

AGENDA  
HIGHLAND CITY COUNCIL MEETING  
January 19, 2016

**6:00 p.m. Work Session**  
**7:00 p.m. Regular City Council Session**  
Highland City Council Chambers, 5400 West Civic Center Drive, Highland Utah 84003

**6:00 P.M. WORK SESSION**

Election De-Brief and Discussion of Concerns

**7:00 P.M. REGULAR SESSION**

CALL TO ORDER – Mayor Mark Thompson  
INVOCATION – Tim Irwin  
PLEDGE OF ALLEGIANCE – Mayor Mark Thompson

**APPEARANCES**

**Time has been set aside for the public to express their ideas, concerns, and comments.**  
*(Please limit your comments to three minutes each.)*

**REPORTS/PRESENTATIONS:**

1. **PRESENTATION: Oath of Office** - Highland City Youth Council
2. **PRESENTATION: Utah Valley Women**
3. **REPORT: Highland Urban Deer Control Program** – Brian Cook

**CONSENT**

4. **MOTION: Modification of a Contract for Transcription Services of City Council Meeting Minutes** – C. Price Transcription LLC
5. **MOTION: Selection of Consultant to Prepare a Road Reconstruction Capital Plan** -
6. **RESOLUTION: Potential Expansion of the Snowbird Ski Resort Project** – American Fork Canyon

ACTION ITEMS

7. **RESOLUTION: City Council To Represent Highland City – Utah Valley Dispatch Board**
8. **MOTION: - Authorize Staff to bid ha5 Surface Treatment Road Maintenance Projects in the Amount not to exceed \$211,623.58 - Type III Slurry Seal Treatment not to exceed \$12,885 and \$41,976.43 for Crack Sealing – 2016 Spring Surface Treatments**
9. **MOTION: Authorization to Proceed with Construction of Sewer and Road Improvements – 10400 North**
10. **MOTION: Revising Section 10.5 of the Personnel Policy and Procedures Manual – Severance for At Will Employees**

MAYOR/ CITY COUNCIL & STAFF COMMUNICATION ITEMS

11. Revenue from Open Space Purchase and Questar Lease – Gary LeCheminant, Finance Director

ADJOURNMENT



*(These items are for information purposes only.)*

Description	Requested/Owner	Due Date	Status
Road Capital Improvement Plan for FY 15-16 <i>Prioritize and Communicate to Residents</i>	City Council		Continued Discussion
Determine Park Use for Recreation	City Council Parks Staff	2016	Staff to make Recommendations
HW Bldg. – PW Storage Status	City Council Mayor/PW	End of 2015	In Progress
Moratorium for the Town Center Overlay	City Council	January 2016	
Speed Sign Information Collected	Council Justin		In Progress
Salt Storage Bldg.	Council Justin	February 2, 2016	Engineer Receiving

CERTIFICATE OF POSTING

The undersigned duly appointed City Recorder does hereby certify that on this **14<sup>th</sup> day of January, 2016**, the above agenda was posted in three public places within Highland City limits. Agenda also posted on State (<http://pmn.utah.gov>) and City websites ([www.highlandcity.org](http://www.highlandcity.org)).

JOD'ANN BATES, City Recorder

- In accordance with the Americans with Disabilities Act, Highland City will make reasonable accommodations to participate in the meeting. Requests for assistance can be made by contacting the City Recorder at 801-772-4505, at least 3 days in advance to the meeting.
- The order of agenda items may change to accommodate the needs of the City Council, the staff and the public.
- This meeting may be held electronically via telephone to permit one or more of the council members to participate.

**THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS.**



**UTAH VALLEY**  
*Women*

Dear Mayor and Members of the City Council,

At the October Launch of our new organization, *Utah Valley Women*, mayors and leaders from most cities in Utah Valley, and women from many cities attended. We spent the evening identifying and discussing the five major problems women experience in Happy Valley.

I've sent you that list, and you can review it again on [www.UtahValleyWomen.com](http://www.UtahValleyWomen.com).

*Utah Valley Women* created The Utah Valley Women's Initiative to provide solutions to these problems, in ways that can be implemented in the short-term and long-term.

Moving forward, we are not meeting again as a large group until after we meet in smaller groups with women in each city. Therefore, we won't meet as originally planned, on January 15<sup>th</sup>, so please omit that from your schedules. Thank you.

**Utah Valley Women's Plan** is to:

1. Find three strong women in each of the Valley's 23 cities and meet with them to discuss/begin execution re: the solutions we have created (with many experts in Utah Valley) for the problems identified.
2. Meet monthly with women in each city. As the numbers grow we will request the use of a city facility for our (free) women-and-family-strengthening meetings.
3. Continue to communicate with all Mayors and City Councils so you are aware of the progress we are making towards our goal of helping the women in your city live their best lives.

We are committed to our motto: "We Are Women Helping Women Live Our Best Lives". One of our goals is to help make Happy Valley even happier for the women who live here. Thank you again for your continued support.

With Warmest Regards and Love for the Women in Your City,

*Paula Fellingham*, Founder

*Glynis Tolerico*, Executive Director

[www.UtahValleyWomen.com](http://www.UtahValleyWomen.com)

Contact Glynis Tolerico: [Glynis@UtahValleyWomen.com](mailto:Glynis@UtahValleyWomen.com)

Call 714.222.2523



# CITY COUNCIL AGENDA REPORT

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## Item # 4

**DATE:** Tuesday, January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** JoD'Ann Bates  
City Recorder

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**SUBJECT:** MOTION: MODIFICATION OF A CONTRACT WITH C. PRICE TRANSCRIPTION LLC.

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### **Background:**

The Highland City Council approved the contract in July of 2015. The contract expired on December 31, 2015. Staff is requesting that the contract be extended.

During the absence of the Treasurer Jody had been able to pick up the day to day responsibilities. Due to new employees just beginning and training that needs to take place it is necessary to request the transcription of the City Council Meeting Minutes continue and be re-evaluated in April.

Transcribing of the City Council Meetings consist of approximately 2 hours per hour of meeting. This means for every average 4 hour council meeting it take approximately 8-10 hours to transcribe the meeting, review the minutes and complete a draft for approval, this is time that can be utilized ensuring the treasurer duties are properly executed. Highland City signed a contract with C. Price Transcribing in July of 2015 for a term of 6 months. This is would extend the contract until April When the training and workload can be re-evaluated. The contract with C. Price is for an "as needed" basis, we are not obligated to have them do all the meetings, but foresee them doing the majority of them during this time.

The 2015-2016 budget holds \$1,500, of which \$1,100. has been expended. It is anticipated that for each meeting is 4 hours, it will take 8-10 hours to transcribe at \$20 per hour is equal to \$200 per meeting. This does not include longer more in-depth meetings, extra meetings, work sessions and off-site meetings. Staff will try to do as much of the transcribing as possible for the works sessions and off-site meetings to defer the costs, depending on time restraints and other responsibilities. Mid-year and end of the fiscal year adjustments will need to be made to account for the overage.

### **FISCAL IMPACT:**

Approximately \$1,600. to \$2,000.00 would need to be budgeted for the remainder of the fiscal year from GL#10-47-14

### **ATTACHMENTS:**

- Proposed Contract

## **AGREEMENT RELATING TO SERVICES FOR TRANSCRIPTION OF CITY COUNCIL MINUTES**

WHEREAS, Highland City ("City") and C. Price Transcription, LLC ("Price") desire to enter into a Agreement whereby Price may transcribe the minutes for public meetings as requested by City; and

WHEREAS, City has determined that it is in the public interest to enter into this Agreement based on the consideration it receives hereunder;

THEREFORE, in consideration of the promises, covenants, and conditions contained herein, and other good and valuable consideration, the parties agree as follows:

### **TERMS**

1. **SERVICES.** Price agrees to transcribe audio recordings of city meetings into written minutes as requested by City. The transcription will be prepared in a timely manner to allow for official adoption of the minutes at the next regularly scheduled meeting. It is anticipated the transcription will typically be completed within one week of receipt of the audio recording, except in circumstances that require additional time based on the length of the recording.
2. **REMUNERATION.** The City agrees to pay Price an hourly fee at the rate of \$20.00 per hour, which time shall be detailed in a monthly billing statement and submitted to the City for payment. If payment is not tendered within 30 days of receipt of the billing statement, a late fee of \$75.00 will be charged the City. Price will not bill more than four (4) hours per meeting hour.
3. **TERM.** The Services hereunder shall be rendered on an 'as needed' basis and will continue until April 30, 2016. This contract may be renewed at any time by mutual consent of the parties.
4. **TERMINATION.** This Agreement may be terminated by either party at any time for any reason. Termination of this Agreement may be communicated orally.
5. **STATUS.** Price shall be considered an independent contractor and not a city employee.
6. **SEVERABILITY.** The unenforceability or invalidity of any one or more provisions hereof shall not render any other provisions herein contained unenforceable or invalid and each term, covenant and condition hereof shall be enforced to the fullest extent permitted by law.
7. **INTERPRETATION AND ENFORCEMENT.** The laws of the State of Utah shall govern the validity, construction, performance and enforcement of this Lease.

**HIGHLAND CITY:**

**Attest:**

\_\_\_\_\_  
MAYOR MARK S. THOMPSON

\_\_\_\_\_  
CITY RECORDER

DATE:

**C. PRICE TRANSCRIPTION, LLC:**

\_\_\_\_\_  
DATE:

\_\_\_\_\_  
CAMILLE PRICE



# CITY COUNCIL AGENDA REPORT

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Item # 5

**DATE:** January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Nathan Crane, AICP  
City Administrator/Community Development Director

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**SUBJECT:** MOTION – SELECTION OF CONSULTANT FOR TO PREPARE A ROAD RECONSTRUCTION CAPITAL PLAN

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**STAFF RECOMMENDATION:**

Select a consultant to prepare a road reconstruction capital plan.

**BACKGROUND:**

In the fall of 2014, J-U-B Engineers prepared a road maintenance plan. As part of this plan Pavement Condition Index (PCI) values were established for all roads in Highland. However, the maintenance plan only addressed roads with a PCI value of A-C. The Mayor and Council have requested a road plan addressing roads with a PCI values D and F be addressed. There are 15.16 miles with a PCI value of D and 18.04 miles with a PCI value of F.

In the fall of 2016, the City Council directed staff to prepare a Road Reconstruction Capital Plan. An RFP was issued and three firms responded. At the January 12, 2016 Work Session, PEPG presented their proposal to the City Council.

Highlights of the PEPG proposal include:

- Monthly Technical Advisory Committee Meetings
- Validation of the D and F PCI Values in the JUB Report
- Coring samples of all D and F Roads
- Establish asphalt pavement design for all D and F Roads
- Prioritization of D and F Road Reconstruction
- Public Open House

**FISCAL IMPACT:**

Total Cost is \$89,260 and will be taken from reserves.

