

Memo

To: City Commission
From: Toby Dougherty, City Manager
Date: 2-25-16
Re: March 3, 2016 Work Session

Item 2 – I-70 Monument Signs

Money was budgeted in 2014 and 2015 for the installation of monument signs along I-70. A total amount of \$90,000 was budgeted for two signs. City staff recently requested proposals from nine different firms and received seven proposals with the recommended proposal coming in at \$48,300 from Tobin Rupe Stoneworks. City staff feels that the bid from Tobin Rupe Stoneworks is very competitive. Staff is quite pleased with the proposals overall.

Item 3 – 2016 Street Maintenance Program – Award of Bid

Please refer to the attached memorandum from John Braun, Assistant Director of Public Works, regarding the 2016 Street Maintenance Award of Bid. Last fall, City staff presented the 2016 Street Maintenance Program to the City Commission for approval and asked for permission to solicit proposals on unit prices for the various aspects of the program. As you will see, the bidding atmosphere was quite favorable, and bids came back significantly under what was budgeted. The first inclination of the City Commission might be to role this extra money into an additional street maintenance project; however, City staff feels that it is best to keep the extra money in the bank to help fund large reconstruction projects. Item 4 will address this in more detail.

Item 4 – Future Street Reconstruction Projects Discussion

Please refer to the attached memorandum from John Braun regarding future maintenance projects. City staff has identified, prioritized, and is recommending the next two major street reconstruction projects. Staff is recommending the number one priority be 8th Street from Milner to Vine with the number two priority being Allen Street north of 13th Street. At this time, the City Commission has approximately \$1.4 million in Capital Reserves that can be used to help pay for major street reconstruction. City staff is estimating the 8th Street project to cost \$2.5 million and Allen Street to cost \$3.5 million for a grand total of \$6 million. If we are to meet the goals of reconstructing 8th Street in 2018 and Allen in 2020, the City will need to save a significant amount of money to pay cash for the projects. Therefore, City staff recommends using the expected savings from the 2016 Street Maintenance Program to help offset the cost of 8th Street and put us

one step closer to funding both of these priority projects. We are prepared to discuss the matter in more detail at the work session.

aw

**CITY OF HAYS
CITY COMMISSION WORK SESSION
THURSDAY, MARCH 3, 2016 – 6:30 P.M.
AGENDA**

1. **ITEM FOR REVIEW: [February 18, 2016 Work Session Notes \(PAGE 1\)](#)**
DEPARTMENT HEAD RESPONSIBLE: Kim Rupp, Director of Finance
2. **ITEM FOR REVIEW: [I-70 Monument Signs \(PAGE 5\)](#)**
DEPARTMENT HEAD RESPONSIBLE: Rick Rekoske, CVB Director
3. **ITEM FOR REVIEW: [2016 Street Maintenance Program – Award of Bid \(PAGE 15\)](#)**
DEPARTMENT HEAD RESPONSIBLE: Greg Sund, Director of Public Works
4. **ITEM FOR REVIEW: [Future Street Reconstruction Projects Discussion \(PAGE 61\)](#)**
DEPARTMENT HEAD RESPONSIBLE: Greg Sund, Director of Public Works
5. **OTHER ITEMS FOR DISCUSSION**
6. **EXECUTIVE SESSION (IF REQUIRED)**
7. **ADJOURNMENT**

ANY PERSON WITH A DISABILITY NEEDING SPECIAL ACCOMMODATIONS TO ATTEND THIS MEETING SHOULD CONTACT THE CITY MANAGER'S OFFICE 48 HOURS PRIOR TO THE SCHEDULED MEETING TIME. EVERY ATTEMPT WILL BE MADE TO ACCOMMODATE ANY REQUESTS FOR ASSISTANCE.

City of Hays
City Commission
Work Session Notes
Thursday, February 18, 2016 – 6:30 p.m.

Present: Eber Phelps, Shaun Musil, James Meier, Henry Schwaller IV, John Bird,
Toby Dougherty and Kim Rupp

Absent: Lance Jones

February 4, 2016 Work Session Notes

There were no corrections or additions to the minutes of the work session held on February 4, 2016; the minutes stand approved as presented.

North Central Kansas Technical College Big Creek Technical Training Center Annual Report

Eric Burks, President of North Central Kansas Technical College (NCK Tech) and Sandy Gottschalk, Dean of the Hays campus, presented the sixth annual report summarizing the activities at the Big Creek Technical Training Center housed at 101 South Main Street. Annual reporting is a requirement of their contract with the City of Hays for their utilization of space at the former Army Reserve facility, which is owned by the City.

Mr. Burks stated the students are working on their annual project, the 1,920 square foot carpentry house, which is constructed throughout the school year, and will be sold at an auction on campus on May 21, 2016.

Vicki Hubin, with the Western Kansas Child Advocacy Center (WKCAC), updated the Commissioners on a project NCK Tech has assisted them with. WKCAC is an organization that works with physically and sexually abused children or children who witness a violent crime. WKCAC covers 32 counties in Western Kansas and their home office is in Scott City. In December, with the help of NCK Tech students and instructors, they began renovating the former Quiznos building at 135 West 8th Street as a new Hays location.

Comprehensive Financial Management Policy Review

Finance Director, Kim Rupp, presented the annual Comprehensive Financial Management Policy (CFMP) Review. The CFMP consists of 13 categories; the 13th category is policy review and requires an annual written status report concerning the City's compliance with the thirteen categories. Mr. Rupp stated overall staff is comfortable that every attempt was made to comply with the Policy.

The review is for informational purposes only. It is not necessary for the Commissioners to take any action on the review.

Commissioner Schwaller suggested a future discussion to consider changing the financial policy to state that if a future sales tax is passed, the money earned from that new sales tax be saved to off set any adverse effect from the increase and impact on the City. He stated given the current economic instability and the impact that extending or adding a sales tax would have on the community, he feels it would be wise to hold onto those dollars for a while and boost the City's rainy day fund.

Other Items for Discussion

Commissioner Musil suggested a discussion be held at a future work session to consider changing an ordinance prohibiting alcohol on city streets.

City Manager Toby Dougherty stated there is currently a blanket prohibition on alcohol on any streets city wide. He does have the discretion to close down a street for an event, but does not have the discretion to allow alcohol in a specific area. He stated that he, along with the Police Chief and City Attorney, would research the state laws on the subject and bring the information back to the Commission for consideration.

Chairperson Phelps commented he had the honor of welcoming a Chinese delegation that flew into Hays. The delegation of eight had toured the Cessna plant in Wichita and were viewing the sport aircraft at the Rans hanger.

The work session was adjourned at 7:29 p.m.

Submitted by: _____

Brenda Kitchen – City Clerk

Commission Work Session Agenda

Memo

From: Rick Rekoske, Director CVB

Work Session: March 3, 2016

Subject: I-70 Monument Signs

Person(s) Responsible: Rick Rekoske, Director of CVB

Summary

City Staff have been working on the I-70 Monument Signs Project since 2014. Total project cost for the design and construction of two (2) signs was budgeted at \$90,000. City staff is recommending accepting the low bid of \$48,300 from Tobin Rupe Stoneworks to design and construct two (2) 18' X 10' Flint Hills Limestone Monument signs along I-70 east and west of Hays.

Background

The 2007 Wayfinding Master Plan was the basis for Wayfinding Signs being installed in phases throughout the City. One part of that Master Plan that has yet to be constructed is monument signs along I-70. The 2014 and 2015 budgets included a total of \$90,000 for two signs (one east bound and one west bound). In January 2015, staff solicited proposals for the construction of monument signs, but the only valid proposal far exceeded the funding available. Subsequently, staff refined the RFP and recently solicited new proposals. The new RFP used the same budgetary figure of \$90,000. The City indicated that any design must be properly sized and placed, to stand out and be highly visible to motorists traveling at highway speeds on I-70. The City received 7 proposals. See attached Tabulation of Bids.

Discussion

Request for Proposals (RFP) were sent out to nine (9) firms to design/build two (2) monument signs. Seven (7) firms responded to the RFP, but only two (2) included a specific design and a price for completing all aspects of the project. The bids are as follows:

- Tobin Rupe Stoneworks \$48,300
- Commercial Sign \$69,000

The low bidder, Tobin Rupe Stoneworks, met all the specifications in the RFP and indicated that the project would take one (1) month to complete. The designs and examples of previous work done by both firms are attached.

The proposed sign locations are: just east of Commerce Parkway along the north side of west bound I-70, and along the south side of I-70 in the area of Arnold Family Park between exits 157 and the Hall Street Bridge for east bound traffic approaching Hays. See attached Location Maps. Preliminary site work will be required to compact the base and build a two foot high earthen mound to raise the signs making them more noticeable. This would be accomplished under separate contract with a local dirt contractor at an estimated cost of \$3,000 for both locations.

There will be no landscaping around the sign other than the native grasses already present in the park and KDOT right of way. City Parks Department will be responsible for future maintenance of the signs and mowing around both signs. Preliminary coordination with KDOT has already been accomplished. Once a contractor is identified, the KDOT permits and other coordination for construction along I-70 can be finalized.

Legal Consideration

There are no known legal obstacles to proceeding as recommended by City staff.

Financial Consideration

The Hays CVB has \$50,000 total in the capital projects fund for the I-70 Monument signs project. The \$48,300 cost of the signs and the \$ 3,000 cost for site work is still less than the original budgeted amount of \$90,000.

Options

The City Commission has the following options:

- Approve the recommended bid from Tobin Rupe Stoneworks in the amount of \$48,300 for the I-70 Monument Signs Project.
- Provide further guidance on how staff should proceed.

Recommendation

Staff recommends accepting the low bid of \$48,300 and award Tobin Rupe Stonework's the bid for the I-70 Monument Signs Project.

Action Requested

Approve the bid of \$48,300 from Tobin Rupe Stonework's for the I-70 Monument Signs Project.

Supporting Documentation

Location Maps
Comparison of Bids Tabulation
Tobin Rupe Stoneworks' Proposed Design
Tobin Rupe Stoneworks' Examples of Previous Work
Commerical Sign's Proposed Design
Commerical Sign's Examples of Previous Work

Welcome to Hays Sign - East Location (Commerce Pkwy)



Welcome to Hays Sign - West Location (Arnold Park)



2014-06

Welcome to Hays Monument Signs

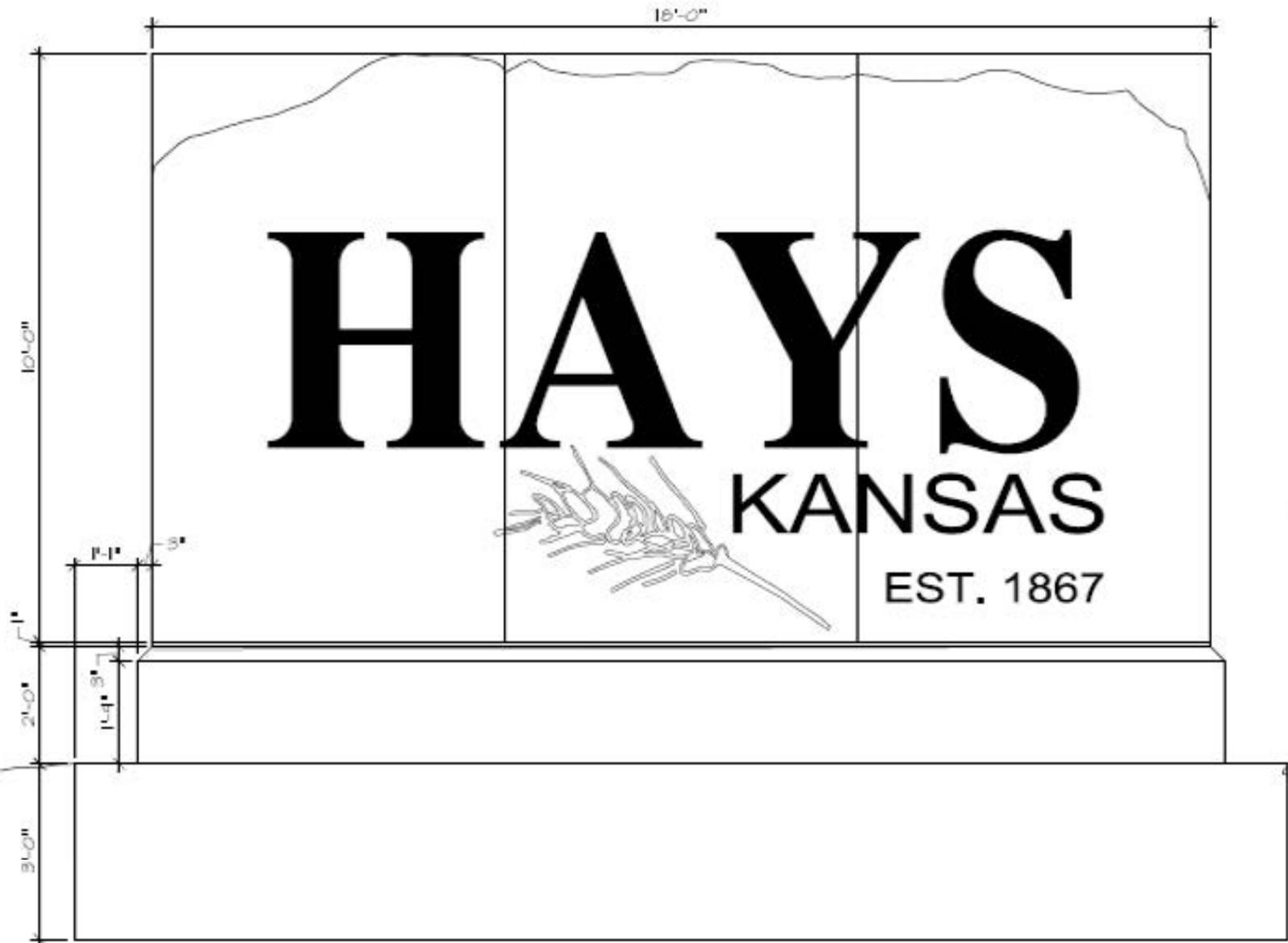
Proposals received December 15, 2015

| | Company Name | Location | Cost | | Overall | Lighting | Display Area | material | Letters |
|---|-----------------|---------------|----------|---|-------------|--|--------------|------------------|------------------------|
| 1 | Commercial Sign | Hays | \$69,000 | Aluminum over steel with vinyl graphics | 21'8"x13'3" | 2 solar LED lighting installed \$7,000 included in price | 20'x7' | Painted Aluminum | 37.68" reverse channel |
| 2 | Tobin Rupe | Andover | \$48,300 | three limestone slabs (3 Separate stones) | 20' x 12' | 2 LED Solar at each site \$5,000 included | 18' X 10' | limestone | 48" carved |
| 3 | Tri City Sign | Grand Island, | \$81,130 | Steel Sign cabinet internally illuminated with LED | | | 14'x13' | | |
| 4 | Gunter Constr | KC | \$88,000 | Construction Cost Only | 26'x12' | | 20'x7' | stone veneer | 24" Plastic |
| 5 | Heartstone | Wichita | \$90,000 | Workshop to develop Design - Has Landscape Architect | | | | | |
| 6 | Luminous Neon | Salina | \$90,000 | presented 3 options Price does not include engineering | varies | | | Painted Aluminum | 36" reverse Channel |
| 7 | Confluence | Des Moines, I | n/a | Stated "budget is inadequate" Wants to meet Dec 28-30. | | | | | |

TOBIN RUPE
 STONeworks'
 DESIGN

DWA
 Dudley Williams and Associates, P.A.
 230 Laura • Suite 200 • Wichita, KS 67218 • 316-263-7591 • www.dwaa.com

CLIENT Artistic Stone Works
 PROJECT New Sign
 LOCATION Hays, Kansas NO. 16-012
 SUBJECT Foundation Design BY MH OR MH
 DATE February 2016 PG. 1 OF 3



(A) ——— ELEVATION
 1/2" = 1'-0"

TOBIN RUPE STONeworks' SAMPLE



GREAT PLAINS NATURE CENTER

TOBIN RUPE STONeworks' SAMPLE

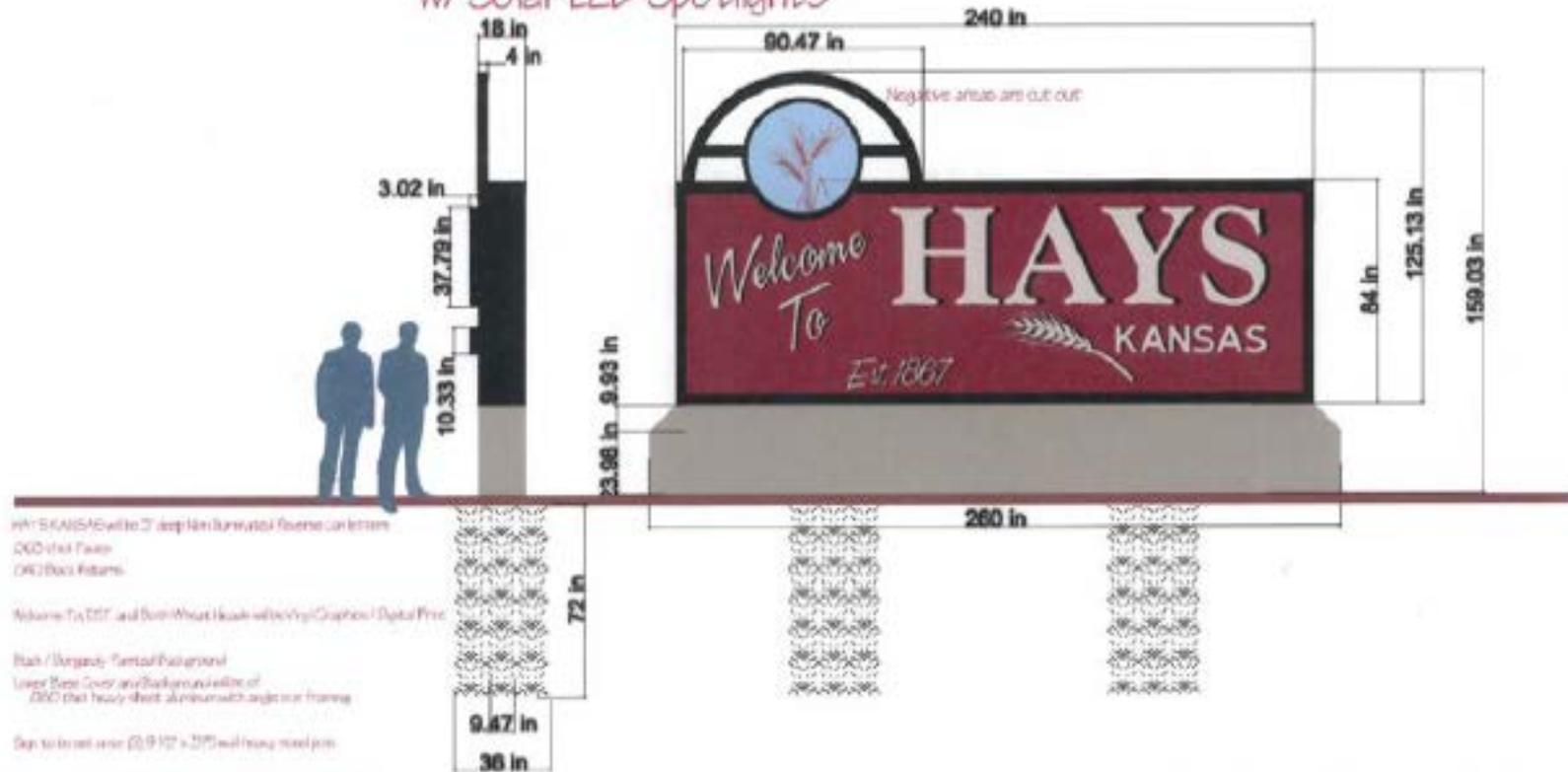


This monument was provided
by the generous donation of
Catholic Care Center, Inc. to

City of
Bel Aire



Single-Sided Non-Illuminated Monument w/ Solar LED Spotlights



| | |
|-----------|----------|
| Customer: | |
| Company: | |
| Address: | |
| City: | Hays, KS |
| Phone: | |
| Fax: | |

Accepted: _____ Date: _____

No drawing and all designs, ideas and concepts provided by Commercial Sign are the sole property of Commercial Sign and all rights to be used are reserved. If you have provided us with artwork to be used in the production of your signs, we assume that you hold the rights to your work. All rights to this work will transfer to the customer upon completion of this proposed contract.

| | | |
|-------------------------|----------------|-----------|
| Job No.: | Date: | 12/9/2015 |
| Order Date: | Delivery Date: | |
| Sign Dimensions: | Estimate: | \$0.00 |
| 589.196 in x 351.709 in | | |
| Comments: | | |

Commission Work Session Agenda

Memo

From: John Braun, Assistant Director of Public Works

Work Session: March 3, 2016

Subject: 2016 Street Maintenance Award of Bid

Person(s) Responsible: Greg Sund, Director of Public Works

Summary

Bids have been received for 2016 Street Maintenance Projects. Those projects include chip seal, seal coat, preservative seal, micro-Surfacing, polypatch, mill & overlay, curb and brick repair, diamond grinding, and concrete patching. The amount of work proposed totals \$1,794,575.70 awarded to seven different contractors. The work would be accomplished at various locations and various times throughout the year.

