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Community-based traffic engineering and transportation planning consultants

in association with

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# Skyway Corridor Study

BCAG

BUTTE COUNTY ASSOCIATION OF GOVERNMENTS

TOWN OF PARADISE CALIFORNIA

September 19, 2008

# Tonight's Agenda

## Introduction
- Town and Team Members

## Project Overview
- Background
- Activities to Date
- Studies to Date

## Review Alternatives
- Themes, Features, and Implications
- Questions and Answers
- What's Next?

## Report Card Exercise

# Process

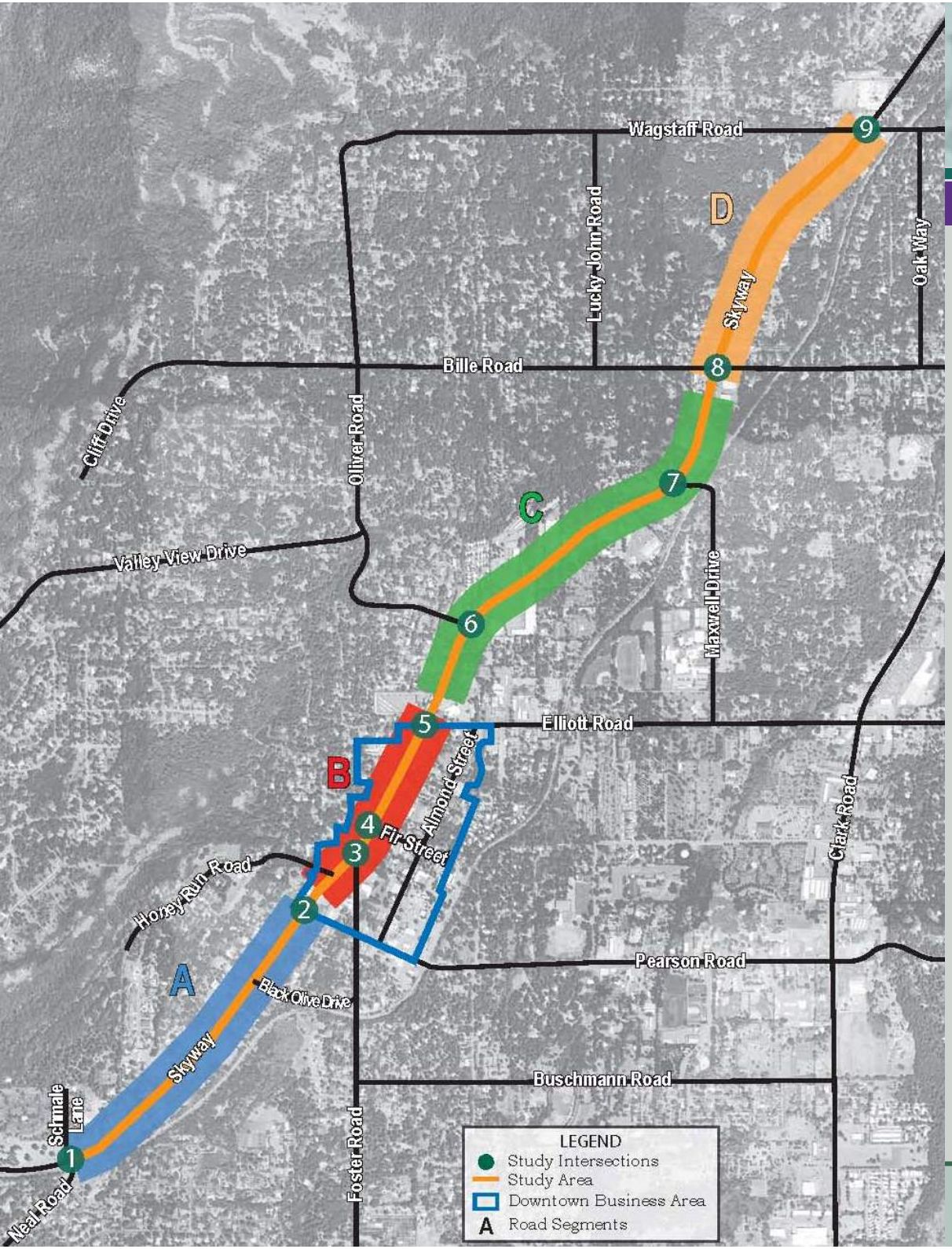
**Investigated Existing Traffic Conditions**

**Stakeholder Interviews**

**Alternative Treatment Options**

**Public Workshops**

**Final Concept Plans**




# Corridor Study Segments

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# Study Area

- Skyway
- Neal Road to Wagstaff Road
- Downtown focus
- Intersection operations
- Traffic Safety
- Pedestrian and Bike Facilities
- Parking

# Current Issues

- Speed of traffic
- Pedestrian safety
- Need to enhance downtown/attract shoppers
- Conflicts with through traffic
- Need for turn lanes
- Bicycle safety

# Daily Traffic Volumes

**Existing 2008**

**12,700 north of Bille Road**

**17,500 in downtown area**

**23,500 south of Pearson Road**

**Year 2035**

**16,700 north of Bille Road**

**21,600 in downtown area**

**32,400 south of Pearson Road**

# Existing Conditions

| Intersection | AM PEAK | | PM PEAK | |
|---|---|---|---|---|
| | Delay | LOS | Delay | LOS |
| 1 Neal-Schmale Lane | 14.3 | B | NA | NA |
| 2 Pearson Road | 16.7 | B | 24.7 | C |
| 3 Honey Run | NA | NA | NA | NA |
| 4 Foster Road | NA | NA | NA | NA |
| 5 Fir Street | NA | NA | NA | NA |
| 6 Elliott Road | 20.3 | C | 34.1 | C |
| 7 Oliver Street | 18.4 | B | 16.2 | B |
| 8 Maxwell Drive | 13.2 | B | 16.6 | B |
| 9 Bille Road | 28.0 | C | 28.5 | C |
| 10 Wagstaff Road | | | | |
| *All-Way Stop* | 22.8 | C | 44.4 | E |
| *Signalized* | 16.9 | B | 18.7 | B |

