December 1, 2016

TO: ACHD Commissioners, Director and Deputy Directors

FROM: Ryan Cutler, Project Manager

SUBJECT: Maple Grove, Victory Rd to Overland Rd Project No. 517039
Consultant Agreement Approval
December 14, 2016

Executive Summary
Staff is requesting consent and signature of the Professional Services Agreement with Horrocks Engineers for a contract amount of $469,862.00, which requires approval by the Commission. This project will widen Maple Grove to five lanes between Victory Road and Overland Rd in Boise. The design is scheduled to start on December 15, 2016. Staff recommends approval of the agreement.

Facts & Findings
Maple Grove Road between Victory Road and Overland Road is a two lane road with a variety of irrigation crossings and bridges. The proposed roadway section will include two travel lanes northbound and southbound, a two-way left-turn lane, curb, gutter, sidewalk, and bike lanes. The project will include the reconstruction and widening of Maple Grove Bridges #1237 (MI214-27), #1238 (MI214-28), and #1242 (MI217-29).

Fiscal Implications
There is $450,000 in the FY17 budget for the design of this project. The negotiated design costs; including bridge design, roadway design, a geotechnical investigation, storm water design, historical and cultural report, surveying, environmental evaluation and contingencies; amount to $469,862.00.

- Bridge Design $45,056 (includes three structures and concepts)
- Roadway Design $316,559
- Geotechnical Investigation $35,816
- Historical & Cultural Report $9,725
- Surveying $30,372
- Environmental Evaluation $18,498
- Resource Systems, Inc. $3,000 (Letter Of Map Revision preparation)
- Direct Costs $10,836 (Public meeting displays, IDWR database search)

The difference between the budgeted amount and proposed design cost will be requested at the 1st budget adjustment.

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Policy Implications
The project has been approved as part of the FY17 budget and the 2017-2021 Integrated Five Year Work Plan, adopted by the ACHD Commission on October 28, 2016.

Alternatives
1. Approve and sign the consultant agreement for design and proceed with the project, or.
2. Do not approve the consultant agreement for design and provide staff with further direction.

Recommendation
Staff recommends Alternative 1: Approve and sign the consultant agreement for design and proceed with the project.

C: Dorrell R. Hansen P.E.
   Dyan Bevins
   Justin Bledsoe
   Christine Race
   Central Files
AGREEMENT TO PROVIDE PROFESSIONAL SERVICES

Maple Grove, Victory Road to Overland Road
ACHD Project No. 517039
ACHD GIS # RD207-22
Purchase Order #63038407

ADA COUNTY HIGHWAY DISTRICT, a body politic and corporate of the State of Idaho, (hereinafter “ACHD”) and Horrocks Engineers, 5700 East Franklin Road, Suite 160, Nampa, Idaho (hereinafter “Consultant”) hereby enters into this Agreement to perform the professional services required in connection with the professional services, as outlined in the attached Scope of Work (“Project”).

AGREEMENT

Consultant agrees to perform the professional services to complete the Scope of Work for an amount not to exceed $469,862.00. Any costs over and above this amount shall be the total responsibility of CONSULTANT.

Consultant will perform any additional work as desired by ACHD by means of a written Supplemental Agreement signed by a person authorized by ACHD to execute such Supplemental Agreement in accordance with ACHD policy. Such authorization shall consist of written approval by either a person authorized by ACHD to give such approval or the Board of Commissioners; provided that the ACHD Board of Commissioners must approve any Supplemental Agreement that is in excess of thirty-five percent (35%) of the original Agreement amount. Such prior written authorization by ACHD shall be a condition precedent to any claim of Consultant for payment.

1. PROJECT:
   A. Consultant shall develop roadway plans for the Project. The plans shall include grading, paving, drainage, right-of-way details, and other information in accordance with the provisions contained within the attached Scope of Work.
   
   B. Consultant shall not be responsible for the performance failure of ACHD’s construction contractors. Consultant shall not be responsible for the means and methods used by ACHD’s construction contractors, including any subcontractor or other third-party traffic control and construction site security.
2. **TIME OF COMMENCEMENT AND COMPLETION OF CONTRACT**

Consultant shall commence work under the terms and conditions of this Agreement within ten (10) calendar days from the date of receiving a "Notice to Proceed" from ACHD and prosecution of the work by the Consultant shall continue diligently thereafter to completion as hereinafter delineated. Consultant shall have the Scope of Work completed on or before **September 30, 2017**. This date is predicated on Consultant receiving the Notice to Proceed on **December 15, 2016**. Should Consultant fail to receive said Notice to Proceed on the date specified, the completion date shall be adjusted to allow for the difference between the proposed Notice to Proceed date and the actual date the Notice to Proceed is given.

ACHD shall have the right to reduce the monies due to Consultant, commencing on the agreed completion date and continuing until all required work is complete, by a sum negotiated between the parties on a case-by-case basis. The Scope of Work shall be considered to be complete when all submittals required under Section 3106 of ACHD's Policy Manual are made, except for revisions arising from right-of-way acquisition.

Time is of the essence of this Agreement. No waiver by either party of strict and timely performance of the other shall constitute a waiver of any subsequent breach or default.

3. **DELAYS AND EXTENSIONS**

A. Extensions of time for completion may be granted by ACHD for the following reasons:

1. Delays in major portions of the work caused by excessive time required to process submittal; delays caused by ACHD or its other consultants/contractors; or additional work order, in writing, by ACHD.

2. Any delay caused by a Force Majeure Event. A “Force Majeure Event” means an event due to any cause or causes beyond the reasonable control of Consultant.

3. In the event of a delay as defined in item (1) or (2), the Consultant shall receive an equitable adjustment extending Consultant’s time for performance for such services sufficient to overcome the effects of the delay.

B. Extensions of time will not be granted for the following reasons:

1. Underestimating complexity of the work by Consultant resulting in failure of Consultant to timely complete this Agreement under the terms and conditions provided herein;

2. Redoing portions of the project by Consultant that were inadequately performed by Consultant and subsequently rejected by ACHD.

4. **TERMINATION**

A. ACHD may terminate or abandon this Agreement at any time, with or without cause, upon giving written notice of termination hereof as follows:

1. Evidence that actual progress is behind the progress indicated in the work schedule given to ACHD by Consultant.

2. Submission of substandard work by Consultant, its agent, sub-consultants or employees;
(3) Material breach of any of the other terms and conditions of this Agreement by Consultant;

(4) At the convenience of ACHD for any reason;

(5) Lack of adequate funding to complete this Agreement.

Prior to giving notice of termination for cause set forth in paragraphs 1 and 2 above, ACHD shall notify Consultant in writing, of any such deficiencies or default in the performance of the terms and conditions of this Agreement by Consultant, and Consultant shall have ten (10) calendar days after receipt of such notice to correct or remedy such default or begin the corrective measures.

Should Consultant fail to remedy its default or begin the corrective measures within said 10-day period, or for the reasons set forth above, ACHD shall have the option to immediately terminate this Agreement. Upon receipt of notice of termination by ACHD, Consultant shall immediately discontinue all work and services, unless directed otherwise, and shall transfer all documents pertaining to the work and services covered under the terms and conditions of this Agreement to ACHD. Upon receipt by ACHD of said documents, payment shall be made to Consultant for that work performed to date that has been approved by ACHD.

Should any deficiencies or default occur by Consultant for the reasons set forth above, and result in any damages to ACHD, ACHD shall be entitled to proceed against Consultant for any damages it has sustained as a result of such breach by Consultant.

B. Consultant may terminate the Agreement only for failure to pay or breach of the Agreement by ACHD after the entry of a court order or decision finding a breach.

5. NONAPPROPRIATION

If ACHD is precluded from committing to make certain future payments due hereunder, this paragraph will apply. ACHD has appropriated the funds necessary to make all payments when due under the Agreement during ACHD’s initial fiscal period during the Agreement term. ACHD agrees that in each succeeding fiscal year during the term of this Agreement, ACHD will take all necessary steps to make a timely appropriation of funds in order to pay the payments due hereunder during that period, subject to the annual appropriations limitation imposed upon ACHD under state law. In the event that despite the best efforts of ACHD, ACHD determines that funds for any amounts under this Agreement will not be available or cannot be obtained during any succeeding fiscal period, ACHD may terminate this Agreement prior to the commencement of such succeeding fiscal period by giving written notice to CONTRACTOR/CONSULTANT/ VENDOR of such determination at least 60 days prior to the first day of such succeeding period for which an appropriation has not been made by ACHD.

6. DISPUTES

Should any dispute arise as to the adequacy of performance, the occurrence of abnormal conditions affecting the work, or the enforcement or interpretation of any provision under this Agreement, such dispute shall be referred to the Director of Ada County Highway District, or his duly authorized representative(s), and a member of senior management of the Consultant for resolution. ACHD and Consultant shall attempt in good faith to settle by
negotiation and compromise any dispute arising out of or relating to this Agreement, or the breach thereof (the “Dispute”). If a resolution of the Dispute cannot be mutually agreed upon than either party may file a civil action in Idaho state court to resolve the Dispute.

7. OWNERSHIP OF DOCUMENTS

All material delivered by Consultant in conjunction with the preparation of the plans shall become the property of ACHD without any restrictions or limitations with respect to their further use thereof. All documents or materials prepared for ACHD shall not be distributed by Consultant, sub-consultants, their agents, representatives or employees to any third party without the express written consent of ACHD. Use of these documents on any other project, without written verification or adaptation by Consultant for the specific purpose intended, will be at ACHD's sole risk and shall be without liability or legal exposure to Consultant. ACHD shall indemnify and hold harmless Consultant from all claims, damages, losses, and expenses, including attorney's fees arising out of or resulting from the said use of such documents.

