

# **Paying for Growth**

## **Rough Proportionality & Changes to the Development Process**

**Public Information Sessions  
August 18 & 31, 2015**



# Agenda

- Introduction
- Rough Proportionality Determinations
- Other Changes to the Development Process
  - Traffic Impact Analysis (TIA)
  - Traffic Mitigation Improvements
  - Transportation Fiscal Spending
- Transportation Impact Fee
- Next Steps
- Q&A

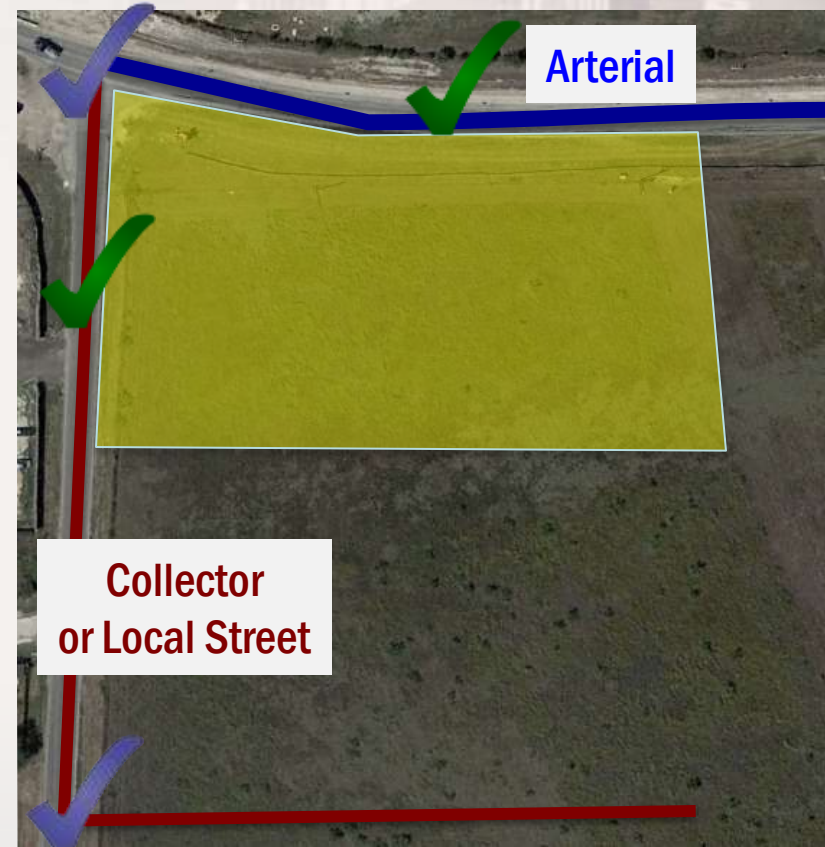
# Paying for Growth

- Property taxes not always enough to keep up with growth
  - Increased property taxes from development covers O&M, services, *but not infrastructure*
- Development should ‘pay its share’
  - Right-of-way dedication, street construction, intersection improvements, etc.
  - Should be ‘fair’



# Austin's Current Policies

- ✓ • **Border Street Policy**
  - Require right-of-way (ROW)
  - Require street construction or fee in lieu (i.e. boundary fiscal)
- ✓ • **Traffic Impact Mitigation Policy**
  - Construction or fee in lieu “to offset the traffic effects generated by the proposed development”
  - Intersection improvements, turn lanes, etc.



# Rough Proportionality

Two important U.S. Supreme Court Cases established the principle of 'Rough Proportionality'

- **Nollan vs. California Coastal Commission (1987)** - established that an exaction must have an *essential nexus* to legitimate public interests
- **Dolan vs. City of Tigard (1994)** - established a two-part test for exaction: 1) *essential nexus* and 2) *roughly proportional* in nature and extent of the impact of the development



# Legal Background cont.

## Rough Proportionality, as interpreted and applied by Texas Supreme Court:

- **Flower Mound vs. Stafford Estates (2002)** – established need for an “individualized determination” or “rough proportionality test”; allows for consideration of development impact to total facilities system; does not require “precise mathematical calculation”



# Legal Background cont.

- Texas House Bill 1835
  - Adopted in September 2005
  - Amended the *Local Government Code* to codify rough proportionality and establish a determination process:
    - Dedications, fees, or construction costs
    - “[The] developer’s portion of the costs may not exceed the amount required for infrastructure improvements that are **roughly proportionate** to the proposed development...”