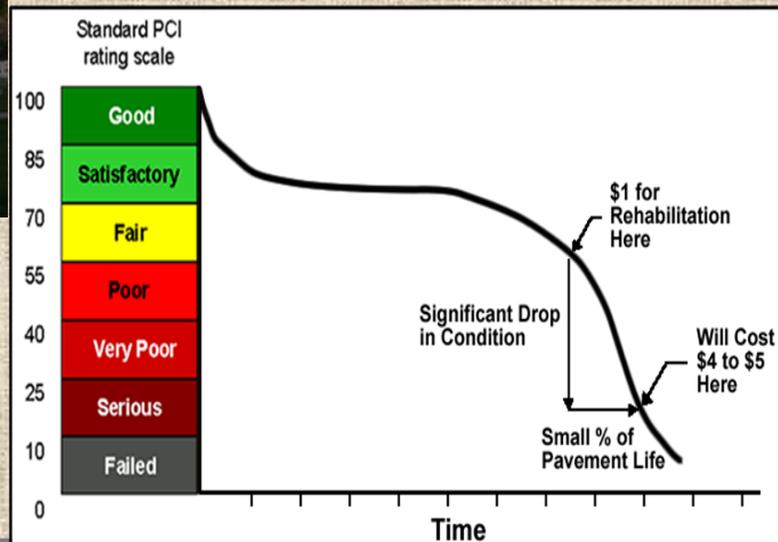
**ATTACHMENTS:**

PEPG Proposal

# Highland City



**PEPG CONSULTING** L.L.C.



## REQUEST FOR PROPOSAL ROAD RECONSTRUCTION MASTER PLAN



PEPG Consulting, LLC 8805 So. Sandy Parkway Sandy Utah, 84070  
O: 801-562-2521 F: 801-562-2551 [www.pegp.net](http://www.pegp.net)



December 10, 2015

Nathan Crane, AICP  
City Administrator – Community Development Director  
Highland City  
5400 West Civic Center Drive  
Highland, Utah 84003

Re: Request for Proposal – Road Reconstruction Master Plan

Dear Mr. Crane:

The PEPG/CME Team is pleased to submit our proposal for Highland City's Road Reconstruction Master Plan.

The PEPG/CME Team consists of experts in their respective field to provide the services to be performed in accordance with the RFP and the Scope of Work as outlined in our proposal. Not only does our team possess the necessary expertise and quality service, but we have in-depth experience with similar projects. Our proposed Project Manager, Larry Becknell, has completed several master plans similar to the City's requested services. Larry's years of experience working with Technical Advisory Committees (TAC) will provide synergistic efforts as we obtain policy direction, provide study findings and recommendations, and participate in work sessions with the TAC. Larry has also conducted several Open Houses for city master plans using UDOT's format for which Larry participated in developing.

It is our policy to maintain close communication and keep our clients apprised of current project conditions. We will also hold weekly internal project staff meetings during the study and recommendation phases of the project and participate in work sessions with the TAC and presentations to the City Council at strategic milestones.

The PEPG/CME Team and the undersigned authorized signature agrees to complete all required work as described in the RFP document according to the terms and conditions described therein.

The key contacts for this proposal are:

Ryan Kitchen, P.E. (Primary Contact)  
Manager of Engineering, PEPG  
8805 South Sandy Parkway  
O: 801-562-2521 x106 F: 801-562-2551

Larry A. Becknell, P.E. (Secondary Contact)  
Senior Project Manager  
8805 South Sandy Parkway  
C: 801-712-0715 F: 801-562-2551

We are very excited about the opportunity to work with Highland City on this extremely important project and would indeed be honored if selected to do so.

Respectfully,

Ryan Kitchen, P.E.  
PEPG Engineering Manager

## COMPANY NAME AND CONSULTANT TEAM BACKGROUND

PEPG Consulting, LLC (PEPG) has been doing business in the state of Utah for more than a quarter of a century providing full-service civil engineering and land surveying. We are pleased to provide Highland City with a team that is specifically targeted to provide an effective and successful Road Reconstruction Master Plan. CME Transportation Group (CME) and PEPG have successfully teamed together on past similar projects. CME and PEPG's parent company are housed right next door to each other. We offer presence that has worked seamlessly together for several years. Our Team's experience includes significant assignments in pavement management, pavement design, roadway designs and roadway master plan studies and reports. In addition to completing several projects very similar to Highland City's RFP for a Road Reconstruction Master Plan, our team has completed several pavement surface condition surveys and is very familiar with the model that was used in the City's prior studies and reports. More information on the background of each team member follows:

**Added Value**  
*PEPG & CME have worked together on several similar projects.*

### 

PEPG is a *local* firm that has been in business for over 30 years, providing full civil engineering design, land surveying, pavement management, asphalt pavement distress inventories, and roadway master plans services. The company is now a subsidiary of CMT, our parent company. The company name was changed from PEPG Engineering to PEPG Consulting in 2012. Since originally incorporating in 1984, PEPG has completed hundreds of roadway designs that have included reconstruction, widening of roadways, extensions, and improvement recommendations. PEPG's professionals collectively maintain registrations and licenses in Utah and several other states.



CME Transportation Group, Inc. is an established *local* firm experienced in the pavement design and construction and materials management areas. CME brings a history of experience in pavement design and construction management, including intimate familiarity with the details and requirements of Federal, UDOT and Local Government projects and the reporting required for each. *CME brings the ability to analyze more closely pavement distresses that a visual-only survey would not discover. This could save the city millions of dollars in the overall reparation of the D and F roads.*

**Added Value**  
*CME's pavement analysis capability could save the City millions of dollars to repair the D & F roads.*

CME's areas of expertise within the Pavement Design and Construction Management arenas are 1) design and research of pavements and construction materials, 2) field quality assurance of materials and construction practices, and 3) project dispute resolution. With limited staff, this is accomplished through training and certification over a broad range of materials and construction practices for each staff member.

**APPLICABLE EXPERIENCE**

PROJECT NAME	PROJECT DESCRIPTION
Road Estimate and Prioritization Study, Tooele County, UT	PEPG performed a road estimate and prioritization study for Tooele County at the end of 2014, very similar to Highland City’s project. This study included evaluating existing road conditions to determine the most economical maintenance strategy for each road. We worked with Tim Biel at CME to perform these evaluations. Using this information, we were able to summarize accurate cost estimates for each road based on what exactly was needed. We coordinated these road projects with the County to prioritize a road projects list. This list was used for roadway budgeting the following year.
Murray City Transportation Master Plan; Murray City	This consisted of a comprehensive report of all roadway, signals, and intersection improvements projected over a 5, 10 and 20 year period. Visual surveys in compliance with the Corps of Engineers’ PCI (Pavement Condition Index) model (ASTM D6433) was utilized to inventory all collector and arterial roadways. The visual surveys included the observation of all 19 pavement distress types listed in the PCI Model. The PCI was then used to establish maintenance and reconstruction strategies. Prioritization strategies included cost, safety, traffic volumes, and Benefit Cost Ratios. After detail cost estimates were calculated for each branch (roadway segment), the 5, 10 and 2 year list of roadway improvements were presented to the Technical Advisory committee (TAC) and the City Council for approval and adoption. Monthly meetings were held with the TAC and a public open house was conducted before the final presentation to the City County
Salt Lake County Pavement Management System, Salt Lake County, Utah	Conducted a study of available pavement management software to implement the County's first complete Pavement Management System. The software selected was "Infrastructure Management System II" {IMS}. This system is still in use by the County. Conducted the first 100% inventory of Salt Lake County's roadway network to produce Pavement Condition Indexes {PCI} which were downloaded into the IMS and massaged by the system's algorithm to produce roadway pavement rehabilitation strategies. The program would produce life cycle curves indicating the most effective management of reconstruction strategies and the appropriate scheduling of the recommended improvement activities. It was estimated that Salt Lake County was able to provide more effective and appropriate maintenance and reconstruction strategies that created an additional opportunity for 60% more value in their roadway dollars by eliminating strategies that were not high on benefit cost ratio and that were not appropriate at that stage of deterioration. Other models that were considered included APWA's PAVER and the Corp of Engineers’ PCI model.
Nampa City Pavement Management Plan, Canyon County, Idaho	A member of PEPG Staff, Mike Russell, managed a team of technicians to perform an in-depth analysis of the City of Nampa’s pavement and later provided an asset management plan with a phased, prioritized, and cost-estimated management and maintenance plan. GIS data was used to produce maps of problem areas, as well as a 7-year cyclical plan to provide mill and overlayment, slurry seals, chip seals, and reconstruction needs. This assisted the City not only in their pavement and roadway needs, but the Plan was also utilized for budgeting and planning purposes. Specific problem areas were identified and Engineer’s

	Estimates associated with said areas were provided for more immediate planning and budgeting purposes.
Draper City Roadway Master Plan, Draper, Utah	All collectors and arterials in the City were inventoried with a visual inspection of roadway surface condition using the <b>Corps of Engineer's PCI model</b> . Monthly meetings with the Technical Advisory committee (TAC) were held for City input and project direction. After compiling the table of <u>Current Roadway Conditions</u> , cost estimates were prepared and a prioritization matrix was produced. The City's Roadway Master Plan along with a prioritized list of recommendations for maintenance strategies was display in a Public Open House and then to the City Council for approval and adoption.
St. George Roadway Master Plan, St. George, Utah	The St. George Roadway Master Plan included the identification of 5, 10, and 20 year roadway maintenance and reconstruction projects that were prioritized with construction cost estimates and financially constrained for presentation to the City Council. Findings and recommendations were coordinated with a Technical Advisory Committee (TAC) monthly and public meetings were held at local libraries and other public facilities to obtain public input and provide the local citizens with updates on project progression. Technical advice was obtained and progress was presented to the TAC monthly for direction and feedback. Pavement surface conditions were rated by visually inventorying all roadways for Pavement Condition Index (PCI). A final presentation was presented to the City Council for approval and adoption.
School Zone Design Standards, State of Utah	Larry served as a member of the Utah State School Zone Safety Committee which helped formulate changes in school zone legislation and school zone geometric design for the State of Utah. Design standards were significantly modified to increase school zone safety and encourage more motorists' compliance with the 20 mph speed limits. The Utah State Legislature passed the School Zone Safety Act which implemented and mandated the application and installation of these standards throughout the state. Subsequent studies showed an increase in school zone compliance and a significant decrease in school zone accidents. <b>School Zones should be a consideration as a safety factor to consider when prioritizing roadway maintenance and reconstruction activities.</b>
Washington County Roadway Maintenance Study	Produce a County wide prioritization of roadway maintenance strategies. All collector and arterial roadways under the County's jurisdiction were visually inspected for all 19 pavement distress types for extent and severity. A Pavement Condition Index was produced as a result of the visual roadway surface inspection. Using the Corps of Engineers' PCI model, maintenance and reconstruction strategies were compiled and prioritized for implementation. A Technical Advisory Committee was established by the county staff for monthly direction and input. One public open house was held to obtain public input and buy in. Cost estimates were prepared for all recommendations and financial sources were preliminarily identified. The resulting list of all recommended improvements were presented to the Washington County Council for approval and adoption.
Salt Lake City, Circulation Study, Utah	As Project Manager for the Sugarhouse Parking and Circulation Study for Salt Lake City, Larry made recommendations for access, road connections and closures, and road improvements. He also coordinated with citizens, City staff, and several city agencies including the Sugarhouse Business District and the Downtown Alliance. <b>Circulation and connectivity should be considered when</b>

