

GRANT ROAD

Improvement Plan

Mobility Vitality Sustainability

COMPARISON OF GEOMETRIC ALIGNMENT AND MAYOR AND COUNCIL APPROVED ALIGNMENT

There may be minor differences between the alignment maps shown here and the Design Concept Report (October 2010). Please refer to the 30% Design Plans in the Design Concept Report for the most accurate roadway design details.

Grant Road - Oracle Road to Swan Road

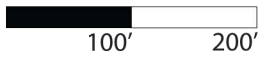
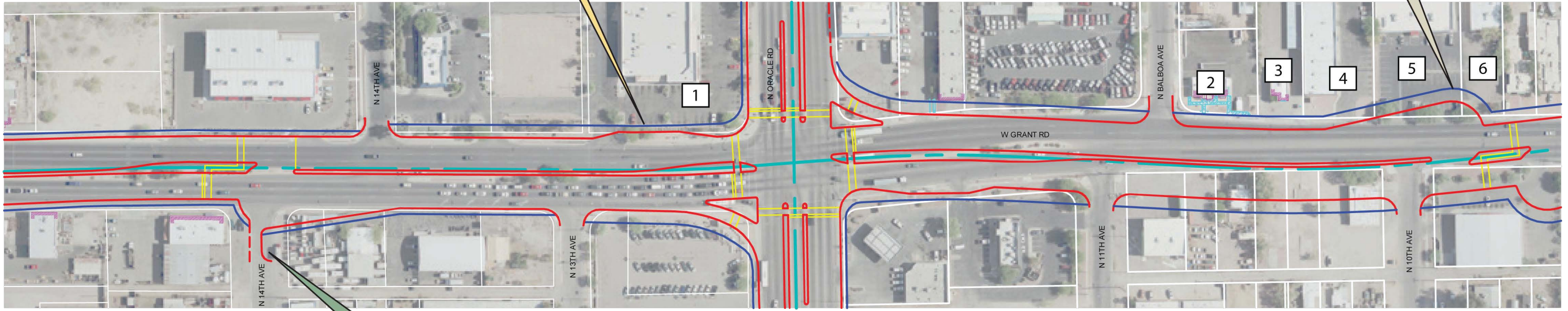
November 23, 2009

Turnaround Relocation

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Bus Pullout Change

- Bus pullout added to improve pedestrian safety



Street Closure

- Street closure decisions will be made in conjunction with Mobility and Access Workshops

1

New Impact

- Impacts limited to parking
- Impacts due to new bus pullout

2 3

Avoided Impact

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

4 5 6

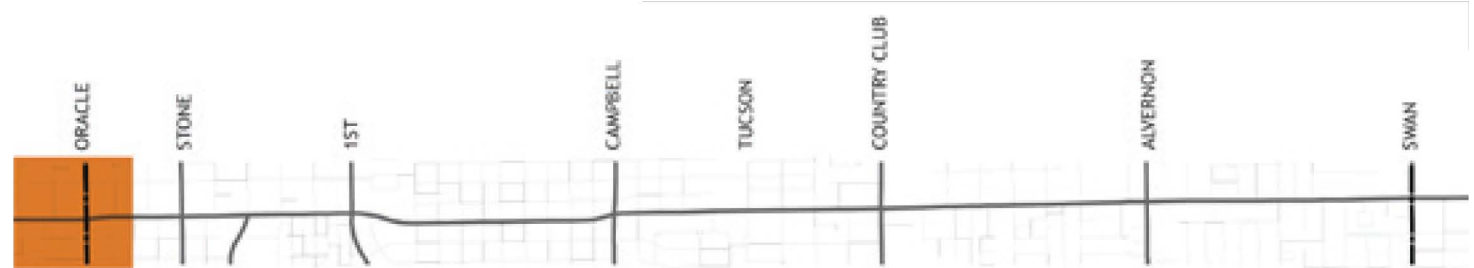
New Impact

- Impacts limited to parking
- Impacts due to relocation of turnaround
- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Legend

- Centerline
- Right-of-Way
- Curblines
- Existing Curblines
- Crossings

GEOMETRIC ALIGNMENT
November 23, 2009



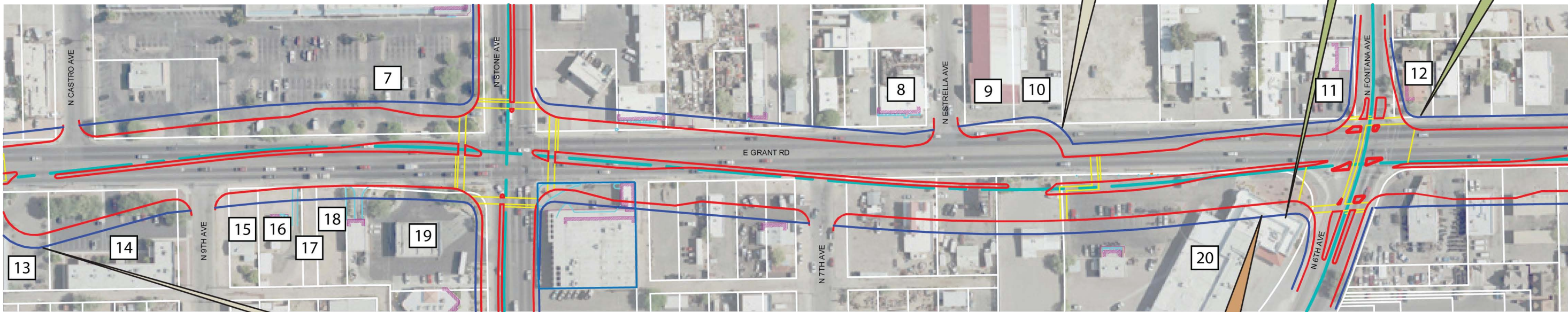
7
Increased Impact
 • Impacts limited to parking
 • Impacts due to engineering refinement of the centerline

8 15 16 17 18 19
Reduced Impact
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

11 12
New Impact
 • Impacts limited to parking and landscaping
 • Impacts due to engineering refinement of the centerline

Turnaround Relocation
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Turn Lane Change
 • Right turn lane eliminated to minimize property impacts



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Turnaround Relocation
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

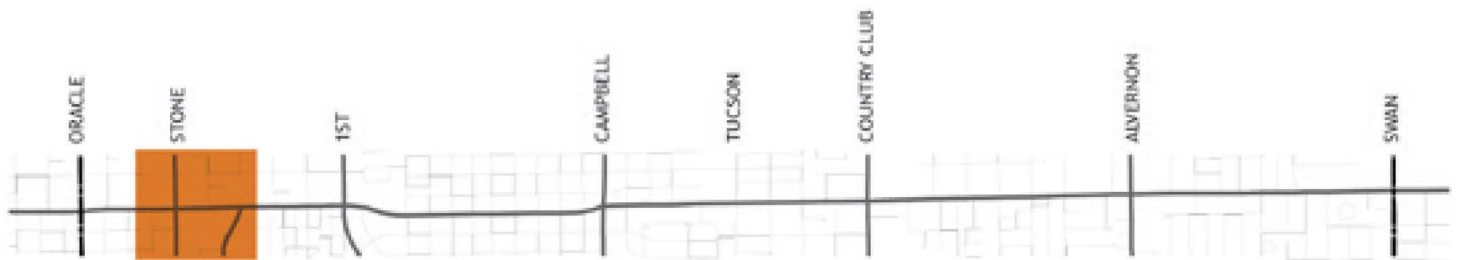
9 10
New Impact
 • Impacts limited to parking
 • Impacts due to relocation of turnaround
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

13 14
Increased Impact
 • Impacts limited to parking
 • Impacts due to relocation of turnaround
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

20
Reduced Impact
 • Removed local access lane to minimize property impacts

Local Access Lane Change
 • Local access lane eliminated to minimize property impacts and for safety considerations

Legend
 - - - Centerline
 — Right-of-Way
 — Curbline
 - - Existing Curbline
 — Crossings



Median Opening
 • Median opening added to accommodate U-turns

Bus Pullout Change
 • Bus pullout eliminated to improve bus stop spacing

Bus Pullout Change
 • Bus pullout moved due to shopping center driveway

Local Access Lane Change
 • Removed local access lane due to safety and access issues caused by relocation of turnaround

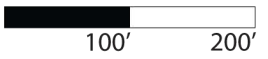
Turnaround Relocation
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

21 22 23 24 25 26
New Impact
 • Impacts limited to parking
 • Impacts due to engineering refinement of the centerline

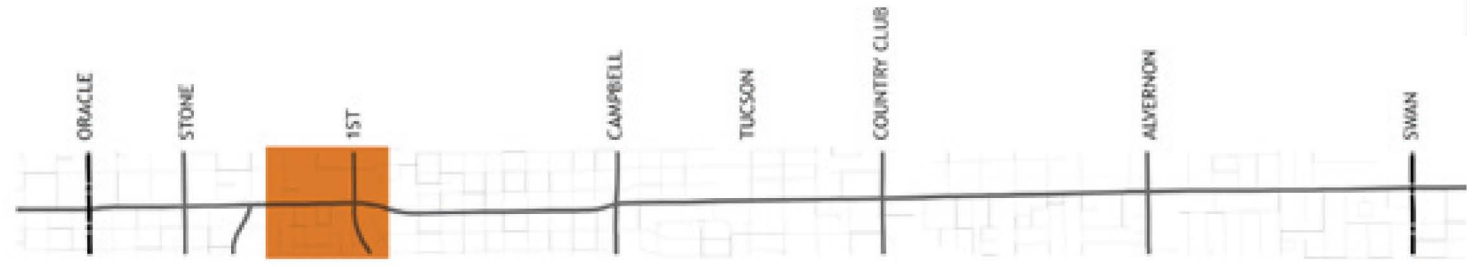
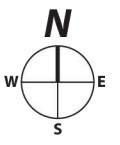
27 28
Avoided Impact
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Street Closure
 • Street closure decisions will be made in conjunction with Mobility and Access Workshops

Legend
 - - - Centerline
 — Right-of-Way
 — Curbline
 - - Existing Curbline
 — Crossings



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Turnaround Relocation

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Bus Pullout Change

- Bus pullout eliminated to minimize property impacts

Turn Lane Change

- Right turn lane eliminated to minimize property impacts

Pelican Change

- Pelican removed due to proximity to Park Ave. intersection
- Pedestrians can use Park Ave to cross Grant Rd.

29

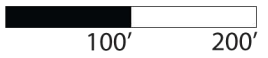
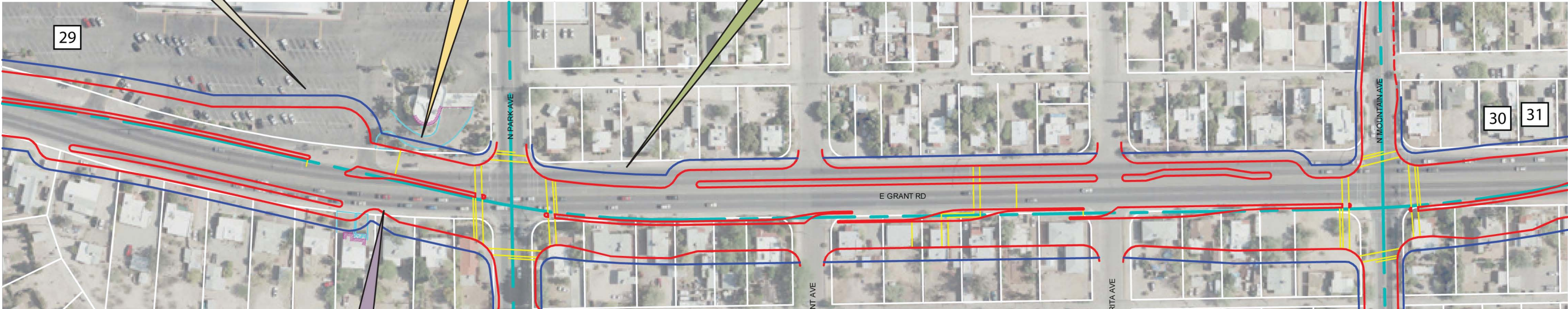
Reduced Impact

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

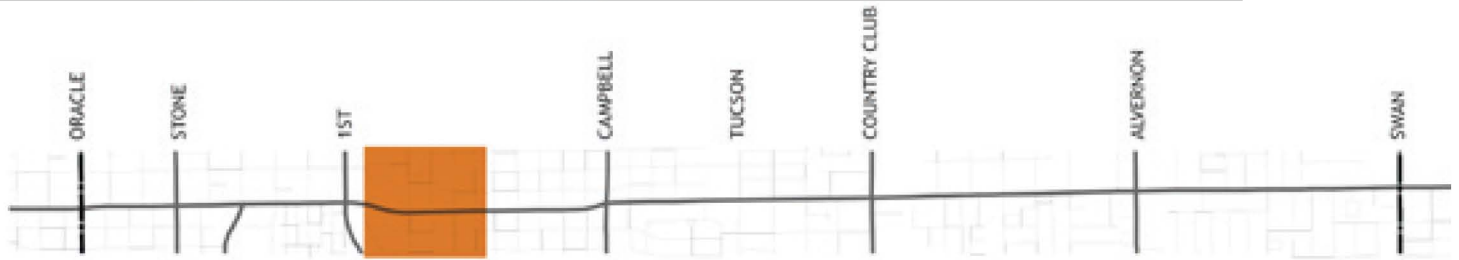
30 31

New Impact

- Non-structural impacts to property due to engineering refinement of the centerline



