

**Portsmouth**  
**Parking & Traffic Safety Committee**  
Following 8:00 A.M. Parking Work Session– November 5, 2015  
City Hall – Eileen Dondero Foley City Council Chambers

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**ON-SITE COMMITTEE:** Please note there will be no site visit this month.

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AGENDA

**I. CALL TO ORDER**

**II. ROLL CALL**

Joint Work Session with Parking and Traffic Safety Committee, and Fee Committee. Discussion of Guiding Parking Principles for Central Business Districts, and Councilor Thorsen's July 6, 2015 memo referred to Parking and Traffic Safety Committee by City Council on July 20, 2015.

**III. ACCEPTANCE OF THE MINUTES**

**IV. FINANCIAL REPORT**

**V. NEW BUSINESS:**

- A. Driveway permit application appeal, 20 Chapel Street (Angelo Iannaco).  
**Proposed Motion:** To accept DPW recommendation for denial of permit.
- B. Request for No Parking on east side of Cutts Street between Maplewood Avenue and Leslie Drive (Cindy Dodds). **Proposed Motion:** To accept staff recommendation for approval of request.

**VI. OLD BUSINESS/ACTION ITEMS:**

- A. Islington Street between Route 33 and Route 1 Bypass - speed zoning recommendation. **Proposed Motion:** To accept DPW recommendation for maintaining current speed limit.
- B. Burkitt Street and Thornton Street intersection – All-way STOP request.  
**Proposed Motion:** To accept DPW recommendation for No Parking Here To Corner signs relocation.

**VII. PUBLIC COMMENT**

**VIII. INFORMATIONAL**

- A. Banfield Road update
- B. Woodbury Avenue from Gosling Road to Market Street – signal project update
- C. STOP sign installation Tech Notes handout
- D. Portsmouth Click and Fix
- E. Bike corral seasonal removal
- F. Colored crosswalk on Middle Street at Richards Avenue

**ADJOURNMENT**

**Unaudited**

<b>Percentage of Fiscal Year Complete</b> <b>25.00%</b>
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Totals Thru  
September 30, 2015

**FY 16**

Parking Meter Fees  
 Parking Meter Space Rentals  
 Meter In Vehicle  
 Parking Garage Revenue  
 Garage Passes  
 Parking Validation  
 Pass Reinstatement  
 Vaughan St Parking Facility  
  
 Parking Violations  
 Boot Removal Fee  
 Summons Admin Fee  
  
 Total FY 16 Parking

FY 16 to Date:		% of Budget
TOTALS	BUDGETED	
578,766	1,765,500	33%
47,073	50,000	94%
21,173	50,000	42%
675,474	1,850,000	37%
235,835	1,000,000	24%
4,550	10,000	46%
870	2,000	44%
5,000	15,000	33%
193,336	700,000	28%
6,600	12,000	55%
50	5,000	1%
<b>1,768,727</b>	<b>5,459,500</b>	<b>32%</b>

**FY 16 BUDGETED**

<b>(3,047,195.00)</b>	Transfer to Parking Fund
<b>2,412,305.00</b>	Funds Remaining in Gen Fund
<b>5,459,500.00</b>	Total Revenue

City of  
Portsmouth  
*Department of Public Works*



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**MEMORANDUM**

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TO: John P. Bohenko, City Manager

FROM: Eric Eby, P.E., Parking and Transportation Engineer

DATE: October 28, 2015

SUBJECT: Recommendation – 20 Chapel Street Driveway Application Appeal

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City staff has reviewed the application for a driveway at 20 Chapel Street and denied the request. A driveway to this property would result in the loss of an on-street metered parking space, and would require the removal of new sidewalk, curbing and pavement that was installed over the past several months. In addition, the proposed area for the driveway is only 8 feet wide between two buildings, narrower than a standard parking space width of 8.5 feet. It would be very difficult to turn into the driveway and open the vehicle doors to get in and out of the vehicle. A driveway at this location would also present an unreasonable safety risk to the public as vehicles backing out of the driveway would not be able to see pedestrians on the sidewalk on either side of the driveway. The buildings on either side of the proposed driveway location are immediately adjacent to the back edge of the sidewalk, and therefore do not allow for adequate sight lines for pedestrians or vehicles. The applicant has also not documented that the parcel meets the zoning requirements for open space. A driveway in this location would occupy most of the available open space on the lot.

