



# JOHNSON ROAD IMPROVEMENTS

COUNCIL WORK SESSION

December 3, 2019



# Public Comment Summary

## ■ Items of Alignment

- *Preserve the Trees*
- *Preserve Rural/Country Feel*
- *2 Lanes*
- *Buried Stormwater System / No Bar Ditch*
- *Pedestrian Safety*

# Based on: All Public Input

## PUBLIC INPUT: PRIORITIES

1. TREE PRESERVATION
2. PRESERVE THE RURAL COUNTRY FEEL
3. TWO LANE ROADWAY - 62% DESIRE 12' WIDE LANES
4. BURIED STORM WATER SYSTEM – 72.5% DESIRE CURBS AND GUTTERS
5. PEDESTRIAN SAFETY – 38.5% DESIRE A SINGLE 5' SIDEWALK ON THE SOUTH SIDE.
  - a. 26.2% DESIRE NO SIDEWALKS AT ALL (COMBINED 64.7%)

# Intersection Operation - Proposed



- City plans for a single lane divided approach to the traffic circle
- Pedestrian Crosswalks included
- Center median able to be driven on
- Fits within Existing R.O.W.

Traffic Circle - best fit solution



# City of Keller Tree Preservation

## ARTICLE EIGHT Unified Development Code

Adopted: July 7, 2015



### Section 8.19 - Tree and Natural Feature Preservation

#### A. Purpose and Intent

The purpose of this Article is to promote site planning that furthers the preservation of mature trees and natural areas, to protect trees during construction; to facilitate site design and construction that contribute to the long term viability of existing trees; and to control the removal of trees when necessary. It is the further purpose of this Article to achieve the following broader objectives:

1. Prohibit the indiscriminate clearing of property.
2. Achieve the City's Future Land Use Plan goals as set by citizens through the appointed boards and the City Council.
3. Maintain and enhance property values and a positive image for the attraction of new residents and business enterprises to the City.
4. Protect healthy quality trees that contribute to noise reduction, air quality, glare reduction, and promote the natural ecological environmental and aesthetic qualities of the City.
5. Promote site planning that is sensitive to the location of existing trees in an effort to save quality trees evenly distributed across the City to reduce the need to overplant public property.

# Preserving the Character & Country Feel



# Utility Coordination - Proposed

## Franchise Relocates

- Several private utilities to be adjusted (by franchise utilities)

## Water

- ~2,025 LF 12" PVC water line
- ~2,100 LF 8" PVC water line

## Illumination

- Approx. 10 new LED streetlights
  - *Oncor-owned*

## Impact to Homeowners

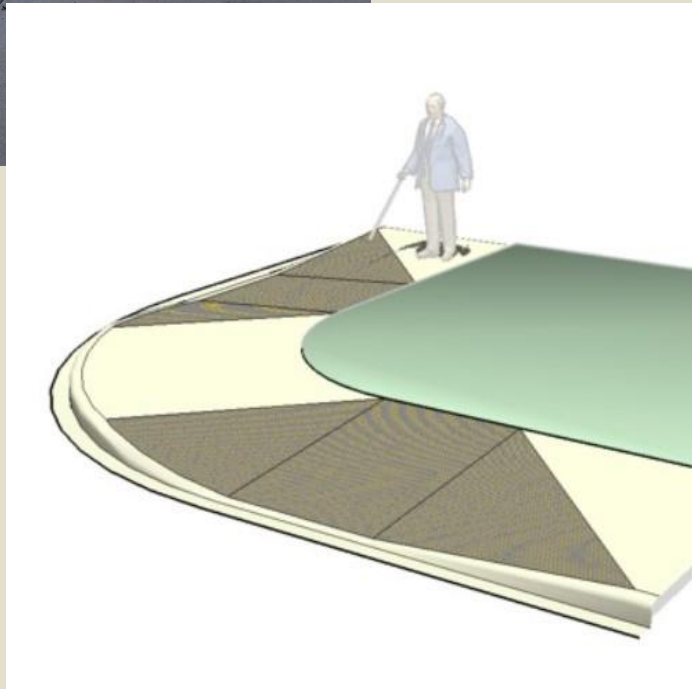
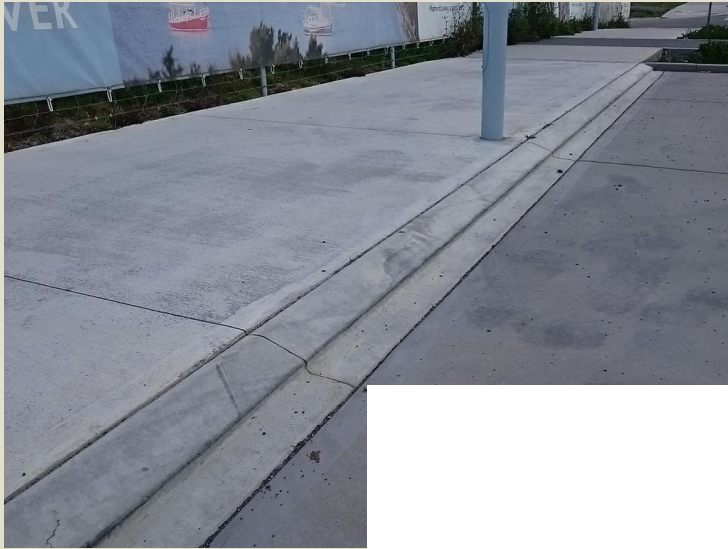
- Relocation of all Utilities
- Relocation of Sewer Connections
- Impact to Septic Tanks
- Relocation of Power & Telephone Poles
- Driveway Aprons and Mailboxes

