

RESOLUTION 12-127

A RESOLUTION AUTHORIZING ENGINEERING DESIGN OF A TRAFFIC LIGHT AT THE INTERSECTION OF DUPLEX ROAD AND PORT ROYAL ROAD

WHEREAS, there is a critical need for a traffic signal at the intersection of Duplex Road and Port Royal Road; and

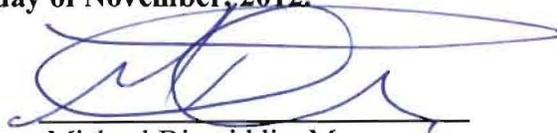
WHEREAS, the Spring Hill Board of Mayor and Aldermen is committed to the safety of the citizens of Spring Hill; and

WHEREAS, the City has the opportunity to install a traffic light at this dangerous intersection at a low price; and

NOW, THEREFORE BE IT RESOLVED, by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee that an expenditure of approximately \$15,000.00 is hereby authorized for engineering design of a traffic light at Duplex Road and Port Royal Road to be done by CDM Smith.

BE IT FURTHER RESOLVED that the expenditure be drawn from the State Street Aid Fund.

Passed and adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee, this 19th day of November, 2012.



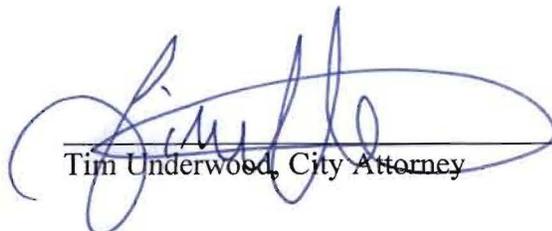
Michael Dinwiddie, Mayor

ATTEST:



April Goad, City Recorder

APPROVED AS TO FORM:



Tim Underwood, City Attorney

Zimbra

agoad@springhilltn.org

Fwd: Signalization of Duplex at Port Royal...

From : Victor Lay <vlay@springhilltn.org>
Subject : Fwd: Signalization of Duplex at Port Royal...
To : April Goad <agoad@springhilltn.org>

Mon, Nov 19, 2012 08:41 PM

From: "Victor Lay" <vlay@springhilltn.org>
To: "Aldermen Group" <aldermen@springhilltn.org>
Sent: Monday, November 19, 2012 7:00:35 PM
Subject: Fwd: Signalization of Duplex at Port Royal...

From: "Victor Lay" <vlay@springhilltn.org>
To: "Allen Hall" <ahall@springhilltn.org>, "Jonathan Duda" <jonathan.duda@charter.net>, "Amy Wurth" <awurth@springhilltn.org>, "Michael Dinwiddie" <mdinwiddie@springhilltn.org>
Sent: Monday, November 19, 2012 2:58:01 PM
Subject: Fwd: Signalization of Duplex at Port Royal...

From: "Bradley F. Thompson" <thompsonbf@cdmsmith.com>
To: "Victor Lay" <vlay@springhilltn.org>, "Allen Hall" <ahall@springhilltn.org>, "Jonathan Duda" <jonathan.duda@charter.net>
Cc: "Kathleen C. Holmes" <holmeskc@cdmsmith.com>, "John F Gould" <gouldjf@cdmsmith.com>
Sent: Monday, November 19, 2012 2:54:52 PM
Subject: Fwd: Signalization of Duplex at Port Royal...

Victor,

Please see our recommendations below.

Sent from my iPhone

Begin forwarded message:

From: "Gould, John F" <gouldjf@cdmsmith.com<mailto:gouldjf@cdmsmith.com>>
Date: November 19, 2012, 2:33:04 PM CST
To: "Holmes, Kathleen C." <holmeskc@cdmsmith.com<mailto:holmeskc@cdmsmith.com>>, "Thompson, Bradley F." <thompsonbf@cdmsmith.com<mailto:thompsonbf@cdmsmith.com>>
Subject: RE: Signalization of Duplex at Port Royal...

As I understand from the sight-distance determined, an approaching vehicle will not be able to see any traffic queue less than 175 feet from the proposed temporary traffic signal until it is approximately 218 feet from the intersection thereby having insufficient time to come to a complete stop. Rearend collisions will be a result of signaling the intersection with the current vertical geometry. A 218-foot sight-distance is barely sufficient for a vehicle queue of one and a vehicle approaching the intersection at 30mph. A queue of 175 feet will just have a sight-distance sufficient for an approaching vehicle traveling at less than 35mph.

Therefore, the signalization of this intersection may result in rearend collisions. Installation of a traffic signal at this intersection would require an advance flasher to warn approaching vehicles that queues may be present when the signal is RED. Without a left-turn lane, however, this queue may be present after the signal becomes green thereby requiring queue detection. In order to signalize this intersection with the existing sight-distance restrictions, the design will require some sophisticated warning device to minimize the conditions for rearend collisions.

If you have any questions, we can further discuss tomorrow.

