1. CALL TO ORDER AND ROLL CALL
   Chairperson   Jill Grossman-Belisle
   Commissioner   Bill Neal
   Commissioner   Aaron Pearson
   Commissioner   Paul Steinway
   Commissioner   Bryan Voronin

2. CONSENT
   a. Approval of the March 8, 2016, Timnath Development Authority Meeting Minutes

3. BUSINESS
   a. RESOLUTION NO. TDA-3, SERIES 2016, A RESOLUTION APPROVING THE
      PURCHASE AUTHORIZATION FOR 2016 EXPENSES RELATED TO THE
      BOXELDER BASIN REGIONAL STORMWATER AUTHORITY (BBRSA) AND THE
      TIMNATH DEVELOPMENT AUTHORITY IGA

   b. RESOLUTION NO. TDA-4, SERIES 2016, A RESOLUTION APPROVING AN
      AGREEMENT BETWEEN THE TDA AND AYRES ASSOCIATES FOR THE
      BOXELDER LOMR (TIMNATH PORTION)

4. ADJOURNMENT
1. CALL TO ORDER AND ROLL CALL
Chairperson Grossman-Belisle called to order the regular meeting of the Timnath Development Authority on March 8, 2016, at 6:01 p.m.

Present:
- Chairperson Jill Grossman-Belisle
- Co-Chairperson Bryan Voronin
- Commissioner Paul Steinway

Absent:
- Commissioner Bill Neal
- Commissioner Aaron Pearson

Also Present:
- April Getchius, Town Manager
- Milissa Peters, Town Clerk
- Robert Rogers, Contracted Town Attorney
- Don Taranto, Contracted Town Engineer
- Matt Blakely, Contracted Town Planner
- Brian Williamson, Contracted Town Planner

2. CONSENT
a. Approval of the January 26, 2016, Timnath Development Authority Meeting Minutes
Commissioner Voronin moved to approve THE CONSENT AGENDA. Commissioner Steinway seconded the motion. The motion passed unanimously by voice vote.

3. BUSINESS
A. RESOLUTION NO. TDA-2, SERIES 2016, A RESOLUTION APPROVING THE PURCHASE AUTHORIZATION FOR 2016 EXPENSES RELATED TO ADDITIONAL FUNDING FOR THE LARIMER COUNTY ROAD 52 PROJECT PER THE APPROVED IGA
Staff Comments:
- Ms. Getchius spoke to the Commissioners about the proposed resolution.
Commissioner Steinway moved to approve RESOLUTION NO. TDA-2, SERIES 2016, A RESOLUTION APPROVING THE PURCHASE AUTHORIZATION FOR 2016 EXPENSES RELATED TO ADDITIONAL FUNDING FOR THE LARIMER COUNTY ROAD 52 PROJECT PER THE APPROVED IGA. Commissioner Voronin seconded the motion. The motion passed unanimously by voice vote.

4. ADJOURNMENT
Chairperson Grossman-Belisle adjourned the meeting at 6:04 p.m.
The Timnath Development Authority approved the March 8, 2016, TDA Meeting Minutes on September 13, 2016.

TIMNATH DEVELOPMENT AUTHORITY

____________________________
Jill Grossman-Belisle, Chairperson

ATTEST:

____________________________
Milissa Peters, CMC
Secretary
**EXECUTIVE SUMMARY:**
Request for payment under the Intergovernmental Agreement regarding cost sharing for Boxelder Basin improvements. These are 2016 expenses related to the construction of the east side detention facility. Additional budget is being requested due to Timnath’s share of cost overruns on the CR 52 and ESDF projects not anticipated in 2015 when the budget was set.

**STAFF RECOMMENDATION:**
Staff recommends approval of this resolution as the expenses are justified per the approved IGA.

**KEY POINTS/SUPPORTING INFORMATION:**
- IGA with the TDA was negotiated in 2012 and approved Nov 13, 2012 (Resolution No. TDA-6, Series 2012)
- Article 2.3 of the IGA specifies that the TDA shall provide funds in the amount not to exceed 25% of the Costs actually incurred by the Authority.
- The reimbursement submitted is 25% of the costs over the specified time period.
- In March 2016, $353,415 was approved related to CR52 additional costs. These had original been anticipated to be completed in 2015 and had not been included in the 2016 budget.
- 2016 projects are currently ~$135,000 (Timnath’s portion) over budget.
- An additional $500,000 for this CIP item has been included in CIP & budget discussions this year.