## Illumination – Not Desirable

- Street Lights will change Johnson Road from a Country Road to an Urban Parkway
- Reduce Quality of Life for Residents
- Will increase traffic speeds.



# Sidewalks, Curbs and Driveway Aprons



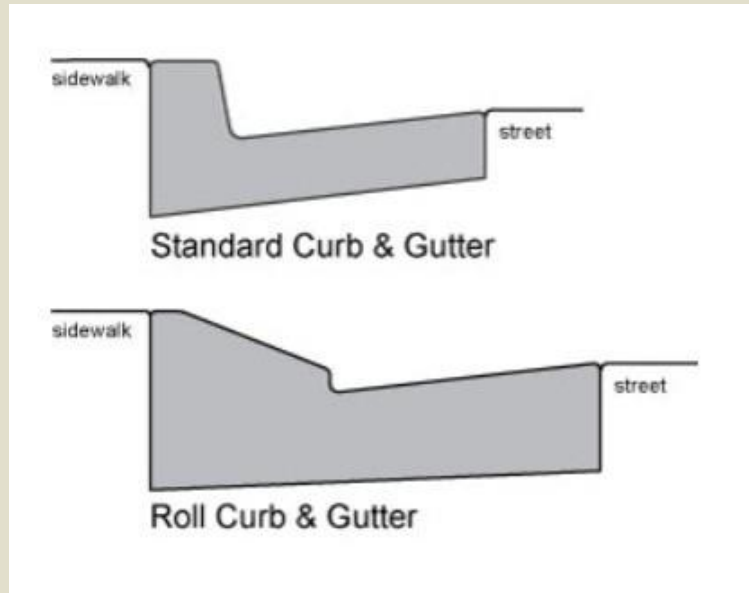
## Sidewalks:

64.7% of Public Input want a Single 5' Sidewalk or No Sidewalk at All.

- Minimized to save Trees
- Contiguous with the Curb
- Weave around Trees
- No Support for 10' Hiking Trail
- No support for Sidewalks East of Keller Smithfield

