450 S. Parish Avenue
Johnstown, CO 80534
970-587-4664
JohnstownCO.gov

Town Council Regular Meeting

450 S. Parish, Johnstown, CO

Monday, March 2, 2026 @ 7:00 P.M.

Mission Statement: Enhancing the quality of life of our residents, businesses, and visitors through community focused leadership.

Agenda

Call to Order

Roll Call

Agenda Approval

Special Presentations

1. Business of the Month

Public Comment

Members of the audience are invited to speak at the meeting. Public Comment is reserved for citizen comments on items not contained on the Public Hearing portion of the agenda. Citizen comments are limited to 5 minutes per speaker. When several people wish to speak on the same position on a given item, they are requested to select a spokesperson to state that position.

Consent Agenda

The Consent Agenda includes routine items that are approved together through a single motion and vote. Any member of the Council or staff may request to remove an item from the Consent Agenda and move it to the Regular Agenda for separate discussion.

2. February 18, 2026 Town Council Meeting Minutes

3. Consideration of the First Amendment to Podtburg Subdivision Filing 1 Subdivision Development and Improvement Agreement

4. Consideration of a Water Sewer Service Agreement (WSSA) for U.S. Engineering, a Subdivision Development Plan Agreement (Johnstown Commercial Center), and Site Development Agreement (U.S. Engineering)

a. Water Sewer Service Agreement for U.S. Engineering

b. Subdivision Development & Improvement Agreement Johnstown Commercial Center (JCC)

c. Site Development Plan Agreement for U.S. Engineering

5. February 2026 List of Bills

Town Manager Report

6. Town Manager's Report

Old Business

New Business

7. Resolution 2026-11: Approving and Adopting the Town of Johnstown Comprehensive Stormwater Master Plan

Public Hearing

8. Ordinance 2026-287 Rieder Farm Change of Zone Request for Zoning Case No. ZON25-0001

9. Resolution 2026-13: Final Plat for North Ridge Subdivision Filing No. 2 and Consideration of the Subdivision Development and Improvement Agreement for North Ridge Subdivision, Filing No. 2, Phase I

a. Resolution 2026-13: Final Plat for North Ridge Subdivision Filing No. 2

b. Subdivision Development & Improvement Agreement Filing No. 2 - Phase I

Council Reports and Comments

Mayor's Comments

Informational Items

10. Informational Items

Executive Session

11. An Executive Session to Discuss a Personnel Matter Under C.R.S. Section 24-6-402(4)(f) regarding Town Manager Annual Evaluation

Adjourn

Americans with Disabilities Act Notice

In accordance with the Americans with Disabilities Act and other applicable laws, persons who need accommodation in order to attend or participate in this meeting should contact Town Hall at 970-587-4664 no later than 48 hours before the meeting in order to request such assistance. De conformidad con la Ley de Discapacitados Estadounidenses y otras leyes vigentes, los individuos que necesitan adaptaciones funcionales para asistir o participar en esta reunión deberán comunicarse con la Municipalidad marcando el 970 587- 4664 a lo más tardar 48 horas antes de dicha reunión para solicitarla.

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TOWN COUNCIL REGULAR MEETING

450 S. Parish, Johnstown, CO
Wednesday, February 18, 2026

MINUTES

CALL TO ORDER

At 7:00 Mayor Duncan called the meeting to order.

PLEDGE OF ALLEGIANCE

Mayor Duncan invited attendees to join in the Pledge of Allegiance.

ROLL CALL

- **Michael P. Duncan,** Mayor
- **Chad Young,** Mayor Pro Tem
- **Jesse Molinar Jr.,** Councilmember
- **Dee Anne Menzies,** Councilmember
- **Dianne Morris,** Councilmember
- **Damien Berg,** Councilmember
- **Andrew Paranto,** Councilmember

AGENDA APPROVAL

Motion by Councilmember Berg and seconded by Councilmember Paranto to approve the agenda as presented.

Upon vote, motion passed unanimously.

PUBLIC COMMENT

- Jim Hatfield, 345 Hickory Lane, inquired about the resolution about updating the strategic plan and asked for what the changes were to the new plan. He also mentioned the change of CR 44,

he asked for notification and more time for people to be notified. Lastly, regarding the devolution of the frontage road he asked for clarification about the closure.

- Blake Anderson, 1525 Mallard Drive, asked for a safety review of roadway design along the Pioneer Ridge neighborhood. He mentioned that the road is painted with single right turn arrows and no additional signage is present and people are using the turn lane as a passing lane. He asked about lowering the speed limit as well with a speed study and reviewing the corridor.

Town Clerk Meghan Martinez read two online public comments into the record.

- Tonya Anderson, 2107 Kiersi Court, expressed concerns about the YMCA and outlined the closures of other YMCAs as an area of concern. She urged the Council to find management that prioritizes Johnstown residents.
- Shannon Kindred, 1813 N 3rd Street, shared concerns about e-bikes in Rolling Hills Ranch.

CONSENT AGENDA

Motion by Councilmember Menzies and seconded by Councilmember Berg to approve the consent agenda which contained the following items.

- February 2, 2026, Town Council Meeting Minutes
- Resolution 2026-12: Updating the Town of Johnstown Strategic Plan
- Resolution 2026-10: Changing the Name of WCR 44
- January 2026 Financial Statements
- Approval of a Letter to FHWA for Devolution of the I-25 East Frontage Road

Upon vote, motion passed unanimously.

TOWN MANAGER'S REPORT

Town Manager Matt LeCerf provided a report.

COUNCIL REPORTS AND COMMENTS

Councilmember Paranto: He reminded Council about the small model reactor meeting for the Wyoming data center the following day. He encouraged those interested to attend.

Councilmember Morris: Nothing at this time.

Councilmember Molinar: Nothing at this time.

Councilmember Berg: Nothing at this time.

Councilmember Menzies: Nothing at this time.

Mayor Pro Tem Young: Nothing at this time.

MAYOR COMMENTS: He mentioned election season and he encouraged people to vote. He thanked staff and Council for all their hard work.

EXECUTIVE SESSION:

Motion by Mayor Pro Tem Young and seconded by Councilmember Paranto to go into executive session to receive legal advice from the Town Attorney pursuant to CRS Section 24-6-402(4)(b) regarding easement negotiation and condemnation and to discuss matters subject to negotiations and to instructing negotiators pursuant to CRS Section 24-6-402(4)(e) regarding the NOCO YMCA.

Upon vote, motion passed unanimously.

At 7:33 Mayor Duncan recessed the meeting to go into executive session.

At 9:26 Mayor reconvened

ADJOURNMENT

There being no further business for the Town Council, Mayor Duncan adjourned the meeting at 9:28 p.m.

Approved by Town Council:

_____

Michael P. Duncan, Mayor

Attest:

_____

Meghan C. Martinez, MMC, Town Clerk

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Town Council Consent Agenda Communication

Agenda Date: March 2, 2026

Subject: Consideration of the First Amendment to Podtburg Subdivision Filing 1 Subdivision Development and Improvement Agreement

Attachments:
1. Concept Plan - Bella Ridge Golf Course
2. First Amendment to Development Agreement Podtburg

Presented by: Jennifer Simmons, Planning and Development Services Director

Agenda Item Description:

Attached for Town Council consideration is an amendment to the existing Subdivision Development and Improvement Agreement between the Town of Johnstown and Podtburg Dairy Limited Partnership, LLLP. The owners of the property have requested to remove any reference to a cart underpass from the public right-of-way. Their initially approved plan was to have customers be able to drive a golf cart under CR 44. Upon reconsideration, they are not going to allow carts to drive from the golf course south of Bella Ridge Parkway/WCR 44 to the driving range north of Bella Ridge Parkway/WCR 44 and therefore would like to have that portion of the development and improvement agreement amended to reflect this change. Updated construction plans have been submitted for staff consideration which reflect this change to the previously approved public improvements.

Strategic Plan Alignment:

Natural & Built Environment

- Set the expectation and provide support for community-centered design

Legal Advice:

The Town Attorney has drafted the amended development and improvement agreement.

Financial Advice:

N/A

Recommended Action:

Staff recommends approving the First Amendment to Podtburg Subdivision Filing 1 Subdivision Development and Improvement Agreement

Reviewed and Approved for Presentation



_____

Town Manager

Podtburg Golf Course Project



Arthur Schaupeter
GOLF COURSE ARCHITECTS
59 Willow Brook Drive - St. Louis, Missouri 63146
Tel: (314) 443-9029 - Email: schaupetergolf@aol.com
Web site: www.schaupetergolf.com
American Society of Golf Course Architects

Concept Plan

FIRST AMENDMENT TO SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT (PODTBURG SUBDIVISION FILING 1) BETWEEN THE TOWN OF JOHNSTOWN AND PODTBURG DAIRY LIMITED PARTNERSHIP, LLLP

THIS FIRST AMENDMENT TO SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT (Podtburg Subdivision Filing 1) ("First Amendment") is entered into this ___ day of March, 2026, by and between the Town of Johnstown, a Colorado home rule municipality ("Town"), and Podtburg Dairy Limited Partnership, LLLP, a Colorado limited liability limited partnership ("Developer") (collectively, the "Parties").

WHEREAS, on or about October 31, 2024, the Town and Developer entered into that certain Subdivision Development and Improvement Agreement concerning the development of property designated as "Podtburg Subdivision Filing 1," recorded in the Office of the Weld County Clerk and Recorder at Reception No. 5084802 ("Agreement"); and

WHEREAS, the Agreement contains "Additional Terms, Conditions or Provisions" set forth in Exhibit B-3 attached thereto, including a provision for the construction of a golf cart underpass under Weld County Road 44 ("Underpass"); and

WHEREAS, Developer does not desire to construct the Underpass but, rather, agrees to implement measures prohibiting, with limited exception, golf cart operators from crossing Weld County Road 44 at-grade; and

WHEREAS, based on the terms and conditions set forth herein, the Town agrees to eliminate the requirement that Developer construct the Underpass; and

WHEREAS, to effectuate the foregoing, the Parties desire to enter into this First Amendment.

NOW, THEREFORE, in consideration of the mutual covenants and stipulations hereinafter set forth, it is agreed as follows:

1. Recitals and Capitalized Terms. The recitals are incorporated as if fully set forth herein. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Agreement.

2. Paragraph 3 of Exhibit B-3. Paragraph 3 of Exhibit B-3 of the Agreement is hereby replaced and superseded in full by the following:

> 3. **Phase 2 Development**: The second phase of the Development ("Phase 2") is comprised of the driving range and the clubhouse. Prior to construction of the Phase 2 improvements/amenities, Developer shall submit a Site Development Plan for review and

approval by the Town. Developer shall not be required to construct a golf cart underpass under Weld County Road 44,[1] but shall be required to do the following:

a. Submit amended Civil Engineering Construction Plans for review and approval by the Town showing the removal of the underpass and revised grading plans;
b. Install signs, in a form approved by the Town, prohibiting golf carts from travelling across Weld County Road 44; and
c. Implement golf club rules or take any other appropriate measures to ensure that golf carts do not cross Weld County Road 44.

Notwithstanding the foregoing, Developer may permit golf carts operated by drivers licensed under the Code to cross Weld County Road 44 on the condition that the driver complies with all provisions contained in the Code and displays the Town-issued permit sticker.

If Developer fails to effectively prevent golf carts from crossing Weld County Road 44, the Town may, at its discretion, require Developer or the Podtburg Metropolitan District No. 1 ("District") to construct a golf cart underpass under the roadway. If Developer or the District fails to construct the underpass in the time period required by the Town, the Town may issue a cease and desist order to stop all activities on the north side of Weld County Road 44. The Town may enforce this right at any time that Developer is not in compliance, and it shall not terminate.

3. Validity of Agreement. Except as expressly provided in this First Amendment, the Agreement has not been amended, supplemented or altered in any way by this First Amendment and the Agreement shall remain in full force and effect in accordance with its terms. If there is any inconsistency between the terms of the Agreement and the terms of this First Amendment, the provisions of this First Amendment shall govern and control.

PODTBURG DAIRY LIMITED PARTNERSHIP, LLLP, a Colorado limited liability limited partnership

By:_____
Name: _____
Title: _____

[1] The Parties recognize that Weld County Road 44 may be renamed to be Bella Ridge Street and intend that the reference to Weld County Road 44 herein shall mean and include Bella Ridge Street.

STATE OF COLORADO)
) ss.
COUNTY OF)

SUBSCRIBED AND SWORN to before me this ____ day of _____, 2026, by _____, as the _____ of Podtburg Dairy Limited Partnership, LLLP.

WITNESS my hand and official seal.
My commission expires:

_____
Notary Public

WITH RESPECT TO THE DISTRICT'S OBLIGATIONS SET FORTH IN THE AGREEMENT, THE DISTRICT HEREBY APPROVES AND AGREES:

PODTBURG METROPOLITAN DISTRICT NO. 1

By: _____
_____, President

STATE OF COLORADO)
)ss.
COUNTY OF _____)

SUBSCRIBED AND SWORN to before me this ___ day of _____, 2026, by _____ as the President of Podtburg Metropolitan District No 1.

WITNESS my hand and official seal.

_____
Notary Public

TOWN OF JOHNSTOWN, COLORADO

ATTEST:

By:_____ By: _____
Meghan Martinez, Town Clerk Michael P. Duncan, Mayor

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Town Council Consent Agenda Communication

Agenda Date: March 2, 2026

Subject: Consideration of a Water Sewer Service Agreement (WSSA) for U.S. Engineering, a Subdivision Development Plan Agreement (Johnstown Commercial Center), and Site Development Agreement (U.S. Engineering)

Attachments:
1. WSSA
2. JCC Subdivision DA
3. Site Plan DA
4. Public Improvement Cost Est
5. Final Plat

Presented by: JT Stewart, Senior Planner

Agenda Item Description:

This Town Agenda Communication consists of multiple items for individual action:

- Consideration of the Water Sewer Service Agreement for U.S. Engineering;
- Consideration of the Subdivision Development & Improvement Agreement (Johnstown Commercial Center); and
- Consideration of the Site Development Plan Agreement (U.S. Engineering).