Background

At the November 5, 2015 City Commission Work Session, staff presented a proposed Street Maintenance Program for 2016. The plan presented to the City Commission at that time called for \$2,425,000 of contracted work to include chip seal, seal coat, polypatch, curb and brick repair, concrete patching, diamond grinding, micro-surfacing, and asphalt overlay; along with \$42,237 of in-house work, \$40,000 for a sidewalk program and \$50,000 for a pavement condition assessment totaled **\$2,557,237**, which is the amount of funding included in the 2016 Budget for these projects.

Available Funds in 2016

| | |
|---|--------------------|
| Special Highway | |
| - Cash Carryover | \$ 82,317 |
| - State Gas Tax Refund and Connecting Link | \$ 545,160 |
| - Connecting Link Maintenance | \$ 44,760 |
| - Transfer from General Fund | \$ 500,000 |
| - Contingency (keep for unforeseen expenses or overrun) | \$ -(50,000) |
| <u>Capital Reserve (identified in CIP for Hall, 27th and 7th)</u> | <u>\$1,435,000</u> |
| Total Available | \$2,557,237 |

Discussion

Bids from 12 different contractors were received on February 2, 2016. The low bid for Polypatch resulted in a tie, so it was rebid on February 9, 2016. The tabulation of bids is attached. The bid documents were structured so that contractors could bid on one or more of eleven different projects, and separate contracts could be awarded for each type of work. The projects are detailed below, and a map showing the location of all projects is attached.

1. **Chip Seal**
Chip Seal is the process of applying a thin coat of oil to the surface of asphalt streets immediately followed by a coating of chipped stone, which is roller packed embedding it into the oil and old asphalt surface. This maintenance treatment has been the “workhorse” of the City’s Street Maintenance Programs for residential and collector asphalt streets for the last 9 years. The low bid came from Circle C Paving of Goddard, KS at the unit bid price of \$1.789 per SY, resulting in a base bid cost of \$231,843.67, an alternate bid for chip sealing the Sports Complex road was for an additional \$17,478.53; however, staff does not recommend awarding a bid for chip seal. Seal Coat was advertised as an alternative to Chip Seal, and the recommendation is to Seal Coat rather than Chip Seal, because Seal Coat provides a visible black surface without the loose rock and other drawbacks of Chip Seal.
2. **Seal Coat**
Seal Coat is an oil emulsion based sealer used on asphalt streets that are in fair to good condition. It has very fine (sand) aggregate that is incorporated into the emulsion that is spray applied to the roadway. Since the same roads were bid for either chip seal or seal coat, and those same roads had been chip sealed in the past and are in fair condition, it makes more sense to seal coat than chip seal. The price is lower, the appearance will be better, and the seal coat treatment is expected to last as long as chip seal (5-7 years). The low bid for seal coat is also Circle C Paving of Goddard, KS at the unit bid price of \$1.19 per SY, resulting in a base bid plus alternate cost of **\$180,251.68**.
3. **Preservative Seal**
Preservative Seal is used on newer asphalt streets that do not yet warrant a more advanced treatment. The cost is less than seal coat or chip seal and helps a new street to stay in good shape for a longer period of time delaying more costly maintenance treatments. Pavement Markings are preserved and do not need to be reapplied. The low bid for preservative seal is ProSeal of El Dorado, KS at the unit bid price of \$0.78 per SY, resulting in a base bid cost of **\$50,090.82**.
4. **Micro-Surfacing**
Micro-Surfacing is a quick setting, hard asphalt slurry that restores the driving surface. The base bid for micro-surfacing included 6th and 7th Streets from Riley to Vine and many sections of concrete streets that have a solid base, but have surface spalls and pitting. This would be coordinated with the Concrete Patching explained later. There was also an alternate to micro-surface Haney from 13th to 22nd Street since it has dips and ruts and micro-surfacing would fill those reestablishing the profile of the road section. The low bid for micro-surfacing came from Intermountain Slurry Seal of Lewisville, TX. The total bid for the base plus alternate would be **\$410,396**.
5. **Polypatch**
This project called for 3000 gallons of polypatch to be used on various streets throughout the City to fill large cracks and depressions. Some of the quantity will be used to prepare the streets scheduled for seal coating, and the remainder of the quantity will be used as needed to make repairs to streets that may fail in spots due to winter weather. The original bid on February 2nd resulted in a tie between

Stripe & Seal and Sweeney Pavement Maintenance both of Hays. The two were allowed to rebid on February 9th resulting in a low bid from Stripe & Seal in the amount of **\$43,470**.

6. Mill and Overlay

Asphalt Mill and Overlay involves profile milling the surface from 2” depth at the curb line to 0” at the centerline then overlaying with 2” of new asphalt pavement. This was bid for several locations:

- Hall Street from 27th Street to 41st Street. This mile of Hall Street would be restriped with a lane reduction (road diet) similar to what was done on 13th Street two years ago. The reduction from four to three lanes would allow for bicycle lanes to be installed on both sides.
- 27th Street from Englewood Drive to Hall Street is planned for a lane reduction as well. This new configuration would line up better with the 3 lane configuration on 27th Street east of Hall Street.
- 27th Street from Sherman Avenue to Canterbury Drive is planned for mill and overlay as well; however, this section would be retained as a 4-lane roadway.

The low bid for Mill and Overlay came from APAC of Hays at a cost of **\$757,761**.

At the November 5, 2015 Work Session, the City Commission asked for more information about the proposed lane reductions for Hall Street and 27th. Hall Street carries a range of 5,400 vehicles per day (vpd) at the north end to 11,200 vpd near 27th Street. See attached map of Traffic Volumes. Also attached are excerpts from a traffic study performed in September 2015 regarding the road diet of Hall Street and the impact on the 27th and Hall Street Traffic Signal.

7. Hot In-Place Recycle (HIR)

This project was developed to bid as an alternative to the Mill and Overlay; however, the contractor expected to bid did not submit a bid.

8. Bid Item 8 was an alternate to HIR Haney, since there was no bid for HIR, Haney is proposed to be micro-surfaced as discussed in item 4 above.

9. Curb and Brick Repair

This year’s project concentrates on the area of 12th Street between Oak and Allen Street. This stretch of 12th Street experienced a lot of traffic during the last year due to the 13th Street Reconstruction Project. The base beneath the brick has failed in many places; therefore, the entire width of the street will be reconstructed rather than just patching the bad spots. Several areas of failed curb will be replaced as well. The low bid came from J Corp of Hays with a price of **\$96,995**.

10. Diamond Grinding

Diamond Grinding will be used to remove bumps on concrete streets where the joints have faulted or the concrete panels have curled. In the past grinding was done on Commerce Parkway near I-70. This project includes grinding 27th Street from Vine to Sherman and Canterbury from 12th to 13th Street. 27th Street will be restriped as is with 4 lanes; however, Canterbury will receive a lane reduction and

be restriped to 3-lanes. APAC of Hays is the low bidder on this project with a bid of **\$164,603.20**.

11. Concrete Street Repair

Concrete Pavement Repair will consist of full panel replacement of sections of concrete streets that have deteriorated to the point where replacement is necessary. This project will be coordinated with the micro-surfacing of spalled concrete streets discussed in item 4 above. The low bidder on this project is Sweeney Pavement Maintenance of Hays with a bid of **\$91,008**.

The total cost of the projects recommended above amount to \$1,794,575.70. This leaves \$762,661.30 remaining from the \$2,557,237 available funding. Setting aside \$50,000 for Pavement Condition Assessment, \$40,000 for in-house work, and \$40,000 for the Sidewalk Rebate Program and other sidewalk improvements leaves \$632,661.30 to be banked for future street maintenance projects to be discussed in the following agenda item.

The net total of the low bids recommended for award is below staff’s estimate of total costs and the amount presented at the November 5, 2015 City Commission Work Session.

Legal Consideration

There are no known legal obstacles to proceeding as recommended by City Staff.

Financial Consideration

As mentioned in the Background Section of this memo, \$2,557,237 was budgeted for street maintenance in 2016 with funding from Special Highway and the Capital Reserve Fund.

A summary of staff’s recommendation for award of bid is listed below:

| Project | Contractor | Low Bid |
|---------------------|-----------------|-----------------------|
| Seal Coat | Circle C Paving | \$180,251.68 |
| Preservative Seal | Proseal | \$50,090.82 |
| Micro-surfacing | Intermountain | \$410,396.00 |
| Polypatch | Stripe & Seal | \$43,470.00 |
| Mill and Overlay | APAC | \$757,761.00 |
| Curb & Brick Repair | J Corp | \$96,995.00 |
| Diamond Grind | APAC | \$164,603.20 |
| Concrete Patch | Sweeney | \$91,008.00 |
| Total | | \$1,794,575.70 |

Awarding the \$1,794,575.70, listed above and reserving \$50,000 for the Pavement Condition Assessment, \$40,000 for in-house work, and \$40,000 for the Sidewalk Rebate Program and other sidewalk improvements will leave \$632,661.30 remaining from the

\$2,557,237 budgeted. And, will require the \$1,122,237 budgeted for projects in Special Highway plus \$802,338.70 from Capital Reserve as shown below in tabular form.

Funding Summary

| | |
|----------------------|------------------------|
| Bid Projects | \$ 1,794,575.70 |
| Pavement Assessment | \$ 50,000.00 |
| Sidewalk | \$ 40,000.00 |
| In-house | \$ 40,000.00 |
| Total Costs | \$ 1,924,575.70 |
| | |
| Special Highway * | \$ 1,122,237.00 |
| Capital Reserve | \$ 802,338.70 |
| Total Funding | \$ 1,924,575.70 |

*This still leaves \$50,000 in Special Highway Contingency for unforeseen or overruns.

The table below shows the shortfall in Capital Reserve when taking into account the future reconstruction of 8th Street and Allen Street.

City Commission Capital Reserve

| | |
|---|-----------------------|
| Commission Capital Reserve Balance (1-1-16) | \$3,397,510.00 |
| Future Levy Transfer to Offset (5 years) | -\$1,125,000.00 |
| 2016 CIP (street projects) | -\$802,338.70 |
| Projected Balance | \$1,470,171.30 |

| | |
|------------------------------------|------------------------|
| 8th Street - Milner to Vine (2018) | -\$2,500,000.00 |
| Allen Street north of 13th (2020) | -\$3,500,000.00 |
| CIP Projects | -\$6,000,000.00 |

| | |
|------------------|------------------------|
| Shortfall | -\$4,529,828.70 |
|------------------|------------------------|

Options

The City Commission has the following options:

- Award contracts as recommended by staff
- Provide alternate direction to City Staff
- Do nothing

Recommendation

Staff recommends awarding the contracts to the low bidders as presented, and saving the remaining Capital Reserve Funds to go toward the reconstruction of 8th Street in 2018.

Action Requested

Authorize the City Manager to enter contracts for construction as follows, all to be funded out of Special Highway and Capital Reserve:

- Circle C Paving in the amount of \$180,251.68 for Seal Coat;
- Proseal in the amount of \$50,090.82 for the Preservative Seal
- Intermountain Slurry Seal in the amount of \$410,396.00 for Micro-Surfacing
- Stripe & Seal in the amount of \$43,470.00 for Polypatch
- APAC in the amount of \$757,761.00 for Mill and Overlay
- J Corp in the amount of \$96,995.00 for Curb and Brick Repair

- APAC in the amount of \$164,603.20 for Diamond Grinding
- Sweeney Pavement Maintenance in the amount of \$91,008.00 for Concrete Patch

Supporting Documentation

Location Map

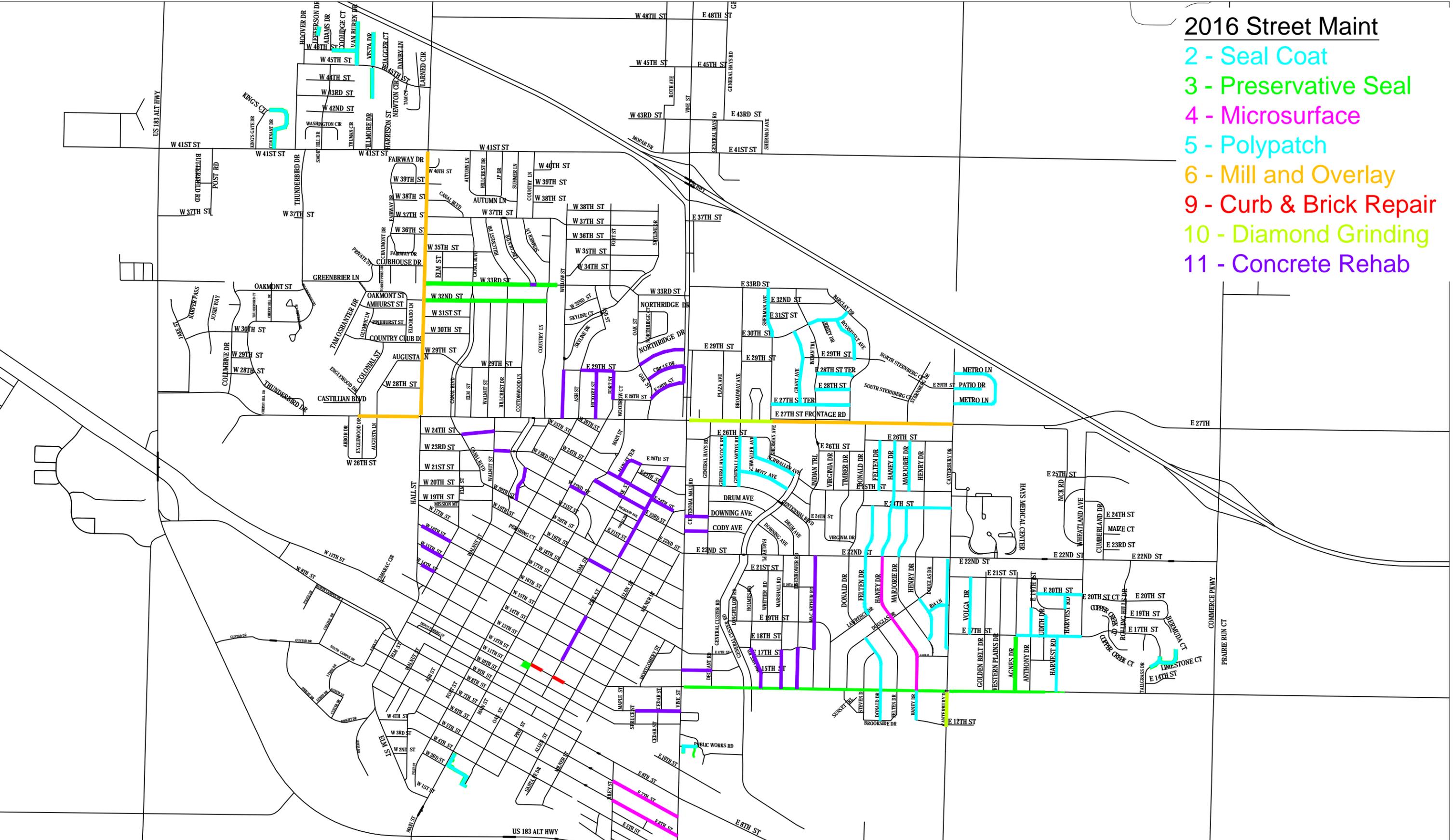
Bid Tabulation

Traffic Volume map of major roads

Excerpts from Hall Street TEAP Study

2016 Street Maint

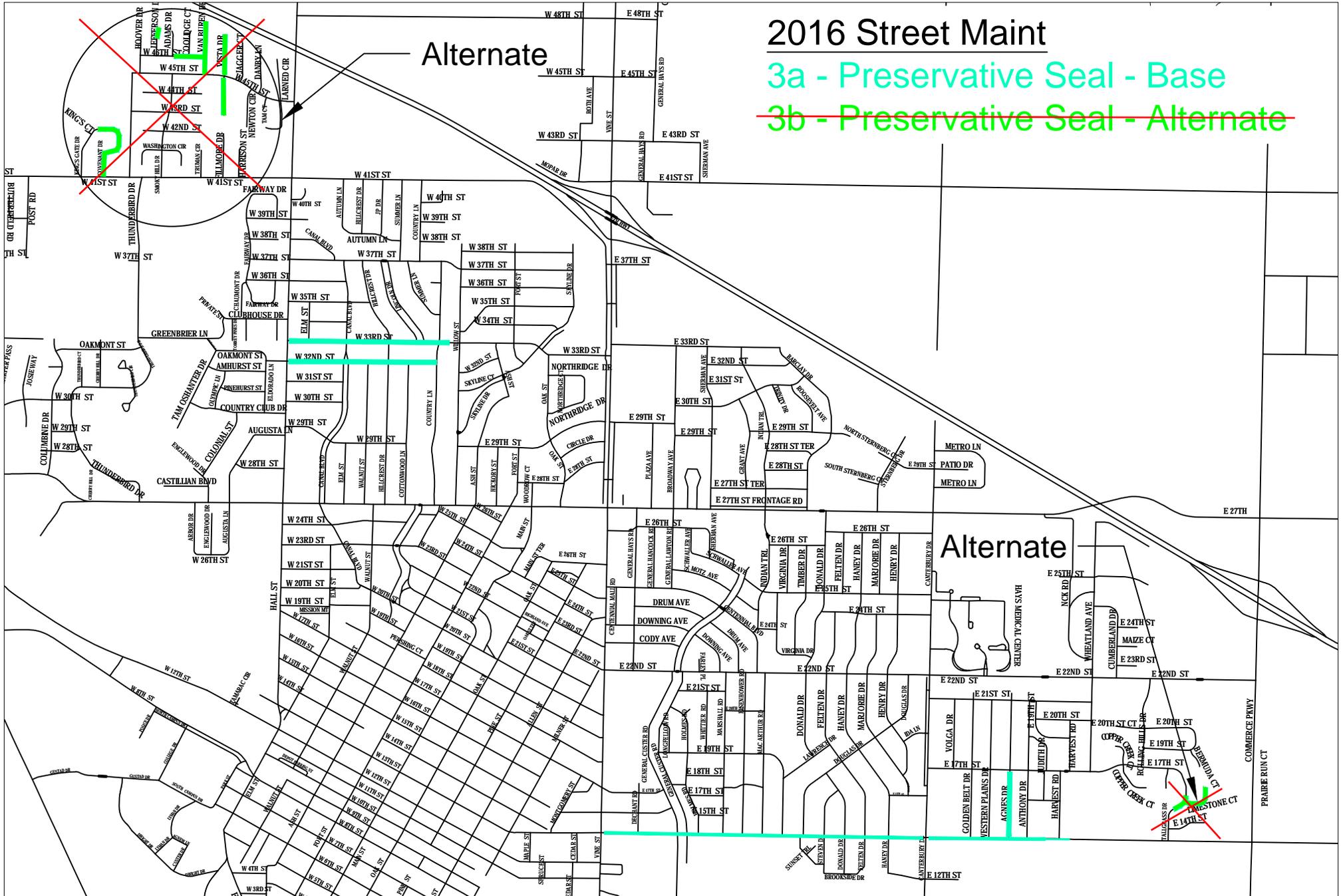
- 2 - Seal Coat
- 3 - Preservative Seal
- 4 - Microsurface
- 5 - Polypatch
- 6 - Mill and Overlay
- 9 - Curb & Brick Repair
- 10 - Diamond Grinding
- 11 - Concrete Rehab