As recourse to the staff denial of the driveway request, the applicant has appealed the decision to the PTS Committee. Staff recommends that the Committee deny the appeal due to the safety concerns noted above.

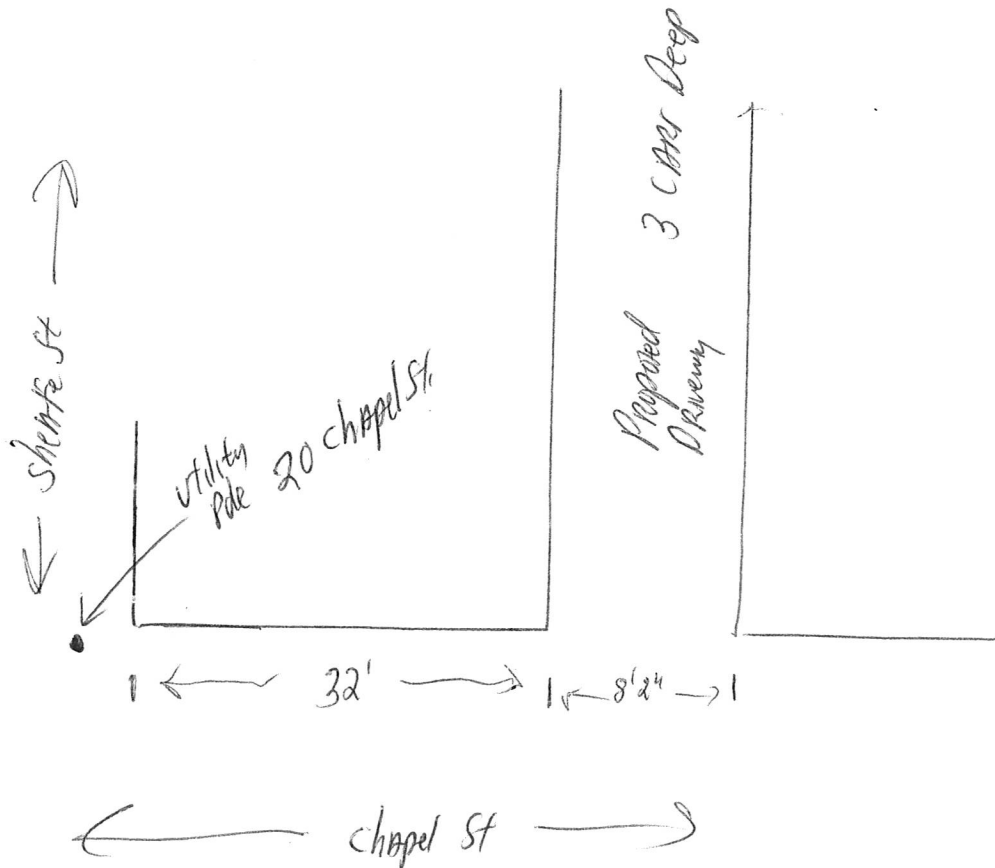


No driveway shall be located within thirty feet (30') of a street intersection.