8. INDEMNITY

Consultant agrees to indemnify, defend, and hold harmless ACHD for damages from any and all claims, demands, or actions as a result or consequence of any and all negligent acts, errors, or omissions by Consultant or Consultant's agents, employees, or sub-consultants arising from the performance of this Agreement.

Consultant, sub-consultants, their agents or employees shall comply with the standards of ACHD in effect at the time ACHD accepts and approves the final plans; and/or the final payment is made by ACHD to Consultant under the terms and conditions of this Agreement. Consultant shall not be held liable for changes or revisions to the drawings or related documents following the acceptance by ACHD of such documents without Consultant's knowledge and consent. Consultant does hereby further indemnify, save, and hold harmless ACHD, its agents, personal representatives and assigns, from any and all claims for wage payments, withholding, taxes, or other payments or benefits due to sub-consultants of Consultant. This provision shall not be construed to preclude any remedy that ACHD may have in law or equity.

ACHD shall, subject to the limitations hereinafter set forth, indemnify, save harmless and defend regardless of outcome Consultant from expenses of and against suits, actions, claims or losses of every kind, nature and description, including costs, expenses and attorney fees caused by or arising out of any negligent acts by the ACHD or the ACHD’s officers, agents and employees while acting within the course and scope of their employment, which arise from or which are in any way connected to this Agreement. Any such indemnification hereunder by the ACHD is subject to the limitations of the Idaho Tort Claims Act (currently codified at chapter 9, title 6, Idaho Code). Such indemnification hereunder by the ACHD shall in no event cause the liability of the ACHD for any such negligent act to exceed the amount of loss, damages, or expenses of attorney fees attributable to such negligent act, and shall not apply to loss, damages, expenses, or attorney fees attributable to the negligence of Consultant.

Consultant's period of liability shall remain in effect for as long as any applicable statute of limitations provided by Idaho law allows. The applicable statute of limitations shall not begin to accrue until the contractor’s warranty period of the constructed Project expires.
Any construction contract that utilizes the Consultant’s design work shall include both ACHD and the Consultant as additional insureds on the construction contractor’s commercial general liability insurance. ACHD and Consultant will also be included as indemnities in the construction contract indemnity article.

9. INSURANCE

Consultant certifies it is an independent business, along with any sub-consultant retained and hired by Consultant, and shall acquire and maintain comprehensive general liability insurance, having a minimum limit of $100,000 per claim and $500,000 aggregate, and errors and omissions coverage having minimum limits of not less than $250,000. Consultant agrees to provide a certificate of insurance certifying to ACHD that such coverage is in force.

Consultant further agrees to maintain and keep required Workers Compensation Insurance, Unemployment Insurance, and all other insurance required to be maintained under the laws of the State of Idaho.

10. INDEPENDENT CONTRACTOR

Consultant is an independent contractor and is not an employee of ACHD. Consultant acknowledges that this Agreement is not an employment contract and that ACHD is only engaging Consultant to render the Professional Services described herein.

11. NOT AN EMPLOYMENT CONTRACT

Consultant acknowledges that this Agreement is not an employment contract and that ACHD is only engaging Consultant to render the Professional Services described herein.

12. ACKNOWLEDGEMENT OF PROFESSIONAL SERVICE

Consultant warrants that the Professional Services rendered under this Agreement require Consultant to have specialized skill and, or technical training. Consultant covenants that Consultant has the requisite specialized skill or, if Consultant gained Consultant’s ability to render such Professional Services through class or training, that Consultant has met all requirements in said class and, or training course(s), and, if required, Consultant is certified under applicable federal and, or state laws to perform said Professional Services.

13. GENERAL COMPLIANCE WITH LAWS

Consultant shall at all times observe and comply with all Federal, State, and local laws and any and all codes, ordinances, and regulations affecting the work in any manner. Consultant agrees that any recourse to legal action pursuant to this Agreement shall be brought in the Fourth District Court of the State of Idaho situated in Boise, Idaho.

14. NONDISCRIMINATION

A. Nondiscrimination:

Consultant, with regard to the work performed by them during the term of this Agreement, shall not in any way discriminate against any employee or applicant for employment; subcontractor, subcontractor, or solicitations for subcontract including procurement of materials and equipment; or any other individual or firm providing or proposing services based on race, color, religion, sex, national origin, age or non-job related handicap, or prior military service or current military status.
B. Solicitations for Subcontracts, including Procurement of Materials and Equipment: In all solicitations, either by bidding or negotiation, made by Consultant for work or services performed under subcontract, including procurement of materials and equipment, each potential subconsultant, subcontractor, or supplier shall be made aware by Consultant of the obligations of this Agreement and to the Civil Rights requirements based on race, color, religion, sex, national origin, age or non-job related handicap, or prior military service or current military status. Federal Aid Projects: Civil Rights Attachment ______ attached hereto, is incorporated by reference, as it fully set forth herein.

15. ENDORSEMENT BY ENGINEER

The Professional Engineer in direct charge of the design shall approve and endorse all plans, specifications, cost summaries, and reports with a professional seal, signature and date. In addition, the legal firm name and address shall be clearly stamped or lettered on the tracing of each sheet of the plans. Any licensing or approvals required by the State of Idaho shall be complied with by all Professional Engineers and Surveyors employed by Consultant.

16. MONTHLY PROGRESS REPORTS

Consultant shall submit to ACHD, in conjunction with its payment request, progress reports of work done on the project with activity updates. This report shall be made not more often than once per month or every 4-week period. The report shall also include any and all pertinent information as to delays or lack of performance on the Project. Additional work, for which Consultant contemplates compensation and/or extensions of time, must be reported in such report with an attached explanation. (Extra work data must be submitted with the Progress Report, or it cannot be used for basis of subsequent extension of time or additional compensation by ACHD.)

17. ATTORNEY FEES

In any suit, action or appeal therefrom to resolve the Dispute or to enforce or interpret the provisions of this Agreement, the prevailing party shall be entitled to recover from the non-prevailing party reasonable expenses including, but not limited to, reasonable attorney fees, account fees and other expert fees and costs.

18. PAYMENTS

Payments properly submitted are due within thirty (30) days of the date of receipt of the Consultant’s invoice. In addition to other requirements of this agreement, the Consultant's monthly submittals shall include the following:

**Invoice** - Consultant's invoice shall include the following information:

- ACHD Project Number
- ACHD Purchase Order Number
- Original contract value
- Value of Supplemental Agreements (if any)
- Value of previous requests for payment

Horrocks Engineers
517039. – Maple Grove, Victory/Overland

AGREEMENT TO PROVIDE PROFESSIONAL SERVICES – Page 6
(Rev. 6-4-2015)
19. STANDARD OF CARE

Consultant shall perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale.

Consultant may rely upon and use in the performance of any services information supplied to it by ACHD without independent verification, and Consultant shall not be responsible for defects in its services attributable to its reliance upon or use of such information.

20. ENTIRE AGREEMENT: MODIFICATION

This Agreement constitutes the entire agreement between the parties hereto, and shall supersede all previous proposals, oral or written negotiations, representations, commitments, and all of the communications between the parties. Any modifications to the Agreement must be in writing and executed by both parties.

21. OPINIONS AND ESTIMATES

Any cost opinions or estimates provided by Consultant shall be on a basis of experience and judgment, but since Consultant has no control over market conditions or bidding procedures, Consultant cannot and does not warrant that bids, ultimate construction cost, or project economics will not vary from these opinions or estimates.

Consultant has read, understands and agrees to the requirements and stipulations set forth herein.

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<td>By:</td>
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*The Ada County Highway District (ACHD) is committed to compliance with Title VI of the Civil Rights Act of 1964 and related regulations and directives. ACHD assures that no person shall on the grounds of race, color, national origin, gender, disability or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any ACHD service, program or activity.*
CONSULTANT

STATE OF IDAHO )

COUNTY OF ADA ) ss.

On this _____ day of ________, 20___, before me, ____________________, a Notary Public in and for said State, personally appeared ____________________________, known or identified to me to be the ________________ of _____________, the corporation [or Partnership, or Limited Liability Company] that executed the instrument or the person who executed the instrument on behalf of said corporation [or Partnership, or Limited Liability Company], and acknowledged to me that such corporation [or Partnership, or Limited Liability Company] executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

____________________________________________
Notary Public for the State of Idaho
Residing at _________________________________
My Commission Expires: ______________________
ADA COUNTY HIGHWAY DISTRICT

STATE OF IDAHO )
COUNTY OF ADA ) ss.

On this _____ day of ________, 20____, before me, ____________________________________, a Notary Public in and for said State, personally appeared ____________________________________, known or identified to me to be the ___________________________ of the Ada County Highway District that executed the said instrument, and acknowledged to me that such Highway District executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

____________________________________________
Notary Public for the State of Idaho
Residing at _________________________________
My Commission Expires: ______________________
SCOPE OF WORK
Maple Grove Rd, Victory Rd to Overland Rd
ACHD Project No. 517039
ACHD GIS No. RD207-22
December 1, 2016

This Scope of Work was developed based on the ACHD SOW Template dated September 12, 2016.

This project entails widening Maple Grove Road from Victory Road to Overland Road. The roadway will be widened from two lanes to five lanes with the proposed improvements tying into the existing improvements at the Maple Grove Road/Victory Road and the Maple Grove Road/Overland Road intersections. The proposed roadway section will include two travel lanes northbound and southbound, a two-way left-turn lane, bike lanes, curb, gutter and sidewalk. The project will include the reconstruction and widening of Maple Grove Bridges #1237 (MI214-27), #1238 (MI214-28), and #1242 (MI217-29). This project is currently programmed for right-of-way in FY 2019 and construction in FY 2020.

