







#### Public Works Department

## NW 8<sup>th</sup> Avenue Segment B Traffic Study

December 5, 2013 Prepared by: Phil Mann





## Segments: A, B and C





# Direction from May 2<sup>nd</sup> City Commission Meeting

#### City Commission Approved As Proposed

#### Segment A (NW 40<sup>th</sup> St to NW 34<sup>th</sup> St)

Mill & resurface then re-stripe to current lane configuration

#### Segment C (NW 23<sup>rd</sup> St to NW 6<sup>th</sup> St)

 Reconstruct and re-stripe including bike Lanes and parking along south side (NW 18<sup>th</sup> Terr. To NW 15<sup>th</sup> St.)

#### City Commission Requested Further Study

#### Segment B (NW 34<sup>th</sup> St to NW 23<sup>rd</sup> St) – Alternative B5

Re-stripe to 2 travel lanes including a <u>painted</u> median with bike lanes. A 4 month trial period would be used to determine if the new lane configuration should be made permanent and a raised median be constructed



## **Study Overview**

- Purpose
  - To study traffic impacts of lane reduction in Segment B over a 4 month trial period
- Limits
  - NW 34<sup>th</sup> Street to NW 23<sup>rd</sup> Street
- Length
  - Just less than 1 mile approx. 5,000 ft



## Study Overview cont'd

- Traffic Data Collection
  - Volumes: Vehicles, Bicyclists & Pedestrians
  - Vehicle Speeds
  - Vehicle Crashes
  - Traffic Video
- Traffic Data Analysis
  - Vehicle traffic modeling and comparison to 2011 data
- Public Comments
  - Via phone calls, emails and letters
  - 2 lane or 4 lane preference



## Study Overview cont'd

- Data Collecting Times and Locations
  - Vehicles: 24 hour Data
    - Tues, Sept 24; Thurs, Oct 10; Wed, Oct 16 & 23
      - From NW 34<sup>th</sup> Street to NW 31<sup>st</sup> Drive
    - Tues, Sept 24 & Oct 1; Wed, Oct 16 & 23
      - From NW 31<sup>st</sup> Drive to NW 23<sup>rd</sup> Street
  - Bicyclists & Pedestrians:12 hour Data
    - Tues, Sept 17 @ 2700 Block of NW 8<sup>th</sup> Avenue
    - Thurs, Sept 19 @ NW 31st Drive intersection



## Study Overview cont'd

- Turning Movement Data Collection
   (For NW 34<sup>th</sup> St & NW 31<sup>st</sup> Dr Intersections Model)
  - Dates
    - September 17 and 19 @ NW 34<sup>th</sup> Street
  - Times
    - Morning Peak 8am to 9am
    - Midday Hour 11:30am to 12:30pm
    - Afternoon 1, end of Littlewood School 1:30pm to 2:30pm
    - Afternoon 2, end of Westwood School 3:15pm to 4:15pm
    - Evening Peak 4:45pm to 5:45pm



#### **Traffic Videos**

### NW 34th St Intersection

- Tuesdays and Thursdays (5 minutes)
   September 19th, 24th & 26th and October 1st
- Saturday Game Days (3 minutes)

Tennessee - September 21st

Arkansas - October 5th



## **Traffic Analysis Results**

#### Vehicular Volume Data

- 2013 ADT: 14,551 vpd (vehicles/day)
- 2011 ADT: 15,180 vpd
- 2013 AM Peak: 1,062 vph (vehicles/hour)
- 2011 AM Peak: 1,090 vph
- 2013 PM Peak: 1,422 vph (vehicles/hour)
- 2011 PM Peak: 1,420 vph



## Vehicular Speed Data

- 2013 85% Speed 49.5 mph
- 2011 85% speed 55.7 mph
- 2013 Speed Limit 35 mph
- 2011 Speed Limit 45 mph



#### Crash Data

- Trial Period (Aug-Oct 2013)
  - (1) angle type crash @ NW 34<sup>th</sup> St
  - (1) side swipe type crash @ 3300 block
- Previous Years (Aug-Oct 2012)
  - (1) angle type crash @ NW 23<sup>rd</sup> St
  - (1) rear end type crash @ NW 34<sup>th</sup> St
- Previous Years (Aug-Oct 2011)
  - (1) rear end type crash @ NW 34<sup>th</sup> St