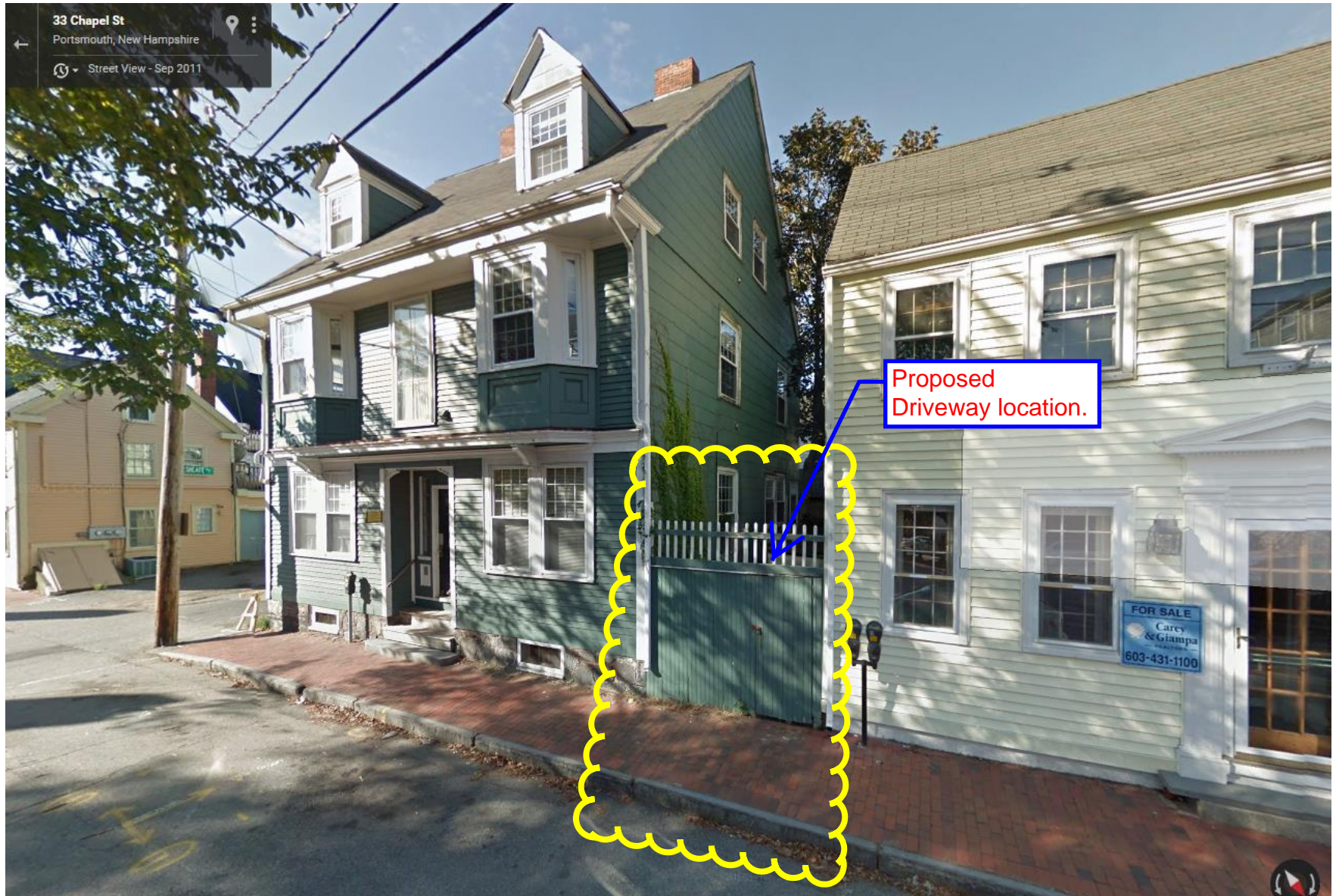
When installing a new driveway cut through an existing sidewalk, Contractor shall:

- ❖ Reset granite curbing to appropriate tip downs (1":12"). Also refer to the American with Disabilities Act (ADA).
- ❖ Back the curbing up with concrete on the street side.
- ❖ Adequately compact the crushed gravel in the reshaped driveway apron.
- ❖ Reinstall the sidewalk material (concrete, asphalt, brick) to its original depth, with proper transitions into adjacent sidewalks.
- ❖ Install good screened loam, re-seed disturbed areas, and maintain until turf is-established.

Excavated granite curbing, bricks, pavers, cobblestones, etc. are the property of the City of Portsmouth and shall be delivered to the Public Works Facility or as designated by the Director of Public Works.



