

Memorandum

City of Lawrence

Public Works Department

TO: David Cronin, City Engineer
FROM: Zach Baker, Project Engineer
DATE: 25 October 2017
RE: Agenda Item for Transportation Commission 11/6/2017:
Traffic Calming Request – Kensington Road, between 27th Street & 28th Street

Background

In July 2017, the Transportation Commission received an official request for Kensington Road to be considered for traffic calming between 27th Street & 28th Street. The requestor also asked for the yield sign on 28th Street at Kensington Road be replaced with a stop sign. Traffic data collected by staff in September of 2017 was used for this report.

Details

Kensington Road, 27th Street to 28th Street Information						
Street Classification	Speed Limit	Safe Route to School	Bus / Transit Route	Douglas County Bikeway Plan	Sidewalk along Street	Street Cross Section/Pavement Data
Collector	30 mph	YES	NO	YES, Exist. SUP	YES BOTH SIDES	Asphalt Pavement Width of 31 feet. Has curb and gutter for drainage.

The 85th percentile speed of traffic on Kensington Road is approximately 36 mph, and, the 24-hour two-way traffic volume is approximately 1790 between 27th Street and 28th Street. The City of Lawrence Traffic Calming Policy is listed below:

Traffic-Calming Devices (except SPEED HUMPS) may be permitted on “collector” streets as designated by the City’s Major Thoroughfares Map, under any one of the following conditions:

- The 85th percentile speed of traffic is 5 mph or greater over the speed limit, or
- The 24-hour two-way traffic volume is greater than 3000, or
- Cut-through traffic comprises more than 50% of the traffic during the peak hour of the day, or

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- D. More than 50% of the frontage of the roadway consists of residential lots with the houses facing the roadway in question, or
- E. Where no single condition is satisfied, but where any two of A, B, C or D above are satisfied to the extent of 80% or more of the stated values.

TRAFFIC COUNT/SPEED DATA



Traffic volumes for this street segment are below the 3000 vehicle per day threshold for considering the installation of traffic calming devices. However, the 85th percentile speed of 36 mph in this block is > 5 mph over the speed limit of 30 mph. Therefore, condition "A" is satisfied. Cut-through traffic on Rockledge is > 50%, therefore, condition "C" is also satisfied. Condition "D" is satisfied as well since > 50% of the frontage of the roadway consists of residential lots with the houses facing the roadway.

Crash data was obtained for this block as well. Since 2014 there have been 2 reported accidents between 27th Street and 28th Street.

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Criteria for the use of stop signs are listed below.

The use of STOP signs on the minor-street approaches should be considered if engineering judgement indicates that a stop is always required because of one or more of the following conditions:

- A. The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;
- B. A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or
- C. Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right of way to traffic on the through street or highway.

The intersection of 28th Street and Kensington Road does not meet any of the conditions above for consideration of installation of a stop sign. There is a clear line of site at the intersection. Traffic volumes and crash totals do not warrant the installation of a stop sign.

Minimum criteria for traffic calming are satisfied. The school district and principal of Prairie Park Elementary school were notified of this request and staff met with them to receive their input as Kensington Road is adjacent to USD 497 property. The school is in favor of the installation of traffic calming in this location. It does not feel a stop sign at 28th Street is necessary. There is currently a crossing guard that assists students crossing Kensington Road at 28th Street intersection before and after school.

Action Request

It is staff recommendation the Transportation Commission approve the request for installation of traffic calming devices on Kensington Road between 27th Street and 28th Street. It is staff recommendation to deny the request to install a stop sign in place of the yield sign on 28th Street at Kensington Road.