# What is Rough Proportionality?

## A. Legal Principle



Yes, US Supreme Court decisions, Texas Court of Appeals decision, and Texas State Law.

## B. Fairness Check



Yes, ensures requirements as a condition of permit are relevant and fair.

## C. Calculation Tool



Yes, a worksheet to compare value of impact to value of requirements.

## D. City Policy/Rule



No, the Rough Proportionality determination is a part of our standard permitting practice to check compliance with the law.



# Determination

## How is Rough Proportionality Determined?

- **Transportation Demand**
  - *Generated by Development*
  - Land Use Type
  - Intensity
  - Peak Hour Trip Rate & Length
- **Transportation Supply**
  - *Required by City/County*
  - Roadway Classification
  - Length
  - Cross-Section
  - Intersection Improvements
  - Right-of-Way

Vehicle Miles Traveled (VMT)  $\approx$   
 $\$2,276/\text{VMT} \approx \$1.6\text{M}/\text{lane mile} \approx$   
**Construction Cost**

# Proportionality Worksheet

Includes the following primary tabs:

- **Proportionality** – the primary calculation worksheet
- **Land Use Chart** – a summary of the land uses for the demand calculations
- **Summary of Roadway Costs** – a summary of the costs and capacities provided by the various roadways
- **Pay Items** – a look up table for construction components costs
- **Detailed Roadway Costs Sheets** – tabs for each street type that calculate per mile construction and soft costs

Proportionality

Land Use Chart

Summary of Roadway Costs

PayItems

ResCol

NeighCol

CommCol



# Proportionality Worksheet

- Development Info**  
 Basic description of development
- Demand Calculation**  
 Land use type(s), intensity, trip rates, internal capture rates, trip lengths, etc.
- Supply Calculation**  
 Roadway classification, length, lanes, intersection and other improvements, ROW/easement dedication
- Determination**  
 Comparison of the impact of the demand in dollars to the total value of the transportation supply in dollars

**Rough Proportionality Worksheet**  
for Roadway Infrastructure Improvements  
City of Austin / Travis County, Texas

Development Name: \_\_\_\_\_  
 Applicant: \_\_\_\_\_  
 Legal Description (Lot, Block): \_\_\_\_\_  
 Case / Plat Number: \_\_\_\_\_ Date: \_\_\_\_\_

**DEMAND - Traffic Generated by Proposed Development:**

| Land Use Type <sup>1</sup> | Development Unit | Intensity <sup>2</sup> | Peak Hour Trip Rate <sup>3</sup> | Peak Hour Trip Type <sup>4</sup> | Internal Capture Rate <sup>5</sup> | Adjusted Trip Length <sup>6</sup> | Trip Length <sup>7</sup> | Demand <sup>8</sup> | Impact of Development <sup>9</sup> |
|----------------------------|------------------|------------------------|----------------------------------|----------------------------------|------------------------------------|-----------------------------------|--------------------------|---------------------|------------------------------------|
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |
|                            |                  |                        |                                  |                                  |                                    |                                   |                          |                     |                                    |

IMPACT OF DEMAND PLACED ON THOROUGHFARE SYSTEM: 0.00 \$0

Estimated Average Cost Per Vehicle Mile<sup>10</sup>: \$ 2,275.57

**Roadway Supply - Off-Site Roads to be Built or Funded by the Applicant:**

| Roadway Name: | Classification: | Roadway Length (Feet) | Number of Lanes | Supply Cost Estimate <sup>11</sup> (\$) | Supply Cost Estimate OR Detailed GPOC <sup>12</sup> (\$) |
|---------------|-----------------|-----------------------|-----------------|---|--|
|               |                 |                       |                 |   |  |
|               |                 |                       |                 |   |  |
|               |                 |                       |                 |   |  |
|               |                 |                       |                 |   |  |

ROADWAY SUPPLY ADDED TO SYSTEM SUBTOTAL: \$0

**Other Improvements - Specific Improvements to be Built or Funded by the Applicant:**

| Location: | Description of Improvements: | Estimated Cost <sup>13</sup> (\$) |
|-----------|------------------------------|-----------------------------------|
|           |                              |                                   |
|           |                              |                                   |
|           |                              |                                   |
|           |                              |                                   |