V.A. Driveway permit application appeal, 20 Chapel Street



City of  
Portsmouth  
*Department of Public Works*



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**MEMORANDUM**

TO: John P. Bohenko, City Manager

FROM: Eric Eby, P.E., Parking and Transportation Engineer

DATE: October 28, 2015

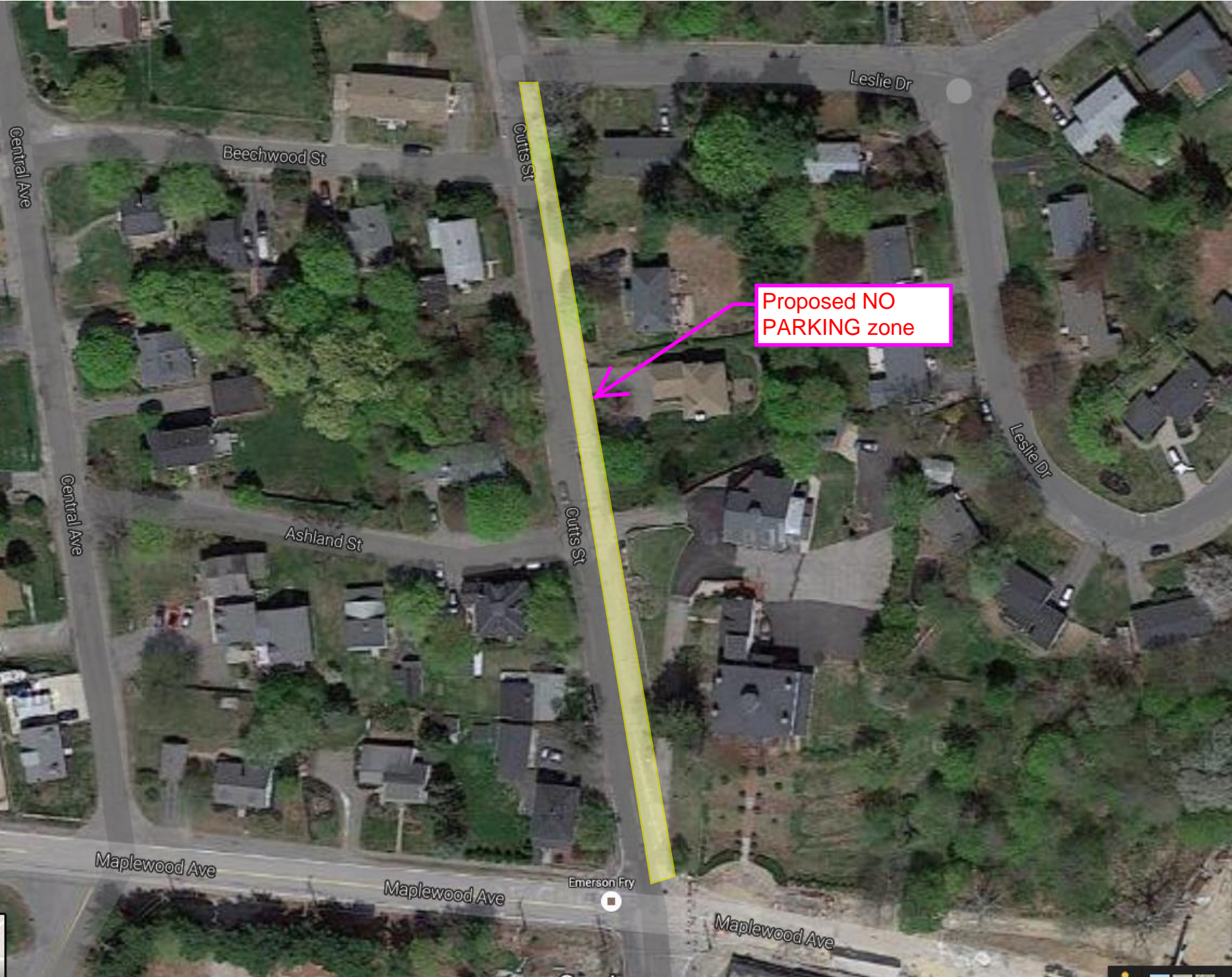
SUBJECT: Recommendation – Cutts Street No Parking Request

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City staff has reviewed the request for No Parking along the east side of Cutts Street between Maplewood Avenue and Leslie Drive. There are currently three NO PARKING signs posted along this section of Cutts Street. However, the area is not listed in the City's Code of Ordinances as a No Parking zone. Cutts Street is 28 feet wide which is sufficient for parking on one side, with two 10 foot travel lanes. Parking is currently present on the west side of the roadway. When vehicles park along the east side of the roadway, it limits sight lines for vehicles turning out of the driveways, and restricts Cutts Street to one lane of traffic.

It is recommended that the east side of Cutts Street between Maplewood Avenue and Leslie Drive be designated as a No Parking zone, consistent with the signs that are already in place.

V.B. Request for No Parking on east side of Cutts Street





City of  
Portsmouth  
*Department of Public Works*



**MEMORANDUM**

TO: Parking and Traffic Safety Committee

FROM: Eric Eby, P.E., Parking and Transportation Engineer

DATE: October 22, 2015

SUBJECT: Recommendation – Islington Street Speed Limit Study

Concerns were raised at the September Parking and Traffic Safety Committee meeting regarding the speed of vehicles on the section of Islington Street between Route 33 and the bridge over the Route 1 Bypass. The posted speed limit on Islington Street is 30 mph. In response, the Portsmouth Police Department placed a speed monitoring and recording device on Islington Street near Essex Avenue for a total of three weeks to gather data on traffic volume and speed. City staff has conducted field checks of Islington Street, researched historical data, and evaluated potential measures to calm traffic on this section of Islington Street, including posting of lower speed limits.