Attachments:

Traffic Calming Policy
MUTCD Stop Sign Criteria
County Bikeway Plan
Safe Routes to School Map
Prairie Park Principal Email
Resident Request Letter



TRAFFIC CALMING POLICY

Resolution No. 6602, August 23, 2005

1. TRAFFIC-CALMING DEVICES may include but are not limited to Traffic-Calming Circles, Speed Humps and Speed Cushions, Speed Tables, Partial Diverters, Full Diverters, Center Island Narrowing, Chokers, and Road Closures; however, roundabouts are traffic management devices and are not subject to this policy.
2. TRAFFIC-CALMING DEVICES may be permitted on "local" streets as designated by the City's Major Thoroughfares Map, and under any one of the following conditions:
 - A. The 85th percentile speed of traffic is 5 mph or greater over the speed limit, or
 - B. The 24-hour two-way traffic volume is greater than 1000, or
 - C. Cut-through traffic comprises more than 50% of the traffic during the peak hour of the day, or
 - D. Where no single condition is satisfied, but where any two of A, B or C above are satisfied to the extent of 80 percent or more of the stated values.
3. TRAFFIC-CALMING DEVICES (except SPEED HUMPS) may be permitted on "collector" streets as designated by the City's Major Thoroughfares Map, under any one of the following conditions:
 - A. The 85th percentile speed of traffic is 5 mph or greater over the speed limit, or
 - B. The 24-hour two-way traffic volume is greater than 3000, or
 - C. Cut-through traffic comprises more than 50% of the traffic during the peak hour of the day, or
 - D. More than 50% of the frontage of the roadway consists of residential lots with the houses facing the roadway in question, or
 - E. Where no single condition is satisfied, but where any two of A, B, C or D above are satisfied to the extent of 80 percent or more of the stated values.
4. Traffic data will be collected with city personnel using city equipment only. In the event that a requested location does not meet the minimum requirements as stated in 2 or 3 above, subsequent requests will not be considered for a minimum of one year.
5. The Lawrence-Douglas County Fire & Medical Department, the Police Department, the Public Works Department and the Traffic Safety Commission must review all requests for TRAFFIC-CALMING DEVICES before being presented to the City Commission.
6. If a project is approved by the City Commission, the City Commission will determine financing of the construction. The City Commission may require 0-100% of the costs to be paid by the group or neighborhood making the request.
7. After a project is approved and funded by the City Commission, TRAFFIC-CALMING DEVICES will only be constructed at a location if 70% or more of the property owners within 300 feet measured along the centerline of the street in each direction approve of the installation or if directed by the City Commission. The individual, group or neighborhood making the request shall be responsible for obtaining the property owners' and residents' approval in writing and submitting it to the city.
8. Once installed, TRAFFIC-CALMING DEVICES may only be removed at a location if more than 70% of the property owners and residents within 300 feet measured along the centerline of the street in each direction approve of the removal or if directed by the City Commission. The individual, group or neighborhood making the request shall be responsible for obtaining the property owners' and residents' approval in writing and submitting it to the city.
9. TRAFFIC CALMING DEVICES may initially be landscaped (if appropriate) by the city, provided that the group or neighborhood making the request agrees in writing to maintain the landscaping or pursuant to the payment of a landscape maintenance fee. No privately installed landscaping is permitted unless approved by the city in writing.

Section 2B.06 STOP Sign Applications

Guidance:

- 01 *At intersections where a full stop is not necessary at all times, consideration should first be given to using less restrictive measures such as YIELD signs (see Sections 2B.08 and 2B.09).*
- 02 *The use of STOP signs on the minor-street approaches should be considered if engineering judgment indicates that a stop is always required because of one or more of the following conditions:*
- A. *The vehicular traffic volumes on the through street or highway exceed 6,000 vehicles per day;*
 - B. *A restricted view exists that requires road users to stop in order to adequately observe conflicting traffic on the through street or highway; and/or*
 - C. *Crash records indicate that three or more crashes that are susceptible to correction by the installation of a STOP sign have been reported within a 12-month period, or that five or more such crashes have been reported within a 2-year period. Such crashes include right-angle collisions involving road users on the minor-street approach failing to yield the right-of-way to traffic on the through street or highway.*

Support:

- 03 The use of STOP signs at grade crossings is described in Sections 8B.04 and 8B.05.