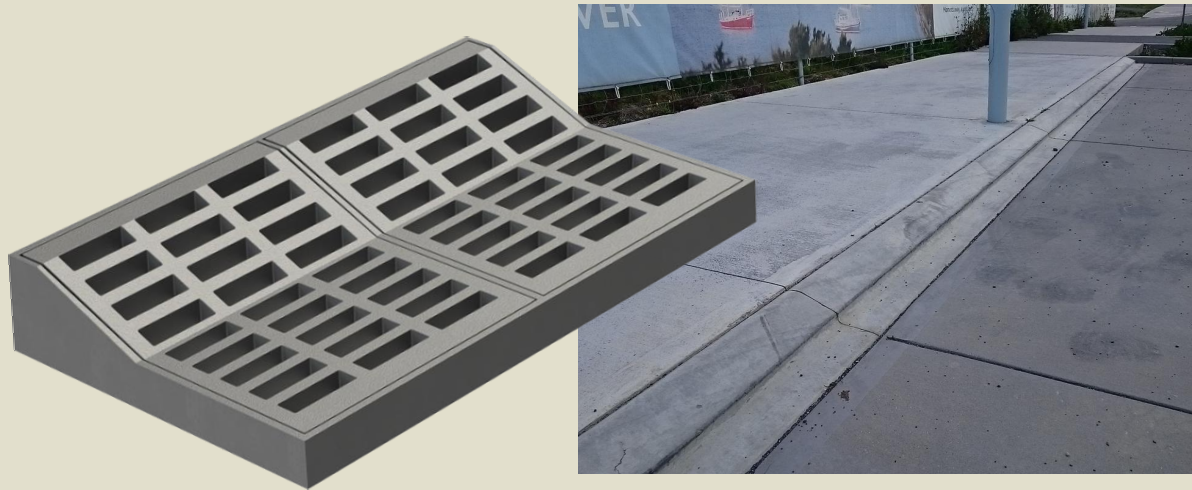


# Sidewalks, Curbs and Driveway Aprons

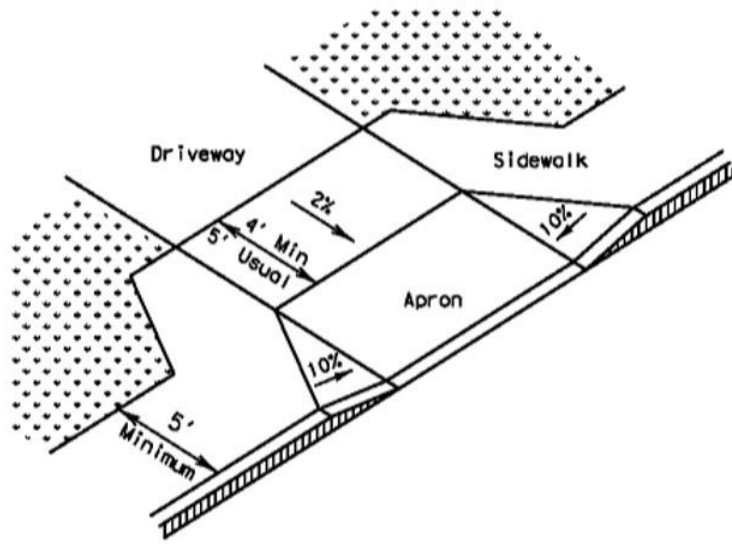


## Mountable Curbs:

Mountable or Roll Curbs are designed to be driven over slowly as the edges are rounded with a sloping curb face. These are used to reduce your vehicle speed, or to bring you up to a higher pavement without damaging your alignment such as going up a driveway or over a speed bump.



