RINGING OF THE BELL:

1. CALL TO ORDER:

2. ROLL CALL & PLEDGE OF ALLEGIANCE:

3. AGENDA CHANGES:

4. CONFLICTS OF INTEREST: (Council disclosures are on file w/City Clerk & Sec. of State)

5. PUBLIC COMMENT: Please limit comments to 5 minutes

6. APPROVAL OF MINUTES: February 14, 2018

7. PUBLIC HEARINGS:
   A. CB2, An Ordinance Amending Chapter 16 of the Black Hawk Municipal Code to Regulate Manufactured Homes as Permitted by Federal Law
   B. Resolution 18-2018, A Resolution Approving a Certificate of Appropriateness for the Demolition of Two Non-Historic Sheds and a Non-Historic Garage Located at 510 Chase Street, and a Non-Historic Shed at 520 Chase Street

8. ACTION ITEMS:
   B. Resolution 19-2018, A Resolution Approving the Purchase of a 2018 CAT-906M Compact Wheel Loader and a CAT-CB22B Roller from Wagner Equipment in an Amount Not To Exceed $117,095.00
   C. Resolution 20-2018, A Resolution Accepting the Phase 1.A. Report of Peak Program Value, LLC for the City of Black Hawk Program Validation, and Authorizing the Deliverables Set Forth by Peak Program Value, LLC as Phase 1.B. and Phase 2 in an Amount Not to Exceed $109,955.00

9. CITY MANAGER REPORTS: Council Workshop Date

10. CITY ATTORNEY:

11. EXECUTIVE SESSION:

12. ADJOURNMENT:

MISSION STATEMENT

The mission of the City of Black Hawk is to progressively provide cost effective programs and services of the highest quality to the community.
Jacobs Entertainment Consultant Mark Huff rang the bell.

1. CALL TO ORDER: The regular meeting of the City Council was called to order on Wednesday, February 14, 2018, at 3:00 p.m. by Mayor Spellman.

2. ROLL CALL: Present were: Mayor Spellman, Aldermen Armbright, Bennett, Johnson, Midcap, Moates, and Torres.

   Staff present: City Attorney Hoffmann, City Manager Lewis, Police Chief Cole, Fire Chief Taylor, Finance Director Hillis, City Clerk/Administrative Services Director Greiner, Public Works Director Isbester, Community Planning and Development Administrator Linker, and Deputy City Clerk Martin.

   PLEDGE OF ALLEGIANCE: Mayor Spellman led the meeting in the recitation of the Pledge of Allegiance.

3. AGENDA CHANGES: Deputy City Clerk Martin confirmed there were no agenda changes.

4. CONFLICTS OF INTEREST: City Attorney Hoffmann asked Council to declare any Conflicts of Interest on any issue appearing on the agenda this afternoon other than those previous disclosures and conflicts that have already been disclosed and are on file with the City Clerk and Secretary of State. No conflicts were noted from City Council.

   City Attorney Hoffmann asked the audience if there were any objections to any member of Council voting on any issue on the agenda this afternoon. The audience had no objections.

5. PUBLIC COMMENT: Deputy City Clerk Martin confirmed that no one had signed up to speak.
6.  APPROVAL OF MINUTES:  January 24, 2018

MOTION TO APPROVE  Alderman Bennett MOVED and was SECONDED by Alderman Torres to approve the Minutes as presented.

MOTION PASSED  There was no discussion and the motion passed unanimously.

7.  PUBLIC HEARINGS:

A.  CB1, An Ordinance Repealing and Reenacting Chapter 4, Articles IV, of the Black Hawk Municipal Code to Adopt Standardized Sales Tax Definitions

Mayor Spellman read the title and opened the public hearing.

Finance Director Hillis introduced this item requested by the Colorado General Assembly. City Attorney Hoffmann added that self-collecting jurisdictions throughout the State are being asked to standardize their sales tax definitions in an effort being led by the Colorado Municipal League. Each city is going through their definitions to ensure that any change does not trigger a TABOR issue.

PUBLIC HEARING:  Mayor Spellman declared a Public Hearing on CB1, an Ordinance Repealing and Reenacting Chapter 4, Articles IV, of the Black Hawk Municipal Code to adopt standardized Sales Tax definitions open and invited anyone wanting to address the Board either “for” or “against” the proposed ordinance to come forward.

No one came forward to speak and Mayor Spellman declared the Public Hearing closed.

MOTION TO APPROVE  Alderman Armbright MOVED and was SECONDED by Alderman Bennett to approve CB1, an Ordinance Repealing and Reenacting Chapter 4, Articles IV, of the Black Hawk Municipal Code to adopt standardized Sales Tax definitions.

MOTION PASSED  There was no discussion and the motion PASSED unanimously.

8.  ACTION ITEMS:

A.  Resolution 14-2018, A Resolution Reappointing Ronald W. Carlson to be the City of Black Hawk Municipal Court Judge
B. Resolution 15-2018, A Resolution Reappointing Thad Renaud to be the City of Black Hawk Assistant Municipal Court Judge

Mayor Spellman read the titles.

City Clerk/Administrative Services Director Greiner was available to answer any questions. Mayor Spellman said that Judge Carlson asked if he should be here today and that he told him it was more important to be here in April to swear the candidates in.

**MOTION TO APPROVE**

Alderman Armbright **MOVED** and was **SECONDED** by Alderman Bennett to approve Resolution 14-2018, a Resolution reappointing Ronald W. Carlson to be the City of Black Hawk Municipal Court Judge and Resolution 15-2018, a Resolution reappointing Thad Renaud to be the City of Black Hawk Assistant Municipal Court Judge.

**MOTION PASSED**

There was no discussion and the motion **PASSED** unanimously.

C. Resolution 16-2018, A Resolution Cancelling the April 3, 2018 Election and Declaring Candidates Elected

Mayor Spellman read the title.

**MOTION TO APPROVE**

Alderman Bennett **MOVED** and was **SECONDED** by Alderman Moates to approve Resolution 16-2018, a Resolution cancelling the April 3, 2018 Election and declaring candidates elected.

**MOTION PASSED**

There was no discussion and the motion **PASSED** unanimously.

D. Resolution 17-2018, A Resolution Approving the Second Amendment to the Subdivision/Site Improvement Agreement Between the City of Black Hawk and JIJE, LLC for the Canyon Black Hawk Subdivision, Filing No. 1

Mayor Spellman read the title.

City Attorney Hoffmann introduced this item and clarified that City Council had already approved the project to go forward with the mutual agreement from both parties of revising condition H, which has been done. But, he said, in the contents of finalizing condition H, both sides looked at the existing Subdivision Agreement and thought it best to amend it to put a date certain by which all improvements had to be completed, instead of triggering mechanisms as it currently reads.

**MOTION TO**
APPROVE

Alderman Bennett MOVED and was SECONDED by Alderman Torres to approve Resolution 17-2018, a Resolution approving the Second Amendment to the Subdivision/Site Improvement Agreement between the City of Black Hawk and JIJE, LLC for the Canyon Black Hawk Subdivision, Filing No. 1.

MOTION PASSED

There was no discussion and the motion PASSED unanimously.

9. CITY MANAGER REPORTS:

City Manager Lewis had nothing to report.

10. CITY ATTORNEY:

City Attorney Hoffmann had nothing to report.

11. EXECUTIVE SESSION:

City Attorney Hoffmann recommended item number 2 only for Executive Session for specific legal questions relate to potential legislation.

MOTION TO ADJOURN INTO EXECUTIVE SESSION

Alderman Bennett MOVED and was SECONDED by Alderman Johnson to adjourn into Executive Session at 3:07 p.m. to hold a conference with the City’s attorney to receive legal advice on specific legal questions, pursuant to C.R.S. § 24-6-402(4)(b).

MOTION PASSED

There was no discussion and the motion PASSED unanimously.

MOTION TO ADJOURN

Alderman Bennett MOVED and was SECONDED by Alderman Moates to adjourn the Executive Session at 3:50 p.m.

MOTION PASSED

There was no discussion and the motion PASSED unanimously.

12. ADJOURNMENT:

Mayor Spellman declared the Regular Meeting of the City Council closed at 3:50 p.m.

Melissa A. Greiner, CMC
City Clerk

David D. Spellman
Mayor
COUNCIL BILL 2
ORDINANCE 2018-2
AN ORDINANCE AMENDING
CHAPTER 16 OF THE BLACK
HAWK MUNICIPAL CODE
TO REGULATE
MANUFACTURED HOMES
AS PERMITTED BY
FEDERAL LAW
STATE OF COLORADO  
COUNTY OF GILPIN  
CITY OF BLACK HAWK  

COUNCIL BILL NUMBER: CB2  
ORDINANCE NUMBER: 2018-2  

TITLE: AN ORDINANCE AMENDING CHAPTER 16 OF THE BLACK HAWK MUNICIPAL CODE TO REGULATE MANUFACTURED HOMES AS PERMITTED BY FEDERAL LAW  

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BLACK HAWK, GILPIN COUNTY:

Section 1. The City of Black Hawk Municipal Code, Section 16-24, is amended in part to read as follows:

"Manufactured home" means a structure on a permanent chassis, transportable in one or more sections, that, when erected on site, is three hundred twenty or more square feet; that is built and designed to be used as a dwelling when connected to the required utilities; that includes a plumbing, heating, air-conditioning, and electrical systems; and that has a federal certification label or tag permanently affixed to it pursuant to 42 U.S.C. §§ 5401, et seq., as may be amended from time.

"Manufactured home" does not include any self-propelled recreational vehicle.

"Mobile home" means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed to be used with or without a permanent foundation when connected to the required facilities, not including recreational vehicles or travel trailers.

"Mobile home lot" means a parcel of land for the placement of a single mobile home and the exclusive use of its occupants.

"Mobile home park" means a single parcel of land which has been planned and approved for the placement of mobile homes for nontransient use.

"Mobile home stand" means that part of an individual lot which has been reserved for the placement of the mobile home, appurtenant structures or additions.

"Structure" means anything constructed or erected, the use of which requires location on or in the ground, including buildings, mobile manufactured homes, billboards, swimming pools or the like, or part thereof.

Section 2. City of Black Hawk Municipal Code, Chapter 16, Article IV, is amended in part as follows:
ARTICLE IV - Residential Districts

Division 1 Historic Residential (HR)

* * *

Sec. 16-66. District development standards.

(a) All development shall be serviced by municipal or district water and sanitation systems.

(b) Accessory uses which are customarily incidental to the permitted principal uses shall represent less than thirty-five percent (35%) of the ground floor area on the lot.

(c) Garage doors which face toward a roadway must be set back at least eighteen (18) feet from the roadway.

(d) All residential dwellings, including without limitation manufactured homes, shall meet the following minimum requirements:

1. The dwelling dimensions shall not be less than twenty-four (24) feet wide nor less than thirty-six (36) feet long;

2. Installation of the dwelling shall be on a permanent foundation that has been certified by a professional engineer licensed by the State;

3. The exterior of the dwelling shall be wood, brick, or equivalent siding;

4. The dwelling's roof must be pitched 8:12 at a minimum;

5. The dwelling's primary entrance shall be oriented to the lot's front yard so as to face or abut a street; and

6. The dwelling must meet or exceed, on an equivalent performance engineering basis, the standards established by the International Building Code, International Residential Code, and the Uniform Code for Abatement of Dangerous Buildings as adopted in this Code. In determining the engineering basis, normal engineering calculations for testing following commonly accepted engineering practices, all components and subsystems of a manufactured home must meet or exceed health, safety and functional requirements to the same extent as other single-family dwellings as outlined in the International Residential Code. As an equivalent performance engineering standard for manufactured homes, snow loads shall meet the requirements as outlined in Chapter 3 of the International Residential Code, Section R301.2.
Division 2 Rural Residential (RR)

Sec. 16-72. District development standards.

(a) Development shall be located, sited and designed to be nonobtrusive and blend in with the existing natural environment and minimize disruption to existing terrain, vegetation, drainage patterns, natural slopes and any distinctive natural features.

(b) Accessory uses which are customarily incidental to the permitted principal uses shall represent less than thirty-five percent (35%) of the ground floor area on the lot.

(c) All residential dwellings, including without limitation manufactured homes, shall meet the minimum requirements set forth in Section 16-66(d) of this Code.

Division 3 Environmental Character Preservation (ECP)

Sec. 16-78. District development standards.

(a) Development shall be located, sited and designed to blend in with the existing natural environment and minimize disruption to existing terrain, vegetation, drainage patterns, natural slopes and any other distinctive natural features.

(b) Accessory uses which are customarily incidental to the permitted principal uses shall represent less than thirty-five percent (35%) of the ground floor area on the lot.

(c) All residential dwellings, including without limitation manufactured homes, shall meet the minimum requirements set forth in Section 16-66(d) of this Code.

Section 3. City of Black Hawk Municipal Code Section 16-162, is amended to read as follows:

(a) The purpose of the general development standards contained herein is to provide standards for general lot requirements; utilities; recreation vehicles; mobile homes and manufactured homes; nuisances, disturbances and emissions; geologic and environmental hazards; off-street parking, signage and landscaping; the organization and layout of buildings, parking areas and landscaped areas and guidelines on building design so as to promote the general health, safety and
welfare of residents of the community.

Section 4. City of Black Hawk Municipal Code, Chapter 16, is amended by the addition of a new Section 16-184, which shall read as follows:

Sec. 16-184. Recreation vehicles and trailers.

Except as permitted in the Environmental Character Preservation District, Low Intensity - Mixed Use District and Limited Industrial District, no recreational vehicle or construction and truck semi-trailers shall be used in any zoning district of the City for a dwelling unit, accessory building, storage, home occupation or other use permitted within any zoning district.

Section 5. City of Black Hawk Municipal Code, Chapter 16, Article IX, is repealed.

Section 6. City of Black Hawk Municipal Code, Section 16-367, is amended in part to read as follows:

Sec. 16-367. Nonconforming uses, structures, lots and parking.

* * * * *  

(b) Nonconforming uses.

* * * * *

(3) The continuation of existing legal nonconforming uses shall be subject to the following conditions:

* * * * *

b. Mobile homes located in zone districts not permitting their use not meeting the definition of "manufactured home" may continue to be used as a residential dwelling after the effective date of the ordinance codified herein, unless abandoned as a dwelling for a period of six (6) months or more.

Section 7. Safety Clause. The City Council hereby finds, determines, and declares that this Ordinance is promulgated under the general police power of the City of Black Hawk, that it is promulgated for the health, safety, and welfare of the public, and that this Ordinance is necessary for the preservation of health and safety and for the protection of public convenience and welfare. The City Council further determines that the Ordinance bears a rational relation to the proper legislative object sought to be attained.

Section 8. Severability. If any clause, sentence, paragraph, or part of this Ordinance or the application thereof to any person or circumstances shall for any reason be adjudged by a
court of competent jurisdiction invalid, such judgment shall not affect application to other persons or circumstances.

Section 9. Effective Date. The City Clerk is directed to post the Ordinance as required by the Charter. This Ordinance shall become effective upon posting by the City Clerk.

READ, PASSED AND ORDERED POSTED this 28th day of February, 2018.

