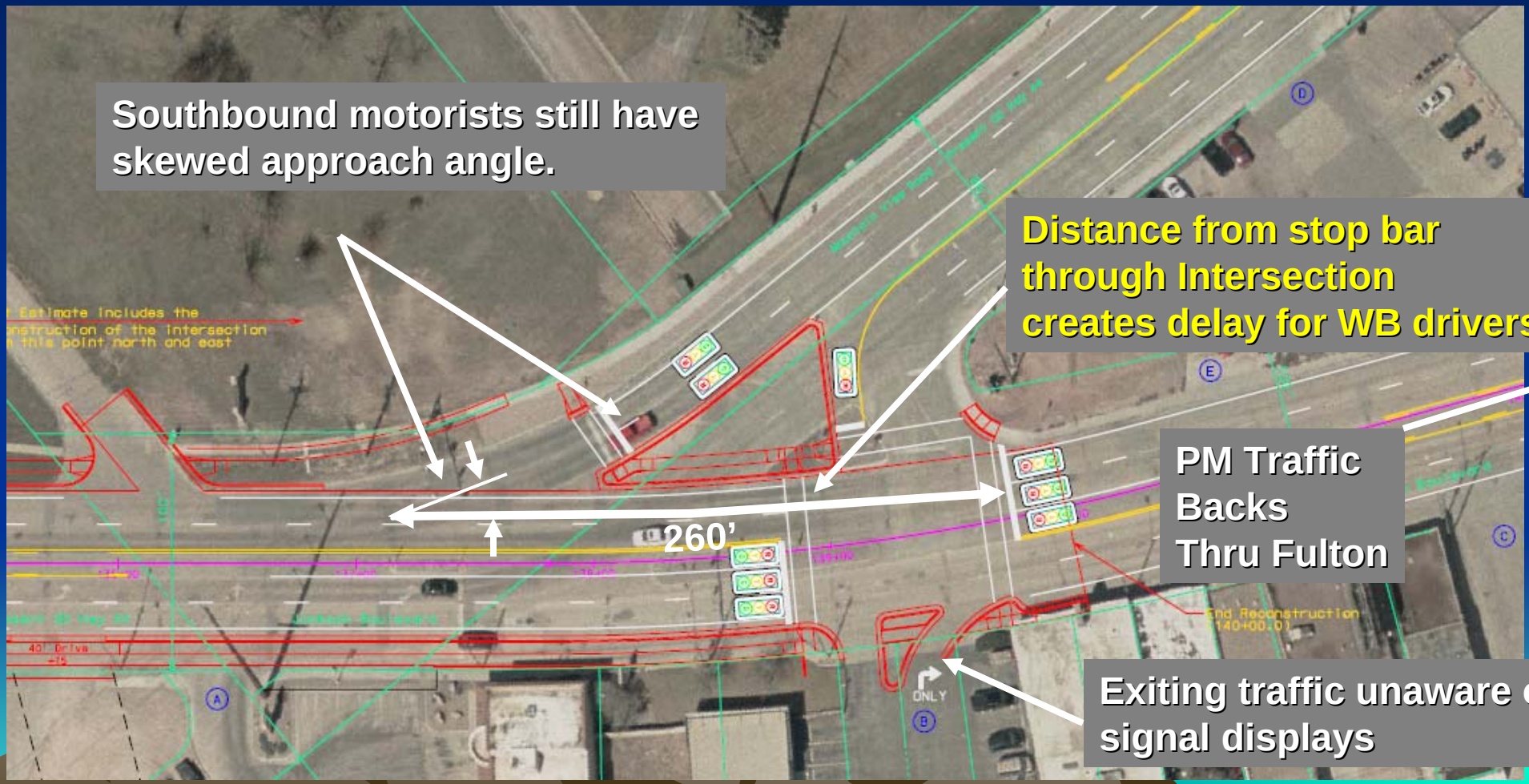
DESIGN OPTIONS STILL BEING CONSIDERED:

- Option 3 – previously presented to Public Works Committee
- Option 6 – developed to save some on-street parking