# Sidewalks, Curbs and Driveway Aprons



(B)  
SIDEWALK PLACED ADJACENT TO CURB  
WITH CONTINUOUS PASSAGE BYPASS APRON

## Driveway Aprons:

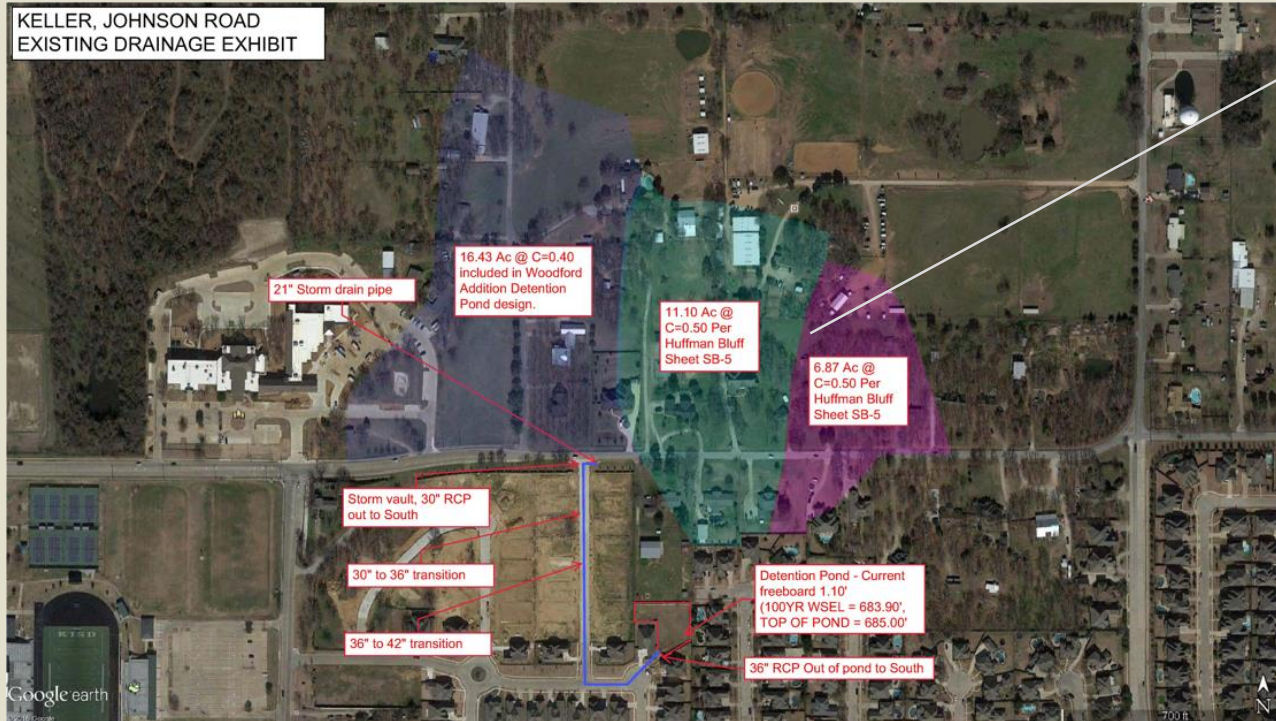
- Several Residents have Double Entry Driveways
- Mailboxes should be restored to Original



# Drainage

- Residents support Storm Drains with a Single Conduit Transport located in the center of the road to minimize damage to existing trees.
- An ENGINEERING STUDY to determine BEAR CREEK'S capacity at Rhonda Road should be promptly commissioned by the City, taking into consideration water flow capacities, flood risks, soil erosion and each homeowner down stream.

# Drainage – Addressing Old Issues



Watershed to Johnson Road presently flows from the Birch Development.

According to Public Works; A Reduction of ~12.57 Cubic Feet of Stormwater per second can be Reduced to 4.7 Cubic Feet per second based on Amended Drainage Plans already Approved by the City.

This is a 63% Decrease in Stormwater Flows to Johnson Road however this work has not yet been completed. Completion of this work should require the City's prompt attention.



# Roadway Design

JOHNSON ROAD is a COLLECTOR ROAD which connects Local Roads to Arterial Roads.

**TRAFFIC COUNTS** support a TWO-LANE Collector Road Design.

Traffic Counts on Johnson Road have been on a steady decline since 2012.

Residents are FIRMLY AGAINST a 3-LANE Plan Option which will promote illegal passing and other safety concerns.

## **LANE WIDTH – 12' VS 15'**

- TXDOT Design criteria for a Collector Road is a 12' lane width.
- North Central Council of Governments recommends a 12' lane width.
- City of Keller Master Thoroughfare Plan calls for a 12' lane width.

No requirement exists for the presence of a shoulder for the 12' lane width.





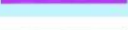


Many roads in Keller and adjacent cities have 11' wide lanes with NO shoulders.

## ARTICLE FIVE Unified Development Code

Adopted: July 7, 2015



2. Pavement widths shall be thirty feet (30') from face-of-curb to face-of-curb on local residential streets with curbs. All streets with curbs shall be considered local residential for width design unless one of the following conditions exists:
  - a. Designated as a collector or thoroughfare by the City's Thoroughfare Plan.
3. In the case of 2.a above, the section to be constructed shall be in accordance with the Thoroughfare Plan or a revision thereof based on updated conditions. In the case of 2.b and 2.c, each condition shall be studied individually and approved by the City prior to approval of the subdivision in question.