OTHER IMPROVEMENTS ADDED TO SYSTEM SUBTOTAL: \$0

**Right-of-Way Dedication - ROW to be dedicated by the Applicant:**

| ROW Dedication: | General Description of ROW Dedication: | Estimated Cost <sup>14</sup> (\$) |
|-----------------|--|-----------------------------------|
|                 |  |                                   |
|                 |  |                                   |
|                 |  |                                   |
|                 |  |                                   |

RIGHT-OF-WAY DEDICATION SUPPLY ADDED TO SYSTEM SUBTOTAL: \$0

**TOTAL VALUE OF SUPPLY ADDED TO THOROUGHFARE SYSTEM: \$0**

**SUPPLY / DEMAND COMPARISON:**

|  | Cost | Comparison |
|--|------|------------|
| TOTAL IMPACT OF DEMAND PLACED ON THOROUGHFARE SYSTEM:          | \$0  |            |
| TOTAL VALUE OF CAPACITY (SUPPLY) ADDED TO THOROUGHFARE SYSTEM: | \$0  |            |

Note: Minimum Standards for Access to and from a development may supersede the results of this analysis.

# Proportionality Worksheet - Demand

## DEMAND - Traffic Generated by Proposed Development

1. Select Analysis Peak

Size:  
☐ AM Peak  
☒ PM Peak

Trip Generation Method:

☐ Linear Rates  
☒ Regression Equations

Land Use Type<sup>1</sup>:

Development Unit:

Intensity<sup>2</sup>:

Peak  
Hour Trip  
Rate<sup>3</sup>:

Peak  
Hour  
Trips:

Trip  
Reduct.  
Rate<sup>4</sup>:

Adjusted  
Trip  
Length<sup>5</sup>:  
(miles)

Trip  
Length<sup>6</sup>:  
(miles)

Demand:  
(vehicle-miles)

Impact of  
Development<sup>7</sup>: (\$)

|                             |
|-----------------------------|
| General Office Building     |
| Apartment/Multi-family      |
| Shopping Center             |
| Multiplex Movie Theater     |
| Racquet / Tennis Club       |
| INSTITUTIONAL               |
| Church                      |
| Day Care Center             |
| Primary/Middle School (1-8) |
| High School (9-12)          |
| Jr / Community College      |

1,000 SF GFA  
 Dwelling Unit  
 1,000 SF GFA

100  
 200  
 10

1.90  
 0.64  
 8.45

190  
 128  
 85

10%  
 5%  
 10%

1.50  
 1.50  
 1.50

5.38  
 5.38  
 2.71

2. Select Trip Gen Method

72  
 26  
 11

6. See Est. Impact

4. Enter Intensity

5. Add Adjustments

3. Pick Land Use Type(s)

Alt 3.-5. Enter data from TIA

IMPACT OF

Estimated Average

st Per Vehicle Mile\* : \$

TEM:

