

**Feasibility Study:**  
**West Half of the Laramie-Poudre Tunnel Rehabilitation**

**Sponsored by**  
**The Tunnel Water Company**  
**In conjunction with the**  
**Colorado Water Conservation Board**

**February 2019**

**FEASIBILITY STUDY APPROVAL**

Pursuant to Colorado Revised Statutes 37-60-121 & 122, and in accordance with policies adopted by the Board, the CWCB staff has determined this Feasibility Study meets all applicable requirements for approval.

  
Signed \_\_\_\_\_ Date 3/5/2019

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**Feasibility Study**  
**The Tunnel Water Company**  
**Laramie-Poudre Tunnel: Rehabilitation of West Half**

**Introduction (Need for the Project)**

The Tunnel Water Company (“TWC”) owns and operates the Laramie-Poudre Tunnel which diverts water from the West Branch of the Laramie River in Larimer County to the Cache la Poudre River downstream and 11 air miles NNE of Cameron Pass. The 2.15 miles long tunnel was constructed in 1910/11 to divert water from the Laramie River, a tributary of the North Platte River, to the Cache la Poudre River primarily for irrigation of farm lands in Larimer and Weld Counties. The Company purchased the tunnel in 1938 and has operated it continuously, on a seasonal basis, since then.

**Project Sponsor**

The project sponsor is the Tunnel Water Company, a Colorado mutual ditch corporation. The Tunnel Water Company is a mutual ditch company with 2 shareholders: Water Supply and Storage Company (WSSC) and Windsor Reservoir and Canal Company (WRCC). There are 450 shares of Tunnel Water Company stock issued and outstanding. Water Supply and Storage is the majority owner/operator of Laramie Poudre Tunnel, owning 300 shares. Windsor Reservoir and Canal Company owns 150 shares. The Tunnel Water Company purchased the Laramie Poudre Tunnel and adjoining Laramie River System in 1938 after the Greeley-Poudre Irrigation District went bankrupt. At that time, assets of the Greeley-Poudre Irrigation District were split between Water Supply and Storage Company and Windsor Reservoir and Canal Company.

Founded in 1891, WSSC has 600 shares outstanding and about 138 shareholders. The WSSC shareholder group includes three municipalities, the cities of Thornton, Fort Collins and Greeley and several water districts, including East Larimer County Water District and North Weld County Water District. The remaining WSSC shares are primarily owned by family farmers and dairymen. Nearly all the water diverted by the WSSC, including water diverted through the Laramie-Poudre Tunnel, is and has historically been diverted for agricultural uses, principally flood and sprinkler irrigation of about 40,000 acres in Northern Colorado, south of the company’s main canal, the Larimer County Canal and north of the Eaton Canal (Larimer & Weld Canal Co.). The municipalities and water districts have completed change cases in water court in anticipation of use of their shares to meet municipal needs in the future.

Windsor Reservoir & Canal Company is owned 50% by the City of Greeley and 25% each by North Weld County Water Company and Fort Collins-Loveland Water District.



## **Project Service Area and Facilities**

TWC provides water to its shareholders, WSSC and WRCC. WSSC delivers irrigation water to shareholders, primarily for agricultural irrigation on about 40,000 acres lying below the Larimer County Canal between Highway 287 north of Fort Collins to several miles east of Highway 85 near Pierce and Ault, Colorado. WRCC delivers water to its shareholders at the Soldier Canyon Filter Plant just east of Horsetooth Reservoir and to the City of Greeley at their Bellvue Water Treatment Plant northwest of Fort Collins, principally for municipal use in their service areas. See the maps attached in Appendix F.

TWC's facilities include the Laramie-Poudre Tunnel, the Rawah and Lower Supply Ditch, a camp with cabin and appurtenant structures for operations and maintenance near the confluence of the ditch, the West Branch of the Laramie River and the inlet channel to the tunnel (west portal). Larimer County Road 103 provides access from Highway 14, the Poudre Canyon Highway, approximately 46 miles west of the intersection of Highway 14 and Highway 287 (Ted's Place, as it is commonly known).

Skyline Ditch: this collection ditch, wholly owned by WSSC, diverts water from the headwaters of the West Fork of the Laramie River directly into Chambers Reservoir, then into Joe Wright Creek and the Cache la Poudre River. By contractual agreement with WRCC, WSSC may also divert water from this ditch through the Laramie-Poudre Tunnel.

Rawah and Lower Supply Ditch (Rawah Ditch): diverts water from the western slope of the Laramie River Valley south of Glendevy, CO into the 2.15 mile long Laramie-Poudre Tunnel. The tunnel discharges that water into the Cache la Poudre River near Highway 14 at a point 1.9 miles west or uphill from the CDOT maintenance facility and 5.4 miles east or downhill from its intersection with CR103 (the Glendevy or Laramie River Road).

## **Hydrology and Water Rights**

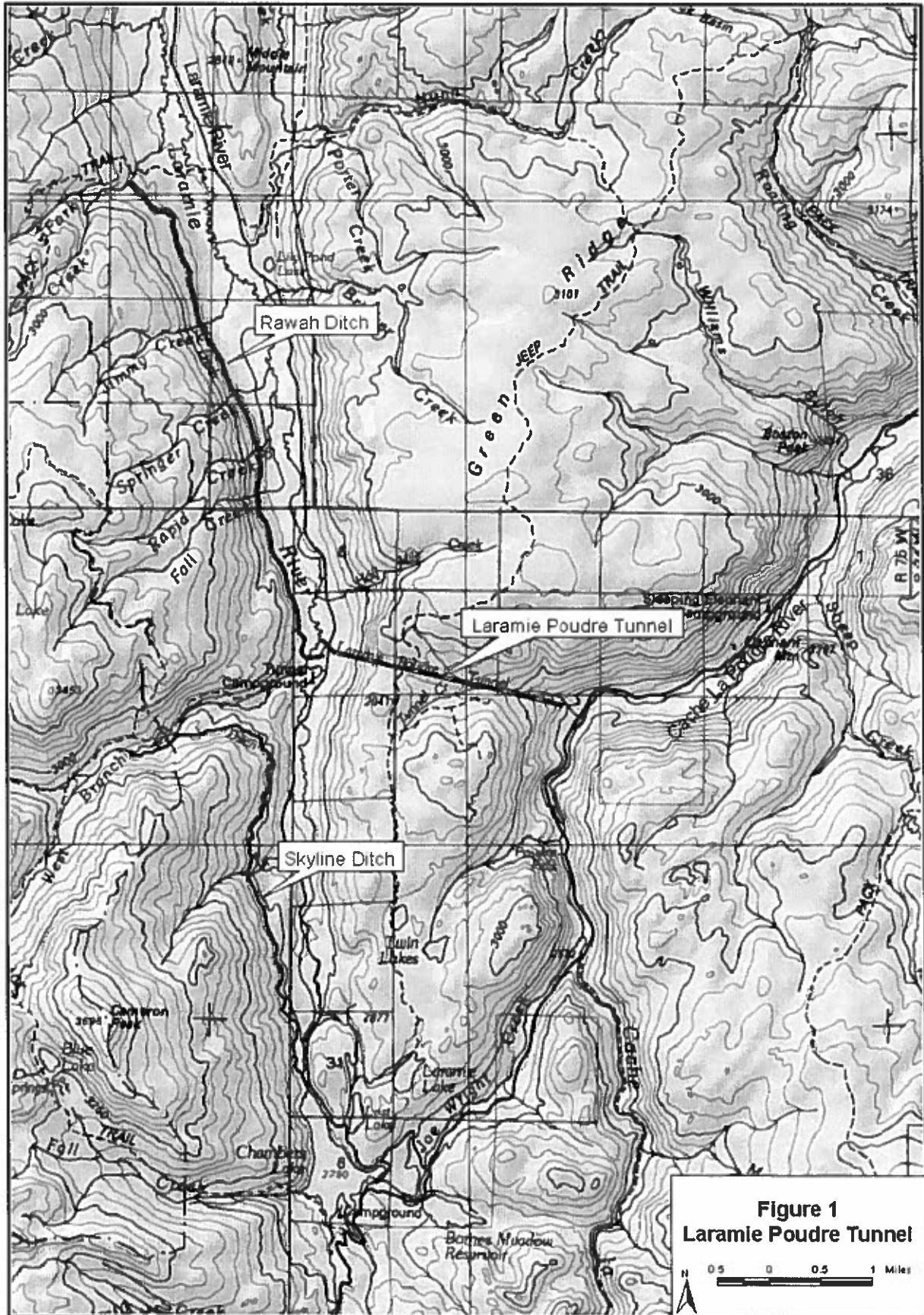
TWC has a decreed right of 300 cfs adjudicated 9/11/1944 and 2/20/1914 for the Laramie-Poudre Tunnel, Priorities 71-73 & 75 in District #48. As the result of litigation which reached the U.S. Supreme Court, there are volumetric limits in effect for all Upper Laramie River diversions.

See Appendix B.

All water diverted by the Tunnel Water Company flows through the Laramie-Poudre Tunnel and then into the Cache la Poudre River. All waters, including waters diverted through the Laramie-Poudre Tunnel taken by the WSSC for distribution to its shareholders, is diverted from the river near the Cache la Poudre Canyon mouth through its head gate about .5 mile south of Ted's Place.

Windsor Reservoir & Canal Company diverts its share of water diverted by the Tunnel Water Company through the Munroe Canal, the Poudre Valley Canal or the Eaton Canal through its Cache la Poudre river head gate or by exchange from Long Pond, an off-channel reservoir owned by Water Supply & Storage Company, into the Eaton Canal.

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**Figure 1**  
**Laramie Poudre Tunnel**

## **Project Description and Alternatives**

The Company has engaged Lithos Engineering to design the project and Harrison Western Construction Corporation for the rehabilitation of the west half of the Laramie-Poudre Tunnel, starting at the west portal (lengthened and rehabilitated in 2015) and continuing up to the area of the tunnel that was rehabilitated in 2003 near the center of the tunnel. Existing support structures will be removed from the tunnel. Loose debris and muck will be removed and materials will be mined to expand the tunnel to a more uniform, 7' x 7', cross section to accommodate mining and maintenance equipment in the future. New support systems will be installed, including steel support structures, spot bolting, pattern bolting, and shotcrete as needed.

### **Laramie-Poudre Tunnel West Half Rehabilitation -- Alternatives Considered.**

1. No action alternative. The Company quickly dismissed a "no action" alternative as it will eventually result in the failure of the tunnel, rendering it unusable pending emergency repairs. Having that occur during irrigation season would cause irreparable harm to its shareholders who rely on diversions through the tunnel for a substantial portion of their annual irrigation needs.

2. Removal of existing support systems and debris, expansion of tunnel to an approximate 7' by 7' cross section, and installation of new support systems. The Company deemed it necessary to replace the existing support systems to prevent future collapse and blockage of the tunnel. It is necessary to expand the tunnel to allow access for construction and maintenance equipment for future maintenance and repairs.

3. Replacement of the tunnel. There are no suitable locations nearby and the cost would be prohibitive, if environmental approvals could ever be garnered, to replace the tunnel in an alternate location.

4. Alternative water sources. The Company is unaware of any alternate sources of water which are not so junior in priority that they would be unreliable in most water years, should the tunnel be abandoned.

## **Selected Alternatives**

We have selected Alternative 2, as described above, removal of existing support systems and debris, expansion of tunnel, and installation of new support systems.

## **Cost Estimates**

The Company retained Lithos Engineering to prepare preliminary designs for the project and to prepare bid documents. We provided RFQ's to 10 mining contractors, received bids from four, chose three to interview and then selected Harrison Western (HW) as the preferred contractor. HW and TWC have

signed a contract to perform the work and complete the project. The contract provides for a preliminary phase where HW is compensated to work with Lithos Engineering to complete the design after further inspections and investigations of the existing conditions and then refine cost estimates using a CMAR contracting format.

### **Implementation Schedule**

The design is scheduled to be completed in April 2019. Construction to begin September 3<sup>rd</sup> or sooner if the 2019 tunnel diversions have reached the adjudicated maximum quota (resulting in the end of diversions for the season) before that date.

### **Permitting**

The tunnel and project site lie within the Canyon Lakes District of the Arapaho and Roosevelt National Forest. The tunnel camp at the west portal of the tunnel is located on a 2.5 acre USDA-FS special use permit. The Company is the permittee. The construction and all the related activity, staging of materials and equipment, will occur within the Company's 1891 Act Easement or within the boundaries of a temporary construction special use permit to be issued. Preparation of the application for the temporary permit necessary is underway. Based on those several discussions, the Company is confident it can meet the requirements of the Forest Service and will garner the necessary temporary permit well before construction commences. With respect to the easement for the tunnel inlet and the tunnel itself, this project is a maintenance activity and permitted under the terms of its perpetual tunnel easement and Colorado law.

### **Institutional Considerations**

None.

### **Financial Analysis**

The Tunnel Water Company shareholders, Water Supply & Storage Company and Windsor Reservoir & Canal Company, have approved the budget for the current fiscal year ending November 30, 2019. Assessments approved total per share outstanding and are sufficient to cover projected operating costs, other capital expenditures and debt service. See a copy of the 2018/19 budget included in Appendix D.

### **Credit Worthiness**

The Company has an excellent credit rating, has never defaulted on its financial obligations See the audited financial statements for FYE 11/30/18 prepared by Scofield & Scofield, P.C., attached in Appendix D. The Company has outstanding borrowings from the CWCB. The Tunnel Water Company, borrowed \$3,481,400.81, in two loans, from CWCB in 2002 to rehabilitate the Laramie-Poudre Tunnel after a cave-in event. It also secured a second loan for the lengthening and improvement of the west portal and replacement of the east portal energy

attenuation structure. That project is in progress and is expected to be completed in the fall of 2019.

### **Alternative Financing Considerations**

If the Company is not successful in securing this financing, it will approach commercial banks for additional financing. The Company's Directors considered raising shareholder assessments to pay for these projects, but believe it prudent to spread the cost over an extended term to better match the cash flow cost with the benefit garnered by the improvements contemplated.

### **Collateral**

The Company will offer either a pledge of assessment revenues or other Company assets as collateral for the loans.

### **Economic Analysis**

This tunnel is a key water conduit for the shareholders of the Company. The economic damage to the Company and its various shareholders, should it become damaged and inoperative is inestimable.

### **Social and Physical Impacts**

The project site is located on land not typically accessible or utilized by the general public.

**Social Impacts.** There are no social impacts expected from the completion of the project.

**Physical impacts.** There will be additional traffic to deliver materials to the site and for a small number of construction workers, but those will principally occur after Labor Day and before Memorial Day when the numbers of National Forest visitors and other traffic in the Poudre Canyon and the Laramie River Valley are much lower than is the case during the prime tourist season months of June through August. County Road 103, which is typically not maintained during the winter, will have to be plowed and maintained by the contractor while the project is underway. The contractor is confident the project can be completed in one winter season, but we are preparing for a second season of construction should unforeseen developments cause the completion to be delayed. The construction will be suspended and water diversions will continue as usual during the summer of 2020 should completion of the project be delayed.

### **Conclusions**

This project is of utmost importance to the Company and its shareholders. The continued viability of the tunnel and the long-term availability of the water supply it carries to its family farmers, dairymen, livestock producers and Northern Colorado residents is essential.

## **APPENDIX A**

### **Articles of Incorporation & Bylaws**

ARTICLES OF INCORPORATION  
OF  
THE TUNNEL WATER COMPANY

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, R. C. WYKERT, HARVEY G. JOHNSON, MARY O. M. HANSEN, J. M. COLLINS and REX G. EATON, citizens of the United States of America, and residents of Weld County, Colorado, have associated ourselves together to establish a corporation under the name and style of THE TUNNEL WATER COMPANY, a mutual irrigation company, for the purpose of becoming a body corporate and politic, under and by virtue of the laws of the State of Colorado, and in accordance with the provisions of the laws of the State of Colorado, we do hereby make, execute and acknowledge, in quadruplicate, this Certificate in writing of our intention so to become a body corporate (not for pecuniary profit), under and by virtue of said laws, which when filed shall constitute the Articles of Incorporation of THE TUNNEL WATER COMPANY.

FIRST The corporate name and style of our said corporation shall be THE TUNNEL WATER COMPANY.

SECOND Our said corporation shall be what is commonly known as a mutual irrigation company and is not organized for pecuniary profit. The waters owned by the Company and to be owned or acquired by our Company shall be distributed among its stockholders pro rata according to the number of shares owned by each, but subject to the provisions hereof and to the provisions of the By-Laws of the Company as to payment of assessments and distribution of water.

THIRD The nature of the business, and the objects and purposes for which said corporation is formed and incorporated are to acquire, construct, own, maintain and operate ditches and



reservoirs and interests therein; to acquire, by purchase, condemnation, or otherwise, all lands necessary or proper for rights of way for said ditches and sites for said reservoirs; to acquire, by purchase, appropriation, contract, lease, or otherwise, water for supplying said ditches and filling said reservoirs; to divert and store water through and in said ditches and reservoirs and to distribute the same to stockholders directly, or by a system of exchange, and to use all water acquired and appropriated for irrigation, domestic, mechanical and other professional uses; to acquire interests in ditches and reservoirs and appropriations of water by purchase and ownership of stock in other corporations owning or controlling the same; to construct all dams, headgates, flumes and appliances necessary and proper to or for the maintenance and operation of said ditches and reservoirs; to supply water to its stockholders upon such terms and conditions as shall be prescribed by the By-Laws or by the Board of Directors of said Company; to acquire any existing ditch or reservoir and the appropriations of water therefor necessary or proper for the purposes of this Company; to acquire, own, maintain and operate reservoirs, ditches, dams and other appliances, and appropriations of water for the generation of power and other mechanical purposes, and to use the appropriations of water owned or acquired by said Company for irrigation and mechanical purposes; to purchase, acquire, own and hold all real estate and personal property necessary to carry out and properly conduct the business of said Company; to construct, or acquire telephone lines, or interests in the line of any other company to be used or operated in connection with or as incidental to the operation of said Company; to borrow money and to issue bonds or notes of said Company, and to secure the payment thereof by mortgage or deed of trust upon any or all of the property of said Company, including appropriations of water, and generally to do and perform

all things necessary or proper to carry on the business of said Company, and to carry out its objects and purposes as aforesaid, and by a majority vote of its Board of Directors to sell, lease, exchange, convey and assign any property which may be acquired by it upon such terms and conditions, and for such consideration or considerations as said Board of Directors shall deem expedient and for the best interests of said corporation, which, in the opinion of the Board of Directors, shall no longer be necessary to the operation of said Company.

FOURTH: Our corporation shall acquire title to any and all ditches, reservoirs, appropriations of water, real estate, rights of way, and all other property of every kind or nature whatsoever heretofore owned by The Laramie - Poudre Irrigation Company, a Colorado corporation, as the same are and heretofore have been located, constructed, maintained and operated, and as described in the Complaint and Decree of Foreclosure in that certain suit heretofore filed in the District Court in and for Larimer County, Colorado, wherein Water Conservation Company, a Colorado corporation, was Plaintiff, and the said The Laramie - Poudre Irrigation Company, a corporation, and The West Side Construction Company, a corporation, were Defendants, said suit being case numbered 7881 in said Court, including the following ditches, reservoirs, appropriations of water, lands, rights of way and property, together with any and all appropriations of water initiated, made or perfected, decreed or undecreed, for any of the ditches or reservoirs herein mentioned, together with all rights and appurtenances belonging or appertaining thereto, or used in connection therewith, to-wit:

1. THE RAWAH DITCH, whose headgate is located in the south bank of Rawah Creek in Section 38, Township 9 North, Range 76, West of the 6th P. M., in Larimer County, Colorado.

2. THE LIME LAKES, being a group of 12 lakes or reservoirs connected together and located in Townships 8 and 9 North, Range 76 West of the 6th P. M., in Larimer County, Colorado.

3. THE EAST FORK DITCH, situate in Section 18,



Township 8 North, Range 75 West of the 6th P. M., in Larimer County, Colorado.

4. THE LARAMIE RIVER TUNNEL, as now constructed and located in Sections 7, 8, 9 and 16, Township 8 North, Range 75 West of the 6th P. M., in Larimer County, Colorado, together with all its controlling works and other property at both ends of the tunnel, including what is known as the Tunnel Reservoir at the west portal thereof, and all being connected with the Laramie River and diverting therefrom.

5. DEADMAN AND BURN CREEK DITCH, or THE EAST SIDE COLLECTING DITCH, with its headgate in the south bank of Deadman Creek, in Section 31, Township 10 North, Range 75 West of the 6th P. M., in Larimer County, Colorado.

6. THE LOWER SUPPLY DITCH, or THE WEST SIDE COLLECTING DITCH, with its headgate on the south side of Rawah Creek in Section 14, Township 9 North, Range 76 West of the 6th P. M., Larimer County, Colorado.

7. THE MCINTYRE DITCH, with its headgate in the east bank of McIntyre Creek, in Section 31, Township 9 North, Range 76 West of the 6th P. M., in Larimer County, Colorado.

8. APPROPRIATIONS OF WATER, from the Laramie River and tributaries thereof in Water District No. 48, pertaining to each and all of the above ditches and reservoirs.

9. DOWDY LAKE RESERVOIR, located in Sections 37 and 34, Township 10 North, Range 75 West of the 6th P. M., Larimer County, Colorado.

10. TWIN LAKES RESERVOIR, located in Section 34, Township 10 North, Range 75 West of the 6th P. M., Larimer County, Colorado.

11. MITCHELL LAKE SYSTEM, consisting of Mitchell Lakes Nos. 1, 2, 3, 4, 5 and 6; Deer Lake, Snake Lake and Belladrum Lake, located in Township 10 North, Range 75 West of the 6th P. M., Larimer County, Colorado.

12. THE NORTH PINE SUPPLY DITCH, having its headgate in the east bank of the North Branch of Lone Pine Creek, in Section 26, Township 10 North, Range 75 West of the 6th P. M., in Larimer County, Colorado.

13. THE SOUTH PINE SUPPLY DITCH, with its headgate located in the north bank of the South Fork of Lone Pine Creek, in Section 33, Township 10 North, Range 75 West of the 6th P. M., in Larimer County, Colorado.

14. THE ELKHORN DITCH, with its headgate in the north bank of Elkhorn Creek in Section 12, Township 9 North, Range 74 West of the 6th P. M., in Larimer County, Colorado.

15. THE LARAMIE & FOUNTAIN IRRIGATION CANAL, formerly called THE CREEKLY-FOUNTAIN CANAL, as now constructed with its head or initial point at the Laramie River, in the Tailer Ditch in said south line of Section 34, and extending thence to Madras Reservoir in Township 8 North, Range 75 West of the 6th P. M., all located part in Larimer and part in Weld County, Colorado.

16. THE MADRAS CUTLER DITCH, extending from Madras Reservoir

to Coal Creek, in Weld County, Colorado.

17. MCGHEE RESERVOIR, located on Sections 25, 27, 35 and 36, in Township 9 North, Range 65 West of the 6th P. M., and in Section 1, Township 8 North, Range 65 West of the 6th P. M., Weld County, Colorado.

18. CRESLEY-POUDRE RESERVOIR NO. 1, located in Sections 16 and 17, Township 8 North, Range 67 West of the 6th P. M., Weld County, Colorado.

19. MARCH RESERVOIR, located in Section 10, Township 7 North, Range 63 West of the 6th P. M., and in Sections 12 and 13, Township 7 North, Range 64 West of the 6th P. M., Weld County, Colorado.

20. DOVER RESERVOIR, located in Township 9 North, Range 66 West of the 6th P. M., in Weld County, Colorado.

FIFTH: The capital stock of our said Company shall consist of Four Hundred Fifty (450) shares, without par value, and said stock when issued, fully paid up, shall be non-assessable except that said stock may be annually assessed for the maintenance, operation and repair of the ditches, reservoirs, appropriations of water, and other property to be acquired by said Company, and for enlargements, additions or improvements thereof, and for the purpose of paying any indebtedness, owed or to be incurred, of said Company in the manner by law provided for a mutual, non-profit ditch company.

The right to subscribe to the stock of our corporation shall be limited and confined to stockholders of The Water Supply and Storage Company and The Windsor Reservoir and Canal Company; provided, however, that either of said corporations shall have the right to subscribe for, own, hold and control stock of our Company, for the benefit of their respective stockholders, in amounts not exceeding two-thirds thereof by The Water Supply and Storage Company and one-third thereof by The Windsor Reservoir and Canal Company, and no assignment of any of said stock to any person or corporation, other than as in this paragraph limited, shall be recognized by our corporation, and such assignment shall give the assignee or assignees thereof no right to vote or hold office in this corporation, or any right of benefit whatsoever by virtue of such assignment, nor shall this Company in any way recognize such



assignment.

SIXTH: Cumulative voting at meetings of stockholders of our said Company shall never be allowed or permitted.

SEVENTH: The affairs and management of our said corporation shall be under the control of a Board of Directors consisting of five (5) members, three (3) of whom shall be selected from the directors or stockholders of said The Water Supply and Storage Company, nominated and designated by the Board of Directors of said The Water Supply and Storage Company, and two (2) of whom shall be selected from the directors or stockholders of said The Windsor Reservoir and Canal Company, nominated and designated by the Board of Directors of said The Windsor Reservoir and Canal Company. No amendment of this article shall ever be made without the consent of a majority (2/3) of the stockholders of both of said Companies given by ballot at an annual meeting of the stockholders of each of said Companies.

R. G. VICKER, HARVEY G. JOHNSON and MADE C. M. HANSEN, Directors of said The Water Supply and Storage Company, and J. M. COLLINS and REK G. HATCH, Directors of said The Windsor Reservoir and Canal Company, are hereby selected as Directors of our said Company to manage its affairs and concerns until the next annual meeting of stockholders thereof, and until their successors are selected, in the manner herein set forth, and qualified.

In the event of a vacancy on the Board of Directors of our said Company, caused by the death, removal or inability of any member thereof to serve, or by reason of any member thereof becoming ineligible to serve by reason of the fact that he shall not continue to be a stockholder of either said The Water Supply and Storage Company or of said The Windsor Reservoir and Canal Company, such vacancy on the Board of our said Company shall be filled by the appointment of a person who shall be a director or stockholder of whichever of said Companies of which the member whose death, removal, inability to serve or becoming ineligible was a director or stock-

holder.

EIGHTH: Our corporation shall have the power to make and levy assessments on the capital stock thereof, payable in money, labor, or both, to be levied pro rata on the shares of said stock, for keeping the property of our said corporation in good repair, enlarging or improving the same, or for the payment of any indebtedness of said corporation and interest thereon, but no such assessment shall be made unless the question of making same shall first be submitted to the stockholders of our said corporation, at an annual meeting, or at a special meeting called for that purpose, and a majority of the stock issued and outstanding, represented either in person or by proxy, voting thereon, shall vote in favor of making such assessment, and in case said stockholders shall fail to hold any such meeting or shall fail to make or authorize any such assessment by the first day of April in any year, then said Board of Directors shall have the power to make any such assessment at any regular or special meeting of said Board of Directors called therefor for such year.

The By-Laws of this corporation shall prescribe and provide for the sale and forfeiture of any stock thereof for the failure of any stockholder to pay the installments or assessments that may from time to time become due, and shall provide for the sale and forfeiture of any stock of our corporation for any assessment made or levied on said stock in accordance with Section 11 of Chapter 41, 1935 Colorado Statutes Annotated, and our corporation elects to take and claim the benefit of said Section for the recovery of such assessments by forfeiture and sale of any stock of our corporation which shall be in default, and shall have a perpetual lien upon such shares and the water rights represented by the same, for any and all such assessments and all parts thereof until the same are fully paid. No water shall be delivered under any stock of our corporation until all assessments which shall have been made or levied thereon shall have been fully paid.



NINTH: The operations of our said corporation shall be carried on in the Counties of Larimer and Weld, in the State of Colorado, and the principal place of business of said corporation shall be located in Fort Collins, Larimer County, Colorado.

TENTH: Our corporation shall have perpetual existence.

ELEVENTH: The Directors of our said corporation shall have power to make such prudential By-Laws as they may deem proper for the management of the affairs of said corporation, not inconsistent with the laws of the State of Colorado in such case made and provided, Provided, however, that said Board of Directors shall not pass or adopt any By-Laws inconsistent with or prohibited by these articles.

TWELFTH: Our corporation reserves the right to amend, alter, or change any provision contained in this Certificate of Incorporation except as hereby expressly prohibited, in the manner now or hereafter prescribed by statute, Provided, however, that Articles numbered Fifth, Sixth, Seventh and Eighth hereof shall not be amended except as in said Articles herof expressly permitted.

IN WITNESS WHEREOF we have hereunto subscribed our hands and seals this 27<sup>th</sup> day of September, A. D., 1938.

W. C. Hyman  
Harvey B. Johnson  
Thos. M. Hansen  
L. M. Collins  
Ray C. Suter

STATE OF COLORADO }  
COUNTY OF LARIMER } ss.

I, Lawrence R. Temple, a

Notary Public in and for said County in the State aforesaid, do hereby certify that R. C. WICKERT, HARVEY G. JOHNSON, MADG G. Mc HANSEN, J. M. COLLINS and REX G. BATES, personally known to me to be the persons whose names are subscribed to the annexed and foregoing Certificate of Articles of Incorporation, appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument of writing, in quadruplicate, as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 27<sup>th</sup> day of September, A. D., 1939.

My Commission Expires: June 1-1940

Lawrence R. Temple  
Notary Public



UNITED STATES OF AMERICA

STATE OF COLORADO

I, GEORGE M. BAUMANN, Governor of the State of Colorado, do hereby certify that the annexed is a full, true and complete copy of the original Certificate of Incorporation of the

*The Denver Water Company*

which was filed in this office on the 28 day of *Sept* 19*73* and admitted to record.

In testimony whereof, I have hereunto set my hand and official seal at the City of the State of Colorado, this 28 day of *Sept* 19*73*.



R. C. Wykert, Harvey G. Johnson, Mads C. M. Hanson, J. M. Collins and Rex C. Eaton each thereupon offered to purchase one (1) share of the capital stock of our corporation to be issued fully paid and non-assessable. On motion duly made, seconded, and unanimously carried the offers were accepted and the President and Secretary were directed to issue certificates for one (1) share of the capital stock of our Company to each of said Directors.

On motion of Harvey G. Johnson, seconded by Rex C. Eaton and unanimously carried, the Board then proceeded to the election of officers and a canvass of the votes showed that R. C. Wykert was unanimously elected President, J. M. Collins was unanimously elected Vice-President, Fred Alford was unanimously elected Secretary and Fred Alford was unanimously elected Treasurer.

Mr. J. M. Collins then offered the following By-Laws to be the By-Laws of our corporation, and on his motion, duly seconded, the following By-Laws were adopted:

B Y - L A W S  
O F  
T H E - T U N N E L - W A T E R - C O M P A N Y

Section I. ANNUAL STOCKHOLDERS' MEETING - The Annual Stockholders' Meeting of stockholders of THE TUNNEL WATER COMPANY shall be held at a place to be designated by the Secretary in published notice of said meeting at Fort Collins, on the second Monday in February in the year 1939, and on the same day of each succeeding year.

Notice of the Annual Meeting shall be given as provided by law.

Section II. SPECIAL MEETINGS OF STOCKHOLDERS - Special meetings of stockholders may be called at any time by resolution of the Board of Directors, or upon request of the holders of one-third (1/3) of the capital stock, upon notice to be given as provided by law.

Section III. BOARD OF DIRECTORS - ELECTION - The Board of Directors shall consist of five (5) persons who shall be stockholders of our corporation, and three (3) of whom shall be selected from the Directors or stockholders of The Water Supply and Storage Company, nominated and designated by the Board of Directors of said The Water Supply and Storage Company, and two (2) of whom shall be selected from the Directors or stockholders of The Windsor Reservoir and Canal Company, nominated and designated by the Board of Directors of said The Windsor Reservoir and Canal Company, who shall be elected at the Annual Stockholders' Meeting and shall hold office until their successors shall be elected and qualified. Stockholders may vote in person or by proxy.

It shall be the duty of said Board to exercise general supervision over the affairs of the Company, to receive and pass upon the reports of the Secretary and Treasurer, to audit all bills and accounts against the Company and direct the Secretary in correspondence. It shall cause its officers to make a full exhibit of their several departments, and to prepare reports for submission to the annual meeting of stockholders.

The Board of Directors shall meet at such times as they shall from time to time determine, and a meeting of the Board may at any time be called by the President, or any other three members of the Board, by causing personal notices to be served upon the Directors or by mailing the same in the postoffice at Fort Collins addressed to each Director, at least two days before the date of such proposed meeting.

Three of the Directors shall constitute a quorum for the transaction of business at any meeting regularly called or adjourned; but any meeting of the Directors however called shall be valid when every member of the Board is present at such meetings, or shall give their several written consent thereto upon the recorded minutes thereof.

Until otherwise ordered, the regular place of meeting of the Board of Directors shall be at the office of the Company, at the City of Fort Collins, Larimer County, Colorado.

Section IV. OFFICERS - ELECTION - ETC. - The officers of this corporation shall be a President and Vice-President, who shall be chosen from the members of the Board of Directors, and a Secretary and a Treasurer, who may or may not be members of the Board of Directors or stockholders. The offices of Secretary and Treasurer may, at the discretion of the Board, be filled by one and the same person. Said officers shall be elected at the first meeting of the Board of Directors and shall hold office until the next annual meeting of the stockholders and until their successors are

elected and qualified and enter upon their offices respectively. The duties of such officers respectively, shall be those usual to such officers of like corporations.

Vacancies on the Board of Directors shall be filled by the Board of Directors by ballot in the manner and from the persons prescribed and described in the Articles of Incorporation. Vacancies in any office shall be filled by the Board of Directors by ballot.

Section V.     **QUORUM** - At all stockholders' meetings, stockholders holding at least a majority ) of the capital stock of the corporation, represented either in person or by proxy, shall constitute a quorum.

Three (3) members of the Board of Directors shall constitute a quorum at meetings of the Board of Directors.

Section VI.     **STOCK** - The subscribers to the capital stock of this corporation shall be entitled to certificates for their shares, duly signed by the President or Vice-President and countersigned by the Secretary, and bearing the corporation's seal, when same shall have been fully paid up. All certificates of stock shall be numbered and registered as they are issued.

The right to subscribe for, hold, own, transfer or assign the stock of our corporation shall be limited as provided in the Articles of Incorporation of our Company. No transfer or assignment of stock, which is not authorized or permitted by said Articles, shall be made. Transfers or assignments so authorized shall be made only upon the surrender of the original certificates and the written assignment of the holder, or his written request for re-issue. Transfers shall be made only on the books of the Company.

Section VII.     **SALE OF STOCK FOR NON-PAYMENT OF ASSESSMENTS** - When any stockholder shall be in default in the payment of any installment or assessment upon the stock, pursuant to the determination and

levy of the Board of Directors, for the period of thirty days after personal notice thereof, and demand therefor by the Secretary, or after a written or printed notice and demand therefor has been deposited in the postoffice, properly addressed to the last known postoffice address of such delinquent stockholders, the Board of Directors at any meeting may order that the share or shares of stock held by such delinquent stockholder and all the interest of such stockholder therein be sold by the President at public auction, at some certain time and place to be designated in such order, to the highest bidder for cash; Provided, however, that notice of such sale shall be published four successive weeks before such sale in some public newspaper published in Fort Collins, and provided, further, that the proceeds of any such sale over and above the amount due on said share or shares and all expenses incident to such sale, shall be paid to the delinquent shareholder.

Section VIII. DISTRIBUTION OF WATER - All water supplied by this Company shall be distributed or credited pro-rata among the stockholders of this Company. No water shall be delivered under any stock of this corporation until all assessments, which shall have been made or levied thereon, shall have been fully paid.

Section IX. CORPORATE POWERS - The Board of Directors shall have those powers enumerated in the Articles of Incorporation and in these By-Laws, and such other powers as may be necessary or incidental in carrying out such enumerated corporate powers and conducting the business of this corporation.

The Board of Directors shall have authority to employ such officers or employees to conduct the business of this corporation as they may see fit, and to fix the salaries of the respective officers and employees of this corporation.

Section X. ORDER OF BUSINESS - The order of business shall be that usual to such meetings.

Section XI. SEAL - The corporate seal shall consist of the name of the corporation arranged in a circle and the word "SEAL" in the center thereof.

Section XII. AMENDMENTS - These By-Laws may be amended at any regular meeting by threefifths (3/5) vote of the Board of Directors, Provided, however, that no amendment inconsistent with or prohibited by these Articles shall be made, and provided further that Articles numbered Fifth, Sixth, Seventh and Eighth of the Articles of Incorporation shall not be amended except as in said Articles expressly permitted.