Development of the recent JFarms annexation is being proposed with the Johnstown Commercial Center (JCC) minor subdivision and the U.S. Engineering (USEREH) site plan, both which are being reviewed concurrently and administratively as permitted by the Johnstown Land Use Code. Needed improvements will include the Basher Road extension and utilities as well as an eight-inch looped water line through the site plan. As stated, there are private and public improvements associated with these applications that merit a Subdivision Development & Improvement Agreement for the Johnstown Commercial Center and a Site Development Plan Agreement for the USEREH Site. As previously mentioned, the minor subdivision and site plan are reviewed through an administrative process and the respective DA's are presented to Council for consideration. Finally, a WSSA is also included for Council's consideration.

Strategic Plan Alignment:

Healthy & Resilient Economy

- Drive projects and initiatives that promote Johnstown as a premier destination for business

- Support the local labor market and work with partners to grow diverse employment opportunities

Legal Advice:

The Town Attorney was consulted and significantly involved in the drafting of each agreement.

Financial Advice:

N/A

Recommended Action:

Staff recommends Town Council approve the Subdivision Development and Improvement Agreement for JCC, the Site Plan Development and Improvement Agreement USEREH, and the Water Sewer Service Agreement for USEREH.

Reviewed and Approved for Presentation



Town Manager

WATER AND SEWER SERVICE AGREEMENT
(US ENGINEERING)

THIS WATER AND SEWER SERVICE AGREEMENT ("Agreement") is made and entered into this ____ day of March, 2026, by and between **USEREH JOHNSTOWN II, LLC**, a Missouri limited liability company ("Developer"), and **THE TOWN OF JOHNSTOWN**, a Colorado municipal corporation ("Town"), collectively sometimes referred to as the "Parties."

WITNESSETH:

WHEREAS, the Developer owns an interest in land in Weld County, Colorado located in the NE ¼ sec. 3, T. 4 N., R. 68 W. of the 6th P.M., and more specifically described in the attached Exhibit A ("Subject Property"); and

WHEREAS, the Subject Property is being developed as a US Engineering facility that will include a new 156,921 ft2 warehouse and metal fabrication building ("Project"), which may be expanded to 254,995 ft2 in the future. Upon construction of the expansion, the Project will include irrigated landscape consisting of 0.39 acres of spray irrigated area, 0.63 acres of drip-irrigated area, and 0.83 acres of permanently irrigated native grass; and

WHEREAS, Developer and the Town desire to set forth their agreement concerning water rights dedication, preliminary projections of water and sewer demand and a current commitment by the Town for water and sewer service for the Project.

NOW, THEREFORE, in consideration of the mutual promises hereinafter contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. Water and Sewer Demand Studies. In compliance with the Town Water Rights Dedication Ordinance ("Ordinance"), Developer has submitted to the Town a preliminary water and sewer demand analysis for the Project dated November 13, 2025. Said analysis was received by the Town, is on file with the Town and, as modified by the Town's Water Engineer by revised memorandum dated January 13, 2026, is hereby accepted by the Town. The analysis provides that the projected water and sewer demand for the Project is as follows:

Development Component	Demand (AF/YR)	Consumption (AF/YR)
In-Building	5.60	0.28
Landscape Irrigation	2.74	2.33
Total	8.34	2.61

2. Water Rights Dedication. Developer shall dedicate raw water to the Town to meet the total annual water demand of 8.34 acre-feet. To meet this demand, Developer has agreed to allocate that one (1) Share of Capital Stock of The Consolidated Home Supply Ditch and Reservoir Company ("Home Supply") represented by Certificate No. 6809, which was included in Case. No. 98CW410, and estimated to yield eight (8.0) acre-feet of water supply ("USE Full

Share"). Dedication of the USE Full Share to the Town is a material term of this Agreement, and said water rights must be dedicated to the Town within twenty (20) days of execution of this Agreement shall be null and void. In addition, Developer has purchased thirty-four hundredths (0.34) of an acre-foot of water supply on account with the Town ("0.34 AF on Account") for Bakersky Farms, LLC, a Colorado limited liability company ("Bakersky Farms"), and the Town acknowledges and agrees that: (i) Bakersky Farms has such .34 AF on Account with the Town as a result of Bakersky Farms' dedication of its share of Consolidated Home Supply Ditch and Reservoir Company to the Town on or about February 3, 2026, and (ii) consents to Bakersky Farms transfer, sale and assignment of such 0.34 AF on Account to Developer. Bakersky Farms acknowledges and agrees that the 0.34 AF on Account shall be used to satisfy the water requirements associated with the Project. See Exhibit B attached hereto and incorporated herein by reference.

3. Commitment to serve. Subject to Developer's performance of all the covenants contained herein and payment of all required fees, the Town commits to provide to the Project up to 5.60 acre-feet per year of water supply for in building demand together with the corresponding sewer service, and up to 2.74 acre-feet per year of water supply for landscape irrigation.

4. Future review of water usage and dedication requirements. In accordance with the Ordinance, the Town reserves the right to review actual water usage within the Project at a point in time after water usage has been established, to confirm the adequacy of the water demand projections made by the Developer and to require additional water rights dedication and/or cash-in-lieu payments based on actual water usage.

5. Payment of Water Court Transfer fees. Pursuant to the Ordinance, the total annual water demand for the Project is equivalent to 16.68 single family equivalent unit ("SFEs") for the calculation of the Water Court Transfer Fee, consisting of 16 SFEs for the USE Full Share and 0.68 SFEs for the 0.34 AF on Account. Accordingly, the Water Court Transfer Fee for the USE Full Share shall be $3,200 (16 SFEs x $200), and the fee for the 0.34 AF on Account shall be $272 (0.34 AF / 0.5 SFE/AF x 400 $/SFE). Within twenty (20) days of the execution of this Agreement, Developer shall pay the Water Court Transfer Fee in the amount of $3,472.00. In accordance with the Ordinance, additional fees may be required in connection with future development of any portion of the Subject Property.

6. Notices. All notices, demands, or other documents required or desired to be given, made or sent to either Party under this Agreement shall be made in writing, shall be deemed effective upon receipt, and shall be personally delivered, mailed postage prepaid, certified mail, return receipt requested, or sent by electronic mail on the condition that the recipient acknowledges receipt thereof, as follows:

TO DEVELOPER:

USEREH JOHNSTOWN II, LLC
Att: Brandon Wikoff
3433 Roanoke Road,
Kansas City, MO 64111
Email:
brandon.wikoff@usengineering.com

WITH A COPY TO:

Katherine A. Zogleman, Esq.
René Calabrese, Esq.
2323 Grand Blvd., Suite 1000
Kansas City, MO 64108
kzogleman@sb-kc.com
rcalabrese@sb-kc.com

TO THE TOWN:

Town of Johnstown
c/o Town Clerk
450 S. Parish Ave.
Johnstown, CO 80534
notices@johnstownco.gov

WITH A COPY TO
THE TOWN ATTORNEYS:

Avi Rocklin, Esq.
Johnstown Town Attorney
1437 N. Denver Avenue, #330
Loveland, CO 80538
avi@rocklinlaw.com

Peter J. Ampe
Arthur Sayre
Hill & Robbins, P.C.
3401 Quebec Street, Suite 3400
Denver, CO 80207
peterampe@hillandrobbins.com
arthursayre@hillandrobbins.com

The addresses for notices may be changed by written notice given to the other Party in the manner provided above.

7. Default. In the event of default by either Party hereunder, the non-defaulting Party shall notify the defaulting Party in writing of such default(s), specifying the nature and extent thereof. If such default is not cured within thirty (30) days and the non-defaulting Party desires to seek recourse, the Parties shall participate in mediation, the costs of which shall be shared equally by both Parties. If mediation is not successful after a ninety-day period, either Party may then commence a legal action, and shall be entitled to such remedies as are provided by law, including the Town's ordinances.

8. Successors and assigns. The benefits and burdens of this Agreement shall respectively inure to and be binding upon the successors and assigns of the Parties hereto. This Agreement shall not be assigned without the prior written consent of the other party, which shall not be unreasonably withheld.

9. Amendment or modification. No amendment or modification of this Agreement shall be of any force or effect unless in writing and executed by the Parties hereto with the same formality as this Agreement.

10. Attorney's fees and costs. If any judicial proceedings may hereafter be brought with respect to this Agreement, including an action for specific performance and/or damages, the

Town, if the prevailing party, shall be entitled to recover the costs of such proceedings, including reasonable attorney's fees and reasonable expert witness fees.

11. Waiver. The waiver of any breach of any of the provisions of this Agreement by either Party shall not constitute a continuing waiver of any subsequent breach by said Party, concerning either the same or any other provision of this Agreement.

12. Headings for convenience only. Paragraph headings and titles contained herein are intended for convenience and reference only and are not intended to define, limit, or describe the scope or intent of any provision of this Agreement.

13. Non severability. Each paragraph of this Agreement is intertwined with the others and is not severable unless by mutual consent of the Parties hereto.

14. Choice of laws. This Agreement and the rights and obligations of the Parties hereto shall be governed by the laws of the State of Colorado. Venue for any claim, proceeding or action shall be in Larimer or Weld County, State of Colorado.

15. Entire agreement and Authorization. This Agreement constitutes the entire agreement between the Parties related to the subject matter hereof and any prior agreements pertaining thereto whether oral or written have been merged or integrated into this Agreement. Each of the undersigned represents to the others that he/she is authorized by his/her respective entity to execute this Agreement on behalf of that entity.

16. No Presumption. Each Party acknowledges that it has carefully read and reviewed the terms of this Agreement. Each Party acknowledges that the entry into and execution of this Agreement is of its own free and voluntary act and deed, without compulsion. Each Party acknowledges that it has obtained, or has had the opportunity to obtain, the advice of legal counsel of its own choosing in connection with the negotiation and execution of this Agreement and with respect to all matters set forth herein. The Parties agree that this Agreement reflects the joint drafting efforts of all Parties and in the event of any dispute, disagreement or controversy arising from this agreement, the Parties shall be considered joint authors and no provision shall be interpreted against any Party because of authorship.

17. Recordation. This Agreement shall be recorded by the Town at Developer's expense in the office of the Clerk and Recorder of Weld County, Colorado. This Agreement shall run with the Subject Property, shall be binding upon the Parties hereto and the permitted successors and assigns of the Developer and shall constitute notice of this Agreement to all persons or entities not parties hereto.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

USEREH JOHNSTOWN II, LLC

By: USE REAL ESTATE HOLDINGS, LLC
(f/k/a USE Midwest, LLC), a Missouri limited
liability company, its sole member

By: U.S. ENGINEERING COMPANY HOLDINGS,
a Missouri corporation, its sole member

By: _____
Name: Brandon Wikoff
Title: President

STATE OF MISSOURI)
) ss
COUNTY OF _____)

SUBSCRIBED AND SWORN to before me this _____ day of _____, 2026 by Brandon Wikoff as the President of U.S. ENGINEERING COMPANY HOLDINGS.

Witness my hand and official seal.

_____
Notary Public

_____

_____
Address

_____
Telephone

My Commission Expires: _____

TOWN OF JOHNSTOWN, COLORADO,
a municipal corporation

By: _____
Michael P. Duncan, Mayor

ATTEST:

By: _____
Meghan Martinez, Town Clerk

EXHIBIT A
LEGAL DESCRIPTION

A parcel of land situate in the Northeast Quarter (NE1/4) of Section Three (3), Township Four North (T.4N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.) being more particularly described as follows:

Lot 1, Johnstown Commercial Center,
Town of Johnstown,
County of Weld,
State of Colorado

EXHIBIT B

RAW WATER CREDIT ALLOCATION ACKNOWLEDGMENT

Bakersky Farms, LLC, a Colorado limited liability company ("Bakersky Farms"), by and through its authorized member, Brett Bakersky, hereby acknowledges and agrees that the Town of Johnstown may allocate thirty-four hundredths (0.34) of an acre-foot of raw water credit on account with the Town from the share of Consolidated Home Supply Ditch and Reservoir Company dedicated by Bakersky Farms to the Town on or about February 3, 2026 (the ".34 AF Water on Account"), to satisfy the water requirements associated with the US Engineering facility as described in that certain Water and Sewer Service Agreement to be executed between USEREH Johnstown II, LLC, a Missouri limited liability company, and the Town of Johnstown.

Bakersky Farms LLC,
a Colorado limited liability company

By: _____
Brett Bakersky, Member

Dated: _____

SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT
FOR
TOWN OF JOHNSTOWN
(Johnstown Commercial Center)

This Subdivision Development and Improvement Agreement ("Agreement"), made and entered into by and among the **Town of Johnstown, Colorado**, a Colorado home-rule municipal corporation (the "Town"), **LB1DevCo LLC**, a Colorado limited liability company ("Developer"), **J Farms, LLC**, a Colorado limited liability company ("J Farms") and **USEREH Johnstown II, LLC**, a Missouri limited liability company ("USEREH"). J Farms and USEREH are each an "Owner" and collectively, the "Owners," and each such party is executing this Agreement solely in its capacity as an Owner as specified herein.