2,276

553.1

\$1,258,709

# Land Use Chart

## Austin / Travis County Proportionality Worksheet - Land Use Chart

|                                  | Austin / Travis County Proportionality Worksheet - Land Use Chart |                  |                    |                    |                            |                            |              |                        |                        |             |                             |  |
|----------------------------------|---|------------------|--------------------|--------------------|----------------------------|----------------------------|--------------|------------------------|------------------------|-------------|-----------------------------|--|
| Land Use Category                | ITE Land Use Code   | Development Unit | Trip Gen Rate (AM) | Trip Gen Rate (PM) | Fitted Curve Equation (AM) | Fitted Curve Equation (PM) | Pass-by Rate | AM Peak Hour Trip Rate | PM Peak Hour Trip Rate | Trip Length | Modeled Trip Length Source* |  |
| RESIDENTIAL                      |   |                  |                    |                    |                            |                            |              |                        |                        |             |                             |  |
| Single-Family Detached Housing   | 210   | Dwelling Unit    | 0.75               | 1.00               | T = 0.70(X) +9.74          | Ln(T) = 0.90 Ln(X) + .51   |              | 0.75                   | 1.00                   | 10.75       | a                           | Single-family detached homes on individual lots  |
| Apartment/Multi-family           | 220   | Dwelling Unit    | 0.51               | 0.62               | T = 0.49(X) + 3.73         | T = 0.55(X) + 17.65        |              | 0.51                   | 0.62                   | 10.75       | a                           | At least 4 rental dwelling units per building  |
| Residential Condominium/Townhome | 230   | Dwelling Unit    | 0.44               | 0.52               | Ln(T) = 0.80 Ln(X) + 0.26  | Ln(T) = 0.82 Ln(X) + .32   |              | 0.44                   | 0.52                   | 10.75       | a                           | Single-family ownership units that have individual lots                                      |
| Mobile Home Park                 | 240   | Dwelling Unit    | 0.44               | 0.59               | Ln(T) = 0.64Ln(X) + 0.96   | T = 0.57(X) + 2.06         |              | 0.44                   | 0.59                   | 10.75       | a                           | Typically installed on permanent foundations   |
| Senior Adult Housing-Detached    | 251   | Dwelling Unit    | 0.22               | 0.27               | T = 0.17(X) + 29.95        | Ln(T) = 0.75 Ln(X) +0.35   |              | 0.22                   | 0.27                   | 10.75       | a                           |  |
| Senior Adult Housing-Attached    | 252   | Dwelling Unit    | 0.20               | 0.25               | T = 0.20(X) - 0.13         | T = 0.24(X) + 1.64         |              | 0.20                   | 0.25                   | 10.75       | a                           |  |
| Assisted Living                  | 254   | Beds             | 0.14               | 0.22               | n/a                        | n/a                        |              | 0.14                   | 0.22                   | 10.75       | a                           | Residential settings that provide either assisted or independent living                      |
| LODGING                          |   |                  |                    |                    |                            |                            |              |                        |                        |             |                             |  |
| Hotel                            | 310   | Room             | 0.53               | 0.60               | n/a                        | n/a                        |              | 0.53                   | 0.60                   | 5.41        | a                           | Lodging facilities that typically have on-site parking                                       |
| Motel / Other Lodging Facilities | 320   | Room             | 0.45               | 0.47               | Ln(T) = 0.92 Ln(X) - 0.46  | T = 0.94(X) - 0.51         |              | 0.45                   | 0.47                   | 5.41        | a                           | Lodging facilities that may have small on-site parking                                       |
| RECREATIONAL                     |   |                  |                    |                    |                            |                            |              |                        |                        |             |                             |  |
| Golf Driving Range               | 432   | Tee              | 0.40               | 1.25               | n/a                        | n/a                        |              | 0.40                   | 1.25                   | 10.70       | b                           | Facilities with driving tees for practice; may include municipal courses and private courses |
| Golf Course                      | 430   | Acre             | 0.21               | 0.30               | Ln (T) = 0.63 Ln(X) +0.40  | T = 0.13(X) + 31.30        |              | 0.21                   | 0.30                   | 10.70       | b                           | May include municipal courses and private courses  |
| Recreational Community Center    | 495   | 1,000 SF GFA     | 2.05               | 2.74               | n/a                        | n/a                        |              | 2.05                   | 2.74                   | 10.70       | b                           | Category includes racquet clubs, health centers, and community centers                       |
| Ice Skating Rink                 | 465   | 1,000 SF GFA     | 0.00               | 2.36               | n/a                        | n/a                        |              | 0.00                   | 2.36                   | 10.70       | b                           | Rinks for ice skating and related sports   |
| Miniature Golf Course            | 431   | Hole             | 0.00               | 0.33               | n/a                        | n/a                        |              | 0.00                   | 0.33                   | 10.70       | b                           | One or more individual putting courses; may include miniature golf                           |
| Multiplex Movie Theater          | 445   | Screens          | 0.00               | 13.64              | n/a                        | n/a                        |              | 0.00                   | 13.64                  | 10.70       | b                           | Movie theater with audience seating, multiplex   |
| Racquet / Tennis Club            | 491   | Court            | 1.31               | 3.35               | T = 2.01(X) - 7.55         | n/a                        |              | 1.31                   | 3.35                   | 10.70       | b                           | Indoor or outdoor facilities specifically designed for racquet sports                        |
| INSTITUTIONAL                    |   |                  |                    |                    |                            |                            |              |                        |                        |             |                             |  |
| Church                           | 560   | 1,000 SF GFA     | 0.56               | 0.55               | n/a                        | T = 0.34(X) + 5.24         |              | 0.56                   | 0.55                   | 6.30        | b                           | Churches and houses of worship   |
| Day Care Center                  | 565   | 1,000 SF GFA     | 12.18              | 12.34              | n/a                        | n/a                        | 44%          | 6.82                   | 6.91                   | 3.39        | c                           | Generally includes facilities for care of children   |
| Primary/Middle School (1-8)      | 522   | Students         | 0.54               | 0.16               | n/a                        | n/a                        |              | 0.54                   | 0.16                   | 6.30        | b                           |  |
| High School (9-12)               | 530   | Students         | 0.43               | 0.13               | n/a                        | n/a                        |              | 0.43                   | 0.13                   | 6.30        | b                           |  |