**Traffic Volumes**

Islington Street is an arterial roadway running between Route 33 and the bridge over the Route 1 Bypass. Based on the most recent traffic counts conducted on the bridge by the New Hampshire Department of Transportation (NHDOT), this section of Islington Street carries approximately 7,500 vehicles per day.

**Accident History**

Accident history provided by the Portsmouth Police Department indicates that this section of Islington Street has experienced a total of 11 accidents over the past 5 years, equivalent to an accident rate of 108 crashes per 100 million vehicle miles traveled (MVT). This is much lower than the average accident rate of 194 crashes per 100 MVT on New Hampshire roads, according to the latest Strategic Action Plan Annual Report published by the New Hampshire Highway Safety Agency.

**Vehicle Speeds**

The data collected by the Portsmouth Police Department revealed that the 85<sup>th</sup> percentile speeds on Islington Street are 39 mph inbound and 38 mph outbound. The average speed of traffic is 32 mph inbound and 30 mph outbound.

## **Speed Limits**

Speed limits are only meaningful if the majority of motorists comply voluntarily, and that occurs only if a speed limit is reasonable for the conditions and meets drivers' expectations. The speed at or below which 85 percent of the motorists travel is the principle value used for establishing speed control. This is commonly referred to as the 85<sup>th</sup> percentile speed. The 85<sup>th</sup> percentile speed is the national and state standard for establishing safe speed limits. This method is based on numerous studies which indicate that the majority of motorists are prudent and capable of selecting safe speeds. The use of the 85<sup>th</sup> percentile speed as the primary criterion for selecting a suitable speed limit is founded on the following fundamental concepts deeply rooted in government and law<sup>1</sup>:

- Driving behavior is an extension of social attitude, and the majority of drivers respond in a safe and reasonable manner as demonstrated by their consistently favorable driving records.
- The normally careful and competent actions of a reasonable person should be considered legal.
- Laws are established for the protection of the public and the regulation of unreasonable behavior on the part of individuals.
- Laws cannot be effectively enforced without the consent and voluntary compliance of the public majority.

Often times, the 85<sup>th</sup> percentile speed is not the same as the desired speed at which abutting residents would like traffic to travel. Speed limits can be adjusted below the 85<sup>th</sup> percentile speed on the basis of engineering and traffic investigation. Adjustments for roadway factors may reduce the speed limit below the 85<sup>th</sup> percentile speed, but normally no more than 7 mph lower, based on sound and generally accepted engineering judgment that includes consideration of the following factors:

- Narrow roadway pavement widths
- Horizontal and vertical curves
- Driveways with restricted visibility
- High driveway density
- High pedestrian and bicycle traffic
- Narrow shoulder widths
- Crash rates much higher than the statewide average

The ideal speed limit is both acceptable to the prudent driver and enforceable by police. Studies have shown that lowering the speed limit without justification does not effectively lead to reduced vehicle speeds. Setting speed limits lower than the 85<sup>th</sup> percentile speed does not encourage compliance with the posted speed limit. Speed limits based on a formal, analytical

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<sup>1</sup> *Methods and Practices for Setting Speed Limits: An Informational Report*; Federal Highway Administration, Office of Safety; Washington, D.C.; 2012.

review of traffic flow, roadway design, local development, and historical crash data will result in a high percentage of drivers complying with the speed limit and traveling at about the same speed. Studies have shown that roads with greater speed variance among vehicles have higher crash rates. According to a Federal Highway Administration report, simply reducing the posted speed limit on a roadway, even by as much as 15 mph, has no impact on mean travel speeds and does not reduce accident rates. Achieving sustainable, safe speeds on urban and suburban roads depends upon creating the right roadway and roadside environment to guide drivers to choose a speed that is safe for them and for other road users. Studies have found that roads in settled areas should be designed to have shoulders of no more than two feet in width, and should include sidewalks and on-street parking to encourage drivers to travel at slower speeds that will promote greater safety for non-drivers.