# Collisions

| Intersection | Collisions (1998-2006) | Calculated Rate (c/mve) | State Average (c/mve) | Ratio |
|---|---|---|---|---|
| **1 Black Olive Drive** | **29** | **0.35** | **0.14** | **2.50** |
| **2 Foster Road** | **16** | **0.29** | **0.14** | **2.07** |
| **3 Fir Street** | **15** | **0.33** | **0.18** | **1.83** |
| **4 Bille Road** | **30** | **0.63** | **0.43** | **1.47** |
| **5 Elliott Road** | **32** | **0.59** | **0.43** | **1.37** |
| **6 Honey Run-Birch St.** | **21** | **0.46** | **0.41** | **1.12** |
| 7 Oliver Road | 18 | 0.39 | 0.43 | 0.91 |
| 8 Pearson Road | 13 | 0.22 | 0.28 | 0.79 |
| 9 Wagstaff Road | 9 | 0.29 | 0.41 | 0.71 |
| 10 Neal- Schmale Lane | 12 | 0.22 | 0.43 | 0.51 |

# Spring 2008 Travel Time and Delay

**Southbound AM Peak**

- 19 mph (N of Wagstaff to S of Neal)
- 260 seconds of delay
- 60 % of delay at Wagstaff

**Northbound PM Peak**

- 26 mph (N of Wagstaff to S of Neal)
- 100 seconds of delay
- 35 % of delay at Wagstaff

# Stakeholder Interview Results

- **Increase Pedestrian Safety- very difficult/dangerous to cross Skyway**

- **Slow Traffic Speeds – Skyway is used as a freeway corridor to Chico and Magalia**

- **Sidewalks are too narrow and aren't continuous throughout downtown**

- **Not safe to bike on Skyway**

# Stakeholder Interview Results

- Need a distinctive element/character that defines the downtown area
- Need more landscaping
- Parking is an issue, difficult/unsafe to park on the street
- Lack of pedestrian connections to and through downtown

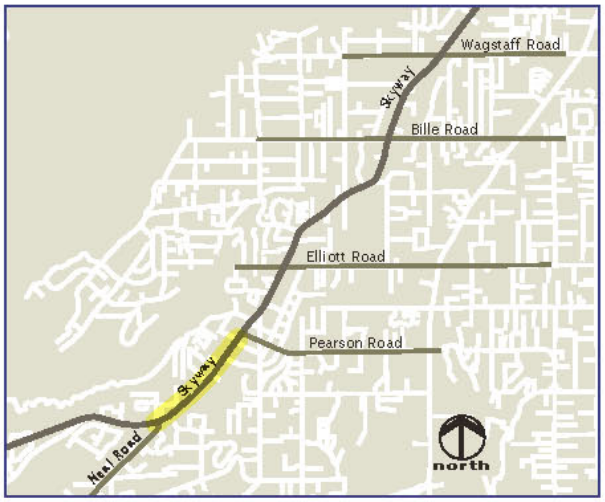
# Design Features Considered

- Reducing number of through lanes
- Reducing width of lanes
- Wider sidewalks with added amenities
- Provide new street trees
- On-street bicycle lanes
- Downtown plaza
- Center turn lanes and medians
- Synchronized traffic signals