_______________________________
David D. Spellman, Mayor

ATTEST:

_______________________________
Melissa A. Greiner, CMC, City Clerk
NOTICE OF PUBLIC HEARING

Notice is hereby given that the City of Black Hawk Board of Aldermen shall hold a public hearing concerning Amending Chapter 16 of the Black Hawk Municipal Code to Regulate Manufactured Homes as Permitted by Federal Law, pursuant to the City of Black Hawk zoning ordinance.

The public hearing is to be held before the City of Black Hawk Board of Aldermen on Wednesday, February 28, 2018 at 3:00 p.m. or as soon as possible thereafter. The public hearing shall be held in the City of Black Hawk Council Chambers located at 211 Church Street, Black Hawk, Colorado, 80422, or at such other time or place in the event these hearings are adjourned.

ALL INTERESTED PARTIES MAY ATTEND

Melissa A. Greiner, CMC
City Clerk
CITY OF BLACK HAWK
REQUEST FOR COUNCIL ACTION

SUBJECT: To consider an Ordinance amending Chapter 16 of the Black Hawk Municipal Code to regulate manufactured homes as permitted by Federal law.

RECOMMENDATION: Staff recommends the following motion to the Mayor and Board of Aldermen:

MOTION TO APPROVE CB2 - Ordinance 2018-2 - An Ordinance Amending Chapter 16 of the Black Hawk Municipal Code to regulate manufactured homes as permitted by Federal law.

SUMMARY AND BACKGROUND OF SUBJECT MATTER:
After Community Planning and Development received numerous inquiries concerning the regulation of manufactured homes, City staff performed a comprehensive review of Chapter 16. The City wanted to confirm that the permitting requirements, building codes, zoning codes, subdivision regulations and architectural design standards were effectively addressed and captured. The evaluation revealed an amendment to Chapter 16 needed to be considered. The proposed Ordinance amending Chapter 16 is tailored to address and meet the City’s needs while providing a better understanding and clearer interpretation and direction for the administration and enforcement of manufactured homes regulations as permitted by Federal law.

AGENDA DATE: February 28, 2018

WORKSHOP DATE: N/A

FUNDING SOURCE: N/A

DEPARTMENT DIRECTOR APPROVAL: [X]Yes [ ]No

STAFF PERSON RESPONSIBLE: Cynthia L. Linker
CP&D Administrator

DOCUMENTS ATTACHED: CB2-Ordinance 2018-2
Notice of Public Hearing

RECORD: [ ]Yes [X]No

CITY ATTORNEY REVIEW: [X]Yes [ ]N/A

SUBMITTED BY: Cynthia L. Linker
CP&D Administrator

2/21/18

REVIEWED BY: Jack D. Lewis, City Manager
RESOLUTION 18-2018
A RESOLUTION
APPROVING A
CERTIFICATE OF
APPROPRIATENESS FOR
THE DEMOLITION OF
TWO NON-HISTORIC
SHEDS AND A NON-
HISTORIC GARAGE
LOCATED AT 510 CHASE
STREET, AND A NON-
HISTORIC SHED AT 520
CHASE STREET
STATE OF COLORADO
COUNTY OF GILPIN
CITY OF BLACK HAWK

Resolution No. 18-2018

TITLE: A RESOLUTION APPROVING A CERTIFICATE OF APPROPRIATENESS FOR THE DEMOLITION OF TWO NON-HISTORIC SHEDS AND A NON-HISTORIC GARAGE LOCATED AT 510 CHASE STREET, AND A NON-HISTORIC SHED AT 520 CHASE STREET

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BLACK HAWK, COLORADO, THAT:

Section 1. The City Council hereby determines to approve the Certificate of Appropriateness for the demolition two non-historic sheds and a non-historic garage at 510 Chase Street and a non-historic shed at 520 Chase Street based on the criteria set forth in the staff memo dated February 16, 2018.

RESOLVED AND PASSED this 28th day of February, 2018.

_______________________________
David D. Spellman, Mayor

ATTEST:

_______________________________
Melissa A. Greiner, CMC, City Clerk
NOTICE OF PUBLIC HEARING

Notice is hereby given that the City of Black Hawk Board of Aldermen shall hold a public hearing concerning a Certificate of Appropriateness for demolition of accessory structures on property described in Exhibit A as a compressor house and three (3) small buildings and generally located at 510 Chase Street and 520 Chase Street, pursuant to the City of Black Hawk zoning ordinance.

The public hearing is to be held before the City of Black Hawk Board of Aldermen on Wednesday, February 28, 2018 at 3:00 p.m. or as soon as possible thereafter. The public hearing shall be held in the City of Black Hawk Council Chambers located at 211 Church Street, Black Hawk, Colorado, 80422 or at such other time or place in the event these hearings are adjourned.

ALL INTERESTED PARTIES
MAY ATTEND

Melissa A. Greiner
City Clerk

EXHIBIT A

S: 12 T: 3S R: 72W MINE: BILLINGS – 200 100% 0.68 acres Mine Bldgs. & Compressor House & 2 Small Bldgs. BLACK HAWK.
CITY OF BLACK HAWK
REQUEST FOR COUNCIL ACTION

SUBJECT: To consider a Resolution to approve a Certificate of Appropriateness for demolition of two (2) non-historic, non-contributing outbuildings and one (1) non-historic, non-contributing garage (compressor house) at 510 Chase Street and one (1) non-historic, non-contributing outbuilding at 520 Chase Street.

RECOMMENDATION:
The Historic Preservation Commission will evaluate the information in this report, and any testimony by staff and related consultants at a Special Meeting on February 27, 2018. At the conclusion of their discussion, the Historic Preservation Commission shall recommend to the Board of Aldermen APPROVAL, CONDITIONAL APPROVAL or DENIAL.

City staff will provide City Council with the Historic Preservation Commission recommendation to at their meeting on February 28, 2018. Staff is recommending to the Historic Preservation Commission the following sample motion:

Recommend to the Board of Aldermen APPROVAL of the Certificate of Appropriateness for the Demolition of one (1) non-historic, non-contributing garage and two (2) non-historic, non-contributing sheds at 510 Chase Street and one (1) non-historic, non-contributing shed at 520 Chase Street based on the criteria set forth in the staff report dated February 16, 2018. The Certificate of Appropriateness application for 510 Chase Street and 520 Chase Street meets the intent of the criteria outlined in Sections 16-368 and 16-431 of the Black Hawk Municipal Code. The City of Black Hawk’s Residential Design Guidelines and the Secretary of the Interior’s Standards for Rehabilitation do not specifically address the demolition of non-historic and non-contributing structures.

MOTION TO APPROVE Resolution 18-2018 approving a Certificate of Appropriateness for the demolition of two (2) non-historic sheds and a non-historic garage located at 510 Chase Street, and a non-historic shed at 520 Chase Street.

SUMMARY AND BACKGROUND OF SUBJECT MATTER:
The applicant, the City of Black Hawk, is requesting a Certificate of Appropriateness for demolition of two (2) non-historic, non-contributing outbuildings and one (1) non-historic, non-contributing garage (compressor house) at 510 Chase Street and one (1) non-historic, non-contributing outbuilding at 520 Chase Street.

The National Park Service did not inventory the outbuildings at 510 Chase and 520 Chase, and therefore did not include them in the resource count in the 1991 NHL nomination. The main building, a residence at 531 Chase Street, was inventoried and considered non-contributing due to non-historic alterations and additions. Even though the City of Black Hawk’s Residential Design Guidelines and the Secretary of the Interior’s Standards for Rehabilitation do not specifically address demolition of non-historic and non-contributing structures, the proposed demolitions would not negatively impact the character of the historic district as a whole.
AGENDA DATE: February 28, 2018
WORKSHOP DATE: N/A
FUNDING SOURCE: N/A
DEPARTMENT DIRECTOR APPROVAL: [X]Yes [ ]No
STAFF PERSON RESPONSIBLE: Cynthia L. Linker  
CP&D Administrator
DOCUMENTS ATTACHED:
Resolution 18-2018
Notice of Public Hearing
Staff Report
RECORD: [ ]Yes [X]No
CITY ATTORNEY REVIEW: [X]Yes [ ]N/A
SUBMITTED BY: Cynthia L. Linker, CP&D
REVIEWED BY: Jack D. Lewis, City Manager
STAFF REPORT:
For: City Council
Project: Certificate of Appropriateness for demolition of three (3) non-historic sheds and one (1) non-historic garage
Property Address: 510 Chase Street and 520 Chase Street
Property Owner: City of Black Hawk
Zoning: Environmental Character Preservation (ECP)
Prepared by: Deon Wolfenbarger, Historic Preservation Consultant
Approved by: Cynthia Linker, City of Black Hawk

BACKGROUND:
The applicant, the City of Black Hawk, is requesting a Certificate of Appropriateness for demolition of two (2) non-historic, non-contributing outbuildings and one (1) non-historic, non-contributing garage (compressor house) at 510 Chase Street and one (1) non-historic, non_contributing outbuilding at 520 Chase Street.

The buildings are located within the boundaries of the National Historic Landmark (NHL) district in Black Hawk. However, these outbuildings were not evaluated when the National Park Service conducted a survey of historic resources in the communities of Black Hawk, Central City, and Nevadaville in 1986 and were therefore not included in a resource count when the district was expanded in 1991 to include Black Hawk.

The primary dwelling building associated with the outbuildings, 531 Chase Street, was included, though in the resource count, and was evaluated by the National Park Service as a non-contributing building due to non-historic alterations and additions.

Gilpin County Assessor’s records document the approximate square footage of the four (4) outbuildings (three (3) sheds and one (1) detached garage), but do not provide any estimate of construction date. Instead, an “effective” construction date of 1984 is listed. As the outbuildings do not have any physical evidence of major alterations, in this instance the “effective” construction date is likely accurate to +/- ten years.
Figure 1. 1991 National Historic Landmark district boundaries (USGS/Graphic Map Boundary). The red square indicates the general location of the portion shown in Figure 2.

Figure 2. Red line indicates the NHL boundaries (based on the Verbal Boundary Description from the National Register of Historic Places Registration form dated 1990) for Black Hawk only. The red circle indicates the location of the three outbuildings. The Black line indicates the NHL boundaries (based on the USGS/Graphic Map Boundary).
Figure 3. Red line indicates the NHL boundaries (based on the Verbal Boundary Description from the National Register of Historic Places Registration form dated 1990) for Black Hawk only. The Black line indicates the NHL boundaries (based on the USGS/Graphic Map Boundary)
510 Chase Street
The detached garage has a metal corrugated shed roof and corrugated metal siding. There is no roof overhang, and a wood cornice beneath the eaves. There is a pedestrian door opening and multi-paned window on one end, and an overhead metal garage door and multi-paned window covered with plywood on the opposite end. The interior floor is comprised of wood boards.

Figure 3. Detached garage (southeast & northeast walls) at 510 Chase Street.

Figure 4. Northwest wall of garage at 510 Chase Street.
The sheds at 510 Chase Street are located south of the garage and is actually comprised of two small connecting sheds. Both have gable metal roofs with metal panel siding.

**Figure 5.** Connected shed(s) at 510 Chase Street.

**Figure 6.** Connected shed(s) at 510 Chase Street
520 Chase Street
The shed at 520 Chase Street has a shed roof with no overhang and a plywood cornice panel beneath the eaves. The siding is sheet metal panels. There are two swinging plywood doors on the northeast elevation. There is a group of four vertical fixed sash windows on the northwest.

Figure 7. Northeast wall and doors of shed at 520 Chase.

Figure 8. Northwest wall of shed at 520 Chase Street.
APPLICABLE CITY OF BLACK HAWK REGULATIONS

Excerpt from:
City of Black Hawk Zoning Code
Chapter 16
Section 16-368, City Council historic review process

16-368: Anyone seeking to renovate the exterior of, add to or construct a new building shall be subject to the following procedures. Any such renovation construction or demolition shall be subject to the City’s design standards.

g. Criteria for determining appropriateness of a proposed demolition. In determining the appropriateness of the demolition of an improvement as requested in an application for a demolition permit, the HPC and the City Council shall consider the following:

1. All plans, drawings and photographs as may be submitted by the applicant;
   Photographs showing existing exterior conditions have been submitted and are acceptable for review. No plans for future site use have been submitted. A written description for demolition has not been submitted. As a City project, Public Work’s staff will use an established procedure for the removal of City owned property.

2. Information presented at a public hearing held concerning the proposed work;
   Findings with a recommendation from the Historic Preservation Commission will be presented to the Board of Aldermen at a Public Hearing scheduled for February 28, 2018.

3. The purpose of this Chapter;
   Information received adequately describes the proposed work.

4. Compliance with the Black Hawk Municipal Code and the payment of all fees required by the Black Hawk Municipal Code;
   The project complies with all regulations.

5. The historical and architectural style, the general design, arrangement, texture, materials, and color of the development, building or structure in question or its appurtenance fixtures; the relationship of such features to similar features of the other buildings within the City and the position of the building, structure, park or open space in relation to public right-of-way and to other buildings and structures in the City;
   The construction dates of these outbuildings are unknown. From the scarce existing records, and an examination of the building materials used for construction, it is likely that they were constructed in the latter half of the twentieth century and were therefore not constructed within the National Historic Landmark district’s period of significance 1859-1918. Furthermore, these buildings were not deemed worthy of inventory by the National Park Service, and were not included in a resource count; therefore they were not evaluated as either contributing or non-contributing to the district.
6. The effects of the proposed work upon the protection, enhancement, perpetuation and use of the City which cause it to possess a special character or special historical or aesthetic interest or value; and
These buildings were not inventoried during the National Park Service’s 1986 survey, and were not included in the NHL district’s resource count. The demolition of these non-historic buildings will not have a negative impact on the historic district.

7. The design standards for the City.
The design guidelines for the City of Black Hawk do not specifically address the demolition of non-contributing and non-historic outbuildings.

8. Whether the improvement has been maintained as provided by this Chapter, and
The buildings have not been used in recent years, and have experienced some deterioration as a result of access to the interior.

9. Whether the preservation of the improvements is technologically and economically feasible.
The preservation of the outbuildings is technologically and economically feasible, although their rehabilitation is not being considered. The City’s decision to move forward with demolition is based on the fact the buildings were not originally inventoried by the National Park Service, and the Gilpin County Assessor’s “effective” construction date is 1984. Since the structures are not considered historic or contributing buildings to the NHL district, and likely not constructed within the National Historic Landmark district’s period of significance 1859-1918, the demolition of these buildings will not have a negative impact on the historic district.

Excerpt from:

Chapter 16
Section 16-431, Demolition

(a) No historic landmark may be demolished, in whole or in part, except in conformity with the requirements of this Article
These buildings are not considered historic or contributing buildings to the NHL district, because they were not originally inventoried by the National Park Service, the Gilpin County Assessor’s “effective” construction date is 1984, and likely not constructed within the National Historic Landmark district’s period of significance 1859-1918.