Horrocks, herein called the Consultant, will design the project and supply documentation in accordance with this scope of work, the current version of the ISPWC specifications with the current ISPWC updates as amended by ACHD adopted supplements, including the ACHD Supplemental Traffic Provisions.
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General
Consistent with professional standard of care, Consultant shall provide management, coordination and direction to project team and sub-consultants to complete project deliverables on time and within budget.

Definitions and Acronyms

404 Permit – Section 404 of the Clean Water Act which addresses permits for dredged or fill material in Waters of the US, administered by the U.S. Army Corps of Engineers
AASHTO – American Association of State Highway and Transportation Officials
ACHD – Ada County Highway District
ADT – Average Daily Traffic count
Agreement Administrator – The ACHD Project manager is responsible for administering the contract and overseeing the design.
CAC – Community Advisory Committee
CAD – Computer Aided Design
COMPASS – Community Planning Association of SW Idaho
CPM – Critical Path Method
CSS – Context Sensitive Solutions
FHWA – Federal Highway Administration
EPA – Environmental Protection Agency
GIS – Geographic Information System
GSI – Green Stormwater Infrastructure
ITD - Idaho Transportation Department
Man-Hour – Hour(s) of time required for an individual to complete an itemized task designated by the project scope of work. Personnel functions shall be rounded up to the nearest Man-Hour.
MOU – Memorandum of Understanding
NEPA – National Environmental Policy Act
PIM – Public Involvement Meeting
PMG – Project Management Guide
PSA – Professional Service Agreement, or Professional Agreement. This is a written agreement or contract between ACHD and the Prime Consultant
Prime Consultant – The firm contracting with ACHD, for the performance of work prescribed in the contract.
Project Manager – (Also abbreviated as “PM”). The ACHD point of contact for the project.
ROW – Right of Way
SHPO – State Historic Preservation Office
Study Area – The expanded area of influence generated by the project area.
Sub-Consultant – Who the prime Consultant sublets part(s) of the design contract.
SOW – Scope of Work
SWPPP – Storm Water Pollution Prevention Plan
LOMR – Letter of Map Revision
CLOMR – Conditional Letter of Map Revision
Implied Terms
In order to avoid confusing repetition of expressions in this Scope of Work, it is provided that whenever anything is to be required, directed, specified, authorized, furnished, given, designated, permitted, reserved, approved, disapproved, accepted, or rejected, it shall be understood as if the expression were followed by the words “by the Project Manager” or “to the Project Manager”.

Whenever anything is to be performed, designed, computed, calculated, analyzed, determined, evaluated, surveyed, obtained, established, contacted, estimated, investigated, prepared, developed, delivered, collected, and/or recorded, it shall be understood as if the expression were followed by the words “by the Consultant (either prime or sub)” or “to the Consultant (either prime or sub).”

Coordination of Scope of Work
The Scope of Work and Professional Services Agreement are essential parts of the project, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete package.

Checkpoints or milestones have been established at various stages that require approval of specific project information. These checkpoints are:

- 30% Design Review
- 75% Design Review
- 95% Design Review
- 99% Design (Right-of-Way Plans)
- 100% Bid Documents

1.0 GENERAL PROVISIONS

1.1 Progress Meetings
Kick-off meeting with site visit. Consultant will prepare an agenda and summary of the kick-off meeting. The meeting summary shall include a list of action items that specify who is responsible and date required. Provide an electronic copy of the draft meeting summary and action items no later than seven business days after the meeting. Revise and submit final meeting summary based on ACHD comments.

Attend regularly scheduled progress meetings approximately once a month throughout the duration of the project. Provide an electronic copy of the draft meeting summary and action items no later than seven business days after the meeting. Revise and submit final meeting summary based on ACHD comments.
Products and Deliverables

- Kick-off Meeting
- Monthly Meetings and Agendas
- Draft Meeting Summary
- Final Meeting Summary

ACHD Responsibilities

- Schedule and provide facility for progress meetings
- Review and approve summary and action items

Assumptions

- The project is expected to be ten (10) months in duration
- Ten (10) meetings are assumed and additional meetings must be approved by ACHD
- ACHD will review and approve summary within one week
- Action items will be completed by due date

1.2 Project Administration

1.2.1 Invoices/Project Status

The Consultant will prepare and submit ACHD’s Monthly Project Status Report form with invoices on a monthly basis. At the beginning of the project, Horrocks will provide a table to ACHD showing the total forecasted costs per month for the project.

- With each monthly invoice, Horrocks will submit an earned value report for major tasks only – project management, 30% design, environmental, draft and final design, and PS&E.

1.2.2 Schedule

Submit the schedule and schedule updates which include a comparison to the baseline on a monthly basis. Include a written narrative describing the project schedule status, the critical path and any revisions to the schedule. Provide a corrective action plan if off schedule. Schedule updates may be submitted simultaneously with invoicing.

Activity information shall include activity numbers (consistent with this scope numbering system at a high level), activity descriptions, durations, total float, scheduled or actual start and finish dates, and predecessors/successors. Clearly show the sequence and interdependence of all activities required for complete performance of all items of work under this scope of work and indicate the critical path.

Activities shall include, but not be limited to, all scope of work sections and their respective subsections. Activities will also include key decision points and resolution of critical scope.
assumptions including agency meetings. If agreed to by both the ACHD and Consultant, some subsections may be deleted from the schedule with the appropriate budget adjustments.

Products and Deliverables

- Time-scaled logic diagram (Gantt Chart), updated monthly and submitted with monthly invoicing
- Monthly Project Status Report (updated monthly and included with invoice)
- Earned Value Report
- Invoice (PDF emailed to invoices@achdidaho.org)

ACHD Responsibilities

- Review and approve Schedule, Invoice and Monthly Project Status Report

1.3 ACHD Standards

All projects shall follow the ACHD Policy Manual. Refer to section 3004 ROADWAY DESIGN STANDARDS. Where both minimum and desirable values are provided, every reasonable effort shall be made to achieve the desirable standards. Any design exception must be approved by ACHD in writing. The roadway widths adopted by ACHD and identified on the Master Street Map shall serve as the basis for beginning evaluation. If the proposed width or other standard is less than ACHD standards, it must be documented, justified, and approved by ACHD.

Additionally, the following standards shall be used:

- ACHD Livable Street Design Guide
- Ada County Master Streets Map
- ACHD Complete Streets Policy
- AASHTO Guide for Flexibility in Highway Design
- ACHD CAD Standards
- Green Stormwater Infrastructure (GSI) Guidance Manual

2.0 PUBLIC INVOLVEMENT

2.1 Outreach

The Consultant will attend four (4) stakeholder meetings during the 30% and 75% design phases of the project. The stakeholder group may include representatives from project area neighborhoods, Maple Grove Elementary, Faith Church, Calderwood Business Park, other businesses, adjacent property owners, and commuters. Meeting materials, agenda, presentation, handouts, boards, etc., will be provided by the Consultant. The Consultant will prepare a summary report and meeting summary.
Products and Deliverables

- Design-Owner contact meetings and notes
- Identify community groups and key stakeholders
- Technical or special topic meetings
- Exhibits for website, newsletters, and post cards
- Meeting materials, presentation, handouts, boards, and other meeting materials as needed
- Agendas for all meetings
- Draft meeting summary from all meetings
- Final meeting summary from all meetings

Two (2) Consultant representatives will attend stakeholder meetings

ACHD Responsibilities

- ACHD will be responsible for costs associated with the rental of meeting rooms, tables, chairs, and any refreshments.
- ACHD will be responsible for printing and postage of notification materials and follow-up letters.

Assumptions

- Four (4) contact meetings are assumed and may include multiple stakeholders
- Each stakeholder meeting is assumed to be two (2) hours long

2.2 Public Meetings

The Consultant will participate in two (2) public meeting. The Consultant will provide information to ACHD for the notification materials to inform the public of the meeting. The Consultant will do the following for Consultant prepared displays:

- Draft displays for review
- Revise for pre-PIM meeting
- Review at pre-PIM meeting in small format and revise as needed before finalizing

The public meetings will be held near the end of the 30% design and the 75% design. The Consultant will present the information available at the conceptual and preliminary stages of design respectively for each public meeting. A one (1) hour meeting will be held immediately before the public meeting for landowners directly affected by the project.

Products and Deliverables

- Information as requested for Project Information Sheet
- Information as requested for Project “Commonly Asked Questions and Answers” for Public Involvement Meetings (PIM)
- Preparation for meetings including pre-PIM
- Meeting materials (agenda, display boards, etc.)
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- Plan view display board converted to 11”x17” PDF(s)
- Set up and take down for meetings
- Meeting Summary including a summary of comments received/Submitted

Assumptions
- Two (2) public meetings will be held
- ACHD project manager will attend public meetings
- ACHD will review and approve all meeting notification materials
- ACHD will provide sandwich boards
- ACHD will recruit staff from ACHD to support public meetings
- ACHD will advertise meetings
- Two (2) Consultant representatives will attend the pre-PIM meeting and the public meetings
- The public meetings are assumed to be four (4) hours long
- Three (3) consultant provided display boards
- ACHD will be responsible for securing the meeting facilities
- ACHD will be responsible for costs associated with the rental of meeting rooms, tables, chairs, and any refreshments
- ACHD will be responsible for printing and postage of notification materials and follow-up letters

3.0 LOCATION SURVEYING AND MAPPING

The project area will be surveyed to develop a topographic map and a DTM. Maple Grove Road will be surveyed and a map developed from Victory Road to Overland Road. The intersections of Maple Grove Road/Victory Road and Maple Grove Road/Overland Road will be included in the survey area with 1000’ of survey on each leg of the intersections outside of the Maple Grove Road, Victory Road to Overland Road corridor.