**ADVANTAGES:**
Required expense per the approved IGA.

**DISADVANTAGES:**
Expenses higher than originally anticipated.

**FINANCIAL IMPACT:**
The additional funds will come from the other TDA projects not being built this year, primarily the Parkway Improvements that will be rebudgeted for future year.

**RECOMMENDED MOTION:**
I move to approve Resolution No. _, Series 2016 approving the purchase authorization for 2016 expenses related to the Boxelder Basin Stormwater Authority and the Timnath Development Authority IGA.

**ATTACHMENTS:**
1. Resolution, 2. TDA Purchase Authorization, 3. Invoices
TDA Purchase Authorization

Date: 9/7/16

Vendor: Boxelder Basin Regional Stormwater Authority (BBRSA)
Department: Engineering
Project: Boxelder - BBRSGA IGA
Description: Timnath's portion of Authority expenses for Jan-July 2016 per the approved IGA.

Is this purchase more than $25,000  X  Yes  _____No
Is this the purchase of Real Estate or Land  _____Yes  ___X___No
Is this the purchase of Public Art  ____Yes  ___X___No
Is this a budget request for a purchase that will exceed the approved budget  ____X___Yes  ____No

Advantages: Required expense per the previously approved IGA.
Disadvantages: Expenses are higher than originally anticipated.

<table>
<thead>
<tr>
<th>Description</th>
<th>Approved Budget</th>
<th>Current Balance</th>
<th>Additional Budget Requested</th>
<th>Requested</th>
<th>Budget Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Boxelder Stormwater Auth</td>
<td>$500,000</td>
<td>$146,585.00</td>
<td>$500,000</td>
<td>$634,444.26</td>
<td>$12,140.74</td>
</tr>
</tbody>
</table>

Financial Impact:
Additional will be allocated from the Parkway Improvements project that was not built this year.

Recommendation/Justification:
Recommend approval as the expenses are justified BBRSA expenses per the approved IGA.

[Signatures]
Requesting Department Signature  9/7/16  Date

Town Manager Signature  9/8/16  Date
A RESOLUTION APPROVING THE PURCHASE AUTHORIZATION FOR 2016 EXPENSES RELATED TO THE BOXELDER BASIN STORMWATER AUTHORITY AND THE TIMNATH DEVELOPMENT AUTHORITY IGA.

WHEREAS, the Town of Timnath (“Town”) has established the Timnath Development Authority (“TDA”) pursuant to a resolution dated November 10, 2004; and

WHEREAS, Town and the TDA are governed by an identical governing body; and

WHEREAS, the TDA has the power to pass resolutions; and

WHEREAS, the TDA approved the Intergovernmental Agreement between the Boxelder Basin Stormwater Authority and the TDA as Resolution No. TDA-6, Series 2012; and

NOW, THEREFORE, BE IT RESOLVED BY THE TIMNATH DEVELOPMENT AUTHORITY OF THE TOWN TIMNATH, COLORADO AS FOLLOWS:

Section 1. Approval
The TDA hereby approves the Purchase Authorization for 2016 expenses related to the Boxelder Basin Stormwater Authority and the Timnath Development Authority IGA.

INTRODUCED, MOVED, AND ADOPTED BY THE TIMNATH DEVELOPMENT AUTHORITY, ON SEPTEMBER 13, 2016.

TIMNATH DEVELOPMENT AUTHORITY

______________________________
Jill Grossman-Belisle, Chair

ATTEST:

______________________________
Milissa Peters, Secretary
**TDA COMMUNICATION**

<table>
<thead>
<tr>
<th>Meeting Date:</th>
<th>Item: A Resolution Approving an agreement between the TDA and Ayres Associates for the Boxelder LOMR (Timnath Portion).</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 13, 2016</td>
<td></td>
</tr>
</tbody>
</table>

**Presented by:**
Don Taranto
Town Engineer

**EXECUTIVE SUMMARY:**
Now that the Boxelder improvements have been completed, a LOMR needs to be prepared and submitted to remove the floodplain in the Timnath area. This agreement is for the Timnath portion of the LOMR. Funding to be split between 2016 & 2017. 2016 dependent on an increase in the budget per prior requests.