**AMENDMENT**  
**to The Tunnel Water Company's**  
**Articles of Incorporation**

Pursuant to a resolution of the stockholders of The Tunnel Water Company, and in a manner prescribed by the Tunnel Water Company's Bylaws and Articles of Incorporation, an amendment to the Company's Articles of Incorporation was adopted February 13, 2012. On that date, the Third Article of the Tunnel Water Company's Articles of Incorporation was amended in its entirety to read as follows:

**THIRD:** The nature of the business, and the objects and purpose for which said corporation is formed and incorporated are to acquire, construct, own, maintain and operate ditches and reservoirs and interests therein; to acquire, by purchase, condemnation, or otherwise, all lands necessary or proper for rights of way for said ditches and sites for said reservoirs; to acquire, by purchase, appropriation, contract, lease, or otherwise, water for supplying said ditches and filling said reservoirs; to divert and store water through and in said ditches and reservoirs and to distribute the same to stockholders directly, or by a system of exchange, and to use all water acquired and appropriated for irrigation, domestic, mechanical, municipal and any other beneficial purpose or use; to acquire interests in ditches and reservoirs and appropriations of water by purchase and ownership of stock in other corporations owning or controlling the same; to construct all dams, headgates, flumes and appliances necessary and proper to or for the maintenance and operation of said ditches and reservoirs; to supply water to its stockholders upon such terms and conditions as shall be prescribed by the By-Laws or by the Board of Directors of said Company; to acquire any existing ditch or reservoir and the appropriations of water therefor necessary or proper for the purposes of this Company; to acquire, own, maintain and operate reservoirs, ditches, dams and other appliances, and appropriations of water for irrigation, domestic, mechanical, municipal and any other beneficial purpose or use, and to use the appropriations of water owned or acquired by said Company for irrigation, domestic, mechanical, municipal and any other beneficial purpose or use; to purchase, acquire, own and hold all real estate and personal property necessary to carry out and properly conduct the business of said Company; to construct, or acquire telephone lines, or interests in the line of any other company to be used or operated in connection with or as incidental to the operation of said Company; to borrow money and to issue bonds or notes of said Company, and to secure the payment thereof by mortgage or deed of trust upon any or all of the property of said Company, including appropriations of water, and generally to do and perform all things necessary or proper to carry on the business of said Company, and to carry out its objects and purposes as aforesaid, and by majority vote of its Board of Directors to sell, lease, exchange, convey and assign any property which may be acquired by it upon such terms and conditions, and for such consideration or considerations as said Board of Directors shall deem expedient and for the best interests of said corporation, which, in the opinion of the Board of Directors, shall no longer be necessary to the operation of said Company.



Document must be filed electronically.  
Paper documents are not accepted.  
Fees & forms are subject to change.  
For more information or to print copies  
of filed documents, visit [www.sos.state.co.us](http://www.sos.state.co.us).



Colorado Secretary of State  
Date and Time: 08/21/2014 02:13 PM  
ID Number: 19871103555  
Document number: 20141504141  
Amount Paid: \$25.00

ABOVE SPACE FOR OFFICE USE ONLY

### Articles of Amendment

filed pursuant to §7-90-301, et seq. and §7-130-105 of the Colorado Revised Statutes (C.R.S.)

ID number 19871103555

1. Entity name THE TUNNEL WATER COMPANY  
*(If changing the name of the corporation, indicate name before the name change)*

2. New Entity name  
(if applicable)

3. *(If the following statement applies, adopt the statement by marking the box and include an attachment.)*

☒ Other amendments are attached.

4. If the nonprofit corporation's period  
of duration as amended is less than  
perpetual, state the date on which the  
period of duration expires

(mm/dd/yyyy)

or

If the nonprofit corporation's period of duration as amended is perpetual, mark this box ☐

5. *(Optional)* Delayed effective date

(mm/dd/yyyy)

6. Additional information may be included pursuant to other organic statutes such as title 12, C.R.S. If  
applicable, mark this box ☐ and include an attachment stating the additional information.

#### Notice:

Causing this document to be delivered to the secretary of state for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that the document is the individual's act and deed, or that the individual in good faith believes the document is the act and deed of the person on whose behalf the individual is causing the document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S., the constituent documents, and the organic statutes, and that the individual in good faith believes the facts stated in the document are true and the document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the secretary of state, whether or not such individual is named in the document as one who has caused it to be delivered.

7. Name(s) and address(es) of the  
individual(s) causing the document  
to be delivered for filing

Fischer William R.  
*(Last) (First) (Middle) (Suffix)*  
1319 E. Prospect Road  
*(Street name and number or Post Office Box information)*

*(The document need not state the true name and address of more than one individual. However, if you wish to state the name and address of any additional individuals causing the document to be delivered for filing, mark this box ☐ and include an attachment stating the name and address of such individuals.)*

This form, and any related instructions, are not intended to provide legal, business or tax advice, and are offered as a public service without representation or warranty. While this form is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, remains the responsibility of the user of this form. Questions should be addressed to the user's attorney.

## **APPENDIX B**

### **Water Rights Summary**

## **WATER RIGHTS**

The Laramie Poudre Tunnel has decreed direct flow water rights for a total of 300.00 cfs from the Big Laramie River. The other components of the Laramie River System have additional decreed direct flow water rights. There is no associated storage on the Western Slope. The Laramie Poudre Tunnel water right is relatively senior on the Colorado River. Table 1 presents the details of the direct flow water rights for the Laramie Poudre Tunnel and the associated Laramie River System.

**Table 1**  
**Direct Flow Water Rights**

Structure Name	Source	Structure ID	Appropriation Date	Adjudication Date	Decreed Rate	Use
Laramie River Tunnel	Big Laramie River	0304600	8/25/1902	2/20/1914	300.00 cfs	Irrigation All
McIntyre Ditch	McIntyre Creek	4800581	8/25/1902	2/20/1914	40.0 cfs	Irrigation Municipal Commercial Industrial Recreation Fish Fire Augmentation
Rawah Ditch	Rawah Creek	4800582	8/25/1902	2/20/1914	225.0 cfs	Irrigation All
Rawah Lower Supply Ditch	Big Laramie River	4800500	8/25/1902	2/20/1914	275.0 cfs	Irrigation All

**Decreed Uses:** There are numerous water rights associated with the Laramie Poudre Tunnel; however as a result of the Laramie River Compact the total decreed capacity is limited to 300 cfs.

**Associated Storage:** Laramie Poudre Tunnel is part of the Laramie River System which includes numerous reservoirs owned by the Tunnel Water Company.

**Compact and Other Legal Considerations:** Laramie Poudre Tunnel is one of five transmountain diversion structures included in the Laramie River Compact between

Colorado and Wyoming. The 1957 Substitute Decree in Wyoming v. Colorado [353 U.S. 953 (1957)], known as the Laramie River Decree or Laramie River Compact, permits Colorado to divert 49,375 acre-feet per year from the Laramie River basin as follows:

1. 19,875 acre-feet per year may be diverted by Colorado for transmountain users. Transmountain users include Water Supply and Storage Company (Laramie Poudre Tunnel Diversion and Skyline Ditch), The Tunnel Water Company (Laramie Poudre Tunnel Diversion and Skyline Ditch), The Divide Canal and Reservoir Company (Deadman Ditch), and the City of Greeley (Bob Creek Ditch and Columbine Ditch). Each of these diversions export water from the Laramie River basin into Water District 3.
2. 29,500 acre-feet per year may be diverted by Colorado irrigators (called the "meadow users") for use within the basin (Water District 48), of which not more than 1,800 acre-feet can be diverted after July 31<sup>st</sup> of each year.
3. Any portion of the 19,875 acre-feet per year not diverted by Colorado for use outside the basin can be added to the 29,500 acre-feet per year permitted for use within the basin.
4. All waters diverted by Colorado for use within the basin are restricted to irrigation use on the 4,845 acres designated by the court at the time of the decree.

***The water rights description above was redacted from the Leonard Rice Engineers, Inc. memo for the South Platte Decision Support System, Key Transmountain Diversion Structures, LARAMIE POUFRE TUNNEL***

## **APPENDIX C**

**CWCB Loan Application**

**&**

**Board and Shareholder Resolutions**



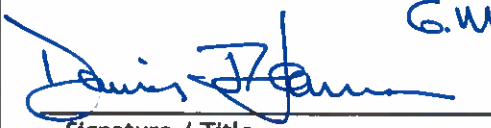
# COLORADO

Colorado Water  
Conservation Board

Department of Natural Resources

## Water Project Loan Program

Projects financed by the Water Project Loan Program must align with the goals identified in Colorado's Water Plan and its measurable objectives.

<b>Application Type</b>	
<input type="checkbox"/> Prequalification (Attach 3 years of financial statements) <input checked="" type="checkbox"/> Loan Approval (Attach Loan Feasibility Study)	
<b>Agency/Company Information</b>	
Company / Borrower Name: <b>The Tunnel Water Company</b>	
Authorized Agent & Title: <b>Dennis J. Harmon, General Manager</b>	
Address: <b>P.O. Box 2017, Fort Collins, CO 80522-2017</b>	
Phone: ( 970) 482-3433	Email: <b>dharmon@wtrsupply.com</b>
Organization Type: <input checked="" type="checkbox"/> Ditch Co. <input type="checkbox"/> District <input type="checkbox"/> Municipality <input type="checkbox"/> other: _____	Incorporated? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
County: <b>Larimer</b>	Number of Shares/Taps: <b>450 Shares Issued &amp; Outstanding</b>
Water District: <b>N/A</b>	Avg. Water Diverted/Yr <b>18,000</b> acre-feet
Number of Shareholders/Customers Served:	Current Assessment per Share \$ <b>1,288</b> (Ditch Co)
<small>More than 150,000 (City of Greeley, North Weld County Water District, Water Supply &amp; Storage Co. farms)</small>	Average monthly water bill \$ <b>N/A</b> (Municipality)
<b>Contact Information</b>	
Project Representative: <b>Dennis J. Harmon</b>	
Phone: ( 970) 482-3433	Email: <b>dharmon@wtrsupply.com</b>
Engineer: <b>Robin Dornfest, PE/Ryan Marsters, PE, PG</b>	
Phone: ( 720) 616-3277	Email: <b>Robin@LithosEng.com; Ryan@LithosEng.com</b>
Attorney: <b>Brent Bartlett, Esq., Fischer, Brown, Bartlett &amp; Gunn, P.C.</b>	
Phone: ( 970) 407-9000 x217	Email: <b>brentbartlett@fbgpc.com</b>
<b>Project Information</b>	
Project Name: <b>Laramie-Poudre Tunnel West-Half Rehabilitation</b>	
Brief Description of Project: (Attach separate sheets if needed)	
<b>Rehabilitation of the western half of the tunnel, including the replacement of aging support structures and the addition of new supports, rock bolts and shotcrete as required to ensure future serviceability and maintenance access with mining equipment.</b>	
Project Start Date(s) Design: <u>Underway since early 2018</u> Construction: <u>Fall 2019 through April 2020</u>	
General Location: (Attach Map of Area)	
<b>See exhibits attached.</b>	
<b>Project Costs - Round to the nearest thousand</b>	
Estimated Engineering Costs: <b>\$1,100,000</b>	Estimated Construction Costs: <b>\$7,700,000</b>
Other Costs (Describe Above):	Estimated Total Project Costs: <b>\$8,800,000</b>
Requested Loan Amount: <b>\$9,000,000.00</b>	Requested Loan Term (10, 20, or 30 years): <u>Thirty (30)</u> Years
<b>Signature</b>	
 Signature / Title <b>G.M.</b>	Return to: <b>Finance Section Attn: Anna Mauss</b> 1313 Sherman St #718 Denver, CO 80203 Ph. 303/866.3449 e-mail: <b>anna.mauss@state.co.us</b>
Date <b>2/7/2019</b>	

## RESOLUTIONS OF THE SHAREHOLDERS OF THE TUNNEL WATER COMPANY

The Shareholders of The Tunnel Water Company (Company) adopted the following resolutions concerning a secured loan from the State of Colorado Water Conservation Board (CWCB), for the purpose of rehabilitating the west half of the Laramie-Poudre Tunnel in the amount of \$9,000,000.00 or such actual amount, more or less, as may be needed by the Company and available from the CWCB including the CWCB loan origination fee of 1% of the loan amount.

The Shareholders also charged that these resolutions are irrevocable during the term of the loan and, pursuant to the Company's bylaws, authorized the President and Corporate Secretary, RESOLVED as follows.

1. to enter into and comply with the terms of a contract with the Colorado Water Conservation Board for a loan in the amount of \$9,000,000.00, or such actual amount, more or less, as needed to finance the project costs, including the CWCB loan origination fee of 1%, and
2. if collected revenues are insufficient to service annual payments due under the loan, to levy and collect assessments from the shareholders in an amount sufficient to pay the annual amounts due under the Loan Contract, and to pledge assessment revenues and the Company's right to receive said revenues in an amount sufficient to service the loan as described in the Loan Contract and Security Agreement, and
3. to make the annual payments required by the promissory note and to make annual deposits to a debt service reserve fund, and
4. to execute all documents as required by the loan contract, including, but not limited to, a Security Agreement and a Promissory Note, and
5. to take such other actions and to execute such other documents as may be necessary to consummate and implement the loan.

### CERTIFICATION

THE UNDERSIGNED, THE PRESIDENT AND THE SECRETARY HEREBY CERTIFY THAT THE FOREGOING ARE TRUE AND CORRECT COPIES OF RESOLUTIONS DULY ADOPTED PURSUANT TO THE COMPANY'S BYLAWS, AND THAT SAID RESOLUTIONS HAVE NOT BEEN AMENDED OR RESCINDED.

GIVEN UNDER OUR HANDS AND THE SEAL OF THE COMPANY THE 7TH DAY OF FEBRUARY 2019.

(SEAL)

By

  
Keith Amen, President

By

  
Heather Thiede, Secretary



## RESOLUTIONS OF THE BOARD OF DIRECTORS OF THE TUNNEL WATER COMPANY

The Board of Directors of The Tunnel Water Company (Company) adopted the following resolutions concerning a secured loan from the State of Colorado Water Conservation Board (CWCB), for the purpose of rehabilitating the west half of the Laramie-Poudre Tunnel in the amount of \$9,000,000.00 or such actual amount, more or less, as may be needed by the Company and available from the CWCB including the CWCB loan origination fee of 1% of the loan amount.

The Board charged that these resolutions are irrevocable during the term of the loan and, pursuant to the Company's bylaws, authorized the President and Corporate Secretary, **RESOLVED** as follows.

1. to enter into and comply with the terms of a contract with the Colorado Water Conservation Board for a loan in the amount of \$9,000,000.00 or such actual amount, more or less, as needed to finance the project costs, including the CWCB loan origination fee of 1%, and
2. if collected revenues are insufficient to service annual payments due under the loan, to levy and collect assessments from the shareholders in an amount sufficient to pay the annual amounts due under the Loan Contract, and to pledge assessment revenues and the Company's right to receive said revenues in an amount sufficient to service the loan as described in the Loan Contract and Security Agreement, and
3. to make the annual payments required by the promissory note and to make annual deposits to a debt service reserve fund, and
4. to execute all documents as required by the loan contract, including, but not limited to, a Security Agreement and a Promissory Note, and
5. to take such other actions and to execute such other documents as may be necessary to consummate and implement the loan.

### CERTIFICATION

THE UNDERSIGNED, THE PRESIDENT AND THE SECRETARY HEREBY CERTIFY THAT THE FOREGOING ARE TRUE AND CORRECT COPIES OF RESOLUTIONS DULY ADOPTED PURSUANT TO THE COMPANY'S BYLAWS, AND THAT SAID RESOLUTIONS HAVE NOT BEEN AMENDED OR RESCINDED.

GIVEN UNDER OUR HANDS AND THE SEAL OF THE COMPANY THE 7TH DAY OF FEBRUARY 2019.

(SEAL)

By Keith Amen  
Keith Amen, President

ATTEST:

By Heather Thiede  
Heather Thiede, Secretary



## **APPENDIX D**

**Financial Statements 2017-18**

**&**

**Budgets 2018-19**

**THE TUNNEL WATER  
COMPANY**

**Financial Statements and  
Independent Auditors' Report  
Years Ended November 30, 2018 and 2017**

# THE TUNNEL WATER COMPANY

## CONTENTS

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### FINANCIAL STATEMENTS

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Independent Auditors' Report	
Statements of Financial Position	1
Statements of Activities	2
Statements of Cash Flows	3
Notes to Financial Statements	4-7



## INDEPENDENT AUDITORS' REPORT

Board of Directors  
The Tunnel Water Company  
Fort Collins, Colorado

We have audited the accompanying financial statements of The Tunnel Water Company, a Colorado nonprofit corporation, which comprise the statements of financial position as of November 30, 2018 and 2017, and the related statements of activities and cash flows for the years then ended and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards required that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide the bases for our audit opinions.

### Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Tunnel Water Company as of November 30, 2018 and 2017, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

A handwritten signature in cursive script that reads "Scofield &amp; Scofield P.C.".

Centennial, Colorado  
January 29, 2019

# THE TUNNEL WATER COMPANY

## STATEMENTS OF FINANCIAL POSITION

November 30, 2018 and 2017

ASSETS	2018	2017
Current Assets		
Cash and cash equivalents	\$ 154,210	46,381
Restricted savings	218,245	216,043
Prepaid insurance	4,800	4,535
Total current assets	<u>377,255</u>	<u>266,959</u>
Property and Equipment		
Land, easements, reservoirs, and ditches	5,740,919	5,412,932
Buildings and fixtures	81,701	85,312
Machinery and equipment	149,880	175,934
Total cost	<u>5,972,500</u>	<u>5,674,178</u>
Less accumulated depreciation	<u>(1,252,439)</u>	<u>(1,227,427)</u>
Net property and equipment	<u>4,720,061</u>	<u>4,446,751</u>
TOTAL ASSETS	<u>\$ 5,097,316</u>	<u>4,713,710</u>
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 158,238	44,080
Current maturities of long-term debt	116,041	111,159
Deferred assessments	140,684	140,684
Total current liabilities	<u>414,963</u>	<u>295,923</u>
Long-Term Debt, net of current maturities	<u>2,910,015</u>	<u>2,896,871</u>
Net Assets		
Unrestricted		
Common stock, no par value; 450 shares authorized, issued 450 shares in 2018 and 2017	-	-
Undesignated	1,772,338	1,520,916
Total net assets	<u>1,772,338</u>	<u>1,520,916</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 5,097,316</u>	<u>4,713,710</u>

See accompanying notes to financial statements.



# THE TUNNEL WATER COMPANY

## STATEMENTS OF ACTIVITIES

Years Ended November 30, 2018 and 2017

CHANGES IN UNRESTRICTED NET ASSETS	<u>2018</u>	<u>2017</u>
Revenues		
Assessment income	\$ 568,776	426,026
Lease and rent income	2,102	2,000
Miscellaneous income	34,694	2,193
Total revenues	<u>605,572</u>	<u>430,219</u>
Expenses		
Program expenses		
Tunnel	7,569	23,645
Rawah ditch	75,654	90,386
Supporting expenses		
Administration	50,264	46,293
Legal	11,404	5,361
Interest	123,443	123,267
Depreciation	85,816	82,812
Total expenses	<u>354,150</u>	<u>371,764</u>
Increase in unrestricted net assets	251,422	58,455
Net assets, beginning of period	1,520,916	1,462,461
Net assets, end of period	<u>\$ 1,772,338</u>	<u>1,520,916</u>

See accompanying notes to financial statements.

# THE TUNNEL WATER COMPANY

## STATEMENTS OF CASH FLOWS

Years Ended November 30, 2018 and 2017

	<u>2018</u>	<u>2017</u>
Cash flows from operating activities:		
Increase in net assets	\$ 251,422	58,455
Adjustment to reconcile changes in net assets to net cash provided (used) by operating activities:		
Depreciation	85,816	82,812
Loss from property disposals	724	-
Changes in operating assets and liabilities		
Prepaid insurance	(265)	(67)
Accounts payable and accrued liabilities	114,158	19,104
Due to affiliate	-	(50,000)
Total adjustments	200,433	51,849
Net change in cash from operating activities	451,855	110,304
Cash flows from investing activities:		
Purchases of property and equipment	(359,850)	(26,559)
Investment in restricted savings	(2,202)	(1,801)
Net change in cash from investing activities	(362,052)	(28,360)
Cash flows from financing activities:		
New long-term loan advance	129,185	-
Long-term debt payments	(111,159)	(106,482)
Net change in cash from financing activities	18,026	(106,482)
Net change in cash and cash equivalents	107,829	(24,538)
Cash and cash equivalents at beginning of year	46,381	70,919
Cash and cash equivalents at end of year	\$ 154,210	46,381
<b>Supplemental disclosure of cash flow data:</b>		
Cash Paid For:		
Interest	\$ 138,867	104,543

See accompanying notes to financial statements.

# THE TUNNEL WATER COMPANY

## NOTES TO FINANCIAL STATEMENTS

November 30, 2018 and 2017

---

### NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES.

*A summary of the significant accounting policies consistently applied in the preparation of the accompanying consolidated financial statements follows.*

**Nature of Activities** - The Tunnel Water Company (Company) is a nonprofit corporation. The Company was formed to acquire and operate a system of collection canals, lakes, reservoirs, and a tunnel, along with the necessary appurtenant facilities and equipment. That water is to be distributed to the Company's shareholders on a pro-rata basis according to stock ownership for beneficial use, including irrigation, domestic, mechanical, and other professional uses. The Company collects assessments annually from shareholders for the purpose of funding the operation and maintenance of its facilities and the acquisition of water, water rights, reservoirs, canals, and other physical facilities and equipment as the Directors deem necessary. These statements, which contain only the activity of The Tunnel Water Company, are included in the consolidated statements of The Water Supply and Storage Company.

**Basis of Accounting** - The financial statements have been prepared on the accrual basis of accounting and, accordingly, reflect all significant receivables, payables and other liabilities.

**Basis of Presentation** - The financial statement presentation follows the recommendations of the Financial Accounting Standards Board in its Accounting Standards Codification (ASC 958), *Financial Statements of Not-for-Profit Companies*. Under (ASC 958) the Company is required to report information regarding their financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets.

**Use of Estimates** - The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Reclassification** - Certain reclassifications have been made to the prior year's financial statements to conform to the current year's presentation.

**Cash and Cash Equivalents** - For purposes of the statements of cash flows, the Company considers all highly liquid investments with a maturity of three months or less to be cash equivalents.

**Member Assessments** - Each year, management estimates the succeeding years operating expenses and debt service and establishes annual member assessments necessary to maintain operations and service debt. Members are billed in the first quarter of the fiscal year for their share of the annual member assessments based on their proportionate ownership of common stock.

Assessments are considered to be available for unrestricted use. Debt assessments are restricted for debt service although the restriction is satisfied in the same time period the assessments are received. Therefore, the Company reports debt assessments as unrestricted revenue.

The Tunnel Water Company historically has not had any unpaid assessments. Therefore, all accounts receivable are considered collectible. In the event any assessments remain unpaid, water delivery can be suspended until the assessments are paid. Additionally, the assessments are secured by the members' ownership. The value of this ownership is significantly greater than the annual assessments.

# THE TUNNEL WATER COMPANY

## NOTES TO FINANCIAL STATEMENTS

November 30, 2018 and 2017

---

### NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Property and Equipment –Property and equipment is stated at historical cost. The Company's policy is to capitalize expenditures for property and equipment in excess of \$500. Property and equipment are depreciated using the straight-line method over the following estimated lives:

Reservoirs and ditches	90 years
Buildings	40 years
Furniture and fixtures	5-10 years
Machinery and equipment	5-10 years

Income Taxes - The Company operates as a non-profit organization and is exempt from federal income taxes under section 501(c)(12) of the Internal Revenue Code.

While the Company qualifies for exempt status it is required to make the appropriate tax payments on any income considered unrelated to its exempt purpose. There was no unrelated business income for the years ended November 30, 2018 and 2017, and as a result, there was no income tax liability.

The Company applies the provisions of FASB ASC Topic 740, Income Taxes, which prescribes a recognition threshold and measurement attribute for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This standard also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure, and transition. For the years ended November 30, 2018 and 2017, the Company does not believe it has any uncertain tax positions or any related penalties and interest, therefore no recognition of uncertain tax positions is reflected in the financial statements.

The Company's Forms 990, Return of Company Exempt from Income Tax, for the years ending 2015, 2016, and 2017 are subject to examination by the IRS, generally for three years after they were filed.

### NOTE 2 – RESTRICTED SAVINGS

The restricted savings is held to satisfy the debt service reserve fund requirements of the security agreement with the Colorado Water Conservation Board and resides in a certificate of deposit and savings account.

### NOTE 3 - LONG-TERM DEBT

Long-term debt consists of notes payable to the Colorado Water Conservation Board to finance a portion of the costs of rehabilitation and restoration of a water diversion tunnel that partially collapsed in 2000 and to extend the service life and improve maintenance access for the Laramie – Poudre tunnel.

# THE TUNNEL WATER COMPANY

## NOTES TO FINANCIAL STATEMENTS

November 30, 2018 and 2017

Long-term debt follows:

	<u>2018</u>	<u>2017</u>
Note payable dated November 24, 2003, due in equal annual installments of \$112,799, including interest at 4.3%, through maturity on December 1, 2032	\$ 1,165,305	1,225,412
Note payable dated December 14, 2000, due in equal annual installments of \$98,226, including interest at 4.5%, through maturity on December 1, 2032	997,263	1,048,315
Note payable dated October 21, 2015, due in equal annual installments of \$82,582, including interest at 2.55%, for 30 years. First payment is due one year after the Colorado Water Conservation Board (CWCB) determines that the project is substantially complete. The project was not complete on November 30, 2018.		
Total	<u>863,488</u> 3,026,056	<u>734,303</u> 3,008,030
Less current maturities	116,041	111,159
Long-term maturities	<u>\$ 2,910,015</u>	<u>2,896,871</u>

Security for the notes payable consists of a deed of trust granting a 100% undivided interest in the water and water rights available to the Laramie River System of the Company together with an easement for the Laramie-Poudre Tunnel and a security interest in all assessments authorized for the purpose of repayment of the loans. Provisions of the loan agreements set forth a variety of restrictive covenants including the requirement to fund a debt service reserve fund equal to one-tenth of one annual payment of interest and principal during the first ten years of the loan. At November 30, 2018 and 2017 the debt service reserve fund was funded in accordance with the terms of the agreement and is included in restricted savings.

Interest expense on notes payable of \$123,443 and \$123,267 for 2018 and 2017, respectively, is reflected in the statements of activities.

Aggregate annual principal payments of long-term debt for years subsequent to November 30, 2018 are as follows:

Year ending November 30,	
2019	\$ 116,041
2020	174,572
2021	179,893
2022	185,447
2023	191,245
Thereafter	2,178,858
Total	<u>\$ 3,026,056</u>

# THE TUNNEL WATER COMPANY

## NOTES TO FINANCIAL STATEMENTS

November 30, 2018 and 2017

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### NOTE 4 - TRANSACTIONS WITH AFFILIATE

Two-thirds of the Company's stock is owned by The Water Supply and Storage Company ("WSSC"). Both WSSC and The Tunnel Water Company share three common board members and management.

During the years ended November 30, 2018 and 2017, assessment income was received from WSSC as follows:

	<u>2018</u>	<u>2017</u>
Assessments for,		
Operations and maintenance	\$ 210,000	143,333
Debt service	169,184	140,684
	<u>\$ 379,184</u>	<u>284,017</u>

WSSC provides payroll, facilities and other services to The Tunnel Water Company in the ordinary course of business. During the years ended November 30, 2018 and 2017, respectively, the Company made payments of \$86,523 and \$100,618 to WSSC

At November 30, 2018 and 2017, respectively, the Company has recorded the following amounts due to and prepaid by WSSC:

	<u>2018</u>	<u>2017</u>
Deferred assessments - next year's assessments received in advance	<u>\$ 140,684</u>	<u>140,684</u>

### NOTE 5 – CONCENTRATION OF CREDIT RISK

The Company maintains various accounts with one financial institution. Balances, at times, may exceed federally insured limits. The Company believes that its loss exposure is limited.

### NOTE 6 – SUBSEQUENT EVENTS

The Company has evaluated subsequent events through January 29, 2019, which is the date the financial statements were available to be issued. There were no events that required adjustments to or disclosure in these consolidated financial statements.



**The Tunnel Water Company**  
**Proposed Budget FY 18-19**  
**(Unaudited/Cash Basis)**

<u>Description</u>	<u>Budget 18/19</u>
<b><u>Revenues</u></b>	
Assessment Income	340,000
Assmt for CWCB debt service	
2002	211,028
2015	39,898
2018	27,717
Lease Income	2,000
Oil Royalty Income	750
Misc. Income	0
Interest Income	0
Subtotal - Income	<u>621,391</u>
<b><u>Expenditures</u></b>	
Office Salaries	14,026
Office Expense & Rent	1,000
Bank Charges	100
Telephone	1,000
Legal	3,000
Engineering	9,391
Auditing & Tax Prep.	6,500
Workmans' Comp.	2,000
Insurance	7,500
FICA/Alloc PR taxes	5,667
Taxes & Licenses	850
Commissary	7,704
House Supplies	750
Internet & TV	1,500
Tunnel R&M	1,500
Larimie-Poudre Building Repair	6,500
Misc Exp	500
Shop Supplies	500
Rawah Ditch - Salary	33,336
Rawah Ditch - Labor Salaries	23,750
Rawah Ditch - Gas & Oil	12,500
Rawah Ditch - Truck Repairs	3,500
Rawah Ditch - Mach. Repair	5,000
Rawah Ditch - Ditch Repairs	20,000
USDA FS SUP Fees	1,045
Interest Expense - CWCB '02 Loans	94,985
Subtotal - Expenditures	<u>264,104</u>
<b><u>Capital Expenditures:</u></b>	
West Portal	0
East Portal	(849,758)
Proceeds, CWCB loan- Portals Loan	836,141
West Half Project	(1,681,639)
Proceeds, CWCB loan- West Half	1,700,000
Head Gate on Inlet Channel	(190,860)
Other Equipment	(5,000)
Net before Prin. Paid on CWCB	<u>166,171</u>
Less: Principal on 2002 CWCB notes	(116,041)
Debt Svc - East Portal 2015 loan	(39,898)
Debt Svc - West Half 2018 loan	(27,717)
Net Rev. over(under) Exp.	<u>(17,485)</u>

## **APPENDIX E**

### **Insurance Certificate**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/31/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> F&W Insurance 3005 Center Green Drive Suite 120 Boulder CO 80301	<b>CONTACT</b> NAME: PHONE (A/C, No, Ext): 303-444-4666 FAX (A/C, No): 303-444-8481 E-MAIL: ADDRESS:
<b>INSURED</b> The Water Supply & Storage Co., Tunnel Water Co. & Jackson Ditch P.O. Box 2017 Fort Collins CO 80522	<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A : American Alternative Insurance Corp INSURER B : Pinnacol Assurance Company INSURER C : INSURER D : INSURER E : INSURER F :

**COVERAGES**

CERTIFICATE NUMBER: 695786185

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD	WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y		GPPA-PF-6051396-08000	8/1/2018	8/1/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMP/OP AGG \$ 3,000,000 \$
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			GPPA-PF-6051396-08000	8/1/2018	8/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input type="checkbox"/> RETENTION \$			GPPA-PF-6051396-08000	8/1/2018	8/1/2019	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A		88802	11/1/2017	11/1/2018	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 500,000 E.L. DISEASE - EA EMPLOYEE \$ 500,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate Holder is hereby named as an Additional Insured, but only in respects to the General Liability portion of this certificate and limited to the operations of the Named Insured.

**CERTIFICATE HOLDER****CANCELLATION**

Colorado Water Conservation Board  
1313 Sherman St Suite 718  
Denver CO 80203  
USA

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

© 1988-2015 ACORD CORPORATION. All rights reserved.

## **APPENDIX F**

### **Maps of Service Area**

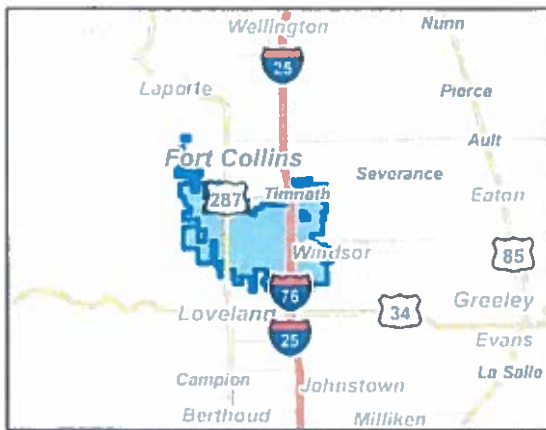
#### SERVICE AREA:

The water diverted by Tunnel Water Company serves agricultural interests under the Larimer County Canal from the Cache la Poudre River to several miles east of Highway 85 near Pierce and Ault, as well as the residential and industrial users served by the City of Greeley, North Weld County Water District and Fort Collins-Loveland Water District. See maps attached of the service areas of Greeley and the two water districts.