3.1 Property Ownership Map

The Consultant will use the Ada County tax map to locate and show property lines on the project ownership map. The Consultant will not survey each parcel individually. The Consultant will use the said tax map to identify the properties and the property owner names that will be impacted by this project.

3.2 Right of Entry

Using the tax map and the identified impacted properties, the Consultant will develop a list of the property owners that will need to be contacted. The Consultant will prepare a letter requesting permission to access their property to gather additional design information for this project design. After ACHD approval the Consultant will send this letter to each owner before any survey work or evaluation work is done on the private property.
3.3 **Project Control**

The Consultant will use the Ada County web page and coordinate with the ACHD survey department to locate the closest established horizontal and vertical survey control monuments for this project. The Consultant will use that established control and if necessary, move in new control monuments closer to the project, then tie the control monuments to the PLSS corners that are adjacent to this project.

The Consultant will set a minimum of seven (7) new monuments within the project limits to be used as survey control for the construction phase of this project. The Consultant will gather horizontal and vertical information on these monuments that will be tied to the project design and show that information on a survey control sheet for this project.

3.4 **Existing Right-of-Way**

The Consultant will research highway plans, records of survey, subdivision plats and property deeds to establish the location of the existing right-of-way (ROW) limits for this project. This ROW location will be shown on the project base mapping.

3.5 **Topographic Mapping for Base Map**

The Consultant will perform a survey of the project area locating all topographic features needed to develop a topographic base map of the project limits. The Consultant will show the location of the curb and gutter, sidewalk, fences, buildings, permanent structures, above ground utility structures and manholes, trees, bushes, ditches, edges of pavement, road signs and road access locations and any additional information needed for the design of this project. The Consultant will develop an electronic base map that shows all the surveyed topographic information. The Consultant will include on the Base Map the property lines from the Ada County tax map and the location of the existing roadway rights-of-way along with any found property corners and PLSS corners. Prior to performing this survey work the Consultant will request that ACHD contact Digline for a utility locate request within the project limits, asking them to locate, on the ground, all the utilities lines and who they belong to. The utility location and type of utility will be surveyed during the topographic mapping work. The Consultant will include the location of all utilities above and below the ground on the base map.

3.6 **Topographic Mapping for Pond Site**

The Consultant will perform mapping of the parcel(s) defined for the proposed pond site once the conceptual drainage evaluation is complete locating all topographic features needed to develop a topographic map of the future pond site. The Consultant will show the location of the fences, buildings, permanent structures, above ground utility structures and manholes, trees, bushes, ditches, edges of pavement, road access locations and any additional information needed for the design of the pond. The Consultant will include this additional survey on the Base Map completed in Task 3.5. Prior to performing this survey work the Consultant will request that ACHD contact Digline for a utility locate request within the parcel(s) limits, asking them to
locate, on the ground, all the utilities lines and who they belong to. The utility location and type of utility will be surveyed during the topographic mapping work. The Consultant will include the location of all utilities above and below the ground on the base map.

**Products and Deliverables**

- Right of Entry letters prepared and delivered to ACHD for review and approval. After ACHD approval, the letters shall be delivered to the property owners by the consultant at least three (3) days before survey activities begin.
- Request for Title Reports (include parcel number and name of owner)
- Existing right-of-way and property ownership base map (including all private and utility easements)
- Review title reports for easements or other encumbrances. These may reveal the existence and location of water lines, conduits, drainage or irrigation lines, utilities, etc. that must be handled during construction.
- Topography map and survey data for the project
  - Including existing fence type, height, top elevation
- Coordinates for all survey data including topographic data, right-of-way data, monuments, control points set and found, benchmarks, and all mapping shall be provided to ACHD on the Ada County GIS Coordinate System which is a modified state plane projection unique from standard Idaho State Plane Coordinate.
- Calibration points shall be set outside of the construction limits to form a box around the length and width of the project. Four (4) calibration points shall be set for projects under 2,000 linear feet, two before the beginning of construction and two past the end of construction. On projects over 2,000 feet, an additional two monuments will be set near the middle of the project (outside the construction limits). Intersection projects will require placement of five (5) calibration points. One at the limits of each intersection leg and one near the center of the intersecting roadways. The calibration points shall be a minimum of a ½ inch rebar with control cap. The monuments must have Ada County GIS coordinates and the elevation shown for each monument. Elevation shall be based on the North American Vertical Datum (NAVD) 88.
- Temporary Benchmarks (TBM’s) shall be set at intervals of approximately 500 feet. The TBM’s shall be established in locations which minimize disturbance during construction and must be easily accessible to the contractor and/or surveyor. Monuments within the roadway, i.e. Centerline monuments, and intersection monuments as well as chiseled “X” in curbs which will be destroyed during construction shall not be used as TBM’s.
- Digital terrain model of existing ground
- Request to ACHD for utility locates
- Topographic mapping and contour base map sufficient for the design of roadway improvements
- PK/Mag nails with washers will be set to gather topographic information.
- Base Map of Existing Utilities (created from maps provided by utility companies and Digline information from surveyed paint marks on the ground.)
• Survey twenty (20) pothole locations

ACHD Responsibilities

• Review, approve, sign, and deliver the right of entry letter back to the consultant.
• Supply Title Reports within 60 days of request via ACHD’s PWA site
• Request utility locates, including service lines, from Digline prior to the beginning of the field surveys
• Provide utility facility maps to Consultants and transmit design review drawings to municipalities, utility companies, and irrigation districts
• Provide title reports upon request

Assumptions

• The roadway and right-of-way mapping limits consist of a corridor approximately 120-feet wide, centered on the section line. Additional survey width may be required to identify property features (i.e. fence lines) along project corridor. Features will be surveyed beyond the fence lines where feasible and relevant to the project and will be included in right of entry letters. Topographic survey for driveways will go back 100 feet or to the garage door, whichever occurs first.
• All survey data including found and set monuments shall be converted to the Ada County GIS Coordinate System which is a modified state plane projection unique from standard Idaho State Plane Coordinate. All mapping provided to ACHD shall be on the Ada County GIS Coordinate System. A list of physical monuments with the corresponding Ada County GIS coordinates is available at https://adacounty.id.gov/Development-Services/Surveying-Division/GPS-Control.
  o The feature location surveys for determination of x,y,z coordinate values, shall comply with FGDC Geospatial Positioning Accuracy Standards, Part 4: Standards for Architecture, Engineering, Construction (A/E/C), and Facility Management.
• This scope of work assumes forty (40) parcels may have right-of-way impacts and require legal descriptions and permanent easement descriptions.
• All original field notes and computer files shall become the property of ACHD
• This scope of work does not include setting property pins or monuments.
• No PK/Mag nails will be set for centerline stationing.
• No paper copies of the base map will be provided.
• Utility information will be acquired at twenty (20) potholes locations.
• Aerial photograph of the project area will be provided by ACHD.
• Right of Way/Appraisal staking is not included in this scope of work.

4.0 30% DESIGN

The minimum information required on a 30% design review plans shall show existing facilities/features (including utilities) and location and general design features of planned facilities including existing and proposed right of way. This includes but is not limited to line
and grade and other related items that will affect project design. These plans should be 30% complete at minimum.

### 4.1 Alternatives Analysis
Consultant will evaluate three conceptual horizontal alignment alternatives for the project area. The three alternatives will be evaluated for impacts to right-of-way and property owners, traffic operations, utilities, Five Mile Creek alignment, structures, irrigation, drainage, pedestrians and bikes. An alternatives matrix will be developed summarizing the potential impacts for each alternative.

#### Products and Deliverables
- Alignment Alternatives Matrix

#### ACHD Responsibilities
- Approval of the preferred alignment

#### Assumptions
- Three alignment alternatives will be evaluated with an alternatives matrix.
- A Concept Report will not be prepared as part of this scope of work.

### 4.2 Geotechnical Investigation
Geotechnical information will be acquired for the project area. It is assumed that fourteen (14) soil borings will be required.

- Four (4) borings in the existing Maple Grove Road roadway to depths of about 5 feet. The thickness of asphalt, base, and subbase (if present) will be measured in each of these borings. In addition, we will obtain samples of the underlying materials for R-value testing.
- Four (4) borings within the proposed infiltration areas. Two borings will extend to depths of about 17 feet and will be completed as piezometers with flush-mount covers. In accordance with ACHD guidelines, groundwater levels in the piezometers will be monitored twice monthly between approximately mid-April and mid-October, 2017, to observe seasonal fluctuations. The other two (2) borings will be drilled to depths of about 8 to 10 feet for preliminary infiltration testing purposes. These four borings will be drilled outside the roadway, but may be within existing ACHD right of way. If the borings are located outside of ACHD right of way, permission from property owners to drill on their property will be obtained by ACHD.
- Two (2) borings for the proposed canal structure at Five Mile Creek. These borings will extend to depths of about 25 feet.
• Four (4) borings for the proposed box culvert structures for the two crossings of the Farmers Lateral. These borings will be drilled to depths of approximately 20 feet.
• Borings in the roadway for the box culverts will also be used to evaluate existing pavement section at those locations.

Products and Deliverables

• Soil Boring Logs and Plan
  o Including latitude and longitude of boring location
• Laboratory test results (These will include R-values at up to three locations within the existing Maple Grove Road)
• Geotechnical Engineering Report
  o Draft Geotechnical Engineering Report including recommendations for pavement materials and thicknesses, foundations for bridge, box culvert or stiff leg structures, and infiltration test results
  o Final Geotechnical Engineering Report

ACHD Responsibilities

• Supply Traffic Index
• Provide permit to perform explorations within ACHD right of way. Terracon will apply for permit and provide traffic control through a subcontractor.