	<b>prioritizing roadway maintenance and reconstruction activities.</b>
I-15 Corridor Reconstruction Utah County	Project consisted of a 20 mile reconstruction in Utah County. Provided corridor evaluation and asphalt section pavement designs over entire corridor. Designs included identification and justification of mechanistic criteria to be used within the AASHTO 1993 Design Practice.
Salt Lake International Airport Runway 16L – 34R Rehabilitation Salt Lake City	Participated as a member on the Technical Panel that was brought together to combine the expertise of the Salt Lake Department of Airports (SLCDA) and representatives of the construction industry to identify possible improvements to the process of design, construction, and maintenance for the runway rehabilitation project.
Wendover Airport Runway 8 – 26 Extension and Rehabilitation Wendover	Provided the geotechnical and Falling Weight Deflectometer investigation of the existing pavement and extension footprint, along with design of the extension in accordance with FAA Advisory Circular 150/5320-6E.
Wendover Airport Taxiway A1 Rehabilitation Wendover	Provided a new design of a roadway section with subsurface water issues. The new PCCP design was selected to minimize work during the parallel I-15 project and incorporated a free drawing base layer, a permeable lean concrete layer, a full pavement drainage system and oversize coarse aggregate for load transfer.
Pony Express Parkway Pavement Evaluation, Saratoga Springs	Provided an evaluation of recently constructed pavement that was exhibiting early structural distress. A field investigation was performed along with an analysis of pavement design practices, materials conditions and construction practices. Remediation recommendations were then provided.
400 North, Redwood to 800 West Saratoga Springs	Provided a rehabilitation design of a roadway section with significant surface distress issues. The overlay with fabric design was selected to maximize the reuse of the existing pavement while providing a new surface with a minimum of 15 year performance period.
Market Street and Riverside Drive New Roadways, Saratoga Springs	Provided a new design of asphalt roadway sections in an area with soft subgrades and high water contents. New HMA surfaces were designed with the AASHTO 1993 process and then optimized for individual layer thicknesses and distress predictions using the AASHTO MEPDG.

## PROJECT STAFFING

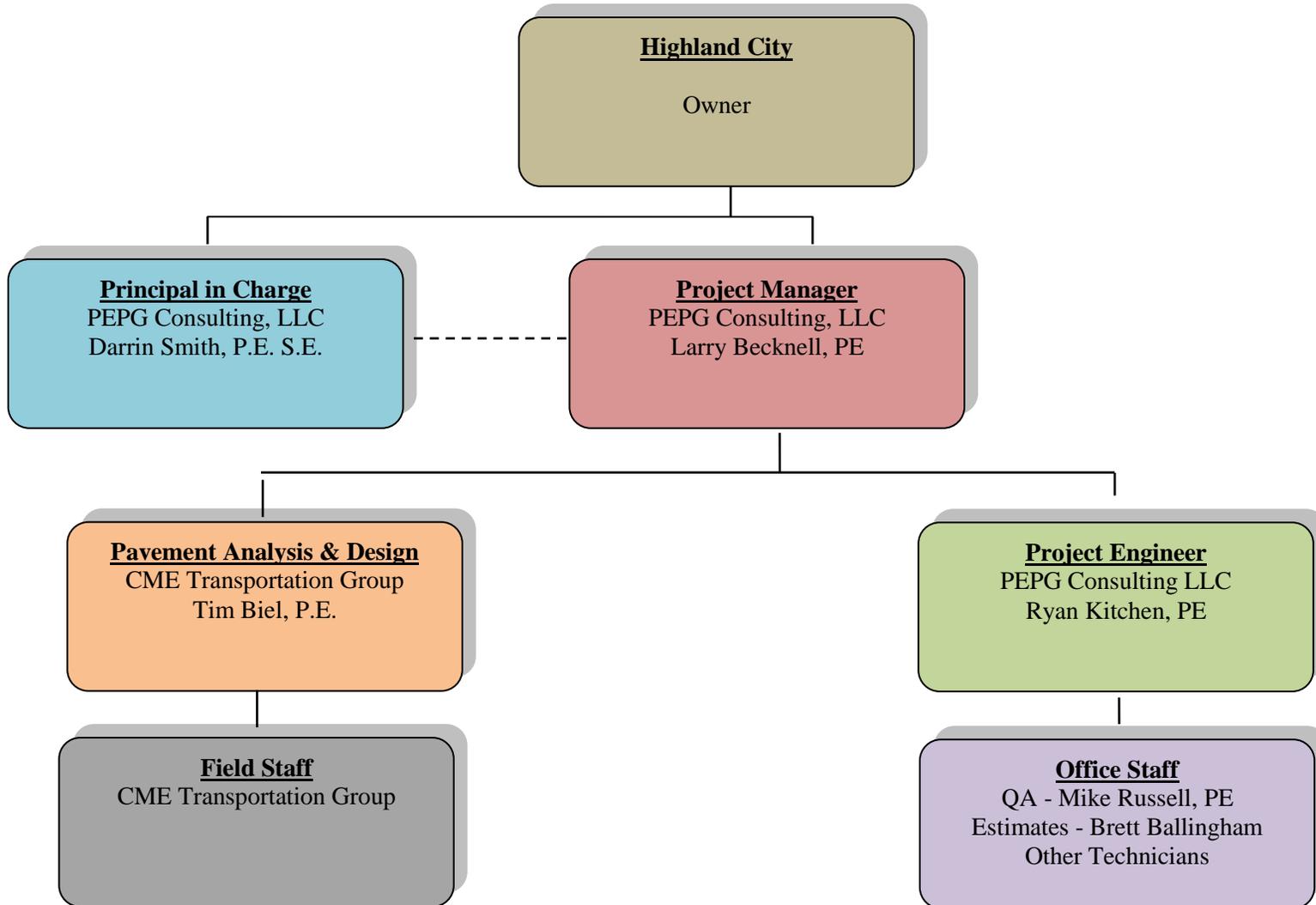
PEPG is pleased to be teamed with CME Transportation Group to offer Highland City the very best key individuals possessing skills and experience directly related to Highland City's RFP. The following bullets illustrate selected items that describe some of our more related skills and experience from our employees:

- Experience with the 19 distress types defined by the Army Corps of Engineers' ASTM D6433-11. These individuals as listed in the organizational chart include Tim Biel, P.E., Larry Becknell, P.E., Mike Russell, P.E.
- Direct experience with road reconstruction master plans. Assigned personnel includes Larry Becknell, P.E., Mike Russell, P.E., and Ryan Kitchen, P.E.
- Public involvement activities including open houses and presentations to City Councils. Extensive public involvement experience with State and Municipalities assigned to this project are Mike Russell, P.E., Larry Becknell, P.E. and Tim Biel, P.E.
- Brett Ballingham has significant experience in providing cost estimates for roadway maintenance treatments to full and complete reconstruction of existing roadways. Ryan Kitchen also has a vast amount of experience designing and producing engineer's estimates of probable cost.
- Larry Becknell has compiled and produced several major Roadway Master Plan Reports for Utah cities. These reports included the establishment of PCI's in accordance with ASTM D6433 and a complete list of prioritized maintenance and reconstruction strategies. The recommended improvements were tabulated in 5, 10, and 20 year categories.
- Tim Biel, with his extensive service at UDOT and his own business, brings more knowledge of pavement design, asphalt concrete and pavement forensics than any other person that can be offered Highland City. All this along with his detailed knowledge of pavement life cycles will truly be an added value to Highland City.

No engineer or staff personnel assigned to this project are without significant experience similar or identical to this proposed master plan.

The organizational relationships of the PEPG/CME team are displayed in the Organization Chart on the next page.

HIGHLAND CITY ROAD RECONSTRUCTION MASTER PLAN ORGANIZATION CHART  
(Key Assignments Only)



All of our assigned key personnel have years of experience with skills directly needed to complete a successful Road Reconstruction Master Plan. The following chart indicates the total years' experience of key personnel assigned to this project only.

Employee	Years of Experience	Education/Licenses
<i>Larry Becknell, P.E. (PEPG)</i>	30	B.S. Civil Engineering M.E. Civil Engineering Certification of Management Professional Engineer, Idaho, Georgia, Utah (#169696-2202)
<i>Ryan Kitchen, P.E. (PEPG)</i>	12	B.S. Civil Engineering M.S. Civil Engineering A.S. General Studies Professional Engineer, Idaho, Utah (#7544732-2202)
<i>Darrin Smith, P.E. (PEPG)</i>	23	B.S. Civil Engineering A.S. Computer Science Professional Engineer, ID,NV,WY,WA,AZ,NM,SD, Utah (272207-2202)
<i>Tim Biel, P.E. (CME)</i>	20	M.S. Civil Engineering B.S. Civil Engineering Professional Engineer, Wyoming, Nevada, Utah (320546)

## SCOPE OF WORK WITH SCHEDULE

PEPG/CME's Scope of Work is divided into Tasks and Subtasks that feature all major and significant components of the Master Plan. One of the most important elements of many master plans includes the formation of a Technical Advisory Committee. A brief narrative of its purpose and use is discussed before presenting the detailed tasks in the full breakdown structure.

The Technical Advisory Committee (TAC) will consist of the City Administrator, Operations Superintendent, Road superintendent, and a City Council member or Mayor. The TAC will provide the Consultant with policy direction approval for recommended prioritization strategies, review and approval of study findings, approval of strategies that will produce cost savings, review cost estimates, and generally provide monthly guidance and input on study PCI findings and monthly progress. The TAC and City Council will also review and approve an Open House format and agenda if desired. A general scope discussion follows and is then followed by the detailed line item scope, sometimes referred to as a work breakdown structure.

Other components of the overall scope include monthly meetings with the TAC and strategic milestone work sessions with the City Council. **Initial pavement cores will be taken and analyzed to provide adequate pavement design.** The COE ASTM D6433-11 model only surveys the pavement surface. This is not adequate to properly design a pavement section nor to determine if more cost saving measures may be taken in lieu of total pavement reconstruction. **This effort may increase the base cost but will more than pay for itself if only a few roadway segments can be given a new effective life cycle by less than total reconstruction measures.**

**Added Value**  
*Just a few of the D or F roadway segments than can be shown to benefit from partial reconstruction can potentially save the cost of the entire Plan.*

The current repair cost estimate is based on PCI condition of all of the roadway segments, as determined in the 2014 5 Year Road Maintenance Management Plan developed by JUB Engineering. One of the main concerns with the ASTM D 6433 PCI is that it is all visual, and thermal/environmental distresses are counted similar to structural distresses. At the systematic level this will help with programmatic decisions. However, at the individual project level, the rehabilitation applications are significantly different, individual cracking distresses need to be defined as structural, surface environmental or full-depth environmental. In many of the borderline cases, this can only be done through coring and visual inspection of the underlying layers.