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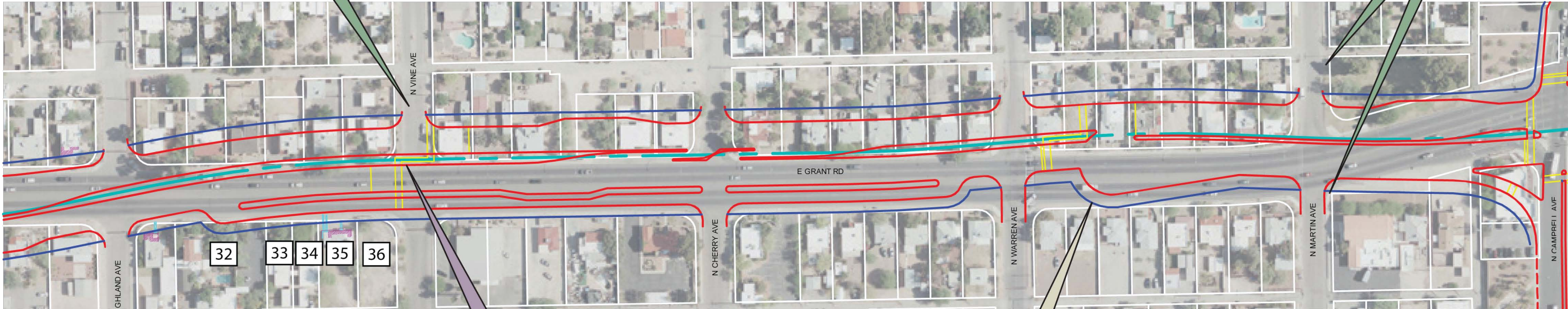
- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - Existing Curbline
 - Crossings

Street Closure

- Street closure decisions will be made in conjunction with Mobility and Access Workshops

Street Closure

- Street closure decisions will be made in conjunction with Mobility and Access Workshops



Pelican Change

- Pelican moved to align with Vine Ave. to improve pedestrian connectivity

32 33 34 35 36

Reduced Impact

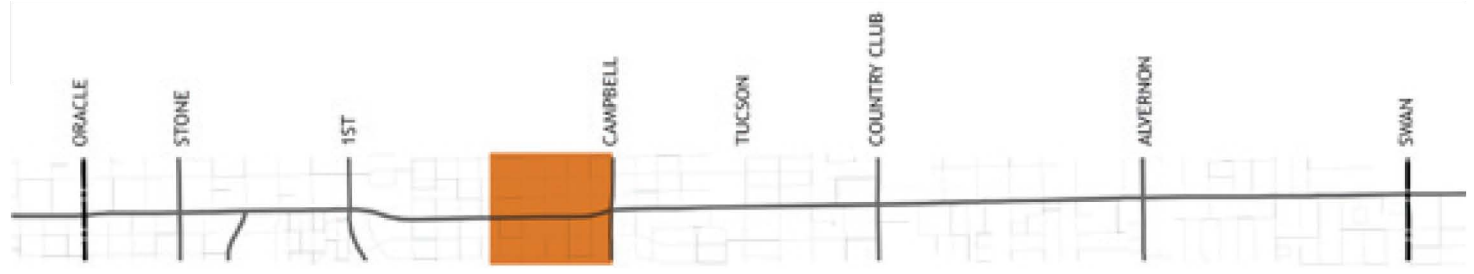
- Reduced impacts due to engineering refinement of the centerline

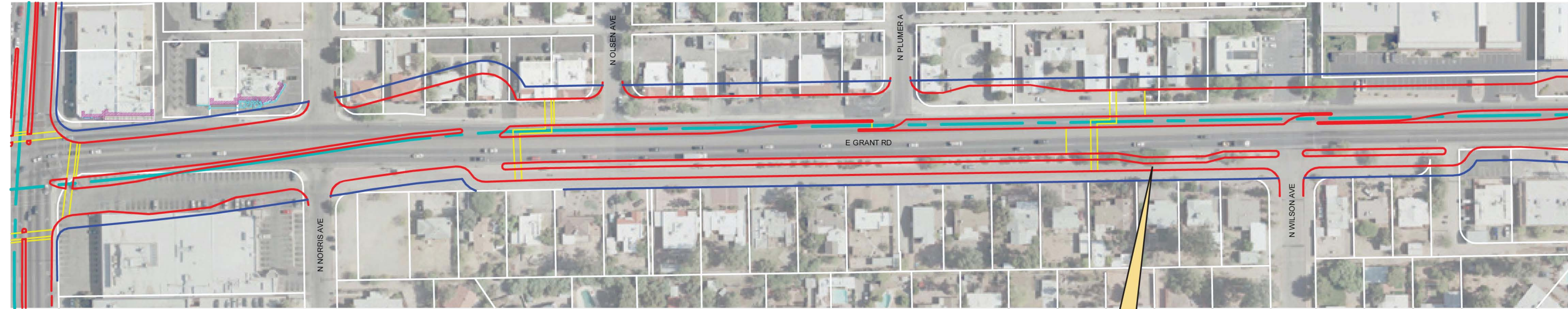
Turnaround Relocation

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - Existing Curbline
 - Crossings

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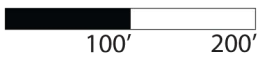




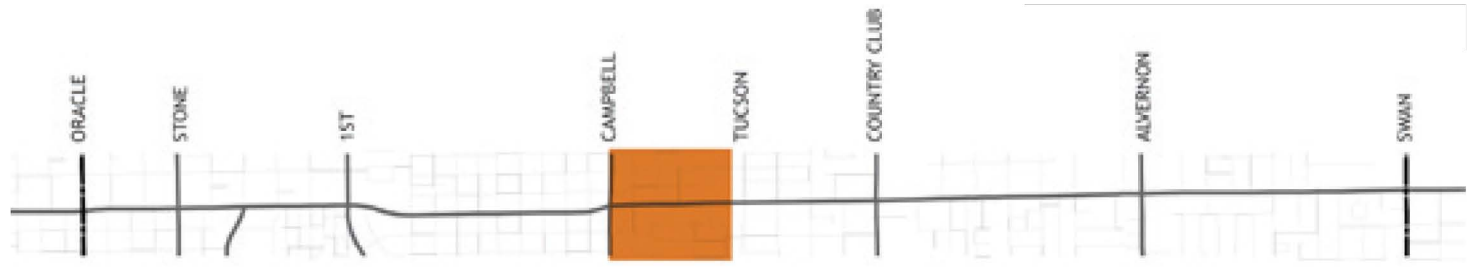
Bus Pullout Change

- Bus pullout moved to be in front of Pelican to improve pedestrian safety

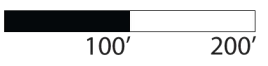
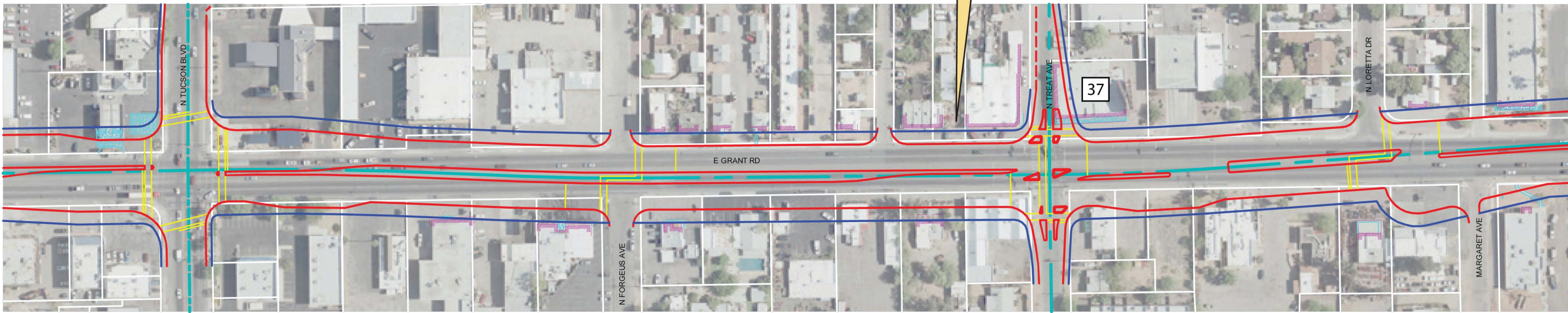
- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - - Existing Curbline
 - Crossings



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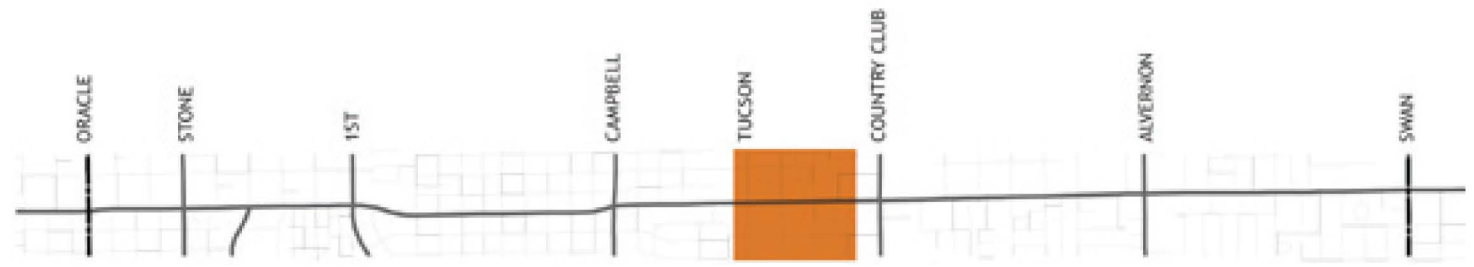
Bus Pullout Change
 • Bus pullout eliminated to minimize property impacts



37
Increased Impact
 • Impacts to structure due to engineering refinement of intersection geometry

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - - - Existing Curbline
 - Crossings

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Turnaround Relocation

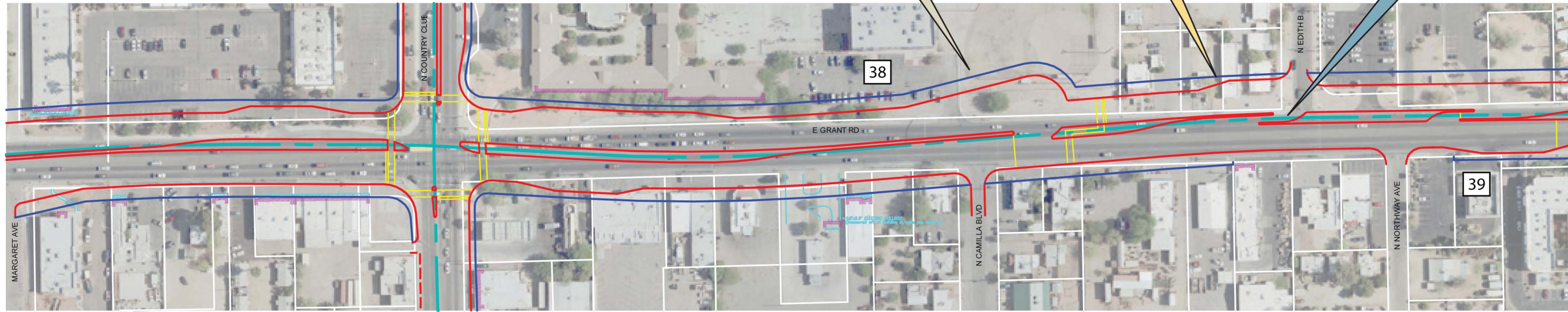
- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

Bus Pullout Change

- Bus pullout moved to improve pedestrian safety

Median Opening

- Median opening added to accommodate U-turns



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38

Reduced Impact

- Reduced impact to Boy's and Girl's Club parking lot due to relocated turnaround
- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

39

New Impact

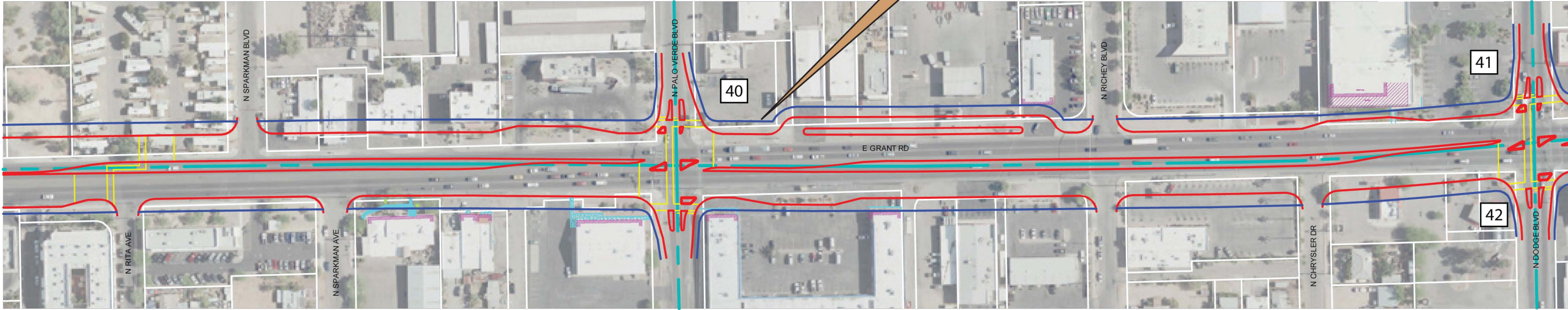
- Impacts are limited to landscaping
- Impacts due to engineering refinement of the centerline

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - Existing Curbline
 - Crossings



Local Access Lane Change

- Local access lane shortened to improve safety at intersection with Palo Verde



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40

Reduced Impact

- Reduced impact due to safety and access considerations to local access lane

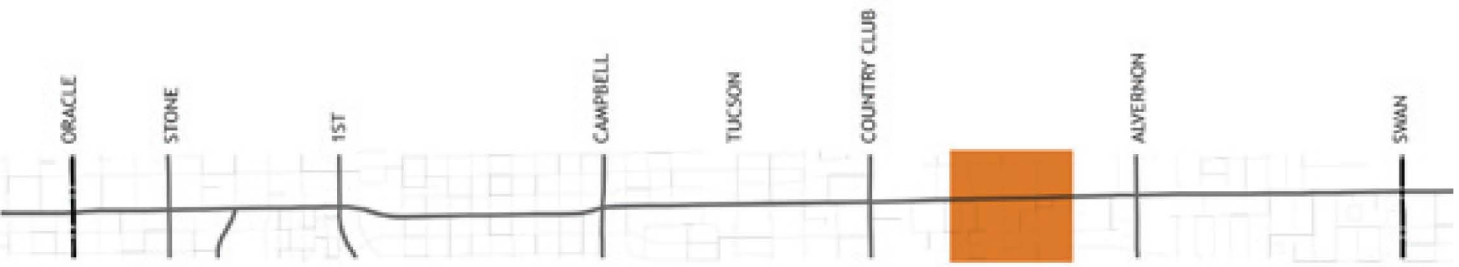
41 42

Increased Impact

- Impacts are limited to parking and landscaping
- Impacts due to engineering refinement of intersection geometry