Jackson Boulevard/ Mountain View

Design – Option 1 - eliminated

(Skewed intersection with island on south leg)



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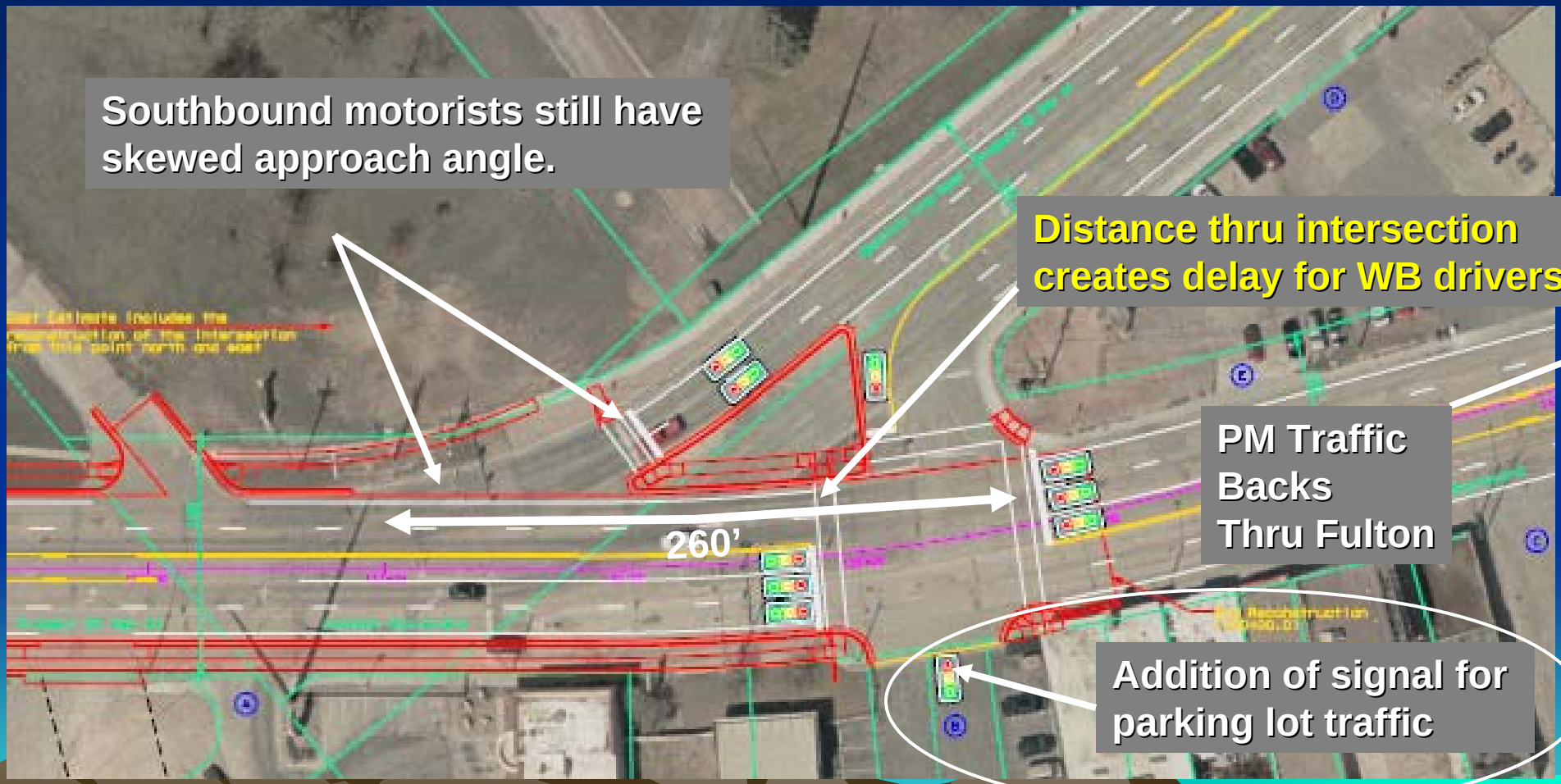
Design – Option 1a - Eliminated