Currently, all repair estimates assume removal and replacement of asphalt, which is at best, worst-case. To provide a proper prioritization of roadway segments, specific investigations must be performed to determine where existing pavement can be saved and what options are available. The use of recycling applications, such as Full-Depth Reconstruction (FDR), Cold in-Place Recycling (CIR), Mill and Overlay with a fabric or even a simple Mill and Overlay approach.

Additionally, within the existing D and F road list, different levels of repair only address based percentage. It has been our experience that when more than 30% of a surface or base layer needs repair, it is actually cheaper to remove and replace the whole layer. Contractors are extremely efficient

at mass removal and placement. Individual selections that need to be removed sporadically tend to take much longer and are labor intensive. Additionally, our approach is to look at other options for base stabilization or repair, such as the use of fabrics and geogrids; lime, cement or asphalt emulsion stabilization; or even something as simple as rock capping. Within the Highland area, a number of soft soils exist. This is always a concern for constructability. Any removal of existing base leads to the potential for pumping a subgrade, which results in the preventable need to over-excavate or stabilize a base just for construction purposes.

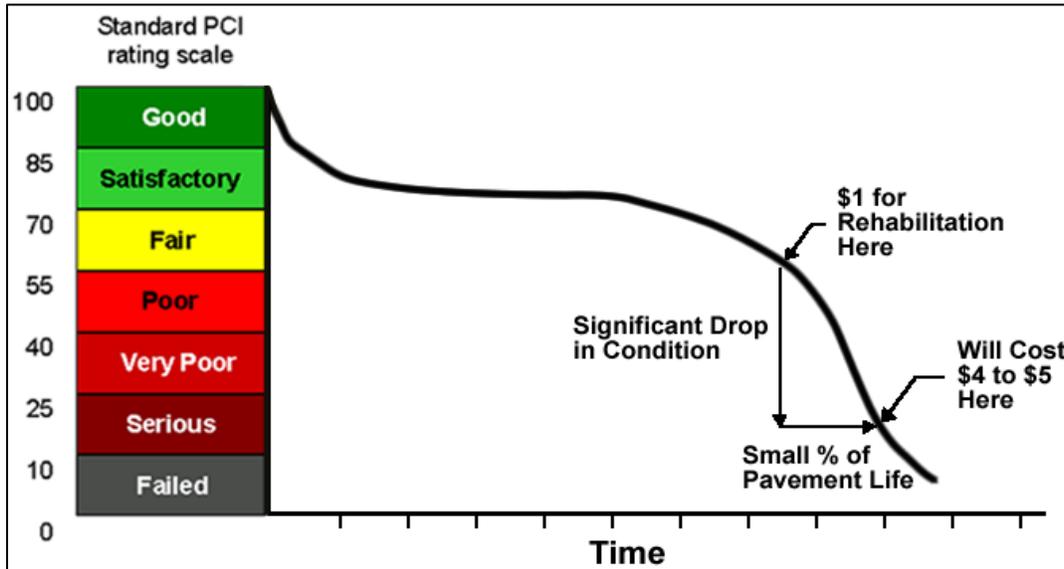
As with any structural application, and a pavement is indeed a structure, the design needs to incorporate proper materials design and selection into the repair plan. Roads that are designed for low volumes need to be designed with higher durability mixes, with characteristics such as higher effective virgin binder, lower permeability and finer gradations. More traditional high stability mixes can be used on higher volume roads, however it is highly recommended that a preservation program be put in place to protect the surface from weathering. Appropriate preservation programs begin after 1 or 2 years, and consist of periodic surfacing with a chip slurry or sand seal application.

A good example of this is sections of 6000 West. There are a number of locations where visual observation of the distresses indicates primarily environmental distresses with than 10% showing surface deformation. These sections would be drilled with a 4" diameter core on existing cracks to determine depth of the cracking, and then the DCP would be used to develop and understand the existing base quality and consistency. If visual review of the cores and DCP results are supportive, large sections of 6000 West may be candidates for rehabilitation with a mill and overlay or CIR approach, rather than jumping to reconstruction. This is similar to 400 South in Saratoga Springs, where the surface had a similar look, however coring identified that all of the distresses were limited to the 1.5" layer.

Once individual road segments are properly categorized for type of rehabilitation, it is recommended that prioritization of individual roads within D and F classes be based on a combination of traffic volume, location, potential size of project and funding category. There are a number of current and historical pavement management programs and studies that give recommendations for distribution of annual funds based on pavement categories. The most common approach, and one that we recommend is based on the following:

- A – 10% of Funds
- B – 20%
- C – 40%
- D – 20%
- E – 10%

As seen in Figure #1 taken from UDOT's pavement management program, the benefit derived from a dollar spent in preservation (A-C roads) is 6 times higher than dollars spent in rehabilitation (D roads) and 10 times higher than dollars spent on reconstruction (F roads). For the long-term health of the system, it is more important to prevent A, B and C roads from slipping into D and F, then to spend significant dollars to fix D and F. Based on the above split, 70% of funds are spent on preservation, where 30% are spent on repairing D and F roads, slowly bring the system back into an A-C category.



After field analysis is finished and pavement designs are complete, all roads will be designed and detail estimates prepared. After several meetings with the TAC and working sessions with the Council, the improvement list will be prioritized according to the approved prioritization strategies. A digital working manual will be updated with TAC and Council comments and direction. An Open house will then be held, if included in the scope, as detailed in Task 9. All final designs, prioritization lists, open house comments with responses, and the final **Highland City Road Reconstruction Master Plan** will be presented to the City Council for approval, adoption or other appropriate action.

The proposed detailed scope or breakdown structure is provided in the standard Tasks and Subtasks format. This scope matrix was used to produce the project schedule.

The PEPG Team recognizes that the performance of the pavement section designed and constructed with projects is a critical element. Roads are the basis for performance and development of areas for the next 20 years or more. We also recognize that the feasibility of any project is based on getting the best value of the work for the available funds. With these goals in mind, the overall approach of CME towards pavement design is based on use of the best AASHTO pavement design practices available to provide a strong and durable pavement section that meets the needs and desires of the Owner, is within their experience and abilities to maintain, and is accurately designed to provide a quality pavement without the unnecessary conservativeness that is typical of less experience designers. **Therefore, our approach includes increased efforts during the design phase producing designs that are efficient and allow for the proper use of recycled materials where appropriate, but not setting for lower quality materials that result in premature distress.**

**Task 1 Project Contract Negotiations**

- Subtask 1.1 Refine Scope and schedule with City Administrator and officials
- Subtask 1.2 Final negotiations on project firm fixed fee
- Subtask 1.3 Contract execution

**Task 2 Kickoff Meeting**

- Subtask 2.1 Prepare kickoff meeting agenda
- Subtask 2.2 Conduct kickoff meeting with the TAC
- Subtask 2.3 Prepare meeting minutes including approved study procedures
- Subtask 2.4 Begin the initial digital format document for the project manual.

**Task 3 Conduct Monthly TAC Meetings**

- Subtask 3.1 Prepare agenda for monthly TAC meetings.
- Subtask 3.2 Implement recommendations and directions provided by the TAC
- Subtask 3.3 Continue updates of the digital manual as directed and approved by the TAC

**Task 4 Conduct Initial Validation of D & F Roadway PCIs**

- Subtask 4.1 Using the more current version of ASTM D6433-11, confirm PCI's as Issued in the D & F rated roads publication
- Subtask 4.2 Conduct a visual inventory of distresses as revealed below the pavement surface only
- Subtask 4.3 Analyze data with more detailed coring investigations
- Subtask 4.4 Prepare finding's for TAC discussion and policy direction

**Task 5 Design Pavement Sections**

- Subtask 5.1 Conduct 4" coring samples where surface pavement distresses indicate a potential for reclassification and new recommendations on full depth deterioration
- Subtask 5.2 Create a final list of Highland City's pavement conditions for D & F Roads using published PCIs and additional full depth investigations
- Subtask 5.3 Establish asphalt pavement designs for all D & F roads
- Subtask 5.4 Complete pavement typical sections and correlate with the City Standards
- Subtask 5.5 Present findings to the TAC with special attention to those roads with cost saving potential in lieu of full reconstruction.
- Subtask 5.6 Participate in a work session with City Council to present findings to date

**Task 6 Produce Recommended Roadway Maintenance Strategies**

- Subtask 6.1 Utilizing findings in Task 5, make recommendations to the TAC for consideration of those roads and significant section of roads that may not need complete reconstruction
- Subtask 6.2 Calculate cost savings of recommendations

**Task 7 Complete Designs for Reconstruction**

- Subtask 7.1 Obtain Cross section surveys to provide detailed geometric conditions and existing asphalt and roadway widths
- Subtask 7.2 Coordinate with City staff to finalize Right-of-Way requirements
- Subtask 7.3 Establish design drawings with cross sectional details.
- Subtask 7.4 Develop cost estimates for all D & F road designs

Subtask 7.5 Present road designs and estimates to the TAC for review and approval

Subtask 7.6 Participate in a work session with City Council to present designs

**Task 8 Prioritization of D & F Roadway Reconstruction**

Subtask 8.1 Create a recommended list of prioritization strategies for presentation to the TAC

Subtask 8.2 After TAC approval, establish the matrix of prioritized road reconstruction and maintenance activities

Subtask 8.3 Present study findings in a working session

Subtask 8.4 Update and make final revisions to the digital manual as directed by the TAC

Subtask 8.5 Present study findings in a working session with City Council

Subtask 8.6 Complete the first draft of the **Roadway Reconstruction Master plan**

**Task 9 Public Open House (if included)**

Subtask 9.1 Establish open house format with the TAC

Subtask 9.2 TAC to select Open House site

Subtask 9.3 Consultant to produce presentation boards, name tags, handouts, court reporter and tables for comments. Consultant and City Staff as well as City Officials may participate in the group tours utilizing the presentation boards.

Subtask 9.4 Create notices for potential advertising, inserts in local utility bills, and public facility boards.

Subtask 9.5 Compile all comments and suggestions in a report format for presentation to the TAC and City Council

Subtask 9.6 Update the digital manual as directed by the TAC and City Council

**Task 10 Finalize the Road Reconstruction Master Plan**

Subtask 10.1 Prepare final draft report for TAC review and approval

Subtask 10.2 Present final draft to City Council in a working session.