**STAFF RECOMMENDATION:**
Staff recommends approval of this resolution.

**KEY POINTS/SUPPORTING INFORMATION:**
- Costs were allocated based on amount of floodplain in each jurisdiction.
- Boxelder IGA included language that increases to the Project Costs shall be subject to mutual approval by the parties. As this is additional work, it is hereby being approved as a separate agreement.

**ADVANTAGES:**
Required expenses per the previously approved IGA and expenses that are necessary to remove the floodplain thru Timnath.

**DISADVANTAGES:**
None.

**FINANCIAL IMPACT:**
For 2016, funds will be dependent on approval of an increased budget for the CIP Boxelder Stormwater Authority. For 2017, will be included in the 2017 CIP - Boxelder Stormwater Authority Budget.

**RECOMMENDED MOTION:**
I move to approve Resolution No. _, Series 2016 approving an agreement between the TDA and Ayres Associates for the Boxelder LOMR in the amount of $43,815.80.

**ATTACHMENTS:**
Town of Timnath
4800 Goodman Street
Timnath, CO 80547
(970) 224-3211

TDA Purchase Authorization

Date: 9/7/16
Vendor: Ayres Associates
Department: Engineering
Project: Boxelder Stormwater Authority - Boxelder LOMR
Description: Timnath’s portion of the Boxelder LOMR to remove floodplain from Timnath GMA.

Is this purchase more than $25,000  X Yes  No
Is this the purchase of Real Estate or Land  Yes  X No
Is this the purchase of Public Art  Yes  X No
Is this a budget request for a purchase that will exceed the approved budget  Yes  X No

Advantages: Required expense per the previously approved IGA.
Disadvantages: None.

<table>
<thead>
<tr>
<th>Description</th>
<th>Approved Budget</th>
<th>Current Balance</th>
<th>Additional Budget Requested</th>
<th>Requested</th>
<th>Budget Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016 Boxelder Stormwater Auth</td>
<td>$1,000,000</td>
<td>$12,140.74</td>
<td>$0</td>
<td>$12,000.00</td>
<td>$140.74</td>
</tr>
<tr>
<td>2017 Boxelder Stormwater Auth</td>
<td>$250,000</td>
<td>$250,000</td>
<td>$0</td>
<td>$31,815.80</td>
<td>$206,184.20</td>
</tr>
</tbody>
</table>

Financial Impact:
Project split between 2016 & 2017. 2017 portion will need to be included in the 2017 Boxelder Stormwater Authority CIP line item.

Recommendation/Justification:
Recommend approval as the expenses are justified expense per the approved BBRSA IGA.

Requesting Department Signature  
9/8/16

Date

Town Manager Signature  
9/8/16

Date
WHEREAS, the Town of Timnath (“Town”) has established the Timnath Development Authority (“TDA”) pursuant to a resolution dated November 10, 2004; and

WHEREAS, Town and the TDA are governed by an identical governing body; and

WHEREAS, the TDA has the power to pass resolutions; and

WHEREAS, the TDA approved the Intergovernmental Agreement between the Boxelder Basin Stormwater Authority and the TDA as Resolution No. TDA-6, Series 2012; and

NOW, THEREFORE, BE IT RESOLVED BY THE TIMNATH DEVELOPMENT AUTHORITY OF THE TOWN TIMNATH, COLORADO AS FOLLOWS:

Section 1. Approval
The TDA hereby approves an agreement between the TDA and Ayres Associates for the Boxelder LOMR in the amount of $43,815.80.

INTRODUCED, MOVED, AND ADOPTED BY THE TIMNATH DEVELOPMENT AUTHORITY, ON SEPTEMBER 13, 2016.

