



Transportation Department

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Subdivision Paving Local Improvement District Advisory Committee Minutes- March 19, 2014

Present: Bob Schuetze, Vince Hirsch, Kim Hedberg, Dick Piland, Jeff Wagener, Rich Blanchette, Bill Garner

Not present: Peter King Smith, Chuck Wibby, and Bob Loveman

County Staff: George Gerstle, Mike Cates, Mike Thomas, Dan Hershman, Barb Halpin

Guests: Approximately 9 members from the public

1. Meeting is called to order at 5:00 PM
2. The committee heard a brief presentation from the Transportation Departments Maintenance Division Manager Dan Hershman regarding maintenance of County Roads and Subdivision roads and the differenced in maintenance and rehabilitation. Mr. Hershman fielded questions from the committee as to the type of maintenance undertaken in subdivisions in the past and about the Counties use of "PQI" data.
 - a. The County Road Maintenance Budget is aprox. \$8.3 Million.
 - b. Discussion of the County PQI Data and its use.
 - c. Review of typical maintenance activities in subdivision roads.
3. Mr. Cates presented two options for use of the County's 20% funds as an option for the committee to consider. One option the County would perform approximately 20 miles of chip sealing of fair roads and under the second option the County would focus its funds on the residential collector roads. After questions and discussions it was approved by the committee for the County to proceed with further developing a plan for the committee to review utilizing the chip seal approach.
4. The Committee voted to approve the By Laws.
5. Mr. Hirsch inquired about the status of his information requests and Mr. Cates stated that he would review the ones that were missing and would respond to them.
6. The Board of Commissioners had approved Bill Garner as the replacement Committee member to fill the open position available.
7. The committee discussed the email being sent to them by members of the public. The SPLIDAC committee discussed if they were to be discussed at the meeting and who should reply to those emails. Mrs. Hedberg requested those emails be discussed at the meetings.
8. Public Input was received from members of the public:
 - a. Residents from Stonegate Subdivision inquired about the status of the changes to their LID Assessment for being included with Gunbarrell Green. Staff responded that the changes had been made and that the Treasurer's Office would be sending out revised notices in two weeks. Members from Stonegate Subdivision also stated that they on average only pay around \$700/ year in taxes and that as a result of this assessment they are receiving 40 % in additional taxes/assessments this year and for the next 15 years.

- b. A member of the public asked about the status of flood damaged roads and if they are factored into the LID. Staff responded that the flood damaged roads were being worked on separately from the LID and that county would seek reimbursement for the FEMA work if allowed. Compared to the entirety of the LID very few subdivision roads were affected by the flood event.

Action Items from meeting:

1. Staff to finalize information requests (Specifically the 28th of February and the 14th of March 2014)
2. Staff to provide the committee with the Preliminary Plans and documents associated with the Board Resolution.
3. Staff to prepare a cost estimate for providing a 2" overlay to the Reserve Subdivision for consideration at the next meeting.

Agenda Items for next meeting:

1. TBD

The meeting adjourned at 7:30 PM

March 14, 2014

To: Boulder County Commissioners, Boulder County Transportation, SPLIDAC

From: Vince Hirsch on behalf of SPLIDAC

Subject: Information Request/Written Form Response

The following are questions that are a result of field trip discussions last week and for development of an approach for selection of subdivision roads to preserve that is cost effective and equitable. Rather than discuss these questions in detail at the meeting, which takes up considerable time, a written response is preferred providing documentation that can be reviewed by all SPLIDAC members. Also, the SPLIDAC would also like to obtain a written response to my information request dated February 28, 2013. The meeting minutes should provide the status of information requests so that these items do not get lost in the shuffle.

- 1) Can the SPLIDAC committee be provided with contract details – specifications, statement of work including schedule, specific road segment and road condition details for the chip and seal contract that was discussed at March 13, 2013 Commissioners Business Meeting?

Road Maintenance Division: Contract renewal with Albert Frei and Sons for 1/4" and 3/8" chip seal cover coat aggregate (\$65,000).

I will need to locate where this is and then I can distribute.

Road Preparation Before Chip & Seal/Overlay

- 2) Do the cost estimates for chip & seal and overlay include the necessary preparation work - vegetation removal, pothole filling, seal of large cracks, patching, level of ruts, repair of broken edges, and sweeping? [At some level yes, however the chip seal estimates are intended for roads that do not have significant issues which would otherwise increase the cost.](#)
- 3) If not, what is the approximate cost for this type of work and will this be included in the bid package?