Subtask 10.3 Prepare Final **Road Reconstruction Master Plan**

Subtask 10.4 Last TAC meeting for review and approval

Subtask 10.5 Final City Council meeting for official presentation, approval and adoption

Highland City-Road Reconstruction Mater Plan

ID	Task Name	Duration	Start	Finish	Jan 3, '16	Jan 10, '16	Jan 17, '16	Jan 24, '16	Jan 31, '16	Feb 7, '16	Feb 14, '16	Feb 21, '16	Feb 28, '16	Mar 6, '16	Mar 13, '16	Mar 20, '16	Mar 27, '16	Apr 3, '16	Apr 10, '16	Apr 17, '16	Apr 24, '16	May 1, '16	May 8, '16	May 15, '16	May 22, '16	May 29, '16	Jun 5, '16		
1	<b>Project Contracts Negotiations</b>	9 days	Mon 1/4/16	Thu 1/14/16	[Cyan bar]																								
2	<b>Kickoff Meeting</b>	1 day	Tue 1/19/16	Tue 1/19/16			[Cyan bar]																						
3	<b>Conduct Monthly TAC Meetings</b>	66 days	Mon 2/22/16	Mon 5/23/16																									
4	-Meeting 1	1 day	Mon 2/22/16	Mon 2/22/16								[Cyan bar]																	
5	-Meeting 2	1 day	Mon 3/21/16	Mon 3/21/16																									
6	-Meeting 3	1 day	Mon 4/18/16	Mon 4/18/16																									
7	-Meeting 4	1 day	Mon 5/23/16	Mon 5/23/16																									
8	<b>Conduct Initial Validation of D &amp; F Roadway PCI</b>	43 days	Wed 1/20/16	Fri 3/18/16																									
9	<b>Design Pavement Section</b>	60 days	Mon 2/1/16	Fri 4/22/16																									
10	<b>Produce Recommended Roadway Maintenance Strategies</b>	4 days	Wed 4/13/16	Mon 4/18/16																									
11	<b>Complete Designs for Reconstruction</b>	55 days	Mon 2/15/16	Fri 4/29/16																									
12	<b>Prioritiation of D &amp; F Roadway reconstruction</b>	6 days	Fri 4/29/16	Fri 5/6/16																									
13	<b>Public Open House (if included)</b>	1 day	Tue 5/17/16	Tue 5/17/16																									
14	<b>Finalize the Roadway Reconstruction Master Plan</b>	11 days	Tue 5/17/16	Tue 5/31/16																									

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

**REFERENCES**

Name	Company	Project Reference
Rod Thompson, PLS Roads Director	Tooele County 47 South Main Street Tooele, Utah 84074 435-830-2016	PEPG – Tooele County 2014 Transportation Prioritization Plan, Mormon Trail Road, South Mountain Road, Ophir & Soldier Canyon Roads
Mark Edwards Capital Facilities Manager	City of Saratoga Springs 1307 North Commerce Drive, Suite 200 Saratoga Springs, UT 84045 801-766-6504	PEPG – Market Street & Riverside Drive Roads
Nestor Gallo, PE City Engineer	American Fork City 275 East 200 North American Fork, UT 84003 801-763-3060	PEPG – 700 North & 900 East
Dave Demas, P.E.	Five County Association of Governments 1070 West 1600 South, Bldg B St. George, Utah 84771 435-673-3548 (W) 435-879-1060 (C)	Larry Becknell - St. George Road Master Plan
Doug Hill Public Services Director	Murray City 4646 Riverside Drive Salt Lake City, Utah 84123	Larry Becknell – Murray City Roadway Master Plan

**APPENDIX - KEY INDIVIDUAL RESUMES**

**LARRY BECKNELL, P.E.**  
**PEPG SENIOR PROJECT MANAGER**

**AREAS OF EXPERTISE & EXPERIENCE**

Over 30 years’ experience in municipal and consulting engineering, management, and public involvement. Larry has served as the City Engineer for the second largest city in Georgia; Program Development Engineer and Transportation Engineer for Salt Lake County; and is a currently a Senior Project Manager with PEPG.

Other related experience includes: Land Development (Residential and Commercial), **Pavement Management**, Flood Control Programs, FEMA Disaster Documentation, Impact Fees, Partnering Facilitator, Expert Witness and **Transportation Master Plans**.

**Sample Project Experience.**

**Murray City Transportation Master Plan; Murray City, UT**

Larry led this project over a period of one year. The project produced a comprehensive report of all roadway, signals, and intersection improvements projected over a 5, 10 and 20 year period. Visual surveys in compliance with the Corps of Engineers’ PCI (Pavement Condition Index) model (ASTM D6433) was utilized to inventory all collector and arterial roadways. The visual surveys included the observation of all 19 pavement distress types listed in the PCI Model. The PCI was then used to establish maintenance and reconstruction strategies. Prioritization strategies included cost, safety, traffic volumes, and Benefit Cost Ratios. After detail cost estimates were calculated for each branch (roadway segment), the 5, 10, and 20 year list of roadway improvements were presented to the Technical Advisory committee (TAC) and the City Council for approval and adoption. Monthly meetings were held with the TAC and a public open house was conducted before the final presentation to the City Council.

**Salt Lake County Pavement Management System, Salt Lake County, Utah**

Larry conducted a study of available pavement management software to implement the County's first complete Pavement Management System. The software selected was "Infrastructure Management System II" (IMS). This system is still in use by the County. Larry also conducted the first 100% inventory of Salt Lake County's roadway network to produce Pavement Condition Indexes (PCI) which were downloaded into the IMS and massaged by the system's algorithm to produce roadway pavement rehabilitation strategies. The program would produce life cycle curves

**Education**

*M.E. Civil Engineering, BYU  
 B.S. Civil Engineering, BYU  
 Certificate of Management – U of U*

**Licenses**

*Professional Engineer  
 Georgia, Utah (169696-2202)*

**Professional Societies**

*American Society of Civil Engineers  
 American Public Works Association  
 Past President  
 Institute of Transportation Engineers  
 Past President  
 American Consulting Engineers Council  
 Past President*

**Specialized Training**

- *HEC 1 and HEC 2 – University of Austin*
- *CM, HCS, Land Development Design, and Traffic Calming – Northwestern University, Chicago*
- *Detention Basin Design – University of Kentucky*
- *Traffic Engineering – Auburn University*
- *MUTCD – University of Alabama*
- *Advanced Surveying – Southern Technical Institute, Marietta, Georgia*
- *HI-CAP – TRB, Salt Lake City*
- *ASTM D6433-11 Pavement Condition Surveys*

indicating the most effective management of reconstruction strategies and the appropriate scheduling of the recommended improvement activities. It was estimated that Salt Lake County was able to provide more effective and appropriate maintenance and reconstruction strategies that created an additional opportunity for 60% more value in their roadway dollars by eliminating strategies that were not high on benefit cost ratio and that were not appropriate at that stage of deterioration.

Other models that were considered included APWA's PAVER and the Corp of Engineers' PCI model.

#### **Draper City Roadway Master Plan, Draper, Utah**

All collectors and arterials in the City were inventoried with a visual inspection of roadway surface condition using the **Corps of Engineer's PCI model**. Monthly meetings with the Technical Advisory committee (TAC) were held for City input and project direction. After compiling the table of Current Roadway Conditions, cost estimates were prepared and a prioritization matrix was produced. The City's Roadway Master Plan along with a prioritized list of recommendations for maintenance strategies was display in a Public Open House and then to the City Council for approval and adoption.

#### **St. George Roadway Master Plan, St. George, Utah**

The St. George Roadway Master Plan included the identification of 5, 10, and 20 year roadway maintenance and reconstruction projects that were prioritized with construction cost estimates and financially constrained for presentation to the City Council. Findings and recommendations were coordinated with a Technical Advisory Committee (TAC) monthly and public meetings were held at local libraries and other public facilities to obtain public input and provide the local citizens with updates on project progression. Technical advice was obtained and progress was presented to the TAC monthly for direction and feedback. Pavement surface conditions were rated by visually inventorying all roadways for Pavement Condition Index (PCI). A final presentation was presented to the City Council for approval and adoption.

**School Zone Design Standards, State of Utah** — Larry served as a member of the Utah State School Zone Safety Committee which helped formulate changes in school zone legislation and school zone geometric design for the State of Utah. Design standards were significantly modified to increase school zone safety and encourage more motorists' compliance with the 20 mph speed limits. The Utah State Legislature passed the School Zone Safety Act which implemented and mandated the application and installation of these standards throughout the state. Subsequent studies showed an increase in school zone compliance and a significant decrease in school zone accidents. **School Zones should be a consideration as a safety factor to consider when prioritizing roadway maintenance and reconstruction activities.**

#### **Washington County Roadway Maintenance Study**

Washington County asked Larry to produce a County wide prioritization of roadway maintenance strategies. All collector and arterial roadways under the County's jurisdiction were visually inspected for all 19 pavement distress types for extent and severity. A Pavement Condition Index was produced as a result of the visual roadway surface inspection. Using the Corps of Engineers' PCI model, maintenance and reconstruction strategies were compiled and prioritized for implementation. A Technical Advisory Committee was established by the county staff for monthly direction and input. One public open house was held to obtain public input and buy in. Cost estimates were prepared for all recommendations and

financial sources were preliminarily identified. The resulting list of all recommended improvements were presented to the Washington County Council for approval and adoption.

#### **Salt Lake City, Circulation Study, Utah**

As Project Manager for the Sugarhouse Parking and Circulation Study for Salt Lake City, Larry made recommendations for access, road connections and closures, and road improvements. He also coordinated with citizens, City staff, and several city agencies including the Sugarhouse Business District and the Downtown Alliance. **Circulation and connectivity should be considered when prioritizing roadway maintenance and reconstruction activities.**

#### **I-15 Reconstruction Design/Build Project; Utah Department of Transportation, Salt Lake County, Utah**

As a principal for the project, Larry helped UDOT evaluate the capability and design of rebuilding approximately 16 miles of I-15 in Salt Lake County. The project was originally programmed for a 10 year schedule but was changed to a Design/Build procurement method to assure completion in 4 ½ years just before the 2002 Winter Olympics. The Project included over 150 structures, new additional freeway lanes, an "HOV" lane north and south bound, and new interchanges and bridges for FHWA compliance and seismic design standards. The final cost was approximately \$1.6 Billion and was completed on schedule. **Managing Scope, Schedule and Budget, is a skill that the Project Manager and key task personnel should possess for a cost effective and successful project.**

#### **Highland Drive Reconstruction, Salt Lake County, Utah**

Project Manager for the widening and reconstruction of Highland Drive from Creek Road to Bengal Boulevard. Project included design plans and specifications, cost estimates and field construction inspections. **Design and construction experience is valuable when asked to provide cost estimates in Roadway Reconstruction Master Plans.**

#### **1300 East Widening from 5600 South to Van Winkle Expressway, Salt Lake County, Utah**

1300 East was widened to accommodate increase traffic volumes. Design plans and specifications were produced along with traffic control plans. Cost estimates were produced for bid evaluation. Construction inspection was also required.

## **RYAN KITCHEN, P.E.** **PEPG MANAGER OF ENGINEERING**

### **AREAS OF EXPERTISE & EXPERIENCE**

Ryan has over 12 years of experience in a wide variety of civil engineering projects, particularly in planning, design, and construction administration for municipal roadways. He received a Master’s Degree with an emphasis in Transportation and has been involved with many transportation related projects. Ryan recently completed a study for Tooele County similar to Highland City’s request.

Other related experience includes: Roadway Cost Estimating and Prioritization, Pavement Analysis, Roadway Utility Design and Flood Control, Roadway Permitting, and Land Development (both residential and commercial).

### **Sample Project Experience**

#### **Road Estimate and Prioritization Study; Tooele County, UT**

Ryan performed a road estimate and prioritization study for Tooele County at the end of 2014, very similar to Highland City’s project. This study included evaluating existing road conditions to determine the most economical maintenance strategy for each road. He worked with Tim Biel at CME to perform these evaluations. Using this information, he was able to summarize accurate cost estimates for each road based on what exactly was needed. He coordinated these road projects with the County to prioritize a road projects list. This list was used for roadway budgeting the following year.