Assumptions

• There will be only minor grade changes estimated to be less than 2 feet. Borings are not planned for embankments in widened areas.
• Pavement evaluations do not include a life cycle cost analysis (LCCA). Flexible asphaltic concrete pavement sections are anticipated.
• Proposed field explorations include a total of fourteen (14) soil borings
• Borings drilled within the roadway requiring traffic control will all be drilled in the same mobilization.
• Borings located off the road will be accessible with a truck mounted, two wheel drive drill rig.
• Field explorations within the roadway may be performed during restricted daytime hours, assumed to be from 9 AM to 3 PM.
• The infiltration and percolation borings, and possibly 1 or 2 of the borings for box culverts may be drilled outside of the roadway. These borings may be drilled between hours of 8:30 AM and 4:30 PM and will not require traffic control. Other borings in the roadway will require traffic control.
• Boring locations will be staked in advance of the drilling and utilities will be cleared through DigLine. Private utilities or those that will not be marked by DigLine will be marked by the utility owner. A private utility marking service is not included in our
scope of services. Terracon will not be responsible for unmarked or improperly marked utilities.

- Borings will be backfilled in accordance with Idaho Department of Water Resources requirements. Borings through existing pavement will be patched with cold mix asphalt. Efforts will be made to reduce impacts to existing ground surface, but no restoration measures other than backfilling borings and patching asphalt will be performed.
- Infiltration tests performed within pipes installed in the borings will be acceptable to ACHD for preliminary design purposes. A supplemental agreement will be needed if infiltration tests performed in test pits in accordance with ACHD procedures are required for final design.

4.3 Hydraulic/Stormwater Design

All project designs must comply with the Clean Water Act, NPDES requirements and the currently approved ACHD Section 8000 Stormwater policy and Section 8200 Stormwater Design Manual. All projects should use the GSI Guidance Manual to determine the feasibility of GSI for the project area.

4.3.1 Site Evaluation/Feasibility

The general characteristics of a site, such as soil type and slope, are a major factor in selecting appropriate stormwater controls. The following factors should be considered when evaluating the site:

1. Soil types and infiltration characteristics
2. Groundwater depth
3. Slope and geology of the site
4. Proposed drainage area and geometry
5. Proximity to surface water, groundwater and public drinking water supplies
6. Potential surface water discharge points
7. Site-specific factors such as past and proposed land use

With this information, the technical aspects of storage, discharge control, and water quality management can be assessed. Generally, retention ponds, subsurface infiltration or similar facilities will be selected because of site limitations and discharge restrictions to downstream surface facilities. The Consultant will perform a site visit to evaluate existing drainage systems. The site visit will involve two (2) people from Horrocks.

4.3.2 Prepare Project Background

The Consultant will prepare a narrative describing the project. This narrative will be included in the Stormwater Report.

4.3.3 Evaluate Existing Drainage Basins
The Consultant will delineate and describe the existing, pre-development drainage basins and how they function hydraulically, including any off-site drainage basins. A pre-development map will be created for the project. This map will be included in the Stormwater Report.

4.3.4 Analyze Drainage Alternatives

The Consultant will analyze possible drainage alternatives while evaluating impacts to right of way and existing drainage structures. These drainage alternative will be presented to ACHD for review and one (1) meeting will be held to select the preferred drainage alternative to carry forward to design. A detailed discussion of this analysis will be included in the Stormwater Report.

4.3.5 Evaluate Post Development Drainage Basins

The Consultant shall delineate and describe the proposed post development drainage basins and how they function hydraulically. A post development basin map will be created for the project showing the basin limits and where applicable the proposed storm drainage system including pipes, culverts, inlets, manholes, ditches/swales, and drainage ponds. A detailed summary of this evaluation will be included in the Stormwater Report.

4.3.6 Design Methodology

The Consultant will describe the standards applied and pertinent design methodology used for developing hydrologic and hydraulic calculations for each post development basin. Design assumptions, decisions, and recommendation will be included in the Stormwater Report. It is anticipated that the design will follow the requirements as outlined in the current ACHD policy manual.

4.3.7 Hydrologic Calculations

The Consultant will perform the hydrologic calculations for each post development basin. Calculations will be included in the Stormwater Report.

4.3.8 Analyze Spread and Capture

The Consultant will analyze the inlet spread and capture of each (on grade and sump condition) inlet structure. This analysis will be summarized in the Stormwater Report.

4.3.9 Design Pipe

The Consultant will design each pipe for size and cover.

4.3.10 Design Seepage Bed and Pond

The Consultant will design each seepage bed and pond for size and storage capacity.
4.3.11 Design Drainage Infrastructure

The Consultant will design the drainage infrastructure to be in compliance with the environmental commitments.

4.3.12 Preliminary Stormwater Report

The Consultant will prepare the preliminary stormwater report compiling the design components listed above.

4.3.13 Preliminary Drainage Plan

To depict the findings of the preliminary drainage study discussed above, a roll plot of the 30% drainage design will be prepared as part of the 30% design set for review and comment. Storm sewer networks, culverts, surface collection and discharge facilities ditches/swales will be depicted on the preliminary drainage plans. The following will be included in the preliminary drainage plans:

- Preliminary plan of the proposed storm sewer network.
- Preliminary plan depicting the seepage beds.
- Preliminary plan depicting the pond locations.

4.3.14 Irrigation Facilities

The scope of work under this section shall include inventory of existing irrigation systems and conduct site visit with ACHD, the Nampa Meridian Irrigation District, the Idaho Department of Water Resources (IDWR) and the Boise Project Board of Control. Consultant shall identify any drains or canals that may be in the project by onsite investigation and evaluating historical information, including but not limited to USGS maps and waterways maps. It is anticipated that there are two delivery canal crossings, one on each side of Five Mile Creek. These canal crossings are not within the floodplain and will be sized based on delivery requirements and the existing flows and capacity of the current canal. The third primary irrigation conveyance is that of Five Mile Creek itself. This currently conveys surplus delivery flows, waste irrigation flows and is also a FEMA floodway. The floodway is within a mapped flood zone. This flood zone is administered by the City of Boise. A LOMR and a No-Rise certification is anticipated for this crossing as Maple Grove Road is currently shown in the floodway at Five Mile Creek. A CLOMR is not anticipated and is considered beyond the scope of this project.

A hydraulic analysis will be conducted for the Farmer’s Lateral crossings for the flow rates as defined by the Nampa and Meridian Irrigation District to verify that the required freeboard will be maintained. Five Mile Creek is described in the Floodway Insurance Rate Map (FIRM) and therefore the capacity for the Five Mile Creek structure will be based on the following:

- Capacity to convey flood waters will be based on:
  a. Study of the FIRM
  b. Available information from the City of Boise flood control administrator information
c. Survey of existing high water marks on the structure  
d. Identification of the floodplain elevation  
e. Discussions with any entity that may affect or have control of the flow such as irrigation districts that may waste into this channel.

- Scour protection of the abutments is critical for the longevity of the structure. Scour analysis will be minimal and based on geotechnical materials and a conservative estimation of adequate protection of the structure and channel.
- The required freeboard as defined by Ada County, USACE and IDWR

The evaluation will address structures or pipes at waterway crossings including drainage and irrigation facilities owned by the Nampa Meridian Irrigation District, the New York Irrigation District, the Boise-Kuna Irrigation District and the IDWR. Consultant will prepare 30% design level hydraulic and structure sizing for replacement or widening of irrigation facilities based on the allocated irrigation flows and maximum flows as provided by the Irrigation District and as defined by the floodplain information. Consultant will contact the Nampa Meridian Irrigation District, Ada County, USACE and the IDWR at the beginning of the project to obtain their design flows, as well as any comments and suggestions on the project and the culvert crossing design. ACHD will coordinate with the Irrigation Districts, the USACE and IDWR as the project progresses.

**Products and Deliverables**

- Draft Stormwater Report (including Design Life, Cost Analysis)  
- Final Stormwater Report  
- Site visit with Nampa Meridian Irrigation District and the Boise Project Board of Control.  
- HEC-RAS analysis for Five Mile Creek crossing and minimum flow requirements for the Farmer’s Lateral crossings. A technical memo will be prepared summarizing this hydraulic analysis.  
- No-Rise certification and supporting documentation for Five Mile Creek.  
- LOMR for the Five Mile Creek crossing.

**ACHD Responsibilities**

- Review and Comment  
- Review and approve all contact with irrigation districts

**Assumptions**

- Detailed drawings will not be prepared  
- Infiltration beds, underground stormwater chambers and/or a pond site will be designed to accommodate the impervious area for Maple Grove Road within the project limits.
• The existing stormwater system will be removed and replaced to accommodate the project area.
• Review comments for the Draft Stormwater Report will be addressed in the Final Stormwater Report.
• The current ACHD Stormwater Policy will be the design standard used.
• The Draft Stormwater Report will be submitted for one review cycle.
• The Boise Project Board of Control will coordinate with New York Irrigation District, the Boise-Kuna Irrigation District and South Boise Water Company as necessary during the design process.
• A No-Rise certification will be required for Five Mile Creek. A flood study was conducted in 2003 for this area with a LOMA effective in 2006. It is assumed that the study will be available from FEMA and will be utilized in developing the hydraulic analysis used to support the No-Rise Certification.
• One pond site will be required to accommodate stormwater runoff.