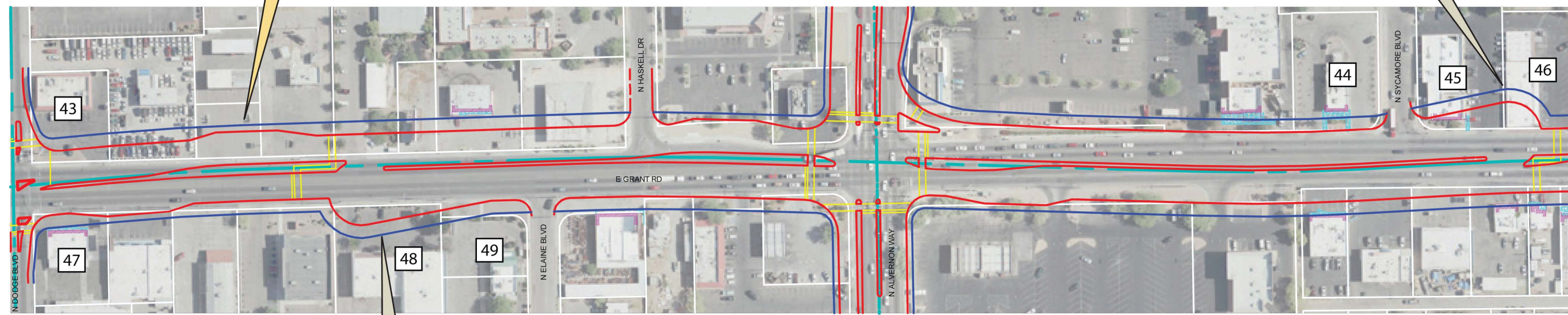
Legend

- Centerline
- Right-of-Way
- Curline
- Existing Curline
- Crossings



Bus Pullout Change
 • Bus pullout moved due to turnaround relocation

Turnaround Relocation
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations



Turnaround Relocation
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

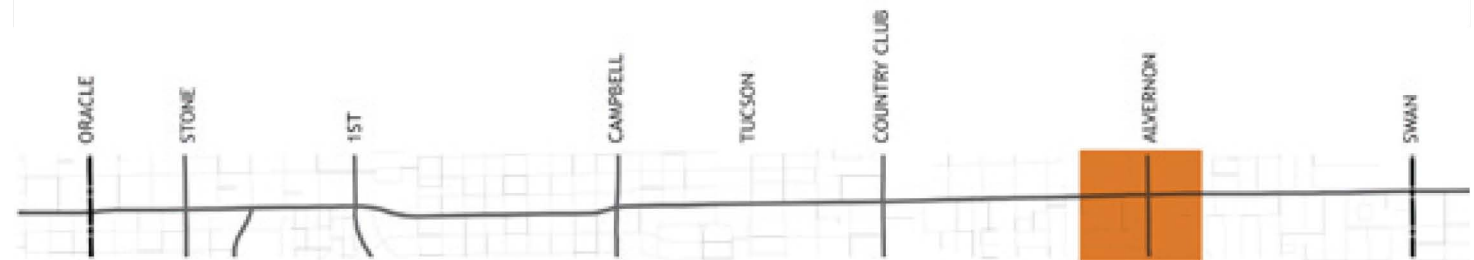
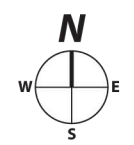
44 49
Reduced Impact
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

45 46 48
Increased Impact
 • Impacts due to relocation of turnaround
 • Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

43 47
Increased Impact
 • Impacts are limited to parking and landscaping
 • Impacts due to engineering refinement of intersection geometry

Legend
 - - - Centerline
 — Right-of-Way
 — Curline
 - - Existing Curline
 — Crossings

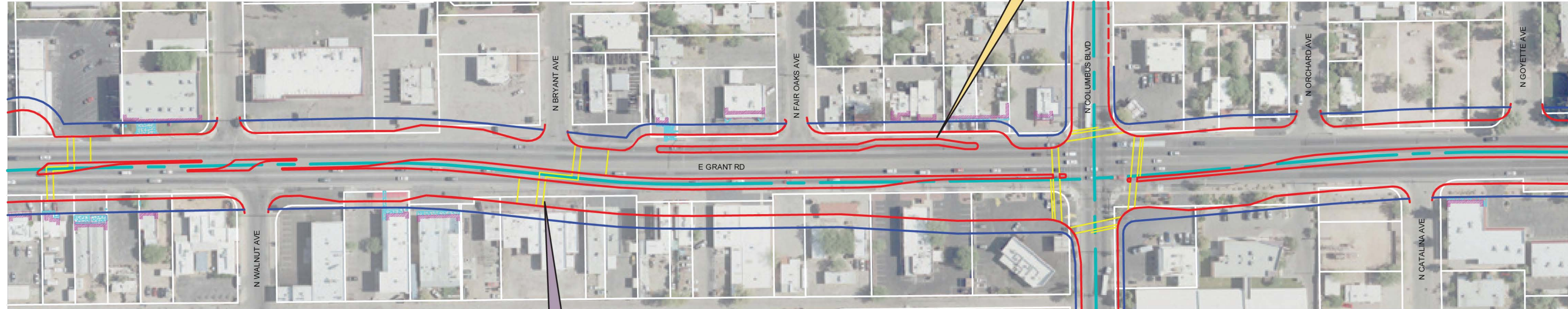
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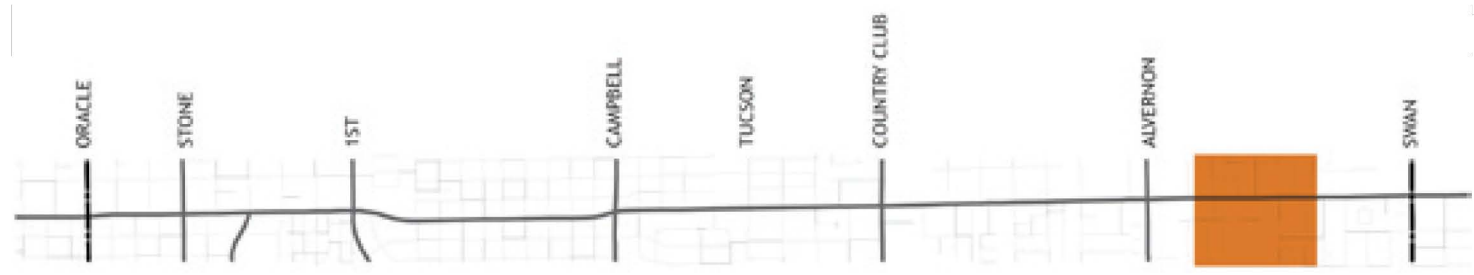
Bus Pullout Change
 • Bus pullout moved to improve pedestrian safety

Pelican Change
 • Pelican moved to Bryant Ave. to improve spacing between traffic signals and pedestrian crossings

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - - - Existing Curbline
 - Crossings

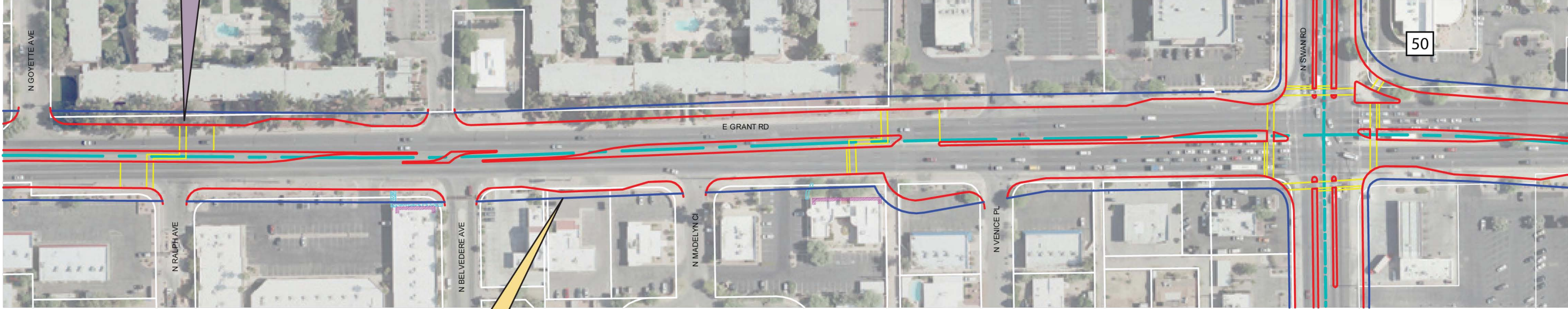


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Pelican Change

- Pelican moved to Ralph Ave. to improve spacing between traffic signals and pedestrian crossings



Bus Pullout Change

- Bus pullout moved to improve pedestrian safety

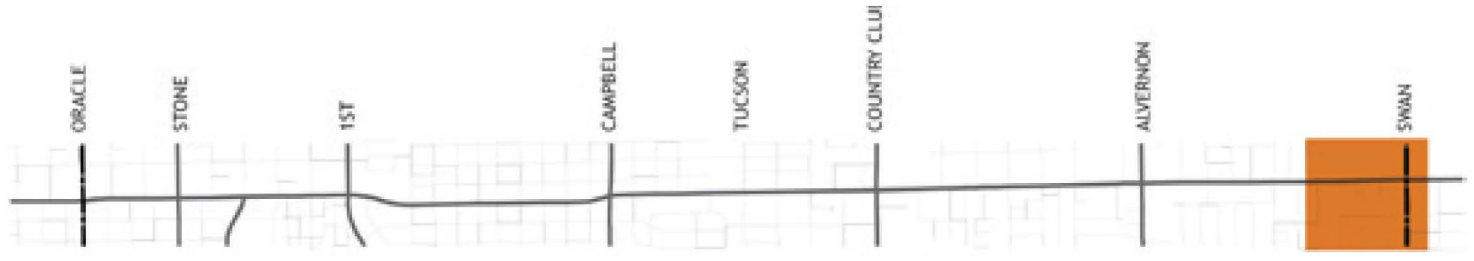
50

Increased Impact

- Impacts are limited to parking
- Impacts due to engineering refinement of the centerline and intersection geometry

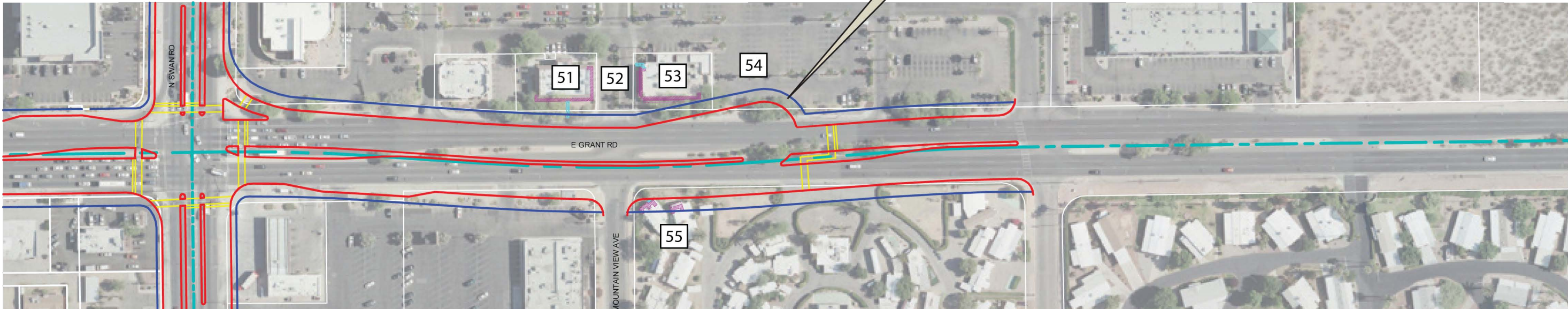
- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - - Existing Curbline
 - Crossings

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Turnaround Relocation

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations



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51 52

Avoided Impact

- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

53 54

New Impact

- Impacts limited to parking and landscaping
- Impacts due to relocation of turnaround
- Relocated turnaround to address neighborhood traffic concerns, access to local streets, and safety considerations