#### **Ophir & Soldier Canyon Roads Maintenance Project; Tooele County, UT**

Tooele County received an opportunity to purchase old asphalt milled from Tooele City Main Street. The County asked Ryan to look into how this material could best be used. Ryan worked with Tim Biel at CME to determine that Ophir Canyon Road and Soldier Canyon Road were good candidates for cold asphalt recycling mixed at a central plant next to each road. Soldier Canyon Road was milled to its base course and regrading prior to receiving this overlay of recycled asphalt. Only the top couple inches were milled off of Ophir Canyon Road and placed on the shoulder prior to receiving this overlay of recycled asphalt. Overall, the County saved millions of dollars over a complete reconstruction of each road. Both roads were repaired at a cost of just over \$700,000 for nearly six miles! This project completed construction October 2015.

#### **Market Street & Riverside Drive; Saratoga Springs, UT**

This roadway project included the planning, design, and construction of two new roads in Saratoga Springs. Market Street was built between the new Pioneer Crossing Extension and Redwood Road and included about ½ mile. Riverside Drive was built between 400 South and Pioneer Crossing and included just over 1 mile. Both roads included the design and construction of culinary water mains, secondary water mains, sewer mains, and storm drain mains with regional outfalls. The utilities were connected to

#### **Education**

*M.S. Civil Engineering, BYU  
B.S. Civil Engineering, BYU  
A.S. General Studies, UVU*

#### **Licenses**

*Professional Engineer  
Idaho, Utah (7544732-2202)*

#### **Professional Societies**

*American Society of Civil Engineers*

#### **Specialized Training**

- *UDOT Construction Engineering Management Training (CEMT)*
- *UDOT Partnering*
- *Mine Safety and Health Administration (MSHA) Training*
- *UDEQ Onsite Wastewater System Professional Levels 1-3 (Certificate # 02305)*

the city wide systems, and included 18" jack and bores across Pioneer Crossing for the Riverside Drive sewer and water mains. Permitting included a Stream Alteration Permit, a Sovereign Lands State Permit, a FEMA floodplain permit, a UDOT Access Permit, UDOT Encroachment Permits, a Water System Permit, and Water-Sewer Crossing Exceptions. This project just reached substantial completion in December 2015.

#### **700 North & 900 East; American Fork, UT**

This roadway project included shoulder improvements for both 700 North and 900 East in American Fork adjacent to the LDS Mt. Timpanogos Temple. Ryan provided designs for the signage and striping, curb and gutter, sidewalk, multi-use trail, parking lot, and drainage/irrigation. He also helped plan for a future roundabout at the intersection of 700 North and 900 East. During construction, Ryan provided construction administration through its completion at the end of the summer in 2015.

#### **South Mountain Road; Tooele County, UT**

South Mountain Road included approximately 8 miles in Tooele County and links SR-36 with Mormon Trail Road. Ryan assisted with the geotechnical investigation and performed the roadway engineering and design. This included hydrologic and hydraulic design of the many washes that it crossed which drain the northern side of South Mountain. The first phase was completed in 2014, which included a link from South Mountain Road to Bauer Road. The second phase to connect to highway SR-36 is planned for 2015.

#### **Mormon Trail Road Planning and Funding; Tooele County, UT**

The Mormon Trail Road was falling apart between Grantsville and Rush Valley in Tooele County. The entire stretch of road included 12 miles and the first phase included just over 2 miles of the worst section, including turning pockets for the gravel pits. Ryan helped acquire a grant of \$2,145,000 from UDOT for Phase 1 and another grant of \$2,000,000 from UDOT for Phase 2 at the beginning of 2015. He also worked on the preliminary conceptual plans and was involved with the environmental process and geotechnical investigation.

#### **UDOT I-15 CORE Project; Utah County, UT**

Provo River Constructors needed an engineer to provide preconstruction video surveys of homes adjacent to I-15 and engineering services for numerous off-site projects to accommodate their construction operations. Ryan assisted with the preconstruction video surveys and managed and engineered all the off-site projects. These projects included the development of two field offices, four temporary batch plants, a crusher site, and a truck yard site plan, permitting for two imported fill sites, a water main connection, and a ground water drainage design. These services were concluded in 2012.

#### **UDOT Tie Fork Rest Area; Utah County, UT**

The Utah Department of Transportation contracted with the Division of Facilities Construction and Management to construct a rest area in Spanish Fork Canyon to replace the nearby Tucker rest area, which was buried by the highway's realignment. Ryan provided design layout assistance to accommodate tractor-trailer parking, development services and permitting for a public well replacement and source protection plan, grading and drainage design, landscape design assistance, septic system design assistance, and construction administration for this 6-acre development. He also coordinated and designed a water treatment system to improve the taste and odor of the drinking water. These services were completed at the end of 2014.

# Timothy D. Biel

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## CME Expert Pavement and Materials Engineer

CME Transportation Group  
2798 South Redwood Road  
West Valley, UT 84119  
[tim@cmetg.com](mailto:tim@cmetg.com)

Office: (801) 972-0077  
Mobile: (801) 870-6740  
Fax: (801) 942-9181

### Education

M.S. Civil Engineering, University of Utah, 1997  
B.S. Civil Engineering, University of Illinois, 1990

### Professional Licensing

State of Utah P.E. #320546  
State of Wyoming P.E. #13034  
State of Nevada P.E. #21269

Mr. Biel is a pavement and materials expert with over 20 years of experience in construction and materials fields. This vast experience includes the analysis of pavement distress types, not only on the pavement surface, but the detail investigations of the root problems associated with those distresses." But that's not all, Mr. Biel is one of the state's best resources for pavement management, maintenance and reconstruction prioritization strategies. Mr. Biel is a registered Professional Engineer in the states of Utah, Nevada and Wyoming, and is currently President and General Manager of CME, Inc. where he is responsible for the overall management of the company which services include New Design, Maintenance and Rehabilitation of existing Highway and Airport Pavements, In Place Recycling and Reclamation practices, Construction Management Services, Independent Quality Assurance & Quality Control for Design Build Projects. Under the direction of Mr. Biel, CME is becoming a leader in the pavement materials research and development area with efforts in the Pre-cast concrete pavement, cold-in-place recycling and oil sand asphalt mix arenas. Mr. Biel has an extensive knowledge of pavement design practices and construction materials specific to Utah and is well practiced and knowledgeable in the following:

- ✓ ASTM Standard D-6433-11 for the calculation of Pavement Condition Index (PCI)
- ✓ AASHTO 1993 and Mechanistic/Empirical pavement design procedures
- ✓ Asphalt Institute pavement design procedures
- ✓ FAA Airport Pavement Design Practices
- ✓ UDOT Pavement Design Requirements and Practices
- ✓ AASHTO, ASTM and Utah APWA specifications related to Paving Materials
- ✓ ACI Code and Commentary for Concrete Materials design and construction
- ✓ Marshall, Hveem, Stone Matrix Asphalt and Superpave volumetric design procedures for Hot Mix Asphalt
- ✓ Portland Cement Concrete Design and Pavement Evaluation
- ✓ dRoad and dTims Pavement Management Systems

### Selected Organizations

- ✓ Member of Rocky Mountain Asphalt User/Producers Group Steering Committee, June 2004 to June 2008; October 2014 to Present
- ✓ Member of MEPDG Lead States Group, July 2005 to June 2008
- ✓ President of ACI Intermountain Chapter, March 2011 to March 2013

- ✓ Member of Utah Asphalt Paving Association

## Previous Experience

### **Utah Department of Transportation: Region Pavement Engineer and State Materials Engineer, July 1994 to June 2008**

Responsibilities included the development and implementation of Independent Assurance, QA/QC and Process Review programs for UDOT projects. Pavement responsibilities included Pavement Design oversight and Pavement Design policy development and implementation. Project Manager for three research projects related to Mechanistic-Empirical Pavement Design practice calibration and implementation, including development of materials property values. Responsible for performance and review of all pavement designs for Region Two, review of design projects for material conformance, creation and revision of materials specifications and provisions, field inspection of material placement, review and evaluation of field material problems, and research and implementation of new materials and concepts related to pavement design. Performed over designs for over 50 roadway projects and reviewed and approved over 100 designs for local government and permit projects. Experience includes good knowledge of UDOT's 08-1 design process and specific programs/processes required to complete the designs.

## Pavement Design Approach

Our overall approach to pavement design is based on use of AASHTO pavement design practices to provide a strong and durable pavement section that meets the application needs and desires of the owner, and is within their experience and abilities to maintain. This includes producing designs that are efficient and allowing recycled materials where appropriate, but not settling for lower quality materials that result in premature distress.

Mr. Biel has performed multiple recent pavement evaluations and designs for local municipalities and has experience with city and county preferences for design approaches. These include desires for flexible (HMA) surfaces, focus on durable pavements and materials selection, and optimal use of available funds. Our most recent projects include pavement design and construction management work on the 400 North and 800 West projects in Saratoga Springs, the 400 East in Bountiful and three segments of the Wendover Airport runway and taxiway facilities. To enhance the quality of design expectations, CME uses the AASHTO Mechanistic/Empirical Pavement Design Guide. The MEPDG provides the best possible predictions of pavement distresses, allowing for the optimization of the design based the predicted critical stresses. CME has recently performed accepted Mechanistic designs for the UDOT Point of the Mountain and Hill Field Road design-build projects.

## Selected Pavement Projects

### **I-15 Corridor Reconstruction Project – 20 Mile Reconstruction in Utah County**

Duties included corridor evaluation and asphalt section pavement designs over entire corridor. Designs included identification and justification of mechanistic criteria to be used within the AASHTO 1993 Design practice.

### **Salt Lake International Airport Runway 16L – 34R Rehabilitation**

Project duties included membership in Technical Panel brought together to combine the expertise of the Salt Lake City Department of Airports (SLCDA) and representatives of the construction industry to identify possible improvements to the process of design, construction, and maintenance for the runway rehabilitation project.

**Wendover Airport Runway 8 - 26 Extension and Rehabilitation**

Project duties included geotechnical and Falling Weight Deflectometer investigation of the existing pavement and extension footprint, along with design of the extension in accordance with FAA Advisory Circular 150/5320-6E.

**Wendover Airport Taxiway A1 Rehabilitation**

Project duties included geotechnical and asphalt surface investigation and evaluation of the existing pavement, along with recommendations for rehabilitation in accordance with FAA Airport Pavement Rating Manual (Circular 150/5320-17).

**Redwood Road, 6600 South To 7800 South, Pavement Reconstruction**

Project was a new design of a roadway section with subsurface water issues. The new PCCP design was selected to minimize work during the parallel I-15 project and incorporated a free drawing base layer, a permeable lean concrete layer, a full pavement drainage system and oversize coarse aggregate for load transfer.