4.4 Traffic

ACHD has programmed a five lane roadway section within the project area and intersection modifications are not anticipated at the Maple Grove Road/Overland Road or the Maple Grove Road/Victory Road intersections. Therefore, a capacity analysis will not be performed for this project. However, the consultant will analyze and report five years of crash history within the study area to include impacted driveways and intersecting roadways within the project area to determine if safety improvements are needed beyond the proposed roadway widening. Crash trends such as crash types, causes, time of day, trends over time, etc. will be evaluated. The impact of the proposed improvements on safety will be considered using methodologies and/or factors consistent with the Highway Safety Manual. A graphic will be developed illustrating the crashes analyzed.

Products and Deliverables
• Draft Safety Evaluation Memorandum
• Final Safety Evaluation Memorandum

ACHD Responsibilities
• Provide crash data for five years of crash history for the project area.

Assumptions
• A five lane section will be constructed for Maple Grove Road that will tie into the existing Maple Grove Rd/Overland Rd and Maple Grove Rd/Victory Rd intersections. No traffic analysis will be required.
4.5 **Environmental Evaluation Memorandum**

The Consultant will prepare and submit a preliminary environmental evaluation memorandum summarizing the potential environmental resources which may be affected by the project and identify permits which may be required. The memorandum will identify and propose mitigation for environmental resources, where applicable, along with permitting time and cost. Environmental documentation will use existing studies pertaining to social, economic, and environmental impacts of the project activities, where applicable. Preliminary engineering, surveys, soil surveys, and location decision documentation will be coordinated with the environmental evaluation document.

4.5.1 **Archaeological and Cultural Resources**

Prepare Reconnaissance (windshield) Survey Report (includes Class 1 literature search, field survey, report preparation). The reconnaissance-level field survey will identify potentially eligible properties; however, no formal recordation or eligibility determinations will be made.

**Assumptions**

- Two Horrocks personnel will conduct field survey associated with the AHSR in one field visit.
- NRHP eligibility recommendations made under this scope of work are considered preliminary recommendations, and are not considered formal determinations. Formal NRHP eligibility determinations are made during the formal documentation of cultural resources, which is not included under this scope of work.
- Assume no SHPO consultation and no DOEFOE preparation under this scope of work.
- Assume no adverse impacts to Section 106 resources and no Memorandum of Agreement to address adverse impacts or consultation with the Advisory Council on Historic Preservation (ACHP) required.

4.5.2 **Threatened and Endangered Species/Wildlife**

Although no endangered or threatened species concerns are expected, an effects determination for these species will likely be required under the Endangered Species Act (ESA). The area of potential impact (API) will be large enough to accommodate minor design changes, reasonable design alternatives, drainage, detours, and utility relocations.

**Assumptions**

- Assume no formal Section 7 consultation with USFWS required.
- No Biological Assessment or Biological Opinion to be prepared.

4.5.3 **Wetlands/Waters of the U.S.**

A Wetland Delineation will be conducted within the proposed project area. This work will be completed in accordance with the USACE 1987 Wetland Delineation Manual and the Western Mountains, Valleys, and Coast Regional Supplement. All wetlands and waters of the U.S. will be identified and mapped using a hand held Trimble GPS unit. Horrocks Engineers will
communicate with the USACE through ACHD as needed. A draft delineation report will be prepared and submitted to ACHD for review and comment. If adjustments are required to the delineation, Horrocks’ wetland specialist will make the required adjustments at that time. ACHD will coordinate all reviews within ACHD and compile review comments and return to Horrocks.

Assumptions

- Two wetland specialists from Horrocks Engineers will conduct the fieldwork associated with the Wetland Delineation and Waters of the U.S. Report and preliminary data for the Wetland Functional Assessment in one field visit.
- Any changes required by ACHD and/or the USACE during the Wetland Delineation and Waters of the U.S. review will not require a separate site visit.

4.5.4 Section 404 Permit

A Section 404 Permit will be required for this project. Horrocks Engineers will attend a pre-application meeting with the U.S. Army Corp of Engineers to discuss the project schedule, the application process, and possible acceptable mitigation strategies.

Assumptions

- Two people from Horrocks Engineers will attend via conference call.
- Proposed wetland and waters of the U.S. impacts will qualify for a Nationwide 14 permit.

4.5.5 Hazardous Materials

Horrocks will conduct a review of potential hazardous material/hazardous waste sites in the API. The work will include:

- Reviewing published lists to determine if there are any documented hazardous waste sites, underground storage tanks, leaking underground storage tanks, or contaminated ground water in or near the project area
- Windshield surveys

Assumptions

- An Initial Site Assessment (Phase I), Preliminary Site Investigation (Phase II), and Detailed Site Investigation (Phase III) will not be required.

4.5.6 Environmental Memorandum

Data from all field surveys will be summarized in the environmental memorandum. A Draft Environmental Memorandum will be submitted to ACHD for review and comment. Horrocks will address ACHD comments and submit a Final Environmental Memorandum to ACHD.

Products and Deliverables

- Draft and Final Archaeological and Historic Survey Report
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- Determination of Eligibility and Finding of Effect (DOEFOE)
- Draft and Final Endangered/Threatened Species Effects Determination
- Draft and Final Wetland Delineation and Waters of the U.S. Report
- Draft Environmental Evaluation Memorandum
- Final Environmental Evaluation Memorandum
- Section 404 Permit and Section 401 Applications for ACHD submittal to the USACE and IDEQ respectively.

**ACHD Responsibilities**

- Provide consultant with existing spatial data (Geographic Information Services – GIS) surrounding the project site.
- Provide consultant with existing environmental study reports.

**Assumptions**

- Consultant will attend two coordination meetings.
- Consultant will prepare one draft and one final Environmental Evaluation Memorandum.
- Consultant will prepare one set of consolidated review comments from ACHD for one review of the draft Environmental Evaluation Memorandum for consideration in the final document.
- No air quality modeling (MOVS2014a, CAL3QHC, etc.) or other quantitative air quality analysis will be required.
- No formal consultation with the USFWS will be needed and no Biological Assessment or species-specific wildlife or plant surveys will be required and no Biological Opinion will be issued.
- No noise analysis will be required.
- Since there is no federal funding for the project nor does the project require approval from an agency of U.S. Department of Transportation, documentation under Section 4(f) of the Department of Transportation Act is not required.
- Consultant will submit the endangered/threatened species effects determination, wetland determination, and cultural resource report to the appropriate agencies (U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service, respectively), as necessary in the permitting process. The consultant will provide a revision for one set of review comments for both reports.
- The Consultant will not be preparing applications for other permits or approvals potentially needed beyond those identified above. The Consultant could provide these as additional services.
- It is assumed that a stream alteration permit will be required as part of the joint application as Five Mile Creek is a perennial stream.
4.6 30% Design Submittal

This task includes performing an internal review of all deliverables and preparing the submittal documents. The Consultant will deliver one paper and one PDF copy.

Products and Deliverables

- All deliverables will be uploaded to ACHD’s PWA site
  - PWA File Folder: 13 30 Percent Design-CPD20/Design Submittal-CPD20.20
- Roll Plot (two (2) sheets with typical section)
  - Including utilities in color
- Request for design exceptions
- 30% Design Cost Estimate entered into ACHD’s spreadsheet.
- PDFs of all deliverables

ACHD Responsibilities

- Transmitting plan sets to project team.
- Perform internal review of all deliverables

Assumptions

- The engineer will adhere to the ISPWC item number process, as well as the Special Provisions (SP), and ACHD’s Standard Special Provisions (SSP)
- The roadway improvements will incorporate a full depth reconstruction with HMA along Maple Grove Road.
- The roadway typical section with four travel lanes, a center turn lane, bike lanes and sidewalks will be utilized for the roadway design.
- Existing VRT bus stop locations will be retained and reconstructed per VRT standards.
- Minor modifications will be made to the Maple Grove Road/Overland Road intersection to include signal and pavement marking modifications with no roadway widening.
- No improvements will be made to the Maple Grove Road/Victory Road intersection.
- It is assumed that the existing HAWK signal and pedestrian crossing located at Maple Grove Elementary School will be reconstructed at its current location to accommodate the new roadway widening.

4.7 Review Meeting

The Consultant will attend the Conceptual Design Review meeting to discuss review comments. ACHD will make final decisions for conflicting review comments. Consultant will document review comments and prepare a Comment/Response Matrix for comments received.

Products and Deliverables

- Review Meeting Notes
• Maintain Comment/Response Matrix

**ACHD Responsibilities**

- Schedule and Host Meeting
- Provide Comments – One (1) week prior to the meeting

**Assumptions**

- ACHD will complete the review within two (2) weeks of receiving the 30% Design Submittal

**5.0 75% DESIGN**

The minimum information required on a 75% design review plans shall show existing facilities/features and location and general design features of planned facilities. This includes but is not limited to line and grade and other related items that will affect project design. These plans should be at 75% complete at minimum.

**5.1 Stormwater / Irrigation Design**

The Consultant will include storm water drainage systems, ditches/swales and culvert designs on the roadway plan and profile sheets. The roadway plans will also include profiles of the storm sewer systems, culverts, ditches/swales and other storm water management design elements to ensure proper drainage and no subsurface conflicts. The plans will also address review comments on the 30% Stormwater Report and Drainage Plans.

The Consultant will complete hydraulic computations, determine preliminary sizes, and show and label locations for all drainage structures (catch basins, pipes, box culverts, bridges, water quality treatment facilities, etc.) on plan and profile sheets.

Layout and verify size of irrigation structures based on information obtained in the 30% design phase. The minimum information required on a 75% design review plans shall be complete enough to show location and general design features of all existing and planned irrigation facilities. Consultant with ACHD will coordinate with the Irrigation Districts, IDWR and USACE as the project progresses.