-  6 LANE DIVIDED ARTERIAL (A6D)
-  4 LANE DIVIDED ARTERIAL (A4D)
-  4 LANE UNDIVIDED COLLECTOR (C4U)
-  3 LANE COLLECTOR (C3U)
-  2 LANE COLLECTOR (C2U)
-  ROADWAYS IN ADJACENT THOROUGHFARE PLANS
-  SIGNAL LOCATIONS

DESIGN ELEMENT		ROADWAY TYPE						
		A6D	A4D	C4U	C3U	C2U	LOCAL	RURAL
ROW WIDTHS (FT)	NO PROVISION FOR BIKES	120	96	74	65	65	50-60	60
	SHARED LANES*	125	100	80	70	70	----	----
NUMBER OF TRAFFIC LANES		6	4	4	3	2***	2	2
CAPACITY (VEHICLES PER DAY) FOR LOS C/D		34,500	23,000	17,000	12,500	8,500	----	----
LANE WIDTHS (FT)	VEHICLE LANES	12	12	12	13	12	15-20	12
	SHARED LANES*	14.5	14.5	14.5	15	14	----	----
	PARKING LANES	----	----	----	----	8	----	----
MEDIAN WIDTH (FT)		18	18	----	14**	----	----	----
PARKWAY WIDTH (FT)	NO PROVISION FOR BIKES	15	15	13	12.5	12.5	10	----
	SHARED LANES*	15	14.5	13.5	13	13	----	----

\* VEHICLES AND BIKES

\*\* TWO-WAY LEFT TURN LANE

\*\*\* ALLOWS ON STREET PARKING



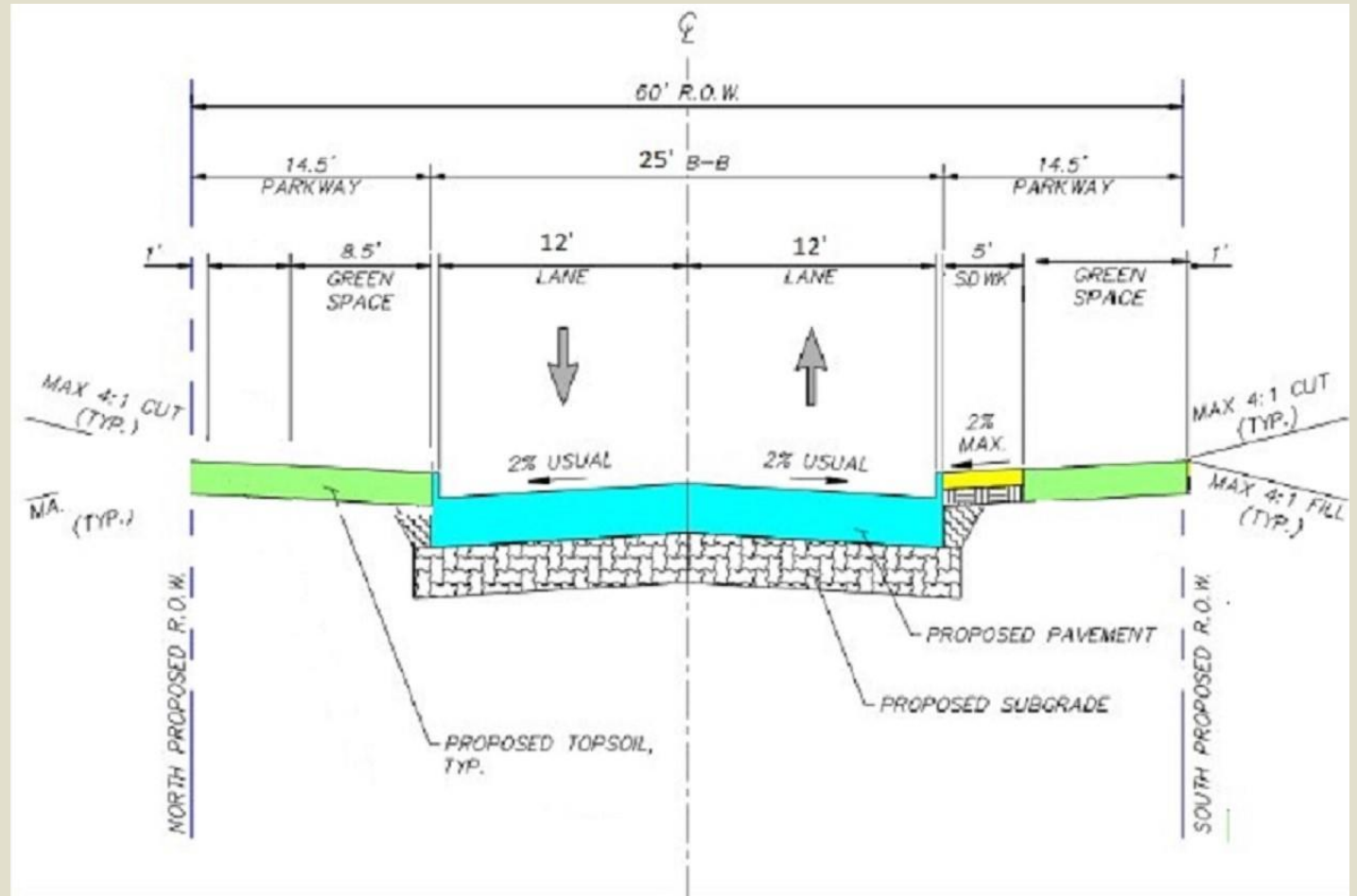
# COMPREHENSIVE THOROUGHFARE PLAN CITY OF KELLER