[illegible]

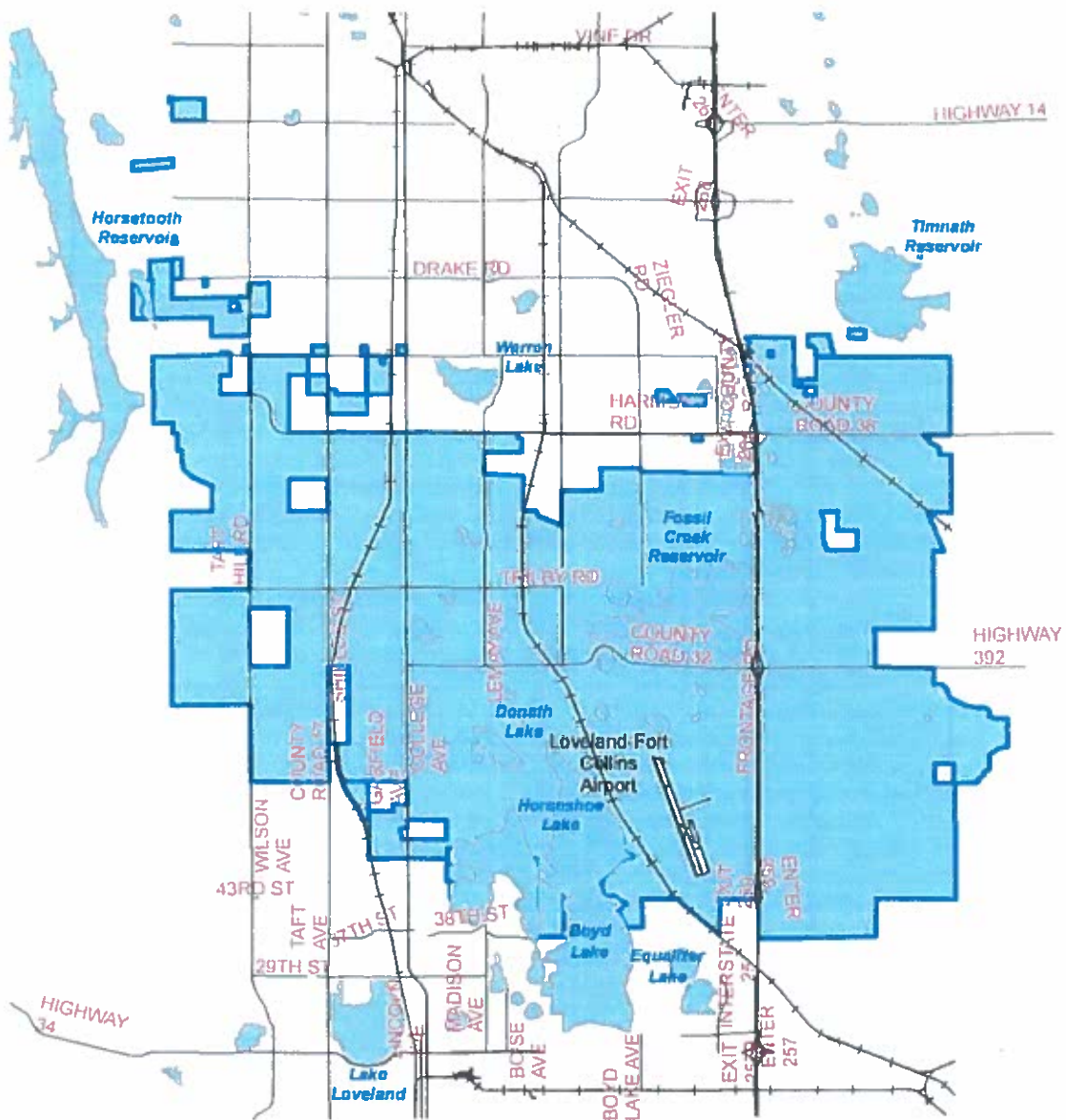
421  
G.C. - Greeney Impaction Company  
G.L.C. - Onley-Laurel Impaction Company  
L.B.W. - Larmer and Wood Impaction Company  
MCHM - Northern Waste  
SLC - Seven Lakes Reservoir Company  
TLC - East Larmer County Water District, North West  
County Water District, and the Fort Collins-Laurel Water District  
WSS - Water Supply and Storage Company





# Fort Collins-Loveland Water District

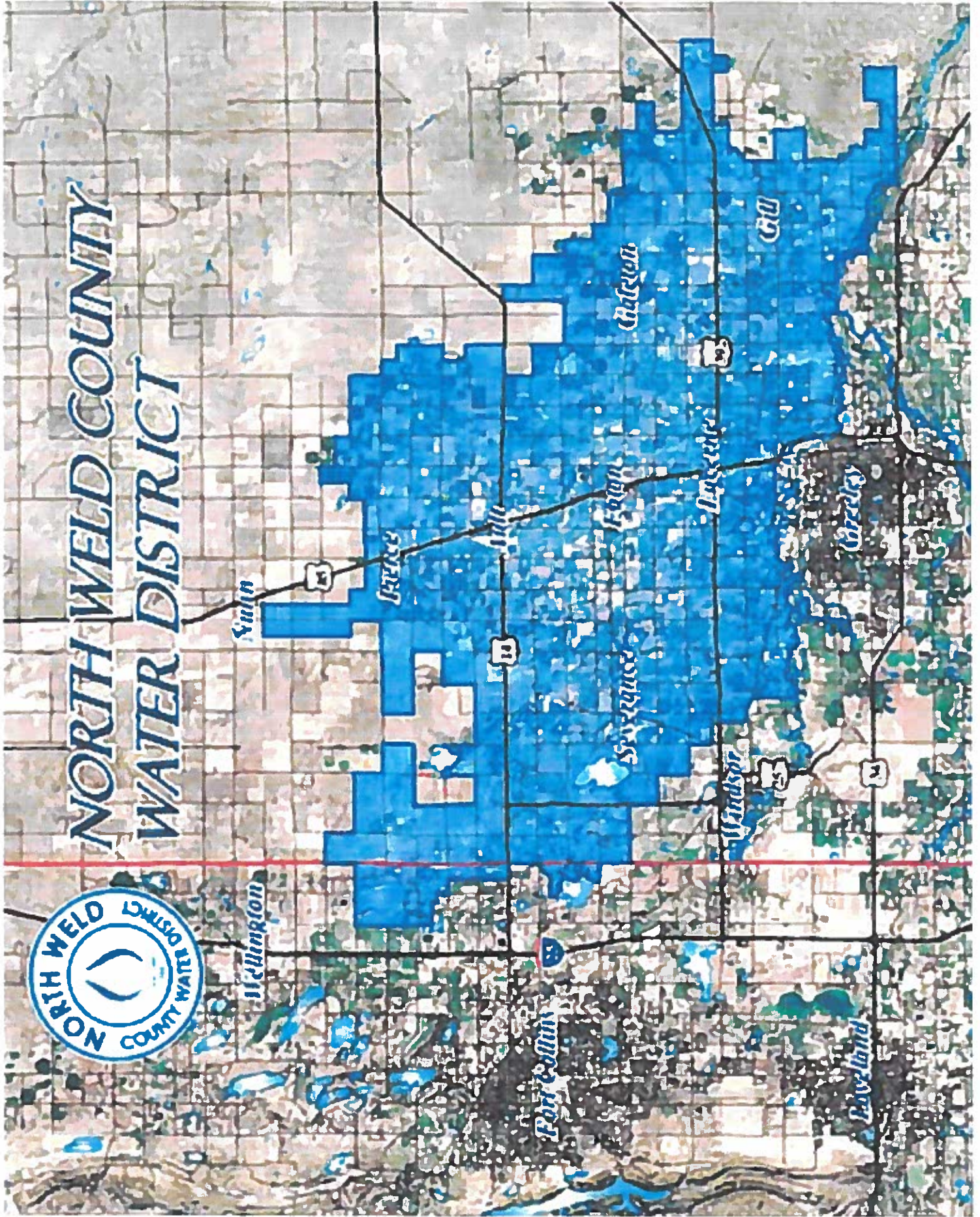
**Service Area  
2015**







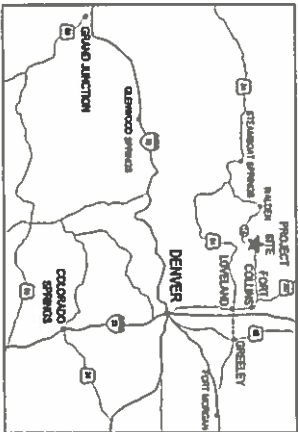
# NORTH WELD COUNTY WATER DISTRICT





## **APPENDIX G**

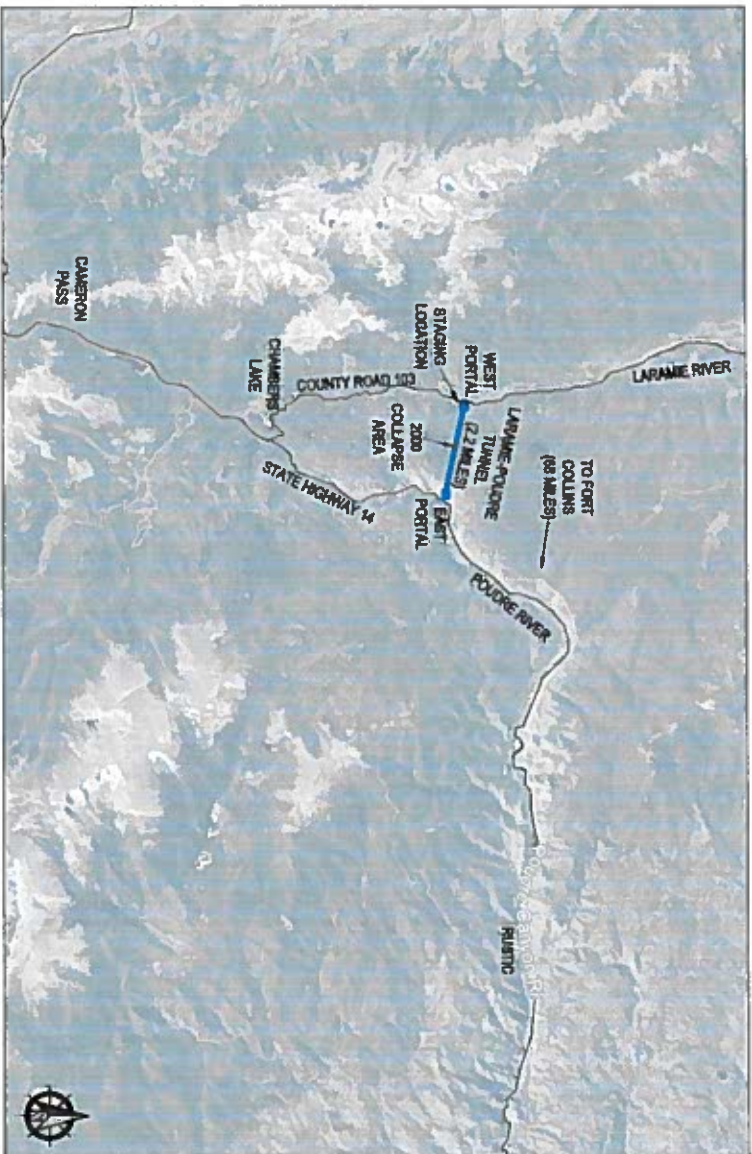
### **Preliminary Plan Drawings**



**LARAMIE-POUDRE TUNNEL  
REHABILITATION (WEST HALF)  
LARIMER COUNTY, COLORADO  
30% DESIGN DRAWINGS**

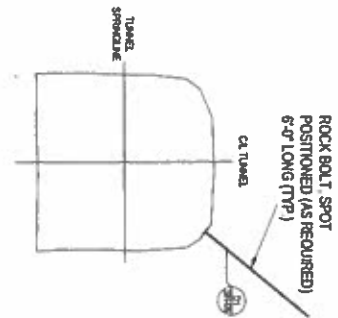
AUGUST 29, 2018  
PROJECT NO. 17044

**TUNNEL WATER  
COMPANY**  
**LITHOS**  
ENGINEERING

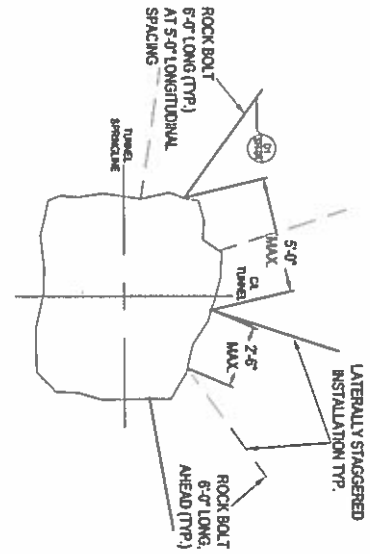


SITE VICINITY MAP

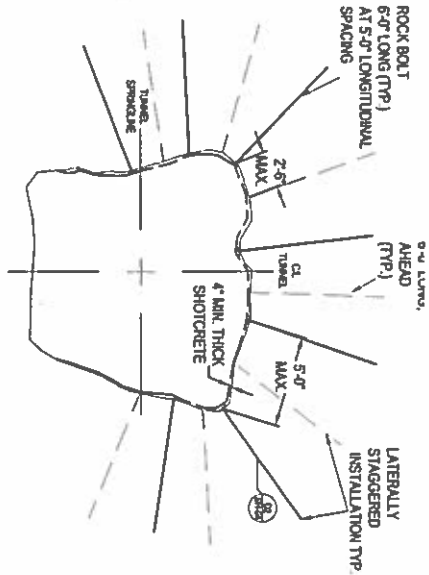




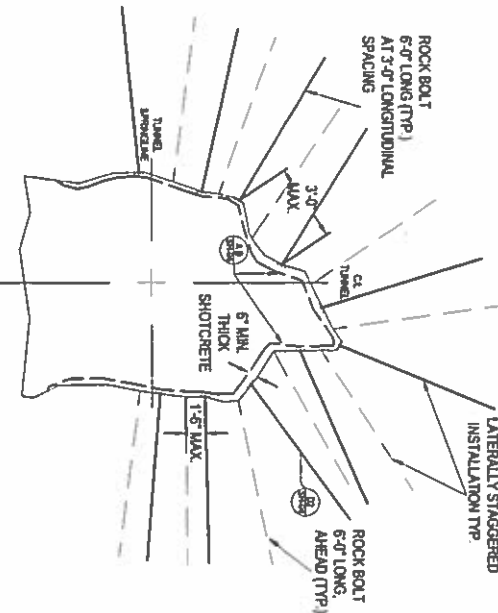
1 SUPPORT CLASS A  
SCALE: NOT TO SCALE



2 SUPPORT CLASS B  
SCALE: NOT TO SCALE



3 SUPPORT CLASS C  
SCALE: NOT TO SCALE



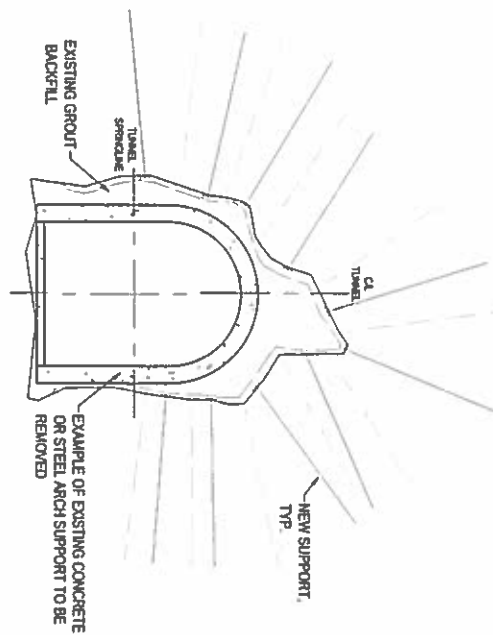
4 SUPPORT CLASS D  
SCALE: NOT TO SCALE

- NOTES:
1. 8' X 8' NOMINAL FINAL EXCAVATED TUNNEL DIMENSION.
  2. MINIMUM REQUIRED SUPPORT ELEMENTS ARE SHOWN. SUPPORTS SHALL BE INCREASED OR DECREASED DURING CONSTRUCTION TO SAFELY SUPPORT OBSERVED CONDITIONS OR AT THE DIRECTION OF THE ENGINEER.
  3. EXCESSIVELY FRACTURED OR UNSTABLE ROCK TO BE SCALED PRIOR TO INSTALLATION OF SUPPORT.
  4. LOCATIONS OF ROCK BOLTS AND SHOTCRETE SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS MAY VARY BASED ON CONDITIONS OBSERVED DURING CONSTRUCTION.
  5. ROCK BOLT LENGTHS ARE MINIMUM EMBEDDED IN ROCK. ADDITIONAL LENGTH TO BE PROVIDED FOR PLATE, WASHER, AND NUT.

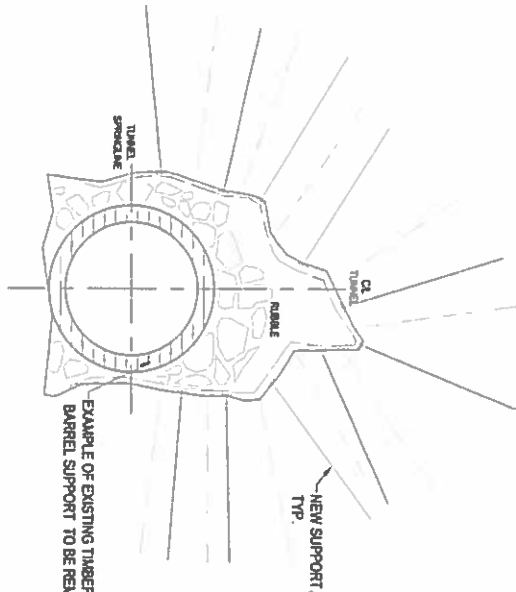
NOT FOR  
CONSTRUCTION

<b>SH-2</b> SHEET 2 OF 4	DRAWN BY: AM DESIGNED BY: AM CHECKED BY: RM DATE: 6/29/18	<b>TUNNEL SUPPORT CLASS CONFIGURATIONS</b>	<b>LARAMIE-POUDRE TUNNEL REHABILITATION</b> PROJECT NO.: 17044 LOCATION: Laramie County, Colorado	TUNNEL WATER COMPANY TUNNEL WATER COMPANY	REVISION: _____ DATE: _____	<b>LITHOS ENGINEERING</b> 2025 REDWING ROAD, SUITE 100 FORT COLLINS, COLORADO 80526 970.373.1188
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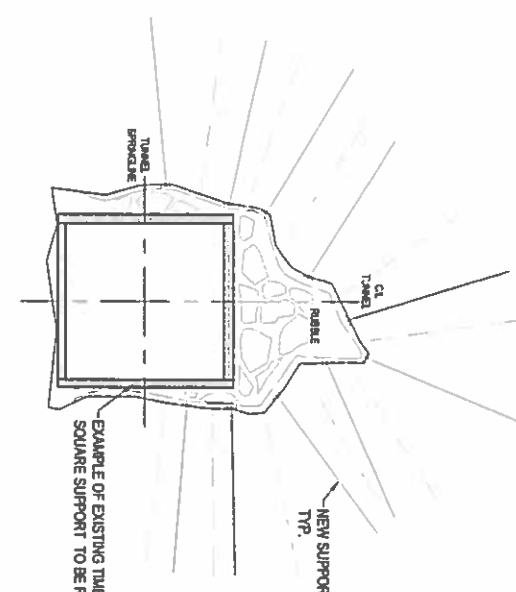




1 EXISTING CONCRETE ARCH  
SCALE: NOT TO SCALE



2 EXISTING TIMBER BARREL  
SCALE: NOT TO SCALE

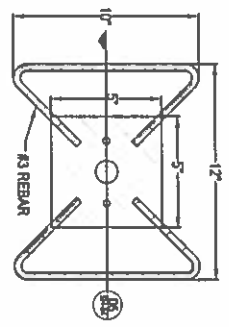
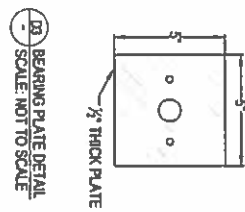
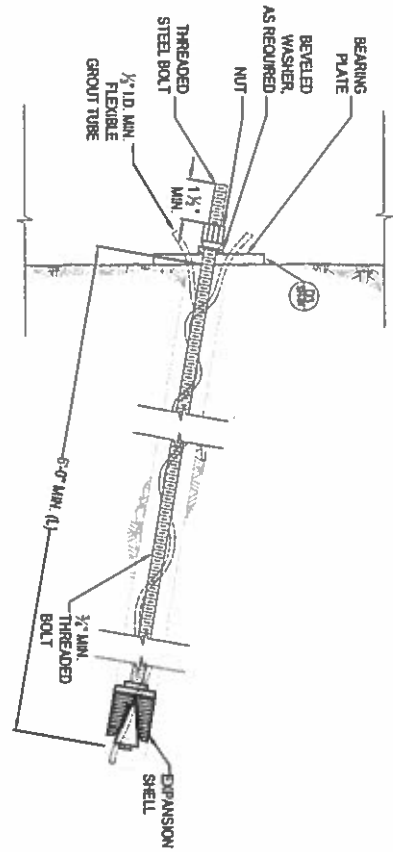


3 EXISTING TIMBER SQUARE  
SCALE: NOT TO SCALE

- NOTES:
1. ROCK BOLTS AND SHOTCRETE AS PROPOSED SUPPORTS ARE SHOWN FOR EXAMPLE PURPOSES ONLY. DESIGN DETAILS ARE SHOWN ON SHEET 2.
  2. OCCASIONAL STEEL REINFORCEMENT OF TIMBER AND CONCRETE SUPPORTS OMITTED FOR CLARITY.
  3. RUBBLE RESTING ON EXISTING SUPPORTS TO BE REMOVED.

NOT FOR  
CONSTRUCTION

<b>SH-3</b> SHEET 3 OF 4	DRAWN BY	AM	SCHEMATICS OF EXISTING SUPPORTS TO BE REMOVED	PROJECT	LARAMIE-POUDRE TUNNEL REHABILITATION	OWNER	TUNNEL WATER COMPANY	<b>LITHOS</b> ENGINEERING 2625 REDWING ROAD, SUITE 100 FORT COLLINS, COLORADO 80526 970.373.3195
	DESIGNED BY	AM		PROJECT NO.	17041	OWNER	TUNNEL WATER COMPANY	
	CHECKED BY	RM		LOCATION	Larimer County, Colorado	REVISION	DATE	
	DATE	6/29/18						

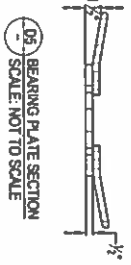


D1 ROCK BOLT DETAIL  
SCALE: NOT TO SCALE

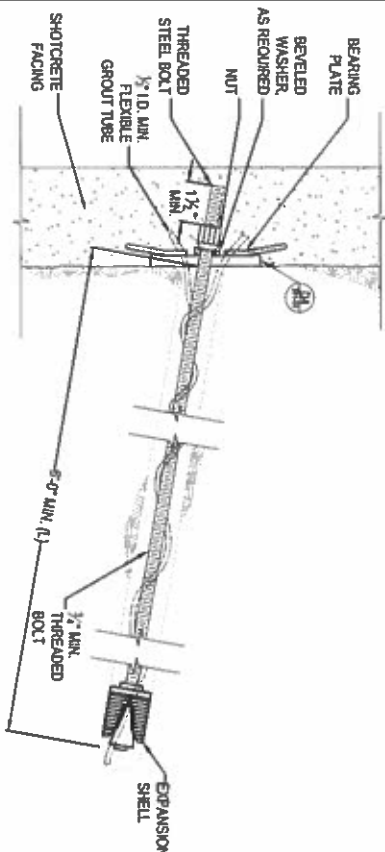
D2 BEARING PLATE DETAIL  
SCALE: NOT TO SCALE

D3 BEARING PLATE DETAIL FOR USE WITH SHOTCRETE FACING  
SCALE: NOT TO SCALE

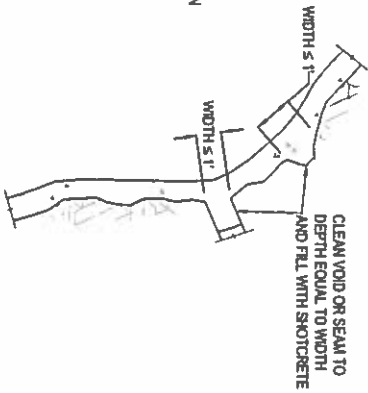
- NOTES:
1. ALL ROCK BOLTS SHOULD BE INSTALLED WITHIN 15 DEGREES OF RADIAL TO CROWN ARCH OR NORMAL TO ROCK SURFACE AND BEARING PLATES SEATED AT NO GREATER THAN 15 DEGREES FROM NORMAL TO ROCK BOLT.
  2. DRILL HOLE DIAMETERS SHALL BE IN ACCORDANCE WITH ROCK BOLT MANUFACTURERS RECOMMENDATIONS.
  3. OVERDRILL FOR ROCK BOLTS SHALL NOT EXCEED 8 INCHES OR MANUFACTURERS RECOMMENDATIONS.



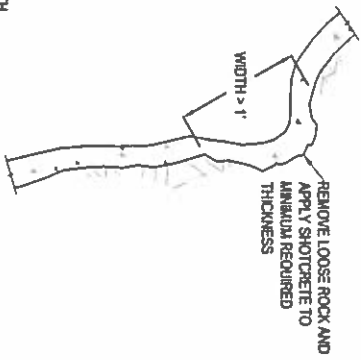
D4 BEARING PLATE SECTION  
SCALE: NOT TO SCALE



D5 ROCK BOLT DETAIL WITH SHOTCRETE FACING  
SCALE: NOT TO SCALE



A SHOTCRETE DETAIL AT VOIDS OR GOUGE-FILLED SEAMS < 1' WIDTH  
SCALE: NOT TO SCALE



B SHOTCRETE DETAIL AT LARGE VOIDS OR CHIMNEYS > 1' WIDTH  
SCALE: NOT TO SCALE

<b>SH-4</b> SHEET 4 OF 4	DRAWN BY: AM DESIGNED BY: AM CHECKED BY: RM DATE: 8/29/18	<b>ROCK BOLT AND SHOTCRETE DETAILS</b>	PROJECT: LARAMIE-POUDRE TUNNEL REHABILITATION PROJECT NO.: 17044 LOCATION: Larimer County, Colorado	TUNNEL WATER COMPANY TUNNEL WATER COMPANY	REVISION: _____ DATE: _____	<b>LITHOS ENGINEERING</b> 2825 REDWING ROAD, SUITE 100 FORT COLLINS, COLORADO 80504 970.375.3198
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November 19, 2018

Project No.: 17044

Tunnel Water Company  
P.O. Box 2017  
Fort Collins, Colorado 80522-2017

2625 Redwing Road, Suite 160  
Fort Collins, Colorado 80526  
970.373.3195  
www.LithosEng.com

Attention: Mr. Dennis Harmon  
General Manager

Regarding: Proposal for Construction Management Services  
Rehabilitation of the Western Half of the Laramie-Poudre Tunnel  
Larimer County, Colorado

Mr. Harmon,

Lithos Engineering (Lithos) is pleased to provide this proposal to the Tunnel Water Company (TWC) for construction management services for the approximate western half of the Laramie-Poudre Tunnel. This proposal was prepared based on our experience with the project during the rehabilitation evaluation, design phase, and selection of a Construction Manager at Risk (CMAR).

## Background

The Laramie-Poudre Tunnel conveys water from the Laramie River eastwards beneath mountainous terrain to the Cache la Poudre River near Kinikini in Larimer County, Colorado roughly 40 miles due west of Fort Collins, Colorado. For a detailed history of the tunnel and previous work conducted, please refer to the report titled "Rehabilitation Alternatives Evaluation, Laramie-Poudre Tunnel", Lithos Engineering, 2018.

Due to the age of the tunnel, tunnel crown failures, and diminished operation capacity and access, the TWC has elected to rehabilitate the approximate western half of the tunnel through conventional mining and support methods. In general, the work is to include excavating portions of the west half of the tunnel to an approximate 8-foot wide by 8-foot tall cross-section and installing support systems as needed comprised of rock bolts, mine straps, beams, shotcrete, and other support elements ("conventional support") as necessary to reduce the risks of future impacts to the long-term operational capacity of the west half of the tunnel. The eastern half of the tunnel was rehabilitated after a collapse in 2000 and is in significantly better condition than the western half and is therefore not to be included in this project.

The TWC elected to implement a CMAR project delivery system for the rehabilitation of the western half of the tunnel. A CMAR delivery method first involves an engineer preparing a preliminary design, typically to about the 30 percent level. The owner and engineer then select a contractor to serve as the CMAR based on qualifications and a rough order of magnitude of construction costs, based on the preliminary design. Once selected, the CMAR will work with the team through final design, providing input on constructability, costs and schedule. At the 90 percent design level, the CMAR will provide the TWC a Guaranteed Maximum Price (GMP) for construction. The CMAR will provide their services during the

design process based on their contract for that portion of the project, while the construction contract will be based on the agreed upon GMP.

The CMAR delivery method is designed to promote a collaborative working environment between all parties, provide the contractor with early involvement in the design process, increase efficiency, set a fair GMP prior to construction, and reduce potential for construction cost overruns and litigative risk to the owner.

In November 2018, TWC selected Harrison Western Construction Company (HWCC) as the CMAR. Lithos is presently working with HWCC on furthering the rehabilitation design prior to the start of construction scheduled for September 2019, or whenever water shutoff occurs.

Rehabilitation will seek to stabilize the western 6,300 linear feet of the tunnel, reduce the risk of future failures like those that have been experienced in the past, and remove existing tunnel constrictions that will improve hydraulics and tunnel access for future maintenance and service. Construction will start downstream of the box culverts at the western portal and proceed eastward toward the tunnel mid-point (approximately 6,300 linear feet). Lithos envisions construction will include:

- Removing the majority or all the existing tunnel support;
- Re-mining of limited access zones to 8 feet x 8 feet minimum dimensions;
- Invert mucking and pouring of a partial invert slab concurrent with re-mining to facilitate equipment access; and
- Applying shotcrete, pattern bolts, spot bolts, and other support elements in all zones identified as at-risk.

The extent of mitigation will be further evaluated and quantified during the design phase.

## Proposed Scope of Work

The proposed scope of work outlined below is for construction management services. These services are to commence approximately August 2019 after development of a GMP and final design under Lithos' current contract. We assume construction will be completed May 2020 and Lithos' scope will be concluded at the end of Task 5 below.

### 1. Field Engineering and Oversight

Lithos will place qualified engineering staff on site to implement the design, document quantities of materials used and excavated, record daily CMAR progress, perform spot evaluations of support needs, map/assess geologic conditions behind existing support, inspect finished support installed by the CMAR, respond to CMAR design requests and RFIs, review and approve pay applications, and facilitate coordination between TWC, Lithos and the CMAR. The field engineer will prepare a daily field report for each shift worked summarizing daily tasks.

The fee for this task includes:

- Field Engineers
  - Lithos assumes 245 work days with 12-hour shifts.
    - Based on HWCC's submitted schedule, approximately 34 weeks (235 days) are required for tunnel construction with an additional 5 weeks allotted for mobilization and demobilization.

- A field engineer will be onsite daily during construction and once a week during mobilization, setup, and de-mobilization. An additional 5 days are included as a contingency.
- Weekly commute and transportation. We propose to staff this task with two field engineers rotating 7-day shifts throughout construction.
- HWCC proposes to work two 12-hour shifts each day. Lithos' field engineer will work one 12-hour shift, with the option to stagger shift times to overlap both CMAR shifts, depending on the relative importance of daily construction tasks, and maintain schedule flexibility to best serve the project needs.
- Project Engineer
  - Lithos assumes weekly site visits during active tunnel construction, totaling 34 weeks. We have allotted an additional 2 hours per week to review daily tunnel progress and assist the Field Engineer.
- Senior Review/Specialty Consulting
  - Lithos has budgeted for bi-weekly visits by the project principal and for monthly visits by a senior engineer. This will help to maintain the integrity of the design, promote project coordination and flow, and allow senior designers to review problematic construction zones and aid in the implementation of a suitable field design.

This task includes all direct overhead costs for the above personnel, including lodging, per diem, transportation, and field supplies.

## **2. Progress Meetings**

This task includes time for meeting with the project team throughout the course of construction. This task is intended to allow for a clear line of communication for project work, schedule(s), challenges, and needs throughout the project duration. Budget for this task includes:

- Bi-weekly meetings for the principal, senior engineer, and project engineer.
- Meetings are assumed to last no longer than two hours each and are to be conducted via teleconference or at the project location. Lithos assumes on-site meetings will be conducted during the same trip as site visits described in Task 1 and will not incur additional driving time or mileage.

## **3. Supplementary Design**

Lithos anticipates the bulk of design will be conducted during the design-phase contract leading up to the GMP. However, Lithos recognizes there are challenges that might be encountered during construction and as existing support is removed. In addition, the CMAR might opt to economize support installed in various areas and need the design team to verify the robustness of the support. Working in a collaborative environment with the selected CMAR on tunnel support methods, Lithos will:

- Prepare tunnel support designs and develop design drawings as required by the CMAR and encountered, unforeseen ground conditions.
- This task includes development of any supplementary design elements which differ from the primary support classifications/patterns implemented prior to development of the GMP. This does not include a full redesign of primary support should the CMAR's proposed means and methods prove inadequate.

During this process, the CMAR will be required to concurrently evaluate costs and schedule impacts related to the design elements and track the anticipated construction costs and schedule.

#### 4. Project Management

This task includes all time required to manage the project, including review of pay applications, invoices, contracts, and time and expenses billed. In addition, this task includes weekly reviews of project resources, including personnel. We have allotted 1 hour per week for 39 weeks each for the project manager and project principal. We've budgeted an additional 2 hours per month for 8 months for the project principal to review/submit invoices and billing.

#### 5. Close Out Report and As-Builts

Lithos will compile a final construction closeout report for the project that contains a summary of the as-built conditions, variations from the construction drawings, daily field reports, RFI's, submittals, pay applications, and select project photographs. In addition, Lithos will subcontract Ayres to provide a post construction LIDAR survey that will be utilized to create As-Built drawings for the western half.

### Fee Estimate

Based on our proposed Scope of Services outlined above, we estimate a total fee for our services of in accordance with the attached detailed fee estimate. This amount will not be exceeded without explicit written approval from the TWC. Lithos proposes to provide these services on a time and expense basis in accordance with the attached Fee Schedule and Terms and Conditions. This letter and the attachments will constitute our agreement.

### Closing

We appreciate the opportunity to propose on this project and look forward to working closely with the TWC and the selected CMAR to deliver a unique and challenging project. For this project, Robin Dornfest will be your key contact as the Principal-in-Charge and will be assisted by Ryan Marsters as the Project Manager. If you have any questions regarding the contents of this proposal, please contact the undersigned.

Sincerely,

Lithos Engineering



Ryan Marsters, PE, PG  
Associate



Robin Dornfest, PG, CPG  
President

Attachments (3): Fee Estimate, Fee Schedule, and Standard Terms and Conditions

If you understand and accept the terms of this proposal, please sign below:

Accepted by: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

**LITHOS**  
ENGINEERING

## Detailed Fee Estimate

Project Name: Laramie Poudre Tunnel Rehab - Construction Phase  
 Project Number: 17044  
 Date: 11/13/2018

### LABOR

No.	Phase	Rate/Hr	President/ Senior Consultant	Vice President	Senior Project Manager	Project Manager	Senior Professional	Professional	Staff Professional 2	Staff Professional 1	Administrative	Hours per Task
			\$ 200	\$ 180	\$ 170	\$ 160	\$ 135	\$ 110	\$ 100	\$ 85	\$ 65	
1	Field Engineering and Oversight		240		96		486	3408				4230
2	Progress Meetings		40		40		40					120
3	Supplementary Design		40		40		40	20				140
4	Project Management		55				39					94
5	Close Out Report and As-builts		8				24	80				112
	Fee Schedule (197)											
	Labor Fees per Position		\$ 76,600	\$ -	\$ 29,920	\$ -	\$ 84,915	\$ 385,880	\$ -	\$ -	\$ -	4696

### SUBCONSULTANTS and DIRECT COSTS

No.	Phase	Driller	Lab Testing	Survey	Fees per Task	Mileage \$0.70/mi	Per Diem	Lodging	Field Supplies	Fees per Task
1	Field Engineering and Oversight				\$ -	49810	\$ 18,408	\$ 39,150	\$ 1,000	\$ 93,425
2	Progress Meetings				\$ -					\$ -
3	Supplementary Design				\$ -					\$ -
4	Project Management				\$ -					\$ -
5	Close Out Report and As-builts			\$ 46,000	\$ 46,000	560	\$ 150			\$ 542
	Subtotal	\$ -	\$ -	\$ 46,000	\$ -	\$ 35,259	\$ 18,558	\$ 39,150	\$ 1,000	\$ 93,967
	Markup 12%	\$ -	\$ -	\$ 5,520	\$ -	\$ 5,520	\$ 2,227	\$ 4,698	\$ 120	\$ 7,045
	Total	\$ -	\$ -	\$ 51,520	\$ -	\$ 35,259	\$ 20,785	\$ 43,848	\$ 1,120	
					Total Subconsultants					
					\$ 51,520				Total Direct Costs	\$ 101,012

### SUMMARY

No.	Phase	Labor	Subconsultants	Direct Costs	Total
1	Field Engineering and Oversight	\$ 504,810		\$ 93,425	\$ 598,235
2	Progress Meetings	\$ 20,200			\$ 20,200
3	Supplementary Design	\$ 22,400			\$ 22,400
4	Project Management	\$ 16,265			\$ 16,265
5	Close Out Report and As-builts	\$ 13,640	\$ 46,000	\$ 542	\$ 60,182
	Markup 12%		\$ 5,520	\$ 7,045	\$ 12,565
	Total	\$ 577,315	\$ 51,520	\$ 101,012	\$ 729,847

**FEE SCHEDULE  
2019**

1. Services will be billed on the time worked by staff personnel as follows unless noted otherwise in the proposal or contract. Overtime hours will be charged a straight time rates.

President/Senior Consultant	\$200
Vice President	\$180
Senior Project Manager	\$175
Project Manager	\$160
Senior Professional	\$135
Professional	\$110
Staff Professional 2	\$100
Staff Professional 1	\$85
Administrative	\$65

2. Direct non-salary expenses will be billed at Lithos Engineering's cost plus a twelve (12) percent markup for the following:
  - a. Reproduction and printing costs for project-related documents
  - b. Transportation and subsistence costs for travel including: rental cars, truck, boats, trains, and other public carriers.
  - c. Express delivers such as UPS.
3. Mileage for use of personal or company vehicles will be billed at \$0.70/mile.
4. Subcontractors retained by Lithos Engineering for project-related services will be billed at our cost plus 12 (twelve) percent.
5. Payment: Invoices will be submitted about once a month unless otherwise noted in the proposal or contract for services performed. Payment is due upon receipt of the invoice. Interest of two (2) percent per month may be added to the outstanding balance on invoices older than 30 days. In the event that Lithos Engineering must engage collection services to receive payment, Client will reimburse Lithos Engineering for all reasonable collection, attorney's, and court fees.
6. Billing rates are subject to change at any time unless otherwise noted in the proposal or contract.





## **STANDARD TERMS AND CONDITIONS 2018**

### **SECTION 1: Scope of Work**

Lithos Engineering, LLC (hereafter referred to as Lithos) shall perform the services defined in the contract and shall invoice the client for those services at the fee schedule rates or percentage of the fixed contract amount based on work completed. Any cost estimates stated in this contract shall not be considered as a firm figure unless otherwise specifically stated in this contract. If unexpected site conditions are discovered, the scope of work may change. Lithos will provide additional services at the contract fee schedule rate.