Complete the 75% hydraulic design for the project, which includes:
- Complete hydraulic computation, determine size and placement of hydraulic structures,
- Complete hydraulic computations including values for total runoff, culvert/ditch capacity, hydraulic gradeline, backwater depth, scour analysis, and any other applicable items.
- Submit hydrologic and hydraulic computations for all major structures.
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• Address environmental mitigation issues relating to hydraulics; such measures may include detention and diversion structures, bank and channel stabilization, sediment control, energy dissipation devices, landscaping and seeding.
• Perform analysis and prepare supporting documentation for No Rise certification for Five Mile Creek.

Products and Deliverables

• Draft Stormwater Report
• Inclusion of the storm sewer network on the Roadway Plan and Profile sheets.
• Drainage design details to be included in the 95% design package.

ACHD Responsibilities

• Review and comment
• Verify ultimate drainage concepts are compatible and coordinated between the roadway and intersection needs
• Provide GIS information on existing stormwater infrastructure within the project area

5.2 Roadway Design

The Consultant will create roadway plan and profile sheets per ACHD standards. The plans will also address review comments on the 30% design package.

5.2.1 Utility Coordination

Consultant will complete utility mapping, and show existing utilities in color on the Roadway Plan Sheets. A pothole location map which will be submitted to ACHD for comment.

5.2.2 Structure Design

Structure design will commence for the Five Mile Creek crossing and the Farmer’s Lateral crossings based on the approved bridge types from the Bridge Alternate Study. This scope is based on the assumption that four sided precast box culverts will be used for all irrigation crossings.

Wall limits will be defined as necessary once the roadway alignment and geometrics have been approved. It is assumed that all walls, if necessary, will be contractor designed.

Products and Deliverables

• Utility conflict evaluation
• Pothole location map – to be reviewed and approved by ACHD Utility Coordinator prior to potholing commencing.
• Potholing. This scope of work assumes twenty (20) potholes will be required. Additional potholing will be provided as a supplemental service.
ACHD Responsibilities

- Review and comment
- Verify ultimate drainage concepts are compatible and coordinated between the roadway and intersection needs

5.3 Traffic Design

5.3.1 Signal Plans
Design the initial layout of the HAWK signal north of Victory Road. This will include providing new signal poles, mast arms, and luminaires as necessary for the proposed roadway widening. This task will also include minor signal modifications at the Maple Grove Road/Overland Road intersection.

Prepare drawings using the existing topographic sheet showing:
- Pole locations and mast arm lengths
- Power source location and requirements
- Type and location of signal heads
- All paint striping including lane markings, stop bars, crosswalks, islands, etc
- Pertinent notes
- Traffic signal controller type and location, including any hardware needed for system interconnect
- Intersection street lighting, number, and location
- Traffic signal interconnect conduit
- Junction box locations

5.3.2 Signing and Striping
Develop signing and striping plans in accordance with the MUTCD and applicable state and local laws and ordinances.

5.3.3 Signal Interconnect and Lighting
Signal interconnect facilities will be designed along Maple Grove Road and will include fiber as defined by ACHD along the length of the roadway widening. This scope assumes that luminaires will be placed to provide continuous lighting within the project area.

5.3.4 Temporary Traffic Control/Construction Phasing
Analyze for construction traffic control needs and detours, including utility relocation needs. Prepare temporary traffic control, construction staging/phasing plans and the advanced construction signing sheet.

Maintenance of bicycle and pedestrian facilities during construction shall be addressed during the design. If accessible facilities are present prior to construction, the routes must be maintained...
to ADA Standards during construction or a determination made that such action is cost or time prohibitive or otherwise infeasible.

5.4 Stormwater Pollution and Prevention Plan (SWPPP)

The Consultant will prepare a draft SWPPP using a template provided by ACHD. Specific sections of the SWPPP template, as identified by ACHD, will be completed and a brief narrative developed using readily available project documents and IDEQ’s list of best management practices. Sediment and Erosion Control plan sheets will be developed displaying flow directions, limits of disturbance, nearby waterways and wetlands, and proposed locations of temporary erosion and sediment control BMPs.

Assumptions

- The consultant will complete the ACHD provided SWPPP template as appropriate given readily available project information. If readily available information is not available, the template item will be left for the contractor to complete prior to construction.
- The contractor will complete any remaining and/or unknown SWPPP items prior to construction under ACHD’s guidance.
- The consultant will not perform any services to verify ACHD’s SWPPP template complies with either the 2012 Construction General Permit.
- The consultant will not perform any services to verify that plan sheets deemed acceptable by ACHD comply with the EPA’s 2012 Construction General Permit.

Products and Deliverables

- Draft SWPPP based on the template provided with portions left for either ACHD or the contractor to complete.
- Plan sheets noting locations of temporary BMPs, flow directions, limits of disturbance, and nearby waterways and/or wetlands.

ACHD Responsibilities

- Provide the SWPPP template to consultant with applicable sections identified.
- Review and comment on draft SWPPP and temporary BMPs (i.e. plan sheets).
- ACHD and/or the construction contractor will certify (sign) the SWPPP.
- Ensure the SWPPP is revised, completed, and signed by the contractor prior to construction.

5.5 Right-of-Way

Develop right-of-way requirements. Use alignment geometry developed for 75% Design that defines the new alignment and the limits of additional right-of-way required.

Products and Deliverables

- Show proposed right of way on 75% plans.
5.6 **75% Design Submittal**

This task includes performing an internal review of all deliverables and preparing the submittal documents. Deliverable shall be in PDF format.

**ACHD Responsibilities**
- Transmitting plan sets to irrigation districts, utility companies, and local agencies.
- Perform internal review of all deliverables

**Products and Deliverables**
- All deliverables will be uploaded to ACHD’s PWA site
  - *PWA File Folder: 14 75 Percent Design-CPD90/Preliminary Design Submittal-CPD90.10*
- Title Sheet (1 sheet)
- Typical Sections (4 sheets)
- Roadway Plan and Profile Sheets – (22 sheets) (scale 1”=40’ half-size)
  - Include measurement on roadway plans from structure to new ROW line if less than 20’
  - Including existing utilities in color
- Stormwater / Irrigation Plan and Profile Sheets (22 sheets) (scale 1”=40’ half-size)
- Roadway Detail Sheets (2 sheets)
- Pond Site Layout (1 sheet)
- Drainage Details (1 sheet)
- Irrigation Details (1 sheet)
- Irrigation Profiles (3 sheets)
- Structure Plans (Situation and Layout) (6 sheets)
- Signal Plans (2 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signal Interconnect & Lighting Plans – Including ITS (4 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signing and Striping Sheets (4 sheets) (scale 1”=80’ half size)
- General Construction Staging/Phasing Plans/Utility Phasing Plans (3 sheets)
- Advanced Construction Signing and General Notes (2 sheets)
- One (1) set of 11”x17” 75% design plans (78 sheets)
- 75% Cost Estimate on ACHD provided spreadsheet
- 75% Cost Estimate entered into B2W per ACHD User Guide
- Cultural/Historic/Threatened & Endangered Species Memo
- 75% ROW Required Square Footage (ROW, TE, PE) by Parcel (ROW Requirements Table) – on plans and Excel
• List including property ID, existing fence type, height & top elevation and proposed fence type, height & top elevation.
• PDFs of all deliverables – PDF plans need to be to scale at 11x17.
• All native files including CAD files (insert and bind all x-refs into one CAD file)

Assumptions
• The engineer will adhere to the ISPWC item number process, as well as the Special Provisions (SP), and ACHD’s Standard Special Provisions (SSP)
• Pothole information will be included in both the roadway and stormwater/irrigation profiles
• Four sided precast box culverts will be used for all irrigation crossings.

5.7 75% Review Meeting
ACHD will provide comments and the review plan sets to the Consultant prior to the meeting. The Consultant shall compile comments on the Comment/Response Matrix and send draft to Project Manager prior to the meeting. The Consultant will attend the 75% Design Review meeting to discuss review comments. ACHD will make final decisions for conflicting review comments. Consultant will complete the Comment/Response Matrix after the 75% Design Review and submit to ACHD.

The Consultant will attend a plan-in-hand field review meeting and prepare notes summarizing field review comments and decisions made.

Products and Deliverables
• Review Meeting Notes
• Maintain Comment/Response Matrix
• Plan-in-Hand Field Review Meeting Notes

ACHD Responsibilities
• Schedule and Host plan in hand meeting
• Schedule and Host Meeting
• Provide Comments – One (1) week prior to the meeting

Assumptions
• ACHD will complete the review within two weeks of receiving the 75% Design Submittal

6.0 95% DESIGN
Make modifications based on 75% design review comments. Verify adherence to environmental commitments and agreements; prepare quantities and special provisions. The 95% design plans are to be a complete set of plans and specifications to be prepared in their finished condition.
The documents shall clearly indicate the required phasing of the work. Drawings and specifications shall clearly indicate what existing systems and utilities will be maintained during construction; how and to what extent existing utilities will be relocated and how existing and/or new utilities will connect to and serve the project.

6.1 Roadway Design

Resolve previous review comments and make or coordinate appropriate modifications to the plans.

- Compute and finalize quantities
- Finalize Roadway Design Sheets
  - Finalize drainage design
  - Finalize all work on roadway plan package including utilities
  - Finalize design for all permit mitigation
- Finalize Structure Design
- Finalize Signing and Striping Plans
  - Revise sheets according to comments from field review and traffic engineer’s review
  - Review for compliance with MUTCD
- Finalize Signal Plans
- Finalize Traffic Control Plans
  - Set up phasing based on construction activities
  - Detours
  - Flagging
  - Road closure time
  - Nighttime work
  - Specifics for each phase and type of work
- Finalize Utility Plans
- Review plans to verify Environmental commitments are included.
- Prepare Engineer’s Estimate, and include in the final package
- Prepare Special Provisions, and include in the final package
- Special detailed drawings as required to clarify construction details or non-standard items included in the project

6.2 Right-of-Way

The consultant will develop a Total Ownership map and Right-of-Way Plans:

- Review title reports for easements or other encumbrances. These may reveal the existence and location of water lines, conduits, drainage or irrigation lines, utilities, etc. that must be handled during construction.
6.2.1 Develop Total Ownership Table
Using the information from the property ownership map we will develop a project Total Ownership Table that shows the existing and proposed new right-of-way locations in a table format, lists the owner names and the areas of new right-of-way required from each property owner.