TIMNATH DEVELOPMENT AUTHORITY

______________________________
Jill Grossman-Belisle, Chair

ATTEST:

______________________________
Milissa Peters, Secretary
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>OA/OC</th>
<th>Sr. Project Manager (Chris Pletcher)</th>
<th>Project Engineer III (Jaclyn Michaelsen)</th>
<th>Project Engineer I (Pat Schoenecker)</th>
<th>CAD / GIS</th>
<th>Word Processor / Editor / ContractAdmin</th>
<th>Clerical</th>
<th>Total Labor Cost</th>
<th>Direct Costs</th>
<th>Total by Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Meetings, Coordination, and Data Collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$185</td>
<td>$170</td>
<td>$140</td>
</tr>
<tr>
<td>1.1</td>
<td>Meetings</td>
<td>36</td>
<td>4</td>
<td>$6,340</td>
<td>$150</td>
<td>$6,490</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>As-built Project Survey</td>
<td>2</td>
<td>8</td>
<td>16</td>
<td>$3,380</td>
<td>-</td>
<td>$3,380</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Management, invoicing</td>
<td>8</td>
<td>8</td>
<td>$1,800</td>
<td>-</td>
<td>$1,800</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Provide support, drafting etc..</td>
<td>8</td>
<td>12</td>
<td>20</td>
<td>$5,440</td>
<td>-</td>
<td>$5,440</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>54</td>
<td>20</td>
<td>36</td>
<td>12</td>
<td>$16,960</td>
<td>$150</td>
<td>$17,110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 2</td>
<td>Hydrologic Analysis for LOMR Submittal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$190</td>
<td>$170</td>
<td>$140</td>
</tr>
<tr>
<td>2.1</td>
<td>Develop As-built Project Hydrologic Model for LOMR Study Area</td>
<td>2</td>
<td>8</td>
<td></td>
<td>$1,460</td>
<td>$100</td>
<td>$1,560</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>As-built Modeling of the L&amp;W Canal Spill</td>
<td>4</td>
<td>16</td>
<td>4</td>
<td>$3,400</td>
<td>-</td>
<td>$3,400</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>6</td>
<td>24</td>
<td>4</td>
<td></td>
<td>$4,860</td>
<td>$100</td>
<td>$4,960</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task 3</td>
<td>Hydraulic Analysis for LOMR Submittal (CR 54 South to Poudre River)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$195</td>
<td>$175</td>
<td>$145</td>
</tr>
<tr>
<td>3.1</td>
<td>Existing Conditions (EC) Model south of County Road 54</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>$2,170</td>
<td>-</td>
<td>$2,170</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>As-built (AB) Model south of County Road 54</td>
<td>2</td>
<td>4</td>
<td>40</td>
<td>$6,650</td>
<td>-</td>
<td>$6,650</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Coordination with Anderson Consulting Engineers (ACE)</td>
<td>8</td>
<td>8</td>
<td></td>
<td>$2,480</td>
<td>-</td>
<td>$2,480</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Update Existing Conditions (EC) Floodplain Mapping.</td>
<td>2</td>
<td>16</td>
<td>4</td>
<td>$3,090</td>
<td>-</td>
<td>$3,090</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Update As-built Conditions (AB) Floodplain Mapping.</td>
<td>2</td>
<td>32</td>
<td>8</td>
<td>$5,810</td>
<td>-</td>
<td>$5,810</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td>8</td>
<td>16</td>
<td>104</td>
<td>12</td>
<td>$20,200</td>
<td>-</td>
<td>$20,200</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### LABOR DETAIL AND SUMMARY OF DIRECT AND SUBCONSULTING COSTS BY TASK