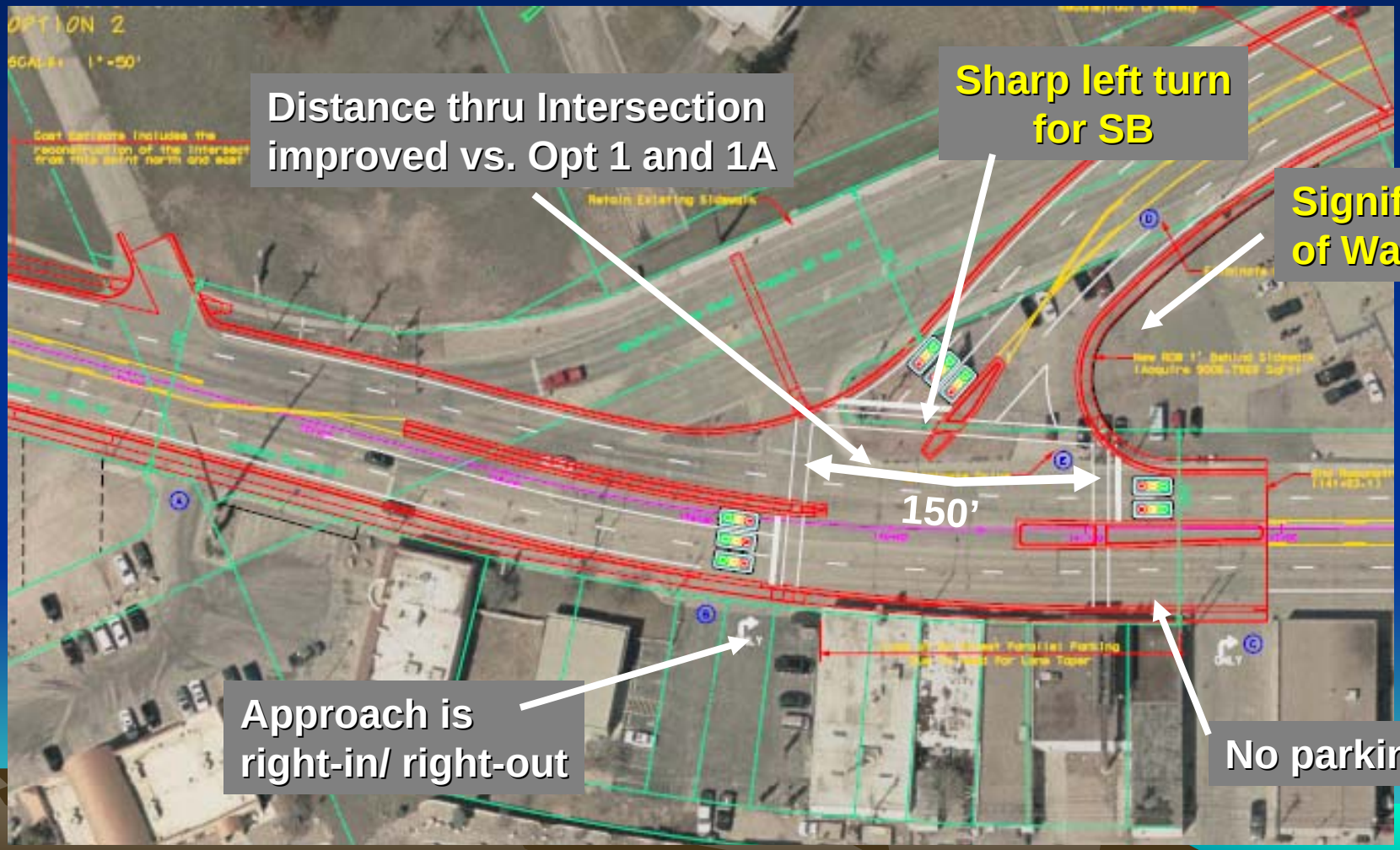
(same as Option 1 but a signal added to south leg)



Jackson Boulevard/ Mountain View

Design – Option 2 - Eliminated

(Skew improved to minimum standards - 60°)