(b) No person shall demolish a historic landmark without first obtaining a COA from the Commission and the appropriate permit from the Building Official. Any requests for such demolition permits must be submitted to the Commission and shall be considered by the Commission at its next regularly scheduled meeting, but in any event, within thirty (30) days of submittal. Any application not considered by the Commission within thirty (30) days of submittal. Any application not considered by the Commission within thirty (30) days of submittal shall be deemed approved.
The applicant has satisfied this requirement for the existing outbuildings, and the application is acceptable for review.
(c) Nothing contained herein shall prevent the demolition of any building or structure which the Building Official shall certify, in writing, to the Commission is required for the public health, safety or welfare because of an unsafe or dangerous condition.

The applicant shall contact the State of Colorado Public Health and Environmental office to determine if a State issued demolition permit is required. A City issued demolition permit is required.

Excerpt from:

City of Black Hawk Residential Design Guidelines
11. Demolition Review Criteria and Standards

11.1. Submittal requirements for proposed demolition.

Note: Sections 11.1.a through 11.1.g of the design guidelines are identical to sections 16-368.g.1 through 16-368.g.9 (see pages 6-7 for evaluation of these sections).

EVALUATION

The National Park Service did not inventory the outbuildings at 510 Chase and 520 Chase, and therefore did not include them in the resource count in the 1991 NHL nomination. The main building, a residence at 531 Chase Street, was inventoried and considered non-contributing due to non-historic alterations and additions. Even though the City of Black Hawk’s Residential Design Guidelines and the Secretary of the Interior’s Standards for Rehabilitation do not specifically address demolition of non-historic and non-contributing structures, the proposed demoliions would not negatively impact the character of the historic district as a whole.

SUMMARY

The Historic Preservation Commission will evaluate the information in this report, and any testimony by staff and related consultants at a Special Meeting on February 27, 2018. At the conclusion of their discussion, the Historic Preservation Commission shall recommend to the Board of Aldermen APPROVAL, CONDITIONAL APPROVAL or DENIAL of the Certificate of Appropriateness application for the demolition of one (1) non-historic, non-contributing garage, and two (2) non-historic, non-contributing sheds at 510 Chase Street and one (1) non-historic, non-contributing shed at 520 Chase Street as submitted and included in this staff report.

City staff will provide the Historic Preservation Commission recommendation to City Council at their meeting on February 28, 2018. Staff is recommending to the Historic Preservation Commission the following sample motion:

I move to recommend to the Board of Aldermen APPROVAL of the Certificate of Appropriateness for the Demolition of one (1) non-historic, non-contributing garage and two (2) non-historic, non-contributing sheds at 510 Chase Street and one (1) non-historic, non-contributing shed at 520 Chase Street based on the criteria set forth in the staff report dated February 16, 2018. The Certificate of Appropriateness application for 510 Chase Street and 520 Chase Street meets the intent of the criteria outlined in Sections 16-368 and 16-431 of the Black Hawk Municipal Code. The City of Black Hawk’s Residential Design Guidelines and the Secretary of the Interior’s Standards for Rehabilitation do not specifically address the demolition of non-historic and non-contributing structures.
STATE OF COLORADO
COUNTY OF GILPIN
CITY OF BLACK HAWK

COUNCIL BILL NUMBER: CBX
ORDINANCE NUMBER: 2018-XX


BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BLACK HAWK, GILPIN COUNTY:

Section 1. Section 18-5, subsection (a) of the City of Black Hawk Municipal Code, containing additions and modifications to the International Building Code, 2015 Edition, is amended by the modification of subsection (17), Section 1609.3 entitled “Ultimate Design Wind Speed,” to read as follows:

(17) Section 1609.3 Ultimate Design Wind Speed.
Risk Category I, 163 miles per hour (300 year recurrence interval)
Risk Category II, 173 miles per hour (700 year recurrence interval)
Risk Categories III and IV, 188 miles per hour (1700 year recurrence interval)
(Wind speeds based on the most current 2013 Colorado Front Range Gust Map)

Section 2. Section 18-5, subsection (b) of the City of Black Hawk Municipal Code, containing additions and modifications to the International Building Code, 2015 Edition, is amended by the addition thereto of a new sub-subsection (16) to read as follows:

(16) Section 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire Area.

Exception: Detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code.

Section 3. Safety Clause. The Board of Aldermen hereby finds, determines, and declares that this Ordinance is promulgated under the general police power of the City of Black Hawk, that it is promulgated for the health, safety, and welfare of the public, and that this
Ordinance is necessary for the preservation of health and safety and for the protection of public convenience and welfare. The Board of Aldermen further determines that the Ordinance bears a rational relation to the proper legislative object sought to be attained.

Section 4. Severability. If any clause, sentence, paragraph, or part of this Ordinance or the application thereof to any person or circumstances shall for any reason be adjudged by a court of competent jurisdiction invalid, such judgment shall not affect application to other persons or circumstances.

Section 5. Effective Date. The City Clerk is directed to post the Ordinance as required by the Charter. This Ordinance shall become effective upon posting by the City Clerk.

READ, PASSED AND ORDERED POSTED this 14th day of March, 2018.

_______________________________
David D. Spellman, Mayor

ATTEST:

________________________________
Melissa A. Greiner, CMC, City Clerk
NOTICE OF PUBLIC HEARING

NOTICE is hereby given of a public hearing before the Board of Aldermen of the City of Black Hawk, at 3:00 P.M. on Wednesday, March 14, 2018, at 211 Church Street, Black Hawk, Colorado, for the purpose of considering the proposed amendment of the following "International Codes", 2015 Edition, as adopted by reference as the building code of the City of Black Hawk.


The subject matter of these codes relate primarily to the building regulations for the City. The purpose of the Ordinance and the Codes adopted therein is to provide a system of building regulations consistent with state law and generally conforming to similar regulations throughout the state and nation. The above-referenced publications are being amended for the purpose of establishing and regulating building standards within the City of Black Hawk.

Copies of the above referenced code are on file at the office of the City Clerk and may be inspected during regular business hours. If enacted as an ordinance of this City, this code as amended will not be published in full, but in accordance with state law, copies will be kept on file.

At its next regular meeting following this hearing, the Board of Aldermen will consider passage of the adopting Ordinance.

This notice is given and published by the order of the Board of Aldermen.
DATED this 8th day of February, 2018.

ALL INTERESTED PARTIES MAY ATTEND

CITY OF BLACK HAWK
Melissa A. Greiner, CMC
City Clerk

Second notice of hearing published on March 1, 2018.
CITY OF BLACK HAWK
REQUEST FOR COUNCIL ACTION


RECOMMENDATION: Staff recommends the Board of Aldermen set the public hearing for March 14, 2018 to consider the adoption of an Ordinance amending the “International Building Code and International Fire Code”, 2015 Edition.

SUMMARY AND BACKGROUND OF SUBJECT MATTER: The City of Black Hawk has specific procedures for adopting building codes by reference. The adopting DRAFT Ordinance is first introduced to City Council, and a public hearing must be scheduled. City Council must also approve the draft notice of the public hearing. Staff recommends the public hearing for March 14, 2018 with two (2) publication periods in the Weekly Register Call once at least 15 days prior to the hearing and once at least 8 days prior the hearing. Copies of the “International Building Code and International Fire Code”, 2015 Edition, are available for review in the City Clerk’s office.

The purpose of the amendment is to correct discrepancies identified in the International Codes. Following is the content of the proposed Ordinance:

Section 1. Section 18-5, subsection (a) of the City of Black Hawk Municipal Code, containing additions and modifications to the International Building Code, 2015 Edition, is amended by the modification of subsection (17), Section 1609.3 entitled “Ultimate Design Wind Speed,” to read as follows:

(17) Section 1609.3 Ultimate Design Wind Speed.
Risk Category I, 163 miles per hour (300 year recurrence interval)
Risk Category II, 173 miles per hour (700 year recurrence interval)
Risk Categories III and IV, 188 miles per hour (1700 year recurrence interval)
(Wind speeds based on the most current 2013 Colorado Front Range Gust Map)

Section 2. Section 18-5, subsection (b) of the City of Black Hawk Municipal Code, containing additions and modifications to the International Building Code, 2015 Edition, is amended by the addition thereto of a new sub-subsection (16) to read as follows:

(16) Section 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire Area.

Exception: Detached one and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code

WORKSHOP DATE: N/A.

FUNDING SOURCE: N/A.

DEPARTMENT DIRECTOR APPROVAL: [X]Yes [ ]No

STAFF PERSON RESPONSIBLE: Cynthia L. Linker, CP&D Administrator


RECORD: [ ]Yes [X]No

CITY ATTORNEY REVIEW: [X]Yes [ ]N/A

SUBMITTED BY: Reviewed By:

Cynthia L. Linker
CP&D Administrator

Jack D. Lewis, City Manager

2/21/18
RESOLUTION 19-2018
A RESOLUTION APPROVING THE PURCHASE OF A 2018 CAT-906M COMPACT WHEEL LOADER AND A CAT-CB22B ROLLER FROM WAGNER EQUIPMENT IN AN AMOUNT NOT TO EXCEED $117,095.00
STATE OF COLORADO
COUNTY OF GILPIN
CITY OF BLACK HAWK

Resolution No. 19-2018

TITLE: A RESOLUTION APPROVING THE PURCHASE OF A 2018 CAT-906M COMPACT WHEEL LOADER AND A CAT-CB22B ROLLER FROM WAGNER EQUIPMENT IN AN AMOUNT NOT TO EXCEED $117,095.00

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BLACK HAWK, COLORADO, THAT:

Section 1. The City Council hereby approves the purchase of a 2018 CAT-906M compact wheel loader and a CAT-CB22B roller from Wagner Equipment in an amount not to exceed $117,095.00.

RESOLVED AND PASSED this 28th day of February, 2018.

________________________________________
David D. Spellman, Mayor

ATTEST:

________________________________________
Melissa A. Greiner, CMC, City Clerk
SUBJECT: Approve Resolution 19-2018, a Resolution approving the purchase of a CAT-906M compact wheel loader and a CAT-CB22B roller.

RECOMMENDATION: If City Council chooses to approve Resolution 19-2018, the recommended motion is as follows: "Approve Resolution 19-2018, a Resolution approving the purchase of a 2018 Caterpillar 906M compact wheel loader and a Caterpillar CB22B roller from Wagner Equipment in the amount of $117,095.00."

SUMMARY AND BACKGROUND OF SUBJECT MATTER:
The 2018 Capital budget includes funding for a skid steer($70k) and an asphalt roller($35k). A utility box truck was also included ($55k). Staff realigned the needs of the street department equipment and has ordered a standard ½ ton pickup in place of the utility box truck. This truck was ordered for $20,761 including trading in a 1999 Ford flatbed and a 2000 Dodge Durango. This resulted in a savings of over $20k after outfitting the new truck with equipment and retrofitting another repurposed truck with necessary equipment.

Staff also reevaluated the equipment needs since the budget was approved and took into account some of the complaints leveled against the City regarding maintenance, safety, and durability of some of our equipment. Staff determined that a compact wheel loader would be a more versatile and rugged piece of equipment for using a snow blower, broom, and blade attachment than the skid steer.

Staff packaged the request for bids for the compact wheel loader and a small roller together to generate more interest from vendors. In addition, a new snow blower and broom attachment were included with the request. Trade-ins for this acquisition include two old Gehl skid steers, three worn out snow blowers and one worn out broom.

Staff solicited bids from multiple vendors and received the three bids as follows:
1. Wagner Equipment (CAT); $138,850-(trade-in $21,755)= $117,095
2. Honnen Equipment(John Deere); $140,437-(trade-in $19,000)=$121,437
3. Faris Equipment(Whacker);$155,770-(trade-in $3000)= $152,770

Staff would recommend the purchase of the roller and the loader w/ attachments from Wagner Equipment. The difference in budgeted amount ($105,000) and the bid price for the better piece of equipment ($117,095) is $12,095. This amount was more than saved on the above mentioned pick-up truck acquisition.

FUNDING SOURCE: 305-3101-431-7559 skid steer, utility box truck, asphalt roller

WORKSHOP DATE: February 28, 2018

ORIGINATED BY: Thomas Isbester/Steve Jackson/Mike Schaller

STAFF PERSON RESPONSIBLE: Steve Jackson/Mike Schaller
PROJECT COMPLETION DATE: September 2018

DOCUMENTS ATTACHED: N/A

CITY ATTORNEY REVIEW: [ ] Yes  [ ] No  [ ] N/A  INITIALS __________

SUBMITTED BY:  REVIEWED BY:

Thomas Isbester, Public Works Director  Jack Lewis, City Manager
RESOLUTION 20-2018
A RESOLUTION ACCEPTING THE PHASE 1.A. REPORT OF PEAK PROGRAM VALUE, LLC, FOR THE CITY OF BLACK HAWK PROGRAM VALIDATION, AND AUTHORIZING THE DELIVERABLES SET FORTH BY PEAK PROGRAM VALUE, LLC AS PHASE 1.B. AND PHASE 2 IN AN AMOUNT NOT TO EXCEED $109,955.00
STATE OF COLORADO  
COUNTY OF GILPIN  
CITY OF BLACK HAWK  

Resolution No. 20-2018  

TITLE: A RESOLUTION ACCEPTING THE PHASE 1.A. REPORT OF PEAK PROGRAM VALUE, LLC, FOR THE CITY OF BLACK HAWK PROGRAM VALIDATION, AND AUTHORIZING THE DELIVERABLES SET FORTH BY PEAK PROGRAM VALUE, LLC AS PHASE 1.B. AND PHASE 2 IN AN AMOUNT NOT TO EXCEED $109,955.00

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BLACK HAWK, COLORADO, THAT:

Section 1. The City Council accepts the Phase 1.A Report of Peak Program Value, LLC, for the City of Black Hawk Program Validation, and hereby authorizes the deliverables set forth by Peak Program Value, LLC as Phase 1.B. and Phase 2 in an amount not to exceed $109,955.00.

RESOLVED AND PASSED this 28th day of February, 2018.

______________________________  
David D. Spellman, Mayor

ATTEST:

______________________________  
Melissa A. Greiner, CMC, City Clerk
CITY OF BLACK HAWK
REQUEST FOR COUNCIL ACTION

SUBJECT: Peak Program Value, LLC, Program Validation

RECOMMENDATION: Staff recommends the following motion to the Mayor and Board of Aldermen: Motion to accept the Phase 1A report and to approve the resolution authorizing Phase 1B.

MOTION TO APPROVE Resolution 20-2018, A Resolution Accepting the Phase 1A Report of Peak Program Value, LLC, for the City of Black Hawk Program Validation, and Authorizing the Deliverables Set Forth by Peak Program Value, LLC as Phase 1.B. and Phase 2 in an amount not to exceed $109,955.00.

SUMMARY AND BACKGROUND OF SUBJECT MATTER: Attached is the Phase 1A report. The intent of the project is to better understand processes and procedures related to projects in the Preservation Fund and the Capital Fund. The desired outcome is less cost for these projects and improved project administration.

AGENDA DATE: February 28, 2018
WORKSHOP DATE: N/A
FUNDING SOURCE: General Fund
DEPARTMENT DIRECTOR APPROVAL: [X] Yes [ ] No
STAFF PERSON RESPONSIBLE: Jack D. Lewis, City Manager
DOCUMENTS ATTACHED: Phase 1A Report
RECORD: [X] Yes [ ] No
CITY ATTORNEY REVIEW: [ ] Yes [X] No
SUBMITTED BY: Jack D. Lewis, City Manager
City of Black Hawk Program Validation

Phase 1.A
Initial Findings Report
January 31, 2018

Peak Program Value, LLC
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I.A Goals
II.A.1.a Safety
Section I: Executive Summary

I.A Goals

1. Identify the exceptional cost and risk drivers of City construction projects, if any (e.g. design, procurement, execution, etc.).