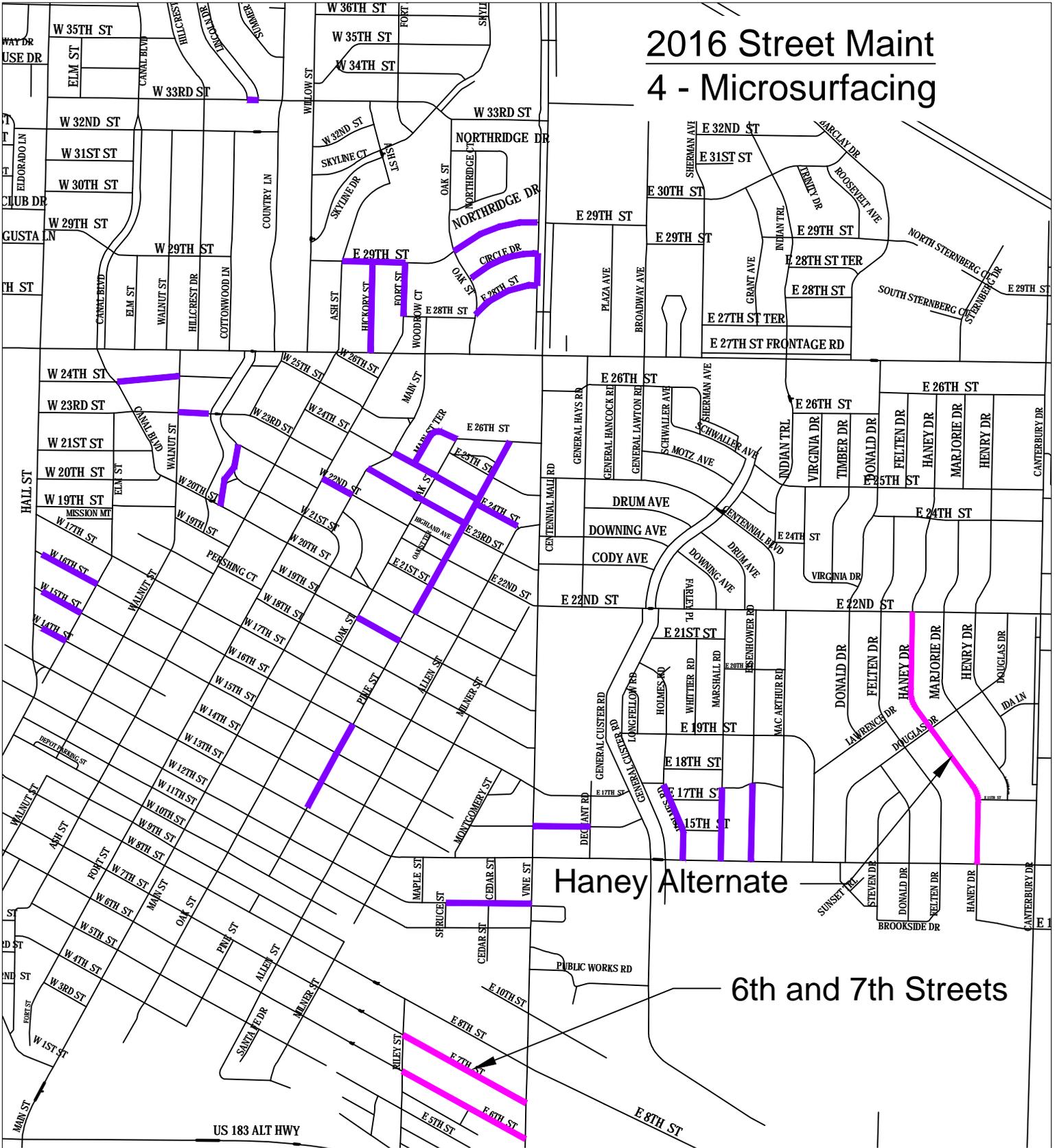
2016 Street Maint

3a - Preservative Seal - Base

~~3b - Preservative Seal - Alternate~~



2016 Street Maint 4 - Microsurfacing

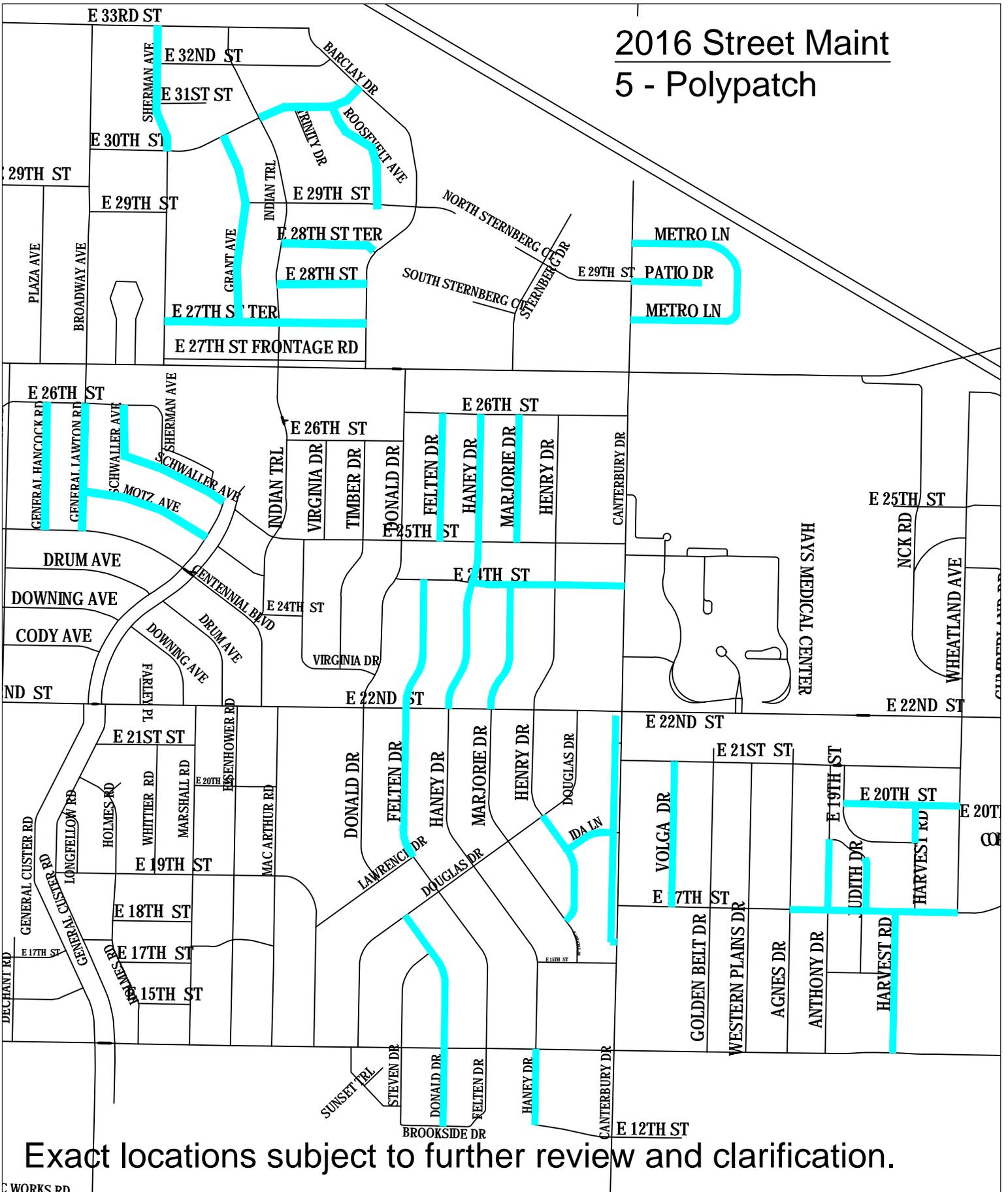


Haney Alternate

6th and 7th Streets

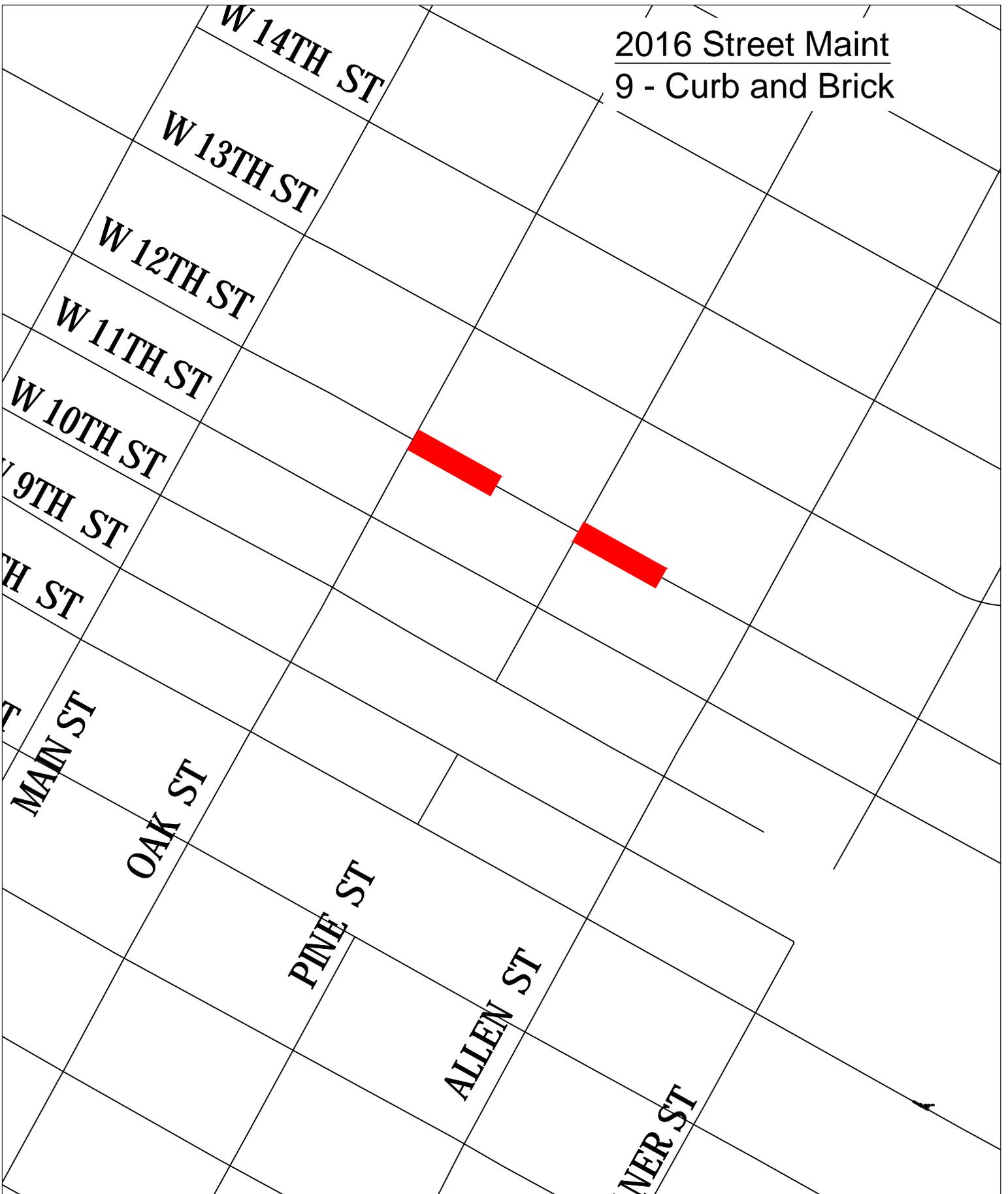
Purple indicates possible locations for micro over spalled concrete. Locations subject to further review and clarification.

2016 Street Maint 5 - Polypatch

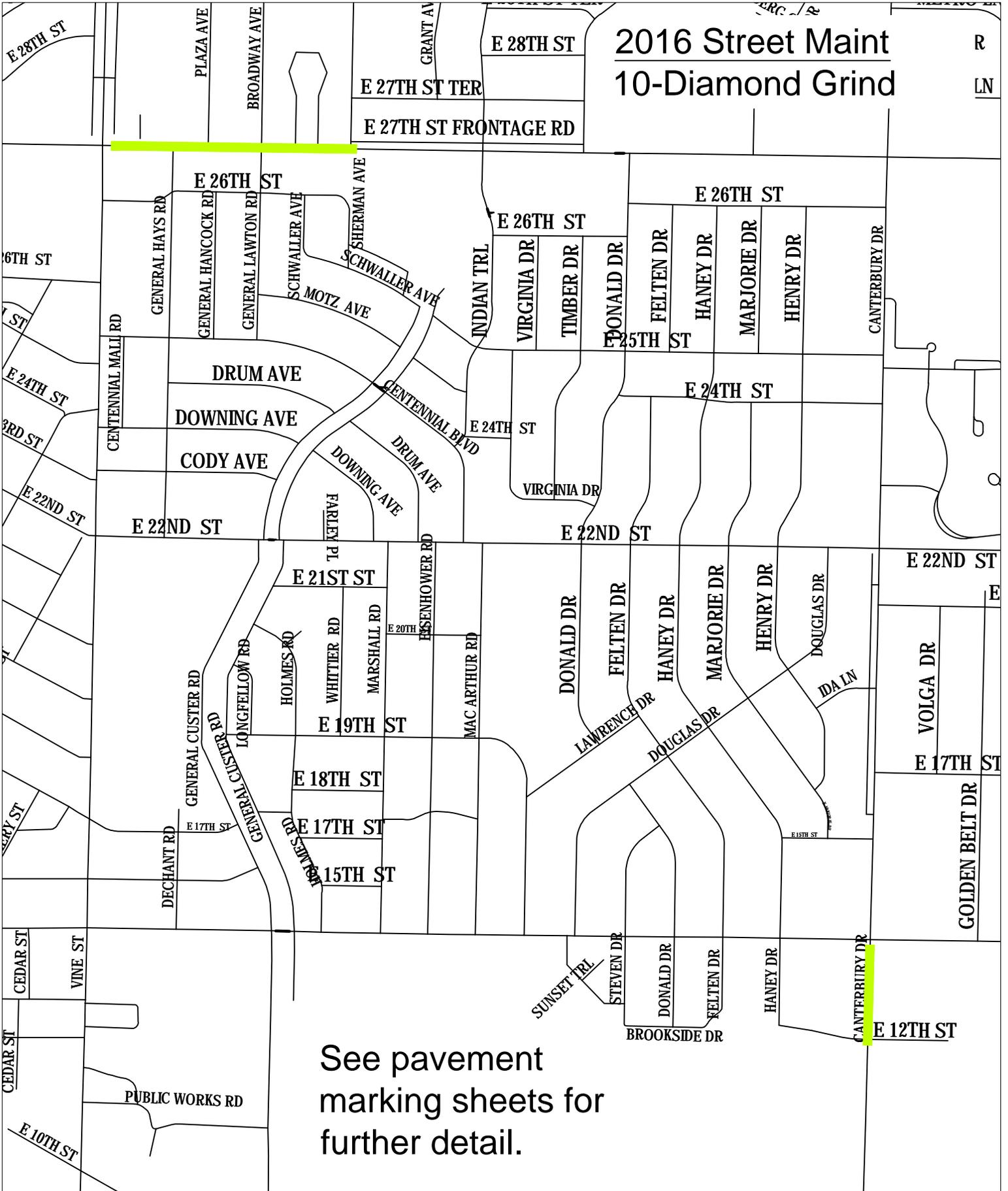


Exact locations subject to further review and clarification.