6.2.2 Develop New Right-of-Way Plans
Using the information from the property ownership map and the information from the project design and the location for the new right-of-way limits we will develop new Right-of-way plans for the project.

6.2.3 Write Legal Descriptions
We will write a legal description for each of the new required right-of-way parcels as detailed in the Total Ownership Table and defined on the Right-of-Way plans. It is assumed that legal descriptions will be provided for forty (40) parcels plus forty (40) permanent easements.

Products and Deliverables:
- Existing right-of-way and property ownership base map
- Preliminary ROW Plans
- Summary of meetings with property owners

Assumptions
- This scope of work assumes forty (40) parcels may have right-of-way impacts and require legal descriptions and title reports.

6.3 95% Design Submittal
This task includes performing an internal review of all deliverables and preparing the submittal documents. Deliverable shall be in PDF or electronic format. ACHD will be responsible for transmitting plan sets to irrigation districts, utility companies, and local agencies.

Products and Deliverables
- All deliverables will be uploaded to ACHD’s PWA site
  - PWA File Folder: 15 95 Percent Design-CPD50/Draft Final Design Submittal-CPD50.10
- Title Sheet (1 sheet)
- Typical Sections (4 sheets)
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- Roadway Plan and Profile Sheets (22 sheets) Approach/Driveway Profile Sheets (2 sheets)
- Roadway Detail Sheets (4 sheets)
- Stormwater / Irrigation Plan and Profile Sheets (22 sheets)
  - Including pond revegetation as outlined in the Stormwater Management Pond Revegetation Guidance Manual
- Pond Site Layout (2 sheets)
- Drainage Details (1 sheet)
- Irrigation Details (2 sheets)
- Irrigation Profiles (3 sheets)
- Structure Plans (12 sheets)
- Signal Plans (2 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signal Interconnect and Lighting Plans (4 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signing and Striping Sheets (4 sheets)
- Drainage Details (1 sheet)
- Irrigation Details (2 sheets)
- Irrigation Profiles (3 sheets)
- Structure Plans (12 sheets)
- Signal Plans (2 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signal Interconnect and Lighting Plans (4 sheets)
  - Consult with Utility Coordinator regarding power supply
- Signing and Striping Sheets (4 sheets)
- Temporary Traffic Control Plan (including bicycle, pedestrian, and transit facilities) (8 sheets)
- General Construction Staging/Phasing Plans/Utility Phasing Plans, if required (2 sheets)
- Advanced Construction Signing (2 sheets)
- Sediment and Erosion Control Plans – or – SWPPP (4 sheets)
- Special Provisions
- 95% Cost Estimate on ACHD provided spreadsheet
- 95% Cost Estimate entered into B2W per ACHD User Guide
- 95% Color ROW Plans (11 sheets)
  - Include measurement from structure to new ROW line if less than 20’
- 95% ROW Required Square Footage (ROW, TE, PE) by Parcel (ROW Requirements Table) – on plans and Excel
- List including property ID, existing fence type, height & top elevation and proposed fence type, height & top elevation.
- List on the plans, in table form, all monuments found within the project limits, identifying Station and Offset from control line and monument type found (I.C. 55-1613).
- List on the plans, in table form, all calibration points, including northing, easting, elevation and monument type.
- Show on the plan sheets, the locations of TBM’s and provide TBM information (Station, Offset, Northing, Easting, Elevation and monument type).
- 95% Stormwater Report (including calculations), soils report
- 75% design Plans and estimate with ACHD comments
- 75% Comment/Response Matrix
- One (1) set of 11”x17” 95% design plans (112 sheets)
- PDFs of all deliverables – PDF plans need to be to scale at 11x17.
• All native files including CAD (insert and bind all x-refs into one CAD file)

Assumptions
The engineer will adhere to the ISPWC item number process, as well as the Special Provisions (SP), and ACHD’s Standard Special Provisions (SSP)

6.4 95% Review Meeting

Products and Deliverables
• Review Meeting notes
• Maintain Comment/Response Matrix

ACHD Responsibilities
• Schedule and Host Meeting
• Provide Comments – One (1) week prior to the meeting

Assumptions
• ACHD will complete the review within two weeks of receiving the 95% Design Submittal

7.0 99% DESIGN
The Consultant will incorporate comments from the 95% Design review meeting into the 99% Design submittal documents and perform an internal review. The plans will be finalized for right-of-way acquisition and legal descriptions will be written.

The consultant will provide support during right of way acquisition and make changes to construction and right of way plans as requested by ACHD Project Manager.

7.1 Finalize Plans for Right-of-Way Acquisition

Products and Deliverables
• All deliverables will be uploaded to ACHD’s PWA site
  o PWA File Folder: 16 99 Percent Designl-CPD65
• One (1) set of 11”x17” construction plans (101 sheets) signed and sealed by a Professional Engineer registered in the State of Idaho
• One (1) set of 11”x17”color right-of-way plans (11 sheets), signed and sealed by a Professional Land Surveyor registered in the State of Idaho; attach signing and striping plans to ROW plans.
  o Parcels which have acquisition(s), ROW plans shall show the station and offset of each angle point of the acquisition, including angle points along the existing ROW and at the intersections with property lines of the affected property.
99% ROW Required Square Footage (ROW, TE, PE) by Parcel (ROW Requirements Table) – on plans and Excel
  o Include column for subproject numbers in ROW table if applicable.
• PDF of construction plans (101 sheets) signed and sealed by a Professional Engineer registered in the State of Idaho – PDF plans need to be to scale at 11x17.
• PDF of color right-of-way plans (11 sheets), signed and sealed by a Professional Land Surveyor registered in the State of Idaho – PDF plans need to be to scale at 11x17.
• One PDF set of exhibits for takes and permanent easements, signed and sealed by a Professional Land Surveyor registered in the State of Idaho.
• ACHD ROW Checklist
• One PDF set of cross sections to include elevation changes at each driveway.
• PDF Special Provisions, signed and sealed by a Professional Engineer registered in the State of Idaho
• Completed “ACHD Supplied SWPPP Information”
• List including property ID, existing fence type, height & top elevation and proposed fence type, height & top elevation.
• List on the plans, in table form, all monuments found within the project limits, identifying Station and Offset from control line and monument type found (I.C. 55-1613).
• List on the plans, in table form, all calibration points, including northing, easting, elevation and monument type.
• Show on the plan sheets, the locations of TBM’s and provide TBM information (Station, Offset, Northing, Easting, Elevation and monument type).
• 99% Cost Estimate on ACHD provided spreadsheet
• 99% Cost Estimate entered into B2W per ACHD User Guide
• 95% Design plans and reports with ACHD comments
• 95% Comment/Response Matrix
• 95% Right-of-Way Plans with ACHD comments
• All final permits
• PDFs of all deliverables
• All native files including CAD (insert and bind all x-refs into one CAD file)
• Contingency Item: Design support during ROW acquisition.

ACHD Responsibilities

Assumptions

• The engineer will adhere to the ISPWC item number process, as well as the Special Provisions (SP), and ACHD’s Standard Special Provisions (SSP)

8.0 100% BID DOCUMENTS

The Consultant will incorporate changes made during right-of-way negotiations into the plans.
Products and Deliverables

- All deliverables will be uploaded to ACHD’s PWA site
  - PWA File Folder: 17 100 Percent Design-CPD55/100 Percent Plans-CPD55.10
- 100% Plans (22” x 34”) – PDF, signed and sealed by a Professional Engineer registered in the State of Idaho
- 100% Specifications – PDF, signed and sealed by a Professional Engineer registered in the State of Idaho
  - Review utility contact information and durations with Utility Coordinator prior to submittal
  - Include a description of work to be completed by the utility company under contact information
- 100% Cost Estimate on ACHD provided spreadsheet
- 100% Cost Estimate entered into B2W per ACHD User Guide
- Completed “ACHD Supplied SWPPP Information”
- Cross Sections – PDF
- Shallow Injection Well Inventory Forms (for any subsurface drainage feature)
- Vectorized PDF of 100% Plans – PDF plans need to be to scale at 22x34.
- All native files including CAD (insert and bind all x-refs into one CAD file)

ACHD Responsibilities

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Assumptions

- The engineer will adhere to the ISPWC item number process, as well as the Special Provisions (SP), and ACHD’s Standard Special Provisions (SSP)

9.0 CONSTRUCTION ENGINEERING

This task addresses engineering support during the construction phases of the project and the record of survey which occurs after construction is complete. ACHD will utilize the engineer on a time and materials basis. This work is not included in this contract and will be included in a separate contract if required.
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<th>Task Description</th>
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<th>Project Management</th>
<th>Roadway Design</th>
<th>Irrigation Design</th>
<th>Drainage Design</th>
<th>Structural Design</th>
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## Projected Labor Hours and Costs

**Maple Grove Road, Victory Road to Overland Road**

**AHD Project No.:** R0105-007

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**SUBTOTAL Task 8:**

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**TOTAL LABOR COST:**

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<td>Direct Cost - Fee for IDWR database search</td>
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**TOTAL SUBCONSULTANTS / REIMBURSABLE EXPENSES:**

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**TOTAL $469,062**