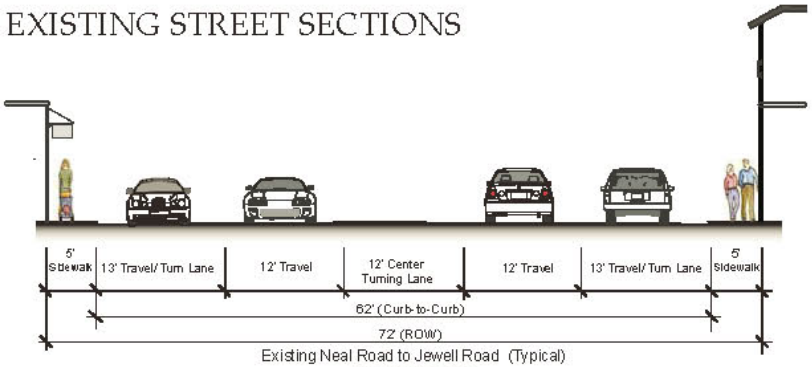
# Segment A - Neal Road to Pearson Road



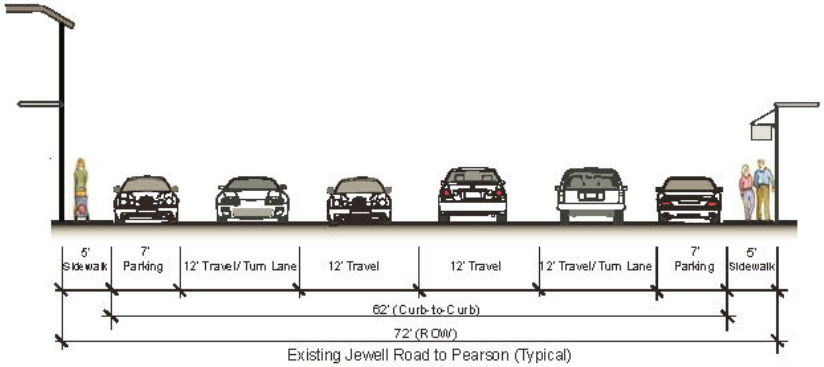
## KEY MAP




## EXISTING STREET SECTIONS

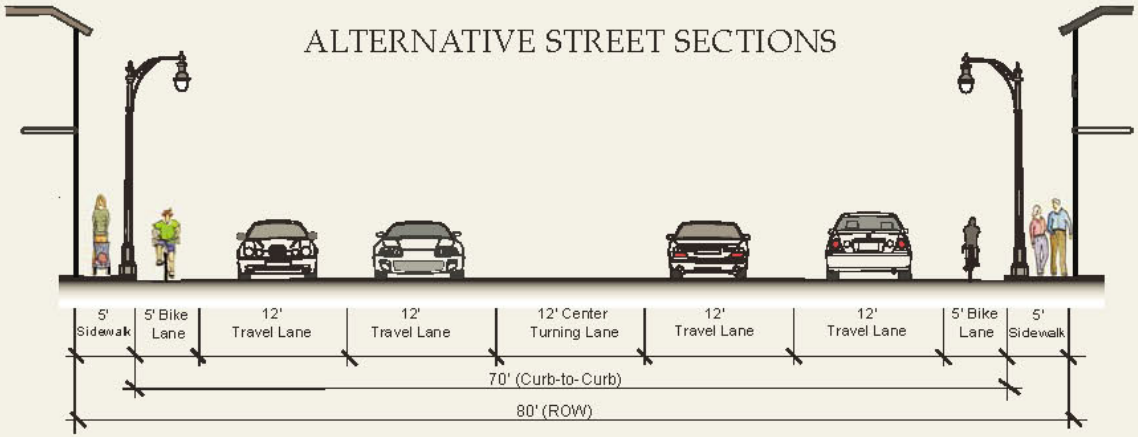



Existing Neal Road to Jewell Road (Typical)
72' Street Section

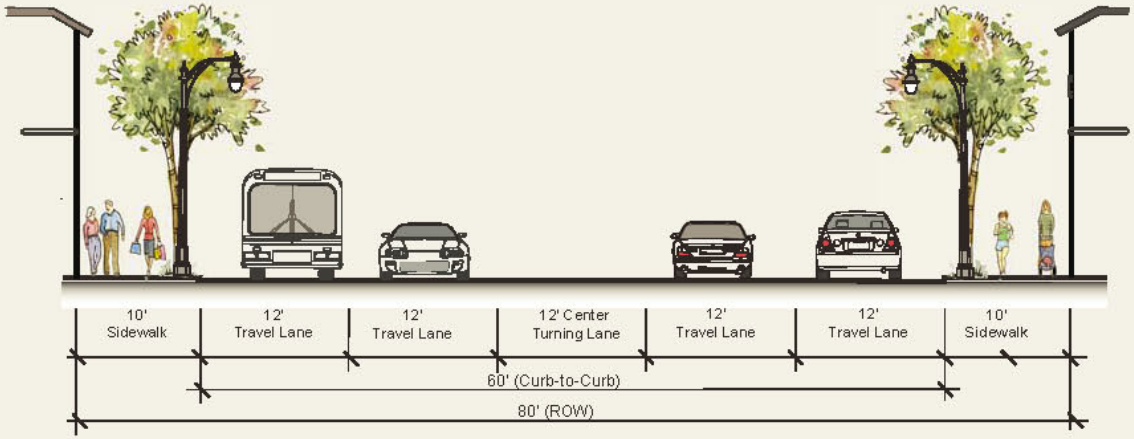



Existing Jewell Road to Pearson (Typical)
72' Street Section

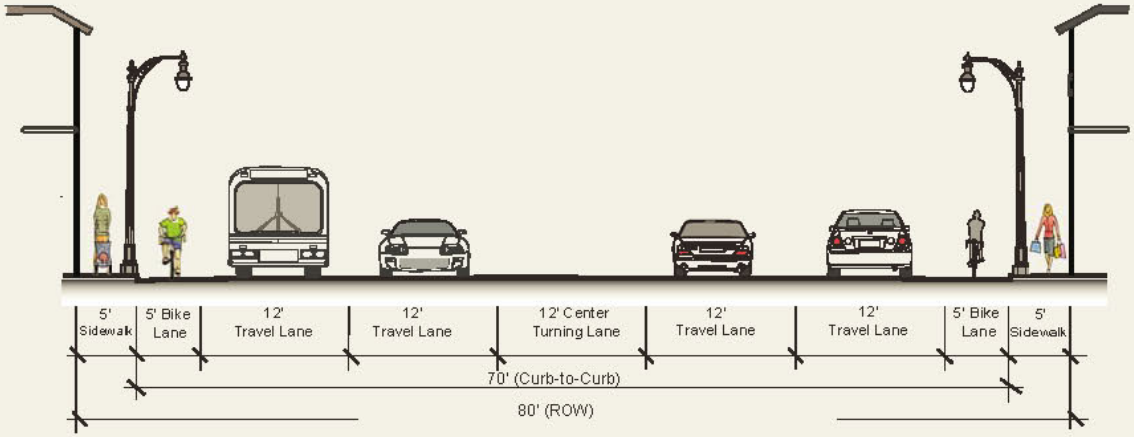
## ALTERNATIVE STREET SECTIONS




Alternative A.1 - 80' Street Section




Alternative A.2 - 80' Street Section




Alternative A.3 - 80' Street Section

# Segment B - Pearson Road to Elliott Road

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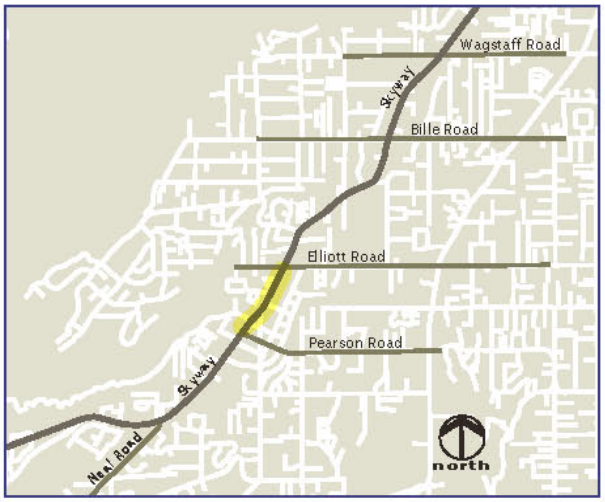
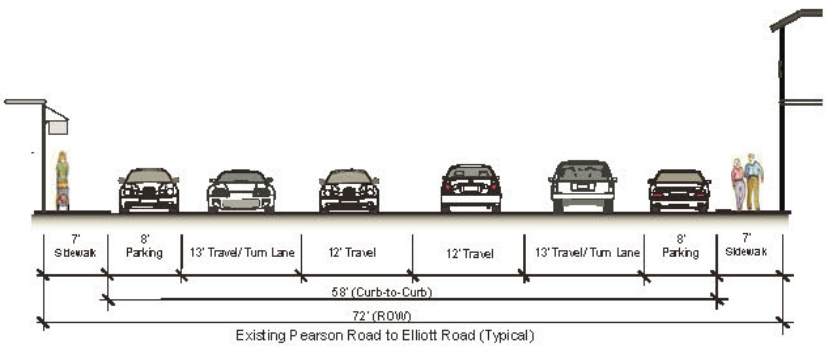
## KEY MAP