- Model Results @ NW 34<sup>th</sup> Street
  - Avg. Intersection Delay / Level-of-Service

Peak Period	2011 Existing 4 Lane	2011 Predicted 2 Lane	2013 Trial 2 Lane
AM	62.5"/ E	62.0"/ E	62.1"/ E
Midday	31.8"/ C	31.6"/ C	34.7"/ C
Afternoon 1	67.2"/ E	66.9"/ E	70.9"/ E
Afternoon 2	63.3"/ E	63.4"/ E	62.0"/ E
PM	55.8"/ E	55.3"/ E	56.6"/ E



## Bicyclist & Pedestrian Volume Data

Bicyclists (7am – 7pm)

**2013**: 149

**2**011: 108

Pedestrians (7am – 7pm)

**2013**: 106

2011: Not counted



#### **Public Comments**

During Trial: Calls, emails, letter, petition (224 responses)
Public Workshop, October 30, 2012 (59 responses)

- Preferred 2 Lanes
  - **o** 2013 22
  - 201231
- Preferred 4 Lanes
  - 2013 191
  - **o** 2012 24

- No Preference
  - 2013 11
  - 2012 4



#### **Public Comments – Trial**

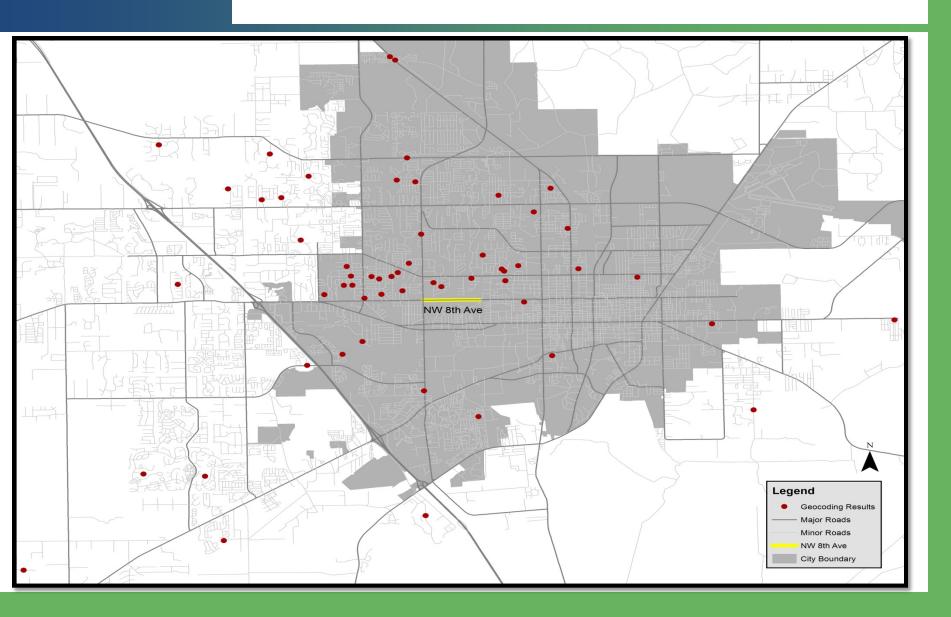
Form of Communication	# of Responses	Preferred 2 Lanes	Preferred 4 Lanes	No Preference
Phone	175	15	151	8
Email/Letters	30	7	21	3
Petition	19	0	19	0
TOTALS	224	22	191	11

224 (total responses) represents 1.5% of the Average Daily Traffic

191 (prefer 4 lanes) represents 1.3% of the Average Daily Traffic and 85% of the responders



## Public Comments cont'd





#### **Staff Conclusions**

- Based on the data compiled during the study, a 2-lane option appears feasible. Special considerations, signage, etc. may be necessary to enhance safety and efficiency in the merge zone between NW 34 St and NW 31<sup>st</sup> Dr.
- Based on the input received during the study, the majority of those commenting stated a preference for returning the roadway to the 4lane configuration.



## Flyover Video

#### **Trial Tested Alternative B5**:

Reconstruct and re-stripe to 2 travel lanes; including raised landscaped median, bike lanes and widened sidewalk.

**Flyover Video** 



#### **Questions and Comments**

Questions & Comments?