### **Proposed Action and Recommendation**

The low accident rate and 85<sup>th</sup> percentile speeds of nearly 40 mph indicate that the current road design is safely accommodating these higher speeds. While the current road design can safely accommodate the current speeds, it is recommended that the roadside environment be improved in an effort to lower the speeds to promote greater safety for non-drivers. To this end, the City Council has voted to fund a project to construct a sidewalk or multi-use path along the side of Islington Street between Essex Avenue and Route 33. The travel lanes on Islington Street will also likely be narrowed from 12 feet to 10 feet in width. This will provide a safer place for pedestrians and bicyclists by removing them from the roadway, and will help to give the roadway a narrower feeling that will help to reduce speeds. The improvement project is anticipated to be designed over the coming winter, with construction to commence next year.

Given the current road design and characteristics, it is recommended that the speed limit remain at 30 mph, until completion of the planned sidewalk project and updated 85<sup>th</sup> percentile speed data supports lowering the speed limit.

# City of Portsmouth

*Department of Public Works*



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## MEMORANDUM

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TO: John P. Bohenko, City Manager

FROM: Eric Eby, P.E., Parking and Transportation Engineer

DATE: October 28, 2015

SUBJECT: Recommendation – Burkitt Street at Thornton Street intersection

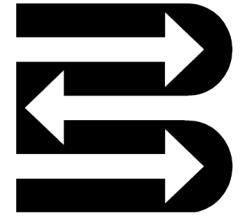
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City staff has reviewed the request for a four-way stop or parking restrictions at the intersection of Burkitt Street and Thornton Street. Currently, STOP signs are present on the Burkitt Street approaches to the intersection. NO PARKING HERE TO CORNER signs are present on all four legs of the intersection, but less than the state requirement of 20 feet from the intersection. Traffic volumes at the intersection do not meet the minimum volume levels to warrant a four-way stop, and sight lines are more than adequate when vehicles are not parked too close to the intersection.

It is recommended that the NO PARKING HERE TO CORNER signs be relocated to 20 feet from the intersection in all directions. A four-way stop is not recommended at this time. After this change is made, the intersection will be monitored to determine if further action is warranted.

VI.B. Burkitt Street and Thornton Street intersection





# Tech Notes





## STOP SIGN INSTALLATION

Tech Note #56



### BACKGROUND

STOP signs are traffic control devices that drivers come across regularly. The function of a STOP sign is to improve the safety and operation of intersections by defining who has the right-of-way. Since STOP signs have considerable control over traffic, they should be installed only where necessary. The *Manual on Uniform Traffic Control Devices (MUTCD)* provides guidelines for the installation of STOP signs. Unwarranted STOP signs may create problems either at the intersection or along the roadway itself by:

-  Encouraging motorists to drive faster between intersections in order to save the time lost by stopping.
-  Encouraging violation of traffic laws. For example, if STOP signs are installed at a location where the driver does not perceive a need for them, the rate of STOP sign violations tends to increase at that and other locations.
-  Encouraging the use of alternate, often more local, routes by drivers trying to get around the STOP sign.
-  Increasing the chance that drivers will disregard conflicting vehicles and pedestrian traffic, thus increasing the risk of collisions and injuries.

### STOP SIGN REGULATIONS

In accordance with the *MUTCD*, a STOP sign shall be an octagon with white legends and border on a red background, and include only the word STOP. A “4-WAY” supplemental plaque or an “ALL WAY”

#### *Did you know?*

*STOP sign compliance studies show that when all-way stop control was installed, but not warranted, an average of 30% of the motorists approaching the intersection do not come to a complete stop.*

*Source: City of Fargo, ND -- Stop Sign Facts*

plaque may be necessary when more than two directions are controlled by STOP signs. STOP signs shall be located on the right side of the roadway, however, a secondary STOP sign can be installed on medians or on the left side of the road to supplement the sign on the right side if the road is very wide. The STOP sign shall be installed as close as practical to the intersection and should be visible to the driver as soon as possible. A STOP line or the word STOP on the pavement may be used along with a STOP sign. STOP signs and YIELD signs shall not be mounted on the same post. In addition, no sign should be mounted to the back of a STOP sign other than a DO NOT ENTER sign so the octagon shape of the STOP sign is always visible. Where two roads intersect at an angle, the sign should be placed out of view to the other roadway. A STOP sign in rural areas should be located 6 feet from the shoulder, or if there is no shoulder, 12 feet, and the height from the roadway to the bottom of the sign shall be a minimum of 5 feet. In urban areas, a lesser lateral clearance is



permissible as necessary (i.e., 1 foot clearance from the curb is allowable), and the height shall be a minimum of 7 feet from the ground to the bottom of the sign.