RECITALS

WHEREAS, each Owner, as to a separate parcel as set forth on **Exhibit A**, collectively own that certain real property situated in the Town of Johnstown, County of Weld, State of Colorado, the description of which is set forth on **Exhibit A** attached hereto and incorporated herein by this reference (the "Property"); and

WHEREAS, Developer has entered into an agreement to acquire certain of the Property from J Farms and seeks to develop the Property and to designate such development as Johnstown Commercial Center ("Development"); and

WHEREAS, Developer submitted a final plat depicting the Development, which final plat was administratively approved by the Town Planning and Development Director and is attached hereto and incorporated herein by this reference as **Exhibit B** ("Final Plat"); and

WHEREAS, upon execution of this Agreement, the Final Plat shall be recorded in the Office of the Weld County Clerk and Recorder; and

WHEREAS, Developer understands and agrees that, as a further condition of approval of the Final Plat, Developer is required to construct certain Subdivision Improvements (defined below) to the Property, that Developer is responsible for the costs and expenses of those Subdivision Improvements unless otherwise provided herein, and that the Subdivision Improvements contemplated herein are reasonable, necessary, appropriate, and directly benefit the Development; and

WHEREAS, Developer agrees to undertake and complete the Subdivision Improvements in accordance with this Agreement, the Final Plat, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations.

AGREEMENT

NOW, THEREFORE, in consideration of the premises cited above and the mutual covenants and promises contained herein, the sufficiency of which is acknowledged, the Town and Developer agree as follows:

RECITALS

The Recitals are incorporated as if fully set forth herein.

DEFINITIONS

For the purposes of this Agreement, the following words and terms shall be defined as follows:

1.1 **"Approved Plans"** shall mean: (1) with respect to the Public Improvements, the approved "Civil Engineering Construction Plans" related to the Development and on file with Town; and (2) with respect to the Private Improvements, the approved "the Development Plan," if any, related to the Development and on file with Town. For the avoidance of doubt, the Development Plans do not include the development plans for USEREH with respect to its development of part of the Property, Lot 1 of the Final Plat, known as the US Engineering Fabrication and Warehouse Facility, pursuant to its separate Site Development Plan Agreement.

1.2 **"Civil Engineering Construction Plans"** shall mean the approved engineering plans for construction, installation and improvement of the Public Improvements, as more fully described below.

1.3 **"Code"** shall mean the Johnstown Municipal Code, as amended from time to time.

1.4 **"Developer"** shall mean the Developer defined in the introductory paragraph, together with any permitted assignee as permitted by Paragraph 13.5

1.5 **"Development"** shall mean all the Property, property rights and Subdivision Improvements within or associated with the legal description in **Exhibit A**.

1.6 **"Development Plan"** shall mean the approved plans for the construction, installation and improvement of the Private Improvements.

1.7 **"Dry Utilities"** shall mean electricity, natural gas, cable and telephone.

1.8 **"Maintenance Guarantee"** shall mean a guarantee that the Public Improvements constructed shall be free from defects and failures until Final Acceptance as more fully described in Paragraphs 5.2 and 5.4 below.

1.9 "**Notice of Construction Acceptance**" shall mean the written certification that the Public Improvements are accepted, which starts the two-year Warranty Period as provided herein.

1.10 "**Notice of Final Acceptance**" or "**Final Acceptance**" shall mean the written certification of final acceptance of the Public Improvements and, except as otherwise provided herein, the transfer of maintenance of the Public Improvements to the Town.

1.11 "**Owner**" shall mean the owner(s) of the Property**,** including those parties defined as Owners in the introductory paragraph, and any heirs, successors, assigns or transferees of any of the Property.

1.12 **"Private Improvements"** shall mean, without limitation, the construction, installation and improvement of privately owned and maintained common improvements including, but not limited to, stormwater improvements, landscaping, irrigation, fencing, entry signs, parks, open space, trails and postal service boxes. For the avoidance of doubt, for purposes of this Agreement there are no Private Improvements except as otherwise described in **Exhibit C**.

1.13 **"Public Improvements"** shall mean, the construction, installation, improvement and dedication of the public improvements described in **Exhibit C** that will be dedicated to the Town.

1.14 **"Performance Guarantee"** shall mean a guarantee that the Subdivision Improvements are be constructed in conformance with the Approved Plans as more fully described herein.

1.15 **"Subdivision Improvements"** shall mean the Public Improvements and Private Improvements.

1.16 **"Town"** shall mean the Town of Johnstown, Colorado.

1.17 **"Town Manager"** shall include the Town Manager and such person's authorized designees.

SUBDIVISION IMPROVEMENTS

2. **Public Improvements**

2.1 ***Pre- Construction***

a. **Engineering Services:** Developer shall furnish, at its own expense, all engineering services in connection with design, construction, installation and improvement of the Public Improvements. Engineering services shall be performed by a professional engineer registered in the State of Colorado. Engineering services shall consist of, but not be limited to, survey, designs, plans and profiles, specifications, drawings, estimates, construction administration, and the furnishing of necessary documents in connection therewith, including but not limited to final engineering drawings, final sewer and water design plans and final drainage plans (the "Civil Engineering Construction Plans").

b. **Civil Engineering Construction Plans:** Prior to commencing construction of the Public Improvements for the Development, Developer shall submit the Civil Engineering Construction Plans to the Town for review. Construction of the Public Improvements shall not commence until the Town provides written notice of approval of the Civil Engineering Construction Plans. Developer shall not thereafter modify the approved Civil Engineering Construction Plans without the written approval of the Town. The Town's review and approval of the Civil Engineering Construction Plans shall not limit or affect Developer's responsibility or liability for design, construction and installation of the Public Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection.

c. **Phasing of the Public Improvements**. Subdivision plats, planned unit development plans or site plans requiring the construction of Public Improvements may be developed in phases provided: (i) such phasing is approved by the Town and is consistent with the subdivision plats, planned unit development plans or site plans and any executed agreements pertaining to the Property; (ii) the phasing plan supports a logical sequence of development such that each phase can function independently or sequentially with a prior phase; and (iii) each sequential phase satisfies the Town's construction standards and specifications. If phasing of the Public Improvements is approved, construction acceptance, financial security and building permit eligibility may be approved or released according to the approved phasing plan. An approved phasing plan may only be modified upon written approval of the Town.

d. **Pre-Construction Meeting.** Subsequent to the Town's approval of the Civil Engineering Construction Plans and prior to the commencement of construction, the Developer and its contractors shall participate in a pre-construction meeting with the Town's Public Works Department. Among other matters, as determined by the Town, the purpose of the meeting shall be to review: (i) the Approved Plans; (ii) permits needed for construction; (iii) relevant provisions of the Code and the Town's construction standards and specifications; and (iv) the construction inspection process and requirements for construction acceptance.

e. **Rights-of-Way, Easements and Permits**: Prior to commencing construction of the Public Improvements, Developer shall acquire, at its own expense, good and sufficient rights-of-way or easements, clear of any encumbrances, on all lands and facilities, if any, traversed by the proposed Public Improvements. Unless otherwise agreed by the Town in writing, all such rights-of-way and easements shall be conveyed to the Town and the documents of conveyance shall be furnished to the Town for recording. At the Town's request, Developer shall provide at its sole expense a policy of title insurance insuring title in the Town, free and clear of all liens and encumbrances, for all land, property and easements dedicated or conveyed to the Town or for public use. Any agreements or easements to which the Town may effectively become a party upon dedication or acceptance of the improvements shall be provided to the Town for review prior to execution of such agreement or easement and prior to issuance of building permits. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Public Improvements.

2.2 ***Construction of Public Improvements***

a. Upon satisfaction of the conditions set forth in Paragraph 2.1 and the notice requirement set forth below, Developer shall construct the Public Improvements at its own expense in accordance with this Agreement, the Final Plat, the Civil Engineering Construction Plans, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. All Public Improvements shall be installed and constructed within the rights-of-way or easements dedicated to the Town. Unless otherwise approved by the Town in writing, all materials used for constructing the Public Improvements shall be materials set forth on the Town's approved material list, which materials shall be of good quality.

b. At least fourteen (14) days prior to the commencement of construction, Developer shall provide written notice to all property owners within an 800-foot radius of the construction limits indicated on the Civil Engineering Construction Plans and to any other property owners who are reasonably likely to be impacted by the construction of the fact of the construction along with contact information for the Developer. Prior to the commencement of the construction, such contact list shall be provided to the Town with a copy of the notification. Notification may be by U.S. mail or by delivering a printed flyer left at each affected home or business location.

2.3 ***Engineer's Opinion of Cost and Construction Schedule:*** Developer estimates the cost of the Subdivision Improvements as set forth on the Engineer's Opinion of Cost, attached hereto and incorporated herein by reference as **Exhibit D**. Once construction begins, Developer shall keep the Town informed by periodic status reports of the progress of the work and a projection of when the Public Improvements will be completed as well as the cost of such Public Improvements.

2.4 ***Testing***: Developer shall employ, at its own expense, a qualified independent testing company, approved by the Town, to perform all testing of materials or construction that

may be reasonably required by the Town. Developer shall furnish certified copies of test results to the Town.

2.5 ***Inspection***: At all times during construction of the Public Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Civil Engineering Construction Plans. Any material or work not conforming to the Civil Engineering Construction Plans shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

2.6 ***Completion of Construction:*** Developer shall complete construction of the Public Improvements no later than eighteen (18) months from the commencement of the construction, unless such completion date is extended for reasons beyond the reasonable control of Developer and Developer has obtained the Town Manager's written consent to an extension, which consent will not be unreasonably withheld, conditioned or delayed.

2.7 ***Performance Guarantee***: To secure the construction, installation, improvement and completion of the Subdivision Improvements, Developer shall furnish to the Town a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in a form approved by the Town wherein the Town is designated as the beneficiary ("Performance Guarantee") in an amount equal to 110% of the cost of the improvements, which cost shall be certified by Developer's professional engineer licensed in the State of Colorado and approved by the Town. The Performance Guarantee shall be released after the Notice of Construction Acceptance has been provided for the Public Improvements and notice of approval has been provided for the Private Improvements.

3. **Private Improvements**

3.1 ***Pre- Construction:*** Prior to commencing construction of the Private Improvements, Developer shall submit a Development Plan to the Town. The Development Plan shall contain the proposed Private Improvements for the Development, including a plan for stormwater improvements, an irrigation system, landscaping and soil amendments, fencing, entry-way signage, street signs and posts, street lighting, parks, open space, trails and postal service boxes. Landscaping and fencing shall be designed in accordance with the Town's landscape guidelines. Construction of the Private Improvements shall not commence until the Town provides written notice of approval of the Development Plan. Developer shall not thereafter modify the approved Development Plan without the written approval of the Town. The Town's review and approval of the Development Plan shall not limit or affect Developer's responsibility or liability for design, construction and installation of the Private Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Private Improvements.

3.2 ***Construction of Private Improvements:*** Upon satisfaction of the conditions set forth in Paragraph 3.1, Developer shall construct the Private Improvements at its own expense in accordance with the terms of this Agreement, the Final Plat, the Development Plan, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. All landscaping services shall be performed by a professional landscape contractor. Certification of required soil amendment shall be signed by Developer and provided to the Town. Unless otherwise approved by the Town in writing, all materials used for constructing the Private Improvements shall be new and both workmanship and materials shall be of good quality.

3.3 ***Inspection***: At all times during construction and installation of the Private Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Development Plan. Any material or work not conforming to the Development Plan shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

3.4 ***Completion of Private Improvements:*** Unless otherwise agreed in writing by the Town, the Private Improvements shall be completed no later than the date that the Public Improvements are completed, unless such completion date is extended for reasons beyond the reasonable control of Developer and Developer has obtained the Town's written consent to the extension. The Town may, at its discretion, allow Developer to defer completion of the landscaping services between December 1 and March 1 of any given year provided that sufficient surety is provided to the Town.

3.5 ***Replacement of Private Improvements:*** As replacement of the Private Improvements is necessary and warranted over time, including but not limited to decorative light fixtures, decorative street signs and all other decorative amenities in the Development, the Private Improvements shall be replaced by, as appropriate, the Developer or an owner's association. The Town shall not be responsible for replacement of the Private Improvements.

4. **Dry-Utilities**

4.1 ***Utilities:*** Developer shall obtain all proper conveyances and arrangements for the installation and provision of the Dry Utilities to serve the Development. Developer shall provide proof of such conveyances and arrangements to the Town, which proof may be in the form of contracts for such services, no later than the date that the Public Improvements are completed.

4.2 ***Easements:*** All easements approved by the utility companies shall be submitted to the Town.

ACCEPTANCE OF SUBDIVISION IMPROVEMENTS

5.1 ***Notice of Construction Acceptance***: Developer shall make written application to the Town for acceptance of the Public Improvements and for review of the Private Improvements, within thirty (30) days of the completion date of the Subdivision Improvements, with the exception of the improvements for which the Town has authorized an extension of time to complete. With respect to the Public Improvements, among other documents that may be required by the Town, the written application shall include one set of reproducible "as built" drawings and an affidavit executed by Developer affirming that the Public Improvements have been paid in full, certifying the final construction costs and including documentary evidence of the construction costs. If the Town requests, Developer shall provide lien waivers, or other acceptable assurance, from all subcontractors, suppliers and materialmen who have furnished labor, material or services for the design, construction or installation of the Subdivision Improvements. The affidavit and lien waivers may be reviewed by the Town, but the Town assumes no responsibility or liability to or for anyone regarding the veracity of the information so provided.

