

Scaleybark Road Traffic Calming Project

The City of Charlotte retained AECOM to develop a traffic calming concept plan for Scaleybark Road. The plans were developed through an interactive and community-driven process between August 1st and 4th, 2011. Thoughtful input was continually provided during discussions with key interest groups/organizations, residents, City staff, other institutional representatives, and the design team. There were two public meetings, stakeholder interviews, and over eight hours of open house during these days; by the end of the week there was a resounding consensus for the concept plan. Stakeholder participants included: neighborhood association representatives from Southgate Apartments, Pines of Woodlawn Townhomes, Timber Creek Apartments, Wildwood Apartments, Charlotte Wood Apartments, Scaleybark Condo Association, CATS, Arbor Village, Colonial Village, Collinswood, Ashbrook/Clawson Village, Bike program representatives, Planning Commission, Charlotte Police Department and Charlotte Fire Department. The next steps include: i) Circulating the concept plan to various City departments to gain further input; ii) Develop preliminary cost estimates and prioritize (phasing plan); and iii) Return to the public to discuss any modifications and implementation steps.

The Corridor Study includes Scaleybark Road between Conway Avenue and E Woodlawn Road. Specific outcomes of this work include a traffic calming concept plan, with planning level graphics of the various proposed traffic calming measures within the study area. These products will help guide the development of construction drawings and any subsequent phases of the project (implementation plan and phasing).

CONTEXT

Traffic calming on arterial streets has been practiced in North America for about 15 years with good results for increasing both safety and quality of life. Scaleybark Road is an ideal candidate arterial street to apply traffic calming. The street is designated a "minor thoroughfare" which is a minor arterial. More importantly, it is also a two-lane street with residential frontage, a magnet school (K-8th), two churches, incomplete sidewalks. The speed limit is posted at 35 mph, although typical of urban thoroughfares, may be inappropriate for the context. 98% of drivers exceed the posted speed limit. The average speed is over 40 mph, with some drivers exceeding 55 mph.

THE OBJECTIVES INCLUDE:

The primary objectives of the are to create a traffic calmed street that accommodates alternative uses, enhances the pedestrian and bicycle networks, and is conducive to the adjacent land uses. Criteria for a successful project include the following:

- Have community support and buy-in.
- Make the street equally comfortable for pedestrians, cyclists, and motorists.
- Be implementable in phases (priority based).
- Be feasible (financial standpoint, emergency responders, utilities).
- Reduce speeding and aggressive driving behavior.
- Make all proposed changes to the roadway aesthetically pleasing.
- Reduce storm water run-off.

The content of this brochure provides the design intent and planning level concept to develop a traffic calming project along Scaleybark Road. Obviously, during these processes some changes will be necessary due to new discoveries. However, the idea is to keep as close to this concept as feasible.



The project team held discussions with various stakeholders as part of the process

WHAT WE HEARD:

- Speeding
- Aggressive driving behavior/overtaking
- Lack of sidewalks/poor pedestrian environment
- Unsafe blind spot at the Woodlawn/Scaleybark right turn slip lane
- Lack of bus shelters
- Lack of parking (church) spills onto neighborhood streets
- Lack of aesthetics

Traffic Calming

"Traffic Calming is the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non motorized street users."

Drivers tend to travel at speeds that are comfortable based on the street design, not necessarily at posted speed limits. Thus, the design speed of a street is critically important to its safety for all users, as well as the comfort of pedestrians and cyclists.

Traffic calming is a way to design streets, using physical measures that create physical and visual cues that induce drivers to travel at slower speeds. The design of the roadway results in the desired effect, without relying on compliance with traffic control devices such as signals, signs, and without enforcement. Traffic-control devices such as signs, signals, and pavement markings, as well as route-modification measures such as street closures, partial street closures, and turn prohibitions, do not necessarily calm the traffic and, in fact, can make traffic worse. Traffic calming efforts usually increase safety, reduce the number and severity of collisions, enhance the community's identity and character, and can potentially increase social contact and walkability.