John F. Gould, PE
CDM Smith
Alexander Place
1100 Marion Street, Suite 200
Knoxville, Tennessee 37921
(865)963-4300

From: Holmes, Kathleen C.
Sent: Monday, November 19, 2012 3:02 PM
To: Thompson, Bradley F.; Gould, John F
Subject: RE: Signalization of Duplex at Port Royal...

Brad and John,

Based on the existing geometry of Duplex, we have determined the following:

- When the queue is 175', the sight distance is borderline at 305'. The line of sight from an approaching vehicle skims the surface of pavement along the vertical curve, so I would not be comfortable in calling the sight distance 305'. To be conservative, the sight distance would be closer to 260'.
- When the queue is less than 175' at the westbound approach to the intersection, the sight distance is about 218'.

Let me know if you need anything else.

Thanks,
Kassie

Kassie Holmes, PE
Senior Project Manager
CDM Smith
1100 Marion Street, Suite 200, Knoxville, TN 37921
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holmeskc@cdmsmith.com<<mailto:kholmes@wilbursmith.com>>
www.cdmsmith.com<<mailto:kholmes@wilbursmith.com>>

** Please note new email address **

From: Thompson, Bradley F.
Sent: Monday, November 19, 2012 11:58 AM
To: Gould, John F; Holmes, Kathleen C.
Subject: RE: Signalization of Duplex at Port Royal...

Kassie, is this something you can check based on the design files?

Brad Thompson, AICP, ENV SP
Principal
CDM Smith
830 Crescent Centre Drive, Suite 400
Franklin, TN 37067
Office: 615.807.7810
Cell: 615.957.5980
cdmsmith.com

From: Gould, John F
Sent: Monday, November 19, 2012 10:04 AM
To: Thompson, Bradley F.; Holmes, Kathleen C.
Subject: RE: Signalization of Duplex at Port Royal...

Signalization without a left-turn lanes may result in possible traffic queues of 175 feet, thereby requiring a minimum sight-distance of 480-feet, minimum stopping sight-distance of 305 feet (40mph) to back of queue of 175 feet. If we have this sight distance, the signalization can be safe.

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Alexander Place
1100 Marion Street, Suite 200
Knoxville, Tennessee 37921
(865)963-4300

From: Thompson, Bradley F.
Sent: Monday, November 19, 2012 10:03 AM
To: Gould, John F; Holmes, Kathleen C.
Subject: FW: Signalization of Duplex at Port Royal...
Importance: High

John and Kassie, can you all get me a list of concerns regarding this today?

Brad Thompson, AICP, ENV SP
Principal
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Franklin, TN 37067
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Cell: 615.957.5980
cdmsmith.com

From: Allen Hall [mailto:ahall@springhilltn.org]
Sent: Monday, November 19, 2012 7:38 AM
To: Thompson, Bradley F.
Cc: Jonathan Duda; Gould, John F; Holmes, Kathleen C.
Subject: Re: Signalization of Duplex at Port Royal...
Importance: High

thx, Brad

It's on our agenda tonight to discuss at the TAC meeting and on our BOMA agenda to approve the expenditure. Any chance we will hear something from your office by 5:30 today even if it is just a list of concerns?

Please keep me in "the loop" on this, my cell is 615-364-7157

Allen Hall
Alderman 4th Ward

City of Spring Hill TN
P.O. Box 789
199 Town Center Parkway
Spring Hill, TN 37174
springhilltn.org<<http://springhilltn.org>>

aldermanhall.com<<http://aldermanhall.com>>

Direct Phone: 931-674-0250
Direct Fax: 931-486-3034

From: "Bradley F. Thompson" <thompsonbf@cdmsmith.com<<mailto:thompsonbf@cdmsmith.com>>>
To: "Allen Hall" <ahall@springhilltn.org<<mailto:ahall@springhilltn.org>>>
Cc: "Jonathan Duda" <jonathan.duda@charter.net<<mailto:jonathan.duda@charter.net>>>, "John F Gould" <gouldjf@cdmsmith.com<<mailto:gouldjf@cdmsmith.com>>>, "Kathleen C. Holmes" <holmeskc@cdmsmith.com<<mailto:holmeskc@cdmsmith.com>>>
Sent: Sunday, November 18, 2012 9:17:09 PM
Subject: Re: Signalization of Duplex at Port Royal...

Allen, thanks for contacting me. These are issues that we and (I think) TDOT are concerned about. Our engineers are reviewing this issue and we will make any concerns we may have known to Victor.

Sent from my iPhone

On Nov 18, 2012, at 6:11 PM, "Allen Hall" <ahall@springhilltn.org<<mailto:ahall@springhilltn.org><<mailto:ahall@springhilltn.org>%3c<mailto:ahall@springhilltn.org>>>>> wrote:

Brad,

Need your opine... Are the sight lines such that a west bound vehicle stopped at Port Royal NOT be seen by another west bound vehicle cresting the hill?

Seems like this could be an issue since sight limitation are an issue currently.

Allen Hall
Alderman 4th Ward

City of Spring Hill TN
P.O. Box 789
199 Town Center Parkway
Spring Hill, TN 37174
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