2. Design and implement a more cost effective & lower risk construction program process going forward.

3. Provide the City of Black Hawk with an implementation path to an enhanced consistency of process and results across multiple projects and City departments.

4. Facilitate “best practices” that support the “No Surprises” rule for leadership and project stakeholders.

5. Identify the opportunities for improving a more consistent approach for following the Secretary of Interior’s historic guidelines on residential projects, where applicable.

I.B Assignment

Phase 1A – Initial Validation

Conduct interviews, gather and analyze project data, and research construction industry data. Lead an interactive work session with staff to review available project delivery methods, in the context of City ordinances. Create an initial summary report of findings.

The scope of this (and future) phases has been expanded from the original proposal for the Residential program to include Public Works projects.

Phase 1B – Final Validation

Conduct additional interviews, perform a more detailed market analysis, and further analysis of data; select a team of designers/engineers and contractors to perform peer review of various projects’ designs; and provide value options for reducing cost while maintaining quality.

Phase 2 – Action Plan

Prepare a Program Management Implementation Plan with Program Management Tool Kit; prepare improved template contracts (Owner-Architect and Owner-Contractor) and review with City Attorney; conduct training session with City staff on new plan; upgrade City’s Project Information Management Systems.
Phase 3 – Execution

Apply the Program Management Implementation Plan to four residential construction projects and two Public Works projects including the procurement and selection of designers and contractors; set up a project specific budget and controls tracking system and train the staff on its use; facilitate handoff of project management to City staff prior to NTP for construction of projects.

I.C Method

1. Obtain all project records for six (6) residential projects and four (4) Public Works projects.

2. Conduct multiple interviews with City staff and selected designers/engineers, and document results.

3. Assign a researcher to gather Colorado unemployment and inflation data, as well as summarize available project delivery method risks and benefits studies.

4. Assign a construction cost estimating team to review and analyze all project cost data provided.

5. Review findings with City staff individually, and with the Mayor.

6. Review findings with City staff collectively, approve findings, and build consensus for the proposed action plan.

7. Submit Phase 1.A findings, and request approval to begin Phase 1.B and Phase 2.
I.D Summary of Findings

This report provides detailed information about findings (i.e. opportunities for improvement). Aside from the findings in this report, it is clear that the Public Works and Residential programs are performing most aspects of project management extremely well. The projects being delivered are in an extreme weather climate, with high levels of risks for subsurface conditions, around land that has some of the highest concentration of mines that construction projects can encounter, which make these projects some of the most complex projects in the industry. It is important to note that all departments and staff members interviewed during this process appear to have the best interest of the City in mind as they perform their work. All staff members were cooperative with this process and encouraged by the opportunities for improvement for them and their departments.

<table>
<thead>
<tr>
<th>Dept.</th>
<th>Section</th>
<th>Issue</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEN</td>
<td>Risk Mgmt</td>
<td>Contractor Procurement. Design-Bid-Build</td>
<td>The pre-qualification process could be improved and standardized across all departments. Some projects are delivered without using any pre-qualification and others with a minimal process.</td>
</tr>
<tr>
<td>GEN</td>
<td>Risk Mgmt</td>
<td>Key Personnel Succession Plan</td>
<td>There is no succession plan to replace key personnel without significant loss in productivity and project success.</td>
</tr>
<tr>
<td>GEN</td>
<td>Cost Mgmt</td>
<td>Contractor Procurement - GMP</td>
<td>The City does currently use the Negotiated Guaranteed Maximum Price contracting method, which may deliver better value and lower City risk.</td>
</tr>
<tr>
<td>GEN</td>
<td>Cost Mgmt</td>
<td>Contractor Procurement – Design Build</td>
<td>The City could use the Design-Build contract method more frequently, especially on larger horizontal improvement construction projects, to deliver projects more quickly with less cost and risk.</td>
</tr>
<tr>
<td>GEN</td>
<td>Cost Mgmt</td>
<td>Transparency of Project Cost Issues</td>
<td>Project management staff feels any contingency use is perceived as a failure of staff, and upper management has the perception they are not being informed proactively about pending cost issues.</td>
</tr>
<tr>
<td>GEN</td>
<td>Cost Mgmt</td>
<td>Acceptable Uses of Owner Contingency</td>
<td>Designers are occasionally asked to pay cost increases driven by Errors &amp; Omissions (E&amp;O) change orders, even when the total amount of E&amp;O change orders may be less than the standard recognized by the industry as acceptable.</td>
</tr>
<tr>
<td>GEN</td>
<td>Scope Mgmt</td>
<td>Stakeholder Involvement</td>
<td>Design is being influenced by stakeholders occasionally overruling designers' recommendations.</td>
</tr>
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<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>GEN</td>
<td>Scope Mgmt</td>
<td>Project Leadership Team (PLT)</td>
<td>There is not a consistent, regular process for allowing leadership to provide project input and innovative ideas.</td>
</tr>
<tr>
<td>GEN</td>
<td>Schedule Mgmt</td>
<td>Weather Days &amp; Delays Caused by Unforeseen Conditions</td>
<td>There is not a consistent method of documenting and addressing delays due to adverse weather impacts, as well as delays driven by unforeseen conditions.</td>
</tr>
<tr>
<td>RES</td>
<td>Cost Mgmt</td>
<td>Residential Construction Contract Options</td>
<td>All residential projects are performed using a Design-Bid-Build project delivery process, which may not be the best approach on these projects.</td>
</tr>
<tr>
<td>RES</td>
<td>Scope Mgmt</td>
<td>Update Residential Design Standards</td>
<td>The Residential Design Standards appear to conflict with other standards, as well as having their own internal ambiguities.</td>
</tr>
<tr>
<td>RES</td>
<td>Scope Mgmt</td>
<td>Value Engineering</td>
<td>Residential projects do not appear to perform much analysis of cost prior to bidding the design documents.</td>
</tr>
<tr>
<td>PW</td>
<td>Risk Mgmt</td>
<td>Designer of Record Perform Construction Administration (CA)</td>
<td>The designer of record is not always contracted to perform Construction Administration on the work that they designed. This exposes the City to sharing responsibility for the design.</td>
</tr>
<tr>
<td>PW</td>
<td>Cost Mgmt</td>
<td>Initial Conceptual Design &amp; Conceptual Estimate</td>
<td>Initial project budgets are often created without a clear understanding of the project's scope, and budgets prepared without the proper time and effort to identify all true costs.</td>
</tr>
<tr>
<td>PW</td>
<td>Cost Mgmt</td>
<td>Internal PW Project Meetings</td>
<td>There is not a consistent, formal internal Project Management meeting with PW staff to prepare for meetings with leadership.</td>
</tr>
<tr>
<td>PW</td>
<td>Scope Mgmt</td>
<td>Capital Projects Plan</td>
<td>Capital Projects Plan is not updated regularly.</td>
</tr>
<tr>
<td>PW</td>
<td>Quality Mgmt</td>
<td>Resource Planning</td>
<td>The format and level of detail of resource planning is less than industry standard for the size of projects being performed. The PW team does not outsource project management, which limits the</td>
</tr>
</tbody>
</table>
I.E Summary of Recommendations

[Table of Recommendations will be inserted here at the end of Phase 2]
Section II: Detailed Findings

II.A General

General findings apply to both the Development Services department and the Department of Public Works.

II.A.1 Opportunities for Improvement

The following findings are areas where there are opportunities to improve on the standards for project delivery in an effort to operate more similar to the Best Practices of the industry.

Tables in blue note Key Findings.

II.A.1.a Safety

Safety is the single most important aspect of any project in the industry. Studies have proven when the Owner of a project continuously emphasizes safety as the top priority, lives are saved. Reminding teams about its importance on a continuous basis, both on project work and as well as personal time lowers accidents not just for construction but also for staff off duty at home (where the majority of accidents occur).

These are specific opportunities for improvement relating to Safety.

<table>
<thead>
<tr>
<th>Issue A.a.1</th>
<th>Safety Reminders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding</td>
<td>Leadership could improve the frequency and methods that they convey the importance of Safety to project teams.</td>
</tr>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Leadership explains that safety is top priority by making it an important agenda item at meetings.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
<tr>
<td>Issue A.a.2</td>
<td>Safety Moment at Every Meeting</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td><strong>Finding</strong></td>
<td>Not all meetings are started with a Safety Moment. Safety is usually discussed only if there is an issue to be addressed.</td>
</tr>
<tr>
<td><strong>Example of Finding</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td>Start every meeting (even when not on construction site) with safety moment.</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
## II.A.1.b Risk Management

### Contractor Procurement - Design Bid Build

<table>
<thead>
<tr>
<th>Finding</th>
<th>The pre-qualification process could be improved and standardized across all departments. Some projects are delivered without using any pre-qualification and others with a minimal process. This creates potential risk to the City as unqualified bidders can be the low bidders, and if not selected, creates potential for bid award protests. While historically not a problem, this potential challenge is eventually encountered by municipalities without a prequalification process.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B – Residential Paint Program, Parking Structure, etc.]</td>
</tr>
<tr>
<td>1.</td>
<td>Public Works does not have a pre-qualification process required before contractors are allowed to bid on projects.</td>
</tr>
<tr>
<td>2.</td>
<td>The Residential group has a program for pre-qualification but it could be improved. [This will be explained in more detail in Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Establish contractor pre-qualification program where bidders are required to have their qualifications approved prior to submitting bids. For contractors who are pre-qualified, require qualifications to be updated periodically.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
### Issue A.b.2  Key Personnel Succession Plan

| Finding | There is no succession plan to replace key personnel without significant loss in productivity and project success. |
|---------|------------------------------------------------------------------------------------------------|---|
| Example of Finding | Tier 1 Key Resources: Jack Lewis, Tom Isbester, Cynthia Linker, Jim Ford, Deon Wolfenbarger (Three Gables Preservation) Tier 2 Key Personnel: Matt Reed, Gary Pauls, Nathan Pillatzke (PEH), NV5 |
| Best Practice | Create a long-term plan to for replacement of key personnel, including but not limited to allowing the selected successor(s) to work alongside existing staff for one quarter as a goal, with the understanding that hiring staff and training them in advance of a known retirement date leads to a more seamless transition than other options. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |
### Issue A.b.3  
**Applications for Payment Review Checklist**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Some contractor pay applications are being processed without receiving all necessary monthly submittals and supporting documentation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>(Phase 1B)</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Require updated schedule, contractor monthly report (if project is large enough to be required by contract), conditional and unconditional lien waivers, proof of updated as-builts, photos, bill of sale and proof of insurance for off-site stored materials with each contractor pay application.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>(Phase 1B) will include a review of this with Corey Hoffmann</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>(Phase 2) As-Builts: Project Manager writes a Memo to File stating that the As-Builts have been reviewed and are up to date. PPV will include a template of this memo.</td>
</tr>
</tbody>
</table>

### Issue A.b.4  
**CoBH Comment Review**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Stakeholder comments on some design drawings and specs are not consistently reviewed for risk exposure by a third party prior to submitting to designers. This creates a risk of City staff inappropriately influencing the design; directing/overruling designers/engineers, and assuming design liability. This will increase risk to the City if there is future design failure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>(Phase 1B)</td>
</tr>
</tbody>
</table>
| Best Practice | Stakeholder comments should sometimes be reviewed by either a peer reviewer (e.g. on call engineer) or owner’s representative prior to returning to designers, using written guidelines to identify when this is recommended vs. when it is required to be used.  
At a minimum, when the architect or engineer of record disagrees with stakeholder direction, a peer reviewer under contract to the City should be called in to provide an opinion, and the City should support that opinion. |
| Recommendation | (Phase 1B) |
**Issue A.b.5  Potholing Program**

<table>
<thead>
<tr>
<th>Finding</th>
<th>Example of Finding</th>
<th>Best Practice</th>
<th>Recommendation</th>
<th>Templates and Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potholing is not consistently performed on all projects. There are a lot of underground utilities and other unknown underground hazards in Black Hawk and therefore a high risk of cost increases for discoveries on all projects.</td>
<td>[Phase 1B]</td>
<td>[Phase 1B]</td>
<td>[Phase 2]</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
## II.A.1.c Cost Management

### Issue A.c.1 Contractor Procurement - Negotiated - Guaranteed Maximum Price (GMP)

<table>
<thead>
<tr>
<th>Finding</th>
<th>The City does not use Negotiated Guaranteed Maximum Price contracting method, which many believe is due to City ordinance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>The Negotiated GMP contract method is a legal contract method for public entities in the state of Colorado and can often result in lower project costs, fewer change orders, and higher quality results. After initial reviews of the City ordinance it appears that this method is allowable. This has been confirmed with the City attorney (Corey Hoffmann).</td>
</tr>
</tbody>
</table>
| Recommendation | [Phase 1B - PPV to:]
1. Define a program to train City staff on the different contract methods (will be started in Phase 1A);
2. Identify trial projects to test this method and evaluate results ( Likely residential projects);
3. Update City ordinance as recommended by Corey Hoffmann to clarify the process for this method. |
| Templates and Tools | [Phase 2] |
### Issue A.c.2 Contractor Procurement - Design Build

<table>
<thead>
<tr>
<th>Finding</th>
<th>The City could use the Design-Build contract method more frequently, especially on horizontal improvement construction projects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Design-Build contract method is a legal contract method for public entities in the state of Colorado and can often result in lower project costs, and shorter project durations. Corey Hoffmann has confirmed that this method is allowable under current City ordinance.</td>
</tr>
</tbody>
</table>
| Recommendation | [Phase 1B – PPV to:  
1. Define a program to train City staff on the different contract methods (will be started in Phase 1A);  
3. Identify trial projects to test this method and evaluate results (Likely retaining wall projects)] |
| Templates and Tools | [Phase 2] |
### Issue A.c.3  Transparency of Project Cost Issues

#### Finding
Project management staff feels they have limited knowledge of project contingency, and any contingency use is perceived as a failure of staff and/or consultants.

Upper management has the perception they are not being informed proactively about pending cost issues, and are many times surprised after the fact with previously known cost increases.

This dynamic tension creates an environment where project challenges are not communicated well. It also causes project teams to push risk to contractors and consultants, often creating increased overall project costs.

#### Example of Finding
Subsurface Conditions: See detailed finding for more information. The contractors are often being told to assume worst case for subsurface conditions so Change Orders are reduced. If anything less than worst case is encountered, contractors keep the savings.

Residential Errors and Omissions: When architects and engineers make errors they are forced to pay for the added cost instead of the City. See detailed finding about errors and omissions for more information.

#### Best Practice
Team members should have regular, formal meetings with detailed budget forecasts, and discuss all pending issues well in advance. These meetings should encourage project managers to be involved in defining risks and exposures that could impact the project contingency. These risks should be tracked and updated at least weekly using a tool that is fully transparent to the City team, so the management team can "self-inform" and assess overall budget and schedule of any project. The use of contingency, however, should continue to require approval from upper management (i.e. City Manager).