After the receipt of the written application, the Town shall use reasonable efforts to promptly inspect the Subdivision Improvements. If the Subdivision Improvements are satisfactory constructed in accordance with the Approved Plans, Developer shall be entitled to a Notice of Construction Acceptance of the Public Improvements upon receipt of the Maintenance Guarantee and written approval of the Private Improvements. If the Subdivision Improvements are not satisfactory constructed in accordance with the Approved Plans, the Town, upon coordination with Developer, shall prepare a punch list of all Subdivision Improvements that are not in compliance with the Approved Plans, subject to any changes that have been approved or required by the Town. After curing the defects and matters set forth on the punch list, Developer shall make a renewed written application to the Town for re-inspection of the Subdivision Improvements, which written application shall contain the items set forth above. The Town shall thereafter use reasonable efforts to promptly re-inspect the Subdivision Improvements. If the Subdivision Improvements are satisfactory constructed in accordance with the Approved Plans, Developer shall be entitled to the issuance of a Notice of Construction Acceptance for the Public Improvements upon receipt of the Maintenance Guarantee and written approval of the Private Improvements.

5.2 ***Maintenance Guarantee.*** Prior to the issuance of the Notice of Construction Acceptance of the Public Improvements, Developer shall provide the Town with a maintenance guarantee in the form of a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in a form approved by the Town wherein the Town is designated as the beneficiary ("Maintenance Guarantee"). The Maintenance Guarantee shall equal fifteen percent (15%) of the total cost of the Public Improvements. The Maintenance Guarantee shall warrant and guarantee all expenses and costs for maintenance, repairs and replacements of the Public Improvements until Final Acceptance. The Maintenance Guarantee shall be released after Final Acceptance of all of the Public Improvements. The Maintenance Guarantee may also be used to ensure that the installed landscaping, a Private Improvement, is

satisfactorily established during the period between the issuance of the Notice of Construction Acceptance and Final Acceptance of the Public Improvements.

5.3 ***Delivery of Notice of Construction Acceptance.*** Upon satisfaction of the conditions set forth above in Paragraphs 5.1 and 5.2, the Town shall provide written Notice of Construction Acceptance of the Public Improvements and written approval of the Private Improvements to Developer. At its discretion, the Town may issue a written Notice of Construction Acceptance of the Public Improvements and written approval of the Private Improvements prior to completion of all the Subdivision Improvements as long as the Performance Guarantee remains in effect for such uncompleted Subdivision Improvements. In which case, at the Town's discretion, Developer may be entitled to obtain building permits prior to completion of all the Subdivision Improvements, assuming satisfaction of the remaining terms of this Agreement and based on conditions otherwise set forth herein.

5.4 ***Maintenance, Repair and Replacement***: Developer shall warrant the Public Improvements for a period of two (2) years following the Town's issuance of the Notice of Construction Acceptance, as the same may be extended as set forth in Section 5.5 below (the "Warranty Period"). During the Warranty Period, Developer shall promptly perform all maintenance and make all repairs and replacements of all defects or failures of the Public Improvements at Developer's expense and shall ensure that the installed landscaping is established. If, within ten (10) days after Developer's receipt of written notice from the Town requesting such maintenance, repairs or replacements, Developer shall not have undertaken with due diligence to make the same, the Town may make such maintenance, repairs or replacements at Developer's expense and shall be entitled to draw upon the Maintenance Guarantee, either before undertaking to make such repairs or at any time thereafter, or the Town may charge Developer for the costs thereof. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or the issuers of the Maintenance Guarantee. Notwithstanding the foregoing, the Town may, at its discretion and upon written advisement to Developer, be responsible for routine maintenance of the Public Improvements (street sweeping, snow removal, etc.).

5.5 ***Final Acceptance***: Two (2) years after the Town's issuance of the Notice of Construction Acceptance, which time period may be extended at the Town's discretion to the extent reasonably required due to remedial or repair work that may be required by the Town during the first two (2) years, Developer shall make a written request to the Town for final inspection of the Subdivision Improvements. If the Town determines that the Subdivision Improvements are free of defects in materials and workmanship and have been repaired and maintained to the extent required, the Town shall provide certification of completion by issuance of a Notice of Final Acceptance of the Public Improvements and written approval of the Private Improvements. If the Town determines that the Subdivision Improvements are not free of defects in materials and workmanship and have not been repaired and maintained to the extent required, the Town shall issue a written notice of non-compliance specifying the defects. Developer shall take such action as is necessary to cure the noncompliance and, upon curing the

same, provide a new written request to the Town for a final inspection of the Subdivision Improvements. Failure of the Developer to make a timely request for the issuance of a Notice of Final Acceptance shall not limit the Town's rights hereunder nor shall it limit the Town's right to utilize the Public Improvements as the Town deems appropriate.

Upon issuance of the Notice of Final Acceptance, the Maintenance Guarantee shall be released to Developer, and the Town shall thereafter maintain the Public Improvements dedicated to the Town.

5.6 ***Common Area Improvements:*** If there are common area improvements to be operated and maintained within the Development, the lot owners shall either establish an owners' association or enter into a written agreement allocating the responsibility and payment of costs to operate and maintain such improvements among the lot owners, and, within a reasonable time, provide the Town with, as appropriate, a copy of the covenants, conditions and restrictions or the agreement.

5.7 ***Landscape Verification:*** There are no landscape plans for the Development. Permanent seeding of the disturbed area shall be inspected and verified, upon completion, by the civil engineer who created the Civil Engineering Construction Plans.

5.8 ***Dedication and Maintenance of Subdivision Improvements:*** Unless otherwise agreed by the Town and Developer: (1) the Public Improvements shall be owned, operated and maintained by the Town; (2) the Private Improvements shall be owned, operated and maintained by the Developer or the owner's association; and (3) the Dry Utilities shall be owned, operated and maintained, as appropriate and otherwise authorized, by the Developer, the owner's association, a special district or the appropriate public utility company.

WATER AND SEWER SERVICE

6.1 Developer understands and agrees, that, upon the development of each lot in the Development, the owner or developer of such lot, as the case may be, shall be required to enter into a water and sewer service agreement with the Town, setting forth their agreement concerning water rights dedication, preliminary projections of water and sewer demand and a commitment by the Town for water and sewer service to such lot.

6.2 Developer understands and agrees, that, upon the development of each lot in the Development, the owner or developer of such lot, as the case may be, shall undertake the ownership and maintenance of the stormwater infrastructure for such lot and enter into an operations and maintenance agreement with the Town addressing, among other issues, notification and remedies related to the operations, maintenance and repair of the stormwater infrastructure.

BUILDING PERMITS

7.1 The Town shall not issue building permits for the any of the lots in the Development until: (1) the Final Plat has been recorded with the Weld County Clerk and Recorder; (2) the developer of any such lot has paid all applicable use tax due and owing to the Town and all other fees required by the Town, including but not limited to water and tap fees, impact fees, storm drainage fees and cash-in-lieu payments due, if any, to the Weld County School District RE-5J; (3) Developer has received written notice of Notice of Construction Acceptance of the Public Improvements and written notice of approval of the Private Improvements, with the exception of the improvements for which the Town has authorized an extension of time to complete; (4) Developer has provided the Maintenance Guarantee; and (6) all terms of this Agreement have been faithfully kept by Developer. Notwithstanding the foregoing, the Town agrees to issue a building permit to USEREH for Lot 1 as provided in the certain Site Development Plan Agreement executed between the Town and USEREH concurrently with the execution of this Agreement but shall not issue a certificate of occupancy to USEREH until the foregoing requirements are satisfied.

7.2 If at any time the Town determines that Developer is not in compliance with this Agreement, the Final Plat, or the Approved Plans, the Town may withhold the issuance of a certificate of occupancy.

OPERATION STANDARDS

8.1 Construction activity shall occur only during the times set forth in the Code.

8.2 Developer shall control all weeds growing within the Development. Prior to the commencement of construction, Developer shall provide a weed management plan to the Town, outlining the manner and frequency in which the weeds shall be controlled. The Town shall have the right to object to the weed management plan. Developer further agrees to use the appropriate herbicide and undertake mowing of the property within the Development. If, at the Town's sole determination, Developer does not control the weeds in or properly mow the Property, the Town may provide Developer with three (3) days written notice to cure the breach, which time period may be extended in writing by the Town Manager for good cause. If the breach is not cured, at the Town's sole determination, the Town shall issue a stop work order on all construction in the Development. The Town or Developer shall thereafter mitigate the nuisance by taking measures to control the weeds or mow the Property. If the Town mitigates the nuisance, upon fifteen (15) days of receipt of an invoice from the Town, Developer shall the pay the invoice for services rendered, which will include the actual costs and a ten percent (10%) administrative fee. The stop order will be released, if one had been issued, upon Developer's payment of the invoice. If the Developer mitigates the nuisance, the stop order will be released upon a Town inspection and determination the nuisance has been mitigated.

8.3 Developer shall, at all times, keep the public right-of-way free from accumulation of waste material, rubbish, dirt and mud caused by Developer's operation. Developer shall

remove such waste material, rubbish, dirt and mud no less than weekly and, at the completion of the work, shall promptly remove all debris waste materials, rubbish, dirt, mud, tools, construction equipment, machinery, building materials, trash containers, and portable toilets from the public right-of-way.

8.4 Whenever the Town determines that any activity is occurring which is not in compliance with the requirements of any federal or state regulations applicable to water quality or stormwater control, the Town may order all construction activity stopped upon service of written notice. Developer, or its contractors, shall immediately stop all activity until authorized in writing by the Town to proceed. If Developer or a responsible party is not on the site or cannot be located, the notice to stop work shall be posted in a conspicuous place upon the area where the activity is occurring and shall state the nature of the violation. It shall be unlawful for any person to fail to comply with a stop work order.

8.5 In the event that Developer fails to perform the work specified in Paragraphs 8.2, 8.3 or 8.4 within a reasonable time period after receiving written notice from the Town, as determined by the Town, the Town may, in addition to other remedies, including those set forth in Paragraph 7.3, perform the work required and charge Developer for said cost. Developer shall pay the Town for all costs incurred by the Town in the performance of the above said service within ten (10) days of the Town submitting an invoice for said services. If Developer does not remit the costs, in addition to other remedies, the Town may draw on the Performance Guarantee or Maintenance Guarantee.

8.6 Developer shall ensure that Developer's subcontractors cooperate with the Town's construction inspectors in all manners. Developer shall take all steps necessary to prevent its construction activities from damaging adjacent properties.

DEVELOPMENT STANDARDS

9.1 Developer shall comply with the requirements contained in the Annexation Agreement and any other duly executed agreement related to the Property, except as specifically amended by this Agreement.

9.2 Except as otherwise provided in this Agreement, the Final Plat or Approved Plans, Developer shall comply with the Code, the Town's zoning ordinances, subdivision regulations, landscape guidelines and construction standards and specifications and the Johnstown Design Guidelines or, if operative with respect to the Development, the approved design guidelines.

9.3 If the Property is included in a metropolitan district, Developer shall dedicate all outlots and tracts containing open space, park areas, and trails to such metropolitan district. The open spaces, parks, and trails shall be available for public use.

9.4 Upon completion of construction, Developer shall provide complete construction drawings and final as-built drawings to the Town in print and digital form, in a manner that conforms to the Town's format and content requirements.

9.5 Developer shall take all necessary steps to prevent its construction activities from harming water quality, water bodies and wetlands. All drainage and holding ponds shall be kept free of standing water by whatever means possible including, but not limited to, pumping water out of any holding ponds.

LIABILITY, INSURANCE AND COST REIMBURSEMENT

10.1 ***Indemnification***: Developer hereby agrees to indemnify and hold the Town, its employees, agents, representatives, insurers and self insurance pool harmless from and against any and all suits, demands, actions, damages, liability, losses, claims, fees and expenses, including attorney's fees, resulting or arising in any way from any breach or default of this Agreement by Developer, or any acts or omissions of Developer, its employees, agents, consultants, representatives or subcontractors, except to the extent caused by gross negligence or willful misconduct of the Town. Developer shall promptly investigate, handle, respond to, and provide defense for and defend against any such liability, claims or demands at the sole expense of Developer.

10.2 ***Insurance:*** Developer shall, and shall ensure that its contractors and subcontractors, maintain such liability insurance in the minimum amounts set forth in this section to protect the Town, its employees, agents and representatives against any and all potential liability, claims, damage, demands, losses, and expenses which may be incurred or asserted pursuant to this Agreement and pursuant to Paragraph 10.1 above. Liability insurance shall be in the minimum amount of One Million Dollars ($1,000,000.00) per occurrence and Two Million Dollars ($2,000,000.00) aggregate, or such greater amounts as may be established by the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as may be amended. Developer shall list the Town, its officers, employees, agents and representatives, as additional insureds on such liability policies. Whenever requested by the Town, Developer agrees to promptly submit certificates of insurance evidencing sufficient amounts, types and duration of insurance and showing the Town, its officers, employees, agents and representatives, as additional insureds. Developer shall not be relieved of any liability, claims, demands or other obligations assumed or set forth in this Development Agreement by reason of its failure to procure or maintain such insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types. In addition to the insurance specified above, Developer shall maintain workers compensation insurance, if so required by law, and shall require its contractors, subcontractors, representatives and agents engaged in the design, construction or installation of improvements to maintain workers compensation insurance in the amount required by law.

10.3 ***Drainage Liability***: Developer shall indemnify and hold the Town harmless from any liability the Town may have on account of any change in the nature, direction, quantity, or quality of drainage flow to the extent resulting from the Development. In addition, Developer shall reimburse the Town for any and all costs, fees, and expenses, including attorney's fees, which the Town incurs in acquiring any rights-of-way or easements which the Town is required to acquire or condemn or which the Town is held to have acquired or condemned for drainage as a result of this Development. This provision shall survive Final Acceptance and the termination of this Agreement.

10.4 ***Tax Liability***: Developer shall pay all outstanding taxes, encumbrances or obligations on any property dedicated or conveyed to the Town prior to or at the time of such dedication or conveyance, and shall indemnify and hold the Town harmless from any and all encumbrances, obligations or tax liability incurred prior to the dedication or conveyance to the Town.