Slow Vehicle Speeds

The concept traffic calming plan for the neighborhoods is purposely designed to help "self-enforce" appropriate speeds. The recommended posted speed limit for the Scaleybark Corridor is 30 mph.

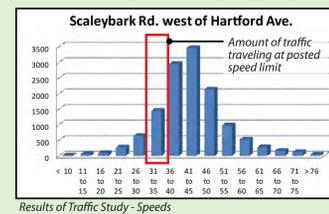
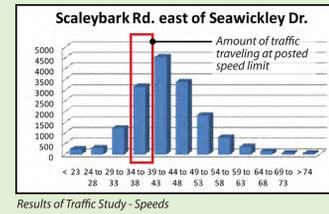
Communities increasingly recognize that moderate traveling speeds, especially in residential neighborhoods, are key to improving livability and quality of life. In addition, transportation experts point out that moderate speeds within the 15 to 30 mph range on residential and commercial areas move traffic more efficiently and maximize the number of vehicles per hour per lane. Typically, slowing vehicle speeds also increases safety by reducing crashes. Moderate vehicle speeds will create a more inviting environment that encourages residents to walk, ride a bicycle, and use public transit.

All Inclusive

Urban streets that accommodate pedestrians result in safe, comfortable streets for all users. This is especially critical given the emphasis during the last 50 years of designing streets primarily for motor vehicles. By designing for pedestrians first, communities not only establish a better balance between different transportation modes but can often create more livable neighborhoods where residents of all ages and abilities feel comfortable and welcome.

Existing Conditions

Scaleybark Road is a designated minor thoroughfare with an Average Daily Traffic (AADT) of around 12,000 car trips. An overall concern among residents includes pedestrian safety (children around the school), speeding, lack of aesthetics, and increasing crash rates (especially at locations such as Woodlawn Road and Conway Avenue).

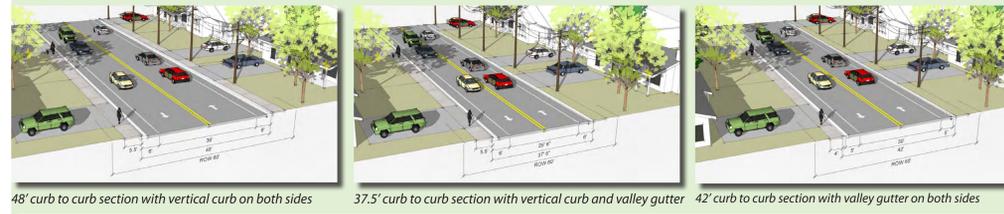


Scaleybark Road's curb-to-curb dimension ranges between 37.5' and 48' within a right-of-way of 60'.

There are three different edge conditions along the corridor (as depicted on street section graphics below):

- Vertical curb on both sides of the street
- Vertical and valley gutter at each side of the street
- Valley gutter on both sides of the street

Sidewalks along the corridor are incomplete, disconnected, and/or in poor condition. A sidewalk project is currently underway to construct approximately a half mile of sidewalk on the northwest side of Scaleybark. Sidewalk connectivity in this area is critical given the proximity of the Scaleybark light rail station. The lack of sidewalks reduce the desirability of walking and even transit use.



48' curb to curb section with vertical curb on both sides 37.5' curb to curb section with vertical curb and valley gutter 42' curb to curb section with valley gutter on both sides

The Concept Plan

The traffic calming concept plan for Scaleybark Road was designed to increase safety, better accommodate pedestrians and cyclists along the corridor, and achieve driving behavior that is acceptable to neighbors and sensitive to its context. The suggested design speed, 30 mph, better matches the built environment and is respectful of pedestrian activities associated with neighborhood land uses, the school, and the churches in the area.

The recommended traffic calming measures include:

- Reduced travel lane widths (10' lane dimension proposed)
- Entrance features
- Short landscaped medians
- Curb Extensions/bulb outs (at intersections and mid-block between on-street parking spaces)
- Informal parallel on-street parking (no markings between spaces)
- Additional street trees
- Crosswalks with median refuges for pedestrians
- Lateral shifts
- Mountable textured medians
- Rain gardens/bio-swales (optional in medians and bulbouts)
- Bike lanes (conventional and protected)
- Tighter turn radius at turn channel on Woodlawn onto Scaleybark.