ADOPTED BY RESOLUTION NO. 3186, KELLER CITY COUNCIL, MARCH 20, 2012



# Roadway Design

- 12' Lanes saves Trees
- 12' Lanes reduces the Impervious Surface
- 12' Lanes and Sidewalks contiguous with Curbs preserves the Country Charm
- Road Surface Drainage is addressed by the # of Storm Drain Collectors not Road Width



# Traffic Calming and Enforcement Measures

Johnson Road use as an Arterial By-Pass should be discouraged using Traffic Calming and Enforcement Measures.

**NO TRUCKS** – Residents appreciate the recent installation of NO-TRUCK signage. We now look forward towards Enforcement to reduce the truck presence and keep their weight from damaging the roadway.



**SPEED CONTROLS & ENFORCEMENT:** Johnson Road is residential from Rufe Snow to Davis Blvd. There are 34 Driveway entrances in Phase I alone. Posted Speed on Johnson East of Rufe Snow is 30 mph and yet Keller PD studies in 2017 show 93% of Vehicles exceed the posted speed limit.

Residents are requesting a reduction of the speed limit to 25 mph and Permanent Traffic Radar Signs to alert drivers of their speed on the residential road.



# Sanitary Sewer Extension

## SANITARY SEWER:

At minimum, Sanitary Sewer Extension to Keller Smithfield Road (~1000 FT) should be incorporated into this Capital Improvement Project.



If you are not aware, the vacant property at 1342 Johnson Road when it is developed will be required to connect to and extend the sanitary sewer to their West property line.

With development in the near future, it makes wise Economic sense to install the Sanitary Sewer now rather than later when the lot is developed.

This opportunity presents itself now for Tax Dollar savings regardless of the number of homeowner connections. Installing the Sewer later will cost Taxpayers 5x as much.

@ \$250/ LF WE ARE TALKING \$250,000.

# Road Noise Abatement

## **SOUND WALLS:**

They mitigate Traffic noise and Improve Homeowner's Quality of Life.

The faster the traffic and bigger the vehicles EQUALS the exponential Increase in Traffic Noise.

Residents request a change in the City Ordinance to permit a 5' Stone wall along the Front and Sides of their property Lines.



# Summary

**Road Design is based on conditions present. Designers work with the Environment to achieve the Best Outcomes.**

- 1. A minimally Invasive Design Saves Trees and Preserves the Country Charm.**
  - a. 12' Lane Width meets all criteria for safe vehicular travel**
  - b. Mountable Roll Curbs**
  - c. A Single 5' Sidewalk on the South Side – Contiguous to the Curb**
  - d. Keep the Curves and Elevations of the Existing Road**
- 2. Storm Drain with Single Conduit Transport located in the Center of the road**
  - a. An Engineering Study for Water Capacity to bear Creek**
- 3. NO Street Illumination Except Shielded Lighting at the Round-A-Bout**
- 4. Driveway Aprons including those with Double Entry**
- 5. Existing landscaping & Mailbox should be restored to original**
- 6. Truck and Speed Enforcement w/ Radar Speed Signs**
- 7. Reduction of Posted Speed to 25 MPH**

QUESTIONS