Jackson Boulevard/ Mountain View

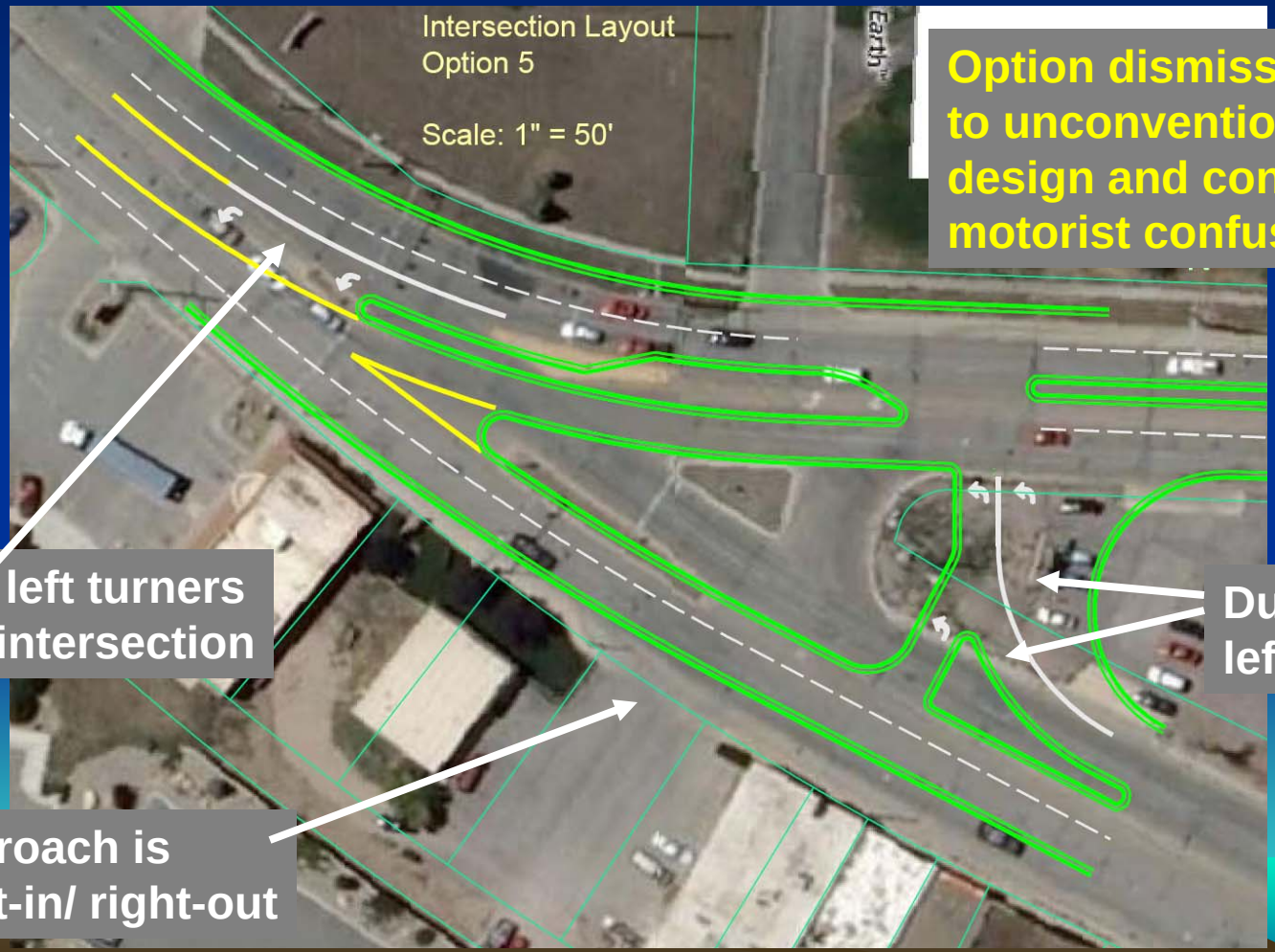
Design – Option 3a - Eliminated

(same as Option 3, but skewed 40’ west)

Jackson Boulevard/ Mountain View

Design – Option 4 - Eliminated

(Hwy 44 as thru-route with 2 EB thru-lanes on Jackson)



Option dismissed due to unconventional design and concern with motorist confusion.