## TECHNICAL INFORMATION

The *MUTCD* provides technical information and guidelines for the usage of STOP signs. The sections below highlight some of the more critical guidelines from it.

For two-way stop control, the *MUTCD* indicates that STOP signs should be used if engineering judgment justifies that one or more of the following exist:

- A. Intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;
- B. Street entering a through highway or street;
- C. Unsignalized intersection in a signalized area; and/or
- D. High speeds, restricted view, or crash records indicate a need for control by the STOP sign.



A different application of the STOP sign is multiway control, which is limited to intersecting roads of relatively equal volume and characteristics. In accordance with the *MUTCD*, the following criteria should be considered in an engineering study for a multiway STOP sign installation:

A. A traffic signal is going to be installed and the intersection needs a temporary solution to control the traffic.

B. Within 12 months, at least five crashes have occurred at the intersection that could have been prevented by STOP signs.

C. Minimum volumes:

1. The vehicular volume entering the intersection from the major street approaches averages at least 300 vph for any 8 hours of the day.
2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street 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.
3. If the 85th percentile approach speed of the major street exceeds 40 mph, the minimum vehicular volume warrants are 70% of the above values.

D. Where no single criterion is satisfied, but where criteria B, C.1 and C.2 are all satisfied to 80% of the minimum values.

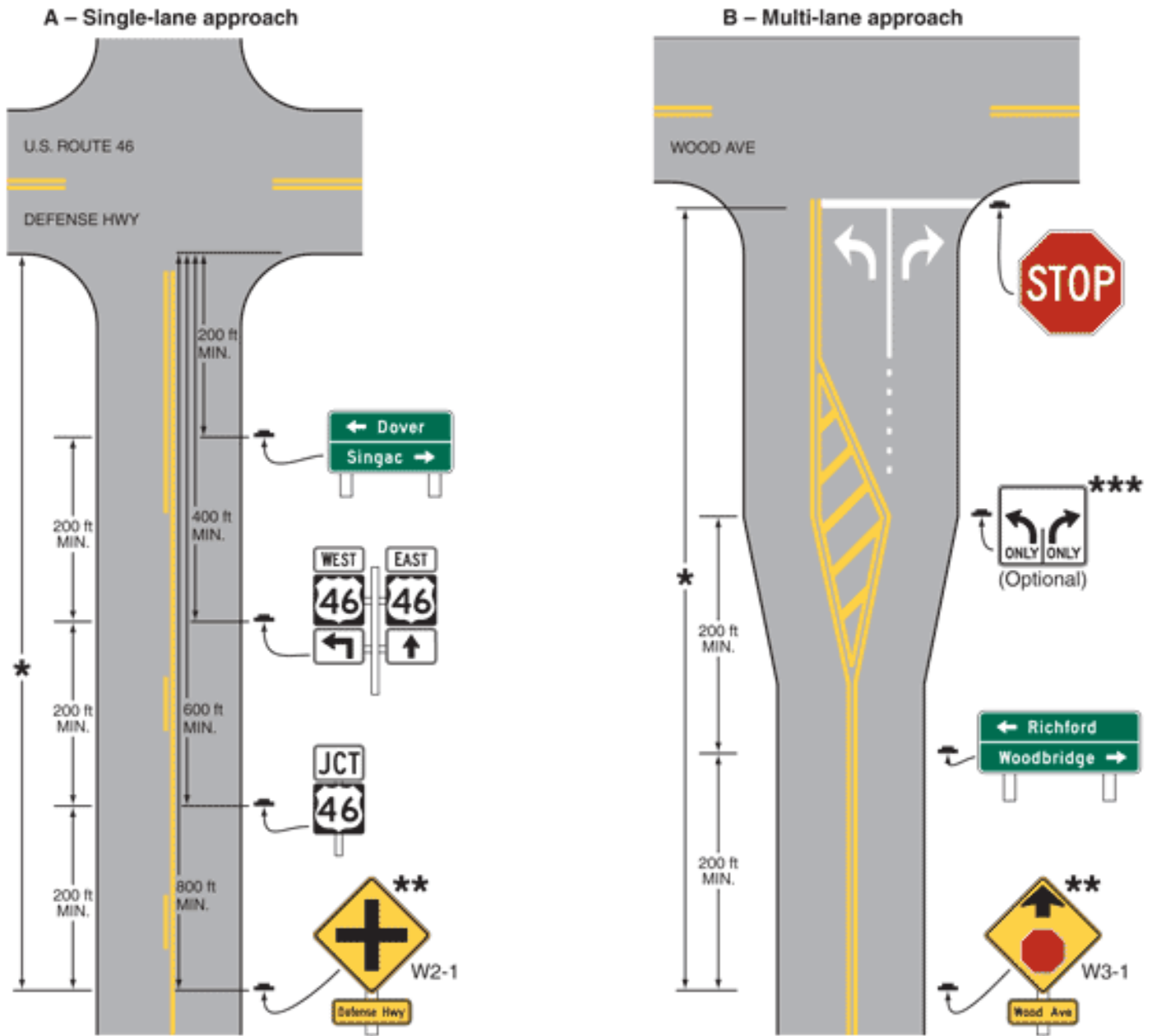
Additional criteria that may be considered in an engineering study related to installation of multiway stop control is available in *MUTCD* Section 2B.07.