10.5 ***Use Tax***: Developer shall pay all applicable use tax due and owing to the Town prior to the commencement of construction.

10.5 ***Cost Reimbursement to Town***: Developer shall reimburse the Town for professional consultants, including, but not limited to engineers, testing and inspection companies and attorneys, engaged by the Town to process and complete the Development.

10.6 ***Colorado Governmental Immunity Act:*** Nothing in this Agreement shall be construed to waive, limit or otherwise modify any governmental immunity that may be available by the law to the Town, its employees, or agents, or any other person acting on behalf of the Town and, in particular, the governmental immunity afforded pursuant to the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as amended.

DEFAULTS AND REMEDIES

11.1 A default by Developer shall exist if Developer fails to fulfill or perform any material obligation contained in this Agreement, the Final Plat, or the Approved Plans, or Developer fails to comply with the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. In the event of a default, the Town shall deliver written notice to Developer of such default and Developer shall have ten (10) days from receipt of such notice to cure the default. If the default is not of a type that may be cured within such ten (10) day period, Developer may provide written notice to the Town within such period that it is actively and diligently pursuing such cure and Developer shall thereafter have a reasonable time to cure the default, provided that Developer is at all times within that extended period actively and diligently pursuing a cure. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or the issuers of the Performance Guarantee or Maintenance Guarantee.

11.2 If the default relates to the improvement secured by the Performance Guarantee and the default is not timely cured, the Town may draw on the Performance Guarantee. If the default arises subsequent to the issuance of the Notice of Construction Acceptance and the default is not timely cured, the Town may draw on the Maintenance Guarantee. In addition, and without limitation, if the default is not timely cured in accordance with this Agreement, the Town may withhold approval of any or all building permits, certificates of occupancy, water meters or tap hook-ups for any area within the Development. Notwithstanding these rights and remedies, the Town may pursue whatever additional remedies it may have against Developer or anyone, either at law, equity or pursuant to this Agreement. The Town's remedies shall be cumulative.

11.3 Should Developer default in any obligation under this Agreement, the Town may, at its discretion, complete or remove such Subdivision Improvements at Developer's expense. The Town shall estimate the cost of undertaking such work and give notice to Developer to pay such cost estimate. The Town shall use such payment for construction or removal of said improvements and refund any money collected in excess of the actual cost of said improvements. Should payment not be made within thirty (30) days of such notice, the Town may assess the amount of the cost estimate, plus ten percent (10%) to defray the cost of collection as provided by state law, to the Property and file a lien against the Property, such lien to have priority over all liens except general taxes and prior special assessments and be placed upon the tax list for the current year to be collected in the same manner as taxes are collected. The Town may file such lien at any time after said thirty (30) days while Developer is in default of this Agreement.

SPECIAL PROVISIONS

12.1 The additional terms, conditions or provisions relating to the Development are set forth in **Exhibit C**, which is attached hereto, incorporated herein by this reference, and made a part of this Agreement.

MISCELLANEOUS

13.1 ***No Waiver***: Delays in enforcement or the waiver of any one or more breaches of this Agreement by the Town shall not constitute a waiver of any of the remaining terms or obligations.

13.2 ***Severability***: If any provisions or parts of this Agreement are judged to be unenforceable or invalid, to the extent practicable, such judgment shall not affect, impair or invalidate the remaining parts of this Agreement, the intention being that the various parts and provisions hereof are severable.

13.3 ***Recording of Agreement***: This Agreement shall be recorded immediately subsequent to the recording of the approved Final Plat and shall be a covenant running with and against all the Property, property rights and improvements contained within the Development

described in **Exhibit A** in order to put prospective owners, purchasers, successors, assigns, and others acquiring any interest in the property on notice as to the terms and obligations herein. Except for the conveyance of part of Lot 1 by Developer to USEREH, no other lots, tracts or parcels may be separately conveyed prior to recording the Agreement and the Final Plat.

13.4 ***Binding Effect***: Unless otherwise provided herein, this Agreement shall be binding upon Developer's heirs, successors, assigns, transferees and any other person or entity acquiring or purchasing any interest in any of the Property described in the attached **Exhibit A**.

13.5 ***Assignments***: Developer may assign this Agreement with the written consent of the Town Manager, which consent shall not be unreasonably withheld, conditioned or delayed.

13.6 ***Title and Authority***: Each Owner separately expressly warrants and represents to the Town that it is the record owner of the portion of the Property set forth on **Exhibit A**, and each party separately represents and warrants that the undersigned has full power and authority to enter into this Agreement. The parties understand that the Town is relying on the representations and warranties contained herein in approving in entering into this Agreement.

13.7 ***Notice:*** All notices, consents, applications or other instruments provided for under this Agreement shall be deemed properly given and received: (1) when personally delivered and received, when sent by messenger service, or when forwarded by electronic mail delivery, but only upon confirmation of receipt of such electronic mail; (2) on the next day after deposit for delivery with a nationally-recognized overnight courier service; or (3) three business days after deposit in the United States mail, by certified mail with return receipt requested, postage prepaid and addressed as follows:

TO TOWN:
TOWN OF JOHNSTOWN
Attention: TOWN MANAGER
450 South Parish Avenue
P. O. Box 609
Johnstown, CO 80534
Email: MLeCerf@JohnstownCO.gov

TO DEVELOPER:

LB1DevCo LLC
Attention: Brett Bakersky
2753 Blue Iris Drive
Loveland, CO 80538
Email: brettbakersky5@gmail.com

WITH COPY TO:

Johnson Dauster & Thorson, PC
Attention: Ryan S. Thorson
323 S. College Avenue, Suite 1
Fort Collins, CO 80524
Email: rthorson@nocolawgroup.com

OWNERS:

USEREH Johnstown II, LLC
Attention: Brandon Wikoff
3433 Roanoke Road,
Kansas City, MO 64111
Email: brandon.wikoff@usengineering.com

WITH A COPY TO:

Katherine A. Zogleman, Esq.
René Calabrese, Esq.
2323 Grand Blvd., Suite 1000
Kansas City, MO 64108
kzogleman@sb-kc.com
rcalabrese@sb-kc.com

J Farms, LLC
Attn: Troy McWhinney
2725 Rocky Mountain Avenue
Loveland, Colorado 80538
E-mail: troy.mcwhinney@mcwhinney.com

WITH A COPY TO:

McWhinney Real Estate Services, LLC
Attn: Legal Department
1800 Wazee Street, Suite 200
Denver, Colorado 80202
E-mail: LegalNotices@mcwhinney.com

And to:

Polsinelli PC
Attn: Alexia Norris
900 W. 48th Place, Suite 900
Kansas City, MO 64112
E-mail: anorris@polsinelli.com

Polsinelli PC
Attn: Brendan Soane
1401 Lawrence Street, Suite 2300
Denver, Colorado 80202
E-mail: bsoane@polsinelli.com

Notwithstanding the foregoing, if, at the time notice is sent, any of the foregoing entities is no longer a property owner or no longer has an interest in the Property due to an approved assignment, the Town shall not be required to provide notice to such entity.

13.8 ***Costs and Attorney Fees.*** If any judicial proceedings may hereafter be brought related to this Agreement, the Town, if the prevailing party, shall be entitled to recover the costs of such proceedings, including reasonable attorney's fees and reasonable expert witness fees.

13.9 ***Vested Right.*** The Final Plat shall have vested rights for a period of three (3) years from the date of this Agreement. If, after such time, no reasonable and substantial efforts have commenced to construct the Subdivision Improvements, as determined by the Town at its sole discretion, said plat may be vacated by action of the Town.

13.10 ***Responsible Agency Comments and Conditions.*** Any written comment or condition received from any responsible agency who participates in the review of the Development is hereby incorporated into this Agreement and made a part hereof. Unless

otherwise agreed by the Town in writing, all such comments or conditions shall be satisfied prior to the issuance of any building permits for the Development. Responsible agencies include, to the extent such agencies have jurisdiction, but are not limited to, the following:

a. Front Range Fire Rescue Fire Protection District / Loveland Fire Rescue Authority
b. Town Review Engineers – IMEG Corporation
c. Town Traffic Engineers – Felsburg Holt & Ullevig, Inc.
d. Town Water Modeling Engineers – JUB Engineers, Inc.
e. Town Water Engineers – Helton & Williamsen, P.C.
f. Little Thompson Water District
g. Larimer County
h. Weld County
i. Colorado Department of Transportation

13.11 ***Warranty of Developer:*** During the Warranty Period, Developer warrants that the Subdivision Improvements shall be installed in a good and workmanlike manner and in compliance with the Approved Plans, this Agreement, the Final Plat, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations and shall be substantially free of any defects in materials and workmanship.

13.12 ***Governing Law and Venue***. This Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado and the Code. Venue for any claim, proceeding or action arising out of this Agreement shall be in the County of Weld, State of Colorado.

13.13 ***No Presumption.*** Each party acknowledges that it has obtained, or has had the opportunity to obtain, the advice of legal counsel of its own choosing in connection with the negotiation and execution of this Agreement and with respect to all matters set forth herein. In the event of any dispute, disagreement or controversy arising from this Agreement, the parties shall be considered joint authors and no provision shall be interpreted against any party because of authorship.

13.14 ***Entire Agreement.*** This Agreement constitutes the entire agreement and understanding between the parties concerning the subject matter contained herein and supersedes all prior agreements or understandings related to the subject matter. Except as expressly modified by this Agreement, the annexation agreement concerning the Property shall remain in full force and effect. Any amendment to this Agreement must be in writing and signed by the parties.

13.15 ***Compliance with the Law***. Developer shall comply with all federal, state and local laws and regulations in the performance of the obligations under this Agreement.

13.16 ***No Third-Party Beneficiaries.*** No person or entity, other than a party to this Agreement, shall have any right of action under this Agreement including, but not limited to, lenders, lot buyers, materialmen, laborers or others providing work, services or materials for the Subdivision Improvements.

13.17 ***Force Majeure.*** Neither party shall be liable for a failure to perform hereunder if such failure is the result of force majeure, which shall mean causes beyond the reasonable control of a party such as acts of God, labor strikes, war, terrorism, fire, pandemic or epidemic or action or inaction of government authorities.

13.18 ***Headings.*** The paragraph headings herein are for the convenience and reference of the parties and are not intended to define or limit the scope or intent of this Agreement.

13.19. ***Role of Owner***. The Owners are made a party to this Agreement solely for the purpose of subjecting the respective Property owned by such Owner to the covenants contained in this Agreement. The Town and the Developer expressly acknowledge and agree that the Owners shall not be liable for any obligations of the Developer under this Agreement, unless an Owner exercises the rights of the Developer to develop the Property and is assigned the obligations of Developer in writing as permitted by this Agreement, in which event the obligations of the Developer shall become those of the Owner.

13.20 ***Condition Precedent.*** This Agreement is conditioned upon Developer's purchase of a part of Lot 1 from J Farms and, subsequent thereto, USEREH's purchase of a part of Lot 1 from Developer ("Purchase and Sale Transactions"). If the Purchase and Sale Transactions do not occur by March 31, 2026, then this Agreement shall be null and void.

IN WITNESS WHEREOF, and agreeing to be fully bound by the terms of this Agreement, the parties have set their hands below on this 3rd day of March, 2026.

OWNERS:

J FARMS, LLC,
a Colorado limited liability company

By: Realberry Real Estate Services, LLC, a Colorado limited liability company,
d/b/a McWhinney Real Estate Services, LLC, its Manager

By: _____
Troy McWhinney, Vice Chairman

STATE OF COLORADO)
) ss.
COUNTY OF)

SUBSCRIBED AND SWORN to before me this ____ day of _____, 2026, by _____, as the _____ of J Farms, LLC.

WITNESS my hand and official seal.

My commission expires:

_____
Notary Public

USEREH JOHNSTOWN II, LLC,
a Missouri limited liability company

By: USE REAL ESTATE HOLDINGS, LLC
(f/k/a USE Midwest, LLC), a Missouri limited
liability company, its sole member

By: U.S. ENGINEERING COMPANY HOLDINGS,
a Missouri corporation, its sole member

By: _____
Brandon Wikoff, President

STATE OF MISSOURI)
)ss.
COUNTY OF _____)

SUBSCRIBED AND SWORN to before me this ___ day of _____, 2026, by Brandon Wikoff as the President of U.S. ENGINEERING COMPANY HOLDINGS.

WITNESS my hand and official seal.

_____
Notary Public

My commission expires: _____

DEVELOPER:

LB1DevCo LLC,
a Colorado limited liability company

By: _____
Brett Bakersky, Member

STATE OF COLORADO)
) ss.
COUNTY OF)

SUBSCRIBED AND SWORN to before me this ____ day of _____, 2026, by _____, as the _____ of LB1DevCo LLC, a Colorado limited liability company.

WITNESS my hand and official seal.

My commission expires:

_____
Notary Public

TOWN:

TOWN OF JOHNSTOWN, COLORADO
a municipal corporation

By: _____
Michael P. Duncan, Mayor

ATTEST:

By:_____
Meghan Martinez, Town Clerk

SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT
FOR
THE TOWN OF JOHNSTOWN
(Johnstown Commercial Center)

EXHIBITS

TABLE OF CONTENTS

EXHIBIT A:	Legal Description of the Property
EXHIBIT B:	Copy of Final Plat
EXHIBIT C:	Public Improvements, Private Improvements and Additional Terms, Conditions or Provisions
EXHIBIT D:	Engineer's Opinion of Cost

EXHIBIT A

LEGAL DESCRIPTION
(Property)

A parcel of land situate in the Northeast Quarter (NE1/4) of Section Three (3), Township Four North (T.4N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.) being more particularly described as follows:

Property owned by J Farms, LLC:
Lot 2 and Tract 1, Johnstown Commercial Center,
Town of Johnstown,
County of Weld,
State of Colorado

Property owned by USEREH Johnstown II, LLC:
Lot 1, Johnstown Commercial Center,
Town of Johnstown,
County of Weld,
State of Colorado

EXHIBIT B

FINAL PLAT

(SEE ATTACHED)

[Draft of Final Plat attached for Town Council meeting on March 2, 2026. Final form of Final Plat shall be included prior to recordation.]