Southbound left turners carried past intersection

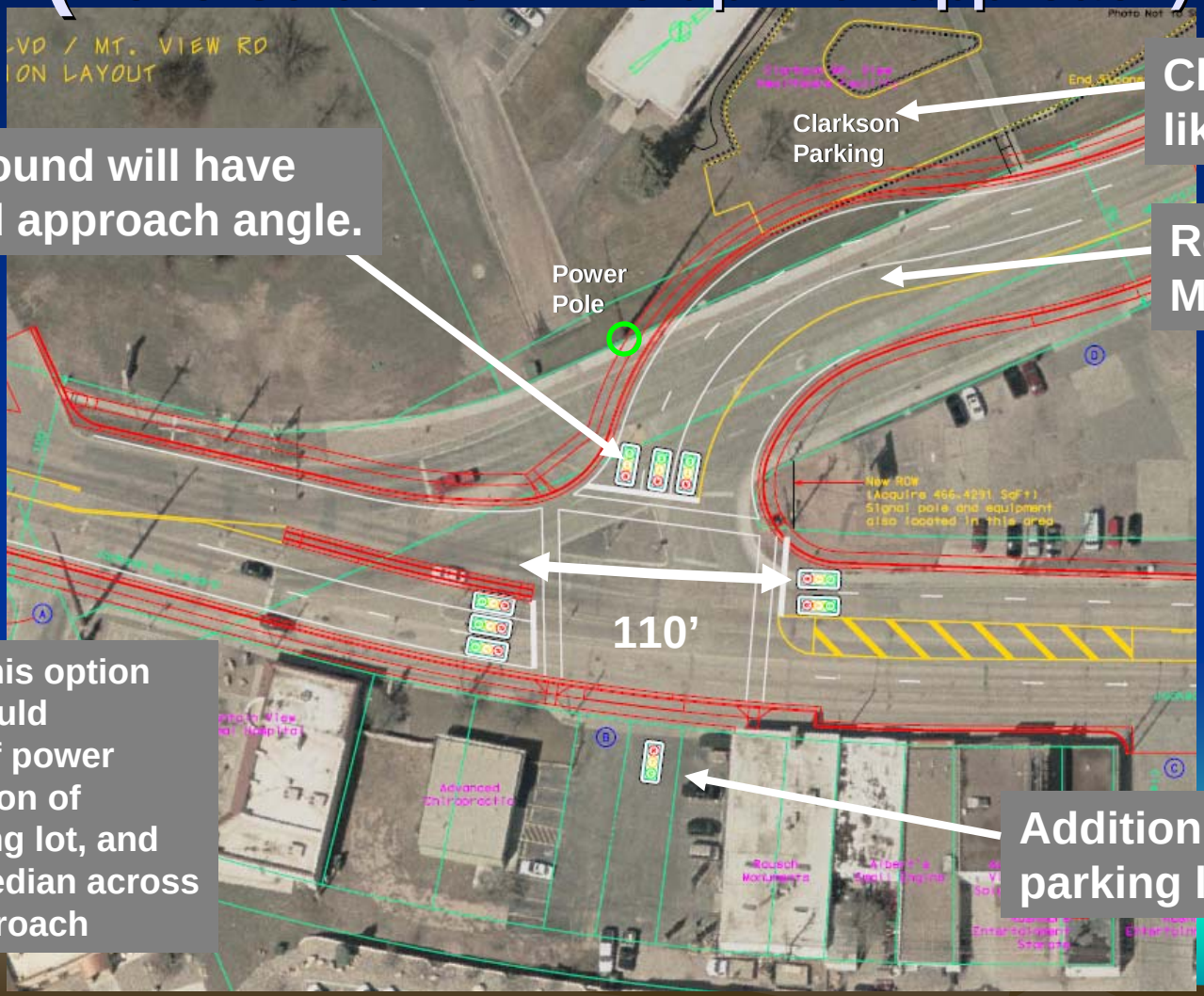
Dual westbound left turns

Approach is right-in/ right-out

Jackson Boulevard/ Mountain View

Design – Option 5 - Eliminated

(Reverse curve – line up with approach)



Clarkson parking lot likely affected

Southbound will have squared approach angle.