### **SECTION 2: Access to Sites**

Unless otherwise agreed, the client will furnish Lithos with right-of-access to the site in order to conduct the planned investigation. While Lithos will take reasonable precautions to minimize any damage to the property, it is understood by the client that in the normal course of work some damage may occur, the restoration of which is not part of this agreement.

In the performance of its work, Lithos will take reasonable precautions to avoid damage or injury to underground structures or utilities. The client agrees to hold Lithos harmless and indemnify Lithos for any claims, payments or other liability, including costs and attorney fees incurred by Lithos for any damages to underground structures which are not called to Lithos attention and correctly shown on the plans furnished to Lithos.

### **SECTION 3: Unanticipated Hazardous Materials**

It shall be the duty of the client to advise Lithos of any known or suspected hazardous substances which are or may be related to the services provided. Such hazardous substances include but are not limited to products, materials, by-products, wastes or samples of the foregoing which Lithos may be provided or obtain performing its services or which exist or may exist on or near any premises upon which work is to be performed by Lithos employees, agents or subcontractors.

If during the course of providing services Lithos observes or suspects the existence of unanticipated hazardous materials, Lithos may at its option terminate further work on the project and notify client of the condition. Services will be resumed only after a renegotiation of scope of services and fees. In the event that such renegotiation cannot occur to the satisfaction of Lithos, Lithos may, at its option, terminate this contract.

It is understood and agreed that Lithos is not, and has no responsibility as, a handler, generator, operator, treater or storer, transporter or disposer of hazardous or toxic substances found or identified at a site, and that Client shall undertake or arrange for the handling, removal, treatment, storage, transportation and disposal of hazardous substances or constituents found or identified at a site.

### **SECTION 4: Invoices and Payment**

Lithos will submit invoices to the client monthly and a final bill upon completion of services. Payment is due upon presentation of invoice and is past due thirty (30) days from the invoice date. Client agrees to pay a finance charge of one and two percent (2%) per month, but not exceeding the maximum rate allowed by law, on past due accounts.

### **SECTION 5: Ownership of Documents**

All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by Lithos as instruments of service, shall remain the property of Lithos unless there are other contractual agreements. Any and all unauthorized reuse of Lithos' Instruments of Service will be at the Owner's sole risk and without liability to the Consultant.

#### **SECTION 6: Standard of Care**

Services performed by Lithos under this Agreement will be conducted in the manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, express or implied, is made or intended by the proposal for consulting services or by furnishing oral or written reports of the findings made.

The client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by Lithos and that the data, interpretations, and recommendations of Lithos are based solely upon the data available to Lithos. Lithos will be responsible for those data, interpretations, and recommendations, but shall not be responsible for the interpretation by others of the information developed.

#### **SECTION 7: Confidentiality**

Lithos shall hold confidential all business or technical information obtained from the client or his affiliates or generated in the performance of services under this agreement and identified in writing by the client as "confidential". Lithos shall not disclose such information without the client's consent except to the extent required for 1) Performance of services under this agreement; 2) Compliance with professional standards of conduct for preservation of public safety, health, and welfare; 3) Compliance with any court order or other governmental directive and/or 4) Protection of Lithos against claims or liabilities arising from performance of services under this agreement. Lithos obligations hereunder shall not apply to information in the public domain or lawfully acquired on a non-confidential basis from others.

#### **SECTION 8: Limitation of Liability**

The client agrees to limit the liability of Lithos and Lithos' officers, directors, partners, employees, shareholders, owners, and subconsultants to the owner and all other parties arising from Lithos performance of services such that the total aggregate liability of Lithos shall not exceed \$50,000 or Lithos' total fee for the services rendered on this project, whichever is greater, and client agrees to indemnify and hold harmless Lithos and Lithos' officers, directors, partners, employees, shareholders, owners, and subconsultants from and against all liabilities in excess of this monetary limit. The owner further agrees to require of the contractor and his subcontractors an identical limitation of Lithos liability for damages offered by the contractor or the subcontractor arising from Lithos professional acts, errors, or omissions. Neither the contractor nor any of its subcontractors assumes any liability for damages to others which may arise on account of Lithos professional acts, errors or omissions.

The limitations on liability and indemnities in this agreement are business understandings between the parties voluntarily and knowingly entered into, and shall apply to all theories of recovery including, but not limited to, breach of contract, warranty, tort (including negligence), strict or statutory liability, or any other cause of action, except for willful misconduct or gross negligence.

#### **SECTION 9: Insurance**

9.1 Lithos represents that it and its staff are protected by worker's compensation insurance and that Lithos has such coverage under public liability and property damage insurance policies which Lithos deems to be adequate. It is the policy of Lithos to require certificates of insurance from all consultants or subcontractors employed by Lithos. Certificates for all such policies of insurance will be provided to client upon request in writing. Client agrees that the Company will not be liable or responsible for any loss or damage beyond the amounts, limits, exclusions, terms and conditions of such insurance.

- a. Professional Liability: Insurance claims made and in the aggregate: \$1,000,000
- b. Commercial General Liability: \$1,000,000 per occurrence and in aggregate \$2,000,000
- c. Workers Compensation and Employer's Liability Insurance: Employer's liability shall be an amount not less than \$1,000,000 for each accident for bodily injury and disease.
- d. Automobile Liability: Combined single limit each accident \$1,000,000.

9.2 Additional Coverage. Client may request that the Company obtain insurance coverage broader or higher than the Company's existing coverage through project-specific insurance, if available, provided that Client shall pay an additional fee based on the additional premium cost.

#### **SECTION 10: Indemnity**

Within the limits and conditions of such insurance set out in SECTION 9, Lithos agrees to indemnify and save client harmless from and against any loss, damage, injury, or liability arising out of the negligence of Lithos or its subcontractors. Lithos shall not be responsible for any loss, damage, or liability arising from any acts by the client, its agents, staff, or other consultants employed by others.

Lithos compensation hereunder is not commensurate with the potential risk of injury or loss that may be caused by exposures to pollution, hazardous waste, or toxic or other dangerous substances or conditions. Accordingly, except as expressly provided in this contract, the client waives any claim against Lithos and agrees to indemnify and save Lithos, its agents, and employees harmless from any claim, liability, or defense cost for injury or loss sustained by any party from such exposures arising out of the negligence of the client or related to Lithos' performance or services hereunder.

#### **SECTION 11: Termination for Default**

This Agreement may be terminated by either party upon seven (7) days written notice in the event of substantial failure by the other party to perform in accordance with the terms hereof. Such termination shall not be effective if that substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, Lithos shall be paid for services performed to the termination notice date plus reasonable termination expenses. Expenses of termination or suspension shall include all direct costs of Lithos required to complete analyses and records necessary to complete its files and may also include a report of the services performed to the date of notice of termination or suspension.

#### **SECTION 12: Termination for Convenience**

The Client, for its convenience, may in its sole discretion terminate the Services in whole or in part at any time by written notice to Lithos which shall state the extent and effective date of such termination. On the effective date thereof, Lithos shall (a) stop all Services and place no further orders or subcontracts, (b) terminate work orders and subcontracts outstanding, (c) take any necessary action to protect property in its possession in which Consultant has or may acquire an interest, and (d) take any other action which Client may direct. Client shall reimburse Lithos for those costs necessarily incurred by Lithos because of the termination only to the extent Client reimburses such costs. In no case shall the total amount paid to Lithos exceed the authorized fees for Services.

#### **SECTION 13: Third-Party Beneficiaries**

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or Lithos. Lithos' services under this Agreement are being performed solely for the Client's benefit, and no other party or entity shall have any claim against Lithos because of this Agreement or the performance or nonperformance of services hereunder.

#### **SECTION 14: Corporate Protection**

It is intended by the parties to this Agreement that Lithos' services in connection with the Project shall not subject Lithos' individual employees, officers or directors to any personal legal exposure for the risks associated with this Project. Therefore, and notwithstanding anything to the contrary contained herein, the Client agrees that as the Client's sole and exclusive remedy, any claim, demand or suit shall be directed and/or asserted only against Lithos, a Colorado company, and not against any of Lithos' individual employees, officers or directors.

#### **SECTION 15: Consequential Damages**

Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the Client nor Lithos, their respective officers, directors, partners, employees, contractors or subconsultants shall be liable to the other or shall make any claim for any incidental, indirect or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of profit, loss of business, loss of income, loss of reputation and any other

consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract and breach of strict or implied warranty.

**SECTION 16: Precedence**

These Standards, Terms, and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice to proceed, or like document regarding Lithos services. This agreement shall be governed by the laws of the State of Colorado.

**SECTION 17: Dispute Resolution**

All claims, disputes or controversies arising out of or related to the Services, the Contract Documents or these Terms and Conditions, or any breach thereof, shall first be submitted to mediation. If the Contract Documents require arbitration of claim, dispute or controversy by the American Arbitration Association (AAA), the mediation shall be conducted by the AAA pursuant to its applicable mediation or conciliation rules. If the Contract Documents do not require arbitration by the AAA, the parties shall agree upon a mediator and participate, in person, in a mediation session within 45 days after mediation has been requested.





**HARRISON WESTERN**

# **CMAR LARAMIE-POUDRE TUNNEL REHABILITATION PROJECT**

## **FEE PROPOSAL**

**The Tunnel Water Company, c/o Lithos Engineering**

**Attn: Robin Dornfest**

**October 29, 2018**

**Submitted by:**

**Harrison Western Construction Corporation, Inc.**

**1208 Quail Street, Lakewood, Colorado 80215**

**(303) 234-0273**





HARRISON WESTERN

# SECTION 1

## FEE PROPOSAL

## Bid Schedule

### Laramie Poudre Tunnel Rehabilitation (West Half)

Schedule No.	Description	Quantity	Unit	Unit Cost	Markup	Total Cost
MOBILIZATION						
1.1	Mobilization/Demobilization	1	LS	\$ 413,000.00		\$ 413,000.00
1.2	Re-mobilization (Annual, As-Required)	1	LS	\$ -		\$ -
1.3	Prepare Portal Access and Staging	1	LS	\$ 474,000.00		\$ 474,000.00
1.4	Engineering Field Office, Lodging, Transportation & Per Diem	1	LS	\$ 24,400.00		\$ 24,400.00
1.5	Staging Area Restoration	1	LS	\$ 23,700.00		\$ 23,700.00
1.6	Preconstruction Design Services	1	LS	\$ 39,800.00		\$ 39,800.00
	MOBILIZATION/GENERAL CONDITIONS TOTAL					\$ 974,900.00
TUNNEL REHABILITATION						
2.1	Invert Preparation					
2.1.A	Partial Invert slab	930	CY	\$ 780.00		\$ 725,400.00
2.1.B	Rail	1	LS	\$ 418,000.00		\$ 418,000.00
2.2	Re-Mining and Rubble Removal					
2.2.A	Existing Invert Rubble Cleanup	1,100	CY	\$ 430.00		\$ 473,000.00
2.2.B	Existing Support and Overbreak Removal - Timber (11 Zones)	602	LF	\$ 500.00		\$ 301,000.00
2.2.C	Existing Support and Overbreak Removal - Concrete (11 Zones)	309	LF	\$ 1,350.00		\$ 417,150.00
2.2.D	Existing Support and Overbreak Removal - Steel (7 Zones)	650	LF	\$ 1,400.00		\$ 910,000.00
2.2.E	Scaling	1	LS	\$ 22,000.00		\$ 22,000.00
2.3	Install Support - Class A (580 Linear Feet)					
2.3.A	Class A Spot Bolts Installed	120	EACH	\$ 330.00		\$ 39,600.00
2.4	Install Support - Class B (3,500 Linear Feet)					
2.4.A	Class B Pattern Bolts Installed	2,260	EACH	\$ 290.00		\$ 655,400.00
2.5	Install Support - Class C (840 Linear Feet)					
2.5.A	Class C Pattern Bolts Installed	1,620	EACH	\$ 280.00		\$ 453,600.00
2.5.B	Shotcrete Placed (4 IN Thick)	2,240	SQ. YD.	\$ 170.00		\$ 380,800.00
2.6	Install Support - Class D (1,150 Linear Feet)					
2.6.A	Class D Pattern Bolts Installed	4,430	EACH	\$ 290.00		\$ 1,284,700.00
2.6.B	Shotcrete Placed (6 IN Thick)	3,060	SQ. YD.	\$ 210.00		\$ 642,600.00
2.7	Stabilization of Upper Adit	1	LS	\$ 35,700.00		\$ 35,700.00
	TUNNEL REHABILITATION TOTAL					\$ 6,758,950.00
Total						\$ 7,733,850.00

Schedule of Rates						
Laramie Poudre Tunnel Rehabilitation (West Half)						
Schedule No.	Description	Quantity	Unit	Unit Cost	Markup	Total Cost
3.1	Project Manager/Supervisor	1.00	DAILY	\$ 1,064.80	inc.	\$ 1,064.80
3.2	Foreman	1.00	DAILY	\$ 1,052.70	inc.	\$ 1,052.70
3.3	Operator	1.00	DAILY	\$ 989.78	inc.	\$ 989.78
3.4	Laborer	1.00	DAILY	\$ 989.78	inc.	\$ 989.78
3.5	Safety Officer	1.00	DAILY	\$ 1,064.80	inc.	\$ 1,064.80
3.6	Equipment (write-in) (SEE BELOW)	1.00	DAILY	\$ 5,650.70	inc.	\$ 5,650.70
3.7	Equipment (write-in)	1.00	DAILY		inc.	\$ -
3.8	Power	1.00	DAILY	\$ 641.30	inc.	\$ 641.30
3.9	Materials Only - Rock Bolts	1.00	ea	\$ 47.49	inc.	\$ 47.49
3.10	Materials Only - Shotcrete	1.00	CY	\$ 403.23	inc.	\$ 403.23
3.11	Conex		EACH	\$ 3,025.00	inc.	\$ 3,025.00
3.12	Engineering Office	1.00	WEEKLY	\$ 349.09	inc.	\$ 349.09

### 3.6 PROJECT EQUIPMENT

Grout Pump

Wilden Pump, 2 ea.

Rockbolt Testing Equipment

Water Tank

Tugger

Jackleg Drills, 6 ea.

Air Powered Chain Saw, 2 ea.

Ventilation Fan, 40hp

750 cfm Diesel Compressor

60 kw Generator, 2 ea.

Skid Steer with Hydraulic Breaker

Shotcrete Pump

Diesel Welder

Acetylene Torch Set, 3 ea.

Loader, 966 CAT

LHD Scoop, 2cyd, 2 ea.





HARRISON WESTERN

## SECTION 2

# PROJECT BUDGET, SCOPE, AND SCHEDULE ASSESSMENTS

## **PROJECT BUDGET, SCOPE OF WORK, AND SCHEDULE ASSESSMENTS**

### **Budget**

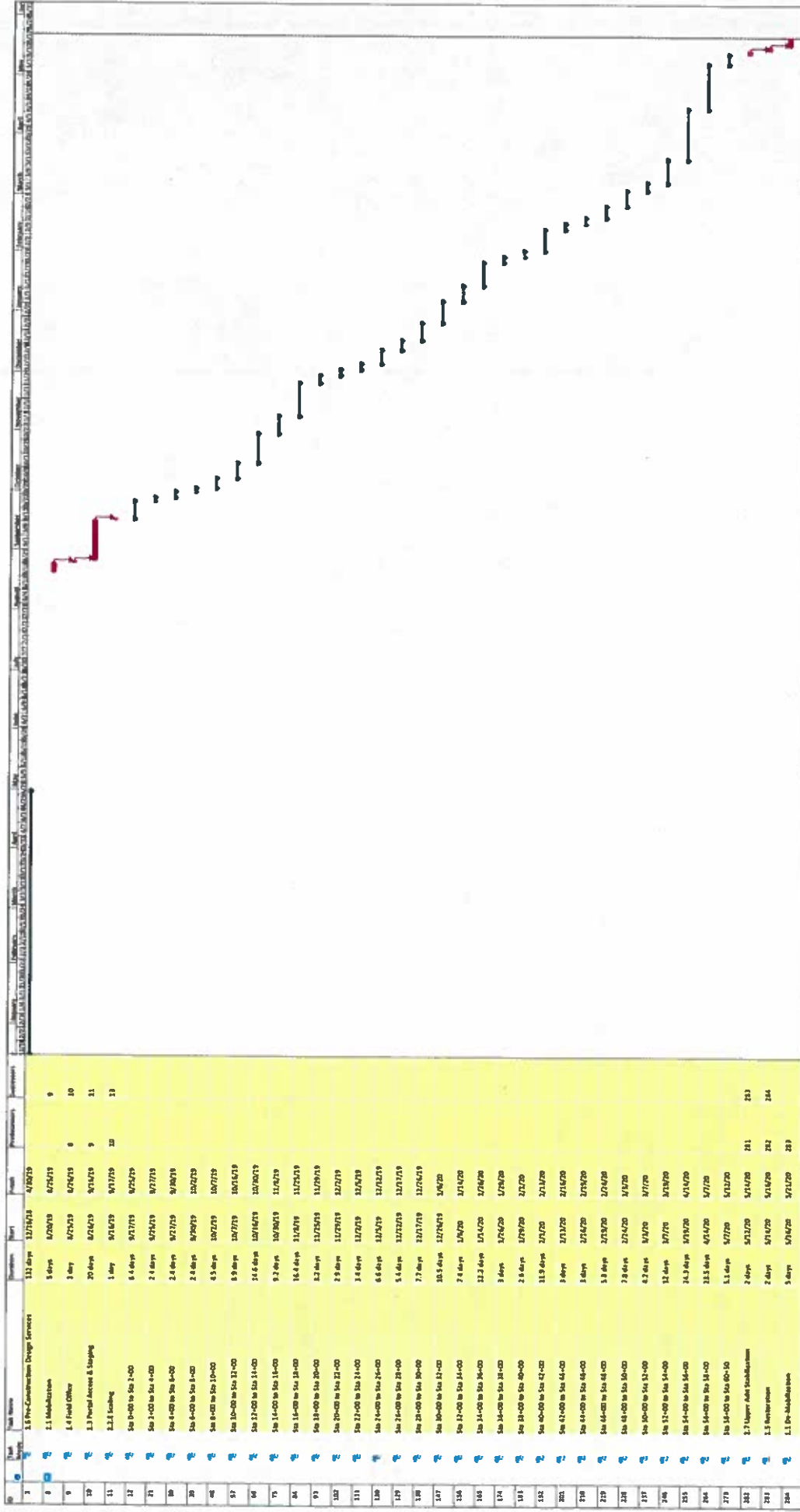
HW feels that the preliminary budget we set forth is achievable; the GMP for construction phase will be re-evaluated and negotiated during pre-construction phase.

### **Scope of Work**

HW was able to visit the site and discuss the scope of work thoroughly with the Designer, and therefore we feel we have a clear understanding of the scope of this project. The scope of work is also clearly defined by the RFP/Q and Addenda. No further questions or assessment of scope is needed until kickoff meeting.

### **Schedule**

We propose to run two shifts per day, seven days per week, and complete the project within one scheduled shut-down season. This would bring the project to completion ahead of schedule and most likely under budget. Attached is a preliminary full project schedule.







HARRISON WESTERN

## SECTION 3

# GENERAL CONDITIONS LINE ITEM ESTIMATE

## **GENERAL CONDITIONS**

Our price breaks down to \$3,890.00 per day, based on our proposed 7 days per week schedule.

This price includes:

### **Project Management**

- Superintendent
- Project Engineer
- Project Manager, 50% project assigned

### **Indirect Equipment**

- Service Vehicles
- Crew Van
- Batch Plant
- Contractors Office
- Storage Containers
- Small Tools and Safety Supplies

All General Condition costs have already been included in the bid schedule unit prices.



HARRISON WESTERN

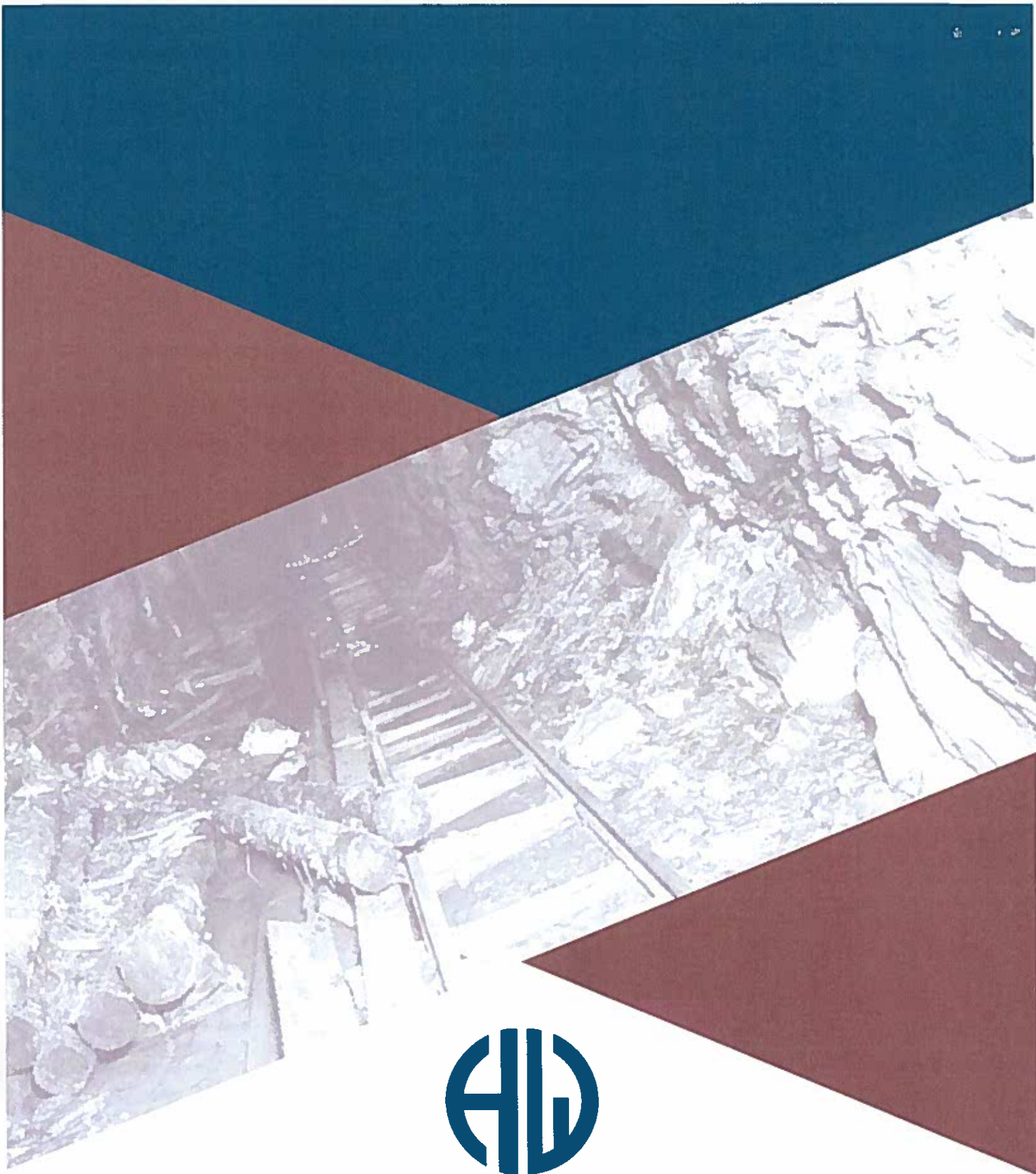
## SECTION 4

# INSURANCE AND BONDING COST ESTIMATES

### **INSURANCE AND BONDING COST ESTIMATES**

Project insurance (\$162,900.00) and bond (\$53,139.00) have been included in pay item 1.1 Mobilization as per the RFQ/P, Exhibit C, 1.1.





**HARRISON WESTERN**

**(303) 234-0273**





**HARRISON WESTERN**

# **CMAR LARAMIE-POUDRE TUNNEL REHABILITATION PROJECT**

## **CONTRACTOR QUALIFICATIONS SUBMITTAL**

**The Tunnel Water Company, c/o Lithos Engineering**

**Attn: Robin Dornfest**

**October 29, 2018**

**Submitted by:**

**Harrison Western Construction Corporation, Inc.**

**1208 Quail Street, Lakewood, Colorado 80215**

**(303) 234-0273**



## HARRISON WESTERN

October 29, 2018

The Tunnel Water Company  
c/o Lithos Engineering  
Attn: Robin Dornfest  
2625 Redwing Road, Suite 160  
Fort Collins, CO 80526

Via email this date to: [robin@lithoseng.com](mailto:robin@lithoseng.com)

Re: Construction Manager at Risk (CMAR) for the Laramie-Poudre Tunnel Rehabilitation Project

Dear Mr. Dornfest,

Enclosed are Harrison Western's (HW) Statement of Qualifications and Fee Proposal for the subject project.

HW is the best choice of contractor on this important project for the following reasons:

- ✓ **History:** HW has worked with Lithos Engineering on the recent Carter Lake project and has established a mutually respectful and professional relationship with them.
- ✓ **Experience:** Plain and simple, small tunnel rehabilitation is what we do. Our project team has the experience to be able to adapt to changing conditions we may encounter in the tunnel and change procedures as required to progress the work in a safe and efficient manner. We also have previous experience with alternative delivery methods such as CMAR and Design/Build.
- ✓ **Local:** HW's personnel and equipment are based out of Lakewood, Colorado, less than two hours from Lithos' Fort Collins offices. This is critical to be able to attend the four in-person workshops, and will be convenient when it comes to mobilizing to and demobilizing from the project site.
- ✓ **Safety:** HW employs a full-time Safety Manager, who will oversee the safety program for this project.
- ✓ **One-Stop Shop:** HW can perform the entire scope of work of this project in-house and will not need to subcontract any tasks.

In addition to the descriptions of relevant project experience enclosed, HW is currently performing similar tunnel rehabilitation work at the following projects:

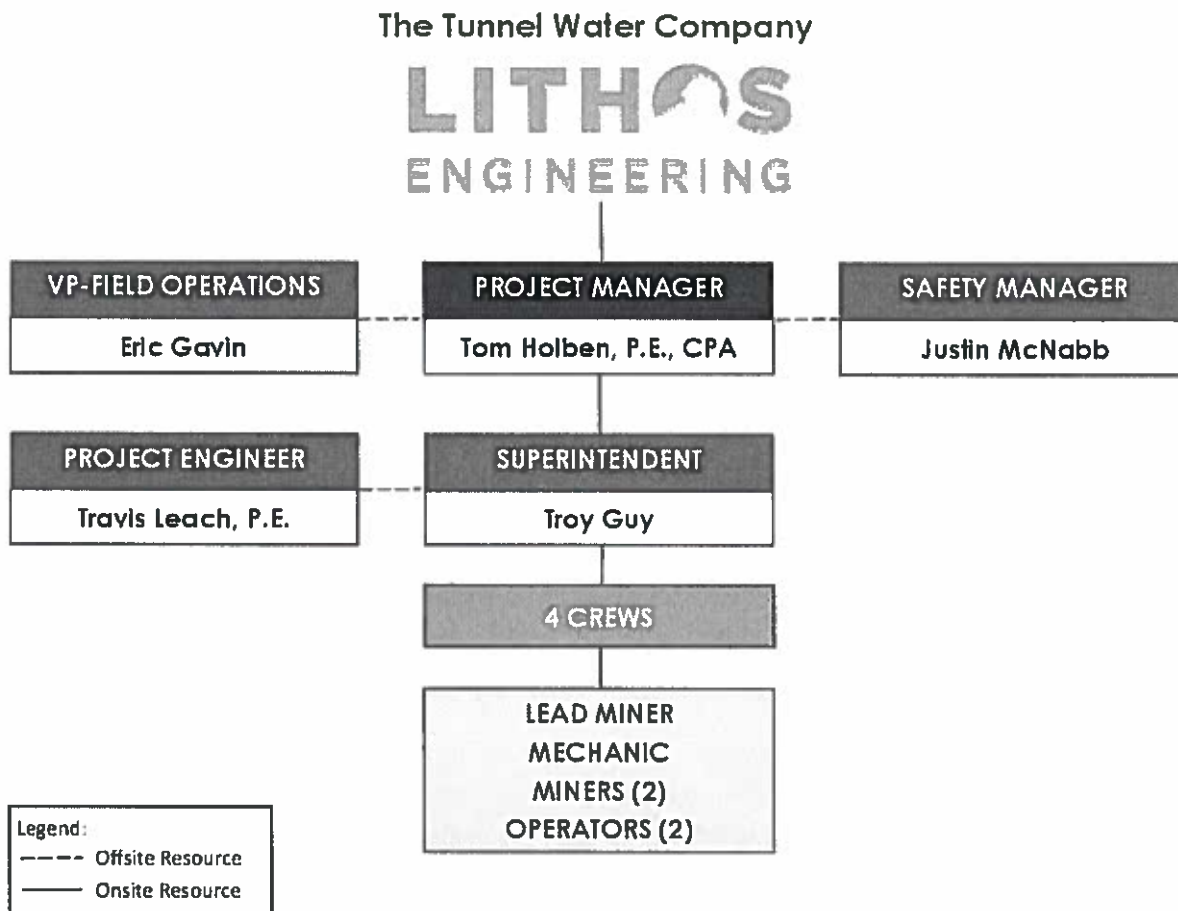
- ✓ Commodore Level 5 in Creede, CO – 5,927 lf
- ✓ Triumph Tunnel in Triumph, Idaho – 30 lf



## HARRISON WESTERN

Harrison Western was founded in 1968 and provides superior design and construction services to the mining and civil industries. Harrison Western has successfully completed over \$2 billion of mining, industrial, and civil construction projects. Our services provided include tunneling, mine development, underground construction and maintenance, drilling and blasting, and rock excavation.

The experienced and capable team we are proposing for this project is organized as follows:



Resumes for all key personnel are included in our SOQ.



## HARRISON WESTERN

Our enclosed SOQ /Fee Proposal is organized as follows:

Submittal Package Part I: Contract Qualifications Submittal

- Section 1 – Relevant Project Experience
- Section 2 – Resumes of Key Personnel
- Section 3 – Contractor Qualification Statement
- Section 4 – Pre-Construction & Construction Plan and Methods Statement
- Section 5 – Bond
- Section 6 – Experience Modification Rates

Submittal Package Part II: Fee, General Conditions, and Additional Items Proposal

- Section 1 – Fee Proposal
- Section 2 – Project Budget, Scope, and Schedule Assessments
- Section 3 – General Conditions Line Item Estimate
- Section 4 – Insurance and Bonding Cost Estimates

We appreciate the opportunity to bid on this interesting project and look forward to continuing to work with you.

I assert that I am authorized to commit HW's personnel and financial resources to the project and to execute legal documents for our organization.

Should you have any questions, please do not hesitate to contact me at (303) 302-2976 or by e-mail at [chassel@harwest.com](mailto:chassel@harwest.com).

Sincerely,  
Harrison Western Construction Corporation

Chris Hassel  
President & CEO



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## **SECTION 1**

# **RELEVANT PROJECT EXPERIENCE**





## Standard Mine Rehabilitation 2012 - 2017

### CRESTED BUTTE, COLORADO

The abandoned Standard Mine near Crested Butte, Colorado was placed on the National Priorities List by the US EPA as needing remedial action to treat the mine water discharge, which had elevated levels of metals. In order to determine the best locations to place bulkheads underground to control the discharge, Harrison Western (HW) was contracted to rehabilitate and safeguard the unstable mine workings.

In Phase I of this project, HW rehabilitated a portal and adit, including installing new steel sets, roof bolts, gate, and headwall, and repairing timber sets. Harrison Western removed caved materials and re-excavated the tunnel.

In Phase II, HW safeguarded two levels (1 and 3) for future work. On Level 1, a new adit was driven 500 feet parallel to the original mine workings in order to safely access collapsed areas. On Level 3, additionally safeguarding measures included filling raises with foam, filling winzes with concrete, spot bolting, and installing steel and timber cribbing.

HW directed the discharging water through a series of passive wetland treatment ponds to lower the pH and precipitate out the heavy contaminants.

Phase I Client Contact  
Environmental Restoration, Matt Francis  
(303) 382-1258  
[m.francis@erllc.com](mailto:m.francis@erllc.com)

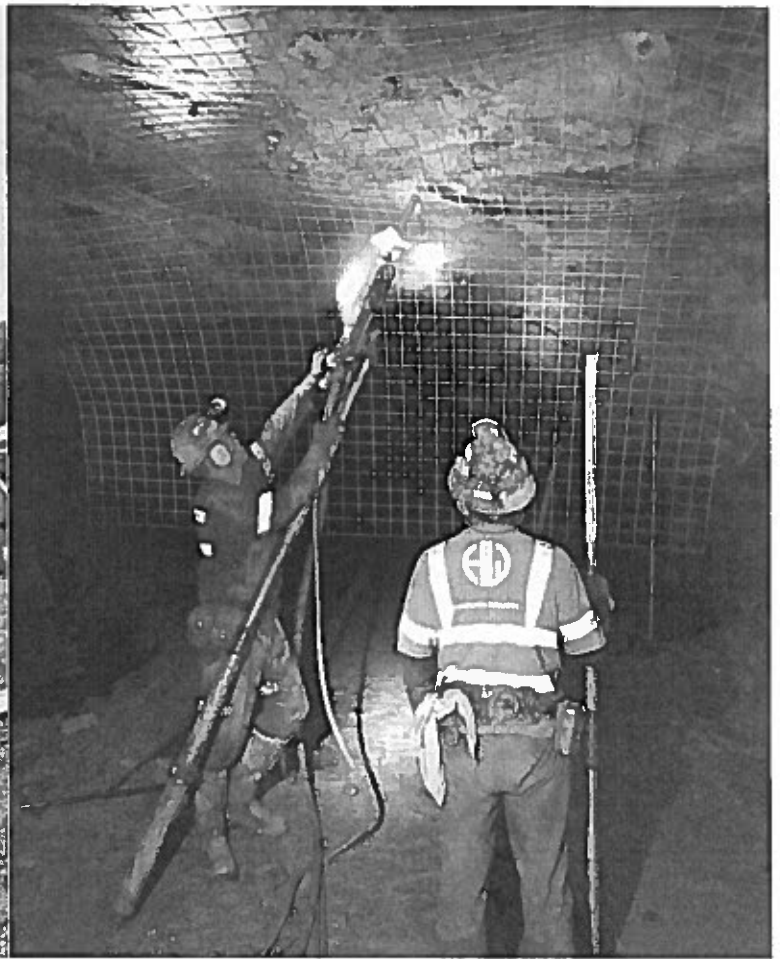
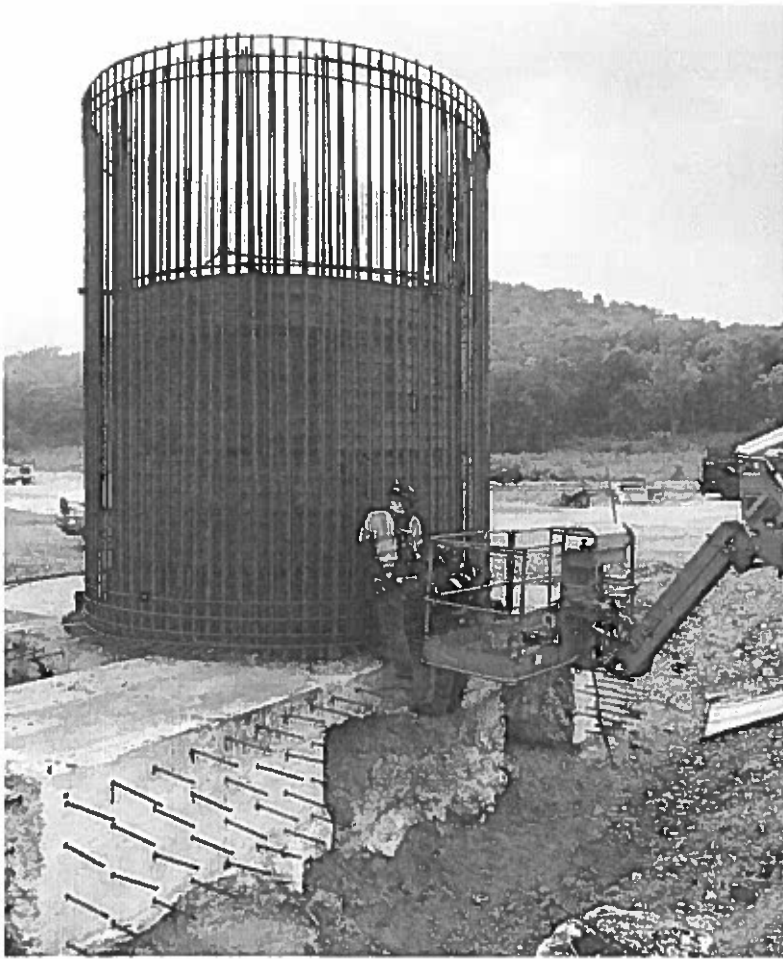
Phase II Client Contact  
HDR, Joe Shields, P.E.  
(402) 399-4833  
[Joe.shields@hdrinc.com](mailto:Joe.shields@hdrinc.com)

Project Amount: \$4,370,000  
Start Date: 2012  
Completion Date: 2017

**Harrison Western Construction Corporation**  
1208 Quail Street  
Lakewood, Colorado 80215



**HARRISON WESTERN**



# Nyrstar - Elmwood Mine Rehabilitation

2017

GORDONSVILLE, TENNESSEE

Harrison Western was contracted to perform rehabilitation, a shaft extension, and a conveyor and crusher installation at Nyrstar's Elmwood Mine in central Tennessee.