EXHIBIT C

ADDITIONAL TERMS, CONDITIONS OR PROVISIONS

1. Public Improvements. Construction of Basher Drive to the northern terminus of Lot 1 and Lot 2 of the Final Plat, together with Sanitary and Storm Sewer and Water Line, as set forth in the Civil Engineering Construction Plans.

2. Private Improvements. Storm Drain A ("Storm Pipe"), as set forth in the Civil Engineering Construction Plans. There is not a separate Development Plan with respect to this Development and Agreement, as there are no Private Improvements other than the Storm Pipe.

3. Additional Terms, Conditions and Provisions.
   a. Developer understands and agrees that, prior to issuance of written notice of approval for the Private Improvements for Lot 1 pursuant to that certain Site Development Plan Agreement executed between the Town and USEREH concurrently with the execution of this Agreement (the "SDA"), USEREH shall be obligated to construct the Lot 1 Detention Pond with the accompanying stormwater outlet and execute an agreed upon operations and maintenance agreement for the pond, stormwater outlet and Storm Pipe [USEREH's operations and maintenance agreement will include the Storm Pipe, even though it's a Private Improvement under this Agreement, due to the efficiency and economy of having the maintenance of the entire detention and drainage system under one plan, and such agreement will be entered into in accordance with the SDA]. If the Lot 1 Detention Pond and stormwater outlet are not properly constructed to the satisfaction of the Town in accordance with the SDA and written acceptance is not issued to USEREH, Developer shall be required, upon written notice from the Town Manager and in the time required in the notice, to construct the Lot 1 Detention Pond and stormwater outlet and execute an agreed upon operations and maintenance agreement with the Town for the Detention Pond, stormwater outlet and Storm Pipe. The Town shall not issue certificates of occupancy for any of the lots in the Development, including Lot 1, until the Lot 1 Detention Pond and stormwater outlet are constructed.

   b. Developer and Owners acknowledges that, before Tract 1 can be developed beyond the scope of the development approved in the Agreement, Basher Drive shall be extended and intersect with State Highway 60, sanitary sewer shall be extended to facilitate future development, storm sewer shall be improved to facilitate future development, and a 12" water line shall be extended to State Highway 60, cross Interstate 25 and connect into the existing water line at Daybreak Avenue in the Town. The foregoing obligations shall be set forth in a

subsequent subdivision development and improvement agreement or similar such agreement between the Town and Developer or the developer of Tract 1, as the Town determines is appropriate.

EXHIBIT D

ENGINEER'S OPINION OF COST
(ATTACHED)

TOWN OF JOHNSTOWN
SITE DEVELOPMENT PLAN AGREEMENT
(US Engineering)

This Site Development Plan Agreement ("Agreement"), is made and entered into on this 3rd day of March, 2026, by and between the **Town of Johnstown, Colorado**, a Colorado home-rule municipality (the "Town") and **USEREH Johnstown II, LLC**, a Missouri limited liability company ("Developer").

RECITALS

WHEREAS, Developer is the owner of a parcel of land situated in the Town of Johnstown, County of Weld, State of Colorado, the description of which is set forth on **Exhibit A** attached hereto and incorporated herein by this reference (the "Property"); and

WHEREAS, the Property is part of the property subject to that certain Subdivision Development and Improvement Agreement dated on or about March 3, 2026, by and among the Town, Developer, LB1DevCo LLC, a Colorado limited liability company, as developer under such Subdivision Development and Improvement Agreement, and J Farms, LLC, a Colorado limited liability company ("J Farms") ("SDIA"); and

WHEREAS, Developer seeks to develop the Property and to designate such development as the US Engineering Fabrication and Warehouse Facility ("Development"); and

WHEREAS, Developer has submitted a Site Development Plan to the Town for administrative review and approval; and

WHEREAS, Developer understands and agrees that, as a condition of approval of the Site Development Plan, Developer is required to construct certain Private Improvements, Developer is responsible for the costs and expenses of those Private Improvements unless otherwise provided herein, and the Private Improvements contemplated herein are reasonable, necessary, appropriate, and directly benefit the Development; and

WHEREAS, Developer agrees to undertake and complete the Private Improvements in accordance with this Agreement, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations.

AGREEMENT

NOW, THEREFORE, in consideration of the premises cited above and the mutual covenants and promises contained herein, the sufficiency of which is acknowledged, the Town and Developer agree as follows:

RECITALS

The Recitals are incorporated as if fully set forth herein.

DEFINITIONS

For the purposes of this Agreement, the following words and terms shall be defined as follows:

1.1 "**Civil Engineering Construction Plans**" shall mean the approved engineering plans for construction, installation and improvement of the Private Improvements.

1.2 "**Code**" shall mean the Johnstown Municipal Code, as amended from time to time.

1.3 "**Developer**" Developer defined in the introductory paragraph, together with any permitted assignee as permitted by Paragraph 10.5.

1.4 "**Development**" shall include all the Property, property rights and Private Improvements within or associated with the legal description in **Exhibit A**.

1.5 "**Maintenance Guarantee**" shall mean a guarantee that the Public Improvements constructed shall be free from defects and failures until Final Acceptance as more fully described herein.

1.6 "**Notice of Construction Acceptance**" shall mean the written certification that the Public Improvements are accepted, which starts the two-year Warranty Period as provided herein.

1.7 "**Notice of Final Acceptance**" or "**Final Acceptance**" shall mean the written certification of final acceptance of the Public Improvements and the transfer of maintenance of the Public Improvements to the Town.

1.8 "**Private Improvements**" shall mean the construction, installation and improvement of privately owned and maintained common improvements listed on **Exhibit B-1**.

1.9 "**Public Improvements**" shall mean the construction, installation, improvement and dedication of public improvements listed on **Exhibit B-2** that will be dedicated to the Town.

1.10 "**Performance Guarantee**" shall mean a guarantee that the Public Improvements will be constructed in conformance with the Civil Engineering Construction Plans as more fully described herein.

1.11 "**Site Development Plan**" means the Town-approved architectural drawing depicting the general layout and configuration of the Development in compliance with the Town of Johnstown Land Use Development Code, as amended from time to time, including, among other elements, building footprints, parking and street layout, conceptual landscaping and lighting, site cross section drawings and building elevations.

CONSTRUCTION OF PUBLIC IMPROVEMENTS

2.1 ***Pre-Construction***

a. **Engineering Services**: Developer shall furnish, at its own expense, all engineering services in connection with design, construction, installation and improvement of the Public Improvements. Engineering services shall be performed by a professional engineer registered in the State of Colorado. Engineering services shall consist of, but not be limited to, survey, designs, plans and profiles, specifications, drawings, estimates, construction administration, and the furnishing of necessary documents in connection therewith, including but not limited to final engineering drawings, final sewer and water design plans and final drainage plans (the "Civil Engineering Construction Plans").

b. **Civil Engineering Construction Plans**: Prior to commencing construction of the Public Improvements for the Development, Developer shall submit the Civil Engineering Construction Plans to the Town for review. Construction of the Public Improvements shall not commence until the Town provides written notice of approval of the Civil Engineering Construction Plans. Developer shall not thereafter modify the approved Civil Engineering Construction Plans without the written approval of the Town. The Town's review and approval of the Civil Engineering Construction Plans shall not limit or affect Developer's responsibility or liability for design, construction and installation of the Public Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection.

c. **Pre-Construction Meeting**. Subsequent to the Town's approval of the Civil Engineering Construction Plans and prior to the commencement of construction, the Developer and its contractors shall participate in a pre-construction meeting with the Town's Public Works Department. Among other matters, as determined by the Town, the purpose of the meeting shall be to review: (i) the Civil Engineering Construction Plans; (ii) permits needed for construction; (iii) relevant provisions of the Code and the Town's construction standards and specifications; and (iv) the construction inspection process and requirements for construction acceptance.

d. **Rights-of-Way, Easements and Permits**: Prior to commencing construction of the Public Improvements, Developer shall acquire, at its own expense, good and sufficient rights-of-way or easements, clear of any encumbrances, on all lands and facilities, if any, traversed by the proposed Public Improvements. All such rights-of-way and easements shall be conveyed to the Town and the documents of conveyance shall be furnished to the Town for recording. At the Town's request, Developer shall provide at its sole expense a policy of title insurance insuring title in the Town, free and clear of all liens and encumbrances, for all land, property and easements dedicated or conveyed to the Town or for public use. Any agreements or easements to which the Town may effectively become a party upon dedication or acceptance of the improvements shall be provided to the Town for review prior to execution of such agreement or easement and prior to issuance of building permits. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Public Improvements.

2.2 ***Construction of Public Improvements***

a. **Construction Standard**: Upon satisfaction of the conditions set forth in Paragraph 2.1 and the notice requirement set forth below, Developer shall construct the Public Improvements at its own expense in accordance with this Agreement, the Civil Engineering Construction Plans, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. All Public Improvements shall be installed and constructed within the rights-of-way or easements dedicated to the Town. Unless otherwise approved by the Town in writing, all materials used for constructing the Public Improvements shall be materials set forth on the Town's approved material list, which materials shall be of good quality.

b. **Notice to Property Owners**: At least seven (7) days prior to the commencement of construction, Developer shall provide written notice to all impacted property owners (as determined by the Town) along with contact information for the Developer. Prior to the commencement of the construction, such contact list shall be provided to the Town with a copy of the notification. Notification may be by U.S. mail or by delivering a printed flyer left at each affected home or business location.

2.3 ***Engineer's Opinion of Cost and Construction Schedule***: Developer estimates the cost of the Public Improvements as set forth on the Engineer's Opinion of Cost, attached hereto and incorporated herein by reference as **Exhibit C**. Once construction begins, Developer shall keep the Town informed by periodic status reports of the progress of the work and a projection of when the Public Improvements will be completed as well as the cost of such Public Improvements.

2.4 ***Testing***: Developer shall employ, at its own expense, a qualified independent testing company, approved by the Town, to perform all testing of materials or construction that may be reasonably required by the Town. Developer shall furnish certified copies of test results to the Town.

2.5 ***Inspection***: At all times during construction of the Public Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Civil Engineering Construction Plans. Any material or work not conforming to the Civil Engineering Construction Plans shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

2.6 ***Completion of Construction***: Developer shall complete construction of the Public Improvements no later than eighteen (18) months from the commencement of the construction, unless such completion date is extended for reasons beyond the reasonable control of Developer and Developer has obtained the Town's written consent to the extension.

2.7 ***Performance Guarantee***: To secure the construction, installation, improvement and completion of the Public Improvements, Developer shall furnish to the Town a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in the form approved by the Town in an amount equal to 110% of the cost of the improvements ("Performance Guarantee"), which cost shall be certified by Developer's professional engineer licensed in the State of Colorado and approved by the Town. The Performance Guarantee shall be released after the Notice of Construction Acceptance has been provided for the Public Improvements.

ACCEPTANCE OF PUBLIC IMPROVEMENTS

3.1 ***Notice of Construction Acceptance***: Developer shall make written application to the Town for acceptance of the Public Improvements, within thirty (30) days of the completion date of the Public Improvements, with the exception of the improvements for which the Town has authorized an extension of time to complete. Among other documents that may be required by the Town, the written application shall include one set of reproducible "as built" drawings and an affidavit executed by Developer affirming that the Public Improvements have been paid in full, certifying the final construction costs and including documentary evidence of the construction costs. If the Town requests, Developer shall provide lien waivers, or other acceptable assurance, from all subcontractors, suppliers and materialmen who have furnished labor, material or services for the design, construction or installation of the Public Improvements. The affidavit and lien waivers may be reviewed by the Town, but the Town assumes no responsibility or liability to or for anyone regarding the veracity of the information so provided.

After the receipt of the written application, the Town shall use reasonable efforts to promptly inspect the Public Improvements. If the Public Improvements are satisfactorily constructed in accordance with the Civil Engineering Construction Plans, Developer shall be entitled to a Notice of Construction Acceptance of the Public Improvements upon receipt of the Maintenance Guarantee. If the Public Improvements are not satisfactory developed in accordance with the Civil Engineering Construction Plans, the Town, upon coordination with

Developer, shall prepare a punch list of all Public Improvements that are not in compliance with the Civil Engineering Construction Plans, subject to any changes that have been approved or required by the Town. After curing the defects and matters set forth on the punch list, Developer shall make a renewed written application to the Town for re-inspection of the Public Improvements, which written application shall contain the items set forth above. The Town shall thereafter use reasonable efforts to promptly re-inspect the Public Improvements. If the Public Improvements are satisfactorily constructed in accordance with the Civil Engineering Construction Plans, Developer shall be entitled to the issuance of a Notice of Construction Acceptance for the Public Improvements upon receipt of the Maintenance Guarantee.

3.2 ***Maintenance Guarantee***. Prior to the issuance of the Notice of Construction Acceptance of the Public Improvements, Developer shall provide the Town with a maintenance guarantee in the form of a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in the form approved by the Town ("Maintenance Guarantee"). The Maintenance Guarantee shall equal fifteen percent (15%) of the total cost of the Public Improvements. The Maintenance Guarantee shall warrant and guarantee all expenses and costs for maintenance, repairs and replacements of the Public Improvements until Final Acceptance. The Maintenance Guarantee shall be released after Final Acceptance of all of the Public Improvements.