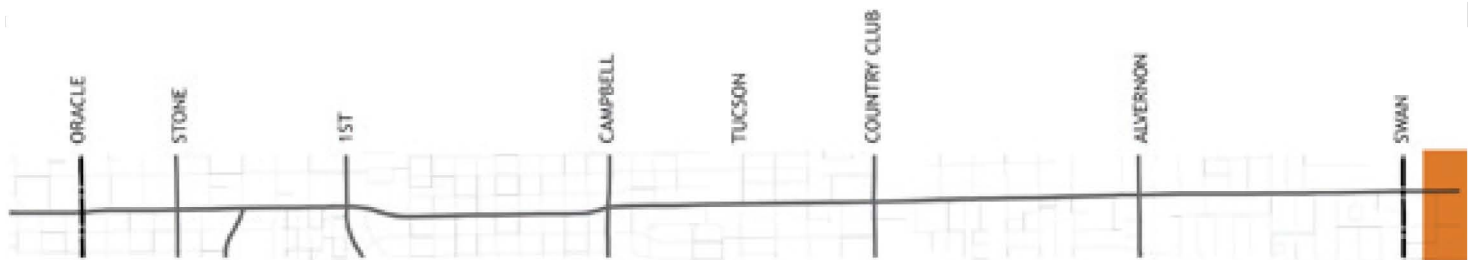
55

Increased Impact

- Impacts to structure due to engineering refinement of centerline geometry

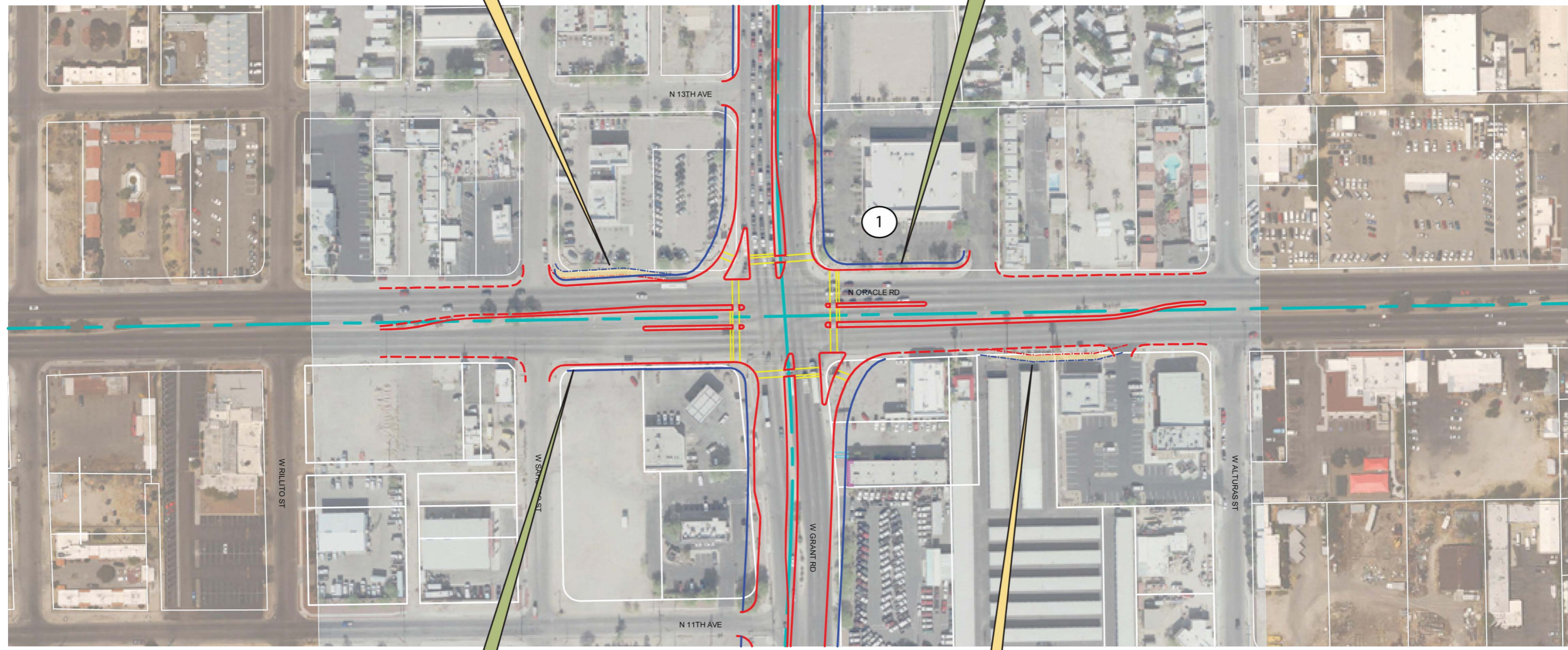
Legend

- Centerline
- Right-of-Way
- Curblines
- Existing Curblines
- Crossings



Recommended Bus Pullout
 • Bus pullout potentially by others

Turn Lane Change
 • Right turn lane shortened to minimize property impacts



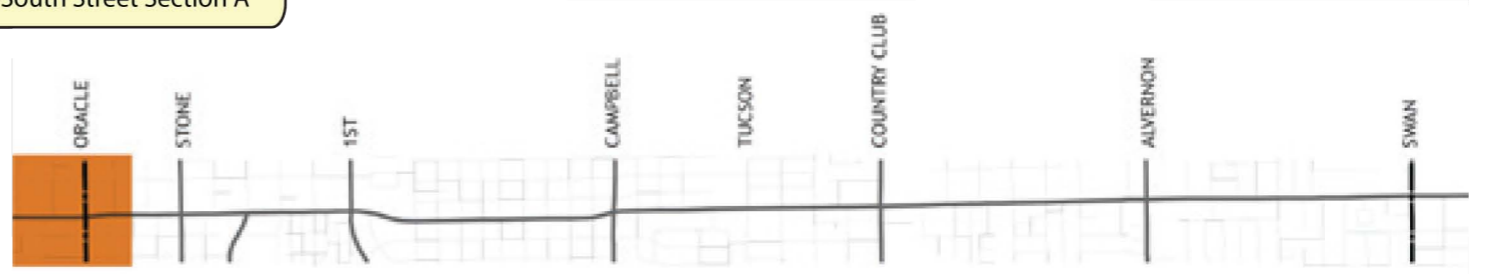
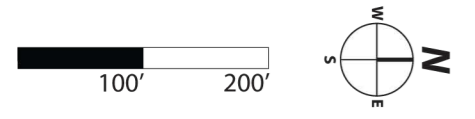
Turn Lane Change
 • Right turn lane shortened to minimize property impacts

1
Previously Undetermined Impacts
 • Impacts limited to landscaping
 • Impacts due to warranted southbound right-turn lane
 • See North-South Street Section A

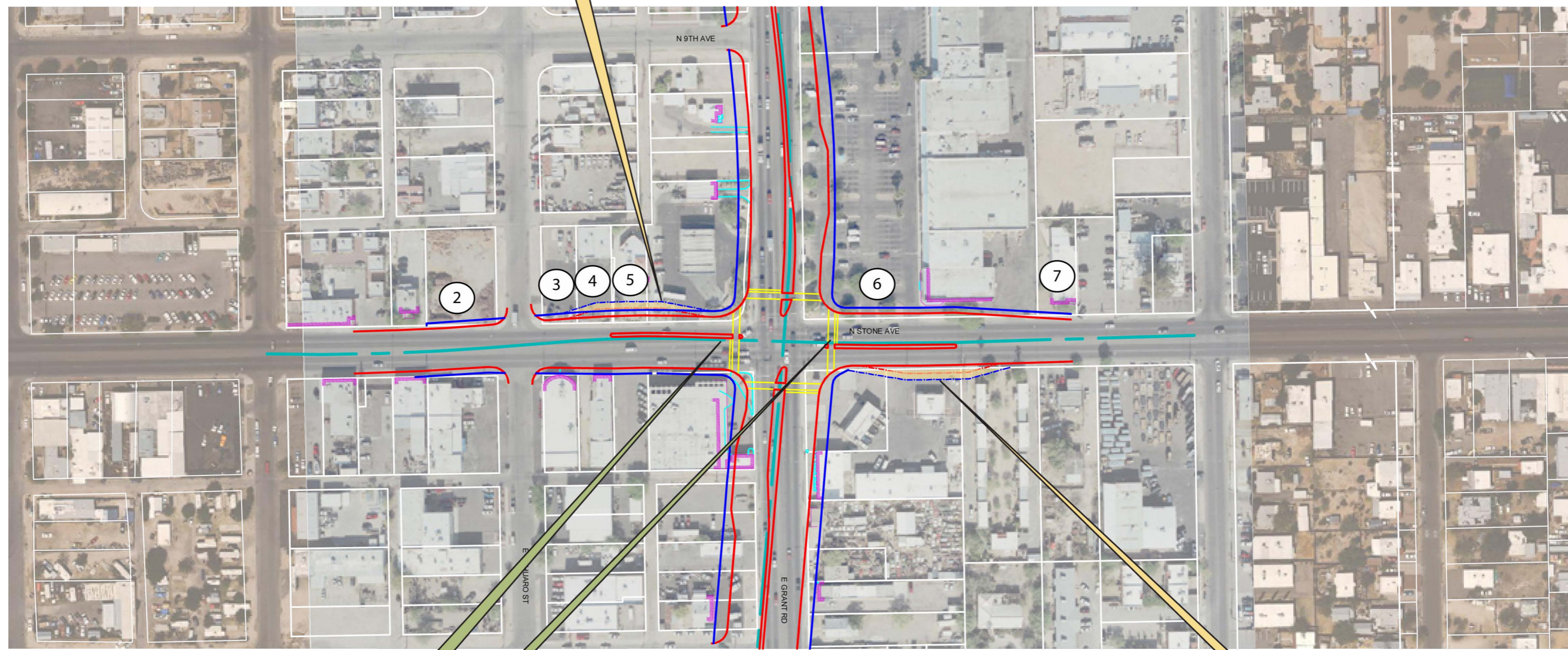
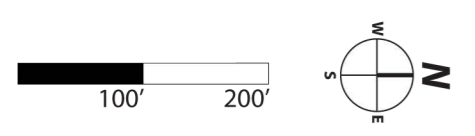
Recommended Bus Pullout
 • Bus pullout potentially by others

Legend
 --- Centerline
 --- Right-of-Way
 --- Curblines
 - - - Existing Curblines
 --- Crossings

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Recommended Bus Pullout
• Bus pullout potentially by others

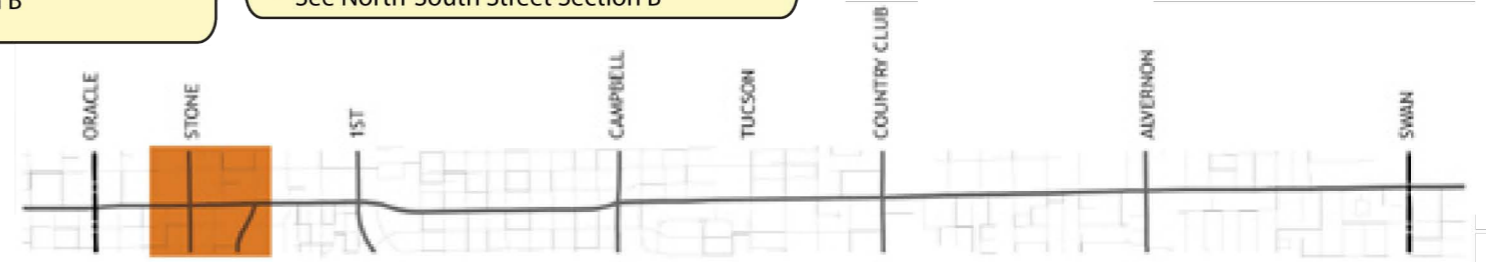
Turn Lane Change
• Single left turn lane provided instead of recommended dual left turn lanes to minimize property impacts

2 3 4 5
Previously Undetermined Impacts
• Impacts limited to parking and landscaping
• Impacts due to the Red Flag property avoidance on the southeast corner of intersection
• See North-South Street Section B

6 7
Previously Undetermined Impacts
• Impacts limited to parking and landscaping
• Impacts due to intersection approach improvements
• See North-South Street Section B

Recommended Bus Pullout
• Bus pullout potentially by others

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - Existing Curbline
 - Crossings

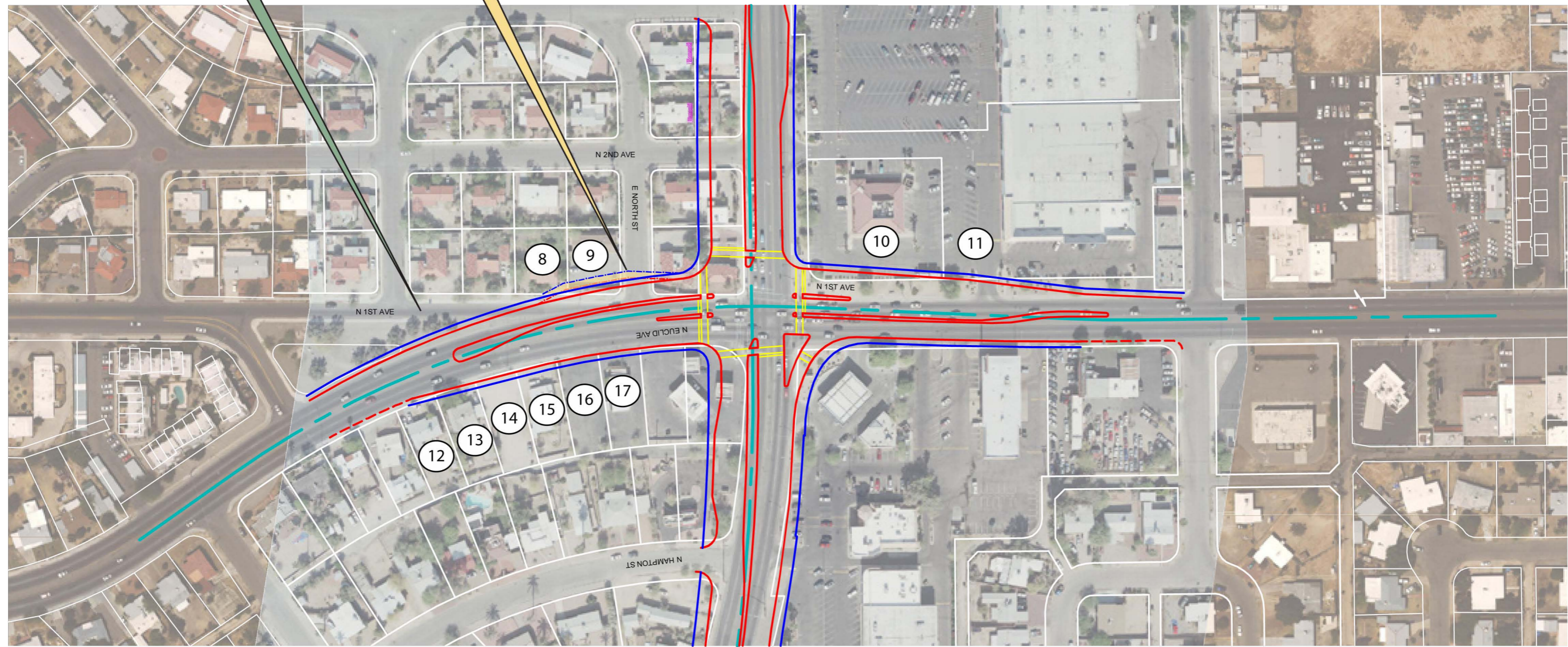


Street Closure

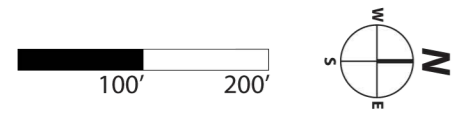
- Street closure decisions will be made in conjunction with Mobility and Access Workshops