[Patching runs \\$95-\\$110 a ton.](#)

[Hot Poured Crack Sealant averages \\$3200 / ton](#)

[Sealing large cracks >2", level of ruts, repair of broken edges, etc would be considered part of the patching costs- essentially a 4" full depth replacement of the existing asphalt](#)

Chip & Seal or Overlay

- 4) When is a road that is for the most part (e.g. 90%) structurally sound, a candidate for chip & seal or overlay? The intent of the chip – seal is to hold the road in its current condition to delay resurfacing for 5+ years. If the chip –seal cannot accomplish this then a resurfacing would be the next logical option.
- 5) What is the minimum acceptable PQI that can be considered acceptable for chip and seal given that the focus is on preserving roads in 2014? This really needs to be evaluated and determined in the field with the PQI used as a tool to develop an overall method / starting point.
- 6) When is a road a candidate for overlay and what is the minimum acceptable PQI? Chip and seal is less than 1/3 the cost and therefore could be repeated to extend road surface life. This also needs to be evaluated in the field. As discussed previously a Chip Seal doesn't provide any structural integrity to the road. For the purpose of developing a budget for this program the guidelines were used that anything 0-5 would need to be replaced, 5+ would be resurfaced with a 2" (+/-) overlay or reconstructed completely. These roads will be evaluated in the field to determine their actual treatment.
- 7) When is an overlay a better choice than chip & seal? At greater than 3X the cost of chip and seal and not significantly greater surface life, there must be a significant purpose for this choice. The overlay is a better option than chip sealing because it provides structural integrity to the roadway and the chip seal is intended to keep moisture and the sun from breaking apart the fine particles in the asphalt, causing cracks, letting water underneath the road, etc. A Chip-Seal only functions as intended when it is part of an actual resurfacing plan for asphaltic roadways, which include overlay(resurfacing) as part of the program.

Structural Integrity

- 8) If a road has areas that are not structurally sound, can those areas be improved structurally without tearing up the whole road? No, since the structure of a road includes the subgrade..
- 9) When does it make sense to do complete rehabilitation of a road? It will vary from road to road but typically if you have to patch more than 50% of the roadway, if you have extensive alligator cracking that will come through as reflective cracking, or if other structural failure indicators (rutting, transverse cracking, etc.) indicate rehabilitation is more effective.

Double Surface Treatment Roads

- 10) What is Boulder County's definition of a double surface treatment (DST) road? I have not been able to locate a Boulder County definition of this road, however my personal experience is that this is a layer of stone topped with a layer of "tack" (tar/emulsion) and then a second layer of stone (tar) on top of that.
- 11) How is a DST road constructed and what is the cost per mile? Here is a video that shows this technique. https://www.youtube.com/watch?v=o_t9xVEeTf0 I was unable to locate a cost for this type of construction on the CDOT cost data forms. Using my own judgment and installing two layers of stone I estimate the cost to be around \$85,000 / mile.
- 12) Is a DST equivalent to a paved road (i.e., Hot Mix Asphalt (HMA) – Plains or Mountains)? No, a DST is an inexpensive way to "pave" a dirt road.
- 13) What is the expected surface life difference between DST vs. HMA? A DST road normally doesn't undergo any type of design standards whereas a HMA road is going to have some level of design or minimum standards applied to it. You can't really compare the two.
- 14) How many miles of DST roads do we have in the County and what is their current condition by segment and length? A spreadsheet with these details would be helpful to aid in furthering the development of a pavement preservation plan for this year and beyond. I will need to see if Maintenance has this information. For purposes as it relates to the subdivision paving program, when these roads are determined in the field we (Staff) will do an assessment of these roads and determine what type of rehabilitation will be required. We may obtain borings to determine the thickness and other information prior to making a decision.

PCC-Rigid

- 15) What is a PCC-rigid road and how many miles of this type exist in the County? This is essentially a concrete roadway. Whereas asphalt is a flexible pavement that is designed to be driven on and concrete pavement is defined in the industry as rigid (not flexible) and typically has a higher initial cost but if installed correctly will have a much longer life than asphalt. South Boulder Road (3.25 miles; multi-lane principle arterial) is the only county road with rigid pavement.
- 16) What is the treatment strategy for these subdivision roads and what is the cost per mile? One possible option for treatment is to replace failed sections of concrete within the roadway (with concrete) and it is normal to overlay a concrete road that is in fair condition with asphalt. These will need to be evaluated as they come up and are located, however it isn't anticipated that any subdivision roads consist of PCC Pavement.