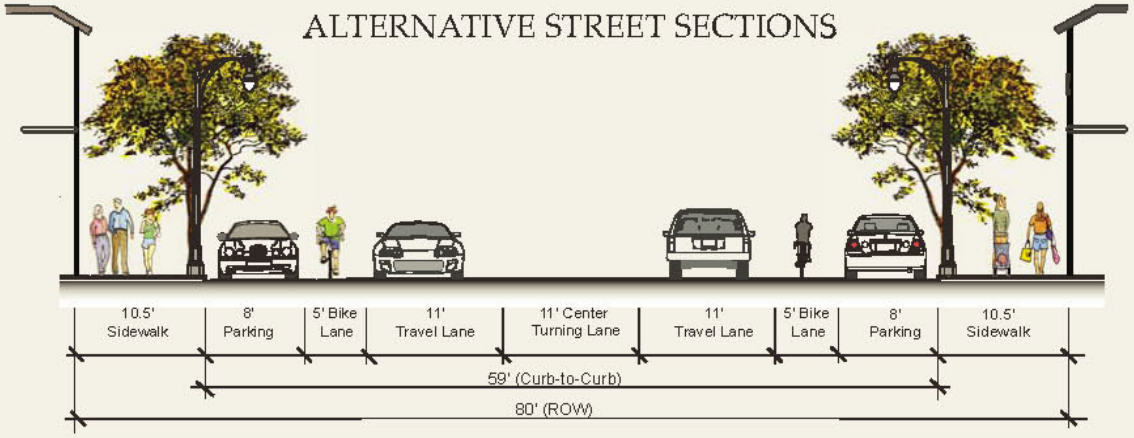



## EXISTING STREET SECTION

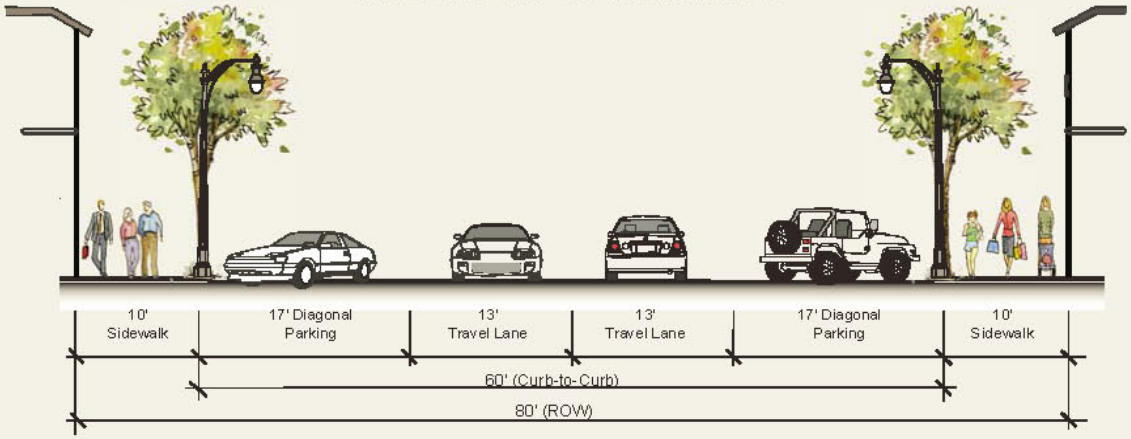



Existing Pearson Road to Elliott Road (Typical)
72' Street Section

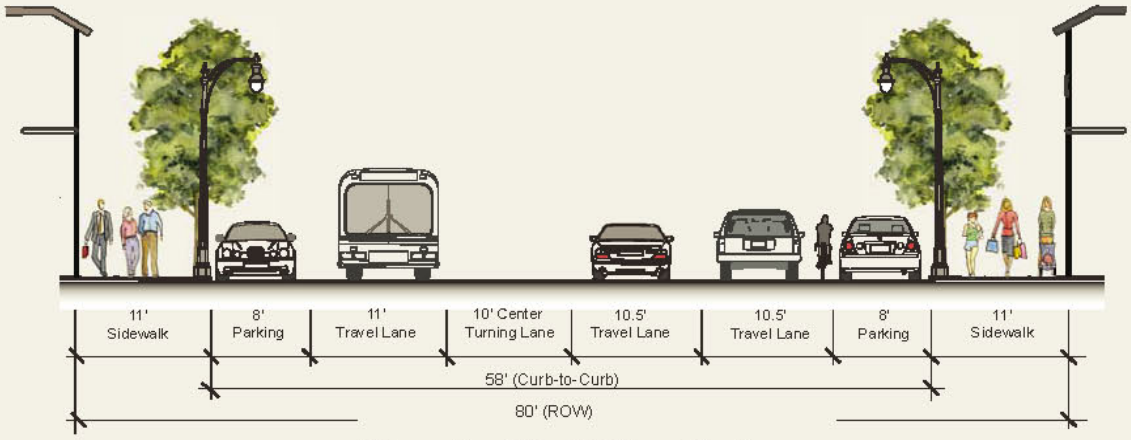
## ALTERNATIVE STREET SECTIONS




Alternative B.1 - 80' Street Section




Alternative B.2 - 80' Street Section




Alternative B.3 - 80' Street Section

# Segment C - Elliott Road to Bille Road

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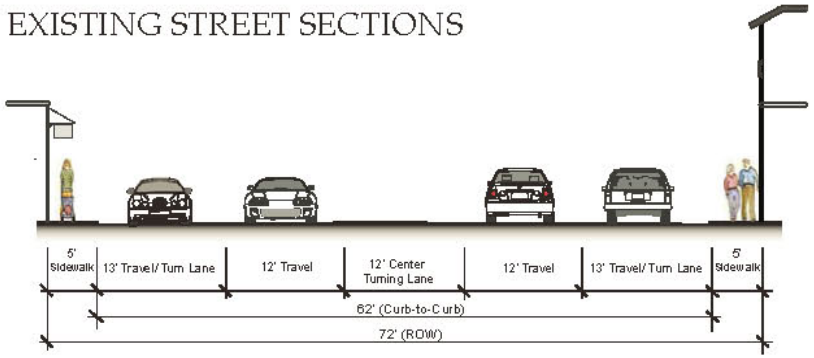
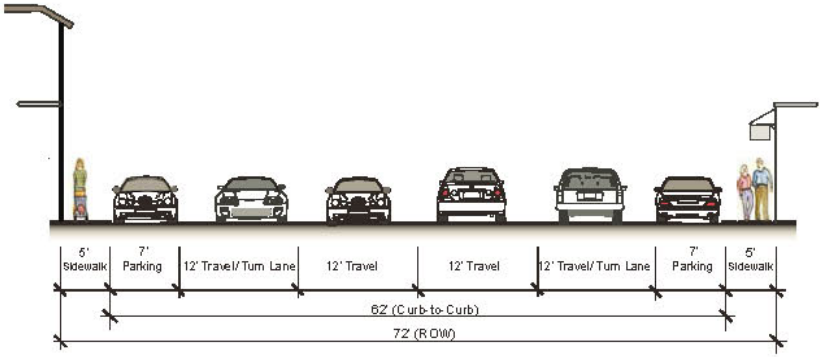
## KEY MAP