Recommended Bus Pullout

- Bus pullout potentially by others



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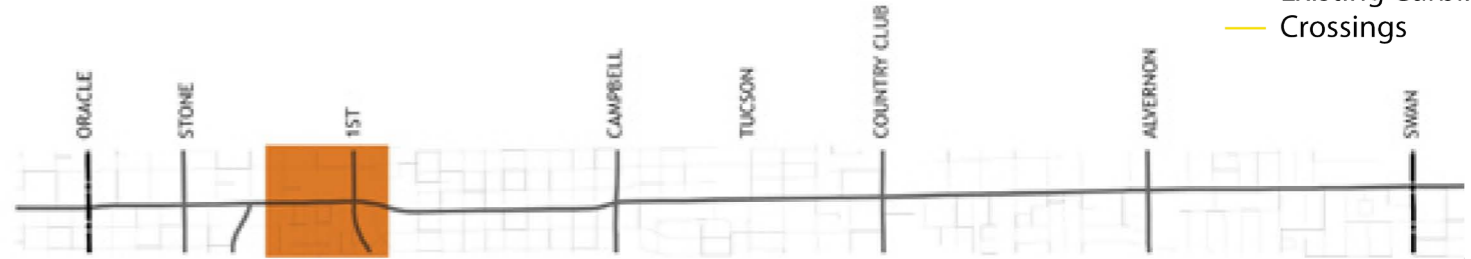
8 9 10 11 12 13 14 15 16 17

Previously Undetermined Impacts

- Impacts limited to parking and landscaping
- Impacts due to intersection approach improvements
- See North-South Street Section C

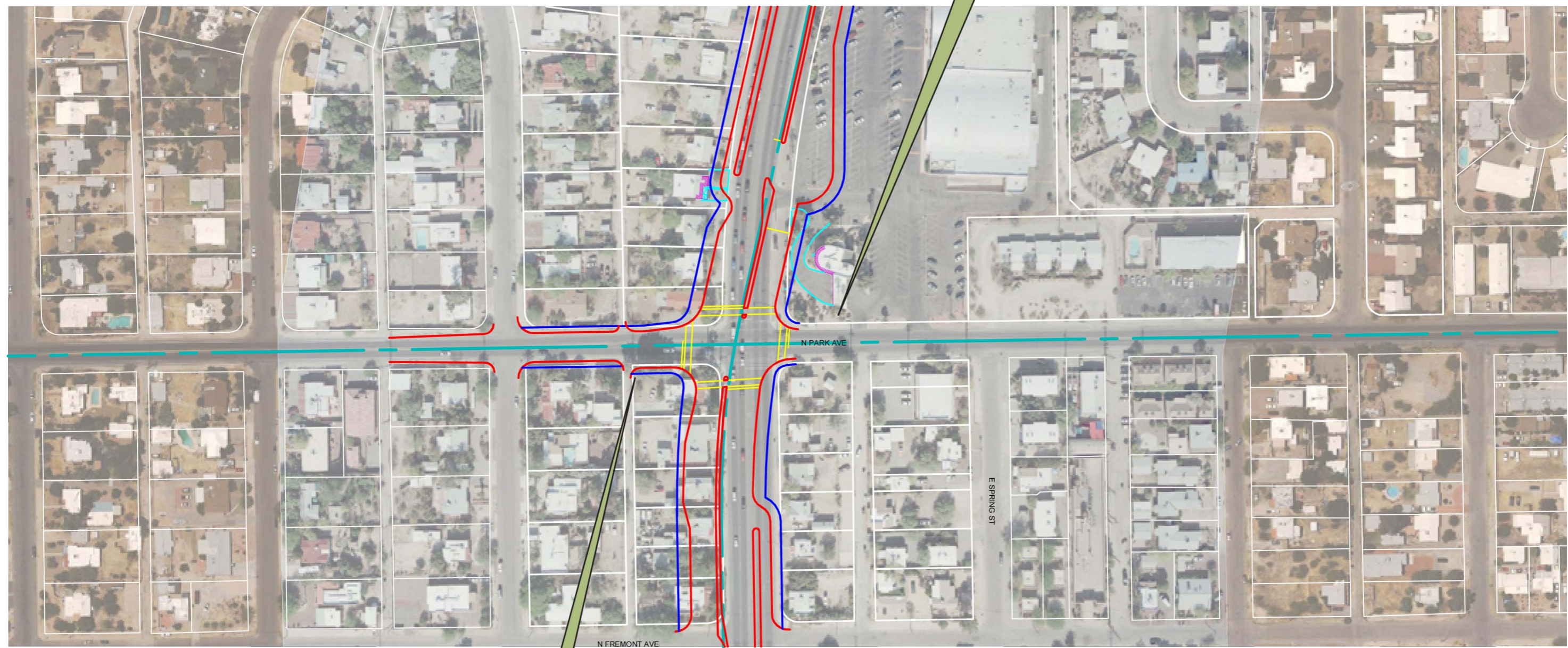
Legend

- Centerline
- Right-of-Way
- Curblines
- Existing Curblines
- Crossings

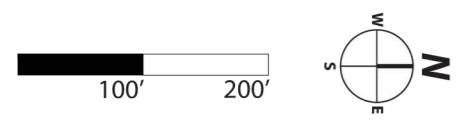


Turn Lane Change
 • Right turn lane eliminated to minimize property impacts

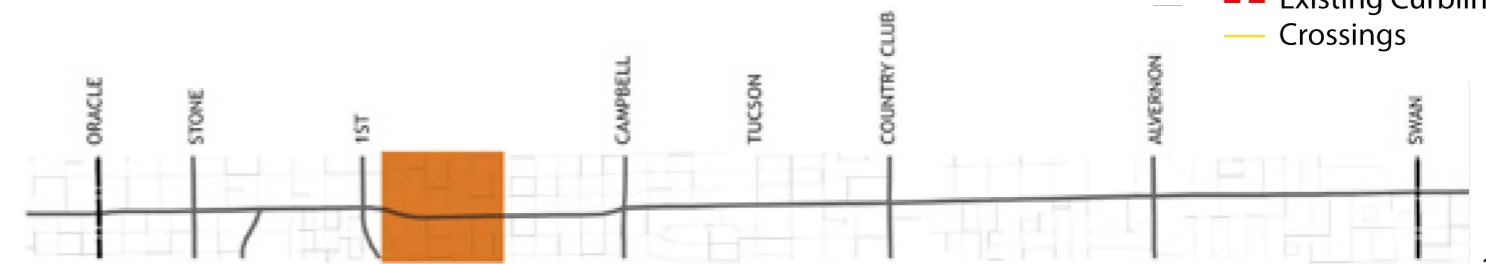
Turn Lane Change
 • Right turn lane shortened to minimize property impacts



GEOMETRIC ALIGNMENT
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- Legend**
- Centerline
 - Right-of-Way
 - Curblines
 - Existing Curblines
 - Crossings



Turn Lane Change
 • Left turn lanes added to improve vehicle and bicycle safety

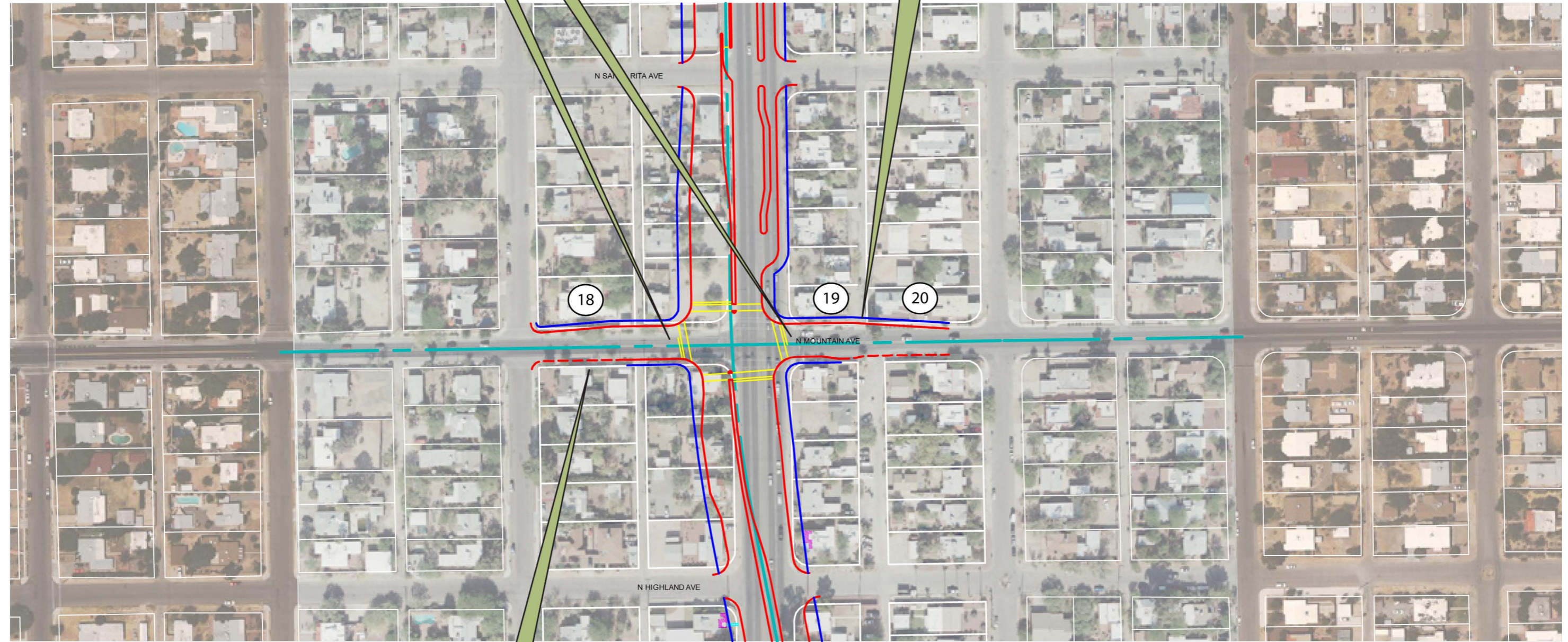
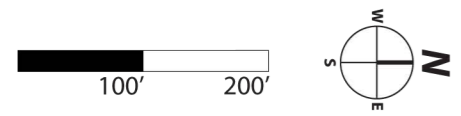
Turn Lane Change
 • Right turn lane eliminated to emphasize bicycle priority on Mountain Ave.

Turn Lane Change
 • Right turn lane eliminated to emphasize bicycle priority on Mountain Ave.

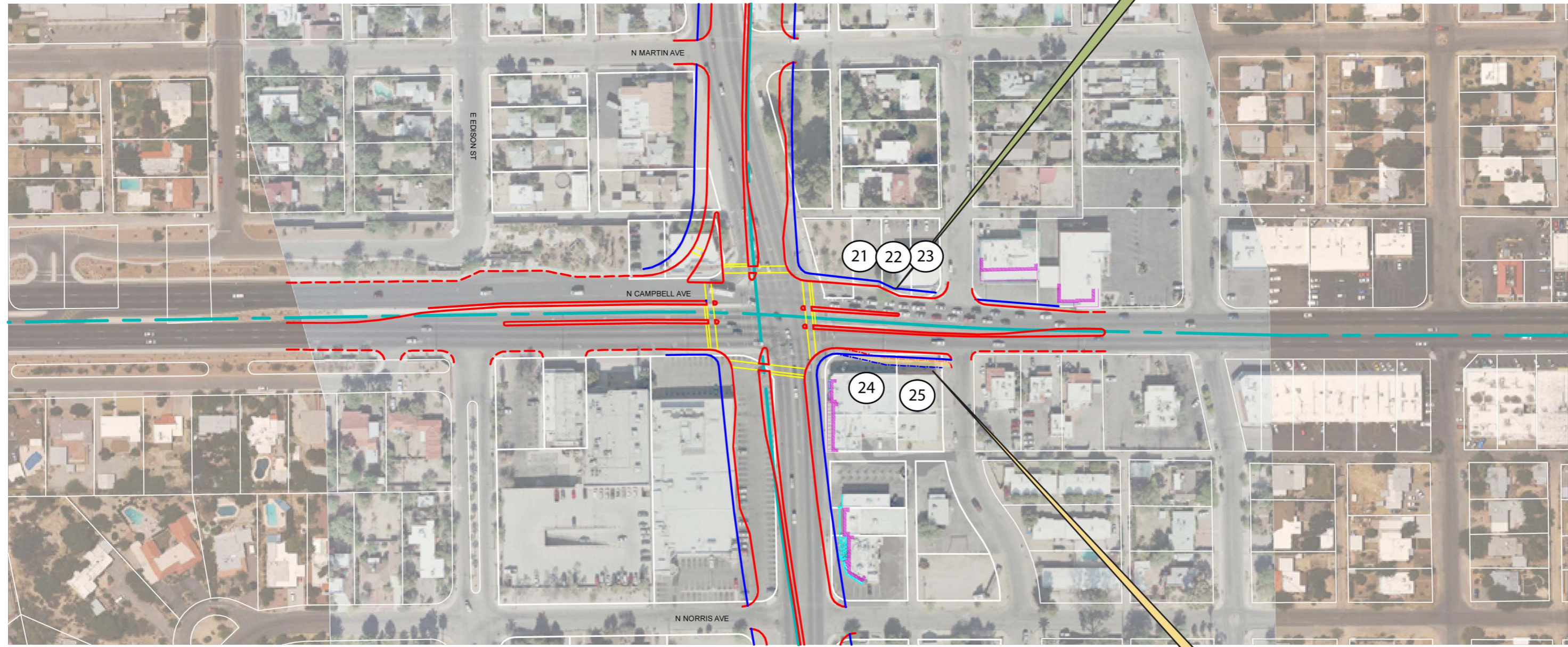
18 19 20
Previously Undetermined Impacts
 • Impacts limited to landscaping
 • Impacts due to warranted north and southbound left-turn lanes
 • See North-South Street Section F