Section 2B.07 Multi-Way Stop Applications

Support:

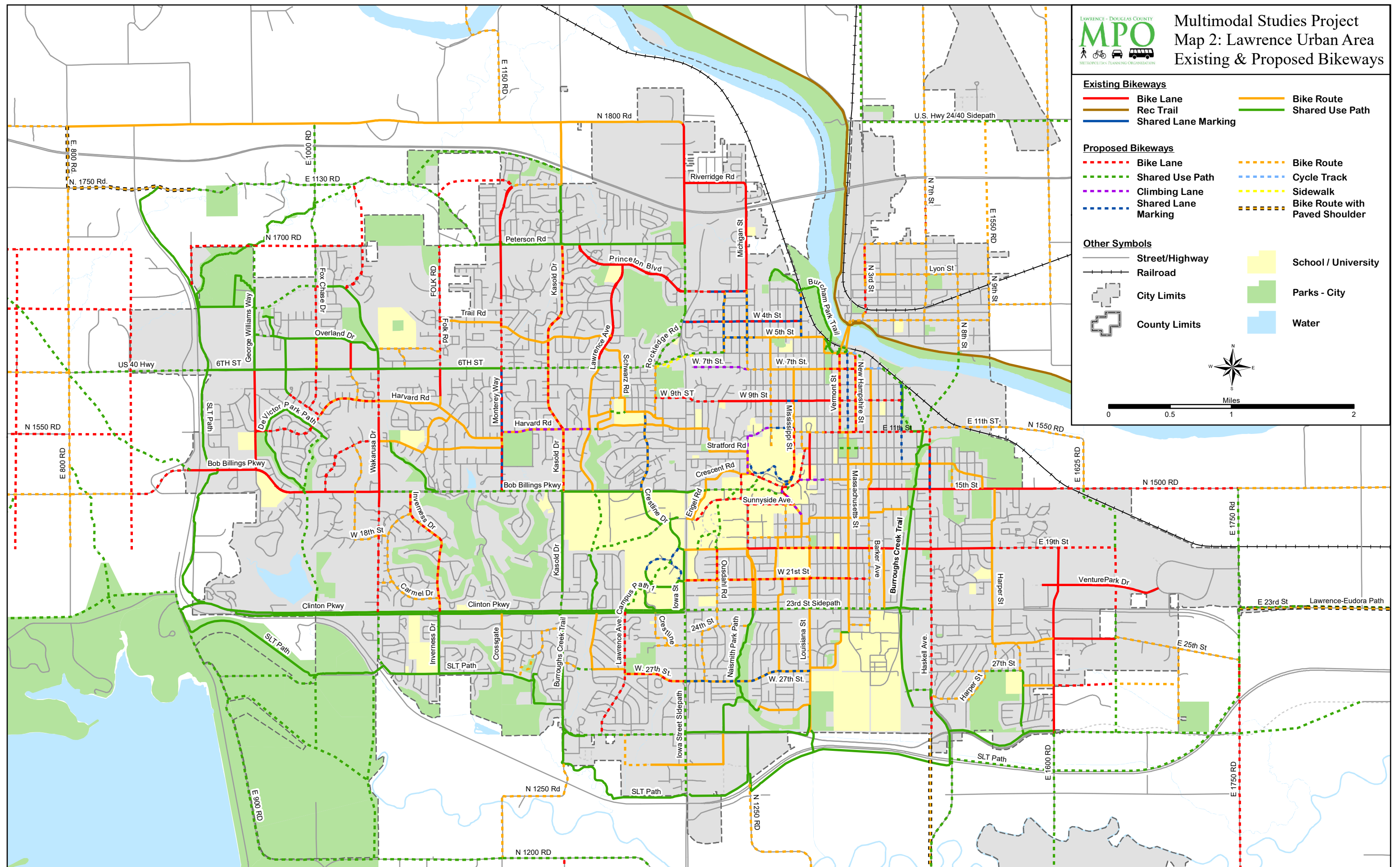
- 01 Multi-way stop control can be useful as a safety measure at intersections if certain traffic conditions exist. Safety concerns associated with multi-way stops include pedestrians, bicyclists, and all road users expecting other road users to stop. Multi-way stop control is used where the volume of traffic on the intersecting roads is approximately equal.
- 02 The restrictions on the use of STOP signs described in Section 2B.04 also apply to multi-way stop applications.