**Pony Express Parkway Pavement Evaluation, Saratoga Springs**

Project was an evaluation of recently constructed pavement that was exhibiting early structural distress. A field investigation was performed along with an analysis of pavement design practices, materials conditions and construction practices. Remediation recommendations were then provided.

**400 North, Redwood to 800 West, Saratoga Springs**

Project was a rehabilitation design of a roadway section with significant surface distress issues. The overlay with fabric design was selected to maximize the reuse of the existing pavement while providing a new surface with a minimum 15 year performance period.

**Market Street and Riverside Drive New Roadways, Saratoga Springs**

Project was a new design of asphalt roadway sections in an area with soft subgrades and high water contents. New HMA surfaces were designed with the AASHTO 1993 process and then optimized for individual layer thicknesses and distress predictions using the AASHTO MEPDG.

**Other Local Pavement Projects**

200 West Reconstruction, Bountiful City  
800 West Traffic Impact, Saratoga Springs  
400 South Traffic Impact, Saratoga Springs  
Loumis Parkway Reconstruction, Bluffdale  
2700 West Reconstruction, Bluffdale  
8600 South Reconstruction, West Jordan  
Soldier Canyon and Ophir Canyon Recycled Pavements, Tooele County

## **DARRIN SMITH, P.E., S.E.**

### **PEPG PRINCIPAL IN CHARGE**

#### **AREAS OF EXPERTISE & EXPERIENCE**

Mr. Smith is one of the principal owners in PEPG and has over 23 years of civil engineering and related experience. His vast work experience includes storm water and detention basin design, subdivision layout and geometric design, complete commercial civil site plans, site grading and volume computations, utility design, hydrology and hydraulics including pipe networking, culinary water design and channel design as well as horizontal and vertical road layout.

#### **Road Estimate and Prioritization Study; Tooele County, UT**

Darrin was the principal in charge for this road estimate and prioritization study for Tooele County at the end of 2014, very similar to Highland City’s project. This study included evaluating existing road conditions to determine the most economical maintenance strategy for each road. PEPG worked with Tim Biel at CME to perform these evaluations. Using this information, PEPG was able to summarize accurate cost estimates for each road based on what exactly was needed. We coordinated these road projects with the County to prioritize a road projects list. This list was used for roadway budgeting the following year.

#### **Ophir & Soldier Canyon Roads Maintenance Project; Tooele County, UT**

Darrin was the principal in charge for this project. Tooele County received an opportunity to purchase old asphalt milled from Tooele City Main Street. The County asked PEPG to look into how this material could best be used. PEPG worked with Tim Biel at CME to determine that Ophir Canyon Road and Soldier Canyon Road were good candidates for cold asphalt recycling mixed at a central plant next to each road. Soldier Canyon Road was milled to its base course and regrading prior to receiving this overlay of recycled asphalt. Only the top couple inches were milled off of Ophir Canyon Road and placed on the shoulder prior to receiving this overlay of recycled asphalt. Overall, the County saved millions of dollars over a complete reconstruction of each road. Both roads were repaired at a cost of just over \$700,000 for nearly six miles! This project completed construction October 2015.

#### **Market Street & Riverside Drive; Saratoga Springs, UT**

Darrin was the principal in charge for this project. This roadway project included the planning, design, and construction of two new roads in Saratoga Springs. Market Street was built between the new Pioneer Crossing Extension and Redwood Road and included about ½ mile. Riverside Drive was built between 400 South and Pioneer Crossing and included just over 1 mile. Both roads included the design and construction of culinary water mains, secondary water mains, sewer mains, and storm drain mains with regional outfalls. The utilities were connected to the city wide systems, and included 18” jack and bores across Pioneer Crossing for the Riverside Drive sewer and water mains. Permitting included a

#### **Education**

*B.S. Civil Engineering, U of U  
A.S. Computer Science, SLCC*

#### **Licenses**

*Professional Engineer  
UT, ID, NV, WY, WA, AZ, NM, SD, ND*

#### **Work History**

*23 Years Experience in Industry*

Stream Alteration Permit, a Sovereign Lands State Permit, a FEMA floodplain permit, a UDOT Access Permit, UDOT Encroachment Permits, a Water System Permit, and Water-Sewer Crossing Exceptions. This project just reached substantial completion in December 2015.

#### **700 North & 900 East; American Fork, UT**

Darrin was the principal in charge for this project. This roadway project included shoulder improvements for both 700 North and 900 East in American Fork adjacent to the LDS Mt. Timpanogos Temple. PEPG provided designs for the signage and striping, curb and gutter, sidewalk, multi-use trail, parking lot, and drainage/irrigation. We also helped plan for a future roundabout at the intersection of 700 North and 900 East. During construction, PEPG provided construction administration through its completion at the end of the summer in 2015.

#### **South Mountain Road; Tooele County, UT**

Darrin was the principal in charge for this project. South Mountain Road included approximately 8 miles in Tooele County and links SR-36 with Mormon Trail Road. PEPG assisted with the geotechnical investigation and performed the roadway engineering and design. This included hydrologic and hydraulic design of the many washes that it crossed which drain the northern side of South Mountain. The first phase was completed in 2014, which included a link from South Mountain Road to Bauer Road. The second phase to connect to highway SR-36 is planned for 2015.

#### **Mormon Trail Road Planning and Funding; Tooele County, UT**

Darrin was the principal in charge for this project. The Mormon Trail Road was falling apart between Grantsville and Rush Valley in Tooele County. The entire stretch of road included 12 miles and the first phase included just over 2 miles of the worst section, including turning pockets for the gravel pits. PEPG helped acquire a grant of \$2,145,000 from UDOT for Phase 1 and another grant of \$2,000,000 from UDOT for Phase 2 at the beginning of 2015. We also worked on the preliminary conceptual plans and was involved with the environmental process and geotechnical investigation.

#### **UDOT I-15 CORE Project; Utah County, UT**

Darrin was the principal in charge for this project. Provo River Constructors needed an engineer to provide preconstruction video surveys of homes adjacent to I-15 and engineering services for numerous off-site projects to accommodate their construction operations. PEPG assisted with the preconstruction video surveys and managed and engineered all the off-site projects. These projects included the development of two field offices, four temporary batch plants, a crusher site, and a truck yard site plan, permitting for two imported fill sites, a water main connection, and a ground water drainage design. These services were concluded in 2012.

#### **UDOT Tie Fork Rest Area; Utah County, UT**

Darrin was the principal in charge for this project. The Utah Department of Transportation contracted with the Division of Facilities Construction and Management to construct a rest area in Spanish Fork Canyon to replace the nearby Tucker rest area, which was buried by the highway's realignment. PEPG provided design layout assistance to accommodate tractor-trailer parking, development services and permitting for a public well replacement and source protection plan, grading and drainage design, landscape design assistance, septic system design assistance, and construction administration for this 6-acre development. We also coordinated and designed a water treatment system to improve the taste and odor of the drinking water. These services were completed at the end of 2014.

Highland City - RFP Road Reconstruction Master Plan

FEE SCHEDULE

Task #	Task	PEPG Hours			CME Hours		Cost
		PM	Engineer	Technician	Engineer	Technician	
		\$ 125	\$ 125	\$ 95	\$ 125	\$ 65	
1-3	Meetings (10) & Coordination	40	40		40		\$ 15,000.00
4	Conduct Initial Validation of D & F Roadway PCIs	4	40	8			\$ 6,260.00
5	Design Pavement Sections	4		4	120	80	\$ 21,080.00
6	Produce Recommended Roadway Maintenance Strategies	16	8	4	40	20	\$ 9,680.00
7	Complete Designs for Reconstruction	16	60	40	8		\$ 14,300.00
8	Prioritization of D & F Roadway Reconstruction	20	20	8			\$ 5,760.00
9	Public Open House	16	24	24	8		\$ 8,280.00
10	Finalize the Road Reconstruction Master Plan	8	40	20	8		\$ 8,900.00
<b>Total Lump Sum Fee</b>							<b>\$ 89,260.00</b>



# CITY COUNCIL AGENDA REPORT

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**Item # 6**

**DATE:** January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Nathan Crane, AICP  
City Administrator/Community Development Director

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**SUBJECT:** RESOLUTION – RELATING TO THE POTENTIAL EXPANSION OF THE SNOWBIRD SKI RESORT INTO AMERICAN FORK CANYON

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**STAFF RECOMMENDATION:**

Adopt a resolution relating to the potential expansion of the Snowbird Ski resort into American Fork Canyon.

**BACKGROUND:**

The Utah County Board of Adjustment is considering a request by Snowbird Ski Resort to expand operations into American Fork Canyon. The expansion would include two new lift towers on private property owned by the resort, and a year-round zip ride tour. The new zip line and two chair lifts would be located in the Mary Ellen Gulch area of American Fork Canyon. The expansion would open 500 more acres of skiing, bringing the resort's total to 3,000 acres.

American Fork Canyon is the water source for Highland City. It is important any impact on the water source be properly considered.

**FISCAL IMPACT:**

Unknown

**ATTACHMENTS:**

Resolution

**RESOLUTION OF THE HIGHLAND CITY COUNCIL CONCERNING THE ENVIRONMENTAL STEWARDSHIP OF THE AMERICAN FORK CANYON.**

WHEREAS, Highland City has environmental, economic, social and historical interests in American Fork Canyon; and

WHEREAS, Highland City desires to establish best practices and policies regarding the management and care of the Canyon; and

WHEREAS, Highland City has an obligation and a vested interest to protect the watershed, and the sources and quantities of water; and

WHEREAS, there is a potential for a negative impact on the City water system;

NOW THEREFORE BE IT RESOLVED BY THE HIGHLAND CITY COUNCIL AS FOLLOWS:

The Highland City Council is urging the Utah County Board of Adjustment to consider the potential impact on area watershed and water supply and require the applicant to provide all applicable studies to address this issue including the long term effect of any undesirable elements that could be transferred to the ground water.

Passed and dated this 19<sup>th</sup> day of January, 2016.

HIGHLAND CITY, UTAH

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Mark Thompson, Mayor

ATTEST:

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Jody Bates, City Recorder

COUNCILMEMBER	YES	NO
Brian Braithwaite	<input type="checkbox"/>	<input type="checkbox"/>
Ed Dennis	<input type="checkbox"/>	<input type="checkbox"/>
Tim Irwin	<input type="checkbox"/>	<input type="checkbox"/>
Dennis LeBaron	<input type="checkbox"/>	<input type="checkbox"/>
Rod Man	<input type="checkbox"/>	<input type="checkbox"/>



# CITY COUNCIL AGENDA REPORT

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## Item # 7

**DATE:** Tuesday, January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Nathan Crane  
City Administrator

**BY:** JoD'Ann Bates  
City Recorder

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**SUBJECT:** RESOLUTION: APPOINTING A CITY COUNCIL MEMBER TO SERVE AS HIGHLAND CITY'S REPRESENTATIVE ON THE UTAH VALLEY DISPATCH SPECIAL SERVIC DISTRICT.

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### **BACKGROUND:**

Highland City is a member of the Utah Valley Dispatch Special Service District which was created in 2008 by Utah County and member cities to provide emergency dispatch services in a more efficient manner. Each member agency has representation on the Board with the County having three board members.