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>OA/OC</th>
<th>Sr. Project Manager (Chris Pletcher)</th>
<th>Project Engineer III (Jaclyn Michaelsen)</th>
<th>Project Engineer I (Pat Schoenecker)</th>
<th>CAD / GIS</th>
<th>Word Processor / Editor / ContractAdmin</th>
<th>Clerical</th>
<th>Total Labor Cost</th>
<th>Direct Costs</th>
<th>Total by Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 4</td>
<td>Update ½ Foot Floodway Model and Mapping (South of CR 54)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Update Existing Conditions (EC) Floodway Models</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 1,490</td>
<td>$ 1,490</td>
</tr>
<tr>
<td>4.2</td>
<td>Update As-built Conditions (AB) Floodway Models</td>
<td>2</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 3,730</td>
<td>$ 3,730</td>
</tr>
<tr>
<td>4.3</td>
<td>Update Existing Conditions (EC) Floodway Mapping</td>
<td>2</td>
<td>16</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 3,090</td>
<td>$ 3,090</td>
</tr>
<tr>
<td>4.4</td>
<td>Update As-built Conditions (AB) Floodway Mapping</td>
<td>2</td>
<td>32</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 5,810</td>
<td>$ 5,810</td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>8</td>
<td>80</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>$ 14,120</strong></td>
<td><strong>$ -</strong></td>
</tr>
<tr>
<td>Task 5</td>
<td>Prepare LOMR Package</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Prepare Narrative and MT-2 Forms</td>
<td>2</td>
<td>8</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 1,680</td>
<td>$ 35,500</td>
</tr>
<tr>
<td>5.2</td>
<td>Prepare Work Maps</td>
<td>8</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 5,920</td>
<td>$ 5,920</td>
</tr>
<tr>
<td>5.3</td>
<td>Annotated Firm</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 2,820</td>
<td>$ 2,820</td>
</tr>
<tr>
<td>5.4</td>
<td>Data Tables</td>
<td>2</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 2,580</td>
<td>$ 2,580</td>
</tr>
<tr>
<td>5.5</td>
<td>Flood Profiles</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 1,460</td>
<td>$ 1,460</td>
</tr>
<tr>
<td>5.6</td>
<td>Submit Package to City of Fort Collins and Address Comments</td>
<td>40</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 9,440</td>
<td>$ 9,440</td>
</tr>
<tr>
<td>5.7</td>
<td>Submit Package to Larimer County Flood Review Board</td>
<td>8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$ 1,360</td>
<td>$ 1,360</td>
</tr>
<tr>
<td>5.8</td>
<td>Submit Package to FEMA and Respond to FEMA Review Comments.</td>
<td>8</td>
<td>16</td>
<td>40</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>$ 11,720</strong></td>
<td><strong>$ 11,720</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Subtotal</strong></td>
<td>12</td>
<td>22</td>
<td>136</td>
<td>98</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td><strong>$ 36,980</strong></td>
<td><strong>$ 35,500</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>28</td>
<td>98</td>
<td>364</td>
<td>162</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td><strong>$ 93,120</strong></td>
<td><strong>$ 35,750</strong></td>
</tr>
<tr>
<td>Task</td>
<td>Description</td>
<td>OA/QC</td>
<td>Sr. Project Manager (Chris Pletcher)</td>
<td>Project Engineer III (Jaclyn Michaelsen)</td>
<td>Project Engineer I (Pat Schoenecker)</td>
<td>CAD / GIS</td>
<td>Word Processor / Editor / ContractAdmin</td>
<td>Clerical</td>
<td>Total Labor Cost</td>
<td>Direct Costs</td>
<td>Total by Task</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>-------</td>
<td>------------------------------------</td>
<td>------------------------------------------</td>
<td>--------------------------------------</td>
<td>-----------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>John Hunt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Budget Breakdown:

Total Miles of Mapped Floodplain = 16.6

COFC Mapped Floodplain (west side of Prospect) = 2.8 miles (17%) = $21,907.90

Timnath Mapped Floodplain (I-25 boxes to Poudre River) = 5.8 miles (34%) = $43,815.80

Remainder of mapped floodplain update = 8.0 miles (49%) = $63,146.30

Total $128,870.00
BOXELDER BASIN REGIONAL STORMWATER AUTHORITY IN
COMBINATION WITH CITY OF FORT COLLINS AND TOWN OF
TIMNATH

Scope of Work for Letter of Map Revision (LOMR)
preparation for ESDF, LWCCS, CR 52, opening of I-25 boxes
and siphoning of Lake Canal for the Boxelder and Cooper
Slough Basins

PROJECT OBJECTIVE: This scope of work covers those tasks necessary to complete the
Letter of Map Revision (LOMR) for the three (3) projects being constructed by the Boxelder
Stormwater Authority and the three (3) projects being constructed by the City of Fort Collins and
Town of Timnath. The three Boxelder Authority projects include:

1. East Side Detention Facility (ESDF) – This is a large scale (1700 acre-foot) regional
detention facility proposed between CR 50 and CR 52. The construction of this project
is what allows the other projects to be built.
2. CR 52 – This project is being constructed in coordination with the ESDF project to
reduce the overtopping depth of CR 52 to what it would have been had the originally
proposed Edson project been constructed.
3. Larimer and Weld Canal Crossing Structure – The Boxelder Creek flood flows currently
overtop the Larimer and Weld Canal just north of Vine Drive. The construction of the
side spill weir in the canal bank will insure that the canal bank does not fail during a flood
event.