2016 Street Maint
9 - Curb and Brick



2016 Street Maint 10-Diamond Grind



Preliminary
 All Bids Subject to
 Review and Validation

| Bid Item | Description | Quantity | Unit | Apparent Low Bids | | Staff Estimate | | Hall Brothers 1 | | B & H Paving 2 | | Bryant & Bryant 3 | | Proseal 4 | |
|----------|--|----------|------|-------------------|---------------|----------------|---------------|-----------------|---------------|----------------|---------------|-------------------|-------|------------|--------------|
| | | | | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 1a | Chip Seal (CRS-1HP) - Base | 129,594 | SY | \$ 1.789 | \$ 231,843.67 | \$ 1.92 | \$ 248,820.48 | \$ - | \$ - | \$ 1.962 | \$ 254,263.43 | \$ - | \$ - | \$ - | \$ - |
| 1b | Chip Seal (CRS-1HP) - Base + Alternate | 139,364 | SY | \$ 1.789 | \$ 249,322.20 | \$ 1.92 | \$ 267,578.88 | \$ - | \$ - | \$ 1.962 | \$ 273,432.17 | \$ - | \$ - | \$ - | \$ - |
| 2a | Seal Coat - Base | 21,878 | SY | \$ 1.350 | \$ 29,535.30 | \$ 1.50 | \$ 32,817.00 | \$ 1.35 | \$ 29,535.30 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 2b | Seal Coat - Base + Alternate | 151,472 | SY | \$ 1.190 | \$ 180,251.68 | \$ 1.20 | \$ 181,766.40 | \$ 1.20 | \$ 181,766.40 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 3a | Preservative Seal - Base | 64,219 | SY | \$ 0.780 | \$ 50,090.82 | \$ 0.90 | \$ 57,797.10 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0.78 | \$ 50,090.82 |
| 3b | Preservative Seal - Base + Alternate | 79,432 | SY | \$ 0.750 | \$ 59,574.00 | \$ 0.88 | \$ 69,900.16 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 0.75 | \$ 59,574.00 |
| 4 | Micro-Surfacing 6th and 7th Street | | | | | | | | | | | | | | |
| 4a | Micro-Surfacing (Surface Course) (dry aggregate weight) | 131.0 | Ton | \$ 262.00 | \$ 34,322.00 | \$ 210.00 | \$ 27,510.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 4b | Micro-Surfacing (Scratch Course) (dry aggregate weight) | 66.0 | Ton | \$ 307.00 | \$ 20,262.00 | \$ 260.00 | \$ 17,160.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Over Spalled Concrete Streets | | | | | | | | | | | | | | |
| 4c | Micro-Surfacing (Surface Course) (dry aggregate weight) | 700 | Ton | \$ 262.00 | \$ 183,400.00 | \$ 220.00 | \$ 154,000.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 4d | Micro-Surfacing (Scratch Course) (dry aggregate weight) | 350 | Ton | \$ 350.00 | \$ 122,500.00 | \$ 270.00 | \$ 94,500.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Micro-surfacing Base Project | 1247 | | | \$ 360,484.00 | | \$ 293,170.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Micro-Surfacing Haney Alternate | | | | | | | | | | | | | | |
| 4e | Micro-Surfacing (Surface Course) (dry aggregate weight) | 136.0 | Ton | \$ 230.00 | \$ 31,280.00 | \$ 210.00 | \$ 28,560.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 4f | Micro-Surfacing (Scratch Course) (dry aggregate weight) | 68.0 | Ton | \$ 274.00 | \$ 18,632.00 | \$ 260.00 | \$ 17,680.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | Micro-surfacing Add Alternate Project | 204 | | | \$ 49,912.00 | | \$ 46,240.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 5 | Polypatch | | | | | | | | | | | | | | |
| | | Quantity | Unit | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| | | 3,000 | Gal | \$ 14.49 | \$ 43,470.00 | \$ 16.67 | \$ 50,010.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6 | Edge Mill and Overlay | | | | | | | | | | | | | | |
| 6a | Curb Edge Mill (full profile 2" to 0") | 52480 | SY | \$ 1.85 | \$ 97,088.00 | \$ 2.75 | \$ 144,320.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6b | Transition Mill (2" to 0" in 50') | 2667 | SY | \$ 3.00 | \$ 8,001.00 | \$ 3.00 | \$ 8,001.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6c | 2" HMA Commercial Grade Class A | 5710 | Tons | \$ 96.50 | \$ 551,015.00 | \$ 125.00 | \$ 713,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6d | Manhole Adjustment | 5 | EA | \$ 1,080.00 | \$ 5,400.00 | \$ 750.00 | \$ 3,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6e | Valve Box Adjustment | 4 | EA | \$ 850.00 | \$ 3,400.00 | \$ 400.00 | \$ 1,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6f | Thermoplastic Pavement Marking - 4" Yellow | 19364 | LF | \$ 1.15 | \$ 22,268.60 | \$ 1.00 | \$ 19,364.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6g | Thermoplastic Pavement Marking - 4" White | 9156 | LF | \$ 1.15 | \$ 10,529.40 | \$ 1.00 | \$ 9,156.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6h | Thermoplastic Pavement Marking - 6" White | 2364 | LF | \$ 3.50 | \$ 8,274.00 | \$ 1.10 | \$ 2,600.40 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6i | Pre-formed Thermoplastic Pavement Marking - 24" White Stop Bar | 194 | LF | \$ 20.00 | \$ 3,880.00 | \$ 18.00 | \$ 3,492.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6j | Pre-formed Thermoplastic Pavement Marking - 24" White Cross Walk | 344 | LF | \$ 20.00 | \$ 6,880.00 | \$ 20.00 | \$ 6,880.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6k | Pre-formed Thermoplastic Bike Lane Symbols | 32 | EA | \$ 290.00 | \$ 9,280.00 | \$ 425.00 | \$ 13,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6l | Pre-formed Thermoplastic Arrows - LEFT | 46 | EA | \$ 275.00 | \$ 12,650.00 | \$ 275.00 | \$ 12,650.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Bid Item | Apac 5 | | Vance Bros. 6 | | West Fork 7 | | Intermountain Slurry Seal 8 | | J-Corp 9 | | Circle C Paving 10 | | Stripe & Seal 11 | | Sweeney 12 | |
|----------|-------------|---------------|---------------|---------------|-------------|-------|-----------------------------|---------------|------------|-------|--------------------|---------------|------------------|--------------|------------|--------------|
| | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 1a | \$ 1.83 | \$ 237,157.02 | | \$ - | | \$ - | | \$ - | | \$ - | \$ 1.789 | \$ 231,843.67 | | \$ - | | \$ - |
| 1b | \$ 1.85 | \$ 257,823.40 | | \$ - | | \$ - | | \$ - | | \$ - | \$ 1.789 | \$ 249,322.20 | | \$ - | | \$ - |
| 2a | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | \$ 1.350 | \$ 29,535.30 | | \$ - | | \$ - |
| 2b | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | \$ 1.19 | \$ 180,251.68 | | \$ - | | \$ - |
| 3a | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 3b | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 4 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 4a | | \$ - | \$ 291.94 | \$ 38,244.14 | | \$ - | \$ 262.00 | \$ 34,322.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 4b | | \$ - | \$ 321.37 | \$ 21,210.42 | | \$ - | \$ 307.00 | \$ 20,262.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 4c | | \$ - | \$ 304.74 | \$ 213,318.00 | | \$ - | \$ 262.00 | \$ 183,400.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 4d | | \$ - | \$ 321.37 | \$ 112,479.50 | | \$ - | \$ 350.00 | \$ 122,500.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| | | \$ - | | \$ 385,252.06 | | \$ - | | \$ 360,484.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 4e | | \$ - | \$ 291.94 | \$ 39,703.84 | | \$ - | \$ 230.00 | \$ 31,280.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 4f | | \$ - | \$ 321.37 | \$ 21,853.16 | | \$ - | \$ 274.00 | \$ 18,632.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| | | \$ - | | \$ 61,557.00 | | \$ - | | \$ 49,912.00 | | \$ - | | \$ - | | \$ - | | \$ - |
| 5 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | \$ 14.49 | \$ 43,470.00 | \$ 14.939 | \$ 44,817.00 |
| 6 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 6a | \$ 1.85 | \$ 97,088.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6b | \$ 3.00 | \$ 8,001.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6c | \$ 96.50 | \$ 551,015.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6d | \$ 1,080.00 | \$ 5,400.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6e | \$ 850.00 | \$ 3,400.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6f | \$ 1.15 | \$ 22,268.60 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6g | \$ 1.15 | \$ 10,529.40 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6h | \$ 3.50 | \$ 8,274.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6i | \$ 20.00 | \$ 3,880.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6j | \$ 20.00 | \$ 6,880.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6k | \$ 290.00 | \$ 9,280.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6l | \$ 275.00 | \$ 12,650.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |

City of Hays Project 2015-23
 2016 Street Maintenance
 Bid Tabs
 BID DATE: February 2, 2016

Preliminary
 All Bids Subject to
 Review and Validation

| Bid Item Description | Quantity | Unit | Apparent Low Bids | | Staff Estimate | | Hall Brothers 1 | | B & H Paving 2 | | Bryant & Bryant 3 | | Proseal 4 | |
|---|----------|------|-------------------|---------------------|----------------|----------------------|-----------------|-------|----------------|-------|-------------------|----------------------|------------|-------|
| | | | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 6m Pre-formed Thermoplastic Arrows - RIGHT | 4 | EA | \$ 275.00 | \$ 1,100.00 | \$ 275.00 | \$ 1,100.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6n Pre-formed Thermoplastic Arrows - LEFT/STRAIGHT | 2 | EA | \$ 725.00 | \$ 1,450.00 | \$ 300.00 | \$ 600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 6o Pavement Marking Removal | 1 | LS | \$16,545.00 | \$ 16,545.00 | \$ 15,000.00 | \$ 15,000.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Bid Item #6 | | | | \$757,761.00 | | \$ 955,863.40 | | \$ - | | \$ - | | \$ - | | \$ - |
| 7 Hot In-Place Recycle | | | | | | | | | | | | | | |
| 7a Curb Edge Mill (1" to 0" in 6') | 13120 | SY | \$ - | \$ - | \$ 3.00 | \$ 39,360.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7b Transition Mill (1" to 0" in 25') | 1333 | SY | \$ - | \$ - | \$ 3.25 | \$ 4,332.25 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7c 1" HMA Commercial Grade Class A | 2854 | Tons | \$ - | \$ - | \$ 150.00 | \$ 428,100.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7d Asphalt Surface Recycled | 52480 | SY | \$ - | \$ - | \$ 3.00 | \$ 157,440.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7e Recycling Agent | 17 | Tons | \$ - | \$ - | \$ 1,000.00 | \$ 17,124.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7f Manhole Adjustment | 5 | EA | \$ - | \$ - | \$ 750.00 | \$ 3,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7g Valve Box Adjustment | 4 | EA | \$ - | \$ - | \$ 400.00 | \$ 1,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7h Thermoplastic Pavement Marking - 4" Yellow | 19364 | LF | \$ - | \$ - | \$ 1.00 | \$ 19,364.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7i Thermoplastic Pavement Marking - 4" White | 9156 | LF | \$ - | \$ - | \$ 1.00 | \$ 9,156.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7j Thermoplastic Pavement Marking - 6" White | 2364 | LF | \$ - | \$ - | \$ 1.10 | \$ 2,600.40 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7k Pre-formed Thermoplastic Pavement Marking - 24" White Stop Bar | 194 | LF | \$ - | \$ - | \$ 18.00 | \$ 3,492.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7l Pre-formed Thermoplastic Pavement Marking - 24" White Cross Walk | 344 | LF | \$ - | \$ - | \$ 20.00 | \$ 6,880.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7m Pre-formed Thermoplastic Bike Lane Symbols | 32 | EA | \$ - | \$ - | \$ 425.00 | \$ 13,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7n Pre-formed Thermoplastic Arrows - LEFT | 46 | EA | \$ - | \$ - | \$ 275.00 | \$ 12,650.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7o Pre-formed Thermoplastic Arrows - RIGHT | 4 | EA | \$ - | \$ - | \$ 275.00 | \$ 1,100.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7p Pre-formed Thermoplastic Arrows - LEFT/STRAIGHT | 2 | EA | \$ - | \$ - | \$ 300.00 | \$ 600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 7q Pavement Marking Removal | 1 | LS | \$ - | \$ - | \$ 15,000.00 | \$ 15,000.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Bid Item #7 | | | | \$ - | | \$ 736,148.65 | | \$ - | | \$ - | | \$ - | | \$ - |
| 8 ALTERNATE Hot In-Place Recycle (Haney) | | | | | | | | | | | | | | |
| 8a Curb Edge Mill (1" to 0" in 6') | 3733 | SY | \$ - | \$ - | \$ 3.00 | \$ 11,199.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8b Transition Mill (1" to 0" in 25') | 233 | SY | \$ - | \$ - | \$ 3.25 | \$ 757.25 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8c 1" HMA Commercial Grade Class A | 592 | Tons | \$ - | \$ - | \$ 150.00 | \$ 88,800.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8d Asphalt Surface Recycled | 10890 | SY | \$ - | \$ - | \$ 3.00 | \$ 32,670.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8e Recycling Agent | 4 | Tons | \$ - | \$ - | \$ 1,000.00 | \$ 3,552.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8f Manhole Adjustment | 3 | EA | \$ - | \$ - | \$ 750.00 | \$ 2,250.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 8g Valve Box Adjustment | 4 | EA | \$ - | \$ - | \$ 400.00 | \$ 1,600.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Bid Item #8 | | | | \$ - | | \$ 140,828.25 | | \$ - | | \$ - | | \$ - | | \$ - |
| 9 Curb and Brick Repair | | | | | | | | | | | | | | |
| 9a Concrete Removal | 117 | SY | \$ 30.00 | \$ 3,510.00 | \$ 30.00 | \$ 3,510.00 | \$ - | \$ - | \$ - | \$ - | \$ 20.00 | \$ 2,340.00 | \$ - | \$ - |
| 9b Saw Cut | 60 | LF | \$ 5.50 | \$ 330.00 | \$ 6.00 | \$ 360.00 | \$ - | \$ - | \$ - | \$ - | \$ 4.50 | \$ 270.00 | \$ - | \$ - |
| 9c Curb and Gutter | 311 | LF | \$ 30.00 | \$ 9,330.00 | \$ 32.00 | \$ 9,952.00 | \$ - | \$ - | \$ - | \$ - | \$ 35.00 | \$ 10,885.00 | \$ - | \$ - |
| 9d Concrete Pavement 6" | 23 | SY | \$ 74.00 | \$ 1,702.00 | \$ 75.00 | \$ 1,725.00 | \$ - | \$ - | \$ - | \$ - | \$ 75.00 | \$ 1,725.00 | \$ - | \$ - |
| 9g Sidewalk, 4" | 69 | SF | \$ 15.00 | \$ 1,035.00 | \$ 6.00 | \$ 414.00 | \$ - | \$ - | \$ - | \$ - | \$ 8.00 | \$ 552.00 | \$ - | \$ - |
| 9i Thickened Edge | 27 | LF | \$ 9.00 | \$ 243.00 | \$ 10.00 | \$ 270.00 | \$ - | \$ - | \$ - | \$ - | \$ 10.00 | \$ 270.00 | \$ - | \$ - |
| 9j Brick Patching | 851 | SY | \$ 95.00 | \$ 80,845.00 | \$ 110.00 | \$ 93,610.00 | \$ - | \$ - | \$ - | \$ - | \$ 100.00 | \$ 85,100.00 | \$ - | \$ - |
| Total Bid Item #9 | | | | \$ 96,995.00 | | \$ 109,841.00 | | \$ - | | \$ - | | \$ 101,142.00 | | \$ - |

| Bid Item | Apac 5 | | Vance Bros. 6 | | West Fork 7 | | Intermountain Slurry Seal 8 | | J-Corp 9 | | Circle C Paving 10 | | Stripe & Seal 11 | | Sweeney 12 | |
|----------|--------------|----------------------|---------------|-------|-------------|-------|-----------------------------|-------|------------|---------------------|--------------------|-------|------------------|-----------|--------------|---------------------|
| | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 6m | \$ 275.00 | \$ 1,100.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6n | \$ 725.00 | \$ 1,450.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 6o | \$ 16,545.00 | \$ 16,545.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | \$ 757,761.00 | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 7a | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7b | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7c | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7d | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7e | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7f | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7g | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7h | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7i | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7j | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7k | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7l | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7m | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7n | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7o | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7p | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 7q | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 8a | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8b | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8c | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8d | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8e | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8f | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 8g | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - | | \$ - |
| 9 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 9a | \$ 32.60 | \$ 3,814.20 | | \$ - | | \$ - | | \$ - | \$ 30.00 | \$ 3,510.00 | | \$ - | | \$ 24.00 | \$ 2,808.00 | |
| 9b | \$ 5.70 | \$ 342.00 | | \$ - | | \$ - | | \$ - | \$ 5.50 | \$ 330.00 | | \$ - | | \$ 6.00 | \$ 360.00 | |
| 9c | \$ 60.60 | \$ 18,846.60 | | \$ - | | \$ - | | \$ - | \$ 30.00 | \$ 9,330.00 | | \$ - | | \$ 27.50 | \$ 8,552.50 | |
| 9d | \$ 85.50 | \$ 1,966.50 | | \$ - | | \$ - | | \$ - | \$ 74.00 | \$ 1,702.00 | | \$ - | | \$ 60.00 | \$ 1,380.00 | |
| 9g | \$ 6.15 | \$ 424.35 | | \$ - | | \$ - | | \$ - | \$ 15.00 | \$ 1,035.00 | | \$ - | | \$ 6.00 | \$ 414.00 | |
| 9i | \$ 13.00 | \$ 351.00 | | \$ - | | \$ - | | \$ - | \$ 9.00 | \$ 243.00 | | \$ - | | \$ 8.00 | \$ 216.00 | |
| 9j | \$ 137.00 | \$ 116,587.00 | | \$ - | | \$ - | | \$ - | \$ 95.00 | \$ 80,845.00 | | \$ - | | \$ 100.00 | \$ 85,100.00 | |
| | | \$ 142,331.65 | | \$ - | | \$ - | | \$ - | | \$ 96,995.00 | | \$ - | | \$ - | | \$ 98,830.50 |
| | Unit | | Unit | | Unit | | Unit | | Unit | | Unit | | Unit | | Unit | |