Reverse curve on Mountain View Rd

Note: moving this option farther west would require move of power pole, modification of Clarkson parking lot, and extension of median across Pro Motion approach

Addition of signal for parking lot traffic

Jackson Boulevard/ Mountain View

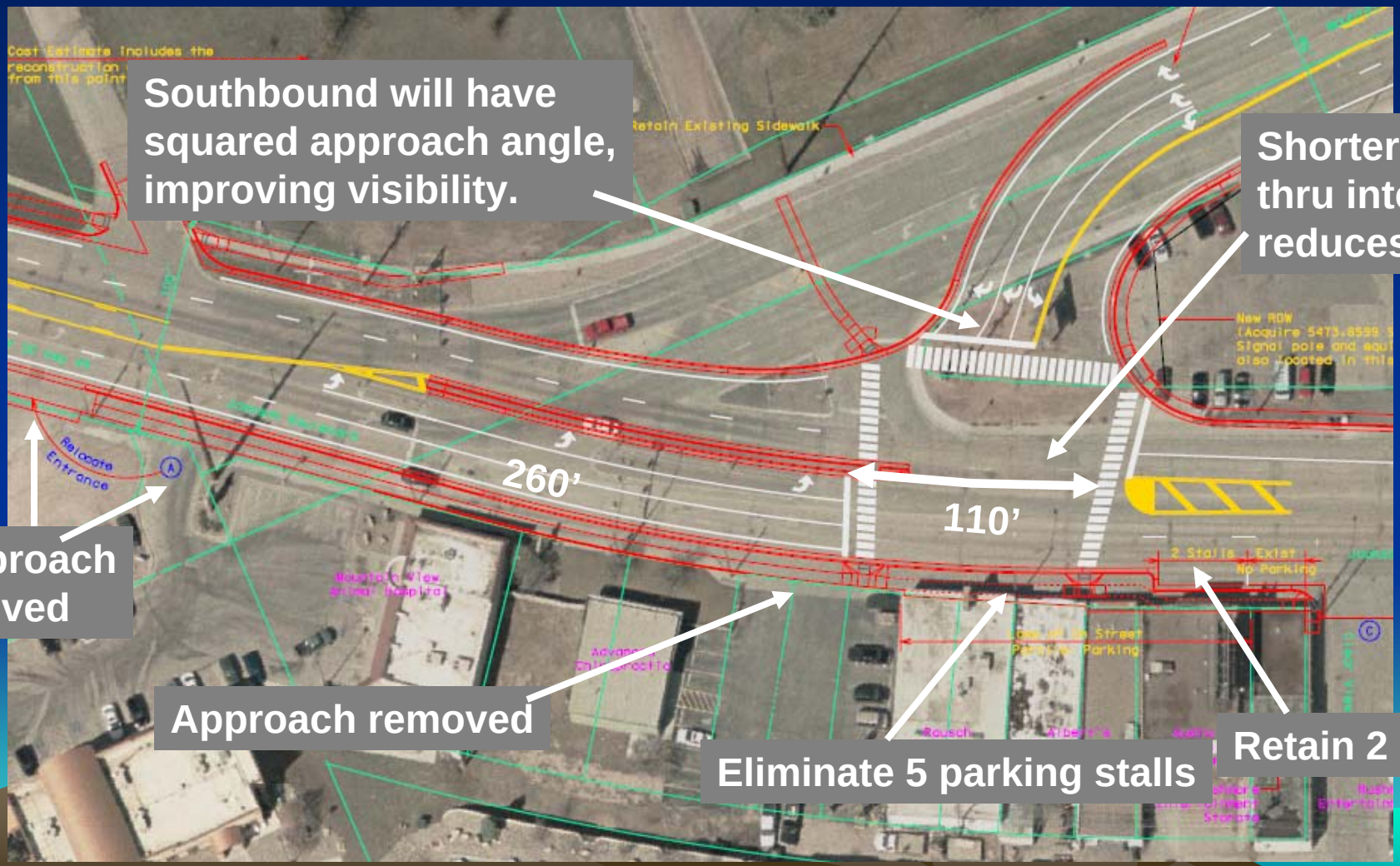
NEW INTERSECTION

DESIGN OPTIONS STILL BEING CONSIDERED

- Option 3 – previously presented to Public Works Committee
- Option 6 – developed to save some on-street parking