Legend
 --- Centerline
 --- Right-of-Way
 --- Curbline
 --- Existing Curbline
 --- Crossings

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Turn Lane Change
 • Right turn lane taper shortened from previously shown alignment to minimize property impacts



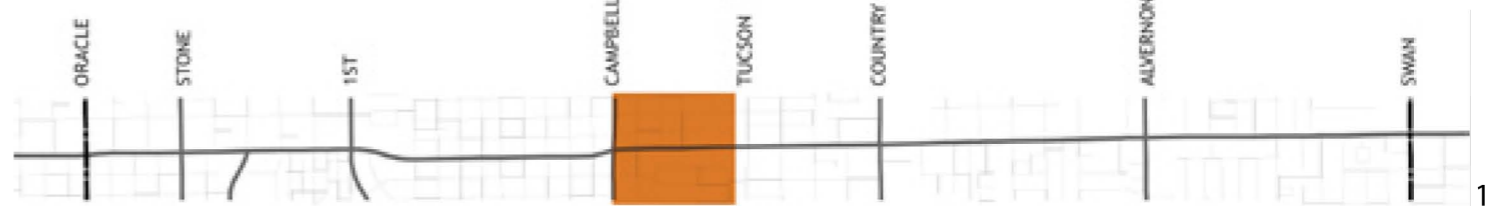
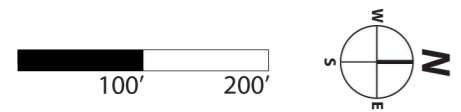
21 22 23
Previously Undetermined Impacts
 • Impacts limited to parking and landscaping
 • Impacts due to intersection approach improvements
 • See North-South Street Section C

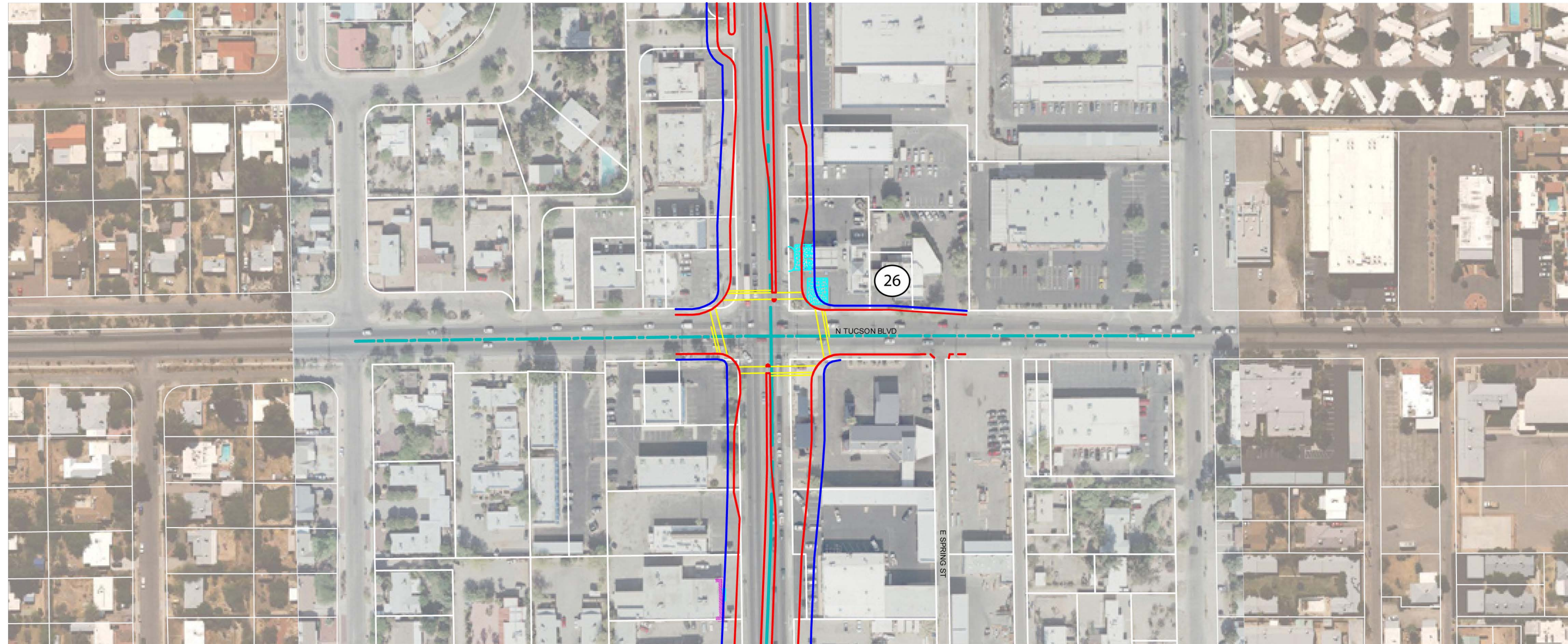
24 25
Previously Undetermined Impacts
 • Impacts limited to parking and landscaping
 • Impacts due to avoidance of structure on westside of Campbell Ave.
 • See North-South Street Section C

Recommended Bus Pullout
 • Bus pullout potentially by others

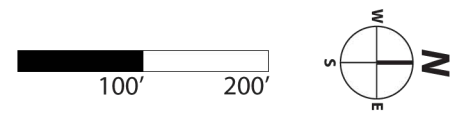
- Legend**
- Centerline
 - Right-of-Way
 - Curblines
 - - Existing Curblines
 - Crossings

GEOMETRIC ALIGNMENT
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GEOMETRIC ALIGNMENT
November 23, 2009

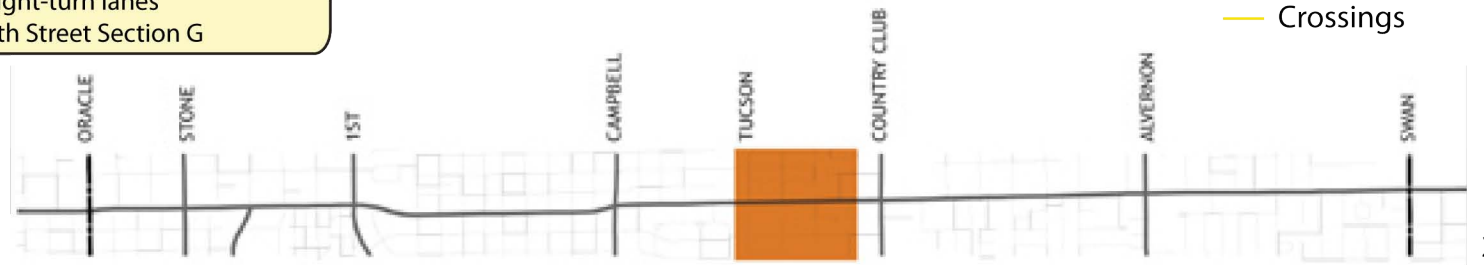


26

Previously Undetermined Impacts

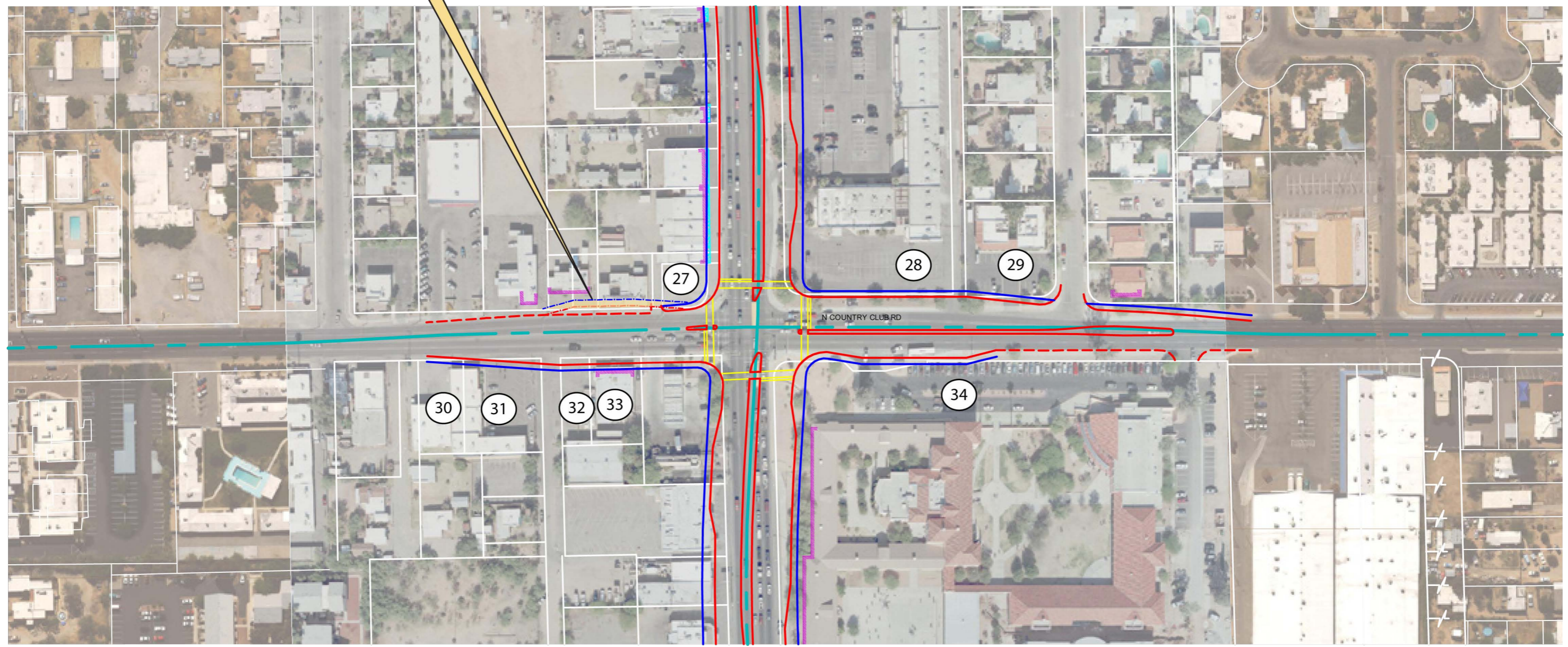
- Impacts limited to parking and landscaping
- Impacts due to warranted north and southbound right-turn lanes
- See North-South Street Section G

- Legend**
- Centerline
 - Right-of-Way
 - Curbline
 - - Existing Curbline
 - Crossings



Recommended Bus Pullout

- Bus pullout potentially by others



27 30 31 32 33

Previously Undetermined Impacts

- Impacts limited to parking and landscaping
- Impacts due to intersection approach improvements
- See North-South Street Section I

28 29

Previously Undetermined Impacts

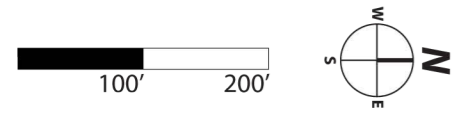
- Impacts limited to parking and landscaping
- Impacts due to warranted southbound right-turn lane
- See North-South Street Section I

34

Previously Undetermined Impacts

- Impacts limited to landscaping
- Impacts due to extended bus pull-out
- See North-South Street Section I