#### Recommendation
[Phase 1B]

PPV will provide guidelines for contingency percentages by project types and project phase.

PPV will provide guidelines for acceptable or expected amounts of all types of change orders including Regulatory, Errors & Omissions, Owner Initiated, and Unforeseen

#### Templates and Tools
[Phase 2]
### Issue A.c.4  Acceptable Uses of Owner Contingency

<table>
<thead>
<tr>
<th>Finding</th>
<th>Projects sometimes do not tolerate any amount of cost increases driven by Errors &amp; Omissions (E&amp;O) in the design documents. Designers are occasionally asked to pay for these E&amp;O change orders, even when the total amount of E&amp;O change orders may be less than the standard recognized by the industry as acceptable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Reserve contingency of 2.0 to 4.0 % (depending on the nature of the project) of each project’s construction cost for E&amp;O change orders. This line item will be used if needed by the CoBH for each project, to be consistent with the enforceable industry standard.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
<tr>
<td><strong>Issue A.c.5</strong> Cost Premium – Location</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Finding</strong></td>
<td></td>
</tr>
<tr>
<td>PPV performed a detailed construction cost estimate of the Saint Charles Carriage House Parking Structure, using the Bidding Documents provided, and compared it to the selected contractor’s Schedule of Values. A similar construction cost estimate by PPV has also been prepared for comparison to the Emergency Operations Center’s actual costs paid by the City.</td>
<td></td>
</tr>
<tr>
<td>These two comparisons will allow validation of the costs paid by the City for these projects at their current location.</td>
<td></td>
</tr>
<tr>
<td>(see Appendices C &amp; D).</td>
<td></td>
</tr>
<tr>
<td>In Phase 1.B the Parking Structure estimate will be updated as if located in Aurora, CO, both with and without the brick veneer, fenestration, etc. required by the historic requirements of Black Hawk. This will allow us to evaluate the premium being paid for the location of the projects.</td>
<td></td>
</tr>
<tr>
<td><strong>Example of Finding</strong></td>
<td></td>
</tr>
<tr>
<td>[Phase 1B]</td>
<td></td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td></td>
</tr>
<tr>
<td>A detailed understanding of what is driving the City’s project costs (e.g. location, historic requirements, etc.) can be used by CoBH staff to mitigate these costs as much as possible when managing design teams on future projects.</td>
<td></td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td></td>
</tr>
<tr>
<td>[Phase 1B]</td>
<td></td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td></td>
</tr>
<tr>
<td>[Phase 2]</td>
<td></td>
</tr>
</tbody>
</table>
### Issue A.c.6  Cost Premium - Escalation

**Finding**
As part of Phase 1.A, PPV completed a research study of the unemployment rate and escalation rates in Colorado from 2009 to 2017, to give us an overview of the marketplace for context of escalation.

In Phase 1.B, PPV will be performing a detailed construction cost estimate of the St. Charles Parking Structure as if located in Aurora, CO and bid in 2009, to compare with the 2017 estimate, to evaluate the construction cost escalation that the market has seen in that period.

In addition, PPV is about 50% complete with a research project to collate and compare the actual cost data of multiple project types (e.g. parking structures, fire stations, and K-8 elementary schools) to identify the construction cost trend from 2009 to 2016.

These project types, while not all applicable to the City of Black Hawks' recent or future projects, do provide a consistent benchmark, and contain standard industry materials/labor components (e.g. concrete, brick, steel, etc.).

**Example of Finding**
[Phase 1B]

**Best Practice**
A detailed understanding of what is driving the City's project costs (e.g. location, historic requirements, etc.) can be used by CoBH staff to mitigate these costs as much as possible when managing design teams on future projects.

**Recommendation**
[Phase 1B]

**Templates and Tools**
[Phase 2]
<table>
<thead>
<tr>
<th><strong>Issue A.c.7</strong></th>
<th><strong>Budget Reporting</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finding</strong></td>
<td>Format and level of detail of budget reporting appears to be inconsistent between departments and could be improved to provide more easily accessible, better organized, and more detailed information for all stakeholders.</td>
</tr>
<tr>
<td><strong>Example of Finding</strong></td>
<td>[Phase 1B – PPV and staff to review options for sample monthly reports for review and further recommendation.]</td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td>Using a budget tracking system that clearly and proactively identifies/quantifies all pending cost impacts well in advance. Establish regular reporting to different levels of stakeholders. Enable key stakeholders to review budget reports prior to meetings, then provide a forum for discussing upcoming issues with project management.</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
## Issue A.c.8 Project Budget Tracking Format

<table>
<thead>
<tr>
<th>Finding</th>
<th>System used for budget tracking (Excel) is less robust than industry standard. Excel spreadsheets have high exposure to data and formula errors; have fewer controls for consistent reporting; and are much more time consuming than purpose-built tools. In summary, the current paradigm takes more effort to get less results than is needed by the City of Black Hawk.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Consider using budget management software (e.g. Owner Insite, Clarizen, Budget4Cast, Trimble’s Prolog, etc.) to improve consistency of budget format, issue tracking, and reporting among projects. This will also improve transparency and the ability to report up to management and other key stakeholders.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

## Issue A.c.9 Budget Update Procedure

<table>
<thead>
<tr>
<th>Finding</th>
<th>Frequency and format of update is less robust and frequent than industry standard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Create standard for update frequency and format for tracking.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
## Issue A.10 Designer Procurement

<table>
<thead>
<tr>
<th>Finding</th>
<th>Design team procurement process varies between projects and has opportunities for improvement in some cases. This needs more investigation in Phase 1B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Establish standard processes depending on size of project. Large projects typically should use two step RFQ/RFP process for better informed decisions.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
### II.A.1.d  Scope Management

#### Issue A.d.1  Stakeholder Involvement

<table>
<thead>
<tr>
<th>Finding</th>
<th>Design is being influenced by stakeholders occasionally overruling designers' recommendations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Establish definitions for stakeholder involvement and a matrix defining the involvement</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Establish a Stakeholder Review and Approval Matrix that will define the level of involvement for different stakeholders on different project documents. See Appendix B for a template of this matrix. It will be populated in Phase 1B. Establish a ‘Yes, but...’ approach so when stakeholders make requests of the project, the team is trained to respond with “yes, but here are the potential impacts...”</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

#### Issue A.d.2  Project Leadership Team (PLT)

<table>
<thead>
<tr>
<th>Finding</th>
<th>There is not a consistent, regular process for allowing leadership to provide project input and innovation ideas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Schedule regular meeting to serve as forum for leadership input and ideas.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Create monthly meeting with Mayor, CM, and project teams to encourage creative project ideas from leadership and facilitate brainstorming about new and existing projects. This will encourage and allow the Mayor to share ideas with staff.</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
## II.A.1.e Schedule Management

### Issue A.e.1 Weather Days & Other Unforeseen Delays

| Finding | There is not a consistent method of addressing the adverse weather and the assumptions that contractors need to plan for when pricing their work. |
| Example of Finding | Residential project teams are telling contractors how many weather days to assume. PW contracts are silent to weather, then they are negotiated at the end of the job. |
| Best Practice | Instructions to Bidders (ITBs) should define the assumptions that should be made and should reference national weather database for average adverse weather days. ITBs should also define the process by which a day is determined to be an adverse or abnormal weather day including requiring the contractor to define it as a weather on that current day so it can be accepted by the City at that time. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |

### Issue A.e.2 Approval of Project Schedules

| Finding | Approval of changes in project schedules do not appear to be occurring as official project Change Order. |
| Example of Finding | [Phase 1B] |
| Best Practice | Approval of baseline and recovery schedule(s) should occur as Construction Change Order to officially add them to the Contract. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |
### II.A.1.f Quality Management

#### Issue A.f.1 Construction Quality Control

<table>
<thead>
<tr>
<th>Finding</th>
<th>Contractor Quality Control plans do not appear to be consistently reviewed and approved prior to start of construction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B – PPV to review project records in detail to confirm]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Require written contractor quality control plans to be approved on each project prior to start of construction.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2 – PPV to provide recommendation and best practices for Quality Control Plans so CoBH reviewers can provide useful comments on Contractor Quality Control Plans. PPV will provide examples of Quality Control Plans.]</td>
</tr>
</tbody>
</table>

#### Issue A.f.2 Quality Assurance

<table>
<thead>
<tr>
<th>Finding</th>
<th>There is no written Quality Assurance Plan in place on projects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Create and implement Quality Assurance program on all projects. Quality Assurance plans should includes reviews of Contractor QC deliverables to ensure QC practices are being performed.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2] PPV will help CoBH build their Quality Assurance Plans.</td>
</tr>
</tbody>
</table>
**Issue A.f.3** Design Quality Control

<table>
<thead>
<tr>
<th>Finding</th>
<th>The procedures for quality control of design appear to vary significantly between projects.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Require written design quality control plans to be approved on each project prior to beginning design. Implement Peer Reviews when appropriate for key design components, or areas of concern on projects. Levels of design quality control often vary depending project magnitude.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

**Issue A.f.4** Collaborative Document Review Sessions

<table>
<thead>
<tr>
<th>Finding</th>
<th>City comments on design drawings are captured by designers on hard copy drawings during design review meetings. This creates scenario where the City may not have record of the comments and responses in the project file. As with the budget tracking process, the level of effort is greater, and the results are not as good as could be obtained with a few procedural changes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Use of a document management/markup control system (Bluebeam, PlanGrid, eBuilder, or even ShareFile or Box) will allow reviewers to comment on one file, and the City to have a record set of all comments from all stakeholders.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
<tr>
<td></td>
<td>PPV will provide a PDF standards document that projects can use to guide teams.</td>
</tr>
</tbody>
</table>
## Issue A.f.5  Design Peer Reviews

| Finding | Designs are not being peer reviewed consistently, creating some questions of the efficiency of design. No peer reviewer is currently used to review PW staff comments, and provide quality assurance on City construction documents. |
| Example of Finding | [Phase 1B] |
| Best Practice | Engage qualified firms to perform peer reviews of designs as appropriate. Establish guidelines for project managers to help them decide when a peer review is not needed, recommended, and required. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |

## II.A.1.g  Information Management

### Issue A.g.1  Communication Protocols

| Finding | There does not appear to be a written plan for information transfer and communication on projects. |
| Example of Finding | [Phase 1B] |
| Best Practice | Create and implement a system that defines communication protocols including prohibiting texting, establishing large file transfer protocols, email storage methods, etc. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |

PPV will meet with IT department to coordinate the recommendations with their goals and objectives.
### Issue A.g.2  File Naming Standard

<table>
<thead>
<tr>
<th>Finding</th>
<th>There does not appear to be a consistent method for naming project files.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>Residential files have a standard naming used by NV5. Files occasionally deviate from standard convention. PW file names occasionally include a date but not consistently. Other file naming attributes could be considered to improve the information contained in the file names.</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Create and implement a file naming standard.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B] PPV will meet with the City Clerk and IT department to coordinate with their goals and objectives.</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

### Issue A.g.3  Folder Structure Standard

<table>
<thead>
<tr>
<th>Finding</th>
<th>There does not appear to be a consistent folder structure for project files. Residential project use a folder structure implemented by NV5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Create and implement a folder structure standard across city projects and departments.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B] PPV will meet with the City Clerk and IT department to coordinate with their goals and objectives</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
### Issue A.4.4 Template Management System

<table>
<thead>
<tr>
<th>Finding</th>
<th>There does not appear to be a system for managing template files. Residential templates are often reviewed by the City attorney and are updated yearly. Public Works needs a better set of templates for improving staff effectiveness, and getting better results.</th>
</tr>
</thead>
</table>
| Example of Finding | [Phase 1B – Further investigation into current system will be done]  
1. Review existing templates from shared drive that Residential team keeps.  
2. Review existing templates for PW team. |
| Best Practice | Create process flow charts dynamically linked to document templates. Establish ‘Owners’ of template documents and processes for updating templates with lessons learned. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |

### Issue A.4.5 Project Delivery Processes

<table>
<thead>
<tr>
<th>Finding</th>
<th>There does not appear to be a process diagram or similar tool that defines the steps of different project processes. There is a Grant Program Checklist that pertains to Grant funded projects for the residential program.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Create process flow charts linked to document templates.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Create process flow charts linked to document templates. For residential projects, consider editing existing Grant Program Checklist document to maintain as process document.</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
### Issue A.g.6 Technology Tools

<table>
<thead>
<tr>
<th>Finding</th>
<th>The technology tools being used are less than industry standard which may be reducing productivity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>See Residential Program for a more detailed discussion of tools and best practices here. One set of tools should be adopted by both Community Development and Public Works, even though they will have significantly different uses. Certain tools should be considered to be used by all department to provide consistency throughout the City.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
II.B Residential

Residential findings apply to Development Services in relation to the delivery of the residential rehabilitation projects.

II.B.1 Opportunities for Improvement

The following findings are areas where there are opportunities to improve on the standards for project delivery in an effort to operate more similar to the Best Practices of the industry.

II.B.1.a Safety

See General section for Safety findings related to the Residential program.
## II.B.1.b Risk Management

### Issue B.b.1 Residential Construction Contract Options

<table>
<thead>
<tr>
<th>Finding</th>
<th>Example of Finding</th>
</tr>
</thead>
</table>
| All residential projects are performed using a Design-Bid-Build project delivery process, which may not be the best approach on these projects. The City wants to be able to select contractors based on quality of work and previous experience, and benefit from early contractor constructability input and cost transparency, which would be highly advantageous on these challenging projects. | 1. Some residential projects have resulted in the low bidder being a firm that CoBH had bad experiences with but in design-bid-build environment, the City is obligated to select low bidder.  
2. Design-bid-build contract method does not allow for City to see cost savings when sub-surface materials are better than worst-case scenario if bidders are instructed to assume worst-case scenario.  
3. Value engineering is less dependable on design-bid-build projects because cost estimates are typically performed by different companies than the contractor who will be building the project.  
4. Certain components of projects may be appropriate for Design-Build method (i.e. retaining walls).  
5. Current Instructions to Bidders include clause allow CoBH to reject subcontractors if desired. This is typically more common on a negotiated GMP contracts, but when used on a design-bid-build project this can create unintended cost and performance risk assumption by the City. |

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Allow project team to consider other project delivery types and educate team on options.</th>
</tr>
</thead>
</table>
| 1. Use a two-step procurement process where contractors are selected based on qualifications first, then asked for a proposal.  
2. The Negotiated GMP project delivery method bring many benefits to this program:  
A. Provides early estimates, constructability review and value engineering from the contractor who will be building the project;  
B. Maintains City control over every subcontractor hired;  
C. Allows breaking the project into bid packages, some of which (e.g. retaining walls) could be designated as design-build;  
D. Lets the City pay only actual costs for sub-surface conditions; and |
### E. Raises GC accountability while lowering potential disconnects, claims and lawsuits.