Preliminary
 All Bids Subject to
 Review and Validation

| Bid Item | Description | Quantity | Unit | Apparent Low Bids | | Staff Estimate | | Hall Brothers 1 | | B & H Paving 2 | | Bryant & Bryant 3 | | Proseal 4 | |
|---------------------------|---|----------|------|-------------------|----------------------|----------------|----------------------|-----------------|-------------|----------------|-------------|----------------------|---------------|-------------|-------------|
| | | | | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 10a | Diamond Grind | 12500 | SY | \$ 5.66 | \$ 70,750.00 | \$ 7.00 | \$ 87,500.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10b | Durable Pavement Marking - 4" Yellow | 6328 | LF | \$ 1.80 | \$ 11,390.40 | \$ 1.50 | \$ 9,492.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10c | Durable Pavement Marking - 12" Yellow | 159 | LF | \$ 20.00 | \$ 3,180.00 | \$ 4.00 | \$ 636.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10d | Durable Pavement Marking - 4" White | 521 | LF | \$ 1.80 | \$ 937.80 | \$ 1.50 | \$ 781.50 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10e | Durable Pavement Marking - 6" White | 2570 | LF | \$ 4.00 | \$ 10,280.00 | \$ 2.00 | \$ 5,140.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10f | Durable Pavement Marking - 24" White Stop Bar | 273 | LF | \$ 40.00 | \$ 10,920.00 | \$ 30.00 | \$ 8,190.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10g | Durable Pavement Marking - 24" White Cross Walk | 688 | LF | \$ 40.00 | \$ 27,520.00 | \$ 35.00 | \$ 24,080.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10h | Durable Pavement Marking - Bike Lane Symbols | 4 | EA | \$ 375.00 | \$ 1,500.00 | \$ 700.00 | \$ 2,800.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10i | Durable Pavement Marking - Arrows - LEFT | 25 | EA | \$ 375.00 | \$ 9,375.00 | \$ 475.00 | \$ 11,875.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10j | Durable Pavement Marking - Arrows - RIGHT | 2 | EA | \$ 375.00 | \$ 750.00 | \$ 475.00 | \$ 950.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10k | Pavement Marking Removal | 1 | LS | \$ 18,000.00 | \$ 18,000.00 | \$ 10,000.00 | \$ 10,000.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Total Bid Item #10 | | | | | \$ 164,603.20 | | \$ 161,444.50 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 11 | Concrete Street Repair | | | | | | | | | | | | | | |
| 11a | 8" PCCP - Remove & Replace Small Patch | 24 | SY | \$ 63.00 | \$ 1,512.00 | \$ 150.00 | \$ 3,600.00 | \$ - | \$ - | \$ - | \$ - | \$ 125.00 | \$ 3,000.00 | \$ - | \$ - |
| 11b | Subgrade repair - small patch | 8 | CY | \$ 27.00 | \$ 216.00 | \$ 200.00 | \$ 1,600.00 | \$ - | \$ - | \$ - | \$ - | \$ 55.00 | \$ 440.00 | \$ - | \$ - |
| 11c | 8" PCCP - Remove & Replace Med. Patch | 90 | SY | \$ 63.00 | \$ 5,670.00 | \$ 120.00 | \$ 10,800.00 | \$ - | \$ - | \$ - | \$ - | \$ 115.00 | \$ 10,350.00 | \$ - | \$ - |
| 11d | Subgrade repair - medium patch | 30 | CY | \$ 27.00 | \$ 810.00 | \$ 170.00 | \$ 5,100.00 | \$ - | \$ - | \$ - | \$ - | \$ 55.00 | \$ 1,650.00 | \$ - | \$ - |
| 11e | 8" PCCP - Remove & Replace Large Patch | 1200 | SY | \$ 60.00 | \$ 72,000.00 | \$ 100.00 | \$ 120,000.00 | \$ - | \$ - | \$ - | \$ - | \$ 110.00 | \$ 132,000.00 | \$ - | \$ - |
| 11f | Subgrade repair - large patch | 400 | CY | \$ 27.00 | \$ 10,800.00 | \$ 150.00 | \$ 60,000.00 | \$ - | \$ - | \$ - | \$ - | \$ 55.00 | \$ 22,000.00 | \$ - | \$ - |
| Total Bid Item #11 | | | | | \$ 91,008.00 | | \$ 201,100.00 | \$ - | \$ - | \$ - | \$ - | \$ 169,440.00 | \$ - | \$ - | \$ - |

| Bid Item | Apac 5 | | Vance Bros. 6 | | West Fork 7 | | Intermountain Slurry Seal 8 | | J-Corp 9 | | Circle C Paving 10 | | Stripe & Seal 11 | | Sweeney 12 | |
|----------|--------------|---------------|---------------|-------|---------------|--------------|-----------------------------|-------|---------------|--------------|--------------------|-------|------------------|-------|------------|--------------|
| | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 10a | \$ 5.66 | \$ 70,750.00 | \$ - | \$ - | \$ 7.25 | \$ 90,625.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10b | \$ 1.80 | \$ 11,390.40 | \$ - | \$ - | \$ 3.15 | \$ 19,933.20 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10c | \$ 20.00 | \$ 3,180.00 | \$ - | \$ - | \$ 13.13 | \$ 2,087.67 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10d | \$ 1.80 | \$ 937.80 | \$ - | \$ - | \$ 3.15 | \$ 1,641.15 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10e | \$ 4.00 | \$ 10,280.00 | \$ - | \$ - | \$ 4.20 | \$ 10,794.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10f | \$ 40.00 | \$ 10,920.00 | \$ - | \$ - | \$ 23.10 | \$ 6,306.30 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10g | \$ 40.00 | \$ 27,520.00 | \$ - | \$ - | \$ 23.10 | \$ 15,892.80 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10h | \$ 375.00 | \$ 1,500.00 | \$ - | \$ - | \$ 800.00 | \$ 3,200.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10i | \$ 375.00 | \$ 9,375.00 | \$ - | \$ - | \$ 550.00 | \$ 13,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10j | \$ 375.00 | \$ 750.00 | \$ - | \$ - | \$ 550.00 | \$ 1,100.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 10k | \$ 18,000.00 | \$ 18,000.00 | \$ - | \$ - | \$ 2,750.00 | \$ 2,750.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| | | \$ 164,603.20 | \$ - | \$ - | \$ 168,080.12 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| 11 | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total | Unit Price | Total |
| 11a | \$ 203.00 | \$ 4,872.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 110.00 | \$ 2,640.00 | \$ - | \$ - | \$ - | \$ - | \$ 63.00 | \$ 1,512.00 |
| 11b | \$ 81.00 | \$ 648.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 65.00 | \$ 520.00 | \$ - | \$ - | \$ - | \$ - | \$ 27.00 | \$ 216.00 |
| 11c | \$ 128.00 | \$ 11,520.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 95.00 | \$ 8,550.00 | \$ - | \$ - | \$ - | \$ - | \$ 63.00 | \$ 5,670.00 |
| 11d | \$ 74.00 | \$ 2,220.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 65.00 | \$ 1,950.00 | \$ - | \$ - | \$ - | \$ - | \$ 27.00 | \$ 810.00 |
| 11e | \$ 162.00 | \$ 194,400.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 80.00 | \$ 96,000.00 | \$ - | \$ - | \$ - | \$ - | \$ 60.00 | \$ 72,000.00 |
| 11f | \$ 64.50 | \$ 25,800.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 57.00 | \$ 22,800.00 | \$ - | \$ - | \$ - | \$ - | \$ 27.00 | \$ 10,800.00 |
| | \$ 4.00 | \$ 239,460.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 132,460.00 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 91,008.00 |

Traffic Engineering Assistance Program City of Hays 27th & Hall Signal Review

Review of Traffic Signal Operations at **W** 27th
Street & Hall Street with Proposed Road Diet



Final

September 2015



Traffic Engineering Assistance Program Review of Traffic Signal Operations at W 27th Street & Hall Street with Proposed Road Diet in Hays, KS

Final

Disclaimer: 23 U.S.C. § 409 protects from discovery and admission into evidence in a court proceeding any reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluation, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds. The Kansas Department of Transportation considers Traffic Engineering Assistance Program reports to be such reports, surveys, schedules, lists, or data. Other than those disbursements already approved by the Office of Chief Counsel, a Traffic Engineering Assistance Program report should not be given to or published to any person or entity outside of KDOT. To do so, could jeopardize the privilege to discovery and admission as evidence given pursuant to 23 U.S.C. § 409. In addition, publication of a Traffic Engineering Assistance Program report to persons or entities that has not been approved by the Office of Chief Counsel may be grounds for disciplinary action. Request for Traffic Engineering Assistance Program reports that have not already been approved by the Office of Chief Counsel should be responded to by the Office of Chief Counsel's open records request personnel.

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September 2015

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Use Restricted, 23 U.S.C. § 409

Table 3 - Existing Lane Use Control Signs along Hall Street

| | | |
|---|---|---|
|  |  |  |
| R3-8, Northbound | R3-7, Southbound | R3-8, Southbound |

The pedestrian push button signs at the W 28th Street crossing of Hall Street do not meet current MUTCD guidance, and one provides inaccurate information. The push button sign on the east side of Hall Street reads "Push Button for Walk Signal" when there is not a walk symbol to display. The sign on the west side is better, but still not current, and reads "To Cross Street Push Button and Cross When Lights Are Flashing." The current MUTCD sign for this application reads "Push Button to Turn on Warning Lights" (R10-25).

3.4 CRASH REVIEW AND ANALYSIS

Crashes for a six year timeframe from January 2009 through December 2014 were obtained from KDOT and the City of Hays. The year 2014 crash data is not official (to date), but was included during the crash review. Crashes submitted by the City of Hays were cross-referenced into the more extensive database provided by KDOT. The KDOT database contained all crashes submitted by the City of Hays that are reportable to KDOT. The KDOT database does not contain crashes where there was less than \$1,000 damage in Property Damage Only (PDO) collisions.

3.4.1 Crashes Reportable to KDOT

KDOT submitted a total of 81 crashes over the six-year period which were located either on Hall Street from W 24th Street to W 41st Street or on W 27th Street from Englewood Street to Canal Boulevard. Details are provided for the crashes which occurred at W 27th Street and Hall Street, while a high level overview is provided for the rest of the corridor to support the review of the proposed road diet implementation.

3.4.1.1 W 27th Street & Hall Street Intersection Crashes

There were a total of 26 crashes which occurred at the intersection of W 27th Street and Hall Street over six years. Figure 11 shows the W 27th Street and Hall Street intersection collision diagram. There was no crash pattern susceptible to reduction primarily through engineering measures. The intersection had a crash rate of 5.62 crashes per ten-million entering vehicles. The state-wide average crash rate for intersections with similar characteristics is 8-10 crashes per ten-million entering vehicles. For calculation purposes, KDOT requests that 10 crashes per ten-million entering vehicles be used. The critical crash rate is 12.82 crashes per ten-million entering vehicles. The crash rate at the intersection of W 27th Street and Hall Street is below the statewide average for similar intersection types.

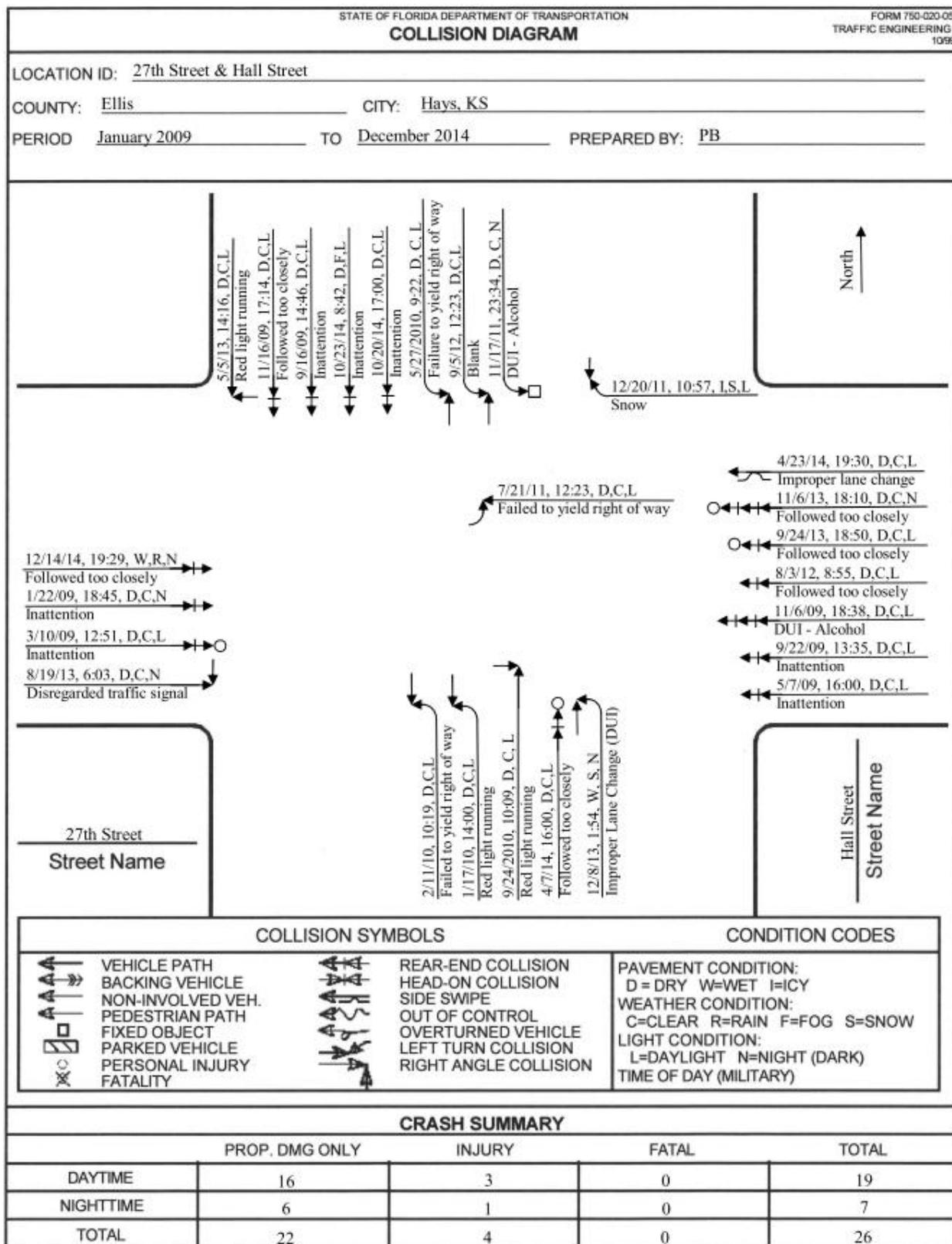


Figure 11 - W 27th Street & Hall Street Intersection Collision Diagram

3.4.1.2 All Crashes, including W 27th Street & Hall Street

Within the geographic area requested from KDOT, Figure 12 through Figure 22 show the aggregate crash attributes in the area. There were a 23 individuals injured in 81 crashes within the study limits. Around July 2013, the City of Hays restriped W 27th Street east of Hall Street from a two lane road with wide lanes, to a three lane roadway with a center two-way left-turn lane.

Figure 12 shows that a slightly higher number of crashes occurred at the intersection of W 27th Street and Canal Street. A glance at the crash reports for W 27th Street and Canal Street indicated that many of the crashes were major street left turn related where the following driver rear-ended the left turning driver. Further high-level investigation of the crash data revealed that from 2010 through 2012 there were nine crashes, while there was only one crash in 2013, and zero crashes in 2014 (Figure 14). It's likely that the implementation of the TWLTL contributed heavily in the reduction of crashes at the intersection of W 27th Street and Canal Street.

It should be noted that because of how the crash location data is entered, both W 27th Street and Hall Street crashes are over reported as the location is referenced to the nearest public road. Many of the crashes which were referenced to these two roads occurred nearby, often at the Dillons driveway located on W 27th Street.

