



STAFF REPORT

To: Honorable Mayor and Members of Town Council

From: Frank Castillo, Project Manager

Title: Award of Contracts for the 2020 Pavement Maintenance Program, and Capital Improvement Projects

Notification and Outreach Efforts

Staff has developed specific public coordination outreach to ensure that residences and businesses will understand construction impacts and how this may affect access to individual businesses and residences. Public outreach will occur in numerous forms such as; 1) Public Outreach Open Houses, 2) Town newsletters, 3) HOA mediums such as newsletters, 4) Town social media, 5) Door notification, 6) Press releases, 7) Town's web site and others. Residents and businesses will be notified of actual dates that work is to be completed adjacent to their properties, and traffic control plans will be developed and managed to ensure worker and public safety.

Town staff will host a Public Outreach Open House in late-March. This Public Outreach Open House will consist of detailed maps of the 2020 maintenance work to let concerned residents know which streets will receive treatments and how it may affect them. Possible locations are schools, and community buildings within the Central PMP area. These are tentative locations. Actual locations will be communicated on the Public Outreach Open House mailer. Staff plans to coordinate with neighborhood Home Owners Association's (HOA). Furthermore, press releases will be published before the start of PMP construction season to notify the public of work locations and dates.

History of Past Town Council, Boards & Commissions, or Other Discussions

The Public Works Commission at their October 3, 2011 meeting voted unanimously to recommend to Town Council to adopt the proposed Five Year Pavement Maintenance Program, and the Overall Condition Index (OCI) goal to be set at 75 for primary streets and 70 for residential streets. The OCI is an average rating of each street's condition. This was done in an effort to minimize impacts of roadway maintenance to residents, and to reduce costs of work by concentrating in one area of Town. Town Council approved the Town's rotating five year PMP regionalized area plan for residential streets at the November 1, 2011 Town Council meeting. The Town's five-year regional plan divides the town into five regionalized areas. Primary streets can be included in any year of the five-year program. The PMP program will then annually rotate around these five areas excluding primary streets and downtown Castle Rock such that every fifth year repairs to an area's residential street system will occur. In addition to the

regionalized Five Year Pavement Maintenance Program, the Public Works Department has developed the Strategic Asset Management Plan (SAMP) to maximize value from each asset for our stakeholders. Staff has begun making adjustments to the regionalized plan to better align with SAMP policies of working to obtain the lowest total lifecycle cost.

Discussion

The Town's goal for the PMP is to preserve and extend the life of the Town's streets by making the most cost effective annual improvements to selected street segments. These goals are met when proper street maintenance is administered to these segments.

Staff determines which streets require maintenance by evaluating the street's condition rating in addition to a subjective analysis. A pavement management program, Cartegraph's Pavement Asset Module, establishes these condition ratings. This program establishes a condition rating based on staff's field observation for the streets, and rates them from poor to excellent condition. Different types of street maintenance treatments, such as crack seal, slurry seal, mill & overlay, full depth reclamation, and reconstruction are identified based on the condition of the roadway.

The most commonly used and cost effective pavement maintenance activity is crack sealing. Crack seal material is placed into pavement cracks, generally 1/8 of an inch and larger to seal and fill to prevent the intrusion of water and incompressible material into the crack, and to reinforce the adjacent pavement. This year under the PMP the Town will apply crack seal material to approximately 19 lane miles, which is 3% of the Town's streets. A lane mile is a single lane width by a mile long.

Slurry seal is a form of maintenance to keep a newer street in good condition. This type of seal is thin in nature and meant to keep water out of minor cracks, and improve skid resistance. This year the Town will complete approximately 60 lane miles of slurry seal, which is 9% of the Town's streets.

Another category of street maintenance is an asphalt mill and overlay. This maintenance treatment removes and replaces a layer of asphalt without compromising the original pavement section. This work is more costly than a slurry seal and normally will be done to a street that has more than one distress. The distresses include minor alligator or fatigue cracking, joint reflection cracking, longitudinal / transverse cracking, thermal cracking, potholes, raveling and rutting. This year the Town will complete approximately 16 lane miles of mill & overlay, which is approximately 2% of the Town's streets.

Concrete restoration is also performed on concrete pavement streets. Concrete pavement streets that are determined to have adequate remaining design life receive concrete panel replacement, diamond grinding, and resealing of the joints. Panel replacement focuses on removing and replacing damaged panels restoring the structural integrity of the concrete pavement. Diamond grinding is performed after the panel replacement. Diamond grinding improves the smoothness of the pavement, which reduces the tire thumping noise, and improves safety by providing a skid resistant

surface. This year the Town will complete approximately 3 lane miles of concrete restoration, which is approximately 1% of the Town's streets.

A Street that has reached its end of service life, or has passed it, requires reconstruction, or full depth reclamation. Reconstruction, and full depth reclamation involves removing the pavement section in its entirety, moisture conditioning the subgrade and installing a new pavement section. Reconstruction essentially begins a new service life for the pavement. This year the Town will perform approximately 4 lane miles of reconstruction, which is approximately 1% of the Town's streets.

Staff also evaluates the condition of the Town's concrete curb, gutter, and public sidewalks within the projects' limits. These contracts will remove and replace damaged concrete infrastructure that is a hazard to pedestrians or to the traveling public.

The invitation to bid for construction of the various projects was advertised in December 2019. Bids were opened for the projects on January 29, and 30, 2020.

A list showing the various PMP & Capital reconstruction projects and the bid results is attached (**Attachment K**). All bids were checked for accuracy, references were checked, and all documents were reviewed for contract compliance. Staff believes that each of the recommended bidders is qualified to perform the work associated with the respective maintenance contract. A summary of the individual contracts with bid amount plus contingency and the contractors are shown on the following table:

2020 PMP & CAPITAL RECOMMENDED AWARD

| PROJECT | BID AMOUNT PLUS CONTINGENCY | CONTRACTOR |
|---|---|--|
| 2020 Asphalt Overlay Project | \$2,546,280 + \$254,628 (10%) Contingency | Schmidt Construction Company, Castle Rock, CO |
| 2020 Meadows Blvd/Prairie Hawk Reconstruction Project | \$3,082,244 + \$308,224 (10%) Contingency | Schmidt Construction Company, Castle Rock, CO |
| 2020 Crack Seal and Mastic Project | \$124,315 + \$12,432 (10%) Contingency | Vance Brothers, Inc. Denver, CO |
| 2020 Curb, Gutter and Sidewalk Replacement Project | \$702,285 + \$70,229 (10%) Contingency | Silva Construction Inc., Brighton, CO |
| 2020 Full Depth Reclamation Project | \$427,109 + \$42,711 (10%) Contingency | Chavez Construction Inc. Brighton, CO |

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|--------------------------|---|------------------------------------|
| 2020 Slurry Seal Project | \$1,758,422 + \$175,842 (10%) Contingency | Vance Brothers Inc., Denver, CO |
| TOTAL: | \$9,504,720 | |

It is anticipated that concrete repairs, and the reconstructions will begin in Early-April. The asphalt overlay and sealing portions will occur in the summer months. All PMP, and associated Capital projects, are expected to be completed in the fall.