**Recommendation** Begin using a Negotiated GMP (a.k.a GM-GC or CMAR) project delivery method on residential projects.

**Templates and Tools** [Phase 2: Contract template, ITB template, etc.]

---

### Issue B.b.2 Risk Sharing of Subsurface Conditions

<table>
<thead>
<tr>
<th>Finding</th>
<th>Current projects instruct bidders to assume worst case scenario for unknown subsurface conditions to avoid future change orders. This causes project costs to always be the worst-case scenario on bid day. Only the contractor benefits if actual conditions are not as extreme as worst case.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>Residential projects.</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Owner shares risk with GC by providing quantity assumptions bidders should use and requesting unit costs for these quantities at bid time for various costs. This allows City to pay for actual conditions encountered but still use unit rates received in competitive bid environment.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td></td>
<td>Include request for unit costs for ground thawing equipment in RFP</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
**Issue B.b.3 Paint Program Procurement**

| Finding | Bid process for residential paint program is not officially able to select contractor based on quality, but the project team prefers to select with an emphasis on quality of subcontractor, with price being part of the selection criteria.
| Example of Finding | [Phase 1B] | Current plan in place exposes the City to higher risk of disputes if low bidder is not selected.
| Best Practice | If qualifications are important, use RFQ/RFP, two-step process and/or contractor pre-qualification process to create qualified bidder pool to avoid bid disputes. Use of an Indefinite Delivery, Indefinite Quantity project delivery method would allow the most flexibility with this program. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] | Some firms have great work, and should be engaged for multiple projects. |
### II.B.1.c  Cost Management

#### Issue B.c.1 Residential Designer Procurement Process

| Finding | The procurement process for designers of residential projects is currently focused on a single design firm.  
PEH Architects is providing good service and has a great deal of historic knowledge of the program, City requirements, and location's constructability issues.  
Nathan Pillatzke of PEH is passionate about the projects and provides good value. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>211 Horn Street and 241 Dubois Street projects (currently under construction) only received proposals from one design firm (PEH). The RFP appeared to be limited to a Scope of Work document.</td>
</tr>
</tbody>
</table>
| Best Practice | The City will not be well served by transitioning to a new firm any time soon.  
That said, the City should prepare a transition plan in the event Mr. Pillatzke is no longer available to work on these projects.  
The long-term approach for this transition plan is to create a process with a clear scope that improves success of other design firms, and expands the pool of interested candidates. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |
### II.B.1.d  Scope Management

#### Issue B.d.1  Update Residential Design Standards

**Finding**
The Residential Design Standards appear to conflict with other standards. The recent State of Colorado audit cites specific concerns with the implementation of this program. Deviations from Design Guidelines for any interior work do not have detailed documentation explaining the reason for the deviation.

**Example of Finding**
[Phase 1B]

**Best Practice**

1. Update design standards. This process is underway and scheduled to be complete in June 2018.
2. Create a process and/or form that will require the project team to document each instance that a guideline is not followed including the reason. This document will be an important piece of the project file so the City can defend each deviation from the standards and guidelines.

**Templates and Tools**
[Phase 2]

#### Issue B.d.2  Value Engineering

**Finding**
Residential projects do not appear to perform much analysis of cost prior to bidding the design documents.

**Example of Finding**
Construction firms have offered there are opportunities for cost savings methods on the current projects but there was not a step to identify or pursue these.

**Best Practice**
Cost estimate(s) performed prior to bid to check budget and/or discuss VE opportunities.

**Recommendation**
Consider a Negotiated GMP contract method to engage contractor during design and have them perform full cost estimate and lead Value Engineering discussion. This approach would apply to every project for consistency.

**Templates and Tools**
[Phase 2]
II.B.1.e Schedule Management

See General Findings section.

II.B.1.f Quality Management

See General Findings Section.

II.B.1.g Information Management

See General Findings Section.
II.C  Public Works

Public Works findings apply to the Department of Public Works in addition to the findings in the General Section.

II.C.1  Opportunities for Improvement

The following findings are areas where there are opportunities to improve on the standards for project delivery in an effort to operate more similar to the Best Practices of the industry.

II.C.1.a  Safety

See General section for findings relating to Safety.
## II.C.1.b Risk Management

### Issue C.b.1

**Designer of Record Perform Construction Administration (CA)**

<table>
<thead>
<tr>
<th>Finding</th>
<th>The designer of record is not always contracted to perform Construction Administration on the work that they designed. This exposes the City to sharing responsibility for the design and potential design problems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Engineer of Record should perform CA on all projects. Construction Administration by the designer of record typically includes spot checking of the work in progress, responding to RFI’s, reviewing contractor submittals, reviewing contractor as-builts, and any other services required during construction. The designer of record typically visits the construction site at frequencies that they see fit in order for them to feel comfortable that the work met the requirements of their design.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

### Issue C.b.2 Change Request Procedure

<table>
<thead>
<tr>
<th>Finding</th>
<th>Design changes appear to occasionally be approved without receiving all cost and schedule impacts from contractor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example of Finding</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Best Practice</td>
<td>Follow procedure to define cost and schedule impacts of design changes before committing.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td>Templates and Tools</td>
<td>Tools will include a Construction Change Directive (CCD) which will allow the City to keep work moving while the costs are negotiated. PPV will facilitate discussions, training and tools to help the team define the methods available to keep a project moving, while contractually controlling costs.</td>
</tr>
</tbody>
</table>
## II.C.1.c Cost Management

### Issue C.c.1 PW Conceptual Design & Conceptual Estimate

<table>
<thead>
<tr>
<th><strong>Finding</strong></th>
<th><strong>PW Conceptual Design &amp; Conceptual Estimate</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example of Finding</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td>Complete conceptual design and conceptual estimate before presenting budget to Council and stakeholders for a project.</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>Initial budget should not be issued to leadership or Council until scope is clearly defined and initial cost estimate is performed by cost estimating experts.</td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>

### Issue C.c.2 Internal PW Project Meetings

<table>
<thead>
<tr>
<th><strong>Finding</strong></th>
<th><strong>Internal PW Project Meetings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example of Finding</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td>Schedule regular internal meetings where Project Managers can report progress and discuss issues with PW leadership (Tom Isbester). This is often most effective if they are scheduled prior to meetings with leadership.</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
### Issue C.c.3  Cost Premium - Aesthetics

**Finding**

As discussed in the General Findings section, PPV will be performing a detailed construction cost estimate of the parking structure (Appendix C) with and without the added aesthetic façade to evaluate the premium that is being paid for the historic and increased aesthetic on projects.

Unlike the residential projects, the function of these projects is not focused primarily on the historic nature of the improvement but still requires certain added aesthetic components which cause the cost of the work to be higher than an average improvement of similar function.

**Example of Finding**

[Phase 1B]

**Best Practice**

This information can be used by CoBH staff to understand construction costs when received.

**Recommendation**

[Phase 1B]

**Templates and Tools**

[Phase 2]

### Issue C.c.4  Parking Structure Cost Recovery

**Finding**

It is PPV’s understanding the Phase 1 Pad Preparation for the St. Charles Carriage House was not completed per plans and specifications when the contractor received final payment.

There may be an opportunity to recover costs expended by the City to mitigate this possible non-performance.

**Example of Finding**

[Phase 1B]

**Best Practice**

Have the engineer of record certify the project completion, and have an independent surveyor validate locates and top of grade before issuing final payment.

**Recommendation**

[Phase 1B]

Start cost recovery efforts.

**Templates and Tools**

[Phase 2]
### II.C.1.d Scope Management

#### Issue C.d.1 Capital Projects Plan

| Finding                                    | Capital Projects Plan is not updated regularly. |
| Example of Finding                         | [Phase 1B]                                    |
| Best Practice                              | Update Plan monthly including resource projections and planning to match project. |
| Recommendation                             | [Phase 1B]                                    |
| Templates and Tools                        | [Phase 2]                                     |
## II.C.1.e Schedule Management

### Issue C.e.1 Baseline Schedule Review Checklist

| Finding | It appears that the items reviewed and standards of content and appearance may not be consistently applied across projects. A checklist does not appear to exist to help guide staff through the schedule reviews. |
| Example of Finding | [Phase 1B] |
| Best Practice | Define resources for schedule review (in-house vs consultant) and complete checklist before approving baseline schedule. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |

### Issue C.e.2 Schedule Update Review Checklist

| Finding | Similar to finding for Baseline Schedule Review, there does not appear to be a checklist for reviewing baseline schedules. |
| Example of Finding | [Phase 1B] |
| Best Practice | Define resources for schedule review (in-house vs consultant) and complete checklist before approving baseline schedule. |
| Recommendation | [Phase 1B] |
| Templates and Tools | [Phase 2] |
## II.C.1.f  Quality Management

### Issue C.f.1  Resource Planning

**Finding**  
The format and level of detail of resource planning is less than industry standard for the size of projects being performed. The PW team does not frequently outsource project management which limits the ability for the staff to manage the fluctuations in workload.

**Example of Finding**  
[Phase 1B]

**Best Practice**  
1. Establish a format and frequency for reviewing the staffing plan with upper management, and documenting the constantly changing resource needs at PW.
2. Use a planning tool to provide and to identify future staffing issues before they arise, so they can be addressed.
3. Put in place an IDIQ (e.g. "On Call") contract for Project Management consultant (i.e. NV5) who can be given assignments to manage projects when workload exceed staffing capabilities.

**Recommendation**  
[Phase 1B]

**Templates and Tools**  
[Phase 2]

### Issue C.f.2  Staffing

**Finding**  
PW staff finds themselves operating in “reactive” mode regularly and attributes this to their workload.

**Example of Finding**  
[Phase 1B]

**Best Practice**  
Establish tools, resources, and options so PW staff can be in “proactive” mode the majority of the time; be flexible and in control of projects through different cycles of work-load.

See Resource Planning above for more detail here.

**Recommendation**  
[Phase 1B – More Detail here]

**Templates and Tools**  
[Phase 2]
## II.C.1.g  Information Management

<table>
<thead>
<tr>
<th>Issue C.g.1</th>
<th>GIS System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finding</strong></td>
<td>GIS data of the city is limited.</td>
</tr>
<tr>
<td><strong>Example of Finding</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Best Practice</strong></td>
<td>Create a structured plan to incrementally improve the GIS data, and provide a plan to maintain the system’s accuracy going forward.</td>
</tr>
<tr>
<td><strong>Recommendation</strong></td>
<td>[Phase 1B]</td>
</tr>
<tr>
<td><strong>Templates and Tools</strong></td>
<td>[Phase 2]</td>
</tr>
</tbody>
</table>
Section III: Detailed Recommendations

[To be provided in Phase 2]
Section IV: Appendices

- Appendix A: Scope of Work & Meeting Notes
- Appendix B: Cost Comparison of Residential Projects
- Appendix C.1.A: Cost Validation of Parking Structure (PPV Estimate to Actual SoV)
- Appendix C.1.B: Cost Validation of Parking Structure (Estimates by Location) (Phase 1.B)
- Appendix C.1.C: Cost Validation of Parking Structure (Estimate w/o Historic Mat'ls) (Phase 1.B)
- Appendix C.2: Cost Validation of Emergency Operations Center (Phase 1.B)
- Appendix D: Unemployment Rate History for CO, Denver, and Construction Industry in U.S.
- Appendix E: Project Delivery Methods Presentation
- Appendix F: Stakeholder Review & Approval Matrices for Residential and Public Works (Phase 1B)
- Appendix G: Project Folder Structure [Phase 2]
- Appendix H: File Naming Convention [Phase 2]
- Appendices I thru Y: Future Phase 1.B and Phase 2 Deliverables
- Appendix Z: Bibliography
Appendix A - Scope of Work & Meeting Notes
Phase 1.A: Initial Validation of Residential Construction Program

A. Initial Research & Sample Project Selection
B. Initial Historic Project Data Gathering & Information Management
   (access to info to be provided by the City; includes "Lessons Learned" Work Session w/City Staff)
C. Initial Analysis of Data and Comparison to Standards of the Industry
D. Interview of a Sample of Participants in Previous Construction Projects; ID and Collate Lessons Learned
E. Conduct Sample Market Research on Local & Statewide Construction Cost Escalation from 2007 to 2016
F. Initial Analysis of Construction Cost Premiums Paid by the City (if any) and Identify their Drivers by Category
G. Prepare Draft of Summary Findings
H. Facilitate “Design & Construction Procurement Options” Work Session
I. Initial Validation of Residential Construction Program Report

Phase 1.B: Final Validation of Residential Construction Program

A. Final Historic Project Data Gathering & Information Management (access to info to be provided by the City)
B. Final Analysis of Data and Comparison to Standards of the Industry
C. Final Interviews of Participants in Previous Construction Projects; ID and Collate Lessons Learned
D. Interview of an Industry Peer Group (e.g. architects, contractors, subcontractors, etc.) Selected by PPV
F. Final Analysis of Construction Cost Premiums Paid by the City (if any) and Identify their Drivers by Category
G. Prepare Draft of Final Report with Detailed Findings
H. Prepare Presentation of Detailed Findings (MS PowerPoint or Presi) for Use by City & City’s Consultants
I. Select Team to Perform Peer Review of these Program Components, Measured Against Industry Standards:
   ✓ Project Design and Engineering Fees and Deliverables
   ✓ Procurement Approach and Construction Cost Results
   ✓ Safety, Cost, Schedule, and Quality Management during Construction
   ✓ Project Closeout & Owner Turnover
   ✓ Warranty Follow-up
J. Prepare Formal Report with Executive Summary, Detailed Findings, and Appendices

Phase 2: Action Plan for Improving Future Projects

A. Prepare Draft Program Management Implementation Plan with Clear, Step by Step Instructions
B. Prepare Program Management Tool Kit for Use with the Above Plan
C. Prepare Suggested Owner-Architect & Owner-Contractor Agreements; Review with City & City Attorney
D. Upgrade City’s Current Construction Project Information Management Systems
E. Present Program Management Implementation Plan to City Staff; Revise & Resubmit as Mutually Agreed
F. Finalize Submittal & Conduct Training Session for City Staff on Its Use
Phase 3: Execution Plan 02 APR to 30 SEP 2018

A. Apply the Program Management Implementation Plan to Four (4) Historic Residential Renovations
B. Specifically, Use the Design Team Selection, Preconstruction Management & Procurement Steps of the Plan
C. Procure the Construction Team, Assist the City with Negotiating their Contract; & Obtaining Notice to Proceed
D. Set Up a Project-Specific Budget Tracking & Project Controls System; Train City Staff on its Use
E. Facilitate Handoff of Project to City's Construction Management Team before NTP for Construction
City of Black Hawk's Program Management Validation Process

COMPILLED NOTES from Multiple Meetings in Q4 2017

Attendees: Jack Lewis, Chris Squadra, Cynthia Linker, Tom Isbester, Brett Hahnenkamp
(in various combinations at four meetings)

General Info:
This not a "witch hunt" or "find the blame" assignment
It is a search for opportunities for improvement
PPV must finish Phase 1.A before starting Phase 1.B

Goals:
1. Identify the exceptional cost and risk drivers of City construction projects, if any (e.g. design, procurement, execution, etc.)
2. Design and implement a more cost effective & lower risk program process going forward.
3. Consistency of process
4. No surprises rule
5. Consistent approach of Secretary of Interior's historic guidelines

Audience for Deliverables
Validation of past projects = City Council
Program Management Guide (future projects) = Community Development & Public Works staff

Internal Resources
Cindy Linker
Tom Isbester
PW - Jim Ford & Matt Reed
IT - Lance Hillis (dept head) + Turik Mohammed + Ryan Blenker (?)