Once the decision has been made to install a stop sign, there are several critical elements to consider regarding the placement of the sign. Specifically, the *MUTCD* lists three standards governing the placement of a STOP sign as follows:



The STOP sign shall be installed on the right side of the approach to which it applies.

**Figure 2A-4. Relative Locations of Regulatory, Warning, and Guide Signs on an Intersection Approach**



Note: See Chapter 2D for information on guide signs and Part 3 for information on pavement markings

- \* See Table 2C-4 for the recommended minimum distance
- \*\* See Section 2C.46 for the application of the W2-1 sign and Section 2C.36 for the application of the W3-1 sign
- \*\*\* See Section 2B.22 for the application of Intersection Lane Control signs

**Source: Manual on Uniform Traffic Control Devices 2009 Edition, December 2009**

When the STOP sign is installed at this required location and the sign visibility is restricted, a STOP AHEAD sign shall be installed in advance of the STOP sign.



The STOP sign shall be located as close as practical to the intersection it regulates, while optimizing its visibility to the road user it is intended to regulate.



STOP signs and YIELD signs shall not be mounted on the same post.



## ADDITIONAL CONSIDERATIONS

Many traffic safety problems are complex and cannot be resolved by installing a STOP sign. For example, STOP signs should not be used to reduce speed or cut-through traffic. In fact, the improper use of STOP signs in these instances may have unintended and adverse impacts which may be opposite of the original intent. In addition, another consideration may be cost. Although the physical installation of a STOP sign is relatively inexpensive, other costs that need to be considered relate to its maintenance, and to extra fuel consumption, increased air and noise pollution and lost driver time. If a STOP sign is not necessary, other countermeasures may be considered. For example, trees and bushes can be trimmed or parking restrictions can be installed to increase visibility at the intersection. YIELD or warning signs, police enforcement, or traffic calming measures may also be effective strategies for consideration.

## RESOURCES

### Massachusetts Traffic Safety Toolbox Series

This series of fact sheets provides information on safety improvements that can be implemented at the local level. Information on problem areas, possible countermeasures, and implementation considerations is included in each fact sheet which can be found at: [www.mass.gov/mhd/safetytoolbox/](http://www.mass.gov/mhd/safetytoolbox/).

### The Manual on Uniform Traffic Control Devices (MUTCD)

Published by the FHWA, the *MUTCD* defines the standards used by transportation professionals nationwide to install and maintain traffic control devices on all streets and highways. The most recent version (December 2009) can be found at: <http://mutcd.fhwa.dot.gov>.

#### *Did you know?*

*According to the San Jose DOT, stopping 5,000 vehicles per day generates 15 tons of additional pollutants per year.*

## NEW IDEAS



*Enhancing the visibility of unsignalized intersections with flashing beacons has the potential to reduce the number of crashes associated with drivers' lack of awareness at such intersections as seen in this example of a standard overhead flashing beacon. Three types of flashing beacons--intersection control beacons, beacons mounted on STOP signs, and actuated beacons--were considered collectively at stop controlled intersections during the FHWA Low-Cost Safety Improvements Pooled Fund Study. The safety effectiveness of these strategies has not been thoroughly documented but the study was an attempt to provide an evaluation through scientifically rigorous procedures. Source: *Safety Evaluation of Flashing Beacons at Stop-Controlled Intersections (FHWA-HRT-08-048)*, FHWA, Washington, DC, 2008.*



*An inexpensive way to bring attention to new signs.*