GEOMETRIC ALIGNMENT
November 23, 2009

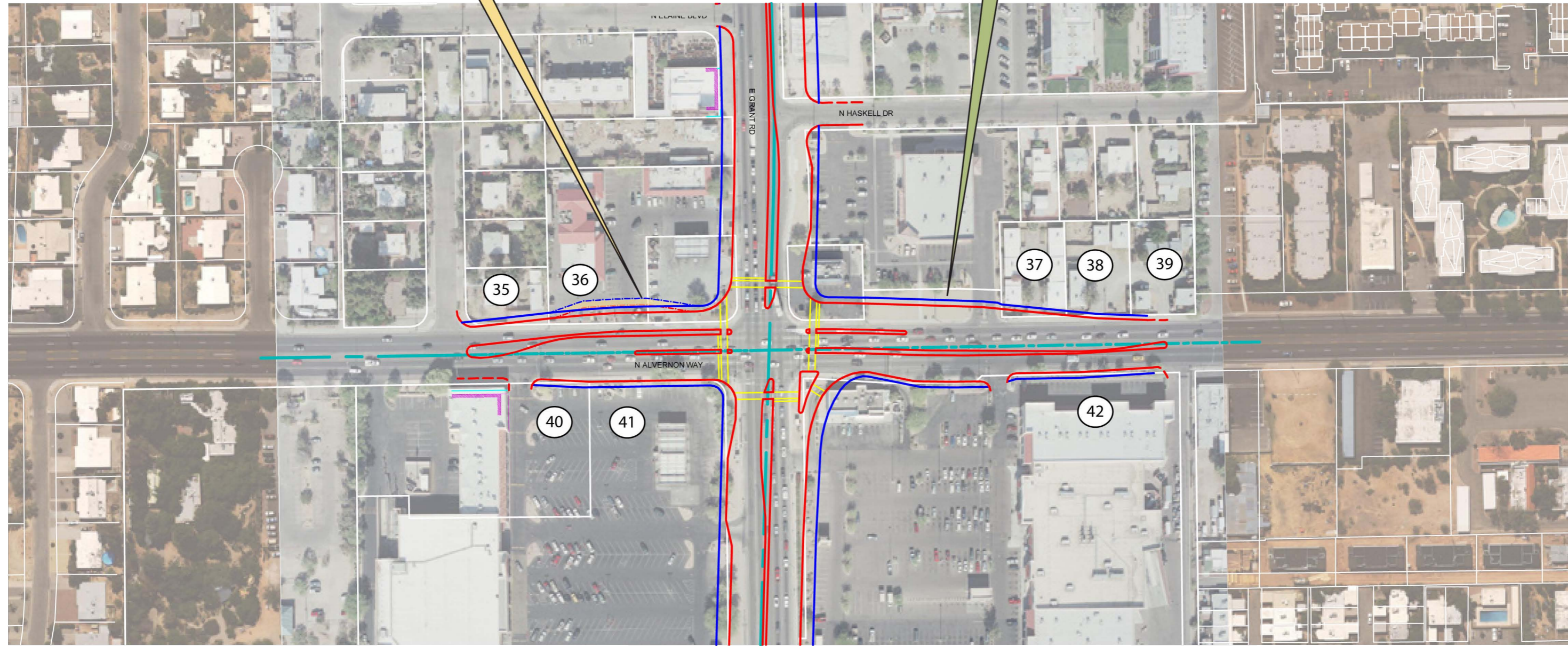


Recommended Bus Pullout

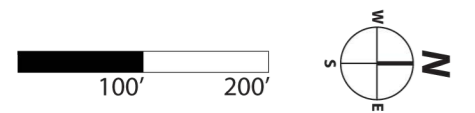
- Bus pullout potentially by others

Turn Lane Change

- Right turn lane shortened to minimize property impacts



GEOMETRIC ALIGNMENT
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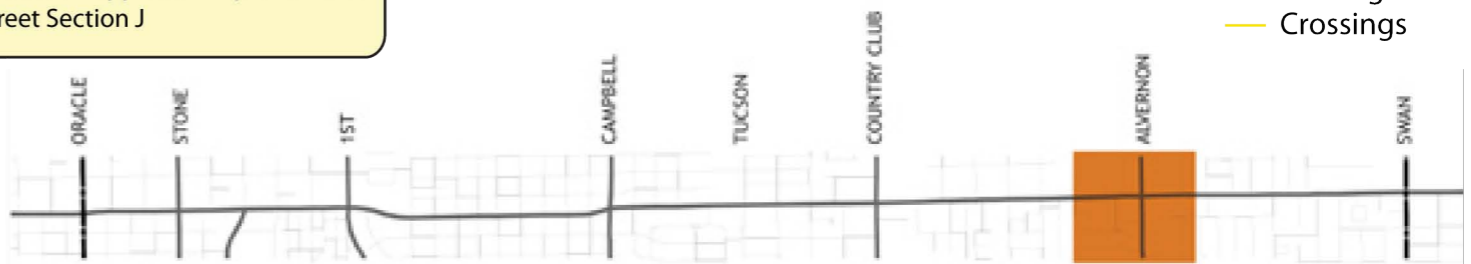
35 36 37 38 39 40 41 42

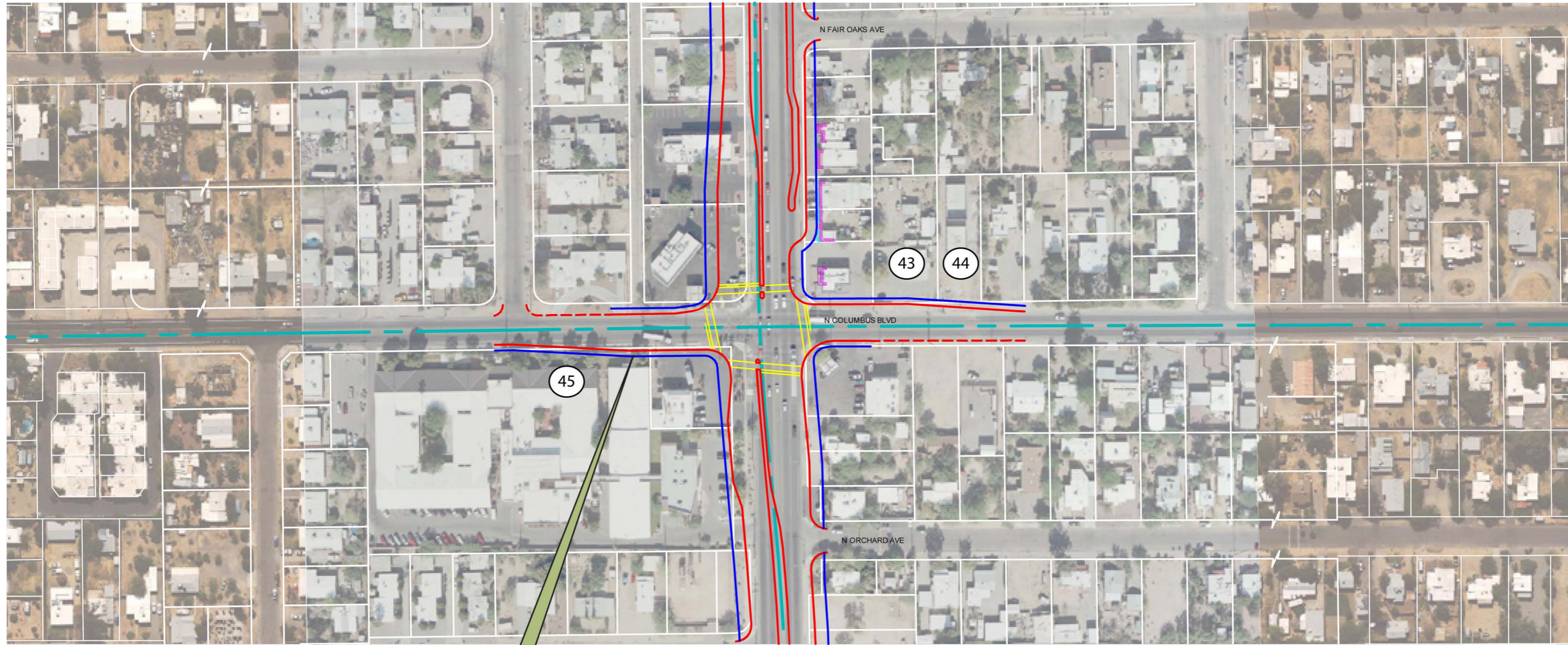
Previously Undetermined Impacts

- Impacts limited to parking and landscaping
- Impacts due to intersection approach improvements
- See North-South Street Section J

Legend

- Centerline
- Right-of-Way
- Curbline
- - Existing Curbline
- Crossings



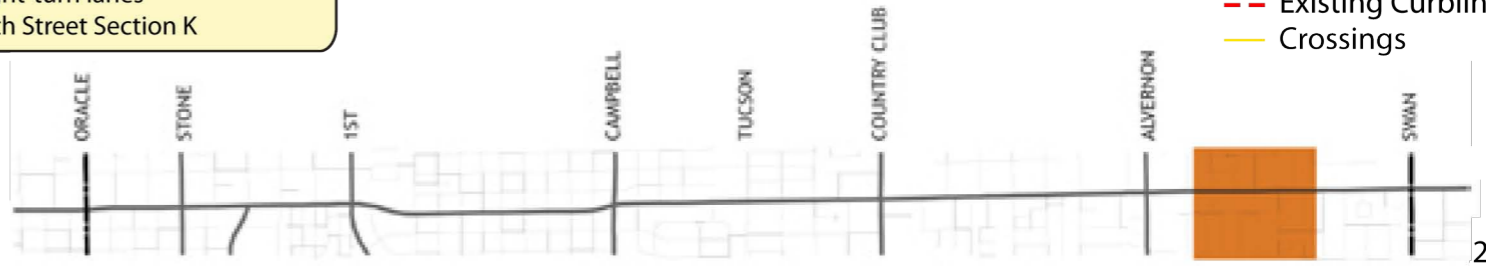
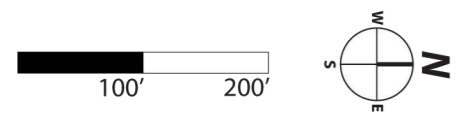


Turn Lane Change
 • Right turn lane shortened to minimize property impacts

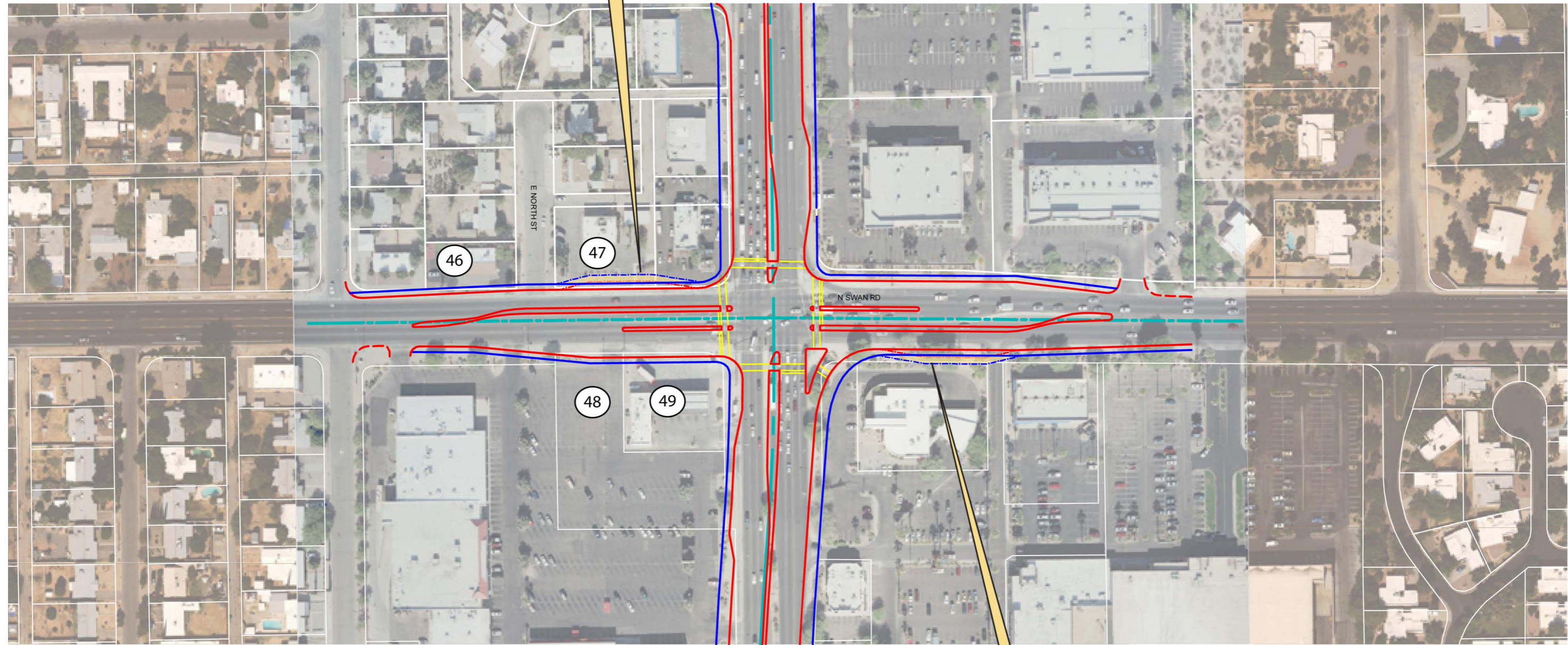
43 44 45
Previously Undetermined Impacts
 • Impacts limited to parking and landscaping
 • Impacts due to warranted north and southbound right-turn lanes
 • See North-South Street Section K

Legend
 --- Centerline
 --- Right-of-Way
 --- Curpline
 --- Existing Curpline
 --- Crossings

GEOMETRIC ALIGNMENT
 November 23, 2009



Recommended Bus Pullout
 • Bus pullout potentially by others

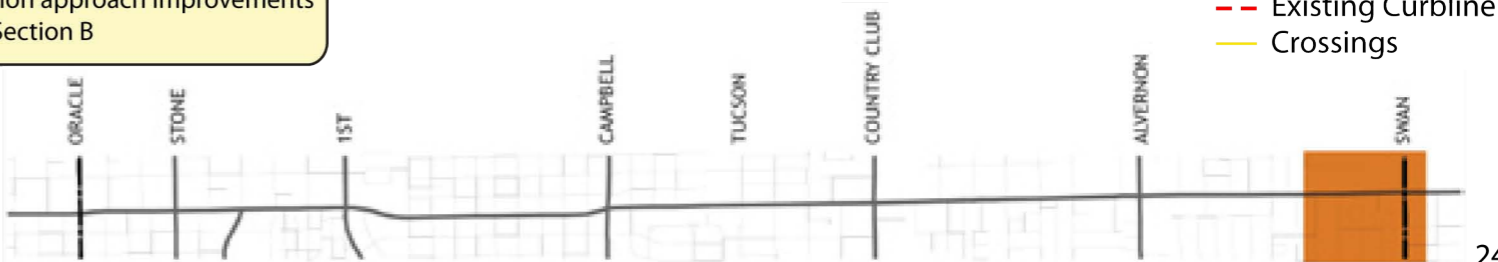
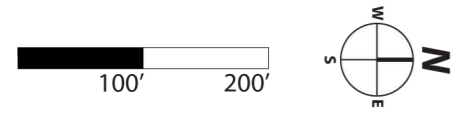