Guidance:

- 03 *The decision to install multi-way stop control should be based on an engineering study.*
- 04 *The following criteria should be considered in the engineering study for a multi-way STOP sign installation:*
- A. *Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are being made for the installation of the traffic control signal.*
 - B. *Five or more reported crashes in a 12-month period that are susceptible to correction by a multi-way stop installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.*
 - C. *Minimum volumes:*
 - 1. *The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and*
 - 2. *The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but*
 - 3. *If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.*
 - D. *Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.*

Option:

- 05 Other criteria that may be considered in an engineering study include:
- A. The need to control left-turn conflicts;
 - B. The need to control vehicle/pedestrian conflicts near locations that generate high pedestrian volumes;
 - C. Locations where a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop; and
 - D. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where multi-way stop control would improve traffic operational characteristics of the intersection.



Data provided by the Lawrence - Douglas County MPO and the U.S. Census Bureau. This map is provided "as-is" for informational purposes and no guarantee is made as to the accuracy of the map or data. This map was created for the Multimodal Studies Project (December 2013). The map was updated in September 2017 to reflect facilities that were completed since 2013.

Map Date: 9/12/2017

Map Created: 9/18/2015

Zachary Baker

From: David Williams <DAWillia@usd497.org>
Sent: Monday, October 23, 2017 5:41 PM
To: Zachary Baker
Subject: Re: Traffic Calming Request near Prairie Park Elementary School

I spoke with the crossing guard this morning and she said that she agreed there were lots of cars that speed down Kensington going in either direction. She said that the yield sign really seemed to work and didn't think there was a need for a stop sign. Finally, her recommendation is that the speed bump be placed closer to the crossing walk. She felt that it would slow cars down as they entered the crosswalk.

Hope that this helps. Let me know if you need more information from me. I appreciate the efforts to keep our students safe.

David A. Williams
Principal
Prairie Park Elementary School
785.832.5740 Phone
785.832.5742 Fax

From: Zachary Baker <zbaker@lawrenceks.org>
Date: Friday, October 20, 2017 at 1:55 PM
To: David Williams <DAWillia@usd497.org>
Subject: RE: Traffic Calming Request near Prairie Park Elementary School

Okay thanks. Have a good weekend!

Zach D. Baker, P.E., Project Engineer
Public Works Department - [City of Lawrence, KS](#)
PO Box 708, Lawrence, KS 66044
office: (785) 832-3196 | fax: (785) 832-3398

From: David Williams [mailto:DAWillia@usd497.org]
Sent: Friday, October 20, 2017 1:51 PM
To: Zachary Baker <zbaker@lawrenceks.org>
Subject: Re: Traffic Calming Request near Prairie Park Elementary School

I will get back with you on Monday. Thanks!

David A. Williams
Principal
Prairie Park Elementary School
785.832.5740 Phone
785.832.5742 Fax

To Whom This May Concern: *Mark Thiel*

July 7, 2017

I, Michael A. Bolden of residence 2728 Kensington Road, am writing in regards to street repair, stop sign and speed bumps installment.

There is a pot hole at the end of my drive way that needs to be repaired. (See diagram on back of this page.)

I do believe there needs a stop sign installed opposed to having a yield sign at the corner of 28th & Kensington. A school crossing is at that intersection as well (see diagram on back) and it gets difficult at times to back out of my drive way. Drivers entering Kensington coming from the east tend to look to the south and don't yield when traffic is present. I'm expected to pull back into my drive to avoid an accident. When school is in session it gets worse especially in the morning.

I also think there needs to be speed bumps to slow traffic down considering there is Prairie Park Elementary School across the street. People have a tendency to drive way too fast even though it's a 30 mph residential area. The main street entering the Prairie Park area is 27th Street which curves south and turns into Kensington. Traffic can flow steady and heavy at times because it's utilized mostly.

I hope this is seriously taken into consideration to make some changes as well as making a repair before an accident do occur that can be avoided. Safety first is our primary objective when it comes to children and people in our neighborhood. Thank you!

Sincerely, *Michael A. Bolden* 785-393-5010