## EXISTING STREET SECTIONS

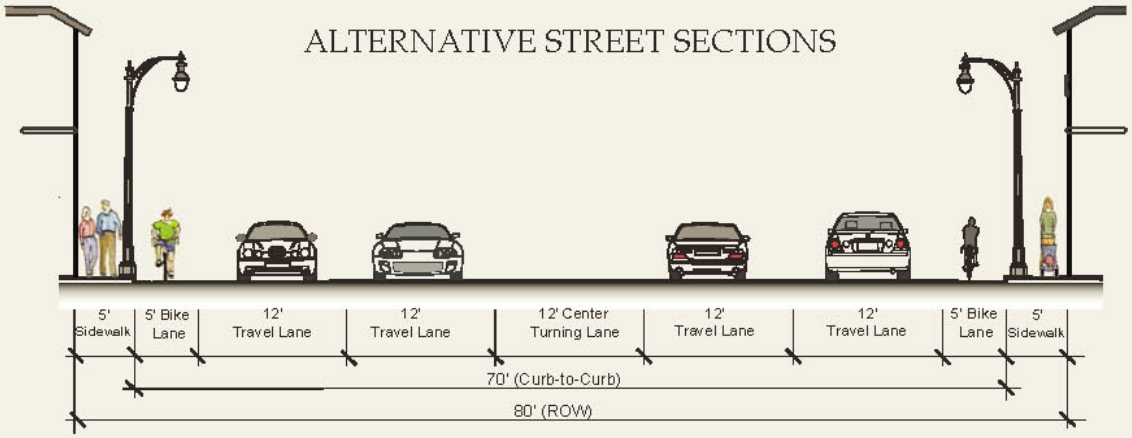



Existing Elliott Road to Maxwell Road (Typical)
72' Street Section

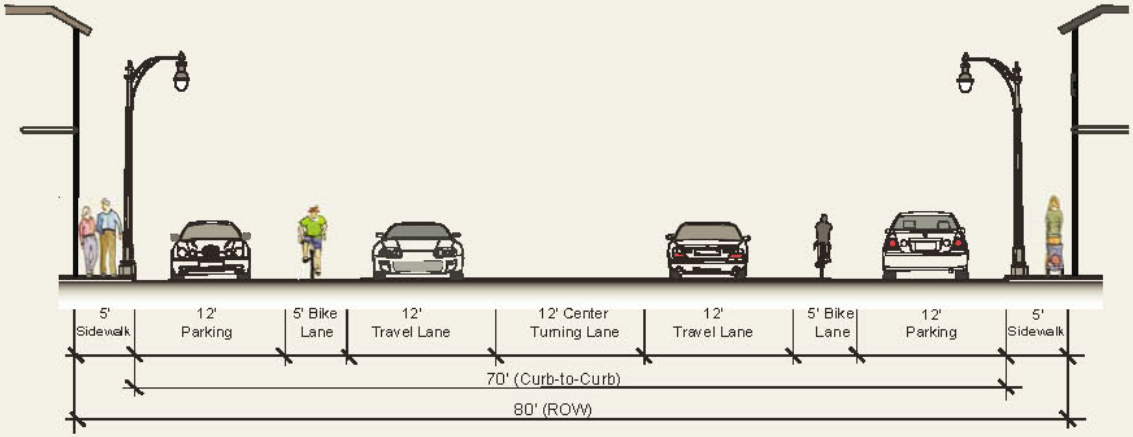



Existing Maxwell Road to Bille Road (Typical)
72' Street Section

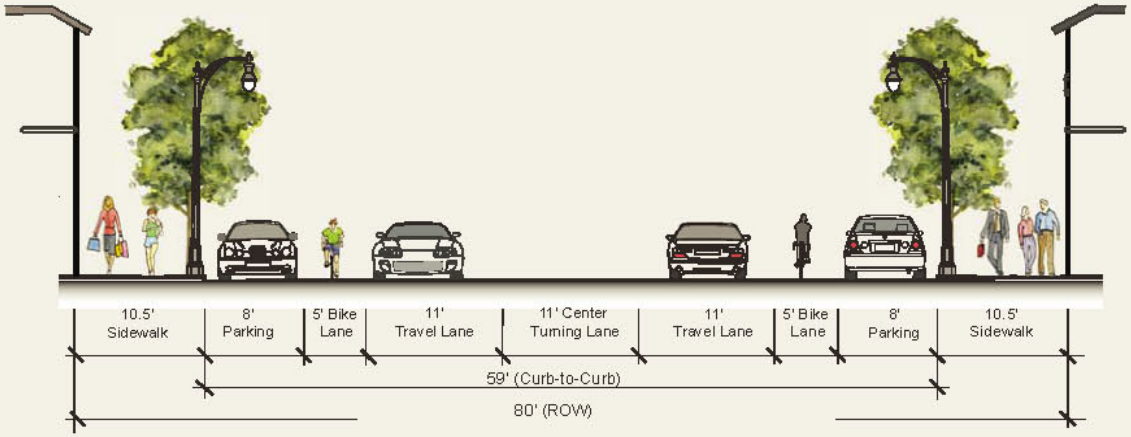
## ALTERNATIVE STREET SECTIONS




Alternative C.1 - 80' Street Section




Alternative C.2 - 80' Street Section



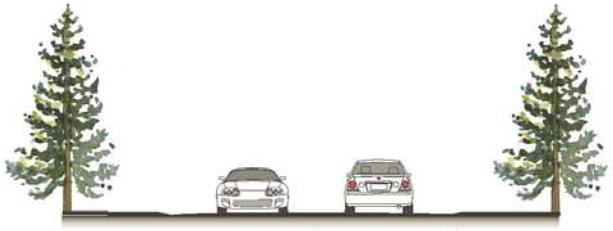

Alternative C.3 - 80' Street Section

# Segment D - Bille Road to Wagstaff Road



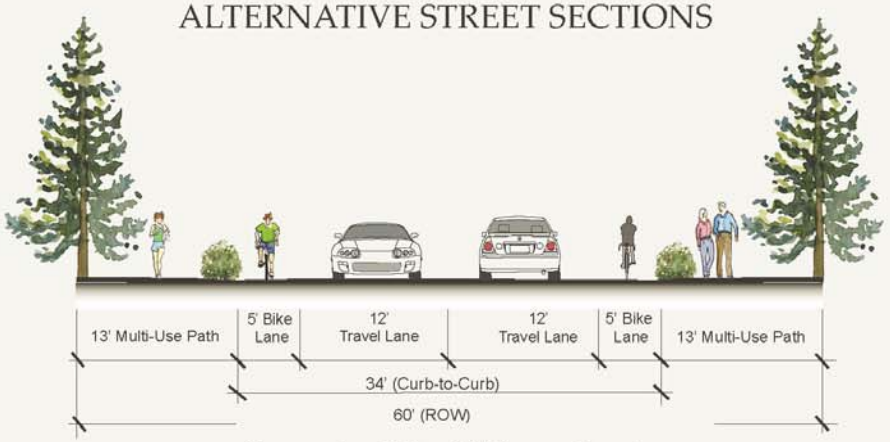
## KEY MAP


## EXISTING STREET SECTION

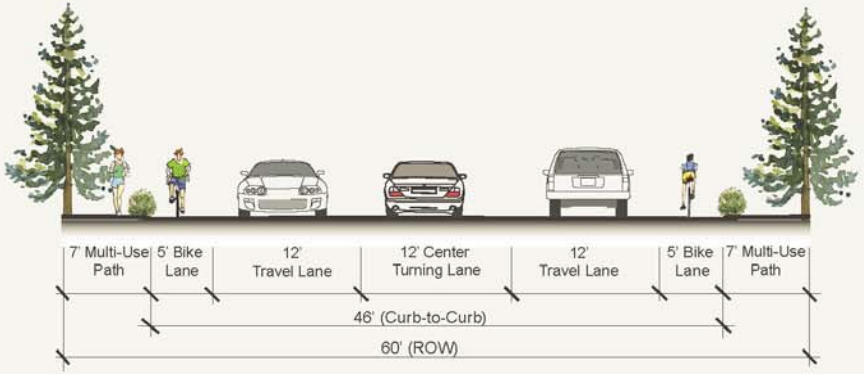



Existing Bille Road to Wagstaff Road
(Varies Significantly)
28' Street Section

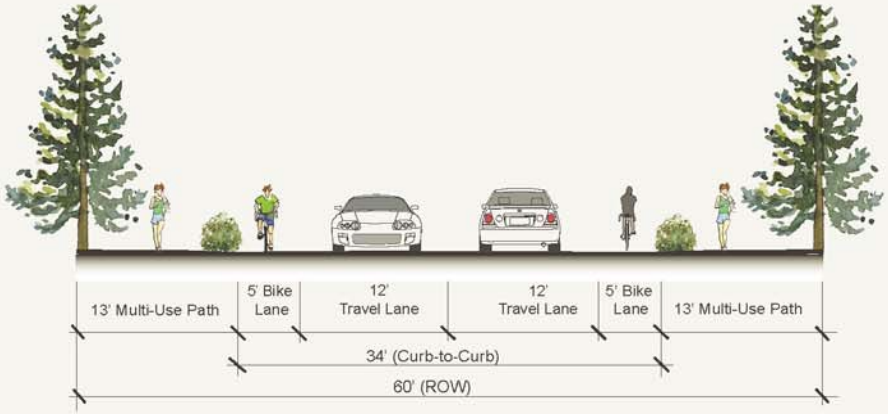
## ALTERNATIVE STREET SECTIONS




Alternative D.1 - 60' Street Section




Alternative D.2 - 60' Street Section



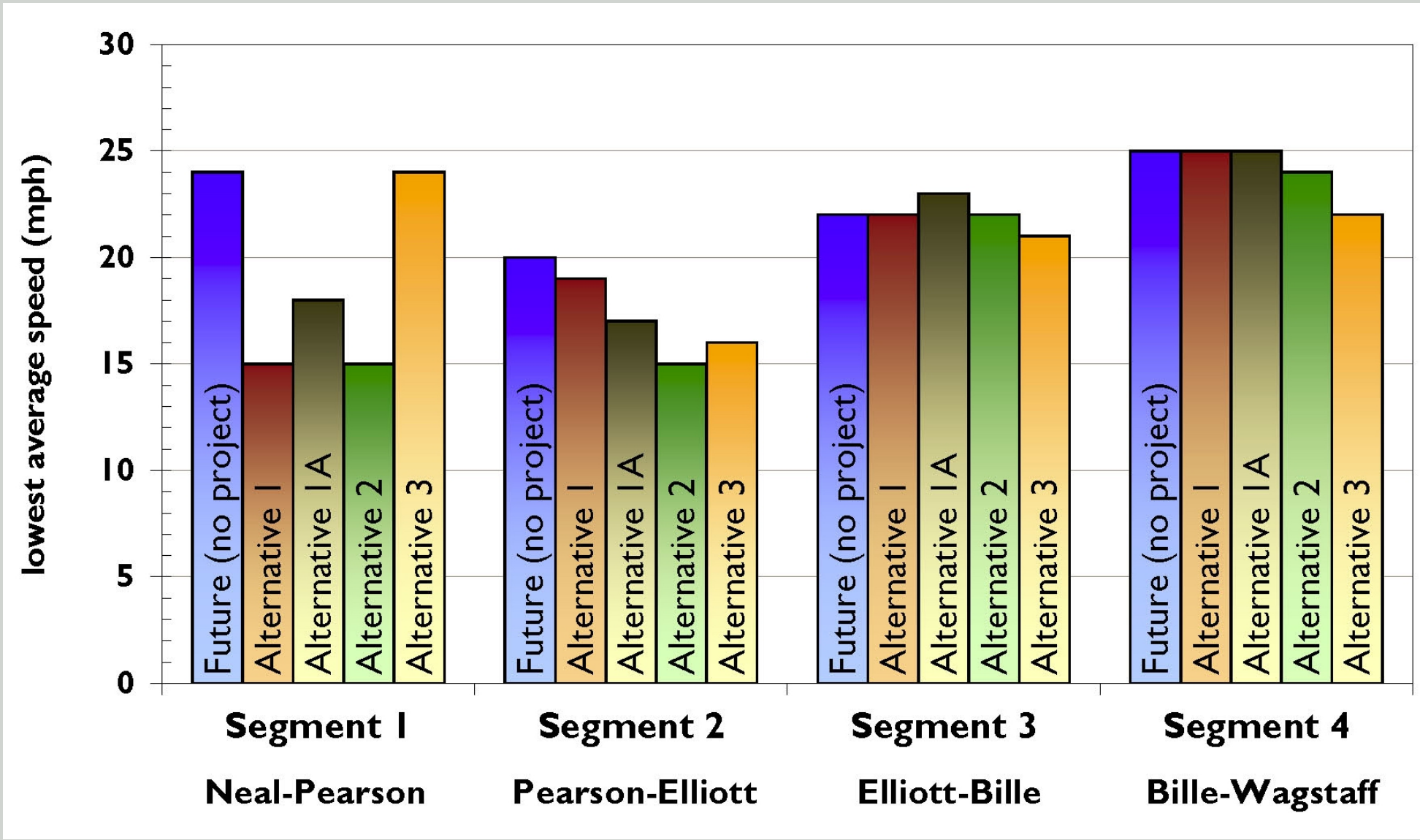

Alternative D.3 - 60' Street Section

# Traffic Analysis

## Average Vehicle Speeds

| | Future (No change) | | Future + Alt 1 | | Future + Alt 1A | | Future + Alt 2 | | Future + Alt 3 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NB | SB | NB | SB | NB | SB | NB | SB | NB | SB |
| 1 – Neal to Pearson | | | | | | | | | | |
| AM Peak Hour | 27 | 30 | 23 | 30 | 24 | 28 | 24 | 30 | 26 | 30 |