Rehabilitation included scaling, bolting, blasting tight, rail and utility removal, clearing blockages, and invert preparation.

The shaft and collar extension (picture above at left) involved forming and pouring concrete, placing 9,000 cy of clay fill and armoring (325 tn), and removing the old headframe and hoist.

We installed a 14,000 lf, 5-belt conveyor unit. We also replaced the crusher tower, feeder, jaw crusher, and breaker.

## Client

Nyrstar  
120 Zinc Mine Circle  
Gordonsville, Tennessee 38563

## Contact

Carlos Dipas  
(615) 683-4287  
Carlos.dipas@nyrstar.com

Project Amount: \$7,040,000  
Start Date: May 2017  
Completion Date: April 2018

Harrison Western Construction Corporation  
1208 Quail Street  
Lakewood, Colorado 80215



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# Mary Murphy Mine - Golf Tunnel Rehabilitation & Bulkhead

2014

BUENA VISTA, COLORADO

The Mary Murphy Mine was the principal gold mine of the Chalk Creek mining district of Chaffee County, Colorado. The mine operated continuously from 1870 to 1925, and produced 220 thousand ounces of gold, plus considerable silver, lead, and zinc.

This project involved rehabilitation of approximately 800 feet of tunnel and the design/build of a 25-foot-thick concrete bulkhead.

The tunnel section was mucked out using a small 1-cyd LHD and slushers. Once the tunnel was stabilized, Harrison Western crews evaluated the geology, rock structure, and constructability at several locations to determine the best location for the bulkhead.

Once the concrete bulkhead was constructed and cured, Harrison Western crews mobilized back to the site to contact grout the rock/bulkhead interface, which will prevent leakage around the bulkhead. A new portal door was constructed to secure the tunnel area.

Client  
Environmental Restoration, LLC  
4970 Newport Street  
Commerce City, Colorado 80022

Contact  
Matt Francis  
(303) 382-1258  
m.francis@erllc.com

Project Amount: \$750,000  
Start Date: 2014  
Completion Date: 2014

Harrison Western Construction Corporation  
1208 Quail Street  
Lakewood, Colorado 80215



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# Pennsylvania Mine Rehabilitation

2013

KEYSTONE, COLORADO

This project consisted of rehabilitating 600 feet of tunnel in the Pennsylvania Mine, which is located at over 10,000 feet elevation in the mountains outside of Montezuma, Colorado.

The project included the placement of steel sets, spiling rod, and other roof control measures. In addition, we cleared a cave-in at the 100' station, and removed rotten timbers and contaminated materials. The project also included straightening of rail, installation of walkway, and cleaning of ventilation and utilities to allow teams to investigate and establish parameters for a concrete bulkhead and closure.

Harrison Western diverted the contaminated water through a series of lined ponds for treatment before release into Peru Creek.

Client  
Colorado Division of Reclamation  
Mining & Safety  
1313 Sherman Street, Suite 215  
Denver, Colorado 80203

Contact  
Jeff Graves  
(303) 866-3526  
Jeff.graves@state.co.us

Project Amount: \$500,000  
Start Date: June 2013  
Completion Date: October 2013

**Harrison Western Construction Corporation**  
1208 Quail Street  
Lakewood, Colorado 80215



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# Stanley Canyon Tunnel Repairs

**2015 to 2016**

**COLORADO SPRINGS, COLORADO**

The Stanley Canyon Tunnel, which is 3 meters in diameter and about 5,500 meters (3.1 miles) long, is a key component of Colorado Springs Utilities' Northfield Water System and transports water from Rampart Reservoir downstream to the Energy Dissipating Structure (EDS) at the Tesla Hydro Power Plant. The hydro plant was built in 1997 and operates at 765 psi.

Harrison Western was contracted by Garney Construction as part of a Design-Build team to enter the Stanley Canyon Tunnel to inspect and install any necessary repairs to the tunnel while the Owner performed their scheduled shutdown. The goal was to make the necessary alterations to preserve, restore, and repair the integrity of the tunnel. This project is also intended to assist in prevention of future degradation from potential structural instability due to unbalanced hydrostatic forces. Additionally Harrison Western provided safety and support consultation to the engineering team; with our assistance, they were able to provide a detailed analysis of the tunnel condition and F1 Class 4 OPCC.

Harrison Western provided equipment, materials and personnel to the site, and also provided site-specific safety training, including OSHA confined space, daily Job Hazard Analysis, and toolbox talks. We provided the ventilation for the shaft and the tunnel, controlling airflow through the tunnel.

The tunnel was dewatered in compliance with FERC requirements. Harrison Western performed the initial safety inspection, and completed all necessary repairs to rehabilitate the tunnel concrete lining.

Construction Manager  
Garney Construction  
Bill Williams  
(719) 423-0200  
bwilliams@garney.com

Owner  
Colorado Springs Utilities (CSU)  
Jackie Chambers  
(719) 668-4667  
jmchambers@csu.org

Engineer  
Dewberry Engineers, Inc.  
Carl Bundschuh  
(303) 825-1802  
cbundschuh@dewberry.com

Project Amount: \$400,000  
Start Date: July 2015  
Completion Date: May 2016

**Harrison Western Construction Corporation**  
1208 Quail Street  
Lakewood, Colorado 80215



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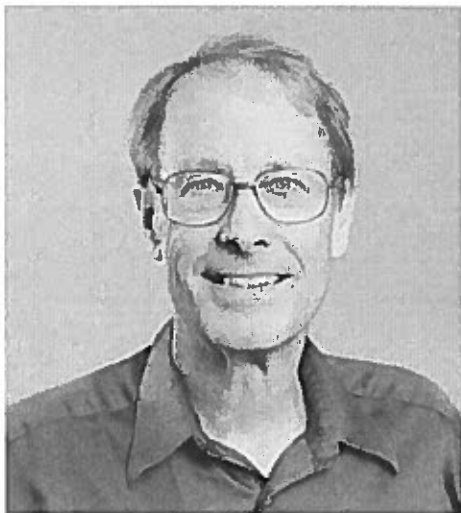
## SECTION 2

# RESUMES OF KEY PERSONNEL





HARRISON WESTERN



#### **V.P., Engineering & Estimating**

#### **Education**

- Metropolitan State College, Denver, Colorado, BS Structural Engineering
- University of Colorado Boulder, BS Accounting
- Colorado School of Mines, Master's Program in Mineral Economics

#### **Licenses & Certifications**

- Professional Engineer: CO
- Certified Public Accountant: MT
- New York City Licensed Powder Carrier
- Professional Associations: ASCE, ACI, Deep Foundations Institute

#### **Years of Experience**

- 30 +

Tom is an engineer/accountant with a unique combination of two technical degrees and 30 years of experience, including extensive work in underground excavations, tunnels, shafts, and shoring.

## **Tom L. Holben, P.E., CPA**

#### **Current Role**

Tom is the Vice President of Engineering and Estimating at Harrison Western, including managing estimators for both the surface and underground mining and civil industries. He also serves as a Project Manager, bringing considerable experience from the civil and mining industries in underground excavation.

#### **Project Experience**

##### **Corps of Engineers, Cherry Creek Dam Tunnel Repair. Denver, Colorado**

###### *Vice President*

This project involved repair of tunnel spalling in an existing dam outlet structure. Tom provided project engineering and management including submittals, work plans, safety procedures, and contract administration.

##### **US Bureau of Reclamation, Lilly Pad Diversion Tunnel. Basalt, Colorado**

###### *Vice President*

This project included the rehabilitation of a shotcrete-lined diversion channel at an elevation of 11,000 feet. Technical achievements included delivery of shotcrete at high elevation followed by pumping 1,600 feet horizontal and 600 feet vertical. Tom provided project engineering including the development of shotcrete mix design and preparation of USBR submittals, schedules, and work plans.

##### **US Bureau of Reclamation, Hoover Dam Visitors Shaft. Boulder City, Nevada**

###### *Project Engineer*

This project included the excavation of a new 600-foot-deep by 24-foot-diameter concrete-lined elevator shaft in the Nevada abutment of Hoover Dam. Shaft excavation was completed using a Vertical Mole TBM following an 8-foot-diameter raise-bored pilot hole. Muck was removed from the bottom of the shaft and conveyed to the Nevada side spillway tunnel for removal from site. Tom was responsible for all aspects of setup for the sinking plant headframe, raise-bore directional control, core drilling, quality control, and quality assurance. The project followed USBR Safety Standards including all lift plans, blast designs, submittals, shotcrete testing, and mix designs.

##### **Twin Falls Hydro-Electric. Seattle, Washington**

###### *Project Engineer*

This hydro-electric project based on the Snoqualmie River included the excavation of a 3,000-foot-long spiral access ramp driven at -20% followed by a 4,000-foot-long tail race tunnel. Twin 8-foot-diameter, shotcrete-lined, raise-bored shafts connected the ramp at top and bottom. Tom provided survey control, blast designs, purchasing, and project management through the use of control estimates.



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Languages

- English
- Spanish

## Tom L. Holben, P.E., CPA

### Project Experience (cont.)

#### **East Side Access Project. New York City, New York**

##### *Cavern Excavation Manager*

This project included two TBM Machines (Seli, Robbins), and three roadheaders (Sandvick), as well as a whole fleet of conventional underground equipment. Working in New York required management of heavy city congestion access issues and working with multiple labor union jurisdictions. Tom was part of the lead team to submit for final approval an "Alternate Initial Support Design," saving the project \$1 million. The project required stringent QA/QC technical preparations for shotcrete and ground support. The scope included tunnels, conventional shafts, raisebored shafts, and massive underground caverns. The team developed cushion blasting techniques to meet PPV and microstrain limitations. Tom assisted in development and installation of a 240,000 cfm ventilation/scrubber system.

#### **BHP, Jansen Frozen Shafts. Jansen, Saskatchewan**

##### *Technical Support on Cost Estimating and Design*

This project scope included excavation of two 2,000-foot-deep, large diameter, and steel-lined access shafts for the development of an underground Potash mine. The method involved excavating frozen ground by road-header supported from the shaft Galloway. Initial ground support was rock-bolts and shotcrete followed by a final steel liner. Tom provided technical support on the initial ground support for a change of conditions.

#### **ARCO Coal. Paonia, Colorado**

##### *Project Engineer*

This project involved the excavation of twin access declines in hard rock between two coal seams. After completion of the declines, they were connected by two 8-foot-diameter, raise-bored, and shotcrete-lined shafts. Tom provided onsite construction surveying, blast designs, submittals, and control estimates.

#### **Agnico Eagle, Pinos Altos Shaft. Chihuahua, Mexico**

##### *Country Manager*

This project involved the excavation, support, and furnishing of a 3,500-foot-deep shaft. Tom provided project controls over this rapid expansion project in Mexico including development and implementation of a standardized system based on Earned Value Management.

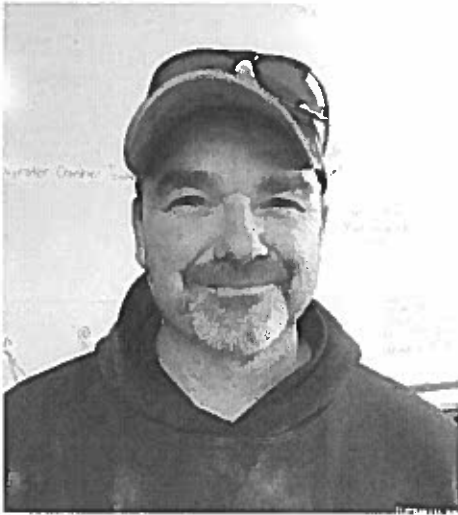
#### **Liberty University, Jacked Box Tunnels. Lynchburg, Virginia**

##### *Senior Consultant*

This project involved the development of a method of constructing twin access tunnels through an existing railroad abutment. The project constraints required continuous 3 track of live rail road loads over the advancing tunnel. Tom finalized design drawings, specifications, contract documents, and solicited construction bids for the project. Final design included jacked box tunnels advanced through the soft ground abutment using post-tensioning tendons pre-installed in conduits via pilot tube drilling. The project was so innovative that it won the ENR Mid-Atlantic Region Best Small Project Award for 2014.



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#### Superintendent

#### Licenses and Certifications

- ATF Employee Possessor
- Colorado Type I Blasting License
- MSHA 40 Hour Miner Trainer
- Welding Certified, SMAW Flat and Overhead Work
- Secor Fusion Certificate, Qualified on Butt Fusion
- Respirator Mobile Fit Annual Fit Test
- 40 hour HAZWOPER
- Department of Defense US Government Contractor
- Blaster License, LA
- Heart Saver First Aid and CPR

#### Years of Experience

- 15 Years

Troy is currently a Superintendent for HWCC. He is a versatile supervisor who has extensive understanding of a diverse range of construction projects. Some of his responsibilities include, but are not limited to, scheduling, inspections, quality control, and job site safety.

## Troy Guy

#### Current Role

Troy oversees Harrison Western's various projects, supervising the crews as Superintendent.

#### Project Experience

##### **Quandary Tunnel Portal Rehabilitation. Blue River, Colorado**

###### *Superintendent*

This project involved the repair of a steel and concrete portal structure at the upstream end of a 8' x 8' water tunnel. Troy's responsibilities included the planning and safe execution of the removal of dilapidated steel structures, repair of concrete and steel roof and walls, and installation of rock bolts inside the tunnel. The project occurred at approximately 11,000 feet elevation. Troy was responsible for the safe execution of the project, including rescue, hot work, confined space entry, and concrete work in an alpine winter setting. Reference: Matt Grizzell (720) 258-4129.

##### **Captain Jack Mine Reclamation. Ward, Colorado**

###### *Superintendent*

This project was located in the Rocky Mountains and encompassed the installation of a bulkhead, mine pool mitigation and long-term monitoring equipment. Additionally, a passive water treatment system using a limestone base to lower the pH of intercepted groundwater in the mine was installed. Troy oversaw work of all day-to-day operations, including drilling and blasting, concrete placement, installing mechanical and utility equipment, rock bolting, and installing water bypass features. ERT Cable array, site restoration, and portal repair were also part of this project. Reference: Steve Laudeman (303) 503-8007.

##### **Gold King Mine Remediation. Silverton, Colorado**

###### *Superintendent*

This job included performing work to stabilize and reconstruct the Level 7 adit portal, water bypass pumping, shotcreteing and steel sets, concrete pouring with onsite batching, and other miscellaneous activities at an environmentally sensitive work site at an elevation of 10,000 feet. Troy oversaw the installation of a flow control structure to temporarily mitigate the flow of water. He was responsible for communication, hiring employees, identifying conflicts, and maintaining written logs. Reference: Matt Francis (303) 994-6611.

##### **Argo Mine Rehabilitation. Idaho Springs, Colorado**

###### *Superintendent*

Troy was the Superintendent over the rehabilitation of the portal and adit. Water control structures were implemented, and a 36-inch diameter manway and a 12-inch diameter stainless steel discharge pipe were installed. An access door was cast in the bulkhead. Troy prioritized and planned work activities, organized and scheduled other employee's tasks and developed action plans. He also oversaw the installation of an HDPE line, concrete flume, and portal door. Reference: Steve Laudeman (303) 503-8007.





## Troy Guy

### Project Experience (cont.)

#### **Milton Seaman Reservoir Outlet Tunnel Mechanical Protection, Fort Collins, CO**

##### *Superintendent*

The project consisted of installing safety equipment to enter a reservoir outlet tunnel to install 1-1/4-inch diameter rock bolts, removing existing damaged structures, and installing new aluminum protection shields around overhead electrical and hydraulic lines in the 15-foot-tall tunnel. Reference: Randy Gustafson (970) 980-9434

#### **Climax Mine – CAVR Shaft Plug, Leadville, Colorado**

##### *Superintendent*

The project consisted of the installation of a bottom form and pour of a concrete plug at the top of a 600-foot mine shaft. Troy's responsibilities included all safety and health aspects of working around an open hole. Project elements included removing a temporary grating cover, setting support beams, placing concrete forms, setting dowel reinforcements, and pouring the concrete cap. Reference: Brian McGill (719) 486-7718

#### **Blackjack Gazex, Salt Lake City, Utah**

##### *Superintendent*

The project consisted of the installation of Gazex avalanche mitigation exploders in the Little Cottonwood Canyon. Troy was in charge of setting formwork and pouring concrete along the edge of the mountain above avalanche chutes. He also assisted in coordinating material delivery via helicopter and sling rope. The Gazex exploders are fueled by mixing propane with oxygen and ignited by piezo electric spark.

#### **Twin Tunnels, Idaho Springs, Colorado**

##### *Superintendent*

Troy managed rock cuts and slope stability services for the I-70 Twin Tunnels Project. Harrison Western was part of a joint venture Construction Manager/General Contractor (CM/GC) team with Edward Kraemer and Sons and Obayashi. The team developed the plans and the budget, and then executed the two vertical rock cuts along the I-70 corridor just west of Denver for the widening of the highway. Troy's responsibilities included directing a drilling and blasting crew, and overseeing the installation of rock bolts, dowels, anchors, and rock fall mesh. Reference: Matt Hogan (303) 356-7191

#### **Lyons Salt Mine Shaft Station Repair / Reconstruction, Lyons, Kansas**

##### *Superintendent*

This project consisted of the installation of a 14,000 cubic yard concrete bulkhead, through a 1,000-vertical-foot and 1,000-horizontal-foot slickline to seal a portion of the mine. Troy prepared work schedules and supervised the crew. Work activities included drilling and blasting for keyways, installation of grouting tubes, form work, concrete pours, grouting work, installation of stainless steel piping and valves, and wet side coating application. All work was carefully coordinated and he ensured there were no work conflicts with other operations. Reference: Nathan Steele (620) 680-0889



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#### **Vice President - Field Operations**

#### **Education**

- Virginia Tech, B.S. Mining and Minerals Engineering

#### **Licenses & Certifications**

- ATF Responsible Person
- Colorado Type I Blasting License
- MSHA - 40 Hour
- MSHA Approved Trainer IU, IS

#### **Years of Experience**

- 20 +

Eric is currently Vice President - Field Operations for HWCC. He began his career in the mining industry working in surface quarry and underground coal operations in the eastern United States. Since graduating college, he has worked in both surface and underground mining in hard rock, coal, and salt mines, and has experience managing multiple earthmoving and reservoir construction projects. He is currently responsible for the overall field operations of the company, as well as assistance with project planning, engineering and design, and bidding and estimating.

## **Eric Gavin**

#### **Current Role**

Eric oversees all of Harrison Western's field jobs. Some of his responsibilities include training, performance, monitoring, planning, analyzing, and more general administrative duties to ensure employees are working effectively and efficiently.

#### **Project Experience**

##### **CDOT Twin Tunnels Widening. Idaho Springs, Colorado**

###### *Project Manager*

Eric managed the execution of two rock cuts and associated slope stability services for the I-70 Twin Tunnels Project. Harrison Western was part of a Joint Venture Construction Manager / General Contractor (CM/GC) team with Edward Kraemer and Sons and Obayashi. Reference: Matt Hogan (303) 356-7191.

##### **United Salt Mine Ground Control. Hockley, Texas**

###### *Project Manager*

Eric directed a variety of operations including timber and bearing set repairs, removal and replacement of vent ducting, headframe repairs, and utility work in the shaft. Reference: Clif Mower (936) 372-3931.

##### **American Salt Mine Ground Control. Mt. Morris, New York**

###### *Project Manager*

On this project, Eric managed crews who used a Joy 15RU Under-cutter and LHD to remove large sections of salt that had heaved up into the entries. Work included installation of 10-feet to 20-feet grouted cable bolts and #7 thread bar bolts. Reference: Lee McKinney (585) 315-5111.

##### **Standard Mine Rehabilitation. Crested Butte, Colorado**

###### *Project Manager*

As the Project Manager, Eric oversaw rehabilitation of the portal and adit, including the installation of new steel sets, roof bolts, gate and headwall, and repairing timber sets. On this project, he also supervised the removal of caved materials and re-excavation of the tunnel.

##### **Stanley Canyon Tunnel Rehabilitation. Colorado Springs, Colorado**

###### *Project Manager*

Eric supervised the team who inspected and installed the necessary repairs during a scheduled shut-down. Additionally, Harrison Western provided safety and support consultation to the engineering team. Reference: Jackie Chambers (719) 668-4667.

##### **Pennsylvania Mine Rehabilitation. Keystone, Colorado**

###### *Project Manager*

Eric directed the rehabilitation of 600 feet of tunnel, including the installation of steel sets, spiling rod, and other roof control measures. The project also included straightening of rail, installing a walkway, and cleaning of ventilation and utilities to allow teams to investigate and establish parameters for a concrete bulkhead and closure. Reference: Jeff Graves (303) 866-3567 x8122.



**HARRISON WESTERN**

**References**

**Clif Mower, President/Facility Manager**

United Salt Hockley LLC  
14002 Warren Ranch Road  
Hockley, Texas 77447  
(281) 932-5770

**Peggy Ganse, Senior Associate**  
Shannon & Wilson, Inc.  
1321 Bannock Street, Suite 200  
Denver, Colorado 80204  
(303) 825-3800

**Eric Gavin**

**Project Experience (cont.)**

**Lyons Salt Mine Underground Bulkhead Design/Build, Lyons, Kansas**  
*General Superintendent*

Eric oversaw the construction phase of the Lyons Salt Bulkhead Project in Lyons, Kansas. The project entailed the design, excavation, and construction of a 14,200 CY bulkhead. Concrete was pumped from a surface batch plant down 1,000 feet and into the bulkhead forms. The project remediated a mine-threatening freshwater leak and subsidence. Reference: Nathan Steel (620) 257-5626 x103.

**Lyons Salt Mine Shaft Station Repair / Reconstruction, Lyons, Kansas**  
*General Superintendent*

Eric drove a decline and removed and replaced shaft timbers at the station sump of a two-skip production shaft.

**Henderson Mine, Empire, Colorado**  
*General Superintendent*

Eric oversaw the construction of the surface warehouse and equipment shop at Henderson Mine, including the foundation, erection, and electrical installation of two prefabricated steel buildings of 7,800 SF and 15,000 SF. Eric was responsible for all aspects of constructing ore loading chutes as well as numerous other mine construction projects including steel construction, concrete construction, rehabilitation bolting, and conveyor structural repairs. Eric was also responsible for the re-alignment, removal, and installation of power and fiber optic cables in the #2 Shaft. Reference: Robby McCaslin (720) 942-3430

**Foidel Creek Mine #18 Shaft, Oak Creek, Colorado**  
*Project Manager*

At the Foidel Creek Mine's #18 Left Ventilation Shaft, Eric lowered the work deck and crews into a steel-lined shaft in order to remove and replace damaged areas of 72-inch steel liners in two 1,300-foot ventilation shafts. Reference: Mike Berdine (970) 846-9686

**Morton Salt, Fairpoint Mentor, Ohio**  
*Project Manager*

Eric managed the loading pocket repairs, which included the re-alignment and replacement of damaged or rotten wooden shaft timber sets and skip guides in the production shaft. Reference: Ron Laupp (440) 796-2965

**North American Salt, Cote Blanche, Louisiana**  
*Project Manager*

Eric was responsible for drilling, blasting, scaling, and bolting of pillars and back in the underground mill area and other miscellaneous areas.

**Inmet Mining Corporation, Seville, Spain**  
*Project Manager*

Eric managed the construction of a 1,000 GPM custom EMS water treatment plant beginning with shipment of the plant from Denver, Colorado to Seville, Spain, through to the installation on site.



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#### **Project Engineer**

#### **Education**

- Colorado School of Mines, B.S. Mining Engineering

#### **Licenses and Certifications**

- MSHA- 40 Hour
- Licensed Professional Engineer: CO

#### **Years of Experience**

- 6+

Travis is a dedicated and insightful Mining Engineer with extensive industry knowledge and expertise in economic valuations, technical reporting, and highly persuasive presentations. He is proficient in natural resource project engineering and analysis including the development of economic models. Additionally, he consistently solves problems, delivers accurate results, and maintains client relationships and loyalty.

## **Travis Leach, P.E.**

#### **Current Role**

Travis is a Project Engineer at Harrison Western, whose duties include assisting with engineering and estimating and project management.

#### **Project Experience**

##### **Nkamouna Cobalt / Nickel Deposit. East Province of Cameroon**

###### *Mining Engineer*

Travis developed the technical economics for the 2010 Feasibility Study. He also developed first principles costing and equipment requirements for the mine. Travis helped optimize the project costs by reviewing and comparing various processing and mining methods.

##### **Arctic Deposit. Ambler Mining District, Alaska**

###### *Mining Engineer*

Travis reviewed remote access options and conducted trade off studies to determine the optimal transportation solutions. He also developed first principles costing and fleet requirements based on mining production.

##### **Nyrstar - Elmwood Mine Rehabilitation. Gordonsville, Tennessee**

###### *Project Engineer*

The work performed included drift rehabilitation, ground support, utilities, drainage, clean up, and roadways. Installation of a 14,000 LF conveyor and crusher system shaft extension, installation of fan and bulkheads, and clearing and screening off ore passes were also part of the scope of work performed. As the Project Engineer/Project Manager, Travis orchestrated the rehabilitation and construction of this \$4.1M project, managed multiple sub-contractors through each phase, developed short-term mine plans to ensure crew productivity, and lead a crew of 30 personnel. He also coordinated the transportation of construction materials from two mines without impacting production.

##### **Ouray Silver Mines. Ouray, Colorado**

###### *Senior Mining Engineer*

Travis was responsible for launching the short-term development schedule, mapping mine utilities in AutoCAD, and optimizing infrastructure design overseeing a diamond drilling crew of three. He conducted an economic analysis based on archived data and first principles costing, and developed a preliminary economic model for a pre-feasibility study. Travis analyzed historic mine maps and documents to identify potential exploration targets, managed the operations plan, and verified development progress according to weekly project targets.

##### **Tyhee Gold Corp. Denver, Colorado**

###### *Senior Mining Engineer*

Travis contributed to the management team by providing updates on the acquisition targets and strategy to the board of directors. He researched and created economic reports to assess potential mergers and acquisition targets and evaluated technical reports. He also generated the technical economics for the Yellowknife Feasibility Study resulting in securing financing for two years of corporate operating costs.



## Travis Leach, P.E.

### Project Experience (cont.)

#### **Cerro Matoso. Montelíbano, Córdoba, Colombia**

##### *Mining Engineer*

Travis reviewed historic mining production costs to be used in the development of a new block model. He helped develop a new mine plan to account for the new construction of a heap leach facility and established cut-off grades for each of the process facilities.

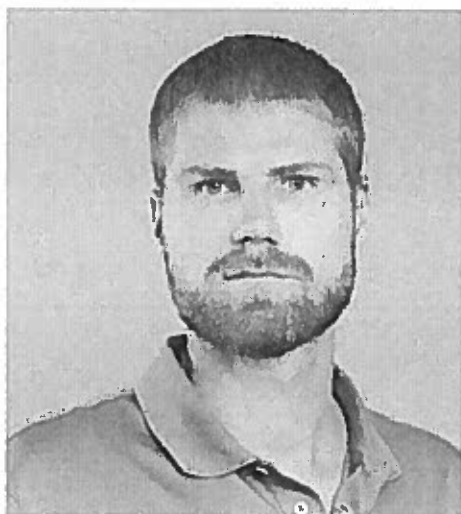
#### **Fairplay Minerals. Denver, Colorado**

##### *Manager of Technical Services*

Travis developed a strategic company plan and mine acquisition targets as a founding member. He reviewed historical operations data to support operations plans. He also engineered mine-specific operations plans, created individual project and companywide economic models to guide the strategic plan, and presented the strategic plan and financial reports to potential investors.



HARRISON WESTERN



#### **Safety Manager**

#### **Education**

- Southeastern Oklahoma State University, Bachelor of Science, Occupational Safety and Health

#### **Licenses and Certifications**

- CHST (Construction Health and Safety Technician)
- 40 HAZWOPER Trained
- 30-hr OSHA General Industry Training
- 30-hr OSHA Construction Training
- 10-hr Confined Space Training
- First Aid and CPR Certified
- Rigging and Signal Certified
- Ohio Workers Comp Drug Free Safety Program Train the Trainer Certified
- DuPont Safety Training Observation Program (STOP)

#### **Years of Experience**

- 5+

## **Justin McNabb**

#### **Current Role**

Justin is Harrison Western/UIT's Safety Manager. In his role, he travels between HW's and UIT's various project sites and aides them in executing work safely, efficiently, and in a uniform manner. He is responsible for all safety audits, training, and programs across the companies. Justin also attends high-risk tasks on project sites to help oversee their safe execution.

#### **Project Experience**

##### **OARS Tunnel Project. Columbus, Ohio**

###### *Safety Manager*

For the City of Columbus, Kenny Construction built a 25,000-foot tunnel with a 20-foot diameter, connecting to six separate shafts at different locations. Kenny's portion was comprised of three shafts, the tunnel, and all connecting adits from the tunnel to the shafts. The tunnel was drilled using a TBM machine and the shafts were sunk using excavators as well and drill and blast once they hit rock. The shafts varied in size, but the average was 50 feet in diameter and 200 feet deep. The total project cost was \$280M.

##### **O'Hare Pump Station. Chicago, Illinois**

###### *Safety Manager*

For the City of Chicago - Department of Aviation, Kenny Construction built a pump station building approximately 40 feet under the surface. The site was excavated and temporary shoring was installed to construct the building. Total cost of the project was \$8M.

##### **I55 and Lakeshore Drive Inbound Structures Reconstruction**

###### *Safety Manager*

For the Illinois Department of Transportation (IDOT), Kenny Construction completed the replacement and reconfiguration of three bridge structures on the inbound side of the I55 and Lakeshore Drive Interchange. Also included was maintenance on traffic, mechanically stabilized earth retaining walls, utility and water main relocation, new roadway lighting and intelligent traffic systems, and non-special waste removal and disposal. Total project cost was \$60.4M.

##### **Congress Parkway Over 90/94 Bridge Reconstruction**

###### *Safety Manager*

Also for IDOT, Kenny Construction performed the replacement and rehabilitation of Westbound Congress Parkway (Eisenhower Expressway). The project included maintenance of traffic with nightly expressway and arterial street lane closure, retaining walls, utility relocation, new roadway lighting and intelligent traffic systems, and non-special waste excavation and disposal. Project cost was \$22.7M.





HARRISON WESTERN

Justin McNabb

*Project Experience (cont.)*

**Van Buren St. Bridge Reconstruction Over 90/94**

*Safety Manager*

This project included bridge replacement, roadway reconstruction, erosion control and protection, utility relocation of existing storm sewers, siphon reconstruction, non-special waste excavation and disposal, earth excavation and embankment, miscellaneous storm sewers, pavement marking and signage, roadway lighting, ITS, traffic control and protection, monument relocation, aesthetic improvements, and urban enhancements. Project cost was \$21.1M.

**I69 Bridge Replacement over Flat Creek and Eight Mile Creek**

*Safety Manager*

This project consisted of a total of four bridge replacements. The first task was to install two temporary steel bridges between the two sets of bridges over the creeks to divert traffic while the other two bridges were being demolished and rebuilt on the west side of I69. Traffic was then switched and the other bridges were demolished and rebuilt. Project cost was \$9M.



HARRISON WESTERN

## **SECTION 3**

# **CONTRACTOR QUALIFICATION STATEMENT**



**COLORADO**  
Department of Transportation  
Division of Project Support  
2829 West Howard Place  
Denver, Colorado 80204

## NOTIFICATION OF PREQUALIFICATION

October 9, 2018

Harrison Western Construction Corporation, Inc DBA Harrison Western Construction Corporation, Inc  
1208 Quail Street  
CO  
Lakewood, CO 80215

Limit Amount:\$15 million  
Vendor ID:379A

Reference is made to your application for registration as a qualified bidder on Colorado Highway work, dated October 8, 2018. Your file has been reviewed and determined to be complete. Based on the financial information and experience contained in your application, your firm is allowed to submit bids up to \$15 million.

Bids from a general contractor will be received subject to any limitation stated above, and with due consideration to the amount of work presently under contract, past performance on highway contracts, and the contractor's financial status at the time of bidding. It is further understood that the bidder has available the staff and equipment adequate for any project on which a bid is submitted; that the contractor's staff and equipment will be available to undertake the work on which bids are currently made, promptly after award of contract; and that the work will be carried on expeditiously and under proper supervision.

This notice supersedes all previous notices. This prequalification will expire on March 31, 2019. You must file a new application 17 days prior to that time to remain current. It is the contractor's sole responsibility to obtain and file the necessary forms each year prior to expiration. Renewals can now be made online at <https://cdot.dbesystem.com>.

Regards,

Darrell Wells  
Contract Administrator III

**Contractor's Registration/Prequalification: View**

General	Public Profile	Users	Commodity Codes	Contacts	Employees	Certifications	Contracts	Workforce Comp/EEO	Registrations/Prequalifications
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Harrison Western Construction Corporation, Inc, DBA Harrison Western Construction Corporation, Inc

System Vendor Number:  
20530790

**Contractor's Registration/Prequalification**

TYPE	Prime Contractor Prequalification
DESCRIPTION	If you intend to bid as a prime contractor you must complete the Prime Contractor Prequalification Application.
DATE SUBMITTED	10/5/2018
STATUS	Accepted
REVIEWER	<u>Darrell Wells</u>
DATE REVIEWED	10/9/2018
REVIEW COMMENTS	
EXPIRATION DATE	3/31/2019

**Acceptance Letter(s)**

Actions	Date	Sent By	Sent To	Letter Type	Viewed
<u><a href="#">View Letter</a></u>	10/9/2018	Darrell Wells	Laura Fletcher	Contractor's Registration/Prequalification Accepted	

**Entity Information**

BUSINESS NAME	Harrison Western Construction Corporation, Inc DBA Harrison Western Construction Corporation, Inc
CONTACT FOR THIS SUBMISSION	<u><a href="#">Laura Fletcher (change contact)</a></u>
PRIMARY CONTACT EMAIL	<u><a href="mailto:lfletcher@harwest.com">lfletcher@harwest.com</a></u>
PHONE	303-234-0273
FAX	
COMPANY EMAIL	clutgens@harwest.com
TAX ID NUMBER	841079486
COMPANY TYPE	Corporation
PHYSICAL ADDRESS	1208 Quail Street CO Lakewood, CO 80215
MAILING ADDRESS	1208 Quail Street CO

Lakewood, CO 80215

[View Vendor Profile](#)

### Current Vendor Certifications

No current applicable certifications.

### Business Information

ARE YOU CURRENTLY DEBARRED AND/OR SUSPENDED BY ANY PUBLIC AGENCY, INCLUDING CDOT?

No

IS YOUR FIRM A SUBSIDIARY RELYING ON A PARENT COMPANY'S FINANCIAL STATEMENT?

No

### Financial Information

WHAT BIDDING CAPACITY IS YOUR FIRM SEEKING TO PREQUALIFY UNDER?

**My firm is seeking to qualify for a bidding capacity over \$5,000,000.**

Document	Status
Financial statement prepared in compliance with generally accepted accounting practices and standards that includes a complete report of the <b>contractor's financial resources and liabilities</b> <u>Harrison Western Financials</u> (PDF, 771.97 KB)	Attached by Laura Fletcher on 10/5/2018
Letter from CPA in support of the Audit Statements <u>Audit Letter</u> (PDF, 1.36 MB)	Attached by Laura Fletcher on 10/5/2018
Letter from Bonding Agent <u>Bonding Letter</u> (PDF, 111.64 KB)	Attached by Laura Fletcher on 10/5/2018

### Bidding Projects

IS YOUR FIRM REGISTERED AND IN GOOD STANDING WITH THE COLORADO SECRETARY OF STATE?