Executive Admin Asst - Sara Forbes
Finance Director - Lance Hillis

**External Resources**
Cory Hoffman (Attorney)
NVS lead - Tyler Lunsgard; Rob Taylor (brought in 2013/2014)
Dion Wolfenbarger - Historic preservation consultant
Peter Heinz & Associates: Nathan Pillatz
Natalie Mozer-Renn
White (Castle Rock)
Whitestone (Boulder)
Big Valley (Granby)
MW Golden (Castle Rock)
Sprung (Denver)
Anderson & Hallas (Dave Anderson + Andy)

**State Audit**
Complete; City has copy
BH did well; no real issues (95% compliant w/project requirements)
Cripple Creek did not do as well (only 31% compliant with reqmnts)
Formal hearing at State Capitol on 04 DEC; PPV to attend; JL to provide time/locati

**Historic Standards**
Historic District survey/NPS designation in 1986
Senate Bill 232 1999
US Secretary of Interior historic standards should be applied to both interior & exterior:
  Preservation
  Rehabilitation
Restoration
Replication
Not applied consistently to the exterior; and hardly ever applied to the interior

**Residential Reno Projects**

Current Paradigm (under City Historic Preservation Easement)
Exterior:
- Exterior is defined as outside air in to the back side of the paint
- Easement signed by homeowner to City for the exterior
- City provides funding
- City has access to the exterior of the building in perpetuity

Interior:
- Grant from City to homeowner for interiors
- City pays income tax on grant
- Homeowner

One component is
Sell within first 5 years = payback schedule

**History**
1990 was the gaming constitutional amendment
1991 enabling legislation & infrastructure
1992 First casino opened in BH
State funds split into two buckets: general operations budget (to general fund) vs. preservation & restoration fund
Grants initially were Initially $25,000 cap for rehab + $5,000 for architectural $50,000 to residents for
Spread footers were OK then; why not now?
2009 (?) City ordinance Senate Bill 232 brought Secretary of State standards
2009 (?) Senate Bill 232 brought Secretary of State standards
2010 to Now

**Public Works Projects**

**Gregory Street:**
- Martin & Martin
- Hard bid
- Contractor: CEI + Summit Engineering = 200,000 credit after bid day (400,000 split 50/50 with City)
- Bid 18 mo years ago

**Parking Garage**
- Architect: Manifold & Desmond (structural)
- Architect's estimate $2.5 M
- City's budget was $3.5 M
- Bid was $5.5 M
- Contractor's alternate was $30,000 savings + one month off the schedule
- Contractor: MW Golden

**Emergency Operations Center**
- Design build
- $1.5 M
- $1.6 M
- "Putting in something they forgot"

**Water Plant**
- Design-bid-build
- Forgot fire suppression system
- $4.5 M budget

**Residential Projects:**
2011/2012 Cycle
351 High Street (Non-employee)
   $90,000 in change orders
185 Clear Creek (City employee)
201 Chase (City employee)

2013/2014 Cycle
400 Chase

2013/2014 Cycle

2016/2017
211 Horn
241 DuBois

Thirteen homes are eligible
Only nine candidates have applied for grants
Appendix C.1.A – Cost Validation of Parking Structure

PPV Estimate Compared to the Contractor’s Actual Schedule of Values
## City of BlackHawk St. Charles Carriage House

### Contract v PPV Est Comparison

**Note:** PPV's Estimating Group did not have access to the GC's Schedule of Values while preparing the Estimate.

<table>
<thead>
<tr>
<th>CSI Division</th>
<th>Contractor Performing the Work</th>
<th>PPV Construction Cost Estimate</th>
<th>Delta GC's SoV Over or (Under) PPV's Construction Cost Estimate</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 GENERAL CONDITIONS</td>
<td>0</td>
<td>398,754</td>
<td>(398,754)</td>
<td>No General Conditions shown in GC's SoV</td>
</tr>
<tr>
<td>01 GENERAL REQUIREMENTS</td>
<td>36,904</td>
<td>0</td>
<td>36,904</td>
<td></td>
</tr>
<tr>
<td>03 CONCRETE</td>
<td>2,475,529</td>
<td>1,939,697</td>
<td>535,832</td>
<td>PPV Assumes General Conditions Carried Here</td>
</tr>
<tr>
<td>04 STONE &amp; MASONRY</td>
<td>530,856</td>
<td>526,149</td>
<td>4,707</td>
<td></td>
</tr>
<tr>
<td>05 METALS</td>
<td>547,259</td>
<td>578,348</td>
<td>(31,089)</td>
<td></td>
</tr>
<tr>
<td>06 WOOD &amp; PLASTICS</td>
<td>10,244</td>
<td>10,410</td>
<td>(166)</td>
<td></td>
</tr>
<tr>
<td>07 THERMAL PROTECTION</td>
<td>345,426</td>
<td>398,365</td>
<td>(52,939)</td>
<td></td>
</tr>
<tr>
<td>08 OPENINGS</td>
<td>50,738</td>
<td>87,365</td>
<td>(36,627)</td>
<td>Delta is @ Glazing; Probably ~ 28,000</td>
</tr>
<tr>
<td>09 FINISHES</td>
<td>96,551</td>
<td>66,992</td>
<td>29,559</td>
<td></td>
</tr>
<tr>
<td>10 SPECIALTIES</td>
<td>14,954</td>
<td>19,270</td>
<td>(4,316)</td>
<td></td>
</tr>
<tr>
<td>11 EQUIPMENT</td>
<td>94,604</td>
<td>91,580</td>
<td>3,024</td>
<td></td>
</tr>
<tr>
<td>12 FURNISHINGS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>13 Special Construction</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>14 CONVEYING EQUIPMENT</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>21 FIRE SUPPRESSION</td>
<td>163,747</td>
<td>157,630</td>
<td>6,117</td>
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<tr>
<td>22 PLUMBING</td>
<td>157,096</td>
<td>156,533</td>
<td>563</td>
<td></td>
</tr>
<tr>
<td>23 HVAC</td>
<td>166,441</td>
<td>154,248</td>
<td>12,193</td>
<td></td>
</tr>
<tr>
<td>26 ELECTRICAL</td>
<td>169,400</td>
<td>197,788</td>
<td>(28,388)</td>
<td></td>
</tr>
</tbody>
</table>
City of BlackHawk St. Charles Carriage House
Contract v PPV Est Comparison

<table>
<thead>
<tr>
<th>CSI DIVISION</th>
<th>Contractor Performing the Work</th>
<th>PPV Construction Cost Estimate</th>
<th>DELTA GC's SoV Over or (Under) PPV's Construction Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>27 COMMUNICATIONS / SECURITY</td>
<td>56,893</td>
<td>57,735</td>
<td>(842)</td>
</tr>
<tr>
<td>31 EARTHWORK</td>
<td>441,290</td>
<td>359,432</td>
<td>81,858</td>
</tr>
<tr>
<td>32 EXTERIOR IMPROVEMENTS</td>
<td>17,107</td>
<td>78,538</td>
<td>(61,431)</td>
</tr>
<tr>
<td>33 SITE UTILITIES</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>PPV Adjustment to Match Submittal</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

| SUBTOTAL OF HARD COSTS:          | 5,375,039                      | 5,278,834                     | 494,959                                                       |
| GC's Construction Fee            | w/Above?                       | 158,365                       | (158,365)                                                     |
| GC's GL, PL & Pollution Insurance| w/Above?                       | 68,482                        | (68,482)                                                      |
| GC's Performance & Pmnt Bond      | 52,825                         | 30,448                        | 22,377                                                        |

| SUBTOTAL OF GC's SOFT COSTS:      | 52,825                         | 257,296                       | (204,471)                                                     |

| TOTAL OF HARD + SOFT COSTS:       | 5,427,864                      | 5,536,129                     | 108,265                                                       |

Note: PPV's Estimating Group did not have access to the GC's Schedule of Values while preparing estimate.
Appendix C.1.B - Cost Validation of Parking Structure

PPV Estimates Adjusted for Location in the Denver Metro Area & Compared to the City of Black Hawk Costs

[To be Provided in Phase 1.B Report]
Appendix C.1.C - Cost Validation of Parking Structure

PPV Estimate without City of Black Hawk’s Historic Requirements in both the City of Black Hawk and the Denver Metro Area

[To be Provided in Phase 1.B Report]
Appendix C.2 - Cost Validation of Emergency Operations Center

[To be Provided in Phase 1.B Report]
Appendix D – Unemployment Rate History

For

Colorado, the Denver Metro Area, and Construction Industry in the U.S.
City of Black Hawk Program Verification
Unemployment Rate History

Unemployment Rates for Construction Industry in the
U.S. from 2009-2016

Unemployment Rates for Denver Metro Area from
2009-2016

Unemployment Rates for Colorado from 2009-2016
Appendix E – Project Delivery Methods Presentation
PROJECT DELIVERY METHODS:
OPTIONS & BEST PRACTICES
Project Delivery Options

- There are about a dozen separate options in use now.

- Focus here will be on comparing 4 common methods:
  - Sealed Bids
  - Competitive Sealed Proposals
  - Design-Build
  - Indefinite Quantity Indefinite Delivery (IDIQ)
  - Construction Manager at Risk (Negotiated or CM-GC)

- Just this comparison alone could be a day long seminar.

- Simplified and presented quickly due to time constraints.
Sealed Bids

- 100% Construction Documents Completed by Architect
- Ads Published & 100% CDs Issued to All Interested GCs
- GCs Send Docs > Subs; Receive Sub Bids & Collate
- Offers for Entire Project Received, Opened & Read
- Price is the Main Criterion
- "Lowest Responsive & Responsible Bidder"
- Rejecting the Low Bid is Unusual (and causes problems)
Competitive Sealed Proposals

- 100% Construction Documents Completed by Architect
- Ads Published & 100% CDs Issued to All Interested GCs
- GCs on Notice that Price is not the Only Award Criterion
- GCs Send Docs > Subs; Receive Sub Bids & Collate
- Offers for Entire Project Received, Opened & Read
- Teams Ranked with Published City Criteria (Price is One)
- Negotiation Starts with Highest Ranked Firm, etc.
Design-Build

- Scope Defined by Owner; "Bridging Documents", etc.
- Ads Published & RFQ/RFP Issued to All Interested
- Can be Awarded based on Bids, CSPs or Negotiated
- 100% Construction Documents Completed by DB
- Depends on Project & Completion of Bridging Docs
- Horizontal Projects are Usually "All In" on Proposal Day
- Vertical Projects Typically Use RFP for Fee, then GMP
Indefinite Quantity Indefinite Delivery

- Called "IDIQ"; also known as "Unit Price Contracts"
- Ads Published & RFQ/RFP Issued to All Interested
- "Work Orders" or "Task Orders" Based on Scope
- Scope Can be Bid to Several Firms, or Sole Sourced
- Best if Unit Price Bid Form has Sample Quantities
- One Year Contract with 4 One Year Options is Common
- Be Sure to Get Material & Labor Escalation by Year
# Indefinite Quantity Indefinite Delivery

## A. CONTRACTOR’S PROPOSAL

City Hall Library, & Ehemann Center
Labor Allowance
Financial Credits for Value Options

## B. PROPOSED PERCENTAGES

Discount from Vendor’s Published List Prices
Annual Proposed Increase to Lump Sums for A + B + C
Annual Proposed Increase to Labor Rates & Trip Charge

## C. RESPONSE TIME

Maximum Response Time Commitment to Call or EM
Response Processing Method (Call Ctr. 24/7 Cell #, etc.)
Proposed Liquidated Damages: Failure to Respond (Call/EM)
Proposed Liquidated Damages - Failure to Respond (Onsite)

## D. FACILITIES MANAGEMENT REFERENCES

Provided Appropriate References for Similar Upgrades

### Proposal Scoring

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
<th>Climatic</th>
<th>Enviromatic</th>
<th>JMS Solutions</th>
<th>Logical Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. CONTRACTOR’S PROPOSAL</td>
<td>50.5</td>
<td>39.4</td>
<td>75.0</td>
<td>42.4</td>
<td></td>
</tr>
</tbody>
</table>

### Ratio Used for 1st Row; Inverse of Candidate’s %s Used for 2nd & 3rd Rows

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>T6</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. PROPOSED PERCENTAGES</td>
<td>5.0</td>
<td>100.0%</td>
<td>6.0</td>
<td>51.7%</td>
<td>4.0</td>
<td>95.0%</td>
<td>4.0</td>
</tr>
<tr>
<td>C. RESPONSE TIME</td>
<td>4.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>D. FACILITIES MANAGEMENT REFERENCES</td>
<td>3.0</td>
<td>5.0</td>
<td>15.0</td>
<td>2.0</td>
<td>8.0</td>
<td>2.0</td>
<td>6.0</td>
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</table>

### Subtotal - Proposal Points (225 Max):

<table>
<thead>
<tr>
<th>Points Available Here</th>
<th>Points Available Here</th>
<th>Points Available Here</th>
</tr>
</thead>
<tbody>
<tr>
<td>190.5</td>
<td>159.9</td>
<td>200.9</td>
</tr>
</tbody>
</table>
# Indefinite Quantity Indefinite Delivery

<table>
<thead>
<tr>
<th>Climatec</th>
<th>Enviromat</th>
<th>JMS Solutions</th>
<th>Logical Solutions</th>
<th>Low Proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>416,380</td>
<td>534,386</td>
<td>280,640</td>
<td></td>
<td>496,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>JMS Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>280,640</td>
</tr>
</tbody>
</table>

**Total Points Available = 75**

<table>
<thead>
<tr>
<th>Climatec</th>
<th>Enviromat</th>
<th>JMS</th>
<th>Logical</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.0%</td>
<td>55.0%</td>
<td>57.0%</td>
<td>50.0%</td>
<td>55.5%</td>
</tr>
<tr>
<td>3.0%</td>
<td>4.0%</td>
<td>3.0%</td>
<td>3.2%</td>
<td>3.3%</td>
</tr>
<tr>
<td>0.0%</td>
<td>4.0%</td>
<td>3.0%</td>
<td>3.2%</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

Largest discount offered by any candidate.