The Board has determined the most appropriate method to charge for dispatch services, an executive director has been hired and they have established administrative operating procedures that provides for and an economically practical way to continue dispatch services.

With the change of City Administrators it is recommended that a City Council Member be appointed to the district in continuing to ensure the interests of Highland are represented.

### **FISCAL IMPACT:**

N/A

### **ATTACHMENTS:**

- Proposed Resolution

**RESOLUTION NO. R-2016-\*\***

**A RESOLUTION OF THE  
HIGHLAND CITY COUNCIL  
APPOINTING MEMBER REPRESENTATIVE  
Utah Valley Dispatch Special Service District**

WHEREAS, the Board of County Commissioners of Utah County and several cities in Utah County initiated proceedings to create a special service district to provide consolidated 911 and emergency dispatch services within Utah County to be known as the Utah Valley Dispatch Special Service District (the "District"); and

WHEREAS, the Highland City Council adopted Resolution 2008-11 which consented to the inclusion of area within Highland City; and

WHEREAS, the District will be governed by a Board of Directors and the Highland City Council desires to make a representative appointment to that Board; and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF HIGHLAND, UTAH, as follows:

1. That Resolution R-2013-07 appointing Aaron Palmer as representative to the Utah Valley Dispatch Special Service District is hereby repealed.
2. That \_\_\_\_\_, Highland City Council Member is hereby appointed as its representative to the Utah Valley Dispatch Special Service District, together with such alternate or alternates as the shall be appointed.
3. That this resolution shall remain in effect until repealed by another resolution appointing a different representative to the Utah Valley Dispatch Special Service District.
4. The provisions of this resolution shall take effect immediately upon passage.

PASSED and APPROVED this 19th day of January, 2016.

HIGHLAND CITY

\_\_\_\_\_  
Mark S. Thompson, Mayor

ATTEST:

\_\_\_\_\_  
JoD'Ann Bates, City Recorder



# CITY COUNCIL AGENDA REPORT

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## Item # 8

**DATE:** January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Justin Parduhn  
Operations and Maintenance Director

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**SUBJECT:** MOTION – AUTHORIZE STAFF TO BID HA5 SURFACE TREATMENT ROAD MAINTENANCE PROJECTS IN THE AMOUNT NOT TO EXCEED \$211,623.58 (\$0.164 PER SQUARE FOOT) , TYPE III SLURRY SEAL TREATMENT NOT TO EXCEED \$12,885 (\$0.23 PER SQUARE FOOT) AND \$41,976.43 FOR CRACK SEALING.

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### **STAFF RECOMMENDATION:**

The City Council authorize staff to bid the surface treatment road maintenance projects in the amount not to exceed \$211,623.58 for Hollbrook Asphalt HA5, \$12,885 for M&M Asphalt Type III Slurry Seal and \$41,976.43 for crack sealing. This amount will allow treatment of approximately 6.22 miles of road surface. Staff has had preliminary conversations with Holbrook Asphalt, M&M Asphalt and Eckles paving and they have agreed to these prices. If the bids are less than or equal to these amounts, staff is requesting authorization to award the bids without additional Council approval.

### **BACKGROUND:**

These projects will be completed this spring/summer 2016. Staff has identified \$224,508.58 worth of surface treatment projects. This will allow for approximately 6.22 miles of road to be cracked sealed and treated with HA5 and .31 miles of Type III Slurry Seal. The projects were identified by using the Road Maintenance Plan prepared by JUB and staff inspection/knowledge of the roads. Emphasis was placed on newer streets where surface treatments are the best form of maintenance. Streets that need major patching or repair were not included. This will complete years two and three in the Road Maintenance Plan as well as a small portion of year four. All streets will be treated with HA5 except for a small .31 mile section coming off the hill out of the Viewpointe subdivision that will have a Type III Slurry which has some heavier aggregate in it to help with traction on the steep slope. These projects are as follows:

Street	Street
Parkway West Drive	Coventry Road
Viewpointe Subdivision	9910 North / Cobblecreek
Cornerstone Subdivision	Dry Creek Highland 4 Subdivision
5600 West(north of SR92)	9800 North 6180 West
5550 West(north of SR92)	Paradise Circle
5500 West (north of SR92)	10670 North
Castlepine Drive and 5270 West	10630 North
Mystic Cove Subdivision	Village Dr./ Crestview Dr.

Prior to the installation of the HA5 product, Eckles Paving will be here crack sealing each of the roads. Due to the amount of subdivisions under construction last fall and the relocation of the equipment and supplies in the HW building and now the amount of snow that is frozen on the edges of the roads, we have not had the time to get the crack sealing done ourselves so we will need to contract that out and get them going first thing in the spring. Any time we can find this spring to crack seal will be spent on other roads throughout the city that are not included in this contract. Preferably ones for the following years surface treatments.

*Proposed Expenditures*

The following chart summarizes the proposed expenditures for FY15/16 Road Maintenance and Repair:

<b>Funds</b>	<b>\$ 545,811.97</b>
<i>Patching</i>	\$ 21,649.95
<i>Crack Sealing</i>	\$ 41,976.43
<i>HA5 Surface Treatments</i>	\$ 211,623.58
<i>Type 3 Slurry - Viewpoint Hill</i>	\$ 12,885.00
<i>10400 Road Reconstruction</i>	\$ 153,710.50
<b>Unallocated Funds</b>	<b>\$ 103,966.51</b>

*Remaining Funds*

Staff is researching the potential costs of reconstructing 6000 West from 10150 North to 10400 North. This road is being analyzed due to the volume of traffic and Utah County willing to financially participate. The expenditure for 6000 West will be brought back to the Council for consideration at a future date.

**FISCAL IMPACT:**

In fiscal year 2015-2016 there was \$560,000 budgeted in account 41-40-71 for road maintenance. The amount requested for approval \$266,485.01 represents approximately 46% of the budget.

**ATTACHMENTS:**

1. Road Maintenance Map





# CITY COUNCIL AGENDA REPORT

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## Item # 9

**DATE:** January 19, 2015

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Nathan Crane, City Administrator/Community Development Director  
Justin Parduhn, Public Works Director

**SUBJECT:** MOTION – AUTHORIZATION TO PROCEED WITH CONSTRUCTION OF THE 10400 NORTH SEWER AND ROAD IMPROVEMENTS

### **STAFF RECOMMENDATION:**

City Council authorizes the Mayor to sign a contract with Vancon, Inc. to proceed with the construction of Schedules A and B for 10400 North Sewer and Road Improvements.

### **BACKGROUND:**

As explained to the City Council during the June 16, 2016 City Council Meeting, due to new growth the existing ten inch sewer line in 10400 North from 5950 West to 6300 West needs to be upgraded. Currently this line is near 75% of capacity with current flows. Additional capacity is needed to serve the proposed developments in the Towne Center and undeveloped property within the service area.

It was also determined, in the June City Council Meeting, to bid the roadway reconstruction, of a portion of 10400 North, at the same time as the sewer line replacement to save a significant amount of money.

On December 30, 2015 the City received 12 bids for the project. For your reference we have attached a copy of the Bid Tabulation. Vancon, Inc. of Springville Utah was the lowest bid at \$618,817.50. The next lowest bidder was Condie Construction Company was \$669,260.00. The Engineer has verified that Vancon, Inc. holds the required Utah Contractors License to perform this work. They have the appropriate previous experience to complete a job of this complexity.

The work was split into two bid schedules for the project and are as follows:

- Schedule A includes replacement of 1,730 feet of 10" sewer with a new 12" PVC sewer and 369 feet of 10" sewer with a new 15" PVC sewer. Schedule A also includes full-width asphalt reconstruction of 10400 North from 5950 West to 6300 West. The cost of Schedule A from the lowest bidder is \$465,107.
- Schedule B includes full-width asphalt reconstruction of 10400 North from approximately 6500

West to 6300 West. The cost of Schedule B from the lowest bidder is \$153,710.50.

The total bid for Schedule A and B is \$618,817.50.

The deadline for construction of the project is May 31, 2016.

**RECOMMENDATION AND PROPOSED MOTION:**

Award the Contract to Vancon, Inc. for \$618,817.50

**FISCAL IMPACT:**

Funding for this project is found in GL 52-40-73. The funding for the Sewer Replacement project is found in GL 52-40-73. This project was identified in the Impact Fee Facility Plan and therefore an approved Sewer Impact Fee project. Funding for the Roadway Improvements are included in GL 41-40-71.

**ATTACHMENTS:**

1. Bid Summary







# CITY COUNCIL AGENDA REPORT

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Item # 10

**DATE:** January 19, 2016

**TO:** Honorable Mayor and Members of the City Council

**FROM:** Nathan Crane, AICP  
City Administrator/Community Development Director  
Tim Merrill  
City Attorney

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**SUBJECT:** MOTION – REVISING SECTION 10.5 OF THE PERSONNEL AND POLICIES AND PROCEDURES MANUAL RELATING TO SEVERANCE FOR AT WILL EMPLOYEES.

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**STAFF RECOMMENDATION:**

Revise Section 10.5 of the Personnel and Policies and Procedures Manual relating to severance for at will employees.

**BACKGROUND:**

In the fall of 2015, the City Council requested that staff revise the severance policy related to at-will employees.

**Current Language:**

Section 10.5 of Personnel Policies

Any employee exempted from the provisions UCA 10-3-1106 with at least one year of service who is discharged from the city for any reason other than criminal wrongdoing, or any gross negligence on the part of the employee, shall be entitled to receive six months of severance pay. Severance pay is in addition to any accrued vacation or sick-leave benefits owing at the time of termination.

**Proposed Language:**

A. This section applies only to the following individuals:

- a. Police Chief
- b. Fire Chief
- c. Library Director
- d. City Engineer
- e. City Recorder
- f. City Treasurer
- g. City Attorney

- h. Public Works Director
- i. Finance Director
- j. Community Development Director
- k. City Administrator, whose employment is not governed by a written contract
- l. Other City employees that are specified as at-will employees as specified by the City Administrator in the employees' personnel file.

B. Definitions.

1. "For Cause" in this section means:

- a. Criminal conduct, regardless of whether criminal charges were filed or a conviction was obtained.
- b. Repeated violation of City policies and procedures.
- c. Misconduct.
- d. Negligent or inadequate performance of one's duties.
- e. Harassing behavior that creates a negative work environment for others.
- f. Dishonesty.
- g. Misuse of City funds or property.
- h. Insubordination.

2. "Severance" means three (3) months' salary or earnings, less all applicable deductions and withholdings. A person paid severance is not entitled to any additional accrual of vacation, sick-time, or administrative comp time.

C. All employment with Highland City is at-will. No notice is required prior to discharge. An employee listed in 10.5(A) with at least one year of service who is discharged from the City for any reason other than for cause, shall receive three (3) months' severance. In addition to severance, the terminated employee shall be paid for vacation time that has accrued prior to the date of separation. A terminated employee shall not be paid for accrued sick leave or administrative comp time, which expire upon termination.

**FISCAL IMPACT:**

Varies.

**ATTACHMENTS:**

None