| PM Peak Hour | 24 | 30 | **15** | 31 | 18 | 30 | **15** | 32 | 24 | 31 |
| 2 – Pearson to Elliott | | | | | | | | | | |
| AM Peak Hour | 23 | 24 | 21 | 20 | 19 | 20 | 22 | 18 | 21 | 21 |
| PM Peak Hour | 20 | 24 | 19 | 23 | 17 | 18 | 17 | **15** | 17 | 16 |
| 3 – Elliott to Bille | | | | | | | | | | |
| AM Peak Hour | 24 | 26 | 24 | 24 | 25 | 24 | 23 | 22 | 23 | 22 |
| PM Peak Hour | 22 | 24 | 22 | 25 | 23 | 25 | 22 | 24 | 21 | 22 |
| 4 – Bille to Wagstaff | | | | | | | | | | |
| AM Peak Hour | 28 | 25 | 28 | 25 | 30 | 25 | 31 | 24 | 29 | 22 |
| PM Peak Hour | 28 | 27 | 28 | 26 | 27 | 26 | 28 | 26 | 28 | 25 |

# Traffic Analysis



# Potential Sources of Delay


## Alternatives 1 and 2

**Northbound backups at Pearson as lanes narrow from two through lanes to one**

# Potential Sources of Delay


## Alternative 2

**Southbound backups at Foster created by left turns from Skyway**

**Delays caused by diagonal parking maneuvers**

# Potential Safety Improvements

| Intersection | Alt 1 | Alt 1A | Alt 2 | Alt 3 |
|---|---|---|---|---|
| 1 Black Olive Drive | ✓ | ✓ ✓ | ✓ | ✓ |
| 2 Foster Road | ✓ | ✓ | | ✓ |
| 3 Fir Street | ✓ | ✓ ✓ | | ✓ |
| 4 Bille Road | Intersection-level treatments may be needed | | | |
| 5 Elliott Road | Intersection-level treatments may be needed | | | |
| 6 Honey Run-Birch St | ✓ | ✓ | | ✓ |

# Positive Findings

## Downtown

Smooth flow can be maintained with single through lanes and center turn lanes

## Neal to Pearson and Elliott to Bille

All alternatives can work; best results include new signals at Fir and Black Olive with coordination of signal system

## Bille to Wagstaff

All alternatives can work

## Alternatives with center turn lanes

Landscaped medians and pedestrian refuge areas can also be added in select areas

# Issues to Consider

## Downtown

**Single through lanes with diagonal parking (Alternative 2) likely to create notable delays; benefits and constraints should be carefully weighed**

## Transition Areas

**Special consideration needed to maintain traffic flow where two through lanes transition to and from one travel lane**

## Alternative Routes

**Consider benefits and constraints of "bypass" traffic on Almond Street**

# Gateway Plaza/Park at Foster Road

## Potential Benefits

Strengthen downtown identity

Gateway / traffic calming element

Create gathering space

Establish location for special events

## Options

Three plaza sizes and three access options (mix and match)

No change is also an option

## Reconfiguration of Foster Road

Foster Road could remain full access, become right turns out only, or become a cul-de-sac

