

# Morrisville Transit-Oriented Development Project

Who's talking transit during a recession?



### Imagining Something That Doesn't Exist Here...



### In a place where History Speaks to the Future.

### **Historical Context**





- Morrisville established 1852 along the North Carolina Railroad
- 1880 Population 165
- 1990 Population 1,022
- 2010 Population 18,576
- Morrisville has always had an important relationship with the Railroad

### Wariness of Change

- Population Growth from
  251 in 1980 to 18,576 in
  2010
- The future holds more of the same, with commensurate traffic challenges
- Morrisville holds only a few cards in the game



### In the Beginning... (2009)

Transportation Plan called for a transitoriented study in the vicinity of McCrimmon Parkway/ NC 54



# Why TOD?

- Despite its premier location on a rail line, Morrisville offers no rail transportation.
- In 2011, the Town Council passed a resolution supporting the McCrimmon Parkway transit station.
- With this, the idea of TOD was considered.

#### **Key Features**

- Vibrant Activity Center
- Connected to High-Quality Transit Service
- Linked by Safe Pedestrian Connections to Businesses and Neighborhoods
- Creates a Sense of Place

 Adds Residential Density to Morrisville

## Four Driving Themes



Transportation Viability



Economic Value Added



Workforce Housing



Design Character







### Outreach





### Market Assessment

### Opportunities:

- Highly proximate to RTP/RDU
- Strong incomes
- Access to two freeways
- Highest Tax-base in region
- Wake Tech campus

### Limitations:

- Location is off the beaten path
- Lacks an orientation today
  - Airport contours limit residential
- Road network somewhat challenging



### Market Assessment Output

- Create sense of location
   – a local destination in the market
- Transit a key part of that equation, but not only part
- Mix of land uses, integrated horizontally, not vertically
- Requires strong architecture and design
- Parks & plazas to create an orientation
- Mix of housing (apartments)
- Office, retail, hotel
- Specific recommendations for housing and commercial property amounts and types and timing



### **Transport Assessment**

- Too Many People Not Staying in Town for Work - 98% are not residents
- NC 54 Congested and Likely to Stay that Way
- Need for Options and a New Kind of Solution (for this area)



### **Physical Recommendations**



- . Rail Station
- 2. McCrimmon Overpass
- 3. Multi-Use Path Connection
- 4. Commuter Lot/Parking Behind Buildings
- 5. New Street Connections
- Active Street, Framed by Buildings Connecting Activity Center to the Rail Station
- Publicly Accessible Open Space and Formal Park Space
- 8. Direct Route/Boulevard to Rail Station
- Transition in Scale to the Existing, Adjacent Residential Development
- Retail Anchor at/near Corner of McCrimmon Parkway and Church Street
- High-Density Residential Especially Towards McCrimmon Parkway
- Iconic Social Gathering Spot Energized by Perimeter
  - Retail &
  - Amenities
- Destination Concentration of Restaurants















## **Station Design**

- Two station platforms with pedestrian Circulators
- Park & ride lot with pedestrian pathways to Platform
- Double rail track with two platforms
- Bus bays for passenger drop off



### **Transportation Results**

- Congestion results are similar but do show improvement over the existing
- Research shows that results can see a reduction of 5% to 15% for a fully matured TOD



### **Transportation Recommendations**

From Market Assessment Inputs and Travel Demand Model, Several Microsimulation Studies indicated...

- A TOD scenario provided more options with similar congestion levels
- Reduced trip lengths locally
- Provided a refined sense of the performance of several intersections and improvements necessary to support the development



#### NC 54 BYPASS / MCCRIMMON PARKWAY EXTENSION CREATING A GATEWAY



## The End...