Yes

IS YOUR FIRM SEEKING TO INCREASE BID LIMITS DURING THE CURRENT PREQUALIFICATION PERIOD?

No

IS YOUR FIRM SEEKING TO BID ON AN ADVERTISED OR SOON TO BE ADVERTISED CDOT PROJECT?

Yes

ER 0361-118 US36 Tunnel Project, bid release date 10/11/18

IS YOUR FIRM SEEKING TO BID ON AN ADVERTISED OR SOON TO BE ADVERTISED NON-CDOT PUBLIC AGENCY PROJECT?

No

## General Information

IS YOUR FIRM AN OUT-OF-STATE CONTRACTOR?

No

HOW MANY YEARS HAS YOUR COMPANY BEEN IN THE CONTRACTING BUSINESS?

50

HOW MANY YEARS HAS YOUR COMPANY BEEN IN THE SUBCONTRACTING BUSINESS?

50

LIST YOUR COMPANY'S PRINCIPAL OFFICERS AND SUPERVISORS WITH THEIR TYPE AND LENGTH OF EXPERIENCE.

**Chris Hassel, President & Chief Executive Officer, Years of experience: 30+, Magnitude and type of work and in what capacity:** High-level management in all aspects of company operations and corporate business. **Eric Gavin, Vice President - Field Operations, Years of experience: 20+, Magnitude and type of work and in what capacity:** Management of all field operations of the company, as well as assistance with project planning, engineering and design, bidding and estimating, and safety. **Tom Holben, Vice President - Engineering & Estimating, Years of experience: 30+, Magnitude and type of work and in what capacity:** Chief estimator and engineer. **Donna Hale, Chief Financial Officer, Years of experience: 20+, Magnitude and type of work and in what capacity:** Management of all financial and corporate business. Officers were involved in all of the projects listed in the attached 3-year construction contracts list in their respective roles.

Document

Status

Construction experience of principal  
3-Year Construction Contracts List (PDF, 87.49 KB)

Attached by Laura Fletcher on  
 10/5/2018

DOES YOUR FIRM HAVE ANY AFFILIATES OR SUBSIDIARY COMPANIES?

Yes

Harrison Western owns 70% of Underground Infrastructure Technologies (UIT). Principals of UIT include Jeff Rumer, Donna Hale, and Chris Hassel.

Document

Status

Affiliates or subsidiary company details

Not Attached

HAS YOUR COMPANY, ANY DIRECTOR, OFFICER, PARTNER, JOINT VENTURE, OR STOCKHOLDER OF 5% OR MORE OF THE COMPANY, OR ANY PARENT, AFFILIATE OR SUBSIDIARY BEEN UNDER NOTICE OF INTENT TO DEBAR OR BEEN DEBARRED OR DENIED PREQUALIFICATION IN THE LAST 6 YEARS BY ANY GOVERNMENTAL AGENCY?

No

HAVE YOU EVER FAILED TO COMPLETE ANY CONTRACT AWARDED TO YOU?

No

HAVE ANY OF YOUR OFFICERS OR PARTNERS FAILED TO COMPLETE A CONTRACT WHILE WORKING FOR ANOTHER COMPANY OR MANAGING A CONTRACT UNDER THEIR OWN NAMES?

No

HAS YOUR COMPANY, ANY OFFICER IN YOUR COMPANY, ANY AFFILIATE OR OFFICER OF ITS PARENT, AFFILIATE OR SUBSIDIARY, BEEN INDICTED/CONVICTED OF BID/CONTRACT RELATED VIOLATIONS IN THE PAST 6 YEARS?

No

DOES YOUR COMPANY HAVE A FINANCIAL INTEREST IN ANY OTHER BUSINESS?

No



## Experience and Equipment

PROVIDE A LIST OF YOUR CONSTRUCTION REFERENCES.

**Jeff Slankard, Senior Construction Project Manager at Denver Water, 720-238-5862. Matt Francis, Program Manager at Environmental Restoration, 303-994-6611. Gabe Wilson, Capital Trails Program Lead at City of Boulder, 303-441-3440. Jackie Chambers, Engineering Specialist at Colorado Springs Utilities, 719-668-4667. Mike Keleman, Project Manager at CDOT, 720-497-6901.**

Document	Status
Construction References	Not Attached

PROVIDE A LIST OF YOUR CONSTRUCTION EQUIPMENT.

Document Attached

Document	Status
Construction Equipment <u>Harrison Western Equipment List</u> (PDF, 743.96 KB)	Attached by Laura Fletcher on 10/5/2018

CONSTRUCTION TYPE - INDICATE THE WORK YOUR COMPANY PERFORMS USING YOUR OWN EQUIPMENT AND FORCES.

OTHER

Tunneling

## Document List

Document	Status
W-9 <u>W-9</u> (PDF, 67.42 KB)	Attached by Laura Fletcher on 10/5/2018
Signature page with certifications for all officers and agents authorized to bid and contract on behalf of the company. <u>sig page</u> (PDF, 38.79 KB)	Attached by Laura Fletcher on 10/5/2018

## Signature

SIGNATURE	Laura M. Fletcher
TITLE	Director of Marketing and Business Development
ORGANIZATION	Harrison Western Construction Corporation, Inc
SIGNATURE DATE	10/5/2018

***HARRISON WESTERN CONSTRUCTION CORPORATION,  
SUBSIDIARY AND AFFILIATE***

**CONSOLIDATED FINANCIAL STATEMENTS WITH  
CONSOLIDATING AND SUPPLEMENTARY INFORMATION**

**and**

**INDEPENDENT AUDITOR'S REPORT**

**Years Ended December 31, 2017 and 2016**

***HARRISON WESTERN CONSTRUCTION CORPORATION,  
SUBSIDIARY AND AFFILIATE***

**CONSOLIDATED FINANCIAL STATEMENTS  
WITH CONSOLIDATING AND SUPPLEMENTARY INFORMATION  
Years Ended December 31, 2017 and 2016**

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# GARY L RYAN & ASSOCIATES LLC

*Certified Public Accountants and Business Consultants*

3300 South Parker Road, Suite 210  
Aurora, Colorado 80014-3521  
Phone: (303) 306-3218 Cell: (303) 809-0694

## INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders  
Harrison Western Construction Corporation  
Lakewood, Colorado

### **Report on the Financial Statements**

We have audited the accompanying consolidated financial statements of Harrison Western Construction Corporation and its Subsidiary and Affiliate (the "Company") which comprise the consolidated balance sheets as of December 31, 2017 and 2016, and the related consolidated statements of income, changes in equity, and cash flows for the years then ended, and the related notes to the financial statements.

### **Management's Responsibility for the Financial Statements**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### **Opinion**

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Harrison Western Construction Corporation, its Subsidiary and Affiliate as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

### **Other Matter**

Our audit was conducted for the purpose of forming an opinion on the basic consolidated financial statements as a whole. The consolidating information listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic consolidated financial statements. Such information has been subjected to auditing procedures applied in the audit of the basic consolidated financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

*Gary L Ryan & Associates, LLC*

Aurora, Colorado

February 28, 2018

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**CONSOLIDATED BALANCE SHEETS**

December 31, 2017 and 2016

	<u>ASSETS</u>	
	<u>2017</u>	<u>2016</u>
Current Assets:		
Cash	\$ 214,755	\$ 892,258
Accounts receivable, trade, net	5,143,870	3,781,653
Accounts receivable - related parties	5,483	454
Costs and estimated earnings in excess of billings on uncompleted contracts	232,836	558,896
Prepaid insurance	77,575	142,537
Other current assets	49,971	37,694
TOTAL CURRENT ASSETS	<u>5,724,490</u>	<u>5,413,492</u>
Property and Equipment - at cost:		
Vehicles and trailers	62,146	40,515
Equipment	5,018,619	4,365,659
Office furniture and equipment	169,850	169,850
	<u>5,250,615</u>	<u>4,576,024</u>
Less accumulated depreciation and amortization	<u>(2,780,165)</u>	<u>(2,390,132)</u>
NET PROPERTY AND EQUIPMENT	<u>2,470,450</u>	<u>2,185,892</u>
Other Assets:		
Investment - Other	<u>100,000</u>	<u>100,000</u>
TOTAL OTHER ASSETS	<u>100,000</u>	<u>100,000</u>
 TOTAL ASSETS	 <u>\$ 8,294,940</u>	 <u>\$ 7,699,384</u>



# LIABILITIES AND EQUITY

	2017	2016
Current Liabilities:		
Accounts payable, trade	\$ 1,276,055	\$ 1,223,041
Accounts payable - related parties	71,058	77,700
Line of credit	85,000	150,000
Notes payable	-	106,743
Current maturities of long-term debt	632,413	410,509
Accrued liabilities:		
Salaries and bonuses	387,062	223,805
Insurance	82,654	3,466
Other	102,962	37,724
Billings in excess of costs and estimated earnings on uncompleted contracts	544,992	412,854
<b>TOTAL CURRENT LIABILITIES</b>	<b>3,182,196</b>	<b>2,645,842</b>
Long-term debt, net of current maturities	485,327	927,133
<b>TOTAL LIABILITIES</b>	<b>3,667,523</b>	<b>3,572,975</b>
Equity:		
Controlling interest in equity		
Common stock - no par value, 10,000 shares authorized; 810 shares issued and outstanding	161,389	161,389
Additional paid in capital	382,503	382,503
Retained earnings	2,912,419	2,597,829
Noncontrolling interests in members' equity	1,163,321	984,688
<b>TOTAL EQUITY</b>	<b>4,619,632</b>	<b>4,126,409</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$ 8,287,155</b>	<b>\$ 7,699,384</b>

See accompanying notes.

***HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE***

**CONSOLIDATED STATEMENTS OF INCOME**

**Years ended December 31, 2017 and 2016**

	<u>2017</u>	<u>2016</u>
Revenues earned	\$ 18,384,023	\$ 16,182,662
Cost of revenues earned	<u>13,811,095</u>	<u>11,709,972</u>
Gross profit	4,572,928	4,472,690
General and administrative expenses	<u>3,693,590</u>	<u>3,679,190</u>
Income from operations	<u>879,338</u>	<u>793,500</u>
Other income (expense):		
Charitable contributions	-	(1,850)
Gains on disposal of equipment	5,500	17,500
Other income	-	16,732
Interest expense	(41,700)	(46,372)
Board fees	(108,000)	(108,000)
Other expense	<u>(9,130)</u>	<u>(12,214)</u>
Total other expense	<u>(153,330)</u>	<u>(134,204)</u>
NET INCOME	726,008	659,296
Less: Net income (loss) attributed to non-controlling interests	<u>186,418</u>	<u>(90,010)</u>
Net income attributed to controlling interest	<u><u>\$ 539,590</u></u>	<u><u>\$ 749,306</u></u>

See accompanying notes.

***HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND AFFILIATE***

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**

**Years Ended December 31, 2017 and 2016**

	Common Stock	Additional Paid In Capital	Retained Earnings	Noncontrolling Interests in Members' Equity	Total
Balances at December 31, 2015	\$ 161,389	\$ 382,503	\$ 2,618,523	\$ 1,074,698	\$ 4,237,113
Net income (loss)	-	-	749,306	(90,010)	659,296
Distributions	-	-	(770,000)	-	(770,000)
Balances at December 31, 2016	161,389	382,503	2,597,829	984,688	4,126,409
Net income	-	-	539,590	186,418	726,008
Distributions	-	-	(225,000)	-	(225,000)
Balances at December 31, 2017	<u>\$ 161,389</u>	<u>\$ 382,503</u>	<u>\$ 2,912,419</u>	<u>\$ 1,171,106</u>	<u>\$ 4,627,417</u>

See accompanying notes.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**Years Ended December 31, 2017 and 2016**

**Increase (Decrease) in Cash**

	<u>2017</u>	<u>2016</u>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net income	\$ 726,008	\$ 659,296
Adjustments to reconcile net income to net cash provided by operations:		
Depreciation and amortization	390,143	374,519
(Gain) loss on disposal of equipment	(5,500)	(17,500)
(Increase) Decrease in:		
Accounts receivable, trade	(1,362,217)	1,112,205
Accounts receivable - related parties	(5,029)	4,197
Costs and estimated earnings in excess of billings on uncompleted contracts	326,060	(530,626)
Prepaid insurance	64,962	(46,007)
Other current assets	(12,277)	32,111
Increase (Decrease) in:		
Accounts payable, trade	53,014	(21,591)
Accounts payable - related parties	(6,642)	48,142
Accrued liabilities	307,683	(167,479)
Billings in excess of costs and estimated earnings on uncompleted contracts	132,138	(511,882)
<b>NET CASH PROVIDED BY OPERATING ACTIVITIES</b>	<u>608,343</u>	<u>935,385</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Purchases of property and equipment	(674,701)	(594,874)
Proceeds from sale of assets	5,500	17,500
<b>NET CASH USED IN INVESTING ACTIVITIES</b>	<u>(669,201)</u>	<u>(577,374)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Proceeds from issuance of long-term debt	202,880	453,261
Net (payments) proceeds on line of credit	(65,000)	40,000
Payments on long-term debt	(422,782)	(367,232)
Net payments on notes payable	(106,743)	(19,756)
Distributions to stockholders	(225,000)	(770,000)
<b>NET CASH USED IN FINANCING ACTIVITIES</b>	<u>(616,645)</u>	<u>(663,727)</u>

(Continued)

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

Years Ended December 31, 2017 and 2016

Increase (Decrease) in Cash

	<u>2017</u>	<u>2016</u>
NET DECREASE IN CASH	(677,503)	(305,716)
CASH AT BEGINNING OF YEAR	<u>892,258</u>	<u>1,197,974</u>
CASH AT END OF YEAR	<u><u>\$ 214,755</u></u>	<u><u>\$ 892,258</u></u>

SUPPLEMENTARY CASH FLOW DISCLOSURES:

Cash paid (received) during the year for:

Interest

\$ 41,700	\$ 46,372
-----------	-----------

State income taxes

\$ 1,854	\$ 12,214
----------	-----------

DISCLOSURE OF ACCOUNTING POLICIES:

For purposes of the statements of cash flow, the Company considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

See accompanying notes.

***HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE***

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**December 31, 2017 and 2016**

**NOTE 1      SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Nature of Business**

Harrison Western Construction Corporation (Harrison) was incorporated in the State of Colorado on March 11, 1988. The Company earns revenues predominantly from construction related to the development of mines and heavy civil engineering construction. These projects are primarily performed in the United States. The Company extends credit to its customers in the ordinary course of business.

Harrison's contracts consist of fixed fee and time and material (T&M) contracts. The length of these contracts is generally less than one year.

ALDA Equipment, LLC (ALDA) was organized in the State of Colorado in November 1999. ALDA leases equipment to companies operating in the civil engineering construction and mining industries, including Harrison. ALDA is a limited liability company (LLC) which is wholly-owned by the stockholders of Harrison. Pursuant to the terms of its operating agreement, no Manager, Officer, or Member of the ALDA shall be bound by, or be personally liable for, the expenses, liabilities, or obligations of ALDA.

Underground Infrastructure Technologies, LLC (UIT) was organized in the State of Colorado in March 2009 as a Limited Liability Company. UIT began 2014 as a single member LLC owned by a Colorado corporation. In July 2014, UIT was purchased by Infrastructure Resources, LLC, a Colorado Limited Liability Company organized in July 2014, for \$750,000. Effective November 1, 2014, Infrastructure Resources, LLC sold 70% of the member units to Harrison Western Construction Corporation for \$525,000. UIT provides trenchless installation services to the utility industry. Services include horizontal auger boring, pipe ramming, pipe bursting, and tunnel installations.

**Principles of Consolidation**

For the years ended December 31, 2017 and 2016, the consolidated financial statements include the accounts of Harrison Western Construction Corporation, its subsidiary, Underground Infrastructure Technologies, LLC, and the variable interest entity (VIE) of ALDA Equipment, LLC, of which Harrison is the primary beneficiary as further described in Note 4, Variable Interest Entities. The consolidated entities are collectively referred to as the "Company". All significant intercompany accounts and transactions, including those involving the VIE, have been eliminated in the consolidated financial statements.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.



**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

December 31, 2017 and 2016

**NOTE 1      SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

Equity

As of December 31, 2017 and 2016, the ownership of Harrison is as follows:

Christopher Hassel	396.90 shares	49.00%
Provost Family Trust	413.10 shares	51.00%

Cash Equivalents

For purposes of reporting cash flows, the Company considers all highly liquid financial instruments purchased with a maturity of three months or less to be cash equivalents.

Fair Value of Financial Instruments

The estimated fair values of the Company's cash, receivables and payables approximate the carrying value for the periods presented.

Accounts and Notes Receivable

As it relates to Harrison, accounts receivable are based on amounts billed to customers. As of December 31, 2011, management determined that an allowance for doubtful accounts was needed based on a review of outstanding receivables, historic collection information and existing economic conditions. Accounts receivable are ordinarily due 30 days after issuance of the invoice. As of December 31, 2017 and 2016, no change to the allowance for doubtful accounts was deemed necessary.

Contract retentions are due 30 days after completion of the project and acceptance by the owner. All accounts past due more than 120 days are considered delinquent. Delinquent receivables are written off based on individual credit evaluation and specific circumstances of the customer.

As it relates to UIT, generally the contracts are as a subcontractor to a general contractor (GC) for a municipality. These contracts contain the provision "paid when paid" and this payment is due seven days after the GC receives payment from the municipality.

Property and Equipment

Property and equipment are recorded at cost. Expenditures for major improvements are capitalized, while repairs and maintenance, which do not improve or extend the useful lives of the assets, are expensed as incurred. Depreciation is computed using the straight-line method over the useful lives of the assets, which range from three to ten years. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is recognized in income for the period.

Depreciation and amortization expenses for the years ended December 31, 2017 and 2016 totaled \$397,928 and \$374,519, respectively.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

**December 31, 2017 and 2016**

**NOTE 1      SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Income Taxes**

Harrison's stockholders elected to have the income taxed as an S Corporation under provisions of the Internal Revenue Code and a similar section of the Colorado income tax law. Therefore, taxable income or loss is reported to the stockholders for inclusion in their respective tax returns and no provisions for federal and state income taxes are included in these consolidated financial statements. Harrison files composite income tax returns in multiple states on behalf of its shareholders. The state income taxes paid are included in other expenses on the consolidated income statement for the years ended December 31, 2017 and 2016.

ALDA files a partnership income tax return where the taxable income is reported to the members for inclusion in their respective tax returns and no provisions for federal and state income taxes are included in these consolidated financial statements.

UIT files a partnership income tax return where the taxable income is reported to the members for inclusion in their respective tax returns and no provisions for federal and state income taxes are included in these consolidated financial statements.

**Revenue and Cost Recognition**

Revenues from construction contracts are generally recognized on the percentage-of-completion method, measured by the percentage of costs incurred to date to estimated total costs for each contract. This method is used because management considers incurred costs to be the best available measure of progress on these contracts. Changes in job performance, job conditions, and estimated profitability may result in revisions to costs and revenues in the next year.

Contract costs include all direct material, labor and sub-contractor costs and those indirect costs related to contract performance. Selling, general and administrative costs are charged to operations as incurred. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Changes in job performance, job conditions, and estimated profitability, including those arising from final contract settlements, may result in revisions to costs and income and are recognized in the period in which the revisions are determined. When the estimate on a contract indicates a loss, the Company's policy is to record the entire loss in the year identified.

The asset, "costs and estimated earnings in excess of billings on uncompleted contracts," represents revenues recognized in excess of amounts billed. The liability, "billings in excess of costs and estimated earnings on uncompleted contracts", represents billings in excess of revenues recognized.

**Uncertain Tax Positions**

The Company adopted the provisions of FASB ASC 740 on January 1, 2009. The Company has exposures related to income tax filings in the ordinary course of business for the income tax years ended December 31, 2013 through December 31, 2016. The Company's stockholders/members are responsible for the income taxes to be paid on the Company's net taxable income. The Company assesses its income tax positions on its revenue and expenses based upon the latest information available. For those matters identified where an adjustment could be asserted, the Company will make distributions to assist the shareholders with the payment of these liabilities. Currently, there is no expected impact on operations, liabilities or equity.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

December 31, 2017 and 2016

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)**

**Sales and Use Taxes**

The Company's services are subject to sales and use taxes in certain jurisdictions. These taxes are collected from customers, remitted to the respective agencies, and are excluded from revenue and expense in the consolidated financial statements as presented.

**NOTE 2 ACCOUNTS RECEIVABLE, TRADE, NET**

The components of accounts receivable, trade, net are as follows at December 31:

	<u>2017</u>	<u>2016</u>
Completed contracts	\$ 1,050,056	\$ 924,598
Contracts in progress	3,262,674	2,448,167
Retainage	1,025,465	603,173
Other	-	-
	<u>5,338,195</u>	<u>3,975,978</u>
Less allowance for doubtful accounts	<u>(194,325)</u>	<u>(194,325)</u>
Total accounts receivable, trade, net	<u>\$ 5,143,870</u>	<u>\$ 3,781,653</u>

**NOTE 3 COSTS AND ESTIMATED EARNINGS ON UNCOMPLETED CONTRACTS**

The components of costs and estimated earnings on uncompleted contracts are as follows:

	<u>2017</u>	<u>2016</u>
Costs incurred on uncompleted contracts	\$13,361,164	\$ 7,053,204
Estimated earnings	<u>2,795,831</u>	<u>2,189,114</u>
Total revenues on uncompleted contracts	16,156,995	9,242,318
Less billings to date	<u>(16,469,151)</u>	<u>(9,096,276)</u>
Net Costs and Estimated Earnings on Uncompleted Contracts	<u>\$ (312,156)</u>	<u>\$ 146,042</u>

The above amounts are included in the accompanying consolidated balance sheets under the following captions:

**NOTE 3 COSTS AND ESTIMATED EARNINGS ON UNCOMPLETED CONTRACTS  
(CONTINUED)**

	<u>2017</u>	<u>2016</u>
Costs and estimated earnings in excess of billings on uncompleted contracts	\$ 232,836	\$ 558,896
Billings in excess of costs and estimated earnings on uncompleted contracts	<u>(544,992)</u>	<u>(412,854)</u>
Total	<u>\$ (312,156)</u>	<u>\$ 146,042</u>

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

December 31, 2017 and 2016

**NOTE 4     VARIABLE INTEREST ENTITIES**

FASB Interpretation No., (FIN) 46 (revised December 2003), *Consolidation of Variable Interest Entities*, addresses the consolidation by business enterprises of variable interest entities. Variable interest entities are those that expose the holder of the interest to the entity's expected losses and expected residual returns. Among other requirements, the FIN provides that consolidation is required to the extent the entity is unable to finance its activities without additional financial support from the holder of the variable interest. The FIN requires consolidation of variable interest entities for periods beginning after December 15, 2004, for interests in such entities created before January 1, 2004.

The adoption of FIN 46(R) on January 1, 2008 resulted in the consolidation of one variable interest entity (VIE), ALDA Equipment, LLC, of which Harrison is considered the primary beneficiary. Due to the Harrison's history of providing on-going subordinated financial support to ALDA through consolidation the Company absorbs all net losses of the variable interest entity in excess of the equity of the affiliate. All net earnings or losses of the variable interest entity is attributed to the equity owner of the affiliate and shown as non-controlling interest on the Company's financial statements. The initial consolidation of the VIE resulted in an increase in the Company's total assets, liabilities, and non-controlling interest in member's equity (deficit) of approximately \$596,000, \$929,000, and (\$333,000), respectively. There was no impact on the 2008 income statement or cash flows, since consolidation was deemed to have occurred at December 31, 2007.

The liabilities of ALDA consolidated by the Company do not represent additional claims on the Harrison's general assets; rather they represent claims against the specific assets of ALDA, the VIE. Likewise, the assets of the VIE consolidated by the Company do not represent additional assets available to satisfy claims against the Harrison's general assets. To offset the credit risk associated with the Harrison's variable interest in the VIE, Harrison holds a security interest in the assets of the VIE, subordinate only to third-party bank interests, if any.

**NOTE 5     LINE OF CREDIT**

The Company entered into a new \$1.5 million revolving line of credit agreement with Citywide Bank that expires on July 17, 2018. The new line is collateralized by all business assets of Harrison and ALDA. The line of credit is guaranteed by UIT (up to \$350,000) and Chris Hassel. Interest is payable monthly at the bank's prime rate plus 0.50% (prime was 4.50% at December 31, 2017) but not less than 3.75%. At December 31, 2017 and 2016, the outstanding line of credit balance totaled \$85,000 and \$150,000, respectively. Interest paid for 2017 and 2016 on the line of credit is included in interest expense.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

December 31, 2017 and 2016

**NOTE 6      LONG-TERM DEBT**

Long-term debt consists of the following at December 31:

	<u>2017</u>	<u>2016</u>
Note payable to Citywide Bank; interest rate at 3.75%; interest only through January 2016; principal and interest payments at \$7,331; payable monthly through January 2021; secured by new equipment purchased by UIT and Harrison; guaranteed by Chris Hassel	\$ 202,454	\$ 280,955
Note payable to Citywide Bank; interest rate at 5.00%; interest only through January 2018; principal and interest payments at \$17,295; payable monthly through January 2019; secured by all equipment owned by UIT and Harrison; guaranteed by Chris Hassel	202,880	
Note payable to Citywide Bank; interest rate at 3.75%; principal and interest payments at \$10,121; payable monthly through July 2019; secured by all business assets of Harrison, ALDA and UIT; guaranteed by Chris Hassel	185,783	297,895
Note payable to John Deere Financial; non-interest bearing; principal payments at \$1,185; payable monthly through November 2019; secured by 333E Compact Track Loader	20,138	34,352
Note payable to Komatsu Financial; non-interest bearing; principal payments at \$8,156; payable monthly through January 2021; secured by Komatsu PC490LC-11 Hydraulic Excavator	301,776	391,493
Note payable to Summit Funding Group under Master Lease Agreements; interest at 6.42%; monthly principal and interest payments of \$4,452 through August 2019; secured by various equipment purchased through the Lease Agreements	71,011	130,629
Note payable to Komatsu Financial; non-interest bearing; principal payments at \$5,620; payable monthly through December 2019; secured by Komatsu PC390LC-10 Hydraulic Excavator	<u>133,698</u>	<u>202,318</u>
Total	1,117,740	1,337,642
Less current maturities of long-term debt	<u>(632,413)</u>	<u>(410,509)</u>
Total long-term debt	<u>\$ 485,327</u>	<u>\$ 927,133</u>

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

**December 31, 2017 and 2016**

**NOTE 6      LONG-TERM DEBT (CONTINUED)**

Maturities of long-term debt are as follows:

<u>Year Ending December 31,</u>	
2018	\$ 632,413
2019	347,580
2020	129,591
2021	<u>8,156</u>
Total	<u>\$ 1,117,740</u>

**NOTE 7      NOTES PAYABLE**

The Company financed \$252,846 and \$186,812 of its combined insurance policy for the 12 month periods ended June 30, 2017 and 2016, respectively. The combined policy included various coverage premiums for Harrison, UIT and ALDA for the policy periods ended June 30, 2017 and June 30, 2016, respectively. The interest rates were 5.30% and 5.30%, for the policy periods ended June 30, 2017 and 2016, respectively. Principal and interest payments of \$21,348 and \$19,138 were payable monthly through May 2017 and were paid monthly through April 2016, respectively.

The insurance costs are allocated to the Company and related affiliates as outlined in Note 11 based on certain parameters. The balances of \$106,743 and \$94,435 are listed as a current liabilities on the Company's consolidated balance sheets as of December 31, 2016 and 2015, respectively.

The Company financed \$51,879 on its vehicle insurance policies for the 12 month policy period ended June 30, 2016. The vehicles included those owned by Harrison and ALDA for the policy period ended June 30, 2016. The insurance costs are allocated to the Company and related affiliates as outlined in Note 11 based on certain parameters. The balance of \$32,064 was listed as a current liability on the Company's consolidated balance sheet as of December 31, 2015. Balance was paid in full in 2016.

The Company changed insurance carriers, and the new carrier direct bills the premiums on a monthly basis.

**NOTE 8      PROFIT SHARING PLAN**

The Company has a 401(k) profit sharing plan covering substantially all employees. The Company's contributions to the plan are determined annually by the board of directors. The Company did not make any contributions to the plan for the years ended December 31, 2017 and 2016.



**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

**December 31, 2017 and 2016**

**NOTE 9 RELATED PARTY TRANSACTIONS**

The Company is affiliated with several other entities by common ownership or these entities are owned by family members of its former stockholder. The Company has the following transactions with related parties:

The Company makes unsecured, non-interest bearing advances to various affiliates. As of December 31, 2017 and 2016, the amounts due from these affiliates totaled \$5,483 and \$454 respectively.

The Company rents its main facility under a month-to-month operating lease from an entity primarily owned by the Company's majority stockholder. During the year ended December 31, 2017 and 2016, the Company incurred lease costs of \$93,600 each year respectively and made payments of \$106,400 and \$39,300, respectively. At December 31, 2017 and 2016, accrued and unpaid rent under the lease totaled \$64,900 and \$77,700, respectively, and is included in the consolidated balance sheets under accounts payable - related parties.

**NOTE 10 BACKLOG**

The estimated remaining gross revenues and estimated unrecognized gross profits on work to be performed on signed contracts at December 31, 2017, are as follows:

Estimated gross revenues	\$ 11,259,305
Estimated unrecognized gross profits	\$ 1,885,274

**NOTE 11 CONCENTRATION OF RISK**

Financial instruments that potentially subject the Company to credit risk include cash and contract receivables. Under FDIC rules, the deposits in non-interest bearing accounts are insured up to \$250,000. At December 31, 2017, Harrison's, ALDA's and UIT's cash balances were fully insured at year end.

The Company operates and grants credit to customers. With the exception of the Corske Mine Development receivable, the Company does not believe that it is exposed to any significant credit risk in connection with the extension of credit to its customers. Historically, the Company's bad debt expense has been extremely low.

For the year ended December 31, 2017, Harrison had three customers that represented approximately 57% of its total revenue and accounted for approximately 71% of its outstanding accounts receivable, trade balance.

For the year ended December 31, 2016, the Company had three customers that represented approximately 35% of its total revenue and accounted for approximately 61% of its outstanding accounts receivable, trade balance.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND  
AFFILIATE**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)**

**December 31, 2017 and 2016**

**NOTE 12 LEASE COMMITMENTS**

The Company also leased two copiers under an operating lease which was extended for 36 months in August 2012. The monthly payment was \$790 through July 2015. In March 2015, the Company entered into a new lease on these copiers. The new monthly payment is \$659 through March 2020.

The Company leases 10 trucks to be used at various different job sites. These costs are allocated to job costs when applicable. The monthly payments varied from lease to lease with six leases expiring in 2015 and four leases that expired in 2016. In addition, during 2015, the Company leased an additional 10 trucks to replace those where the lease had lapsed plus additional trucks needed for UIT personnel, ALDA personnel, and Harrison personnel.

The following is a schedule of future minimum lease payments required under the leases as follows:

Year Ending December 31,

2018	\$ 128,858
2019	122,201
2020	78,420
2021	22,848
2022	8,668

Rent expense for the years ended December 31, 2017 and 2016 totaled \$123,793 and \$124,462, respectively.

**NOTE 13 SUBSEQUENT EVENTS**

All transactions have been evaluated through February 28, 2018, the date of the financial statements, as required under FASB ASC 855.

Harrison has entered into several new construction contracts from January 1, 2018 through the date of the financial statements. The total estimated contract revenue for these projects totals approximately \$1.2 million.

UIT has entered into several new construction contracts from January 1, 2018 through the date of the financial statements. The total estimated contract revenue for these projects totals approximately \$1.1 million. In addition, three contracts were signed in 2017 but the work did not begin until 2018. Total estimated contract revenue for these contracts totals approximately \$230,000.

**CONSOLIDATING AND  
SUPPLEMENTARY INFORMATION**

# GARY L RYAN & ASSOCIATES LLC

*Certified Public Accountants and Business Consultants*

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## INDEPENDENT AUDITOR'S REPORT ON CONSOLIDATING AND SUPPLEMENTARY INFORMATION

To the Board of Directors and Stockholders  
Harrison Western Construction Corporation  
Lakewood, Colorado

Our report on our audit of the consolidated financial statements of Harrison Western Construction Corporation, Subsidiary and Affiliate as of December 31, 2017 appears on pages 1 and 2. The audit was conducted for the purpose of forming an opinion on the basic consolidated financial statements taken as a whole. The consolidating information on pages 18 and 19 as of December 31, 2017 and for the year then ended has been subjected to the auditing procedures applied in the audit of the consolidated financial statements, and is presented for the purpose of additional analysis of the consolidated financial statements rather than to present the financial position, results of operations, and cash flows of the individual companies. Accordingly, we do not express an opinion on the financial position, results of operations, and cash flows of the individual companies. However, in our opinion, the consolidating information is fairly stated in all material respects in relation to the consolidated financial statements taken as a whole.

Our report on our audit of the consolidated financial statements of Harrison Western Construction Corporation, Subsidiary and Affiliate as of December 31, 2017 appears on pages 1 and 2. The audit was conducted for the purpose of forming an opinion on the basic consolidated financial statements taken as a whole. The supplementary information contained in Schedule I for the year ended December 31, 2017 is presented for purposes of additional analysis and is not a required part of the basic consolidated financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic consolidated financial statements, and, in our opinion, is fairly stated in all material respects in relation to the consolidated financial statements taken as a whole.

*Gary L Ryan & Associates, LLC*

Aurora, Colorado

February 28, 2018

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND AFFILIATE**

**CONSOLIDATING BALANCE SHEET**

December 31, 2017

	Harrison Western Construction Corporation	ALDA Equipment LLC	Underground Infrastructure Technologies LLC	Eliminations	Consolidated Totals
<b><u>ASSETS</u></b>					
Current Assets:					
Cash	\$ 137,775	\$ 12,014	\$ 64,966	\$ -	\$ 214,755
Accounts receivable, trade, net	4,055,079	-	1,088,791	-	5,143,870
Accounts receivable - related parties	1,067,033	1,137,438	138,149	(2,337,137)	5,483
Costs and estimated earnings in excess of billings on uncompleted contracts	168,005	-	64,831	-	232,836
Prepaid insurance	77,575	-	-	-	77,575
Other current assets	13,863	5,835	30,273	-	49,971
<b>TOTAL CURRENT ASSETS</b>	<b>5,519,330</b>	<b>1,155,287</b>	<b>1,387,010</b>	<b>(2,337,137)</b>	<b>5,724,490</b>
Property and Equipment - at cost:					
Vehicles and trailers	40,515	21,631	-	-	62,146
Equipment	503,007	2,496,464	2,019,148	-	5,018,619
Office furniture and equipment	169,850	-	-	-	169,850
	713,372	2,518,095	2,019,148	-	5,250,615
Less accumulated depreciation and amortization	(306,274)	(1,939,924)	(533,967)	-	(2,780,165)
<b>NET PROPERTY AND EQUIPMENT</b>	<b>407,098</b>	<b>578,171</b>	<b>1,485,181</b>	<b>-</b>	<b>2,470,450</b>
Other Assets:					
Investment in subsidiary	1,066,147	-	-	(1,066,147)	-
Investment - Other	100,000	-	-	-	100,000
<b>TOTAL OTHER ASSETS</b>	<b>1,166,147</b>	<b>-</b>	<b>-</b>	<b>(1,066,147)</b>	<b>100,000</b>
<b>TOTAL ASSETS</b>	<b>\$ 7,092,575</b>	<b>\$ 1,733,458</b>	<b>\$ 2,872,191</b>	<b>\$ (3,403,284)</b>	<b>\$ 8,294,940</b>

	Harrison Western Construction Corporation	ALDA Equipment LLC	Underground Infrastructure Technologies LLC	Eliminations	Consolidated Totals
<b>LIABILITIES AND EQUITY</b>					
<b>Current Liabilities:</b>					
Accounts payable, trade	\$ 998,089	\$ 50,838	\$ 227,128	\$ -	\$ 1,276,055
Accounts payable - related parties	1,233,820	963,579	210,796	(2,337,137)	71,058
Line of credit	-	-	85,000	-	85,000
Notes payable	-	-	-	-	-
Current maturities of long-term debt	414,889	-	217,524	-	632,413
Accrued liabilities:					
Salaries and bonuses	287,682	-	99,380	-	387,062
Insurance	82,654	-	-	-	82,654
Other	79,096	1,095	22,771	-	102,962
Billings in excess of costs and estimated earnings on uncompleted contracts	402,835	-	142,157	-	544,992
<b>TOTAL CURRENT LIABILITIES</b>	<b>3,499,065</b>	<b>1,015,512</b>	<b>1,004,756</b>	<b>(2,337,137)</b>	<b>3,182,196</b>
Long-term debt, net of current maturities	137,199	-	348,128	-	485,327
<b>TOTAL LIABILITIES</b>	<b>3,636,264</b>	<b>1,015,512</b>	<b>1,352,884</b>	<b>(2,337,137)</b>	<b>3,667,523</b>
<b>Equity</b>					
Common stock - no par value, 10,000,000 shares authorized; 810 shares issued and outstanding	161,389	-	-	-	161,389
Additional paid in capital	382,503	-	-	-	382,503
Retained earnings	2,912,419	-	-	-	2,912,419
Non-controlling interest in members' equity	-	-	-	1,163,321	1,163,321
Members' equity	-	717,946	1,519,307	(2,229,468)	7,785
<b>TOTAL EQUITY</b>	<b>3,456,311</b>	<b>717,946</b>	<b>1,519,307</b>	<b>(1,066,147)</b>	<b>4,627,417</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$ 7,092,575</b>	<b>\$ 1,733,458</b>	<b>\$ 2,872,191</b>	<b>\$ (3,403,284)</b>	<b>\$ 8,294,940</b>

See independent auditor's report on consolidating and supplementary information.