# Downtown Gateway Plaza/Park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# Downtown Gateway Plaza/Park


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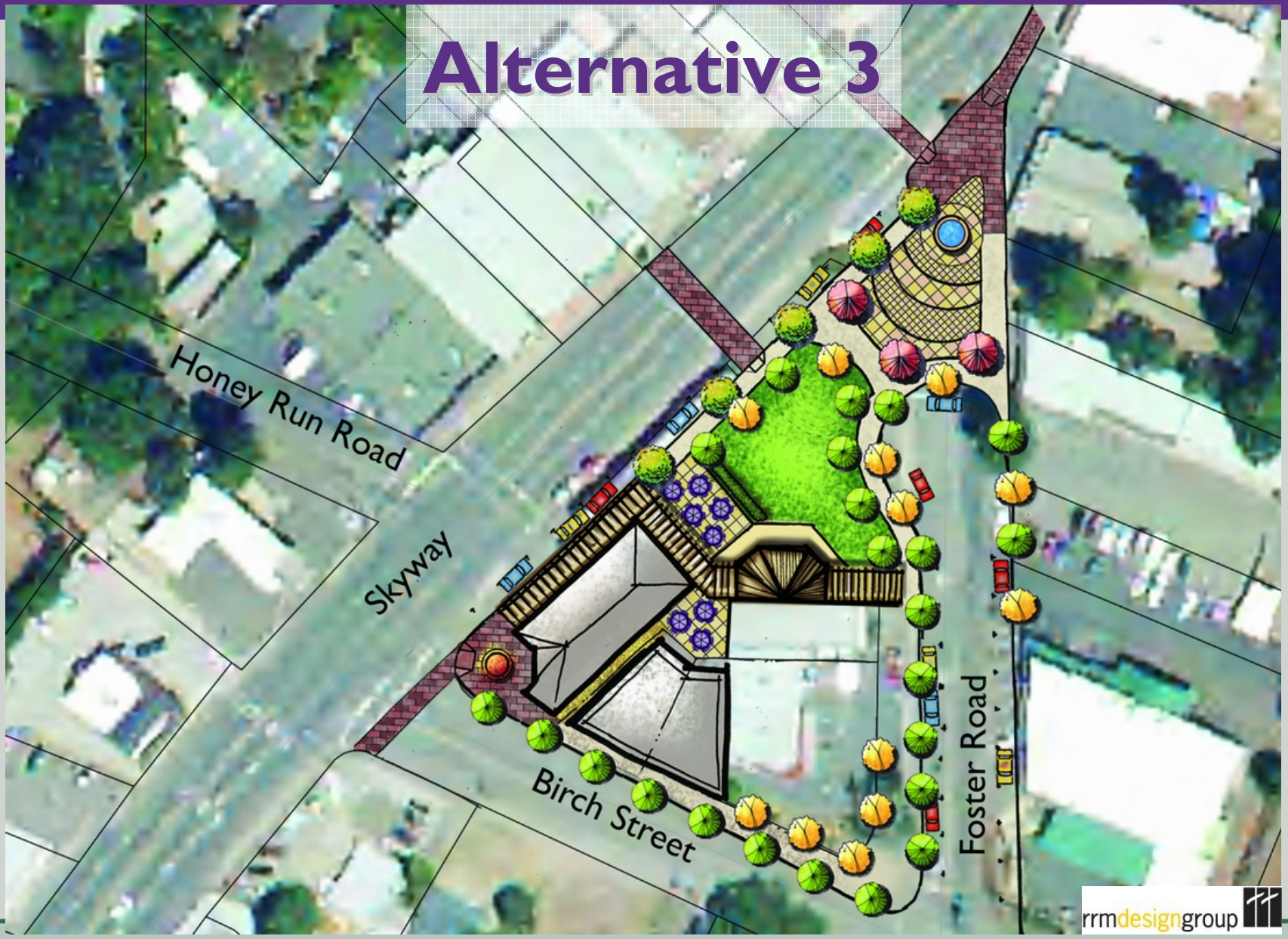
# Downtown Gateway Plaza/Park

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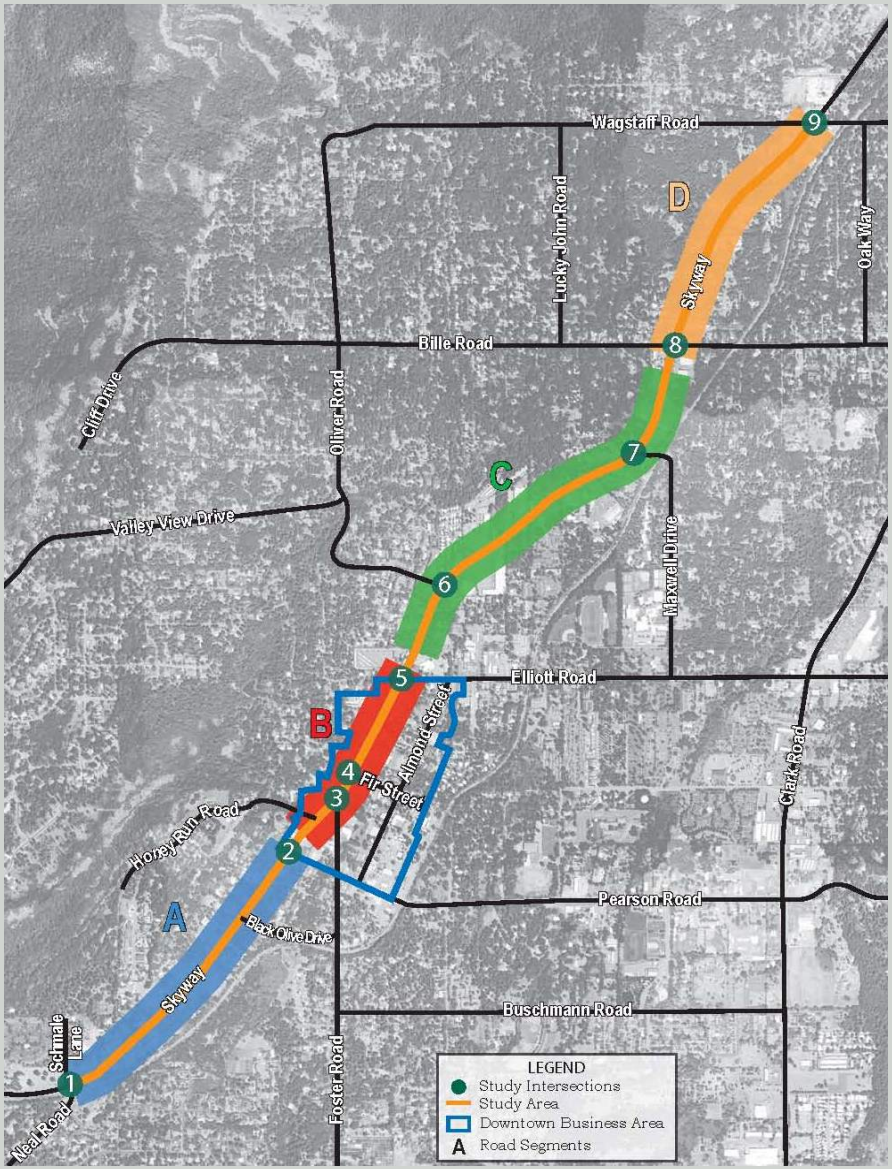
# Questions?


Wagstaff Road
Lucky John Road
Skyway
Oak Way
Bille Road
Cliff Drive
Oliver Road
Valley View Drive
Maxwel Drive
Elliott Road
Almond Street
Fir Street
Clark Road
Honey Run Road
Pearson Road
Black Olive Drive
Skyway
Schmale Lane
Neal Road
Foster Road
Buschmann Road
A
B
C
D
1
2
3
4
5
6
7
8
9
LEGEND
Study Intersections
Study Area
Downtown Business Area
A Road Segments


Honey Run
Skyway #2
Skyway
Skyway #1
Pearson

# We Need Your Input

- **Use tape dots to show us what you like and dislike**
  **green = like  red = dislike**
- **Which alternative do you like best on each segment?**
- **Of all design elements shown for the corridor, which do you like least?**
- **Which design option for the Foster Road intersection do you like best? Which park option?**
- **Use report cards to express your opinions in more detail**