Jackson Boulevard/ Mountain View

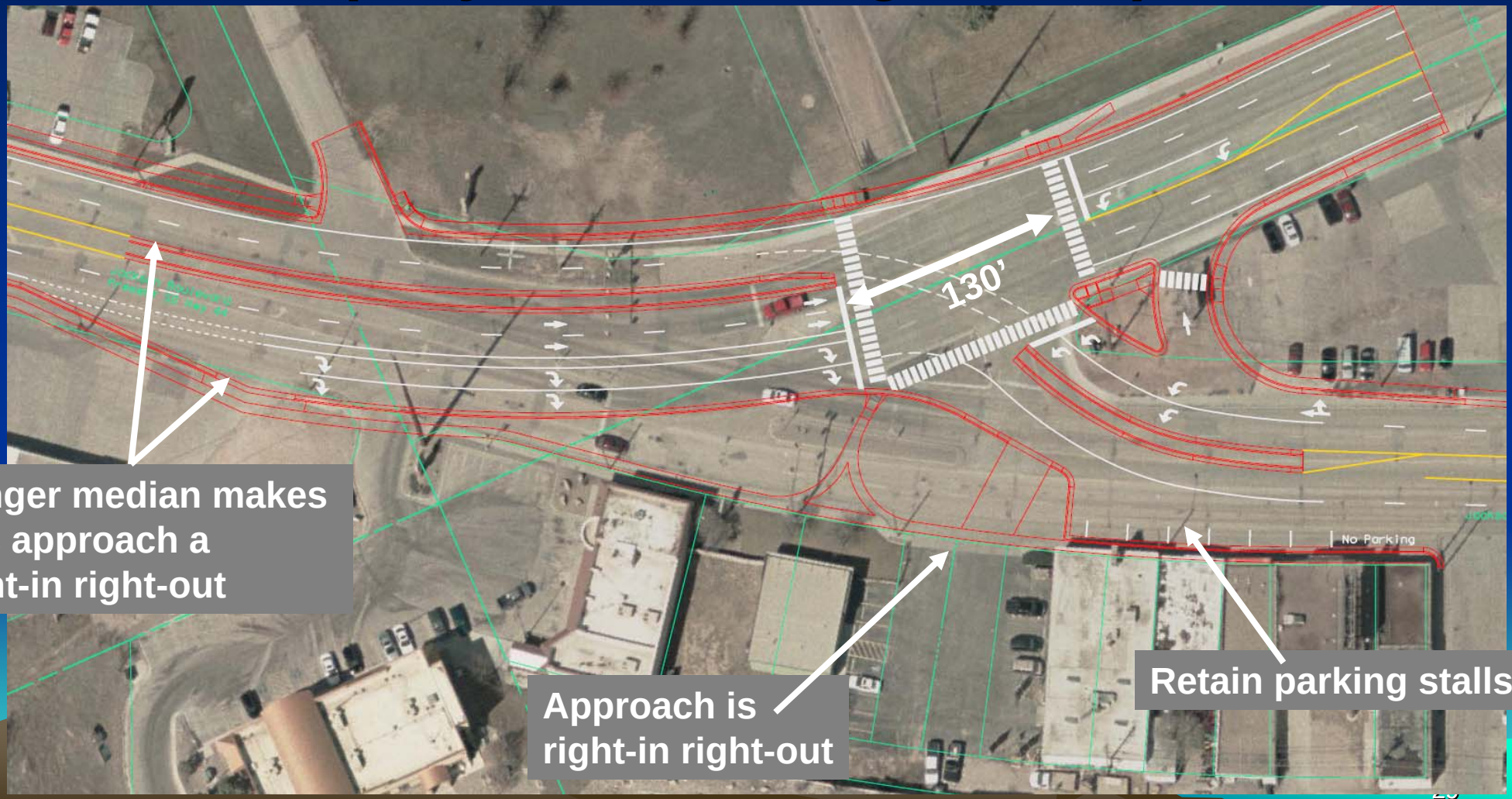
Design – Option 3
(Near 90 degree intersection)