**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND AFFILIATE**

**CONSOLIDATING STATEMENT OF INCOME**

**Year Ended December 31, 2017**

	Harrison Western Construction Corporation	ALDA Equipment LLC	Underground Infrastructure Technologies LLC	Eliminations	Consolidated Totals
Revenues earned	\$ 12,709,284	\$ 646,997	\$ 5,669,434	\$ (641,692)	\$ 18,384,023
Cost of revenues earned	10,417,134	219,087	3,816,566	(641,692)	13,811,095
Gross profit	2,292,150	427,910	1,852,868	-	4,572,928
General and administrative expenses	1,939,403	377,260	1,406,927	(30,000)	3,693,590
Income (loss) from operations	352,747	50,650	445,941	30,000	879,338
Other income (expense):					
Investment in subsidiary	303,955	-	-	(303,955)	-
Charitable contributions	-	-	-	-	-
Gain on sale of assets	-	5,500	-	-	5,500
Other income	29,547	-	-	(29,547)	-
Interest expense	(29,982)	-	(11,718)	-	(41,700)
Board fees	(108,000)	-	-	-	(108,000)
Other expense	(8,677)	-	-	(453)	(9,130)
Total other income (expense)	186,843	5,500	(11,718)	(333,955)	(153,330)
NET INCOME	539,590	56,150	434,223	(303,955)	726,008
Less: Net income attributed to non-controlling interests	-	-	-	186,418	186,418
Net income attributed to controlling interest	\$ 539,590	\$ 56,150	\$ 434,223	\$ (490,373)	\$ 539,590

See independent auditor's report on consolidating and supplementary information.



**HARRISON WESTERN CONSTRUCTION CORPORATION, SUBSIDIARY AND AFFILIATE**

**SCHEDULE I - GENERAL AND ADMINISTRATIVE EXPENSES**

**Year Ended December 31, 2017**

	Harrison Western Construction Corporation	ALDA Equipment LLC	Underground Infrastructure Technologies LLC	Eliminations	Consolidated Totals
Accounting fees	\$ 106,138	\$ 1,475	\$ 5,953	\$ -	\$ 113,566
Automobile/vehicle	2,730	34	1,715	-	4,479
Bank fees	11,884	-	4,440	-	16,324
Bid expenses	80,463	-	7,616	-	88,079
Consulting	9,468	-	-	-	9,468
Conferences	6,318	-	-	-	6,318
Company functions	5,611	-	315	-	5,926
Computer	52,312	-	3,454	-	55,766
Computer lease expense	13,207	-	-	-	13,207
Depreciation and amortization	44,930	135,213	210,000	-	390,143
Dues and subscriptions	23,100	-	4,467	-	27,567
Equipment lease expense	24,868	15,316	42,830	-	83,014
Insurance	17,722	12,240	227,639	-	257,601
Insurance - health	48,444	6,354	88,956	-	143,754
Legal	5,529	-	9,040	-	14,569
Marketing	18,956	-	-	-	18,956
Meals & entertainment	6,881	-	3,116	-	9,997
Office supplies	13,255	-	5,212	-	18,467
Other	49,939	(4,016)	10,763	-	56,686
Permits and licenses	3,608	-	391	-	3,999
Postage & delivery	5,643	564	-	-	6,207
Printing	2,802	-	-	-	2,802
Recruiting	34,508	-	26,541	-	61,049
Rent	71,643	30,000	30,000	(30,000)	101,643
Salaries	1,133,810	178,584	700,003	-	2,012,397
Supplies	16,787	1,416	4,608	-	22,811
Taxes - other	5,320	-	-	-	5,320
Telephone	17,102	80	8,454	-	25,636
Travel	50,734	-	11,414	-	62,148
Utilities	55,691	-	-	-	55,691
<b>TOTAL GENERAL AND ADMINISTRATIVE EXPENSES</b>	<b>\$ 1,939,403</b>	<b>\$ 377,260</b>	<b>\$ 1,406,927</b>	<b>\$ (30,000)</b>	<b>\$ 3,693,590</b>

See independent auditor's report on consolidating and supplementary information.

# HW HISTORICAL JOB LIST 2015 - 2018

Project #	Project Name	Project #	Project Name
20-15-201	Broadmoor - 7 Falls Sair Eval	20-15-523	Henderson - Concret Chip 8762
20-15-202	Seven Falls - Kichen Excavatio	20-15-524	Henderson - Conc Wrhse Floor
20-15-203	Hutchinson Salt - Headframe En	20-15-525	Henderson - Chute T82A
20-15-204	Hutch Salt - Shaft Inspection	20-15-526	Henderson - Chute T86A
20-15-205	Seven Falls - Elev Shaft Liner	20-15-527	Henderson - Chute T92A
20-15-206	TESLA - Tunnel Inspection	20-15-528	Henderson - Chute T62N
20-15-207	Hutch Salt - Headframe Const	20-15-529	Henderson - Shaft Landing Rep
20-15-208	Seven Falls - Funicular	20-15-530	Henderson - Gester Move 512
20-15-209	CDOT Seven Sister Avalanche	20-15-531	Henderson - Collar House
20-15-210	18th & Chestnut Shoring	20-15-532	Henderson Fuel Kick Plates
20-15-220	Gold King - 2015 Rehab	20-15-533	Henderson 7500 Lvl Rep FireDr
20-15-221	United Salt - Mill Building	20-15-534	Henderson - Airline #2 Shaft
20-15-222	American Rock - 5 Rm Rehab	20-15-535	Henderson - Shaft Land @10167
20-15-223	CAPTAIN JACK- UNDERGROUND	20-15-536	URAD - Sonfill
20-15-224	Rock City - Complex 2015, Roof	20-15-537	Henderson - Weld Pad Eyes
20-15-225	United Salt - 2015 Mine Assist	20-15-538	Climax - CAVR Shaft Closure
20-15-226	Twenty Mile - Vent Shaft	20-15-540	Henderson - Inst Actuator Louv
20-15-227	Interpid - East #1 Shaft	20-15-541	Henderson - Fill 48" Pipe URAD
20-15-228	Seven Falls - Zipline Anchors	20-15-542	Henderson - Gate Posts URAD
20-15-229	Intrepid Potash-West Mine Main	20-15-900	1208 Quail Yard Clean-Up
20-15-230	INTREPID POTASH- EAST MINE MAIN	20-16-201	Am Rock 1 Room/5 Yard
20-15-231	Milton Seaman Reservoir Outlet	20-16-202	Screen Gallery Rehab
20-15-234	CSM-EGAR MINE PROJECT	20-16-203	Big 5 Tunnel Repair
20-15-310	18th & Chestnut	20-16-204	Independence Micropiles
20-15-312	Central Denver Rec Center	20-16-205	Granby Dam Spillway Repairs
20-15-401	Mt Elbert Due Diligence	20-16-206	5 Room Remedial Bolting
20-15-501	Henderson Mine - Devel Assist	20-16-207	Mill & C2 Bolting-Cote Blanche
20-15-502	Henderson Mine - URAD Gasket	20-16-208	Morton Salt - Grand Saline
20-15-503	Henderson Mine - Piping	20-16-300	Sugar Building
20-15-504	Henderson Mine - Mem/GrateURAD	20-16-301	Louisville UIT Grout
20-15-505	Henderson Mine - Grate RR WWP	20-16-302	Vallagio Professional Building
20-15-506	Henderson - 7500 Pump Area	20-16-303	Valmeyer - Ground Control
20-15-507	Henderson - Glycol Tanks	20-16-304	BLACKJACK GAZEX INSTALLATION
20-15-508	Henderson - MSHA Repairs	20-16-305	Wasatch Apartments
20-15-509	Henderson - URAD Clarifier Dit	20-16-306	Michigan Ditch Tunnel Grout
20-15-510	Henderson - HR 728 Fuel Strg	20-16-307	Co Sprgs Utilities Tunnel Insp
20-15-511	Henderson - Welding Misc Equip	20-16-308	Pueblo Dam Repairs
20-15-512	Henderson - Gester Handrails	20-16-309	Station #5 Rock Scaling
20-15-513	Henderson - URAD Water	20-16-310	Upper North Pipeline / Lyons
20-15-514	Henderson - Master Misc Tasks	20-16-311	Carter Lake-CR3-Larimer County
20-15-515	Henderson - Heat Exhg URAD RR	20-16-401	Production Hoist Eng. Study
20-15-516	Henderson - Pipe Removal	20-16-402	Ouray Silver Mines - Engineeri
20-15-517	Henderson-URAD Water Valve Sup	20-16-403	WYSEO Relining Seminar
20-15-518	Henderson - Concrete Repair	20-16-404	North Rim Exploration Consulti
20-15-519	Henderson - Headframe Clean #2	20-16-500	Pueblo Dam
20-15-520	Henderson - Louver Fab	20-17-201	Cargill-Avery Island 1850 Wash
20-15-521	Henderson - Shaft Conc Remove	20-17-202	United Salt - Hockley Plant
20-15-522	Henderson - Concrete Chip 8782	20-17-203	NYRSTAR-WEST A CONVEYOR CORRID

Project #	Project Name
20-17-204	Cote Blanche - Crusher Bolting
20-17-205	ASL VAULT EXPANSION
20-17-206	STANDARD MINE
20-17-208	NYRSTAR- T&M RATES FOR MINERS
20-17-209	QUANDRY TUNNEL REHAB
20-17-210	FOLSOM ROCKBOLTS
20-17-211	DENVER WATER CONDUIT FLUME 6
20-17-212	United Salt - Hockley Plant
20-17-213	HSB FAN INSTALLATION
20-17-300	Broadmoor-Seven Falls-Grouting
20-17-301	UNC Campus Commons - Shoring
20-17-302	Woodland Park
20-17-303	JACOBS ENT- DAKOTA CANYON EXC
20-17-304	Woodward Drake Reno
20-17-305	Cheesman Rock Stabilization
20-17-307	Upper North Pipeline Tunnel
20-17-500	Henderson #2 Shaft Fan Change
20-17-501	Henderson - #2 Shaft
20-17-502	Henderson - #2 Shaft Bullwheel
20-17-503	Henderson - Impact Box Repair
20-17-504	Keystone Mine Portal
20-17-505	HENDERSON-U93 VENT RAISE PIPE
20-17-506	HENDERSON- ORE LOADING CHUTES
20-18-200	NYRSTAR MISC. CRUSHER OPS
20-18-201	INTREPID POTASH- E PROD SHAFT
20-18-202	RIO GRANDE DAM PHASE 2
20-18-203	Cote Blanche Ground Control
20-18-204	Commodore 5 Tunnel Rehabilitation
20-18-205	LYONS SALT SUMP & BULKHEAD GROUTING
20-18-206	MILTON SEAMAN - CONDUIT PROTECTION
20-18-301	BOULDER FALLS SLOPE MITIGATION
20-18-302	US34 DILLE DAM SOIL MIX ANCHOR
20-18-303	South Boulder Collection System
20-18-304	GOLD ROAD MINING CORP., AZ
20-18-305	JEFFCO Master Service Contract
20-18-306	Monarch Soil Nail Wall
20-18-500	HENDERSON 14" SURFACE PIPE
20-18-501	HENDERSON- 405 TUNNEL BOLTING
20-18-502	HENDERSON- PC1 CRANE SUPPLY
20-18-503	HENDERSON- CRUSHER CRANE
20-18-504	Henderson 8100
20-18-507	Henderson - T88D Rock Box T&M
20-18-508	Henderson - Emergency Repair
20-18-509	Henderson - Dry Repair
20-18-510	Henderson - Compressor DEMO
20-18-511	Henderson - 7150 Bulkhead
20-18-512	HENDERSON URAD - LPH CLEANOUTS

Project #	Project Name
20-18-513	HENDERSON - OFFICE CORE DRILLING
20-18-514	HENDERSON - DUCON STACK REPLACEMENT
20-18-515	HENDERSON - SERVICE TRUCK REPAIR
20-18-516	HENDERSON - RECLAIM LOAD TESTING
20-18-517	HENDERSON - SHAFT 14" PINE
20-18-518	URAD Environmental
20-18-519	Mt Emmons Belt Filter Upgrade
20-18-521	Henderson - LPH Emergency Repair
20-18-522	Henderson Crusher Gear Rental
20-18-523	Henderson - Rail Head Pick

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
<b>Boss Buggy</b>						
50-18209	Utility Vehicle-Kubota L5043	1	2007		Kubota	L5040 Trd
50-18213	Utility Vehicle-Kubota L5040	1	2008		Kubota	L5040GST
50-18216	Utility Vehicle - Gelman	1	2012		Gelman	A64
50-18218	Utility Vehicle - Kubota	1	2018		Kubota	
50-18219	Utility Vehicle - Bobcat	1	2018		Bobcat	
<b>Compressors</b>						
50-31003	Compressor, Sullair 185	1	1998 2013 rep		Sullair	185 DPQ JD 1982 in service
50-31060	Compressor, Q/D 1000	1	1986 2013 repair		Grain Drvr	SPTDD
50-31067	Compressor, Air Dryer 2000cfm	1	2011		Sullair	SAR1750
50-31068	Compressor, Sullair 375 Dry	1	2011		Sullair	375HAF
50-31069	Sullair 1000 cfm 200 p. Eact	1	2012		Sullair	T520-200H
50-31070	Sullair 1000cfm 200p Eact	1	2012		Sullair	T520-200H
50-31071	Compressor Sullivan 375	1	2013 HW		Sullivan	T520-200H
50-31072	Compressor Sullivan 375	1	2013		Sullivan	G375PDXJD
50-31073	Compressor 815cfm Doosan Del	1	2013 HW		Sullivan	G375PDXJD
50-32003	Receiver Tank, 1000 Gal	1	1998		Doosan	HP815WC-JQ
<b>Construction Equipment</b>						
50-14020	Loader, Caterpillar 966D	1	2005 pur 2008 repair		Caterpillar	966D
50-14034	Bombardier BM-60 Snow Blower	1	2011		Bombardier	BM-90
50-14201	Back-hoe, Case 680	1	1999		Case	580
50-14202	Loader Bobcat 2005	1	2005		Bobcat	643 F-Sens
50-14203	Loader Excelsior Trac JD	1	2015		John Deere	333E
50-26227	Chipping Hammer	8	2018		Toys	CH-4A
50-26228	Chipping Hammer	50-26227	2018			
50-26229	Chipping Hammer	50-26227	2018			
50-26230	Chipping Hammer	50-26227	2018			
50-26231	Chipping Hammer	50-26227	2018			
50-26232	Chipping Hammer	50-26227	2018			
50-42408	Concrete Vibrators	50-42408	2018			
50-62507	Forklift, Telehandler 42' 8k #	1	2010		Sky Trak	Sky Trak
50-62508	Forklift, Tele 17' 8k	1	2010		JCB	520-50-4WS
50-62509	Tele-handler Genie Bk	1	2015		Genie	GTH1044
50-62510	Fork Lift	1	2017		Genie	Gth844
50-62511	Forklift Handler	1	2017		J.C	943
50-61002	Fusion Machine, w/jaw set	1	2007		McElroy	IA430101 #1
50-61003	Fusion Machine - PBull	2	2018		McElroy	Pittol #14
50-84401	Demol Saw, Gas	1	2018		Estil	TS400
50-84402	Chain saw, Air	1	2007		NOT Remington	
50-84403	Compactor, Gas, 18"	1	2018		Mitsuba	Plate
50-84406	Compactor, Gas	1	2018		Stone	VR 11R
50-84407	Tamper, Air	1	2018			
50-84408	Tamper, Air	1	2018			
50-84409	Washer, Detail 10,000 PSI	1	2006 AND 2007 freight		Jetstream	
50-84410	Air Chain Saw 20" Concrete	1	2013			
50-84411	Testing Ram BOT Aluminum	1	2015		Moist Chrt	
50-84412	Testing Ram	1	2018			

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-44413	1 Taping Ram	1	2018			
50-90053	1 Sand Wrester - Pot	1	2018			
50-90055	1 Masonry Saw, 14", 2.5 HP, Elec	1	2018		Empire	Super 550
50-90069	1 Pipe Threader	1	2018		Omrod Prod	CC900M
50-90071	1 Mini Excavator & Drilling Attachment	1	2016		Rops	1223
50-90072	1 Power Washer	1	2016			
50-90073	1 Slicer Lift	1	2017		Hoty	
50-90074	1 Slicer Lift	1	2017			JUT41BL JUT41SL
<b>Cargo Container</b>						
50-72001	1 Cargo Container, 40', Green	1	1998			
50-72002	1 Cargo Container, 40', White	1	1998			
50-72003	1 Cargo Container, 20', Red	1	1998			
50-72004	1 Cargo Container, 24', Brown	1	1998			
50-72005	1 Cargo Container 8' x 20'	1	2003			
50-72010	1 Cargo Container, 20', Red	1	2018			
50-72011	1 Cargo Container, 20', Brown	1	2018			
50-72012	1 Cargo Container, 40', White	1	2018			
<b>Drills</b>						
50-22001	1 Core Drill Dynamic 260 w/ Power	1	1998		Atlas Copco	
50-22002	1 Core Drill Dynamic 250	1	1998		Husqvarna	
50-22010	1 Drill Carrier, G/D, Air Trac	1	1998			
50-22020	1 Drill Carrier G/D 3700 Airtrak	1	1998			ATD 3100
50-24401	1 Shaft Jumbo, Tamrock, 3 Boom	1	1998		Tamrock	3 EH
50-26201	1 Drill-Longear 30 HP Electric	1	1998		Longyear	30 HP Elec
50-26202	1 Drill-G/D PR-65 #88PR026T	see 26292	1998		Grindr Drvr	PR 55
50-26203	1 Drill-G/D PR-65 #88PR101T	see 26292	1998		Grindr Drvr	PR 55
50-26204	1 Drill-G/D PR-65 #88PR103T	see 26292	1998		Grindr Drvr	PR 55
50-26205	1 Drill-G/D PR-65 #371741	see 26292	1998		Grindr Drvr	PR 55
50-26206	1 Drill-G/D PR-65 #371742	see 26292	1998		Grindr Drvr	PR 55
50-26207	1 Drill-G/D PR-65 #376358	see 26292	1998		Grindr Drvr	PR 55
50-26208	1 Drill-G/D PR-65 #387063	see 26292	1998		Grindr Drvr	PR 55
50-26209	1 Drill-G/D 123 #A528	see 26292	1998		Grindr Drvr	PR 55
50-26210	1 Drill-G/D 123 #162	see 26292	1998		Grindr Drvr	DR123-1
50-26211	1 Drill-G/D 123 #185	see 26292	1998		Grindr Drvr	D-93
50-26212	1 Drill-G/D 123 #C205	see 26292	1998		Grindr Drvr	DR123-1
50-26213	1 Drill-G/D 93	see 26292	1998		Grindr Drvr	D-93
50-26214	1 Drill-G/D 93 #118	see 26292	1998		Grindr Drvr	93
50-26215	1 Drill-G/D 93 #117	see 26292	1998		Grindr Drvr	93
50-26216	1 Drill-G/D 93 #126	see 26292	1998		Grindr Drvr	D93
50-26217	1 Drill-G/D 83	see 26292	2018		Grindr Drvr	83
50-26221	1 Drill-G/D 55	see 26292	2018		Grindr Drvr	883P 1T
50-26223	1 Drill, Sinker	see 26292	2018		G/D	58
50-26224	1 Drill, Sinker	see 26292	2018		G/D	58
50-26225	1 Drill	see 26292	2018		Grindr Drvr	S-35-1
50-26226	1 Drill, Sinker	see 26292	2018		G/D	58
50-26233	1 Drill, G/D 58	see 26292	2018		Grindr Drvr	58
50-26234	1 Stopper	see 26292	2018		Grindr Drvr	A1034
50-26235	1 Stopper	see 26292	2018		Grindr Drvr	A1034
50-26236	1 Stopper, G/D R883	see 26292	2018		Grindr Drvr	A103-1F

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-26237	Blower	00626237	2010		Grain Drive	A1034-1F
50-26238	Drill, G/D 58	00626238	2010		Grain Drive	B87B-18
50-26239	Drill, G/D 58	00626239	2010		Grain Drive	B87B
50-26241	Chopper	00626241	2010			ADP
50-26242	Drill	00626242	2010		Chicago Pneum	CP1240
50-26243	Drill	00626243	2010		Chicago Pneum	CP-1240
50-26244	Drill	00626244	2010		Cleveland	H1AOL
50-26245	Drill	00626245	2010		Cleveland	H60
50-26246	Drill (Independent rotation)	00626246	2010		Grain Drive	128
50-26247	Drill Jackleg Secan	00626247	2010		Secan	Jackleg
50-26248	Drill Secan Jackleg	00626248	2010		Secan	Jackleg
50-26249	Drill Secan Jackleg	00626249	2010		Secan	Jackleg
50-26250	Drill	00626250	2010		Grain Drive	S83F1T
50-26251	Drill	00626251	2010		Grain Drive	S83F1T
50-26252	Drill	00626252	2010		Grain Drive	S83F1
50-26253	Drill	00626253	2010		Grain Drive	S83F1T
50-26254	Drill	00626254	2010		Grain Drive	S83M1
50-26255	Chopper	00626255	2010		Ingral Rnd	73
50-26256	Chopper	00626256	2010		Ingral Rnd	95
50-26257	Chopper	00626257	2010		Ingral Rnd	95
50-26258	Drill	00626258	2010		Ingral Rnd	945
50-26259	Drill	00626259	2010		Ingral Rnd	946
50-26260	Drill	00626260	2010		Ingral Rnd	A1JR588
50-26261	Drill	00626261	2010		Ingral Rnd	95
50-26262	Drill	00626262	2010		Ingral Rnd	BR-48
50-26263	Chopper	00626263	2010		Ingral Rnd	191-50-1031
50-26264	Drill	00626264	2010		Ingral Rnd	U105
50-26265	Drill - Hydraulic	00626265	2010		Ingral Rnd	U105
50-26266	Chopper	00626266	2010		Ingral Rnd	U105
50-26267	Chopper	00626267	2010		Ingral Rnd	U105
50-26268	Drill (Hydraulic)	00626268	2010		Ingral Rnd	U105
50-26269	Drill	00626269	2010		Ingral Rnd	U105
50-26270	Drill	00626270	2010		Ingral Rnd	U105
50-26271	Drill	00626271	2010		Ingral Rnd	U105
50-26272	Drill	00626272	2010		Ingral Rnd	U105
50-26273	Drill	00626273	2010		Ingral Rnd	U105
50-26274	Drill	00626274	2010		Ingral Rnd	U105
50-26275	Drill	00626275	2010		Ingral Rnd	U105
50-26276	Drill	00626276	2010		Ingral Rnd	U105
50-26277	Drill	00626277	2010		Ingral Rnd	U105
50-26278	Drill	00626278	2010		Ingral Rnd	U105
50-26279	Drill	00626279	2010		Ingral Rnd	U105
50-26280	Drill	00626280	2010		Ingral Rnd	U105
50-26281	Drill	00626281	2010		Ingral Rnd	U105
50-26282	Drill	00626282	2010		Ingral Rnd	U105
50-26283	Drill	00626283	2010		Ingral Rnd	U105
50-26284	Drill	00626284	2010		Ingral Rnd	U105
50-26285	Drill	00626285	2010		Ingral Rnd	U105
50-26286	Drill	00626286	2010		Ingral Rnd	U105
50-26287	Drill	00626287	2010		Ingral Rnd	U105
50-26288	Drill	00626288	2010		Ingral Rnd	U105
50-26289	Drill	00626289	2010		Ingral Rnd	U105
50-26290	Drill	00626290	2010		Ingral Rnd	U105
50-26291	Drill	00626291	2010		Ingral Rnd	U105
50-26292	Drill	00626292	2010		Ingral Rnd	U105
50-26293	Drill	00626293	2010		Ingral Rnd	U105
50-26294	Drill	00626294	2010		Ingral Rnd	U105
50-26295	Drill	00626295	2010		Ingral Rnd	U105
50-26296	Drill	00626296	2010		Ingral Rnd	U105
50-26297	Drill	00626297	2010		Ingral Rnd	U105
50-26298	Drill	00626298	2010		Ingral Rnd	U105
50-26299	Drill	00626299	2010		Ingral Rnd	U105
50-26300	Drill	00626300	2010		Ingral Rnd	U105
50-26301	Drill	00626301	2010		Ingral Rnd	U105

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-26302	Plugging Drill	see 26322	2014			
50-26303	TPI 330 Rock Drill	1	2015	2017 repair	TEI	WD68AW363WA
50-26304	Jackleg	see 26322	2015			
50-26305	Drill TCI Hydraulic Auger	1	2015		TEI	
50-26306	Drill 5250	see 26292	2016			
50-26307	Drill 5250	see 26293	2016			
50-26308	Drill 5250	see 26294	2016			
50-26309	Drill 30" Airleg Assy	see 26295	2017			
50-26310	Drill 30" Airleg Assy	see 26296	2017			
50-60057	Drill, 3/4" Magnetic base	1	2018		Mihneulow	4221
50-60058	Drill, 1 1/4" Magnetic Base	1	2018		Bick & Dok	1554-04
50-60060	Drill, 3/4" Magnetic Base	1	2018		Bick & Dok	1956
50-60064	Hammer Drill	1	2018		Boach	
50-60065	Hammer Drill	1	2018		Hilti	TE 25
50-60066	Hammer Drill	1	2018		Hilti	TE 56
<b>Fans</b>						
50-34001	Vent Fan, 10 HP	1	2018		Spendrup	AMF 280H
50-34002	Vent Fan, 50HP	1	2018		Spendrup	AMF 170-50
50-34003	Vent Fan, 50HP	1	2000		Spendrup	AMF 170-50
50-34004	Vent Fan, 50HP	1	2000		Spendrup	AMF 170-50
50-34005	Vent Fan, 50HP	1	2000		Spendrup	AMF 170-50
50-34006	Vent Fan, 5 HP	1	2018		Spendrup	AMF 130P
50-34007	Vent Fan, 5 HP	1	2018		Spendrup	AMF 130P
50-34008	Vent Fan, 10HP, with heat exch	1	2018		Spendrup	AMF 260H
50-31308	Vent Fan, 10 HP	1	2018		Spendrup	AMF 250H
50-34310	Vent Fan, 10 HP	1	2018		JCOY	129A2
50-34311	Vent Fan 0 HP	1	2018		Versul	
50-34312	Vent Fan, 3 HP	1	2018		JCOY	119
<b>Generators</b>						
50-35105	Generator, 6KW	1	2001		Multiple	GABRZ12
50-35106	Generator, 6KW	1	2001		Multiple	GABRZ12
50-35107	Generator 6 KW	1	2007		Multiple	GABRZ12
50-35108	Generator, Honda 2000	1	2016		Honda	
50-35109	Generator, Honda 2000w	1	2016		Honda	EH 4400
50-35110	Generator, 100 KW	1	2001	A227170012	Ka, Kam 18	
50-35111	Generator, 100kw MG/ 150 KW	1	2015 1/1W	DCA125U58C	Multiquip	
50-35112	Generator, 125 KW	1	2015	DCA125B31U	Wagner Call	
50-35113	Generator 5kw Diesel	1	2018		North Star	
<b>Heaters</b>						
50-45004	Heater, Portable, Elec, 15000watt	1	2018		Fosterla	FES-1548-3
50-45005	Heater, Portable, Elec, 15000watt	1	2018		Fosterla	FES-1548-3
50-45006	Heater, Portable, Elec, 15000watt	1	2018		Fosterla	FES-1548-3
50-45007	Heater, Portable, Salamander	1	2018		Levin Boy	150,000 Bt
50-45008	Heater, Portable, Salamander	1	2018		All Pro	150,000 Bt
50-45009	Heater, Portable, Salamander	1	2018		Master	350,000 Bt
50-45010	Heater, Portable, Salamander	1	2018		Scheu	150,000 Bt
<b>LHD</b>						
50-14601	LHD, Elanco 911	1	1998		Elanco	911
50-14612	LHD, Wagner ST-20	1	2015		Wagner	ST-20



Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-14842	LHD, Atlas Copco ST-6C	1	2007 2015 repairs		Atlas Copco	ST6-C
50-14843	LHD Wagner 6 YD	1	2017 and repair		Wagner	DA14 PO 448
50-14844	LHD Wagner 6 YD	1	2017 and repair		Wagner	DA14 PO 0393
<b>Mining Equipment</b>						
50-15001	Shaft Mucker, Cydrnman-Herman	1	2018		Cydrnman	
50-16002	Sinking Bucket, 42" dia. X 45"	1	2018			
50-15003	Sinking Bucket, 62" dia. X 78"	1	2018			
50-16004	Sinking Bucket, 62" dia. X 70"	1	2018			
50-15005	Sinking Bucket, 42" dia. X 48"	1	2018			
50-15006	Sinking Bucket, 60" dia. X 66"	1	2018			
50-15007	Sinking Bucket, 64" dia. X 72"	1	2018			
50-15008	Sinking Bucket, 68" dia. X 72"	1	2018			
50-15009	Sinking Bucket, 68" dia. X 84"	1	2018			
50-16010	Sinking Bucket, 64" dia. X 66"	1	2018			
50-16011	Sinking Bucket, 60" dia. X 60"	1	2018			
50-16012	Sinking Bucket, 60" dia. X 60"	1	2018			
50-16013	Sinking Bucket, 67" dia. X 72"	1	2018			
50-16014	Sinking Bucket, 68" dia. X 72"	1	2018			
50-16015	Sinking Bucket, 68" dia. X 66"	1	2018			
50-16016	Sinking Bucket, 43" dia. X 43"	1	2018			
50-16017	Sinking Bucket, 64" X 84" X 78"	1	2018			
50-16210	Elmco 632 H Side Dump Mucker	1	2011		Elmco	632H
50-18211	Elmco 632 H Side Dump Mucker	1	2012		Elmco	632H
50-18500	Camel Back Dump Ramp	1	2011			
50-18501	Muck Car Grizzly 140cf Dump W/wh	1	2011			
50-18502	Muck Car Grizzly 140cf Dump W/wh	1	2011			
50-24810	Manbasket w/ drive-track	1	2018		Gardner Denver	PH55
50-24811	Manbasket, 5'-2" x 5'-2"	1	2018			
50-24812	Work Deck, 18" Diameter	1	2018			18" Dmtr
50-24813	Manbasket, 4" X 8"	1	2018			
50-24814	4 x 8 Manbasket for LHD	1	2018			for LHD
50-24815	4 x 20 Crane basket	1	2018			
50-24816	8 x 13 Manbasket	1	2018			
50-24817	4 x 4 Manbasket	1	2018			
50-24818	4 x 8 Manbasket	1	2018			
50-24819	4 x 8 Manbasket - bed chaps in Blackhawk	1	2018			
50-24820	IR Drill Basket	1	2018		IR	
50-24821	Work Deck, 12"	1	2017			
50-24822	33" x 7" Shaft Capsule (escape capsule)	1	2018			
50-24823	36" x 20" 2 Deck Shaft Capsule	1	2018			
50-24824	48" x 12" Shaft Capsule	1	2018			
50-61001	Slusher, IR, 3 Drum, Electric	1	1995		Ingersoll Rand	30MKM
50-61002	Tugger, Greenlee 8500 lb-conduit puller	1	1998		Greenlee	8500 Tugger
50-61003	Tugger, Air Powered	1	2018		Ingersoll Rand	BU 7A
50-61004	Tugger, Air Powered	1	2018		Beebe	4000LB
50-61005	Slusher, IR, 2 Drum, Electric	1			Ingersoll Rand	30MKM310
50-61007	Slusher, Joy, Electric, 20 HP	1	2018		Joy	3 drum
50-61008	Tugger, Air, IR	1	2018		Ingersoll Rand	56U
50-61010	Tugger, Air, 2000lb	1	2018		Ingersoll Rand	HIC
50-61011	Tugger, Air, 2000lb	1	2018		Ingersoll Rand	HU

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-81013	Tugger Air 4000LB	1	2018		Beebe	4000 P105
50-81014	Slusher 7.5 Hp	1	2014		Ingral Rnd	
50-82001	Winch, Electric, 12,000 lb.	1	2018		Beebe	64RRC24FDD
50-82002	Winch, Electric, 12,000 lb.	1	2018		Beebe	64RRC24FDD
50-82003	Winch, Electric, 12,000 lb.	1	2018		Beebe	64RRC24FDD
50-82004	Winch, air	1	2018		Elenco	Air
50-82005	Winch, ew, 7000 lb., 10 HP	1	2018		Ingral Rnd	DBU
50-82007	AIR Hoist 15- Ton	1	2018		Harrington	TCR10000P2
50-82008	AIR Hoist 10- Ton	1	2015		Harrington	TCR10000P2
20-82008	Winch Sheave 5kds	3	2013 HW		Longero	
20-82018	Winch Electric 18,000 lbs	1	2018 HW		Ram	
20-82011	Winch Electric 18,000 lbs	1	2016 HW		Ram	
20-82012	Winch Electric 18,000 lbs	1	2015 HW		Ram	
50-82013	Hoist Air 10- Ton	1	2018			
50-82101	3/4 yd Clam Shell	1	2001			
50-82102	Clam Shell, Sinking, 3/4 Cu Yd	1	2018		Bayer	
50-82103	Clam Shell, Sinking, 3/4 Cu Yd	1	2018		Bayer	
50-82104	Clam Shell, Sinking, 1 Cu Yd	1	2018		Bayer	
50-82503	Hoist, 250 HP, DC, Single Drum	1	1995		Lidgerwood	Single Dm
50-82508	Hoist, 250 HP, DC	1	2018		Lidgerwood	Single Dm
50-82507	Hoist, 30 HP	1	2010		Skytrak	
50-90043	Air Chain Hoist, 8 ton	1	2018		Harrington	TCR 8000
50-90044	Air Chain Hoist, 8 ton	1	2018		Harrington	TCR 8000
50-90058	Air Chain Hoist, 7.5 ton	1	2007			T89D-40
<b>Pumps Concrete</b>						
50-41006	Concrete Pump	1	2018		Homemade	
50-41007	Concrete Pump, Electric, 100HP	1	2018		Pumpit	100N
50-41008	Concrete Mixer, Electric Btl	1	2018			
50-45001	Concrete Bucket, 3 Yd Laydown	1	1998			Laydown
50-45003	Concrete Bucket, 2 Cu Yd	1	2018			Bottom Dmp
50-45004	Concrete Bucket, 1 Cu Yd	1	2018			Bottom Dmp
<b>Pumps - Grout</b>						
50-42801	Grout Plant-Double Mixer	1	1998		ChemGrout	
50-42804	Grout Pump, Air Single Pot	1	1998		Mbar	24" x 24"
50-42807	Grout Plant Chemgrout	1	2015		Hannassey	CO600
50-42808	Grout Injection Pump	1	2018		Gray Co	
<b>Pumps - Shotcrete</b>						
<b>Pumps - Submersible</b>						
50-42801	Flygt Pump 13.5 hp	1	2013		Flygt	2125
50-42802	Flygt Pump 13.5 HP	1	2013		Flygt	2125
50-42804	Widder Pumps MKNAL	1	2018		Widder	
<b>Shop Equipment</b>						
50-88002	Crane-Pettibone 15 Ton	1	2018		Pettibone	15 Ton
50-88010	Welder Hobart/Huffy CD/CV	1	1998		Hobart	Huffy
50-88015	Welder, Electric Shop, 3 PH	1	2018		Alenco	Dip-Pk 200
50-88016	Welder, Electric Shop, 3 PH	1	2018		Miller	SRH-404
50-88017	Welder, Electric Shop, 3 PH	1	2018		Miller	SRH-404
50-90004	Lathe-Metal Export	1	1998		Metl Expt	