# Proportionality Worksheet - Supply

## Roadway Supply- Off-Site Roads to be Built or Funded by the Applicant:

| Roadway Name:                                   | Classification:               | Roadway Length:<br>(Feet) | Number of Thru Lanes: | Supply Cost Estimate <sup>9</sup> : (\$) | Supply Cost Estimate OR Detailed OPCC <sup>10</sup> : (\$) |
|---|-------------------------------|---------------------------|-----------------------|--|--|
| Some Street                                     | Major Arterial Divided 4-Lane | 1,000                     | 2                     | \$682,280                                | \$682,280  |
|   |                               |                           |                       |  |  |
|   |                               |                           |                       |  |  |
|   |                               |                           |                       |  |  |
|   |                               |                           |                       |  |  |
|   |                               |                           |                       |  |  |
| <b>ROADWAY SUPPLY ADDED TO SYSTEM SUBTOTAL:</b> |                               |                           |                       |  | <b>\$682,280</b>   |

1. Describe Roadway

## Other Improvements - Specific Improvements to be Built or Funded by the Applicant:

| Location:   | Description of Improvement: | Estimated Cost <sup>11</sup> : (\$) |
|---|-----------------------------|-------------------------------------|
| Some Street at Another Street                       | Add signalization           | \$100,000                           |
| Some Street   | Add right turn lane         | \$40,000                            |
|   |                             |                                     |
|   |                             |                                     |
|   |                             |                                     |
|   |                             |                                     |
| <b>OTHER IMPROVEMENTS ADDED TO SYSTEM SUBTOTAL:</b> |                             | <b>\$140,000</b>                    |

2. Describe Traffic Mitigation Improvements

3. Enter Estimated Cost

## Right-of-Way Dedication - ROW to be dedicated by the Applicant:

| ROW Dedication:                               | General Description of ROW Dedication: | Estimated Cost <sup>12</sup> : (\$) |
|---|--|-------------------------------------|
| Adjoining                                     | Strip 20' x 1000' @ \$10/SF            | \$200,000                           |
|   |  |                                     |
|   |  |                                     |
|   |  |                                     |
|   |  |                                     |
| <b>RIGHT-OF-WAY DEDICATION SUBTOTAL:</b>      |  | <b>\$200,000</b>                    |
| <b>TOTAL VALUE OF SUPPLY ADDED TO SYSTEM:</b> |  | <b>\$1,022,280</b>                  |