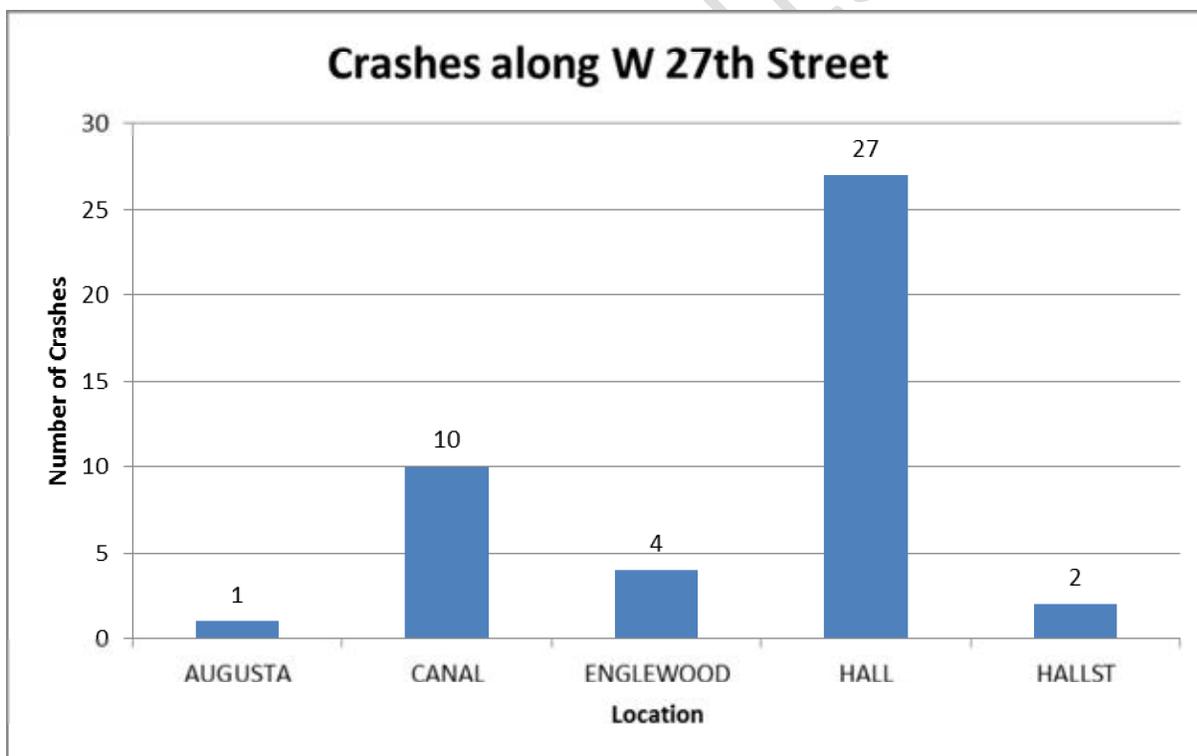


Figure 12 - Crashes along W 27th Street within the Study Limits

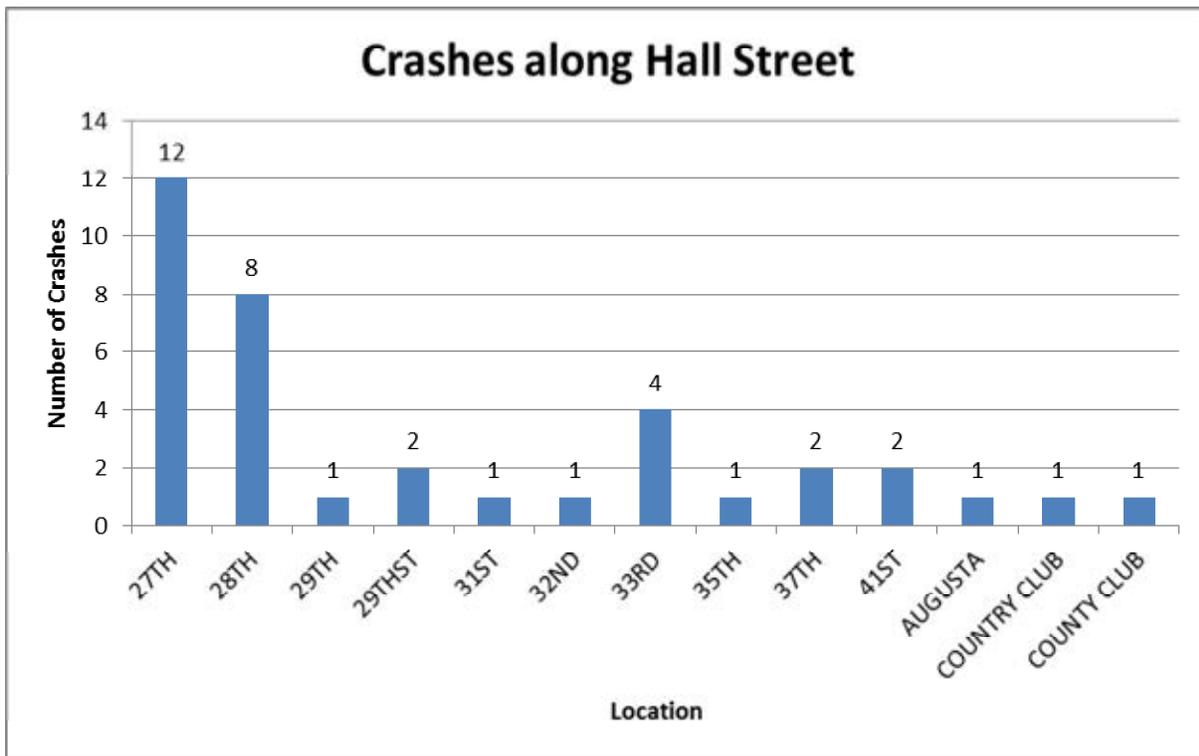


Figure 13 - Crashes along Hall Street within the Study Limits

Use Restricted, 2015

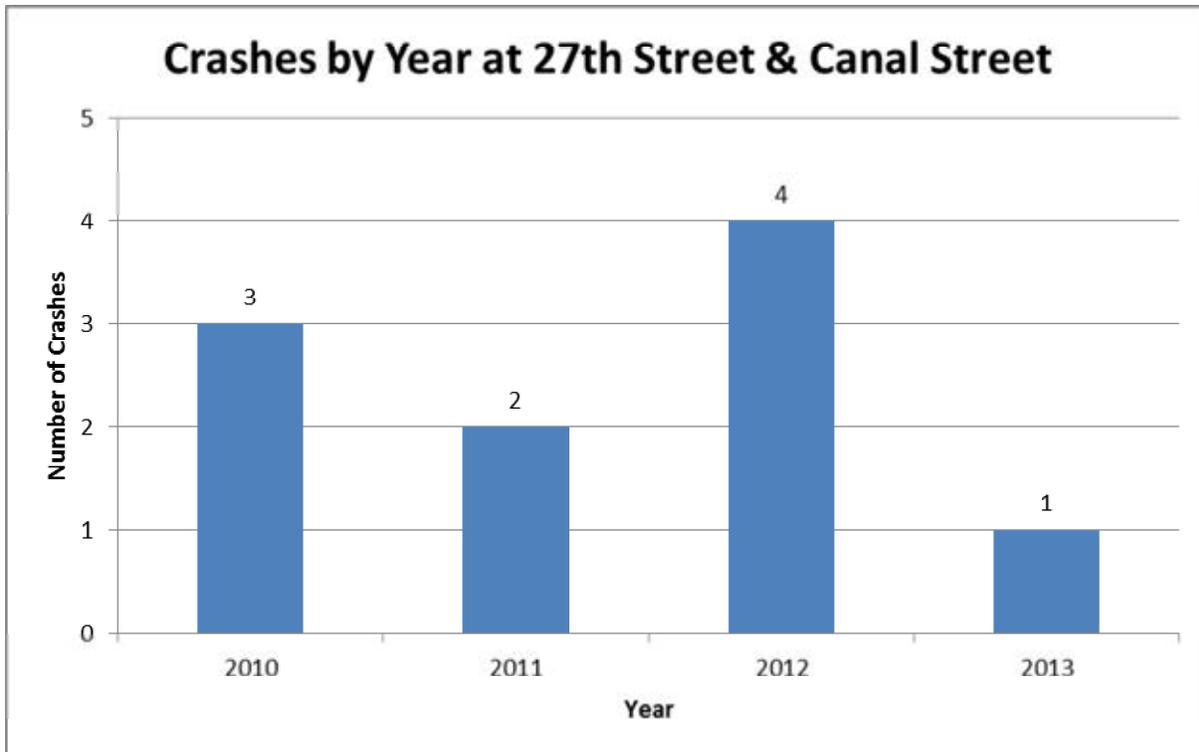


Figure 14 - Crashes by Year at W 27th Street & Canal Street

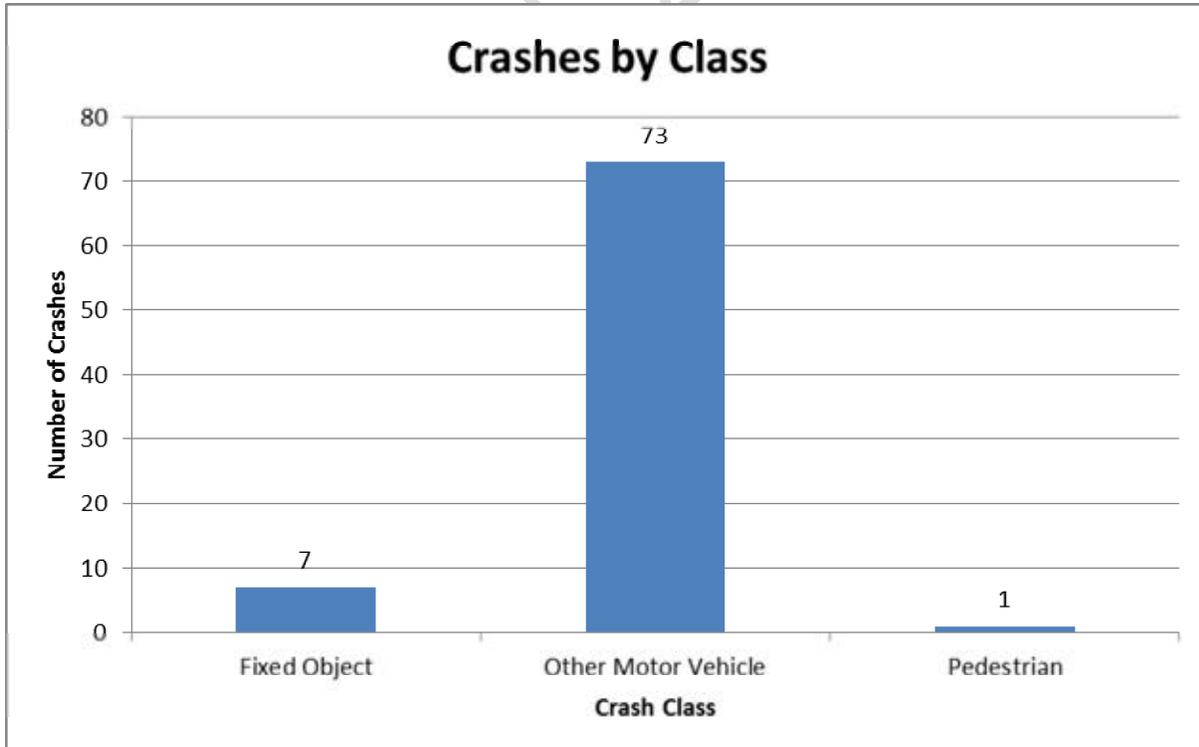


Figure 15 - Crashes by Class of Crash within the Study Limits

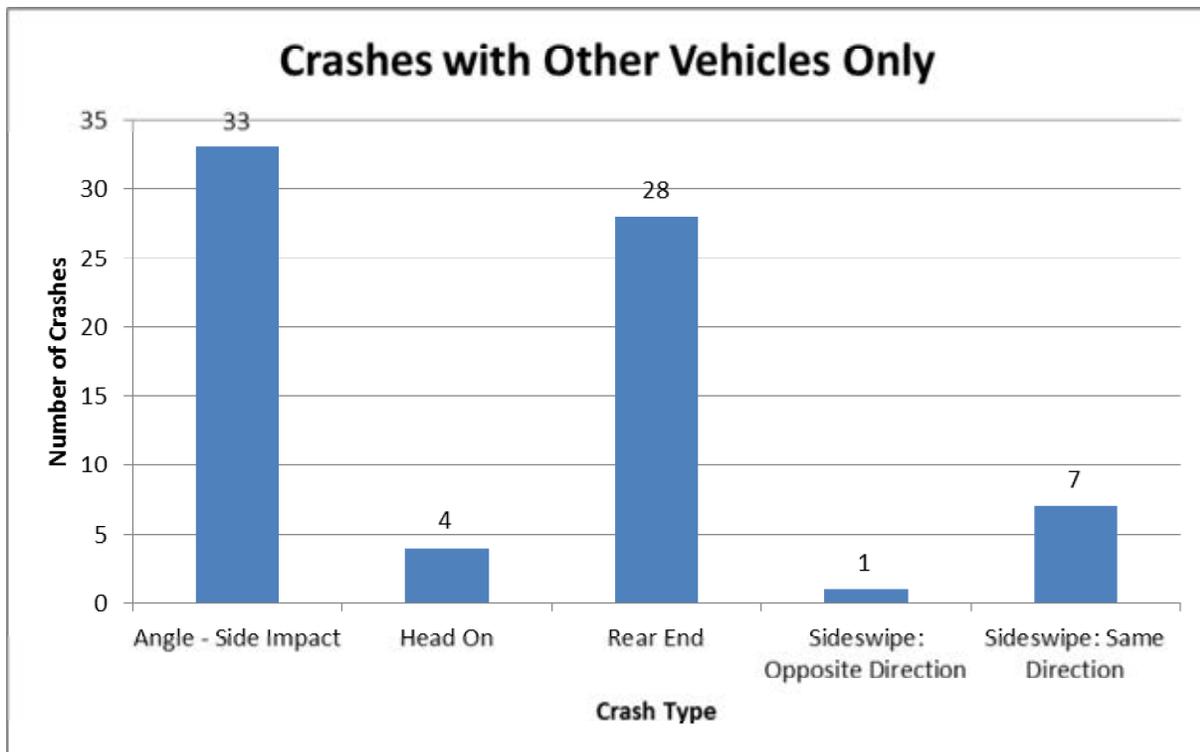


Figure 16 - Crashes by Type of Crash with Other Vehicles within the Study Limits

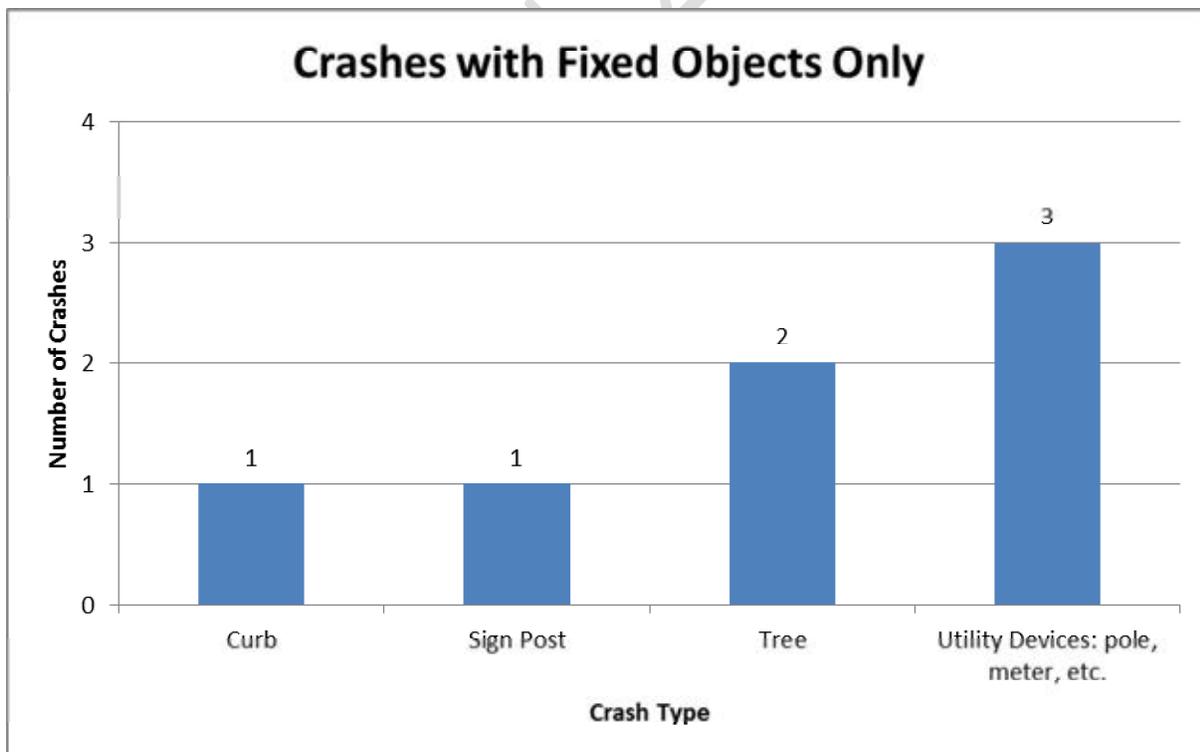


Figure 17 - Crashes by Type of Crash with Fixed Objects within the Study Limits

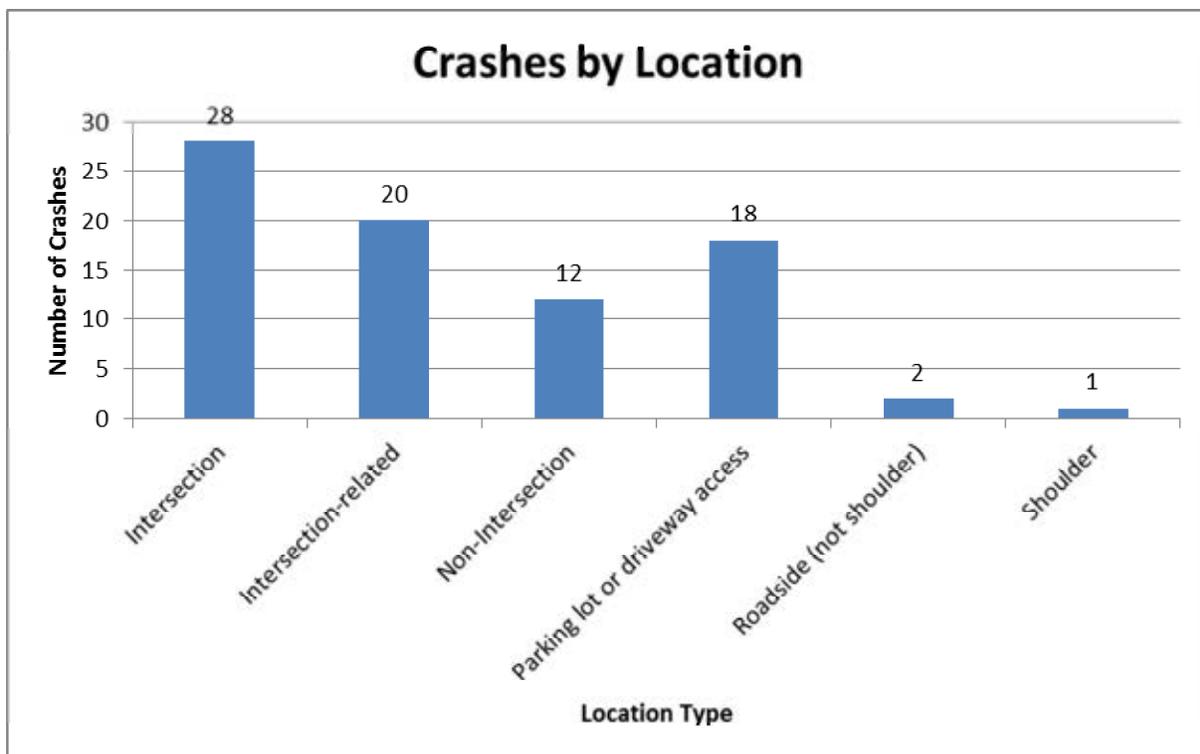


Figure 18 - Crashes by Location within the Study Limits

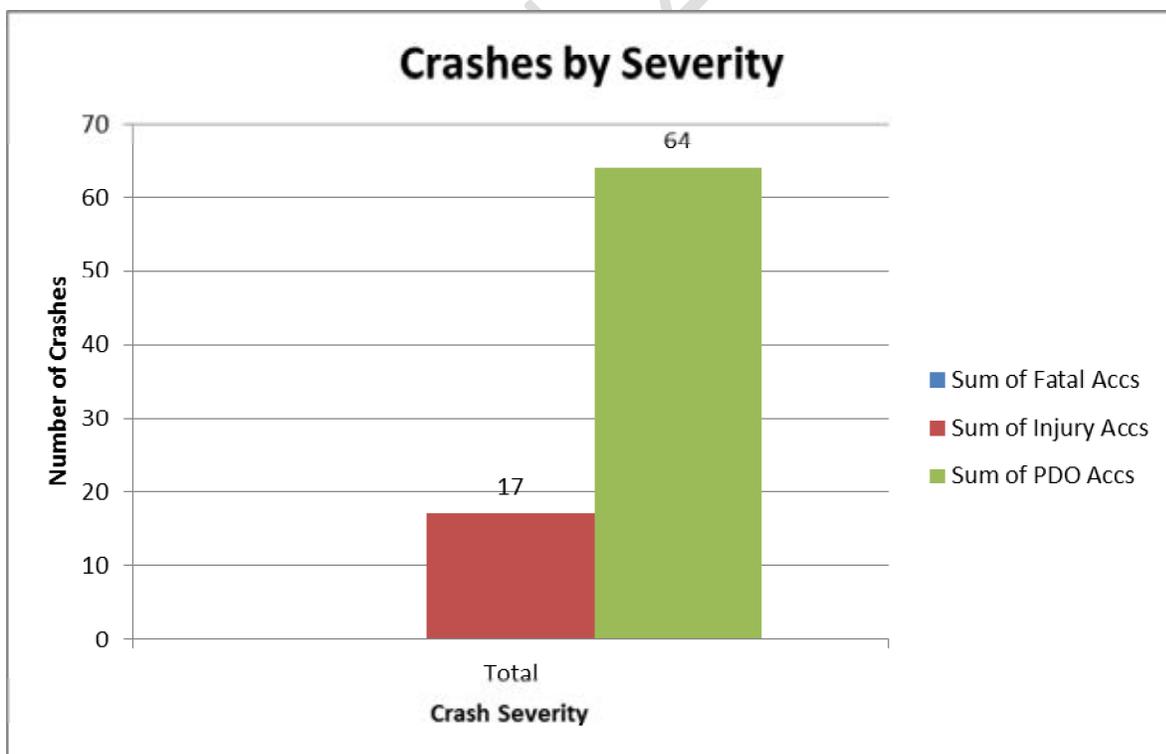


Figure 19 - Crashes by Injury Severity within the Study Limits

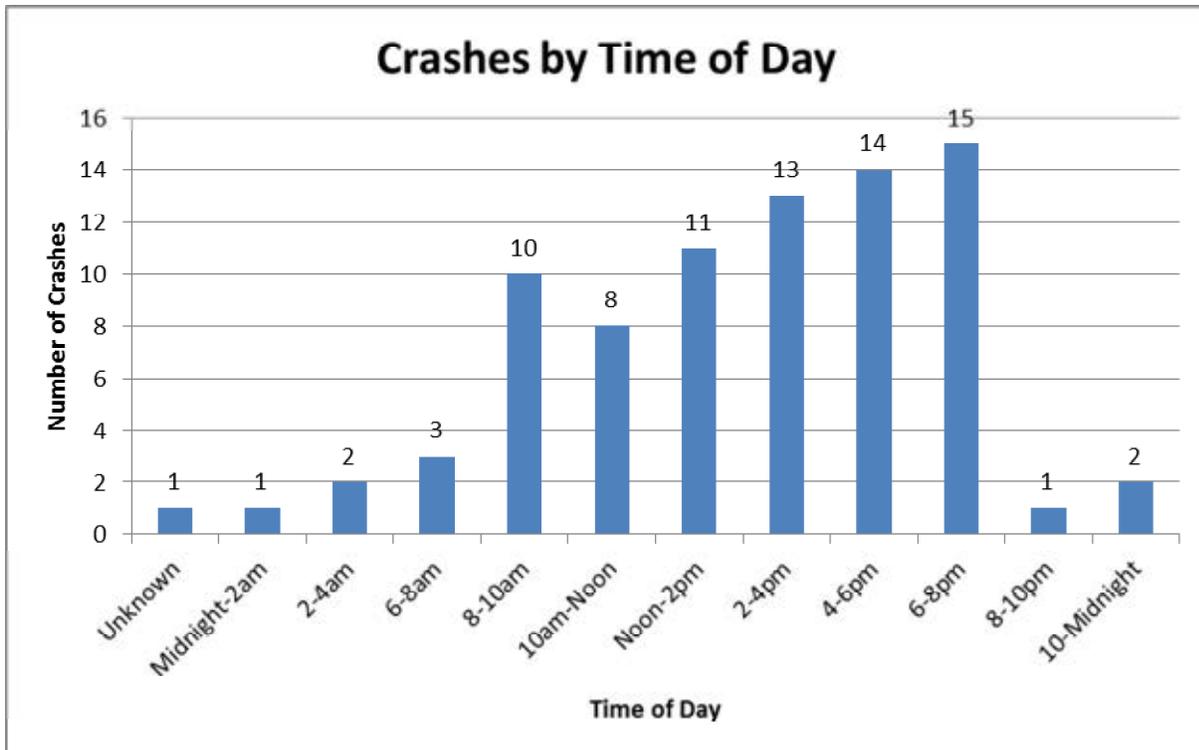


Figure 20 - Crashes by Time of Day within the Study Limits

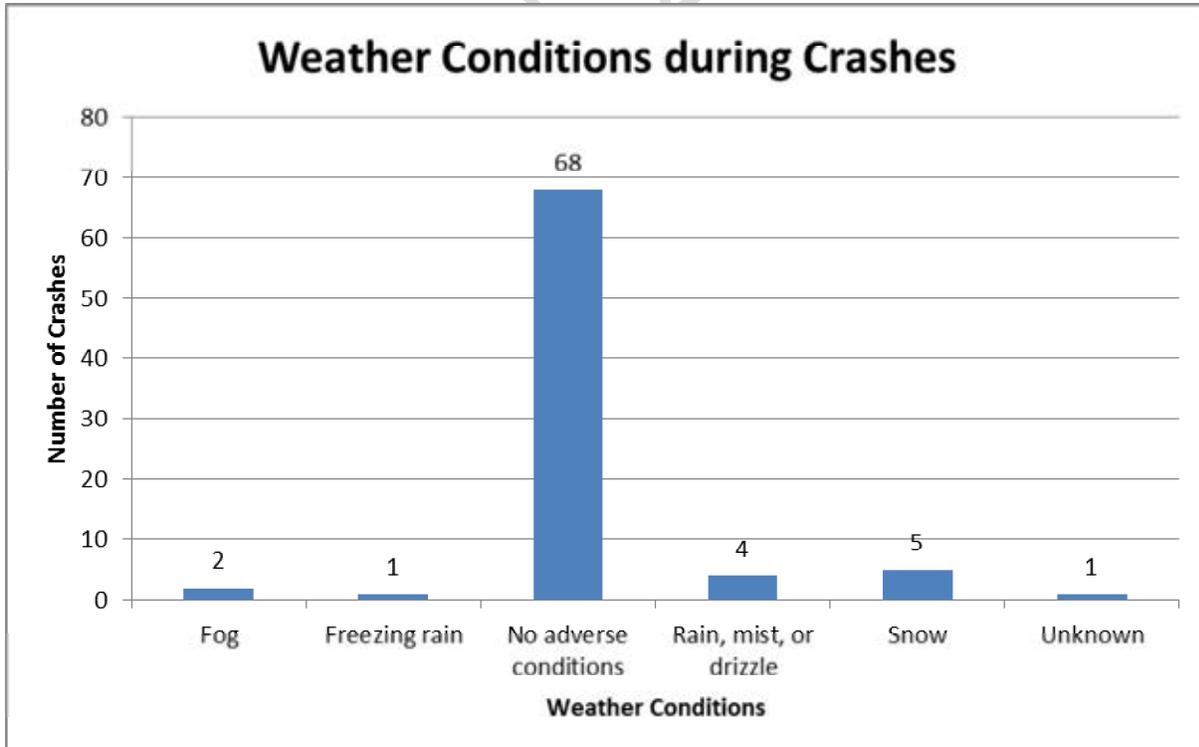


Figure 21 - Crashes by Weather Conditions within the Study Limits

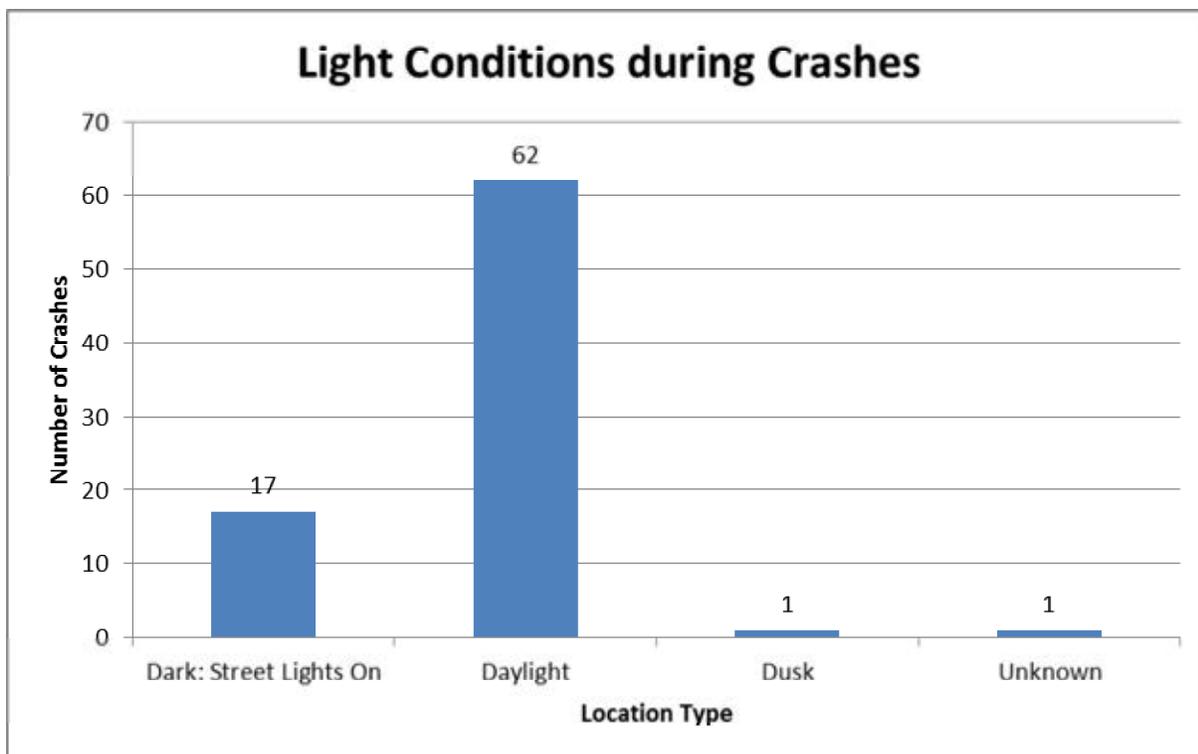


Figure 22 - Crashes by Lighting Conditions within the Study Limits

One crash which was notable occurred at the crosswalk with the pedestrian activated beacons on Hall Street. On November 13, 2014 a driver struck a pedestrian in the crosswalk on Hall Street at W 28th Street at 6:44 p.m. Blood work results from the test of the driver for substances were not available at the time of the crash report submission by the officer. The pedestrian was treated for injuries at the hospital and released. The driver claimed she did not see the pedestrian before the crash and also claims that the “traffic signal” was not illuminated for the crosswalk. The crash report contains no record from the struck pedestrian who was interviewed at the hospital about the possible activation of the flashing beacons at the crosswalk.

3.4.1.3 W 27th Street & Dillons Western Driveway

Figure 23 shows a collision diagram of the eight total crashes which occurred over the six year period and are likely attributed to the Dillons driveway. At least four of the crashes involved drivers making a southbound left turn from the Dillons western driveway to eastbound W 27th Street. One crash involving a southbound driver did not report which direction the driver exiting from Dillons was intending to turn. The existing “No Left Turn” sign posted for the western Dillons driveway should reduce the number of southbound left turning drivers. The most effective deterrent for drivers making a southbound left-turn from the Dillons driveway would be the installation of a raised median on W 27th Street in the area of the left-turn lane at the Hall Street intersection. This would essentially turn the driveway into a right-in/right-out driveway. Eastbound traffic on W 27th Street would need to turn north on Hall Street and enter the Dillons property via the access north of the intersection. However, the raised median would also affect access on the south side of W 27th Street.

| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | FORM 750-020-05 TRAFFIC ENGINEERING 1099 | | |
|--|--|--|-------|-------|
| COLLISION DIAGRAM | | | | |
| LOCATION ID: <u>27th Street & Dillons Western Driveway</u> | | | | |
| COUNTY: <u>Ellis</u> | CITY: <u>Hays, KS</u> | | | |
| PERIOD <u>January 2009</u> | TO <u>December 2014</u> | PREPARED BY: <u>PB</u> | | |
| | | | | |
| 27th Street Street Name | <p>*Note that the responding officer's first contributing circumstance marked as improper passing may not be accurate, and that the southbound left turning driver's failure to yield the right of way was a contributing circumstance based on the crash description.</p> | Dillons Western Driveway Street Name | | |
| COLLISION SYMBOLS | | CONDITION CODES | | |
| <ul style="list-style-type: none"> AA↑ VEHICLE PATH AA↔ BACKING VEHICLE AA↑ NON-INVOLVED VEH. AA↑ PEDESTRIAN PATH □ FIXED OBJECT ▣ PARKED VEHICLE ⊗ PERSONAL INJURY ⊗ FATALITY | <ul style="list-style-type: none"> AA↑ REAR-END COLLISION AA↑ HEAD-ON COLLISION AA↑ SIDE SWIPE AA↑ OUT OF CONTROL AA↑ OVERTURNED VEHICLE AA↑ LEFT TURN COLLISION AA↑ RIGHT ANGLE COLLISION | PAVEMENT CONDITION: D = DRY W=WET I=ICY WEATHER CONDITION: C=CLEAR R=RAIN F=FOG S=SNOW LIGHT CONDITION: L=DAYLIGHT N=NIGHT (DARK) TIME OF DAY (MILITARY) | | |
| CRASH SUMMARY | | | | |
| | PROP. DMG ONLY | INJURY | FATAL | TOTAL |
| DAYTIME | 5 | 2 | 0 | 7 |
| NIGHTTIME | 1 | 0 | 0 | 1 |
| TOTAL | 6 | 2 | 0 | 8 |

Figure 23 - W 27th Street & Dillons Western Driveway Collision Diagram

3.4.2 Property Damage Only Crashes with less than \$1,000 Damage

The City of Hays submitted three additional crash reports where the three crashes resulted in less than \$1,000 worth of property damage only. Per KDOT policy, these types of crashes are not kept in KDOT's crash database and are not summarized in crash reviews. The three crashes do not contribute towards any engineering recommendations at the intersection. Heavy rain contributed to one crash, another crash occurred when a driver accelerated at a green light too rapidly, and the last crash occurred when a motorist passed out at low speeds.

3.5 SIGNAL WARRANT ANALYSIS

The MUTCD is the primary resource for providing the criteria to either install or remove a traffic signal at an intersection. Information from the MUTCD will be referenced and directly cited extensively throughout this section. As the data needed for signal warrant review is mostly available, it's prudent to conduct a review of the three warrants most often met, which are Warrants 1, 2, and 3.

The selection and use of traffic signals is based on an engineering study of traffic operations, safety, pedestrian and bicyclist needs and other factors at intersections, coupled with engineering judgment. The investigation of the need for a traffic signal includes an analysis of nine traffic signal warrants. The MUTCD states that "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal" (Federal Highway Administration, 2009). These nine warrants are reviewed individually and often reference the major street and the minor street. Based on traffic volumes, the major street at this location is Hall Street, while the minor street is W 27th Street.

The Highway Capacity Software (HCS) v6.60 was used to assist in evaluating several traffic signal warrants. HCS implements procedures defined in the Highway Capacity Manual to analyze different types of roadway facilities and intersections. Traffic signal warrants are often based on the volume of traffic on an approach, without regard to whether drivers are turning left, continuing through, or turning right. The HCS traffic signal warrant module offers the option for entering volumes by movement. For the purpose of this analysis all approach volumes are assumed to be through volumes based on the data available.

3.5.1 Warrant 1, Eight-Hour Vehicular Volume

Warrant 1 is intended for application at locations where a large volume of intersecting traffic occurs, or where traffic volumes are so heavy on the major street that the minor intersecting street suffers excessive delay or conflict while entering or crossing the major street. If a warrant or part of a warrant is met, there will be checked boxes on the right edge of Table 4 (which there were for Warrants 1, 2 and 3). The HCS traffic signal warrants module provides a full analysis for Warrant 1 based on the approach volumes which were entered (Table 5). The table shows that the existing volumes at this location do not meet Warrant 1.

~~the pedestrian push buttons to the opposite curb line. The larger of the two widths was approximately 62 feet and is used for the calculations. The walking speed 'S', was assumed to be 3.5 feet per second to match guidance in the 2009 MUTCD (Federal Highway Administration, 2009, p. 4E.06). Given these assumptions, the recommended pedestrian activated flashing beacon time is 22 seconds.~~