The three City of Fort Collins/Town of Timnath projects include:

1. Opening of I-25 Boxes – With the construction of ESDF it will be possible to open the 2
blocked box culverts under I-25 and be at or below the existing 100-year flow rates on
the west side of I-25 at Prospect Road
2. Siphoning of Lake Canal – Immediately downstream of the I-25 boxes there is an
existing irrigation crossing of Boxelder Creek. The crossing is a suspended box culvert
with an invert barely above the invert of Boxelder Creek. Siphoning the Lake Canal
crossing will greatly reduce the backwater created by the current crossing structure
3. Prospect Road Overflow – This project is channel improvements that convey the storm
flows into a new bridge structure/box culverts under Prospect Road. The flows
discharge on the south side of Prospect Road, onto the effective floodplain.

The construction of these six projects have dramatic impacts on the existing Boxelder Creek
floodplain and a portion of the Cooper Slough floodplain. There is a portion of the Cooper
Slough floodplain which is also being affected by the proposed projects. The spills from the
Larimer and Weld canal are reduced with the construction of the ESDF, reducing the Cooper
Slough floodplain downstream of the Larimer and Weld Canal to the Poudre River.

Ayres Associates’ Staff will include:
Project Manager - Chris Pletcher, PE; c (970) 218-5546, w (970) 223-5556
Project Engineer - Jaclyn Michaelsen, PE; c (970) 310-1547, w (970) 223-5556
Task 1 – Meetings, Coordination, and Data Collection

1.1 Meetings. This task provides time for Ayres staff to meet with the City of Fort Collins staff twice during the modeling of the LOMR. In addition Ayres will attend Board meetings and work sessions as required until the LOMR is submitted to FEMA. This scope assumes 9 months of board meetings.

1.2 As-built Project Survey. This task assumes that detailed as-built survey of the six projects will be provided to Ayres. The survey will be provided to Ayres in the following coordinates:

- Horizontal: NAD 83 State Plane
- Vertical: NAVD 88 coordinates

Any topography required to do the modeling, outside the extents of the projects, will use the Boxelder LiDAR data that was obtained for the projects. Ayres will obtain and review the as-built survey information in this task.

1.3 Management and invoicing. This task provides time for the Ayres project manager to handle invoicing to the Boxelder stormwater authority, City of Fort Collins and Town of Timnath who will all share in the cost of this work. This task also allows time for the project manager to track the project budgets for each entity, and progress schedule.

1.4 Provide support, drafting etc. Frequently during the course of design, Project Manager Myers requests assistance from Ayres with drawings, or figures which he uses to speak with effected property owners or municipal entities. This task provides time for Ayres to provide that assistance for concerns related to the project that do not fall within the overall scope of work, but are necessary to keep the project moving forward. This task assumes 40hrs of additional assistance.

Task 2 – Hydrologic Analysis for LOMR Submittal

The hydrologic models used for the CLOMR submittal to FEMA for this project will be used as the baseline for the LOMR submittal. This task assumes that the existing conditions hydrologic model will not be adjusted for the LOMR submittal.

2.1 Develop As-built Project Hydrologic Model for LOMR Study Area. This task allows time to update the proposed project EPA SWMM model to include the as-built hydrologic changes created with ESDF, LWCCS and Opening of I-25 Box Culverts. The other two projects (siphoning of Lake Canal and CR 52 improvements) will have hydraulic benefits which will be reflected in the HEC-RAS modeling.

2.2 As-built Modeling of the L&W Canal Spill. The modeling of the side spill weir was performed in an un-steady HEC-RAS model. This model will be adjusted based on the as-built survey data of the weir. The spill will be input into the as-built hydrologic EPA SWMM Model.
Ayres will use the hydraulic models provided in the CLOMR as the baseline for the LOMR submittal. All modeling will comply with Appendix C of the FEMA Guidelines and Specifications (G&S). The approach to each model in the series is described below. This task assumes that the effective model is the same one that was used in the CLOMR submittal. The Duplicate Effective modeling was performed in the CLOMR submittal.

3.1 **Existing Conditions (EC) Model south of County Road 54.** This task assumes that minor modifications will be required of the existing conditions model that was created with the CLOMR submittal. Adjustment to the model may be required based on the final construction of the projects. For example, in the event that cross sections are added into the as-built conditions model to more accurately represent the projects constructed, the cross sections will also be added in to the exiting conditions model.