3.3 ***Delivery of Notice of Construction Acceptance***. Upon satisfaction of the conditions set forth above in Paragraphs 3.1 and 3.2, the Town shall provide written Notice of Construction Acceptance of the Public Improvements. At its discretion, the Town may issue a written Notice of Construction Acceptance of the Public Improvements prior to completion of all the Public Improvements as long as the Performance Guarantee remains in effect for such uncompleted Public Improvements. In which case, at the Town's discretion, Developer may be entitled to obtain building permits prior to completion of all the Public Improvements, assuming satisfaction of the remaining terms of this Agreement and based on conditions otherwise set forth herein.

3.4 ***Maintenance, Repair and Replacement***: Developer shall warrant the Public Improvements for a period of two (2) years following the issuance of the Notice of Construction Acceptance (the "Warranty Period"). During the Warranty Period, Developer shall promptly perform all maintenance and make all repairs and replacements of all defects or failures of the Public Improvements at Developer's expense. If, within ten (10) days after Developer's receipt of written notice from the Town requesting such maintenance, repairs or replacements, Developer shall not have undertaken with due diligence to make the same, the Town may make such maintenance, repairs or replacements at Developer's expense and shall be entitled to draw upon the Maintenance Guarantee, either before undertaking to make such repairs or at any time thereafter, or the Town may charge Developer for the costs thereof. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or the issuers of the Maintenance Guarantee. Notwithstanding the foregoing, the Town may, at its discretion and upon written advisement to

Developer, be responsible for routine maintenance of the Public Improvements (street sweeping, snow removal, etc.).

3.5 ***Final Acceptance***: Two (2) years after the Town's issuance of the Notice of Construction Acceptance, which time period may be extended at the Town's discretion to the extent reasonably required due to remedial or repair work that may be required by the Town during the first two (2) years, Developer shall make a written request to the Town for final inspection of the Public Improvements. If the Town determines that the Public Improvements are free of defects in materials and workmanship and have been repaired and maintained to the extent required, the Town shall provide certification of completion by issuance of a Notice of Final Acceptance of the Public Improvements. If the Town determines that the Public Improvements are not free of defects in materials and workmanship and have not been repaired and maintained to the extent required, the Town shall issue a written notice of non-compliance specifying the defects. Developer shall take such action as is necessary to cure the noncompliance and, upon curing the same, provide a new written request to the Town for a final inspection of the Public Improvements. Failure of the Developer to make a timely request for the issuance of a Notice of Final Acceptance shall not limit the Town's rights hereunder nor shall it limit the Town's right to utilize the Public Improvements as the Town deems appropriate.

Upon issuance of the Notice of Final Acceptance, the Maintenance Guarantee shall be released to Developer, and the Town shall thereafter maintain the Public Improvements dedicated to the Town.

CONSTRUCTION AND ACCEPTANCE OF PRIVATE IMPROVEMENTS

4.1 ***Pre- Construction***: Prior to commencing construction of the Private Improvements, Developer shall submit a Site Development Plan to the Town. The Site Development Plan shall contain the proposed Private Improvements for the Development. Construction of the Private Improvements shall not commence until the Town provides written notice of approval of the Site Development Plan and the Civil Engineering Construction Plans. Developer shall not thereafter modify the approved Site Development Plan or the Civil Engineering Construction Plans without the written approval of the Town. The Town's review and approval of the Site Development Plan and the Civil Engineering Construction Plans shall not limit or affect Developer's responsibility or liability for design, construction and installation of the Private Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Private Improvements.

4.2 ***Construction of Private Improvements***: Upon satisfaction of the conditions set forth in Paragraph 4.1, Developer shall construct the Private Improvements at its own expense in accordance with the terms of this Agreement, the Site Development Plan, the Civil Engineering

Construction Plans, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. Unless otherwise approved by the Town in writing, all materials used for constructing the Private Improvements shall be new and both workmanship and materials shall be of good quality.

4.3 ***Inspection***: At all times during construction and installation of the Private Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Site Development Plan and the Civil Engineering Construction Plans. Any material or work not conforming to the Civil Engineering Construction Plans shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

4.4 ***Completion of Private Improvements***: The Private Improvements shall be completed before a certificate of occupancy may be issued for the Development.

4.5 ***Replacement of Private Improvements***: As replacement of the Private Improvements is necessary and warranted over time, the Private Improvements shall be replaced by Developer. The Town shall not be responsible for replacement of the Private Improvements.

4.6 ***Notice of Construction Acceptance***: Developer shall make written application to the Town for review of the Private Improvements, within thirty (30) days of the completion date of the Private Improvements. After the receipt of the written application, the Town shall use reasonable efforts to promptly inspect the Private Improvements. If the Private Improvements are satisfactory constructed in accordance with the Site Development Plan and the Civil Engineering Construction Plans, the Town, upon coordination with Developer, shall prepare a punch list of all Private Improvements that are not in compliance. After curing the defects and matters set forth on the punch list, Developer shall make a renewed written application to the Town for re-inspection of the Private Improvements, which written application shall contain the items set forth above. The Town shall thereafter use reasonable efforts to promptly re-inspect the Private Improvements. If the Private Improvements are satisfactory constructed in accordance with Site Development Plan and the Civil Engineering Construction Plans, Developer shall be entitled to written approval of the Private Improvements.

WATER AND SEWER SERVICE

5.1 Prior to issuance of a certificate of occupancy for the Development, the Town and Developer shall enter into a Water and Sewer Service Agreement setting forth its agreement concerning water rights dedication, preliminary projections of water and sewer demand and a commitment by the Town for water and sewer service to the Development. The Water and Sewer Service Agreement shall be incorporated into this Agreement and made a part hereof.

5.2 Upon completion of the Private Improvements, Developer shall undertake the ownership and maintenance of the stormwater infrastructure for the Development. Developer

shall provide the Town with a proposed operations and maintenance manual for such stormwater infrastructure for review and approval on or before completion of the Private Improvements. Upon approval, Developer shall execute the operations and maintenance agreement with the Town addressing, among other issues, notification and remedies related to the operations, maintenance and repair of the stormwater infrastructure, which agreement shall be assigned to the owner's association once such association undertakes the ownership and maintenance obligations. The operations and maintenance agreement shall be executed prior to issuance of a certificate of occupancy for the Property.

BUILDING PERMITS

6.1 The Town shall not issue a building permit for the Development until: (1) the Site Development Plan and Civil Engineering Construction Plans have been approved by the Town; (2) Developer has paid all applicable use tax due and owing to the Town and all other fees required by the Town, including but not limited to water and tap fees, impact fees, storm drainage fees and cash-in-lieu payments due, if any, to the Weld County School District RE-5J; (3) the parties have entered into a Water and Sewer Service Agreement; and (4) all terms of this Agreement have been faithfully kept by Developer or cured in accordance with this Agreement. Notwithstanding the foregoing requirements concerning the issuance of a building permit, upon execution of this Agreement and the submission of the Final Plat for the Johnstown Commercial Center to the Town Clerk for the Town of Johnstown for recording with the Office of the Weld County Clerk and Recorder, an administratively approved but unstamped copy of which is attached hereto and incorporated herein by reference as **Exhibit D**, upon application of Developer and the satisfaction of any conditions required by the Town, the Town agrees to issue an early grading and footing and foundation permit to Developer.

6.2 If at any time the Town determines that Developer is not in compliance with this Agreement, the Site Development Plan, or the Civil Engineering Construction Plans, among any other available remedy, the Town may withhold the issuance of building permits, if applicable, or the issuance of a certificate of occupancy.

OPERATION STANDARDS

7.1 Construction activity shall occur only during the times set forth in the Code.

7.2 Developer shall control all weeds growing within the Development. Prior to issuance of an early grading permit or the commencement of construction, whichever is earlier, Developer shall provide a weed management plan to the Town, outlining the manner and frequency in which the weeds shall be controlled. The Town shall have the right to object to the weed management plan. Developer further agrees to use the appropriate herbicide and undertake mowing of the property within the Development. If, at the Town's sole determination, Developer does not control the weeds in or properly mow the Property, the Town may provide Developer with three (3) days written notice to cure the breach, which time period may be

extended in writing by the Town Manager for good cause. If the breach is not cured, at the Town's sole determination, the Town shall issue a stop work order on all construction in the Development. The Town or Developer shall thereafter mitigate the nuisance by taking measures to control the weeds or mow the Property. If the Town mitigates the nuisance, upon fifteen (15) days of receipt of an invoice from the Town, Developer shall the pay the invoice for services rendered, which will include the actual costs and a ten percent (10%) administrative fee. The stop order will be released, if one had been issued, upon Developer's payment of the invoice. If the Developer mitigates the nuisance, the stop order will be released upon a Town inspection and determination the nuisance has been mitigated.

7.3 Developer shall, at all times, keep the public right-of-way free from accumulation of waste material, rubbish, dirt and mud caused by Developer's operation. Developer shall remove such waste material, rubbish, dirt and mud no less than weekly and, at the completion of the work, shall promptly remove all debris waste materials, rubbish, dirt, mud, tools, construction equipment, machinery, building materials, trash containers, and portable toilets from the public right-of-way.

7.4 Whenever the Town determines that any activity is occurring which is not in compliance with the requirements of any federal or state regulations applicable to water quality or stormwater control, the Town may order all construction activity stopped upon service of written notice. Developer, or its contractors, shall immediately stop all activity until authorized in writing by the Town to proceed. If Developer or a responsible party is not on the site or cannot be located, the notice to stop work shall be posted in a conspicuous place upon the area where the activity is occurring and shall state the nature of the violation. It shall be unlawful for any person to fail to comply with a stop work order.

7.5 In the event that Developer fails to perform the work specified in Paragraphs 7.2,7.3 or 7.4 within a reasonable time period after receiving written notice from the Town, as determined by the Town, the Town may, in addition to other remedies, perform the work required and charge Developer for said cost. Developer shall pay the Town for all costs incurred by the Town in the performance of the above said service within ten (10) days of the Town submitting an invoice for said services.

7.6 Developer shall ensure that Developer's subcontractors cooperate with the Town's construction inspectors in all manners. Developer shall take all steps necessary to prevent its construction activities from damaging adjacent properties.

7.7 Developer shall take all necessary steps to prevent its construction activities from harming water quality, water bodies and wetlands. All drainage and holding ponds shall be kept free of standing water by whatever means possible including, but not limited to, pumping water out of any holding ponds.

LIABILITY, INSURANCE AND COST REIMBURSEMENT

8.1 ***Indemnification***: Developer hereby agrees to indemnify and hold the Town, its employees, agents, representatives, insurers and self insurance pool harmless from and against any and all suits, demands, actions, damages, liability, losses, claims, fees and expenses, including attorney's fees, resulting or arising in any way from any breach or default of this Agreement by Developer, or any acts or omissions of Developer, its employees, agents, consultants, representatives or subcontractors, except to the extent caused by gross negligence or willful misconduct of the Town. Developer shall promptly investigate, handle, respond to, and provide defense for and defend against any such liability, claims or demands at the sole expense of Developer.

8.2 ***Insurance***: Developer shall, and shall ensure that its contractors and subcontractors constructing and installing the Private Improvements, maintain such liability insurance in the minimum amounts set forth in this section below to protect the Town, its employees, agents and representatives against any and all potential liability, claims, damage, demands, losses, and expenses which may be incurred or asserted pursuant to this Agreement and Paragraph 8.1 above. Liability insurance shall be in the minimum amount of One Million Dollars ($1,000,000.00) per occurrence and Two Million Dollars ($2,000,000.00) aggregate, or such greater amounts as may be established by the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as may be amended. Developer shall list the Town, its officers, employees, agents and representatives, as additional insureds on such liability policies. Whenever requested by the Town, Developer agrees to promptly submit certificates of insurance evidencing sufficient amounts, types and duration of insurance and showing the Town, its officers, employees, agents and representatives, as additional insureds. Developer shall not be relieved of any liability, claims, demands or other obligations assumed or set forth in this Agreement by reason of its failure to procure or maintain such insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types. In addition to the insurance specified above, Developer shall maintain workers compensation insurance, if so required by law, and shall require its contractors, subcontractors, representatives and agents engaged in the design, construction or installation of improvements to maintain workers compensation insurance in the amount required by law.

8.3 ***Drainage Liability***: Developer shall indemnify and hold the Town harmless from any liability the Town may have on account of any change in the nature, direction, quantity, or quality of drainage flow to the extent resulting from the Development. In addition, Developer shall reimburse the Town for any and all costs, fees, and expenses, including attorney's fees, which the Town incurs in acquiring any rights-of-way or easements which the Town is required to acquire or condemn or which the Town is held to have acquired or condemned for drainage as a result of this Development. This provision shall survive Final Acceptance and the termination of this Agreement.

8.4 ***Tax Liability***: Developer shall pay all outstanding taxes, encumbrances or obligations on any property dedicated or conveyed to the Town prior to or at the time of such

dedication or conveyance, and shall indemnify and hold the Town harmless from any and all encumbrances, obligations or tax liability incurred prior to the dedication or conveyance to the Town.

8.5 ***Cost Reimbursement to Town***: Developer shall reimburse the Town for professional consultants, including, but not limited to engineers, testing and inspection companies and attorneys, engaged by the Town to process and complete the Development.

8.6 ***Colorado Governmental Immunity Act***: Nothing in this Agreement shall be construed to waive, limit or otherwise modify any governmental immunity that may be available by the law to the Town, its employees, or agents, or any other person acting on behalf of the Town and, in particular, the governmental immunity afforded pursuant to the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as amended.