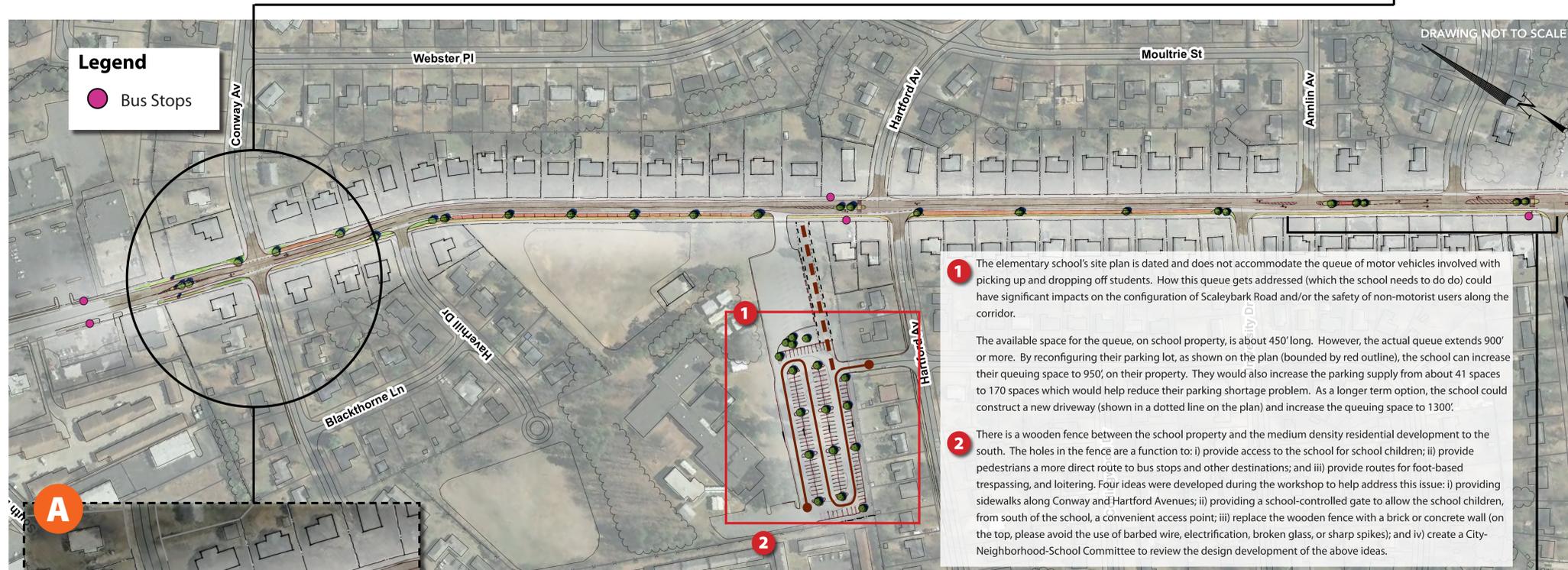


Entrance Feature



Entry features are physical landmarks that indicate a change in environment from a conventional road to a lower speed residential neighborhood. An entry feature may be a combination of street narrowing elements, landscaped medians, architectural elements at each side of the street, a roundabout, or some other identifiable feature. The proposed entry feature in the neighborhood needs to send a clear message to motorists that they have reached a special place and will help them adjust their driving behavior accordingly.

North of the Scaleybark Road/Conway Avenue intersection was identified as a great opportunity to build a residentially scaled entrance feature that marks an entrance to the neighborhood. The feature strengthens the local identity and character, and increases the sense of community of its residents. Planting strips on both sides of the street, a median wide enough to plant a tree, and architectural elements will define the transition of Scaleybark Road into a two-lane residential street.