3.2 **As-built (AB) Model south of County Road 54.** The survey data obtained for the projects will be input into the proposed project model that was created for the CLOMR. The as-built model will analysis what was constructed on the site for the six projects.

3.3 **Coordination with Anderson Consulting Engineers (ACE).** The City of Fort Collins and Town of Timnath projects were designed by ACE. ACE is also providing construction management for these projects. Coordination will be required between Ayres and ACE for these projects.

3.4 **Update Existing Conditions (EC) Floodplain Mapping.** The existing conditions floodplain mapping for the limits of the study will be updated. The floodplain mapped for the CLOMR will be used as the baseline for this task.

3.5 **Update As-built Conditions (AB) Floodplain Mapping.** The as-built floodplain mapping for the limits of the study will be updated. The floodplain mapped for the CLOMR will be used as the baseline for this task.

---

**Task 4 – Update ½ Foot Floodway Model and Mapping (South of CR 54)**

4.1 **Update Existing Conditions (EC) Floodway Models.** The existing conditions floodway model will be modified with this task. The existing conditions floodway model created in the CLOMR will be used as the baseline for this task. This task provides time to adjust the floodway and to minimize the rise to 0.5ft as well as eliminating all negative surcharges in the model. Frequently when preparing a floodway model it is necessary to iterate on the solutions many times in order to eliminate all of the negative surcharge values and also to get the floodway close to the defined parameter of ½ foot.

4.2 **Update As-built Conditions (AB) Floodway Models.** The as-built conditions floodway model will be modified with this task. The proposed project floodway model created in
the CLOMR will be used as the baseline for this task. This task provides time to adjust the floodway and to minimize the rise to 0.5ft as well as eliminating all negative surcharges in the model. Frequently when preparing a floodway model it is necessary to iterate on the solutions many times in order to eliminate all of the negative surcharge values and also to get the floodway close to the defined parameter of $\frac{1}{2}$ foot.

4.3 **Update Existing Conditions (EC) Floodway Mapping.** The existing conditions floodway mapping for the limits of the study will be updated. The floodway mapped for the CLOMR will be used as the baseline for this task.

4.4 **Update As-built Conditions (AB) Floodway Mapping.** The as-built floodway mapping for the limits of the study will be updated. The floodway mapped for the CLOMR will be used as the baseline for this task.

---

**Task 5 – Prepare LOMR Package**

Ayres Associates will compile the hydrologic and hydraulic analysis prepared under Tasks 3 and 4, along with other pertinent data, into a LOMR submittal package by performing the following work:

5.1 **Prepare Narrative and MT-2 Forms.**

5.2 **Prepare Work Maps.** The CLOMR work maps will be updated to include the existing conditions floodplain and the as-built floodplain. The as-built information will be shown on the work maps.

5.3 **Annotated Firm.**

5.4 **Data Tables.** The following tables will be provided for the LOMR:

- Annotated Floodway Data Table
- New Floodway Data Tables
- City’s BFE Comparison Table for the flowpaths
- City’s Map-Model Agreement Table for the flowpaths

5.5 **Flood Profiles.** The effective flood profiles will be annotated and the as-built profiles will be created.

5.6 **Submit Package to City of Fort Collins and Address Comments.** The LOMR package will be submitted to the City of Fort Collins for review. This task assumes two rounds of comments from the City of Fort Collins. This task includes time to attend and support a pre-submittal meeting, one or more meetings with COFC staff to answer questions and time to address comments and make corrections.

5.7 **Submit Package to Larimer County Flood Review Board.** Ayres Associates will submit the LOMR package to the Larimer County Flood Review Board. This task assumes that the submittal package will be submitted to the County for informational purposes only.
5.8 **Submit Package to FEMA and Respond to FEMA Review Comments.** Ayres Associates will submit the LOMR package to FEMA for review and comment. Ayres Associates will respond to FEMA review comments and provide additional requested data as necessary. This task assumes one round of comments from FEMA. Because of the extents of the mapping changes this will actually be submitted as a PMR to FEMA which will require FEMA to change the maps which is a lengthier process for them.

**Exclusions:**

- This Scope of Work does not include a 500-year floodplain model or mapping