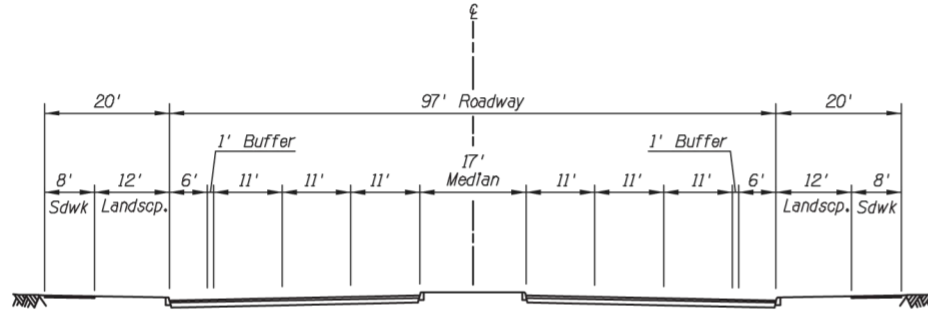
46 47 48 49
Previously Undetermined Impacts
 • Impacts limited to parking and landscaping
 • Impacts due to intersection approach improvements
 • See North-South Street Section B

Recommended Bus Pullout
 • Bus pullout potentially by others

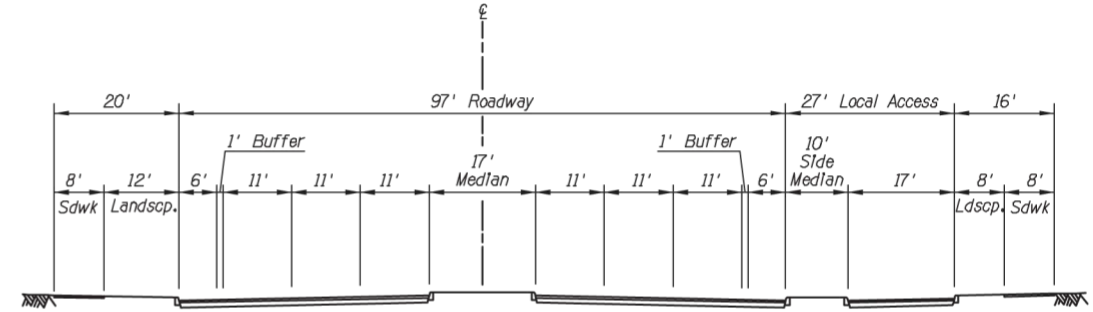
Legend
 --- Centerline
 --- Right-of-Way
 --- Curblines
 - - Existing Curblines
 --- Crossings

GEOMETRIC ALIGNMENT
 November 23, 2009





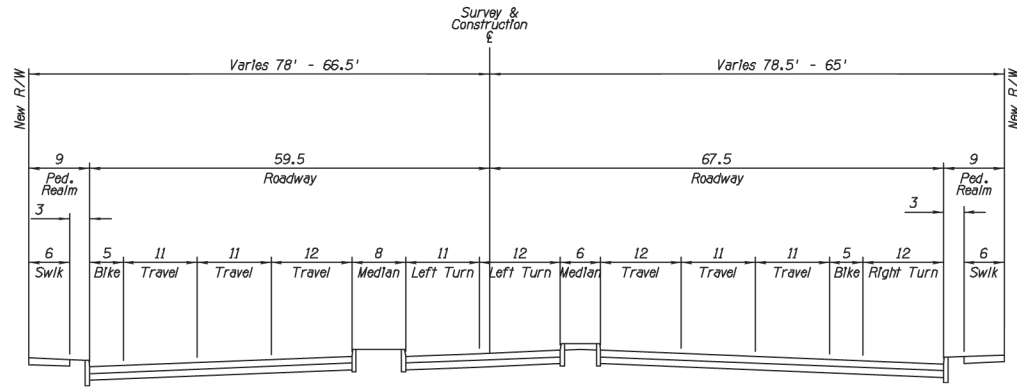
A STANDARD STREET SECTION
137 FOOT RIGHT-OF-WAY



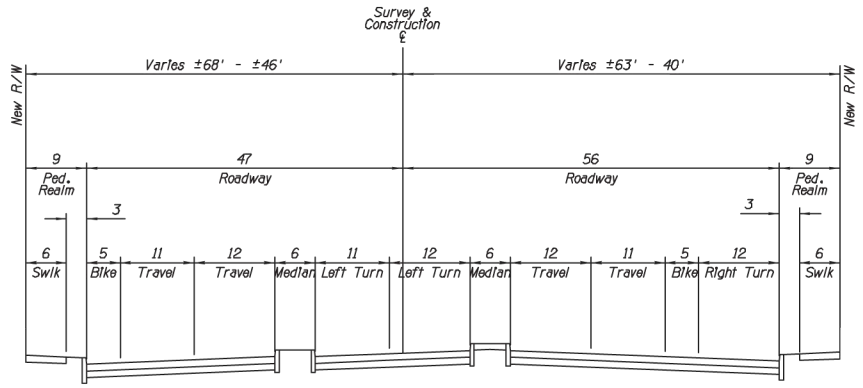
B STANDARD STREET SECTION
160 FOOT RIGHT-OF-WAY

GRANT ROAD STREET SECTIONS

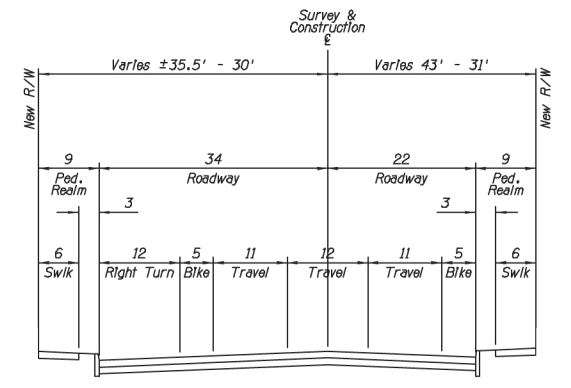
November 23, 2009



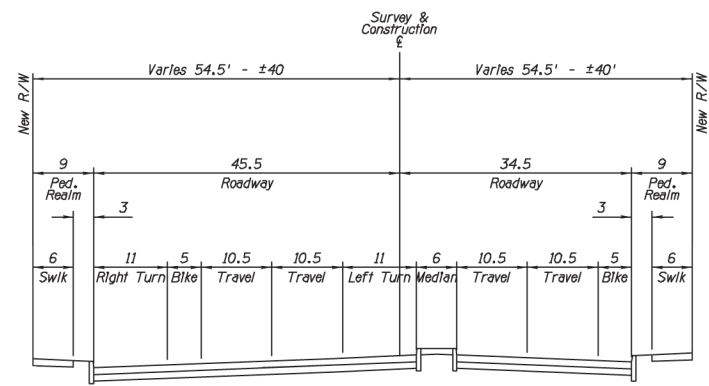
A NORTH-SOUTH STREET SECTION
ORACLE ROAD



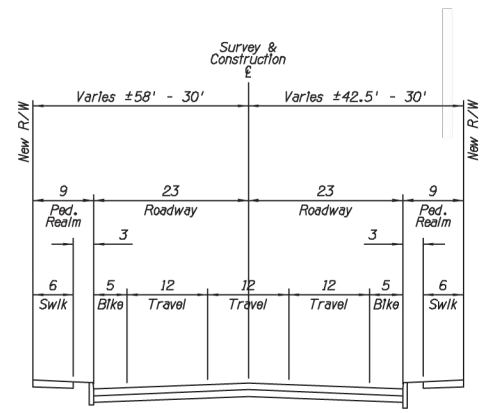
C NORTH-SOUTH STREET SECTION
1ST AVENUE / CAMPBELL AVENUE



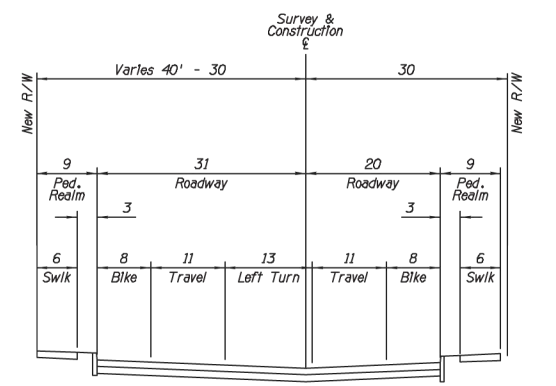
E NORTH-SOUTH STREET SECTION
PARK AVENUE



B NORTH-SOUTH STREET SECTION
STONE AVENUE



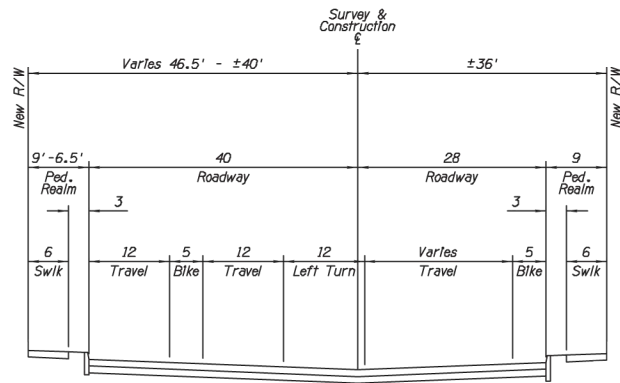
D NORTH-SOUTH STREET SECTION
6TH AVENUE



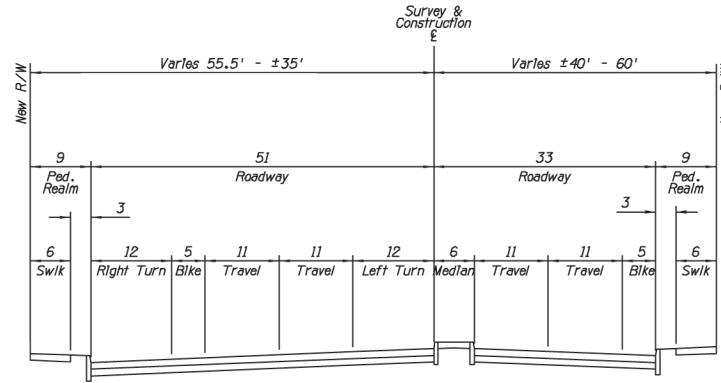
F NORTH-SOUTH STREET SECTION
MOUNTAIN AVENUE

NORTH-SOUTH STREET SECTIONS

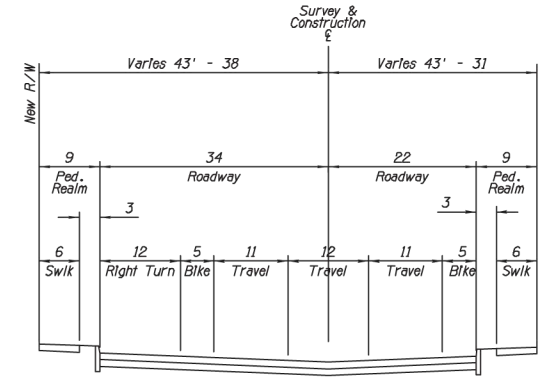
November 23, 2009



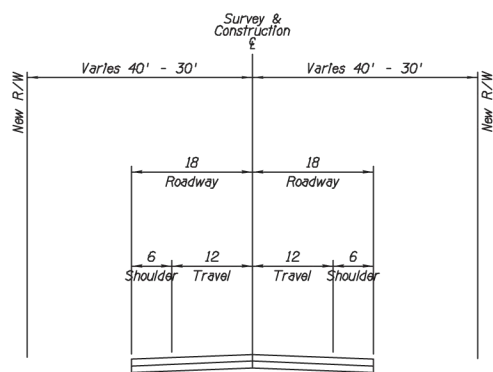
G NORTH-SOUTH STREET SECTION
TUCSON BOULEVARD



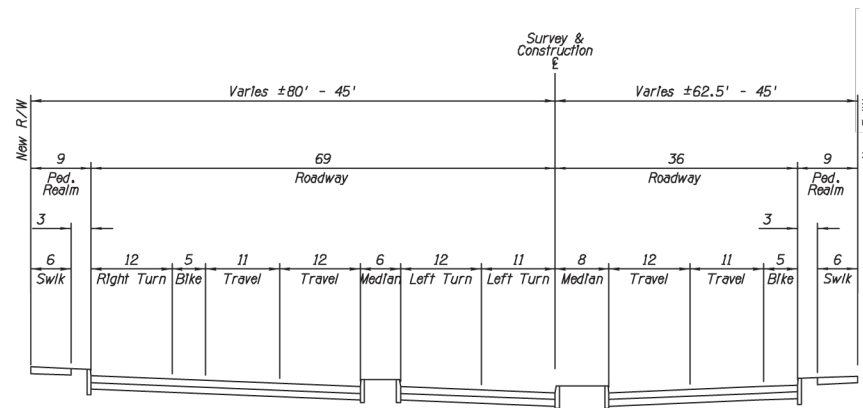
I NORTH-SOUTH STREET SECTION
COUNTRY CLUB ROAD



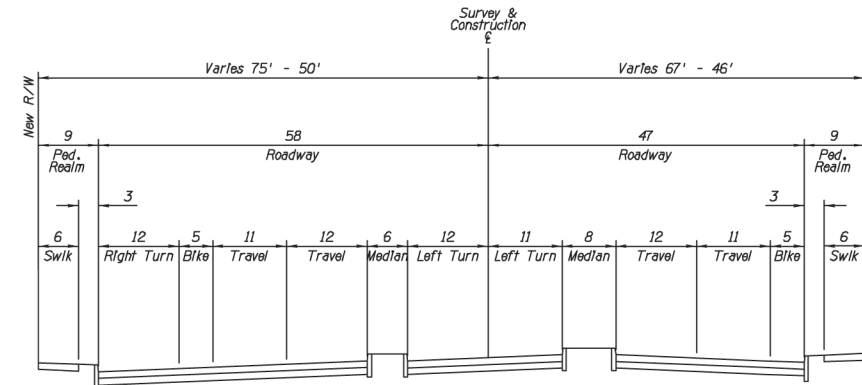
K NORTH-SOUTH STREET SECTION
COLUMBUS BOULEVARD



H NORTH-SOUTH STREET SECTION
TREAT AVENUE / PALO VERDE BOULEVARD / DODGE BOULEVARD



J NORTH-SOUTH STREET SECTION
ALVERNON WAY



L NORTH-SOUTH STREET SECTION
SWAN ROAD

NORTH-SOUTH STREET SECTIONS

November 23, 2009