~~The extra 60 seconds of existing beacon flash time when there is likely to be no pedestrians or bicyclists present encourages drivers to ignore the beacon. Because of this, drivers may become accustomed to the flashing beacon and may eventually fail to stop or watch for pedestrians.~~

~~In order to reduce the possibility that drivers become accustomed to the flashing beacon and eventually fail to prepare to stop or watch for pedestrians, the flashing beacon time should be shortened to 22 seconds. Built into the 22 seconds are three seconds for pedestrians to wait for vehicles to come to a stop before crossing. The 22 seconds may need to be extended if it is found that larger groups are crossing in multiple rows, that three seconds is insufficient time for pedestrians to start crossing Hall Street after pushing the button or that pedestrians are typically walking slower than 3.5 feet per second.~~

3.8 ROAD DIET IMPLEMENTATION

The study review team did not see any major issues with the City's plan to implement a road diet on Hall Street from W 41st Street to W 27th Street or on W 27th Street from Englewood Street to Hall Street. The ADT on Hall Street is approximately 12,700 vpd. Public roads connect to Hall Street approximately every 350 feet, with alleys and individual residential driveways often more closely spaced. Given the high frequency of turns on and particularly off of Hall Street, it's likely that the inside lane of the existing four-lane section is often used for turning. This effectively reduces Hall Street from two lanes in each direction, to a single lane in each direction. This is nearly identical to the implementation of a road diet (three lane section).

The City has previously implemented a road diet along 13th Street from Vine Street to Agnes Drive. According to the City staff, the City met vocal resistance from local citizens who were opposed to the implementation of the road diet prior to implementation; however, after implementation most citizens were content, or even pleased with the result. In nearly all cases, the negative results that were being foretold by locals about the implementation of a road diet did not occur, and there was nearly no comments about the road diet after it was completed. A similar, although less forceful, initial reaction from citizens may occur along Hall Street, as could be expected for any proposed road diet.

Hall Street also could hardly carry two full lanes of vehicular demand in each direction due to the reduced roadway sections leading up to it. On Hall Street south of W 27th Street, it is only one lane in each direction. Similarly, north of W 41st Street, Hall Street is also only one lane in each direction. The primary land use between W 41st Street and W 27th Street is residential, and there are no dual left or right turn lanes leading on to Hall Street. For these reasons, it would be exceptionally difficult to use the existing two full lanes in each direction on Hall Street between W 41st Street and W 27th Street. This extra pavement width could be put to better use such as for marking bike lanes in each direction.

FHWA suggests in its Road Diet Informational Guide that roadways with ADT of 20,000 or less may be good candidates for a road diet (Federal Highway Administration, 2014). The same guide also references studies and cities which have found road diets can work up to: 15,000 ADT; 15,000 to 17,500

ADT; 18,000 ADT; 23,000 ADT; and 25,000 ADT. As the existing ADT along Hall Street is 12,700 ADT and is constrained from major increasing volumes at this time by the surrounding roadway network, implementing a road diet should not be an issue for traffic operations.

There was a concern from the City of Hays that the existing mast arms and signal head locations would be insufficient after the road diet is implemented. Since all of the existing left turn signals are doghouse style signal head arrangements, the doghouse signal head should be installed on the lane line separating the left turn lane from the adjacent through lane. They are not currently installed with such precision, and it's unlikely that the modified lane configurations at the intersection will change driver understanding of the signal installations.

The eastbound approach to the intersection has the doghouse signal head just left of the existing lane line separating the eastbound left turn lane from the eastbound shared through-right lane (Figure 26). With the change in the lane configuration, rather than the doghouse being to the left of the lane line, it will be slightly to the right of the lane line which is acceptable.



Figure 26 - Eastbound Signal Head Arrangement at 27th Street & Hall Street

The northbound approach to the intersection has the doghouse signal head directly over the left of the two through lanes with a standard three section signal head over the right of the two through lanes (Figure 27). With the modified lane configuration, it's recommended that the doghouse signal head be shifted to the left over the lane line splitting the left turn lane and the through lane. The three section signal head over what will be the right turn only lane should be removed. These changes should lessen the loading on the signal mast arm which is not a concern.



Figure 27 - Northbound Signal Head Arrangement at 27th Street & Hall Street

The westbound approach lane configurations would remain as is and no changes will be needed to the signal heads (Figure 28).



Figure 28 - Westbound Signal Head Arrangement at 27th Street & Hall Street

The southbound approach to the intersection has the doghouse signal head centered on the existing lane line separating the southbound left lane from the southbound shared through-right lane (Figure 29). With the modified road diet lane configuration, the southbound doghouse signal head will be centered over the southbound through lane and not on the lane line. However, this is no different than the existing northbound signal head where the doghouse is centered over the through lane, and not on the lane line, and which drivers in the area already familiar with. No changes to the signal pole mast arm length are recommended at this time as a result of this lane use modification to the southbound Hall Street approach.

~~It is important to collect information on the approach grades to each intersection in order to accurately determine the yellow interval times which was not conducted as part of this study. It is also helpful to drivers that the clearance intervals provide consistency from what they have been experiencing. Changing them without more thorough engineering evaluation or a Signal Clearance Interval Policy may temporarily increase the number of incidents at the intersection due to changing driver behavior as they adapt to the new clearance intervals. These basic guidelines, which should be supplemented with both additional policy points and measured approach grades, are available when the City is ready to initiate this effort.~~

~~The estimated cost of creating a Traffic Signal Clearance Interval Policy is comprised of City of Hays engineering staff time. The clearance intervals at the intersection of W 27th Street and Hall Street should be reviewed and updated after a city policy is in place.~~

4.2 ROAD DIET RECOMMENDATIONS

No major issues were identified which would preclude the implementation of a road diet along Hall Street from W 27th Street to W 41st Street, and along W 27th Street from Hall Street to Englewood Street. Typical pavement marking and signing modifications will be required as part of such implementation, and such standard changes will not be addressed further.

As the City of Hays is currently in the process of implementing the recommendations in their recently completed document "The Bike Hays Master Plan", the City already has a marking and signing plan for how to convert a four to three-lane road with two-side bike lanes and no parking (Figure 34). The Bike Hays Master Plan can be accessed at: http://www.haysusa.com/Bike_Hays_Master_Plan.pdf.