Ratio to this number used to award points for this line item.
### Indefinite Quantity Indefinite Delivery

<table>
<thead>
<tr>
<th>Subtotal - Proposal Points (225 Max):</th>
<th>190.5</th>
<th>199.9</th>
<th>200.9</th>
<th>168.4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. DEMONSTRATED UNDERSTANDING of SCOPE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of the 3 Building System Replacements</td>
<td>5.0</td>
<td>25.0</td>
<td>25.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Challenges w/Integration of New w/Existing Solutions</td>
<td>5.0</td>
<td>4.9</td>
<td>24.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Value Options: Creativity &amp; Operational Feasibility</td>
<td>5.0</td>
<td>7.0</td>
<td>19.5</td>
<td>22.0</td>
</tr>
<tr>
<td><strong>B. UNIQUE FEATURES of SYSTEM &amp; APPROACH</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Advantages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graphical User Interface (GUI)/Dashboard</td>
<td>4.0</td>
<td>4.4</td>
<td>17.6</td>
<td>20.0</td>
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<tr>
<td>&quot;Smart Building&quot; Integration w/Building Management</td>
<td>4.0</td>
<td>4.2</td>
<td>16.8</td>
<td>19.0</td>
</tr>
<tr>
<td>Analytics &amp; Fault Detection</td>
<td>4.0</td>
<td>4.4</td>
<td>17.5</td>
<td>20.0</td>
</tr>
<tr>
<td>Occupancy, Outside Air Reates, and CO2 Sensors</td>
<td>3.0</td>
<td>4.4</td>
<td>13.2</td>
<td>16.0</td>
</tr>
<tr>
<td><strong>Training Plan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generic Assessment of Wonderware Product</td>
<td>2.0</td>
<td>3.8</td>
<td>7.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Desirability of New System's Integration w/Wonderware</td>
<td>3.0</td>
<td>1.6</td>
<td>4.8</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Subtotal - Interview Points (275 Maximum):</strong></td>
<td>234.1</td>
<td>123.8</td>
<td>146.5</td>
<td>195.1</td>
</tr>
<tr>
<td><strong>TOTAL POINTS (500 Maximum):</strong></td>
<td>424.6</td>
<td>283.7</td>
<td>347.4</td>
<td>363.5</td>
</tr>
</tbody>
</table>
Negotiated CM-GC: A Detailed Look

- Construction Manager at Risk (CM-GC) Selection Process
- How do We Confirm the City is Getting Best Value?
- Who is in Control of the Contingency?
- Where is the Risk in "Construction Manager at Risk"?
- Why is this Process better than Other Methods?
- This could be a full day by itself (count your blessings 😊)
- Simplified due to time constraints; follow ups welcomed
CM-GC Selection Process – RFQ

Ads on 03 + 10 DEC 2016
Questions Due 22 DEC
Addendum Out 03 JAN
Nine GCs Submit 10 JAN

Selection Committee Shortlists on 18 JAN 2017

✓ Three Firms Selected
✓ Request for Proposal and
✓ Invitation to Interview Issued
Qualifications Scoring

Pass-Fail Criteria

A. Qualifications of the Team
1. Overview of the Team
2. Qualifications & Structure of the Firm
3. Relevant Experience Firm, Proj, Management
4. Subcontractor Participation & Contract
5. Experience Modeler Role (EMR)

B. Proven Project Success
1. A Relevance & Success History
2. B Relevance & Success History
3. C Relevance & Success History
4. D Detail & Clarity of Cost Estimation
5. E Demonstrated Cost & Change Order Management

C. Firm's Stability
1. Revenues & Capacity
2. Financial Stability
3. Termini
4. Current and Pending Claims

TOTAL 80

Graph showing internal use only and not for distribution with various firm names and scores.

Haydon
Bulldint
Corp
Loer</name>
Hayford
Construction
Corp
Iron GC
Lee Lewis
Construction
Petro
Dura
&
Assocs
Schmidt
Construction
Sedlco
Wbens
Construction
CM-GC Selection Process – RFP

RFP & Invite Out 19 JAN
Questions Due 31 JAN
Addendum Out 06 FEB
Proposals Due 09 FEB

Selection Committee Interviews Firms on 16 FEB 2017

☑ Ranked by Interviews First (w/o Fees)
☑ Proposal Scores Added & #1 Picked
☑ Negotiations w/Top Firm(s) 17 FEB
# Proposal Scoring

## B. EVALUATION of SHORT-LISTED CANDIDATES' PROPOSALS & INTERVIEWS (STEP TWO)

1. There will be a maximum of 420 points available for the combined score of the proposal and the interview. These points will be awarded as follows:

   A. The Proposal will be used to award 140 (or 33.3%) of these 420 possible points.
   B. The interview will be used to award 280 (or 67.7%) of these 420 possible points.

### Description

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
<th>Byrne Construction</th>
<th>Core Construction</th>
<th>Lee Lewis Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. CONTRACTOR's FEE and COST PROPOSAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overhead and Profit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Staff Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reimbursable Onsite Overhead Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Points Above Awarded via Formula (per RFP Criteria)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. Construction Cost Estimate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level of Estimate Detail Provided &amp; Demonstrated Ability</td>
<td>3.0</td>
<td>4.5</td>
<td>13.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Clarity of Scope Inclusions &amp; Exclusions</td>
<td>1.0</td>
<td>5.0</td>
<td>5.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Estimate Cost Comparisons or Bottom Line Evaluations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No Comparisons of Estimate Totals Will Be Used by Committee</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. Schedule</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Useful, Project-Specific Milestones &amp; Clarity</td>
<td>3.0</td>
<td>4.0</td>
<td>12.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Level of Schedule Detail &amp; Demonstrated Ability</td>
<td>1.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Subtotal - Proposal Points (140 Max):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Byrne Construction</th>
<th>Core Construction</th>
<th>Lee Lewis Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>114.6</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Interview + Proposal Scoring

### Description

<table>
<thead>
<tr>
<th>A. Management Team Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Leader</td>
</tr>
<tr>
<td>Balance of Project Team</td>
</tr>
<tr>
<td>Time Commitment &amp; Availability</td>
</tr>
<tr>
<td>Relevant Experience</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Relevant Project Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Relevant Projects</td>
</tr>
<tr>
<td>Unique Challenges Overcome</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Project-Specific Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management of Safety, Cost, Sc</td>
</tr>
<tr>
<td>Ability to ID &amp; Deal w/Key Curr</td>
</tr>
<tr>
<td>Management of Safety, Cost, Sc</td>
</tr>
<tr>
<td>Three Biggest Concerns and Ca</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Unique Features of this Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why is this Team Best for this Pr</td>
</tr>
<tr>
<td>Examples &amp; Proofs of Direct Be</td>
</tr>
</tbody>
</table>

**Subtotal - Interview Score**

**Proposal Score Comparison**

**Total Score Comparison**

**Interview Score Comparison**
Negotiations

- All firms notified in RFQ & RFP negotiation date/time
- CM-GC firms had contract comments w/RFP response
- City's attorney gave pass/fail opinion on each comment
- Met w/highest ranked firm the day after interviews
- Prepared to go to #2 that day; notification letter ready
- Target for Fee & Cost Proposal from committee ready
- Fee, Cost & contract comments successfully negotiated
Confirming the Best Value

- There are 3 cost components of the final GMP:
  - CM-GC's Fee (i.e. "Home Office Overhead & Profit")
  - CM-GC's Onsite Overhead (i.e. "General Conditions")
  - Subcontractors' Work (this is ~ 90% of the cost)

- Each of these is procured in a competitive environment
- CM-GC's Fee & Onsite costs fixed at negotiations
- Subcontractor's costs publicly bid w/City involved
**Best Value – CM-GC Fee & Onsite $s**

### 1. A  CMAR’s Preconstruction Fee

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate 1</th>
<th>Rate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A.1 Construction Cost Estimating &amp; Value Analysis/VE</td>
<td>1</td>
<td>LS</td>
<td>7,500</td>
<td>7,500</td>
</tr>
<tr>
<td>1. A.2 Model Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. A.3 Construction Schedule</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. A.4 Submittal Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. A.5 Model Coordination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. A.6 Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2. A  Insurance

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate 1</th>
<th>Rate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.001 Performance &amp; Payment Bonds</td>
<td>1</td>
<td>LS</td>
<td>35,639</td>
<td>35,639</td>
</tr>
<tr>
<td>2.002 Maintenance Bond</td>
<td>1</td>
<td>LS</td>
<td>7,338</td>
<td>7,338</td>
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<tr>
<td>2.003 Builder’s Risk Insurance</td>
<td>1</td>
<td>LS</td>
<td>3,499</td>
<td>3,499</td>
</tr>
</tbody>
</table>

### 1. B  CMAR’s Construction Phase

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate 1</th>
<th>Rate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.052 Ongoing Electric Charges for the Site Office</td>
<td>10.3</td>
<td>MO</td>
<td>175.00</td>
<td>1,801</td>
</tr>
<tr>
<td>2.053 Ongoing Teledata Charges for the Site Office</td>
<td>10.3</td>
<td>MO</td>
<td>175.00</td>
<td>1,801</td>
</tr>
<tr>
<td>2.054 Ongoing Water &amp; Sanitary District Charges</td>
<td>MO</td>
<td></td>
<td>By City</td>
<td>By City</td>
</tr>
<tr>
<td>2.055 Ongoing Gas Utility Charges (excluding Temp Heat)</td>
<td>MO</td>
<td>By City</td>
<td>By City</td>
<td></td>
</tr>
</tbody>
</table>

**Ongoing Expenses**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Rate 1</th>
<th>Rate 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.066 Jobsite Cell Phone(s) for Site Staff</td>
<td>10.3</td>
<td>MO</td>
<td>412.54</td>
<td>4,245</td>
</tr>
<tr>
<td>2.057 Project Schedule Setup &amp; Maintenance</td>
<td>1.0</td>
<td>LS</td>
<td>1,600</td>
<td>1,600</td>
</tr>
<tr>
<td>2.058 BIM Model Setup &amp; Maintenance</td>
<td>1.0</td>
<td>LS</td>
<td>10,500</td>
<td>10,500</td>
</tr>
</tbody>
</table>
# Best Value – Subcontractors’ Work

## BASE BID (BOTH STATIONS)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plumbing &amp; HVAC, North Texas Ductwork</td>
<td>$272,072.40</td>
<td>$290,900.00</td>
<td>$311,690.00</td>
<td>$314,490.00</td>
<td>$384,800.00</td>
</tr>
<tr>
<td>HVAC, North Texas Ductwork</td>
<td>$1,444,776.00</td>
<td>$1,444,776.00</td>
<td>$1,444,776.00</td>
<td>$1,444,776.00</td>
<td>$1,444,776.00</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$2,717,888.40</td>
<td>$2,731,800.00</td>
<td>$2,756,380.00</td>
<td>$2,759,260.00</td>
<td>$3,229,600.00</td>
</tr>
</tbody>
</table>

### Subcontractor: North Texas Ductworks
- Robert Brown
- Lewesville, TX
- (713) 222-2454

### BID DATE: 8/30/2017
Contingency

- There are three “buckets” of contingency in the Project:
  - CM-GC's Preconstruction Contingency
    ✓ Allows for estimating overlaps & gaps
    ✓ Starts at 4% and reduces to 0% at GMP
  - CM-GC's Construction Contingency
    ✓ CM-GC's “shock absorber”; stays at 1%
  - Owner's Contingency for unforeseen events @ 5%
Contingency in Final GMP

<table>
<thead>
<tr>
<th>CM-GC's Contingency</th>
<th>Cost of Work Subtotal</th>
<th>$ 8,782,686</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor's Contingency</td>
<td>1.00%</td>
<td>$ 87,827</td>
</tr>
<tr>
<td>Building Permit, Water/Sewer Tap Fees</td>
<td>0.00%</td>
<td>By Owner</td>
</tr>
<tr>
<td><strong>Construction Costs Subtotal</strong></td>
<td><strong>$ 8,870,513</strong></td>
<td></td>
</tr>
<tr>
<td>CGL &amp; Umbrella Insurance</td>
<td>0.78%</td>
<td>$ 74,561</td>
</tr>
<tr>
<td>Builder's Risk</td>
<td>0.10%</td>
<td>$ 9,177</td>
</tr>
<tr>
<td>Professional Liability</td>
<td>0.15%</td>
<td>$ 14,243</td>
</tr>
<tr>
<td>Payment &amp; Performance Bond</td>
<td>0.84%</td>
<td>$ 80,105</td>
</tr>
<tr>
<td>Maintenance Bond</td>
<td>0.17%</td>
<td>$ 16,442</td>
</tr>
<tr>
<td><strong>Construction Costs &amp; Insurance Subtotal</strong></td>
<td><strong>$ 9,065,039</strong></td>
<td></td>
</tr>
<tr>
<td>Preconstruction Fee</td>
<td></td>
<td>$ 15,000</td>
</tr>
<tr>
<td>Fee</td>
<td>5.40%</td>
<td>$ 479,008</td>
</tr>
<tr>
<td><strong>Owner's Contingency</strong></td>
<td><strong>CMAR's Cost of Work + Fee</strong></td>
<td><strong>$ 9,559,047</strong></td>
</tr>
<tr>
<td>CMAR's GMP, Including Owner's Contingency</td>
<td></td>
<td><strong>$ 10,036,999</strong></td>
</tr>
</tbody>
</table>
Where is the “Risk” for the CM-GC?

- “Construction Manager at Risk” holds the subcontracts
- “Construction Manager Advisor = Owner w/subcontracts
- “at Risk” is used to differentiate the two CM options
- The CM-GC = same risk as CSP or Design/Bid/Build:
  - All require GC to cover subcontractor failure
  - All required GC to “eat” costs if no change in scope
  - All hold GC accountable for schedule & quality
- What then, are the benefits (if any) of CM-GC process?
<table>
<thead>
<tr>
<th>Description</th>
<th>CSP</th>
<th>CM-GC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Traditional Method</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Input During Design</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Sharing of Cost Responsibility</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Best Advance Notice &gt; Subs</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Best Transparency of Sub Bids</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Least Adversarial Method</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>
Best Method – Examples of Value

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Description</th>
<th>N/A</th>
<th>N/A</th>
<th>Excluded</th>
<th>37,409</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.0</td>
<td>10&quot; Concrete Paving 3/6 of 8&quot; Concrete Paving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.0</td>
<td>Masonry Veneer Alternatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.1</td>
<td>Add Limestone Veneer per 1000 SF Docs</td>
<td></td>
<td>22,483</td>
<td>22,483</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Add Manufactured Stone Veneer in lieu of</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not required per geotech report; decision made on 09 JAN for I5 #02, and 18 JAN for I5 #04.
Base scope includes brick at all exterior masonry veneer.
Base & all Ab-heat cost shown account bundler included.

Budget on 13 SEP 2017

<table>
<thead>
<tr>
<th>Proposed GMP Budget</th>
<th>Delta Above or (Below) 30 AUG</th>
</tr>
</thead>
<tbody>
<tr>
<td>9,496,121</td>
<td>(676,065)</td>
</tr>
</tbody>
</table>
Project Delivery Recommendations

- The Residential Program should use Negotiated CM-GC
- The exception to that is the Paint Program; IDIQ here
- Public Works program should use Design-Build
  - Best choice for new horizontal construction
  - Lowers risk & management time
  - Focus on good bridging documents
- Public Works is already using IDIQ for engineering
- Public Works could also expand this to cover more scope
Thanks for your time & attention!

Questions?
Appendix F – Stakeholder Review & Approval Matrices

Stakeholder Review and Approval Matrix (Residential and Public Works) and

External Agency Review and Approval Matrix

[To be Provided in Phase 2 Report]
Appendix G – Project Folder Structure

[To be Provided in Phase 2 Report]
Appendix H – File Naming Convention

[To be Provided in Phase 2 Report]
Appendices I through Y: Future Phase 1.B and Phase 2 Deliverables
Appendix Z – Bibliography
Works Cited


<http://www.abc.org/Portals/1/Documents/State%20Econ/March%202017/March%202017%20YoY%20Rank.pdf>.