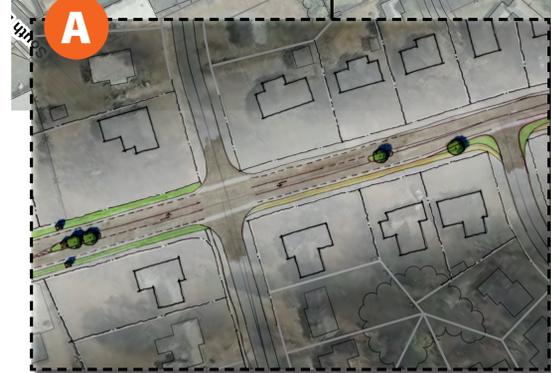


Legend
● Bus Stops

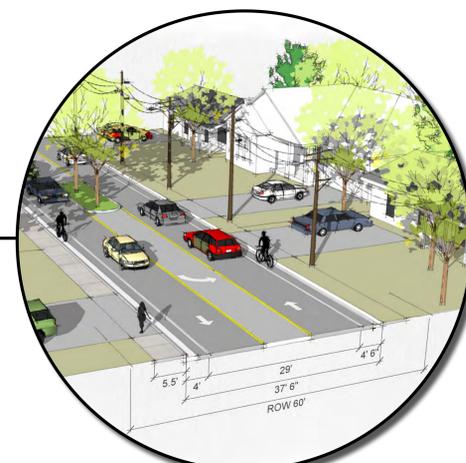
1 The elementary school's site plan is dated and does not accommodate the queue of motor vehicles involved with picking up and dropping off students. How this queue gets addressed (which the school needs to do so) could have significant impacts on the configuration of Scaleybark Road and/or the safety of non-motorist users along the corridor.

The available space for the queue, on school property, is about 450' long. However, the actual queue extends 900' or more. By reconfiguring their parking lot, as shown on the plan (bounded by red outline), the school can increase their queuing space to 950' on their property. They would also increase the parking supply from about 41 spaces to 170 spaces which would help reduce their parking shortage problem. As a longer term option, the school could construct a new driveway (shown in a dotted line on the plan) and increase the queuing space to 1300'.

2 There is a wooden fence between the school property and the medium density residential development to the south. The holes in the fence are a function to: i) provide access to the school for school children; ii) provide pedestrians a more direct route to bus stops and other destinations; and iii) provide routes for foot-based trespassing, and loitering. Four ideas were developed during the workshop to help address this issue: i) providing sidewalks along Conway and Hartford Avenues; ii) providing a school-controlled gate to allow the school children, from south of the school, a convenient access point; iii) replace the wooden fence with a brick or concrete wall (on the top, please avoid the use of barbed wire, electrification, broken glass, or sharp spikes); and iv) create a City-Neighborhood-School Committee to review the design development of the above ideas.



Alternative "A" shows a concept alternative for the intersection of Scaleybark Road and Conway Avenue. A left turn lane pocket is created to simplify turning movements (north and southbound Scaleybark Road) to Conway Avenue, making this intersection more predictable for motorists. The trade-off is loss of official bike lane in these segments. Past the intersection, the street transitions back to a two-lane street with on-street parallel parking on the west side. The 3-D model graphic to the right illustrates and provides street section details for this alternative.



Pedestrian Crossings - Bus Stops



The several bus stops along Scaleybark should be located on the bulbouts (if at a corner). The extended area provides additional space for signage, benches, and shade trees. Aesthetically pleasing shelters should also be considered to increase comfort and provide weather protection to users.

Pedestrian crossings make it clear to motorists that they are to look for and yield to pedestrians actively crossing the street. The graphic to the left illustrates a median used in conjunction with a pedestrian crossing proposed just North of Murrayhill Road, at the bus stop location. The median serves as a refuge for pedestrians crossing the street. The idea is that the pedestrians can look one way, cross to the refuge, look the other way, and then cross the other half of the street. Thus, crossing the street becomes simpler and safer for all users.

Proposed bus stop and median/pedestrian crossing at Scaleybark and Murrayhill Road