Jackson Boulevard/ Mountain View

Design – Option 6

(Hwy 44 as through-route)



Jackson Boulevard

Effect of Option 6 to traffic at West Main

NB traffic queue at

- West Main signal

Additional backup expected

- Current – 240’
- After - 340’*

* based on 20% diversion of EB traffic from Jackson Blvd.

Jackson Boulevard/ Mountain View

REVIEW OF ON-STREET PARKING

Between May 28 and June 25, 2010, parking was documented 34 times. Visits were on weekdays between the hours of 9 a.m. and 4:30 p.m.

Jackson Boulevard/ Mountain View

REVIEW OF ON-STREET PARKING

On 1 occasion there was more than 1 vehicle using the 7 stalls. At that instance there were 3 vehicles.

3 % of time

Jackson Boulevard/ Mountain View

REVIEW OF ON-STREET PARKING

On 12 occasions there was 1 vehicle using the 7 stalls.

35 % of time

Jackson Boulevard/ Mountain View

REVIEW OF ON-STREET PARKING

On 21 occasions there were no vehicles using the 7 stalls.

62 % of time

Jackson Boulevard/ Mountain View

REVIEW OF ON-STREET PARKING

In 97% of visits, the 2 proposed parking stalls would be adequate to satisfy the current parking needs.

Jackson Boulevard/ Mountain View

Goal for New Intersection

- Square up the intersection - safer for motorists & peds (crossing distances are shorter and conflict is less)
- Improve the visibility of signals for SB and WB motorists (less confusion)
- Provide SB to EB left turn lane that operates within traffic signal - improves traffic flow in area (i.e. - less cutting through Private parking lots)
- Provide pedestrian crossings that are ADA (accessible countdown timers)
- Does not negatively affect nearby intersection operations (Fulton, Canyon Lake Drive, West Main)

Jackson Boulevard/ Mountain View

COMPARISON FOR OPTIONS 3 AND 6

Item	Option 3	Option 6
Annual User* Cost ($M)	$0.303	$0.374
Construction Cost ($M)	$0.542	$0.617
40 Year User Cost ($M)	$12.1	$15.0
Removal of on-street Parking?	Yes	No

* User Cost based on avg vehicle delay and DOL costs of $.20/min (cars) and $0.27/min (trucks)

Jackson Boulevard/ Mountain View

NEW INTERSECTION
Summary of 2 Options

OPTION 3

Pro's

- Best meets the goals for the redesign of the intersection

Con's

- Eliminates 5 on-street parking locations
- Requires approval by City Council – loss of on-street parking

Jackson Boulevard

Remaining Schedule

Mountain View Rd. to Rapid Creek

▪ Landowners Meeting	completed
▪ Land appraisal	substantially completed
▪ Land negotiations	substantially completed
▪ Construction Traffic Mtgs.	fall 2010 into 2011
▪ Construction start	late 2011
▪ Construction duration	1 ½ to 2 ½ years

QUESTIONS ?

Jackson Boulevard/ Mountain View

NEW INTERSECTION

POSITIVE EFFECTS OF INTERSECTION RE-DESIGN

- Squared intersections are safer for motorists & peds (crossing distances are shorter and conflict is less)
- Improved visibility of signals for SB and WB motorists
- Addition of SB left turn lane improves traffic flow in area (i.e. - less cutting through Safeway parking lot)
- Provide pedestrian crossings (accessible countdown timers)

NEGATIVE EFFECTS OF INTERSECTION RE-DESIGN

- Intersections are typically expensive to build
- Additional Right of Way needed
- Loss of some on-street parking