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-90008	1MM Bridgeport IVY	1	1998		Bridgeport	IVY
50-90009	Press-1580-2 30 Ton	1	1998			
50-90010	Ironworker	1	2004		Perenne	P-30
50-90011	Band Saw	1	2004		Hyd-Mech	6 20
50-90018	Crovelok w/ 24" rollers	1	1999		IGroovelok	1021
50-90020	Chop Saw	1	2018		Ridgid	9163,1007R
50-90022	Bench Grinder, 8"	1	2018		Comital	
50-90025	Drill Press	1	2018		Otto-Candy	
50-90027	Scissors Lift	1	1999		Sky Witch	7.616
50-90028	Fordhi Curt 4000 lb	1	1996		Clark	4000 lb
50-90029	Fordhi-Geninger S15 12000lb	1	1996		Geninger	818
50-90030	Bender, Greenlee, Electric	1	2010		Greenlee	550, 1/2"
50-90031	Drill Press	1	2010		Wilton	Type 24500
50-90032	Beed Gleaser-Cabinet	1	2010		Dayton	32260
50-90034	Ripe Threading Machine	1	2010		Ridgid	535
50-90042	Cable Pulver w/12" hook sheave	1	2010		Greenlee	16001
50-90045	Ripe Threading Machine	1	2010		Ridgid	535
50-90046	Ripe Threading Machine	1	2010		Ridgid	535
50-90047	Powered Threader, 1/8"-2"	1	2010		Ridgid	700
50-90048	Powered Threader, 1/8"-2"	1	2010		Ridgid	700
50-90049	Power Threader, 1/8"-3"	1	2010		Ridgid	700
50-90050	Power Threader, 2 1/2"-4"	1	2010		Ridgid	4P-J
50-90051	Power Threader, 2 1/2"-4"	1	2010		Ridgid	141
50-90052	Pipe Saw	1	2010		Wach	C(Gulth)
50-90056	Pallet Truck, 5000lb	1	2010		Hyster	3146633/ 6
50-90082	Table Saw, 10"	1	2010		Ryobi	BT3100-1
50-90067	Pipe Threading Machine and 5in	1	2007		Ridgid	535
50-90070	Fordhi - Hyster - AKA Pryde Pile	1	2004		Hyster	01185X2
50-90071						

## Survey Equipment

50-89901	GPS-Earth Mate	1	2009		Earth Mate	PN-456E	
50-89902	Surveyor ADL T-4 Laser	1	1989				ADD
50-89903	Surveyor - Universal	1	1989				ADD
50-89904	Surveyor - Wild Capable	1	1989				ADD

## Trailers

50-65006	1993 Trailer	1	2010		1993 TRAIL		
50-65007	Car Hauler	1	2010		PJ	Trailer	
50-71001	Job Trailer, unknown length	1	2010		American	TL	
50-71002	Job Trailer 40'	1	2010		GIN	40 Foot	
50-71003	Trailer, Superior 7500 lb	1	1998		Superior	URby 7500	
50-71004	Trailer, 40' White	1	2010		Furnhoff	40' White	
50-71005	Trailer, Utility, White, 2 axle	1	2000		Trailer	URby	
50-71011	Trailer, 40', double axle	1	2010		Highway Tr	606-434T-1	
50-71014	Bumper pull car trailer	1	2010				
50-71018	Trailer Halfmark Covered 14'	1	2010			2004 Halfmark	
50-71019	Trailer, Sportral 16' 14x8	1	2011		Sportral	DL008183	
50-71020	Trailer Gooseneck	1	2014		Superior	30R7M	
50-71021	Trailer Gooseneck - Grout Pit	1	2015		Superior		
50-71022	Trailer Halfmark	1	2015		Halfmark	TST7X16WT2	
50-71023	WATER TRAILER (600G)	1	2016		MULTIQUIP	WVTC	
50-71024	Office Trailer purchased from C Brown	1	2017			POS Gent	

Equipment	Description	Quantity	Year Added to FA	Serial Number	Make	Model
50-71025	7 x 15 Cargo Meta Trailer	1	2017		Cargo Meta	
<b>Vehicles</b>						
50-6094	2011 Dodge Ram	1	2018		Dodge Ram	
50-6001	1979 Ford Saml 85001	1	2018		Ford	8000 SERIE
50-5037	2008 Ford F250	1	2018		Ford	F250
50-5061	2008 Ford F250				Ford	
50-6003	2011 DODGE RAM				Dodge	
50-6084	2011 Dodge Ram 1500 4x4 Quad	1	2018		Dodge	Ram 1600
50-6065	2011 Dodge Ram 2500 4x4 Quad	1	2018		Dodge	Ram 2500
50-6086	2011 Dodge Ram 2500 4x4 Quad	1	2018		Dodge	Ram 2500
50-6070	2015 Dodge Ram 2500	1	2017		Dodge	Ram 2500
50-6074	Dodge Truck	1	LEASE			
50-5075	Dodge Truck	1	LEASE		Dodge	2500
50-5076	2016 Dodge 4000	1	LEASE		Dodge	4000
50-5077	2015 Dodge	1	LEASE		Dodge	2500
50-5078	2016 Dodge 2500 4x4 Crew Cab	1	LEASE		Dodge	2500
50-5080	2016 Dodge Ram	1	LEASE		Dodge/Ram	2500 Pickp
50-5081	2015 Dodge 2500 4x4 Crew Cab	1	LEASE		Dodge	
50-6082	Jeep Grand Cherokee Laredo 4x4	1	LEASE		Jeep	
50-6086	Ford F150 King Ranch	1	LEASE		Ford	F15
20-	Jeep arriving may/june 2018		2018 HW Capel Lease			
20-	Jeep arriving may/june 2019		2019 HW Capel Lease			
20-	Jeep arriving may/june 2020	1	2020 HW Capel Lease			
20-	Jeep arriving may/june 2021	1	2021 HW Capel Lease			
<b>Welders</b>						
50-85001	Welder, Electric, Shop	1	1998		Miller	CP-2501B
50-85002	Welder, Electric, Shop	1	2018		Lincoln	R3R-400
50-85003	Welder, Electric, Shop	1	2018		Lincoln	AC/DC/225
50-85004	Welder, Electric, Shop	1	1998		Miller-Stetson	200
50-85005	Welder, Electric, Shop	1	1998		Lincoln	48 DC 400
50-85006	Welder, Electric, Shop	1	2018		Miller	BRH-404
50-85007	Welder, Electric, Shop	1	1998		Miller	Synchr 250
50-85008	Welder, Electric, Shop	1	2018		Miller	DC250A/DC
50-85009	Welder, Electric, Shop	1	1998		Miller	320A/BP
50-85011	Welder, Electric, Shop	1	1998		Champion	DC 600 CVT
50-85012	Welder, Electric, Shop	1	2018		Lincoln	48 DC 400
50-85013	Welder, Electric, Shop	1	2018		Lincoln	48 R3R400
50-85014	Welder, Electric, Shop	1	2018		Lincoln	48 R3R400
50-85018	Welder, Electric, Miller	1	2003		Miller	3R81-444
50-85019	Welder, Electric, R3R300	1	2006		Lincoln	R3R300
50-85200	Welder, Diesel	1	2006		MIQ Power	SDW228
50-85201	Welder, Diesel	1	2006		Therm Hag	111-1012
50-85202	Welder, Diesel	1	2013 repair		Lincoln	SA25003.15
50-85203	Welder, Diesel	1	2018		Lincoln	SA25003.15
50-85204	Welder, Diesel	1	2018		Miller	1B1g40
50-85205	Welder, Diesel Bobcat 250	1	2011		Miller Bob	7250

## Request for Taxpayer Identification Number and Certification

Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Give Form to the  
requester. Do not  
send to the IRS.

Print or type.  
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

Harrison Western Construction

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.

☐ Individual/sole proprietor or single-member LLC ☒ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) \_\_\_\_\_

Exemption from FATCA reporting code (if any) \_\_\_\_\_

(Apply to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

1208 Quall Street

6 City, state, and ZIP code

Lakewood, CO 80215

7 List account number(s) here (optional)

Requester's name and address (optional)

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

\_\_\_\_ - \_\_\_\_ - \_\_\_\_

OR

Employer identification number

8 4 - 1 0 7 9 4 8 6

### Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign  
Here

Signature of  
U.S. person

Date ▶

1-2-18

### General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

### Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

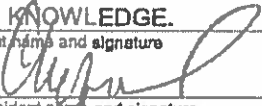


If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding*, later.

# CDOT PREQUALIFICATION CERTIFICATION



## I/WE CERTIFY AND UNDERSTAND:

- That the financial balance sheet or the attached audit was prepared from the books and records of my/our company and details all company assets and liabilities.
- That any material changes in my/our financial condition requires me/us to refrain from bidding until I/we submit an updated financial statement and the statement is approved by CDOT.
- Any reference listed is authorized to supply CDOT with all necessary information to verify this statement.

I/WE DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS FORM (INCLUDING EXPERIENCE, FINANCIAL CONDITION AND ALL ATTACHMENTS) ARE TRUE AND COMPLETE TO THE BEST OF MY/ OUR KNOWLEDGE.

President name and signature 	Christopher A. Hassel	Date 6/3/18
Vice-president name and signature 	Tom Holben	Date 3 Oct '18
Secretary name and signature 		Date
Treasurer name and signature		Date
Co-partner signature and title (if applicable)		Date
Co-partner signature and title (if applicable)		Date
Co-partner signature and title (if applicable)		Date

**Additional signatures of those individuals that are authorized to sign bid proposals and sign contracts NOTE**  
- You must sign exactly as bid proposals and contracts will be signed

Other 	Title: CFO	Date 10-4-18
Other 	Title: Vice President Field Ops	Date 10 4 18
Other	Title:	Date
Other	Title:	Date
Other	Title:	Date

IF YOU ARE A CORPORATION ATTACH YOUR COMPANY SEAL

Please clearly print all officers and agents and have each officer and agent's sign and date this form.





HARRISON WESTERN

## **SECTION 4**

# **PRE-CONSTRUCTION & CONSTRUCTION PLAN AND METHODS STATEMENT**



## **PART 1 - PRE-CONSTRUCTION PLAN & METHODS**

### **Introduction**

The project consists of a 2.2-mile-long hard rock tunnel used for transferring water from the Laramie to the Poudre River in the mountains of north central Colorado. The tunnel was constructed in 1910 and has provided good service with the exception of some localized ground failures, which have been repaired in the past. The owner, Tunnel Water Company (TWC) uses the tunnel each year during the warmer months of May through September so work within the tunnel can only occur during the off season, September 15th through May 15<sup>th</sup>.

The tunnel has a straight alignment and two portals, east and west. The eastern half of the tunnel has recently been rehabilitated and the current proposed work involves rehabilitating the western section. The slope of the tunnel is approximately 1.7% down from west to east.

Lithos Engineering has issued a Request for Qualifications & Proposals (RFQ/P) with the intent to engage a Construction Manager at Risk (CMAR) who will assist in bringing the project to final design then subsequently implement and construct the final rehabilitation plan. The project is currently at a 30% design stage.

### **Pre-Construction Process**

Harrison Western (HW) has worked on several previous projects using Alternative Project Delivery Methods, such as CMAR, and we agree that this approach is appropriate for this project. Under the CMAR method, the Contractor will be intimately involved with the Designer in developing the final design of the project. CMAR combines the technical expertise of the Engineer with the practical knowledge of the Contractor. Forming this joint effort early in unique projects makes certain that the final design developed by the team is correct from both a technical and economical perspective.

Our proposal for pre-construction services is based on the following workshop approach:

#### **Kickoff Workshop**

Schedule a kickoff meeting to be held at Lithos' Fort Collins office with all team members. The intent of meeting is to clarify and define the project scope, discuss the pre-construction budget (pay item 1.6, 1 lump sum) and schedule. A preliminary project schedule is included as Exhibit A with this proposal.

All workshops will start with a safety share related to the tunneling industry tying into the Laramie-Poudre Project.

As part of the project scope discussion, a responsibility matrix will be developed so that all team members are informed of their responsibilities and due dates.

Project permitting requirements, if any, need to be established and assigned to a team member.

At the kickoff meeting, a round table discussion will be held to evaluate alternative designs, concepts, and possible solutions. This analysis will be very preliminary, but if options appear feasible, the intent is to establish a path forward and a plan of action to further define the identified options.

A tunnel site visit and walkthrough was held September 24, 2018 which provided Harrison Western the opportunity to observe the general condition of the tunnel and west portal area. This initial inspection will be followed up with a detailed on-site inspection to further define exact work quantities.

The RFQ/P included cross sections of the tunnel from station 0+67.8 to section 29+49.9. These sections must be completed for the remainder of the tunnel through station 60+50. It is HW understanding that this field work is in process and will be available after the CMAR has been selected. If additional field work is required to complete the remaining cross sections, HW would like to have this scheduled at the detailed on-site inspection. HW will coordinate with Lithos if their surveying consultant requires additional access to the tunnel to complete the required cross sections. No allowance has been included by HW to provide for this service.

The Project Safety Plan and Work Plan will be outlined and updated as the work develops.

One to two follow-up meetings are allowed for in this phase, either in person or via telephone.

#### **60% Design Workshop**

The 60% Design Workshop will be held at Lithos' Fort Collins office with all team members. The intent of the meeting is to discuss all identified project alternatives and refine the project design so that a firm scope is finalized, forming the basis of the Guaranteed Maximum Price (GMP) for construction. HW will assist the Designer with the analysis of the potential alternative designs, offering cost, constructability, and schedule input for a risk analysis matrix.

The responsibility matrix will be reviewed and modified as required. Actual completions of work will be recorded and compared to scheduled dates.

A 60% complete Project Safety Plan and Work Plan will be presented, discussed, and modified.

Project permitting requirements need to be firmly established so that any cost can be included in the GMP, to be presented at the next workshop.

One to two follow-up meetings are allowed for in this phase, either in person or via telephone.

#### **GMP Workshop**

The CMAR will present their GMP Proposal for review by the team. The GMP will include a revised final bid tabulation along with a project schedule.

The GMP will be revised as required and officially submitted to the Project Sponsor.

One to two follow-up meetings are allowed for in this phase, either in person or via telephone.

#### **90% Design Workshop**

Any final design changes will be reviewed by the team. The CMAR will present the Project Management Plan, which will include a procurement schedule. Any long-lead time items will be identified and prioritized.

One to two follow-up meetings are allowed for in this phase, either in person or via telephone.

## **PART 2 – CONSTRUCTION PLAN & METHODS**

General Approach (to be revised and further refined during the Pre-Construction phase)  
The tunnel to be rehabilitated is small in design cross section (8' wide x 8' high) by 6,050 linear feet long. Main access is available through the west portal with emergency access via the east portal. The east portal is also available for establishment of an exhaust bulkhead so that fresh air can be pulled into the west portal and exhausted at the east.

With the linear configuration, the project will be primarily constructed from the west to the east with advancement of the rehabilitation face proceeding as ground support is installed and a smooth invert established. Ground support is normally rock bolts in the majority of the tunnel and rock bolts supplemented with shotcrete in approximately 33% of the rehabilitated length. Invert material will vary based upon the condition of the invert. Some areas will require concrete, others only fill material. Fill will either be imported from the surface muck pile or moved within the tunnel length to balance cut and fill areas.

The tunnel has been previously repaired or supported in several areas (29 areas) and in these areas, the cross section is under the design cross section. The ribs and back of these reinforced areas will have to be excavated and supported very carefully to assure worker safety.

The invert of the tunnel is filled in with rock debris which will have to be re-mined and either removed from the tunnel or re-used as invert material. The invert is to be smooth enough when complete to allow for vehicular travel so that the tunnel can be rapidly inspected as required in the future.

We have looked at both a rail-based and rubber-tired equipment fleet and with the ability to adequately ventilate the tunnel without the need for ventilation duct, and the rubber-tired equipment is our preference. Since the re-mined material is a compacted aggregate, a road-header style excavation machine would be best able to break it up into transportable size.

Shotcrete will be hand-placed using a wet process. Material will be batched at the portal and hauled underground to a shotcrete pump. Bolts will be installed using jackleg drills.

Our analysis of the work and associated projected productivity rates indicates that the scope of work can be completed in one construction season by conducting two shifts per day working 7 days per week. The work schedule will be seven days on and seven days off to provide a break to the working crews.

The project will be set up with two office trailers, one for HW and one for Lithos, located near the portal area. Crews will receive a per diem allowance and most will probably stay in the resort cabin areas downstream of the intersection of Highway 14 and County Road 103.

Crews will transport themselves to the parking area at the intersection of Highway 14 and Country Road 103. A HW van will transport the crew to the project from the parking area. A 966 loader has been included in the project for clearing the County Road 103 if required.

## **PART 3 – BID ITEM DETAILS**

### **1.1 Mobilization/Demobilization**

Procure, load, and haul all equipment and required materials to and from project site. Surface equipment includes a batch plant, temporary shop facility, and office facilities, including sanitary services. A non-potable water system for drilling water will be established and sourced from water inside the tunnel. Trash receptacles will be established and serviced as required for the removal of scrap material that cannot be permanently stored on site. A dump area will be established at the bottom of the slope near the portal for temporary storage of tunnel muck. This temporary storage area will be re-handled and moved to the permanent storage area with a 966 loader.

Bonds and insurance are included in Bid Item 1.1.

### **1.2 Re-mobilization (Annual, As-Required)**

The current HW schedule indicates the work can be completed within one construction season, so this item has been excluded from our proposal.

### **1.3 Prepare Portal Access and Staging**

The current access road down to the west portal is too steep for safe access. This road will be widened and the grade will be smoothed out by adding fill on the north side of the access road. K-Rails (Jersey-style barriers) will provide a temporary retaining wall to isolate the new fill from the Laramie River channel. Fill material will be sourced from the existing muck pile existing on site just above and south of the portal area. This muck pile area will continue to be used throughout the project for muck storage. Any required clearing, grubbing, and grading required to establish a working bench will be performed to provide adequate laydown areas. A dozer operator will be sub-contracted as required on an hourly basis.

Required utilities (compressed air, drill water, and communications) will be established and lines run into the tunnel. The utility lines will have drops on approximately 100' centers. In order to meet the schedule, we will need to perform some tasks concurrently, and having utilities available throughout the length of the tunnel will provide the required utility support to allow for the work to be performed in multiple locations simultaneously.

Ventilation will be established by constructing a bulkhead at the east portal of the tunnel completed with a 40hp fan and generator. The east portal fan will exhaust air bringing fresh air into the west portal and down the length of the tunnel. This setup eliminated the need for ventilation ducting and pulls exhaust fumes and construction dust up station and away from the crews. This is particularly helpful when shotcrete operations are ongoing. The generator at the east portal will need to be serviced on a daily basis and access at this area is unknown. It may be better to locate the generator farther away from the west portal and run power cable up to the ventilation fan so that access for generator service is facilitated.

### **1.4 Engineering Field Office, Lodging, Transportation, & Per Diem**

Two office trailers will be setup on site and will include electrical power and sanitary facilities. We understand from Addendum 2, Response to Question 12, that "Contractor will not provide lodging and transportation for the engineer," so no allowance is included in our proposal for this cost.

### **1.5 Staging Area Restoration**

An allowance has been included for re-grading and seeding the areas impacted by the Contractor's temporary office trailers and shop facility.

### **1.6 Preconstruction Design Services**

The scope of this item is described above in Part 1 – Project Pre-Construction Plan & Methods.

### **2.1 Invert Preparation, 2.1.A Partial Invert Slab, 2.1.B Rail**

This pay item was clarified in Addendum 2, response to question 1, as being for the use and option of the Contractor to provide a working surface during construction. We have included the full quantity of this item (930 CY) based on our observations at the site visit on September 24, 2018, because it appears to be the most efficient method of establishing a working surface, especially at the beginning of the tunnel. Concrete will be batched on-site using a 3 CY mixer, super sacks, and added water. Mix water will come from the drill water system setup for use within the tunnel and sourced from water sources within the tunnel.

By using a rubber-tired excavation and mucking fleet of equipment, rail will not be required to be installed as the excavation and support work progresses. After the completion of the rehabilitation and with the invert smooth and on-grade, rail will be installed on top of the invert material using 30 pound rail and steel ties.

### **2.2 Re-Mining and Rubble Removal, 2.2.A Existing Invert Rubble Cleanup**

Re-mining of the aggregate material located in the tunnel invert would be best accomplished using a road-header style cutting head. The tunnel profile is just barely large enough to allow for a machine of this type, but cutter heads are available for mounting on a small excavator body. The cutting head will loosen the material, and then the material will be mucked with an underground scoop. The scoop will have an ejector bucket so that the mucked material can be placed along the tunnel invert where fill will be required.

### **2.2.B Existing Support and Overbreak Removal – Timber (11 zones)**

### **2.2.C Existing Support and Overbreak Removal – Concrete (11 zones)**

### **2.2.D Existing Support and Overbreak Removal – Steel (7 zones)**

Removing the existing system of permanent tunnel supports currently in the tunnel will follow the general cycle of: 1) Removal of existing supports and exposure of brow. The length of removal will depend on the condition of the back. Some areas look stable enough to remove 10 feet, or more; others much less. 2) After the brow is exposed, the back will be scaled and supported with rock anchors per the prescribed pattern. 3) Muck the disposed material and remove from tunnel. 4) Repeat cycle.

Excavation of some of the more solid concrete structures will require either a very robust cutting head or excavation using drill and blast. If blasting is required, drilling is expected to be usually a single ring of holes drilled parallel to the axis of the tunnel. These holes will be approximately 18" on center and loaded with trim power to minimize vibration. The slashing approach will allow sufficient relief so that blast energy is directed into the center of the tunnel and away from the ribs, back, and invert. It is expected that in the blasting areas, an annulus of existing concrete will remain, providing a stable surface to place new rock anchor support.

### **2.2.E Scaling**

Scaling is a daily part of any miner's job, so this effort is included in all of the other rehabilitation pay items. We have, however, included time at the beginning of the project to scale the entire length of the tunnel to verify that the area is safe to work under.

### **2.3 Install Support – Class A, 2.3.A Class A Spot Bolts Installed**

The specified rock bolts are 6' long, with a bearing plate, nut, and anchored with a mechanical shell. The bolts will be post-grouted using a grout tube. Tunnel rock bolts are normally resin anchors and HW would propose a substitution, if awarded the work.

Bolts will be installed using jackleg drills.

### **2.4 Install Support – Class B, 2.4.A Class B Pattern Bolts Installed**

See description for item 2.3.A.

### **2.5 Install Support – Class C, 2.5.A Class C Pattern Bolts Installed, 2.5.B Shotcrete Placed (4 in. thick)**

See description for item 2.3.A for 2.5.A bolts.

Shotcrete will be applied via hand nozzle using a wet process. Shotcrete will be batched on surface using the method described for the invert concrete. A shotcrete pump will be placed in the tunnel near the application area and shotcrete material hauled to the pump using the underground scoops fitted with a fabricated steel dumping bin or "boggie". Some areas of the tunnel rehabilitation will require that shotcrete be applied as part of the support cycle; however, we have scheduled the shotcrete to normally be a "non-critical path" task that will be performed subsequent to installation of bolting and concurrent with other activities.

### **2.6 Install Support – Class D, 2.6.A Class D Pattern Bolts Installed, 2.6.B Shotcrete Placed (6 in. thick)**

See description for item 2.3.A for 2.6.A bolts. See description for item 2.5.B for 2.6.B shotcrete.

### **2.7 Stabilization of Upper Adit**

This item was added with Addendum 2, but the intersection of the adit and the main tunnel was visible during the site visit. The scope of the work is assumed to be the establishment of a barrier gate at the intersection point of the adit and tunnel. We have included an allowance for the construction of a steel gate at this area for isolating the adit from the tunnel.

### **Conclusion**

The Laramie-Poudre Tunnel is a unique project requiring a unique approach. The project RFQ/P is based on the formation of a working partnership between the Design Engineer and the CMAR.

Harrison Western has worked successfully on other "Design-Build" projects and we are uniquely qualified to assist in the final design and then perform the tunnel rehabilitation. Our pre-construction portion of the proposal is based on the man hour guidelines listed in the RFQ/P and includes all other required conference calls and/or other telephone consultations required to complete the pre-construction portion of the work.



HARRISON WESTERN

## SECTION 5

## BOND





October 17, 2018

Robin Dornfest, President  
Lithos Engineering  
2625 Redwing Road, Suite 160  
Fort Collins, CO 80526

**RE: Harrison Western Construction Corporation**  
**Laramie-Poudre Tunnel Project**

Dear Mr. Dornfest:

Lockton Companies, LLC handles the insurance and bonding requirements for Harrison Western Construction Corporation (HWCC). Their bonds are underwritten by Berkley Insurance Company (Berkley). Berkley has an A.M. Best Rating of "A+" (Superior) with a financial size of "XV".

HWCC has developed an excellent reputation with project owners, engineers, general contractors and suppliers. They have a history of performing exceptional work, on time and within or under budget. We highly recommend this competent, professional company to you.

Berkley has developed a surety program of approximately \$15,000,000 single job with a \$25,000,000 aggregate program for HWCC. Berkley would consider larger jobs and programs under the appropriate situation. Bid, performance and payment bond requests are subject to favorable review of the contract terms, project financing and other relevant surety underwriting considerations at the time of request for bonds. Harrison Western Construction Company currently has the capacity to add this project to their current and anticipated workload.

Any arrangement for bonding is a matter between HWCC and Berkley and neither Berkley nor Lockton Companies, LLC assumes liability to you or third parties if for any reason bid, performance or payment bonds are not executed. This letter should not be construed as an approval for any bonds, but rather an indication of Berkley's prequalification of HWCC as a reliable, capable and financially secure company.

Again, we highly recommend Harrison Western Construction Corporation to you. Please do not hesitate to contact us with any questions.

Sincerely,

LOCKTON COMPANIES, LLC

Janet M. Elwell  
Account Manager, Surety



HARRISON WESTERN

## SECTION 6

# EXPERIENCE MODIFICATION RATES



Attn: Mr. Chris Hassel  
President and CEO  
Harrison Western Construction Corporation  
1208 Quail Street  
Lakewood, CO 80215

Re: Re: Experience Modification Ratings (EMR)

Dear Mr. Hassel:

Harrison Western Construction Corporation's Experience Modification Ratings for the past five years are listed below:

2014 - 0.74  
2015 - 0.83  
2016 - 0.72  
2017 - 0.86  
2018 - 0.97

We look forward to our continued relationship with your firm. If you need anything further, please do not hesitate to ask.

Sincerely,

LOCKTON COMPANIES, LLC

Grant Clark  
Senior Account Manager



**HARRISON WESTERN**

**(303) 234-0273**



DEPARTMENT OF THE INTERIOR  
May 1, 1924  
Pursuant to the provisions of the Act of March 3, 1891 (26 Stat. 1095), and Sec. 2 of the Act of May 11, 1898 (30 Stat. 404), this map is approved, subject to all valid existing rights, and to the stipulations executed and filed by applicant for the protection of National Forest interests, but reserving right of way for canals or ditches constructed by authority of the United States.

*John H. ...*  
FIRST ASSISTANT SECRETARY

Uncompleted Portions ———  
Completed Portions ———

ORIGINAL TUNNEL LOCATION  
AMENDED TUNNEL LOCATION  
See separate maps and proof of completion.

Original location Sta. 0 to Sta. 141  
Amended location - 141 - 195

Original location Sta. 141 to Sta. 195  
Amended location - 195 - 225

Original location Sta. 225 to Sta. 275  
Amended location - 275 - 300

Original location Sta. 300 to Sta. 350  
Amended location - 350 - 375

Original location Sta. 375 to Sta. 425  
Amended location - 425 - 450

Original location Sta. 450 to Sta. 500  
Amended location - 500 - 525

Original location Sta. 525 to Sta. 575  
Amended location - 575 - 600

Original location Sta. 600 to Sta. 650  
Amended location - 650 - 675

Original location Sta. 675 to Sta. 725  
Amended location - 725 - 750

Original location Sta. 750 to Sta. 800  
Amended location - 800 - 825

Original location Sta. 825 to Sta. 875  
Amended location - 875 - 900

Original location Sta. 900 to Sta. 950  
Amended location - 950 - 975

Original location Sta. 975 to Sta. 1025  
Amended location - 1025 - 1050

Original location Sta. 1050 to Sta. 1100  
Amended location - 1100 - 1125

Original location Sta. 1125 to Sta. 1175  
Amended location - 1175 - 1200

Original location Sta. 1200 to Sta. 1250  
Amended location - 1250 - 1275

Original location Sta. 1275 to Sta. 1325  
Amended location - 1325 - 1350

Original location Sta. 1350 to Sta. 1400  
Amended location - 1400 - 1425

Original location Sta. 1425 to Sta. 1475  
Amended location - 1475 - 1500

Original location Sta. 1500 to Sta. 1550  
Amended location - 1550 - 1575

Original location Sta. 1575 to Sta. 1625  
Amended location - 1625 - 1650

Original location Sta. 1650 to Sta. 1700  
Amended location - 1700 - 1725

Original location Sta. 1725 to Sta. 1775  
Amended location - 1775 - 1800

Original location Sta. 1800 to Sta. 1850  
Amended location - 1850 - 1875

Original location Sta. 1875 to Sta. 1925  
Amended location - 1925 - 1950

Original location Sta. 1950 to Sta. 2000  
Amended location - 2000 - 2025

Original location Sta. 2025 to Sta. 2075  
Amended location - 2075 - 2100

Original location Sta. 2100 to Sta. 2150  
Amended location - 2150 - 2175

Original location Sta. 2175 to Sta. 2225  
Amended location - 2225 - 2250

Original location Sta. 2250 to Sta. 2300  
Amended location - 2300 - 2325

Original location Sta. 2325 to Sta. 2375  
Amended location - 2375 - 2400

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Amended location - 2900 - 2925

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Amended location - 2975 - 3000

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Amended location - 3050 - 3075

Original location Sta. 3075 to Sta. 3125  
Amended location - 3125 - 3150

Original location Sta. 3150 to Sta. 3200  
Amended location - 3200 - 3225

Original location Sta. 3225 to Sta. 3275  
Amended location - 3275 - 3300

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Amended location - 4025 - 4050

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Amended location - 4100 - 4125

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Amended location - 4175 - 4200

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Amended location - 4250 - 4275

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Amended location - 7100 - 7125



UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

STIPULATIONS  
(IRRIGATION, MUNICIPAL, MINING)  
(Acts March 3, 1891; May 11, 1898; February 1, 1905)

Uses Colorado  
(Forest)  
The Greeley-Poudre Irrigation Dist.  
(Name of applicant)

~~December 29, 1917~~ (Conduit) December 29, 1917.  
(Date of application)

WHEREAS, The ditch right of way applied for by The Greeley-Poudre Irrigation District

(hereinafter called the Applicant ) is within the Colorado  
National Forest, as shown by a certain tracing executed by L. L. Stinson  
, on February 26, 1917, and filed in the United  
States Land Office at Denver (025447)

State of Colorado, on December 29., 1917; and

WHEREAS, The regulations of the United States Department of the Interior, concerning rights of way for railroads, reservoirs, canals, etc., provide that whenever such rights of way are located upon National Forests, the Applicant must enter into such stipulations and execute such bonds as the Secretary of Agriculture may require for the protection of the National Forests; and

WHEREAS, The Secretary of Agriculture requires, for the protection of said Colorado National Forest that the Applicant shall enter into the stipulations hereinafter set forth;

NOW, THEREFORE, In consideration of the granting ~~of~~ the right of way applied for, the Applicant do hereby stipulate and agree, and do bind himself, his heirs, executors, administrators, and assigns, and each of them, jointly and severally (themselves, their heirs, executors, administrators, and assigns, and each of them, jointly and severally) (itself, its successors and assigns), as follows, to wit:

Denver  
1. To pay to the Denver, Colorado National Bank of Denver, Colorado (United States Depository), or such depository or officer as may hereafter be designated by the United States, to be placed to the credit of the United States, in advance of cutting or construction, as required by the Supervisor of said National Forest, for all live and dead timber, standing and down, merchantable in the judgment of the Forest Supervisor, cut, damaged, killed or destroyed, on said right of way, title to which, at the time of said cutting, damaging, killing, or destroying, is in the United States, in accordance with the scale or estimate of the Forest officers, at a rate to be fixed by said Supervisor, which shall correspond to the prevailing stumpage rates charged on said Forest at the time said timber is cut, damaged, killed, or destroyed; and to dispose of all brush, refuse, or unused timber accumulating at such times upon such right of way in such manner as may be required by the Forest officers.

2. To pay to the United States Depository or officer as aforesaid, on demand, for all damage to said National Forest resulting from the breaking of, or the overflowing, leaking, or seepage of water from, the reservoir or ditch, and for all damage to said National Forest caused by the negligence of the Applicant, his (their) (its) employees, contractors, or employees of contractors.

3. To build new roads and trails, as required by the said Forest Supervisor, to replace any roads or trails destroyed by construction work or flooding upon said right of way, and to build and maintain suitable crossings as required by the Supervisor for all roads and trails which intersect the right of way.

4. To require (his)-(their) its employees, contractors, and employees of contractors, both independently and at the request of the Forest officers, to do all reasonably within their power to prevent and suppress fires.

5. To allow officers of Forest Service free and unrestricted pass in, through, and across all lands covered by said right of way, in the performance of their official duties; and to allow the Forest Service, without charge, to construct or permit to be constructed in, through, or across the land covered by said right of way, roads, trails, conduits, and other means of transportation not inconsistent with the enjoyment of said right of way by the Applicant.

6. To make any assignment or transfer of said right of way only after and on condition that the assignees or transferees, jointly and severally, covenant in writing to fulfill and perform all the duties and obligations of the Applicant arising hereunder, including ~~his (their)~~ (its) obligations under this paragraph.

IN WITNESS WHEREOF, said Applicant has ~~(have)~~ caused this instrument to be executed at Greeley, on this 23rd day of December, 1918

The Greeley-Poudre Irrigation District

By (Sgd) A. L. Kelly, President

Attest (Sgd) W. H. Sanders, Secretary.

N. B.—When this instrument is executed by officers of a corporation it must be accompanied by evidence of their authority to do so.



Alternative Summary							
No.	Alternative	Construction Time Frame (years, approximate)	Long-Term Risk	Operations and Maintenance	Pros	Cons	Relative Cost
I	Monitoring and maintenance	10+	High	High	Can evaluate tunnel needs on an annual basis and allocate money on an as-needed basis	Reactive rather than proactive Does not adequately address risk of catastrophic failures	\$ - \$\$\$
II	Spot Repairs	5+	Moderate	High	Stabilizes high-risk areas Progressively addresses current moderate to low risk areas	Restricts future access and repair options Lessens the likelihood of catastrophic failures but does not manage all risks. Extensive remobilization costs	\$\$
III	Re-mine with Conventional support	3	Low	Low	Stabilizes west half and utilizes existing tunnel Expands tunnel profile to original design Reduces O&M Economizes mobilization and tunnel prep work Workers gain systematic efficiency	Multiple construction seasons in the current waterway	\$\$
IV	Slip-line and backfill	2	Negligible	Low	Stabilizes west half and utilizes existing tunnel Homogenizes tunnel profile Reduces O&M Economizes mobilization and tunnel prep work	Multiple construction seasons in the current waterway	\$\$\$
V	New Tunnel West Side	3 (single shifts)	Negligible	Low	Can keep existing tunnel in operation during construction Effectively removes all operating risks for the west side	Typical risks associated with tunneling such as ground support, groundwater, stuck TBM, etc.	\$\$\$\$
VI	Full Tunnel Replacement	3 (double shifts)	Negligible	Low	Can keep existing tunnel in operation during construction Provides long-term stability and supply of water	Typical risks associated with tunneling such as ground support, groundwater, stuck TBM, etc.	\$\$\$\$\$

#### Assumptions

Construction season within existing tunnel from October to April