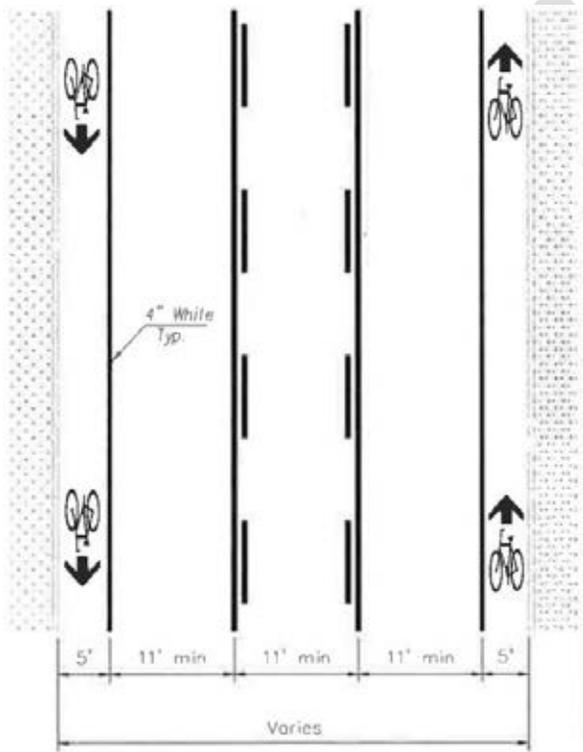


Figure 34 - Recommended Road Diet Pavement Markings

The signing and pavement marking changes involved with implementing the road diet at the intersection of Hall Street and W 27th Street for the southbound and eastbound approaches are fairly standard, however the northbound approach is more unique. For the northbound approach to W 27th Street along Hall Street, a more detailed sketch of the recommended signing and pavement markings are shown in Figure 35. Prior to the implementation of the road diet, drivers could enter the outside (right) lane and travel straight through the intersection. After the implementation of the road diet, only one receiving lane will be available north of W 27th Street on Hall Street.

It is recommended that the outside (right) lane be converted into a right turn only lane for the northbound approach to W 27th Street on Hall Street. Two advance intersection lane control signs are suggested to notify drivers in advance of the lane configuration. Pavement markings of normal width dotted white extension lines guide drivers to the middle through lane south of the intersection. Drivers that want to turn right can cross the dotted white extension line to enter the newly created right turn lane where right turn arrow pavement markings can be added to confirm the designation of the right turn lane. The typical normal width solid white lane line should be added adjacent to the right turn lane.



Figure 35 - Northbound Approach to W 27th Street with Road Diet Implemented

Even after the road diet is implemented, including the modified lane configuration for the northbound approach, there will be an approximately 6-foot lane shift through the middle of the intersection for northbound and southbound Hall Street through traffic due to the lane alignments. It may be helpful to drivers for the City to stripe two pavement marking extension lines through the intersection to guide drivers to the correct lane (Figure 36). These extension lines will help drivers during the road diet conversion, but after drivers are familiar, the City may not need to continue to maintain these markings.



Figure 36 - Intersection Pavement Marking Line Extensions for Road Diet Implementation

It's recommended that the northbound Hall Street doghouse signal head be shifted to the left so it is centered over the lane line between the northbound left turn and the northbound through lane when the road diet is implemented. No other signal head modifications are recommended at the intersection as a result of the road diet implementation.

The MUTCD currently provides limited guidance on where and how often bike lane signs should be installed, and no guidance on how to start and end bicycle lanes at intersections. Engineering judgment is required to determine signing for the beginning and end of bike lanes. The MUTCD provides three signs which are the "Bike Lane" (R3-17), "Ahead" (R3-17aP), and "Ends" (R3-17bP), signs for use with bike lanes. Figure 37 shows an example of bike lane signs that would meet the MUTCD based on engineering judgment. This sign configuration uses approved MUTCD signs, and provides both cyclists and drivers time for them to position themselves in a lane. Lane positioning is more important at the end of the bike lane, as cyclists and drivers must merge to share the road once the bike lane ends. Note the "Bike Lane Ahead" signs on the northbound approach of Hall Street and the westbound approach of W 27th Street.



Figure 37 - Recommended Bicycle Lane Signing near Start and End of Bike Lanes

With the implementation of the road diet, pedestrian refuge islands could be placed at select locations along Hall Street (Figure 38). As most of Hall Street does not have pedestrian activated beacons, nor would it likely have the pedestrian volumes to support such installations, refuge islands would help pedestrians cross the streets. Pedestrian refuge islands separate the task of crossing Hall Street into two shorter phases, from a single phase where a long gap in vehicles is required. These refuge islands make crossings quicker, safer, and more pleasant for pedestrians. Although the existing pedestrian refuge island on W 41st Street west of Thunderbird Drive is fairly long, they could be as short as 20 feet, although more length on each end of the refuge would feel safer. The width of the pedestrian refuge island is the width of the two-way left-turn lane that it is replacing.



Figure 38 - Example Pedestrian Refuge Island on W 41st Street, west of Thunderbird Drive, Hays, KS

Commission Work Session Agenda

Memo

From: John Braun, Assistant Director of Public Works

Work Session: March 3, 2016

Subject: Future Street Reconstruction Projects

Person(s) Responsible: Greg Sund, Director of Public Works

Summary

Bids for the 2016 Street Maintenance Program came in approximately \$630,000 under budget. This provides an opportunity to keep those savings to help fund future major street reconstruction projects like 8th Street from Milner to Vine Street and Allen Street north of 13th Street. Staff is presenting some options for the City Commission to consider, but recommends saving the remaining funds to help fund the six million dollar cost to reconstruct 8th Street and Allen Street.

Background

The Capital Improvement Plan (CIP) within the 2016 Budget lists the reconstruction of 8th Street from Milner to Vine and Allen Street north of 13th Street as the next two major street reconstruction projects. The total estimated cost of these two projects is \$6 million.

Discussion

Why is staff bringing this topic forward at this time?

- There is a need to plan for the reconstruction of certain streets that have failed beyond the point where they can be effectively and economically maintained. (A list of staff's top priorities is attached)
- 8th Street from Milner to Vine and Allen Street north of 13th Street are the top two projects. The 2016 CIP have them identified for construction in 2018 and 2020 respectively at a total cost of \$6 million. In order to meet that schedule and budget, staff must begin securing engineering services and funding.
- The previous agenda item recommended awarding bids for 2016 Street Maintenance in a manner that leaves an excess of \$633K. Staff recommends banking those funds toward the future reconstruction of 8th Street and Allen Street.
- Current policy is to "pay-as-you-go" for these types of projects. Currently, there is \$837,500 in unallocated funds in the City Commission Capital Reserve. Keeping the \$633K left over from 2016 Street Maintenance would result in about \$1.5M being available toward the \$6.0M needed for the 8th Street and Allen Street projects.

Legal Consideration

Not Applicable – for information only.

Financial Consideration

In 2015, staff did considerable research into the cost of maintaining and replacing the City's street network and determined that \$3,000,000 a year would be a realistic annual budget amount for the Street Maintenance Program and an annual set aside for lifecycle street replacement costs.

The 2016 budget included \$2.5M for Street Maintenance Projects in 2016 as detailed below:

| Available Funds in 2016 | |
|---|--------------------|
| Special Highway | \$1,122,237 |
| Capital Reserve (identified in 2016 CIP) | <u>\$1,435,000</u> |
| Total Available | \$2,557,237 |

| Proposed spending in 2016 | |
|---------------------------|-------------------|
| Special Highway | \$1,122,237 |
| Capital Reserve | <u>\$ 802,339</u> |
| Total Cost | \$1,924,339 |

Remainder of Capital Reserve funds that had been budgeted in 2016

$$\text{\$1,435,000} - \text{\$802,339} = \text{\$632,661}$$

Below is a table showing the current balance in the City Commission Capital Reserve and the anticipated expenditures resulting in a shortfall of \$4.5M

| City Commission Capital Reserve | |
|---|-----------------------|
| Commission Capital Reserve Balance (1-1-16) | \$3,397,510.00 |
| Future Levy Transfer to Offset (5 years) | -\$1,125,000.00 |
| <u>2016 CIP (street projects)</u> | <u>-\$802,338.70</u> |
| Projected Balance | \$1,470,171.30 |

| | |
|------------------------------------|------------------------|
| 8th Street - Milner to Vine (2018) | -\$2,500,000.00 |
| Allen Street north of 13th (2020) | -\$3,500,000.00 |
| CIP Projects | -\$6,000,000.00 |

| | |
|------------------|------------------------|
| Shortfall | -\$4,529,828.70 |
|------------------|------------------------|

Potential options to cover street maintenance and replacement funding shortfall include:

- Transfer of budget savings (capture) to Capital Projects
- Special Sales Tax
- Assessment of street maintenance and replacement costs to benefiting properties.
- Other considerations
- Combination of any or all of the above

Options

The City Commission has the following options:

- Consider staff's recommendations to save Capital Reserve Funds for the Reconstruction of 8th Street in 2018 and Allen Street in 2020.
- Provide alternate direction to city staff.
- Do nothing

Recommendation

Staff recommends that the remaining balance of Capital Reserve Funds budgeted for Street Maintenance in 2016 is banked toward the \$6M cost to reconstruct 8th Street from Milner to Vine in 2018 and Allen Street north of 13th Street in 2020.

Action Requested

Provide direction to City Staff.

Supporting Documentation

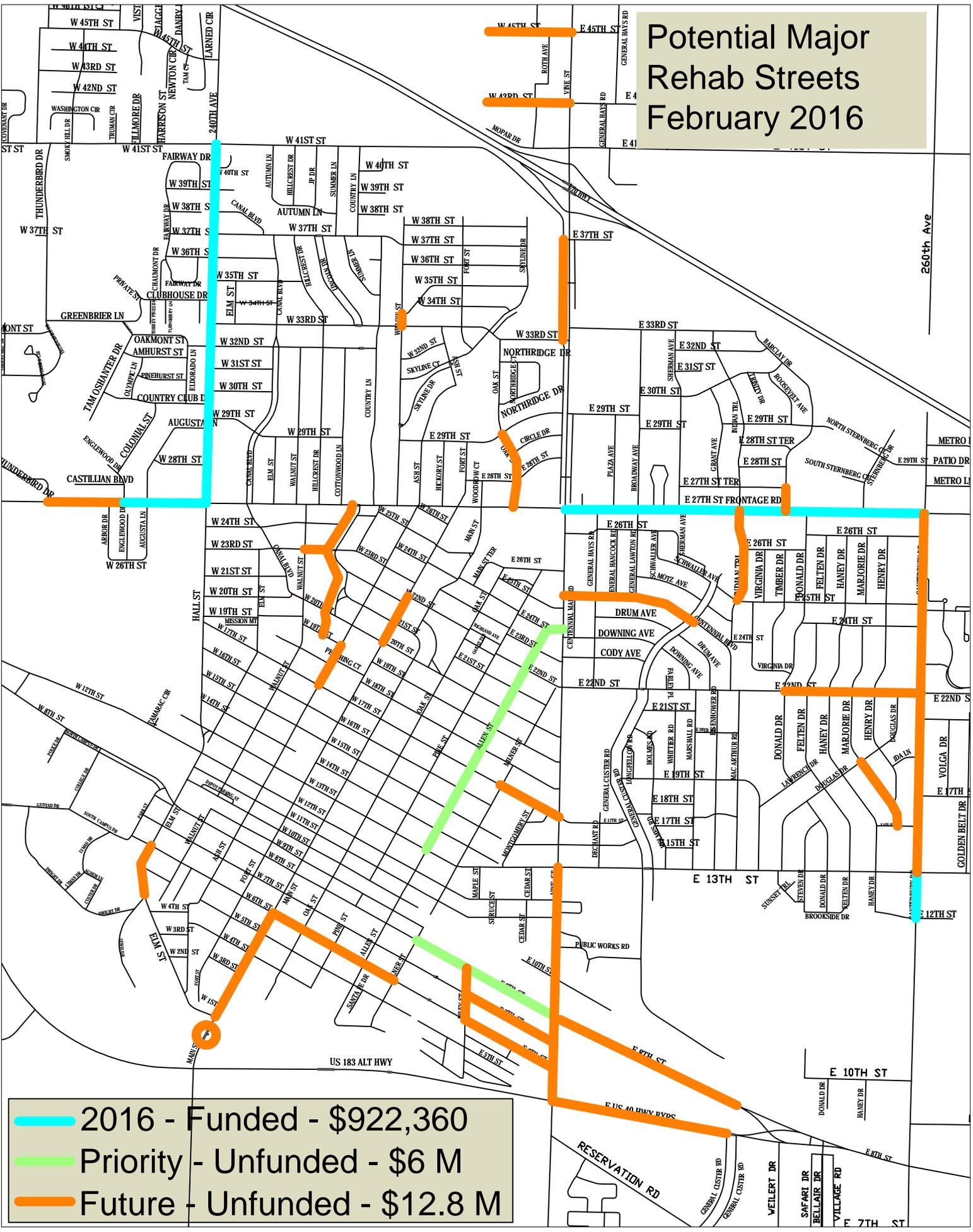
Potential Major Street Reconstruction Projects Table
Location Map

Potential Major Street Reconstruction Projects

| Street Name | From | To | Length (feet) | CIP (status) | PCI | Average Vehicles per day (ADT) | PCI/ADT ratio | 2011 Assessment Priority 100 = highest priority | Staff Priority | Cost | Notes |
|-------------|------------|------------|---------------|--------------|-----|--------------------------------|---------------|--|----------------|---------------|-----------------------------------|
| Hall | 27th | 41st | 5280 | 2016 | 28 | 11200 | 400.0 | 79 | high | \$ 398,504 | 2016 Mill and Overlay - Road Diet |
| 27th Street | Englewood | Hall | 1160 | 2016 | 37 | 6080 | 164.3 | 66 | high | \$ 87,550 | 2016 Mill and Overlay - Road Diet |
| 27th Street | Sherman | Canterbury | 3600 | 2016 | 28 | 9800 | 350.0 | 83 | high | \$ 271,707 | 2016 Mill and Overlay |
| 8th St | Milner | Vine | 2210 | 2018 | 72 | 7280 | 101.1 | 35 | high | \$ 2,500,000 | Full Depth Pavement Replacement |
| Allen | 13th | Vine | 3920 | 2020 | 41 | 3850 | 93.9 | 65 | high | \$ 3,500,000 | Complete Reconstruction |
| 45th St | N of Walma | Vine | 1200 | Queue | 80 | ? #VALUE! | | 20 | High | \$ 550,000 | Full Depth Pavement Replacement |
| 43rd St | S of Walma | Vine | 1200 | Queue | 80 | ? #VALUE! | | 20 | High | \$ 650,000 | Full Depth Pavement Replacement |
| 22nd St | Donald | Canterbury | 2000 | Queue | 75 | 5040 | 67.2 | 28 | Med | \$ 938,000.00 | Full Depth Pavement Replacement |
| 6th Street | Riley | Vine | 1350 | Queue | 28 | 1600 | 57.1 | 83 | Med | \$ 700,000 | Full Depth Pavement Replacement |
| 7th Street | Riley | Vine | 1350 | Queue | 23 | 1370 | 59.6 | 97 | Med | \$ 700,000 | Full Depth Pavement Replacement |
| Main Street | 1st | 6th | 1750 | Queue | 35 | 2600 | 74.3 | 75 | Low | \$ 840,000 | Full Depth Pavement Replacement |
| Marjorie | 15th | 22nd | 2180 | Queue | 66 | ? #VALUE! | | 79 | Low | \$ 800,000 | Full Depth Pavement Replacement |
| 27th Street | T-Bird | Englewood | 1100 | | 25 | 6000 | 240.0 | 93 | High | \$ 650,000 | Complete Reconstruction |
| Lincoln | 19th | 27th | 2088 | | 71 | | | 29 | High | \$ 500,000 | Full Depth Pavement Replacement |
| Indian Tr | 25th | 27th | 1360 | | 66 | 3125 | 47.3 | 82 | Med | \$ 750,000 | Full Depth Pavement Replacement |
| 6th Street | Main | Milner | 2040 | | 60 | 1400 | 23.3 | 52 | Med | \$ 950,000 | Full Depth Pavement Replacement |
| Centennial | Vine | Gen Custer | | | | | | | Low | \$ 1,000,000 | Full Depth Pavement Replacement |

| | | | | | | | | | | | |
|---------------|------------------------|--------------|------|----------------|-----|-----------|-------|-----|------|------------|---|
| Canterbury | 12th | 13th | 680 | Priority Queue | 65 | 6140 | 94.5 | 34 | high | \$ 48,038 | 2016 Diamond Grind - Road Diet |
| 27th St | Vine | Sherman | 1650 | Priority Queue | 72 | 11600 | 161.1 | 31 | high | \$ 116,561 | 2016 Diamond Grind |
| Canterbury | 13th | 27th | 5280 | Priority Queue | 80 | 7680 | 96.0 | 31 | High | \$ 400,000 | Diamond Grind - Road Diet |
| Vine Frontage | 32nd | 37th | 1480 | Priority Queue | 36 | ? #VALUE! | | 66 | High | \$ 400,000 | Full Depth Pavement Replacement |
| Vine Street | South City L | 13th Street | 3450 | Priority Queue | 55 | 12500 | 227.3 | 54 | Med | \$ 350,000 | Concrete Patch-City Share of KDOT Grant |
| Ash | 17th | 19th | 450 | Queue | 55 | 1500 | 27.3 | 42 | High | \$ 250,000 | Brick Street outside Preservation Area |
| Oak | 27th | 29th | 850 | Queue | 50 | ? #VALUE! | | 48 | High | \$ 350,000 | Full Depth Pavement Replacement |
| E 8th St | Vine | E City Limit | 3000 | Queue | N/A | 4385 | | | Med | \$ 110,000 | add concrete shoulders |
| Elm | 6th | Lewis Dr | 770 | Queue | 40 | 2645 | 66.1 | 72 | Med | \$ 235,000 | Full Depth Pavement Replacement |
| Riley | 6th | 8th | 740 | Queue | 30 | ? #VALUE! | | 78 | Low | \$ 300,000 | Full Depth Pavement Replacement |
| Bridge | Over Big Creek at Main | | 225 | Queue | N/A | 2300 | | N/A | Low | \$ 400,000 | KDOT Bridge Program??? |
| 23rd St | Walnut | Lincoln | 340 | | 68 | ? #VALUE! | | 24 | High | \$ 150,000 | Full Depth Pavement Replacement |
| 17th | Milner | Vine | | | | | | | Med | \$ 375,000 | Full Depth Pavement Replacement |
| Barclay | 27th | 27th Terr | 360 | | 62 | 990 | 16.0 | 79 | Med | \$ 150,000 | Full Depth Pavement Replacement |
| Willow | 33rd | 35th | 186 | | 31 | 1050 | 33.9 | 81 | Low | \$ 100,000 | Full Depth Pavement Replacement |
| Fort | 20th | 22nd | | | | | | | Low | \$ 250,000 | Full Depth Pavement Replacement |

Potential Major Rehab Streets February 2016



- 2016 - Funded - \$922,360
- Priority - Unfunded - \$6 M
- Future - Unfunded - \$12.8 M