4. Add ROW Description

5. Enter Estimated Cost

6. See Est. Supply Contribution



# Summary of Roadway Costs

## Austin / Travis County Proportionality Worksheet - Summary of Costs

| Classification   | Capacity (vphpl) | Number of Lanes | Cost per Mile (for use in Demand Calculations) | % of Roadway Network for Each Facility Type | Cost Per Vehicle Mile (Demand) | Cost Per Foot Per Lane |
|--|------------------|-----------------|--|---|--------------------------------|------------------------|
| Residential Collector  | 425              | 2               | \$ 3,380,702                                   |   | \$ 3,977.00                    | \$ 320.14              |
| Neighborhood Collector   | 475              | 4               | \$ 3,864,128                                   |   | \$ 2,034.00                    | \$ 182.96              |
| Commercial Collector   | 525              | 4               | \$ 4,859,306                                   |   | \$ 2,314.00                    | \$ 230.08              |
| Industrial Collector   | 525              | 4               | \$   |   | \$ 2,547.00                    | \$ 253.25              |
| Primary Collector Undivided 4-Lane   | 500              | 4               | \$   |   | \$ 2,204.00                    | \$ 208.73              |
| Primary Collector Undivided 5-Lane   | 550              | 4               | \$   |   | \$ 2,431.00                    | \$ 253.25              |
| Primary Collector Divided 4-Lane   | 575              | 4               | \$   |   | \$ 2,514.00                    | \$ 273.74              |
| Primary Collector Divided 6-Lane   | 600              | 6               | \$   |   | \$ 2,054.00                    | \$ 233.39              |
| Minor Arterial Divided 4-lane  | 725              | 4               | \$ 6,541,838                                   |   | \$ 2,256.00                    | \$ 309.74              |
| Minor Arterial Undivided 4-Lane  | 650              | 4               | \$ 5,178,659                                   | 10.23%                                      | \$ 1,992.00                    | \$ 245.20              |
| Minor Arterial Undivided 5-Lane  | 625              | 4               | \$ 6,073,215                                   | 25.05%                                      | \$ 2,420.00                    | \$ 287.55              |
| Major Arterial Divided 4-Lane  | 750              | 4               | \$ 7,204,967                                   | 25.05%                                      | \$ 2,402.00                    | \$ 341.14              |
| Major Arterial Undivided 4-Lane  | 600              | 4               | \$ 5,956,607                                   | 4.66%                                       | \$ 2,462.00                    | \$ 262.04              |
| Major Arterial Divided 6-Lane  | 750              | 6               | \$ 9,633,313                                   | 33.61%                                      | \$ 2,141.00                    | \$ 304.08              |
| Major Arterial Divided 8-Lane  | 825              | 8               | \$ 11,715,845                                  | 1.19%                                       | \$ 1,775.00                    | \$ 277.36              |
| Average Cost per Vehicle Mile for Arterial Facilities (for use in impact of demand calculations) |                  |                 |  |   | \$ 2,275.57                    |                        |

MAD 4 @  
\$341.14/LF/Lane



# Proportionality Worksheet - Determination

## SUPPLY / DEMAND COMPARISON:

A comparison of the capacity provided by a development against the traffic impacts of the proposed development.

|  | Cost        | Comparison      |
|--|-------------|-----------------|
| TOTAL IMPACT OF DEMAND PLACED ON THOROUGHFARE SYSTEM:          | \$1,258,709 | DEMAND > SUPPLY |
| TOTAL VALUE OF CAPACITY (SUPPLY) ADDED TO THOROUGHFARE SYSTEM: | \$1,022,280 | 123%            |

Based on the results of this rough proportionality analysis, the anticipated impact of demand on the system exceeds the value of capacity (supply) provided by the proposed development. Given these assumptions, the anticipated impact of demand of the development exceeds the value of capacity supplied by approximately 123%. Therefore, the roadway improvements required by the City are justified (i.e. the applicant is adding less capacity than needed to support their development).



Based on the results of this rough proportionality analysis, the anticipated impact of demand on the system exceeds the value of capacity (supply) provided by the proposed development. Given these assumptions, the anticipated impact of demand of the development exceeds the value of capacity supplied by approximately 123%. Therefore, the roadway improvements required by the City are justified (i.e. the applicant is adding less capacity than needed to support their development).



# Use of Rough Proportionality

- Sets a Limit/Checks Requirements
- Self 'Determination'
- Preliminary and Final Determinations
- Credits

# Other Changes to the Development Process

## *Part of Rough Proportionality Implementation:*

- No Determination of 'Pro Rata' Share Required for TIAs—RP Worksheet Determines Applicant's Proportionate Share
- Traffic Mitigation Requirements Id'd by City Staff
- Expanded Use of Transportation Fiscal

# Impact Fee Basics

- Governed by Chapter 395 of the Local Government Code (1987)
- Legal test of 'Rough Proportionality' applies, but procedures for making determinations allow for:
  - Recovery of infrastructure costs for *future* development
  - Capacity-related costs (i.e. no public art, streetscape elements, decorative illuminations, etc.)
  - Water, Wastewater, Roadway, and Drainage impact fees
  - 6-mile service area for Transportation



# Next Steps

- **Information Sessions at OTC**
  - Wednesday 8/19 11:30a- 1p
  - Monday 8/31 11:30a - 1p
- **Publish FAQs**
- **Development Services Department Traffic Engineer for Rough Proportionality Determinations Starts in August**
- **Full Implementation of Rough Proportionality and Other Changes to the Development Process**
- **Code Amendment(s) to Clarify Traffic Impact Mitigation Policy**
- **Transportation Impact Fee?**





# Questions & Answers



# **Paying for Growth**

## **Rough Proportionality & Changes to the Development Process**

**Public Information Sessions  
August 18 & 31, 2015**