DEFAULTS AND REMEDIES

9.1 A default by Developer shall exist if Developer fails to fulfill or perform any material obligation contained in this Agreement or the Civil Engineering Construction Plans, or Developer fails to comply with the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. In the event of a default, the Town shall deliver written notice to Developer of such default and Developer shall have ten (10) days from receipt of such notice to cure the default. If the default is not of a type that may be cured within such ten (10) day period, Developer may provide written notice to the Town within such period that it is actively and diligently pursuing such cure and Developer shall thereafter have a reasonable time to cure the default, provided that Developer is at all times within that extended period actively and diligently pursuing a cure. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or, as applicable, the issuers of the Performance Guarantee or Maintenance Guarantee.

9.2 If the default relates to the Public Improvement secured by the Performance Guarantee and the default is not timely cured, the Town may draw on the Performance Guarantee. If the default arises subsequent to the issuance of the Notice of Construction Acceptance with respect to a Public Improvement and the default is not timely cured, the Town may draw on the Maintenance Guarantee. In addition, and without limitation, if the default is not timely cured in accordance with this Agreement, the Town may withhold approval of any or all building permits, certificates of occupancy, water meters or tap hook-ups for any area within the Development. Notwithstanding these rights and remedies, the Town may pursue whatever additional remedies it may have against Developer or anyone, either at law, equity or pursuant to this Agreement. The Town's remedies shall be cumulative.

9.3 Should Developer default in any obligation under this Agreement, the Town may, at its discretion, complete or remove such Public Improvements at Developer's expense. The

Town shall estimate the cost of undertaking such work and give notice to Developer to pay such cost estimate. The Town shall use such payment for construction or removal of said improvements and refund any money collected in excess of the actual cost of said improvements. Should payment not be made within thirty (30) days of such notice, the Town may assess the amount of the cost estimate, plus ten percent (10%) to defray the cost of collection as provided by state law, to the Property and file a lien against the Property, such lien to have priority over all liens except general taxes and prior special assessments and be placed upon the tax list for the current year to be collected in the same manner as taxes are collected. The Town may file such lien at any time after said thirty (30) days while Developer is in default of this Agreement.

MISCELLANEOUS

10.1 ***Additional Terms and Conditions***. In addition to the Private Improvements and Public Improvements, **Exhibit B-3** also includes additional required terms and conditions, if any, related to the Development.

10.2 ***Warranty of Developer***: During the Warranty Period, Developer warrants that the Public Improvements shall be installed in a good and workmanlike manner and in compliance with the Civil Engineering Construction Plans, this Agreement, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations and shall be substantially free of any defects in materials and workmanship.

10.3 ***Recording of Agreement***: This Agreement shall be recorded and shall be a covenant running with and against all the Property, property rights and improvements contained within the Development described in **Exhibit A** in order to put prospective owners, purchasers, successors, assigns, and others acquiring any interest in the property on notice as to the terms and obligations herein.

10.4 ***Binding Effect***: Unless otherwise provided herein, this Agreement shall be binding upon Developer's heirs, successors, assigns, transferees and any other person or entity acquiring or purchasing any interest in any of the Property described in the attached **Exhibit A**, with the exception of a bona fide end user of the Property.

10.5 ***Assignments***: Developer shall not assign this Agreement the written consent of the Town Manager, which consent shall not be unreasonably withheld, conditioned or delayed.

10.6 ***Title and Authority***: Developer expressly warrants and represents to the Town that it is the record owner of the Property and further represents and warrants that the undersigned has full power and authority to enter into this Agreement. Developer understands that the Town is relying on the representations and warranties contained herein in approving and entering into this Agreement.

10.7 ***Notice***: All notices, consents, applications or other instruments provided for under this Agreement shall be deemed properly given and received: (1) when personally delivered and received, when sent by messenger service, or when forwarded by electronic mail delivery, but only upon confirmation of receipt of such electronic mail; (2) on the next day after deposit for delivery with a nationally-recognized overnight courier service; or (3) three business days after deposit in the United States mail, by certified mail with return receipt requested, postage prepaid and addressed as follows:

TO TOWN:

Town of Johnstown
Attention: TOWN MANAGER
450 South Parish Avenue
P. O. Box 609
Johnstown, CO 80534
Email: Notices@JohnstownCO.gov

TO DEVELOPER:

USE Real Estate Holdings, LLC
Attention: Brandon Wikoff
3433 Roanoke Road
Kansas City, MO 64111
Email: brandon.wikoff@usengineering.com

WITH A COPY TO:

Katherine A. Zogleman, Esq.
René Calabrese, Esq.
2323 Grand Blvd., Suite 1000
Kansas City, MO 64108
kzogleman@sb-kc.com
rcalabrese@sb-kc.com

10.8 ***Costs and Attorney Fees***. If any judicial proceedings may hereafter be brought related to this Agreement, the Town, if the prevailing party, shall be entitled to recover the costs of such proceedings, including reasonable attorney's fees and reasonable expert witness fees.

10.9 ***Vested Right***. The Site Development Plan shall have vested rights for a period of three (3) years from the date of this Agreement. If, after such time, no reasonable and substantial efforts have commenced to construct the Private Improvements or Public Improvements, as determined by the Town at its sole discretion, said Site Development Plan may be vacated by action of the Town.

10.10 ***Severability***. If any provisions or parts of this Agreement are judged to be unenforceable or invalid, to the extent practicable, such judgment shall not affect, impair or invalidate the remaining parts of this Agreement, the intention being that the various parts and provisions hereof are severable.

10.11 ***Governing Law and Venue***. This Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado and the Code. Venue for any claim, proceeding or action arising out of this Agreement shall be in the County of Weld, State of Colorado.

10.12 ***No Presumption***. Each party acknowledges that it has obtained, or has had the opportunity to obtain, the advice of legal counsel of its own choosing in connection with the negotiation and execution of this Agreement and with respect to all matters set forth herein. In the event of any dispute, disagreement or controversy arising from this Agreement, the parties shall be considered joint authors and no provision shall be interpreted against any party because of authorship.

10.13 ***Entire Agreement***; ***Controlling Agreement***. This Agreement constitutes the entire agreement and understanding between the parties related to the subject matter hereof, and supersedes all prior agreements or understandings related thereto. Any amendment to this Agreement must be in writing and signed by the parties. To the extent of a conflict between this Agreement and the SDIA, this Agreement shall control.

10.14 ***Compliance with the Law***. Developer shall comply with all federal, state and local laws and regulations in the performance of the obligations under this Agreement.

10.15 ***No Third-Party Beneficiaries***. No person or entity, other than a party to this Agreement, shall have any right of action under this Agreement.

10.16 ***No Waiver***. Delays in enforcement or the waiver of any one or more breaches of this Agreement by the Town shall not constitute a waiver of any of the remaining terms or obligations.

10.17 ***Force Majeure***. Neither party shall be liable for a failure to perform hereunder if such failure is the result of force majeure, which shall mean causes beyond the reasonable control of a party such as acts of God, labor strikes, war, terrorism, fire, pandemic or epidemic or action or inaction of government authorities.

10.18 ***Headings***. The paragraph headings herein are for the convenience and reference of the parties and are not intended to define or limit the scope or intent of this Agreement.

10.19 ***Condition Precedent***. This Agreement is conditioned upon Developer's purchase of a portion of the Property from LB1DevCo LLC, a Colorado limited liability company. If the

purchase and sale transaction does not occur by March 31, 2026, then this Agreement shall be null and void.

[Signature Page Follows]

IN WITNESS WHEREOF, and agreeing to be fully bound by the terms of this Agreement, the parties have set their hands below on this _____ day of March, 2026.

USEREH JOHNSTOWN II, LLC,
a Missouri limited liability company

By: USE REAL ESTATE HOLDINGS, LLC
(f/k/a USE Midwest, LLC), a Missouri limited
liability company, its sole member

By: U.S. ENGINEERING COMPANY HOLDINGS,
a Missouri corporation, its sole member

By: _____
Brandon Wikoff, President

STATE OF MISSOURI)
)ss.
COUNTY OF _____)

SUBSCRIBED AND SWORN to before me this ___ day of _____, 2026, by Brandon Wikoff as the President of U.S. ENGINEERING COMPANY HOLDINGS.

WITNESS my hand and official seal.

_____
Notary Public

My commission expires: _____

TOWN OF JOHNSTOWN, COLORADO
a municipal corporation

By: _____
Michael P. Duncan, Mayor

ATTEST:

By:_____
Meghan Martinez, Town Clerk

SITE DEVELOPMENT PLAN AGREEMENT
(US Engineering)

EXHIBITS

TABLE OF CONTENTS

EXHIBIT A:	Legal Description of the Property
EXHIBIT B-1:	Private Improvements
EXHIBIT B-2:	Public Improvements
EXHIBIT B-3:	Additional Terms and Conditions
EXHIBIT C:	Engineer's Opinion of Cost
EXHIBIT D:	Copy of Final Plat for Johnstown Commercial Center

EXHIBIT A

LEGAL DESCRIPTION
(Property)

A parcel of land situate in the Northeast Quarter (NE1/4) of Section Three (3), Township Four North (T.4N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.) being more particularly described as follows:

Lot 1, Johnstown Commercial Center,
Town of Johnstown,
County of Weld,
State of Colorado

EXHIBIT B-1

PRIVATE IMPROVEMENTS

1. Developer shall install an eight-inch looped water line and storm water detention pond and outlet structure, as set forth in the accepted Civil Engineering Construction Plans.

EXHIBIT B-2

PUBLIC IMPROVEMENTS

None.

EXHIBIT B-3

ADDITIONAL TERMS AND CONDITIONS

None.

EXHIBIT C

ENGINEER'S OPINION OF COST

None; Not Applicable.

EXHIBIT D

COPY OF FINAL PLAT FOR JOHSNTOWN COMMERCIAL CENTER
(ATTACHED)

[Draft of Final Plat attached for Town Council meeting on March 2, 2026. Final form of Final Plat shall be included prior to recordation.]

AVANT CIVIL GROUP

1337 Riverside Avenue, Suite 2
Fort Collins, CO 80524
Phone: 970-286-7995

Johnstown, Colorado

JCC - BASHER DRIVE EXTENSION

Engineers Opinion of Cost for Public Improvements

Project Manager: Robbie Lauer *(office) 970-305-3596*
Engineer: Cassandra Ungerman *(office) 970-305-3424*

Estimate Date: **2/18/26**

Basher Drive Extension - Public Improvements	
Item	**Total**
PREPARATION AND DEMOLITION	**$16,456.67**
SANITARY MAIN	**$81,795.00**
WATER MAIN	**$159,121.44**
STORM MAIN	**$74,828.00**
CURB & GUTTER, SIDEWALKS, & DRIVES	**$125,904.00**
ASPHALT - BASHER DRIVE	**$251,628.00**

Total Construction Costs:	**$709,733.11**

PREPARATION AND DEMOLITION	UNIT	QUANTITY	UNIT COST	EXTENDED
Cap & Abandon 18" RCP Culvert	EA	1	$1,000.00	$1,000.00
Remove 15" CMP	SF	30	$40.00	$1,200.00
Remove Fire Hydrant	EA	1	$1,500.00	$1,500.00
Remove Asphalt	SY	92	$30.00	$2,756.67
Erosion Control	LS	1	$10,000.00	$10,000.00
			Subtotal:	**$16,456.67**

SANITARY MAIN	UNIT	QUANTITY	UNIT COST	EXTENDED
8" PVC	LF	783	$65.00	$50,895.00
4' DIA Manhole (5'-9' deep)	EA	3	$7,300.00	$21,900.00
8"x8"x6" service TEE	EA	1	$1,000.00	$1,000.00
8" Stub	EA	1	$3,500.00	$3,500.00
6" Service Stub	EA	1	$3,000.00	$3,000.00
Connection to existing Stub	EA	1	$1,500.00	$1,500.00
			Subtotal:	**$81,795.00**

WATER MAIN	UNIT	QUANTITY	UNIT COST	EXTENDED
12" Connection to existing	EA	1	$3,500.00	$3,500.00
12" Water Main	LF	781	$80.00	$62,480.00
12" Water Valves	EA	2	$5,200.00	$10,400.00
12"x8" Tee and TB/MJ	EA	2	$2,500.00	$5,000.00
12" Main Lowering	EA	1	$20,000.00	$20,000.00
8" Water Valves	EA	2	$3,600.00	$7,200.00
8" Water Main	LF	108	$70.00	$7,542.50
8" Stub with TB	EA	2	$5,000.00	$10,000.00
6"x12" Reducer	EA	1	$2,000.00	$2,000.00
Temp. Fire Hydrant Assembly	EA	1	$10,332.98	$10,332.98
Fire Hydrant Assembly 6" (includes 12x6 Tee and TB/MJ)	EA	2	$10,332.98	$20,665.96
			Subtotal:	**$159,121.44**

STORM MAIN	UNIT	QUANTITY	UNIT COST	EXTENDED
18" RCP	LF	100	$135.00	$13,500.00
18" FES	EA	1	$4,200.00	$4,200.00
24" RCP	LF	153	$176.00	$26,928.00
24" FES	EA	1	$5,700.00	$5,700.00
24" Stub/Cap	EA	1	$500.00	$500.00
5' Type R Inlet (0' to 5' deep)	EA	2	$12,000.00	$24,000.00
			Subtotal:	**$74,828.00**

CURB & GUTTER, SIDEWALKS, & DRIVES	UNIT	QUANTITY	UNIT COST	EXTENDED
30" Curb & Gutter	LF	1,373	$35.00	$48,055.00
5' Sidewalk	LF	577	$37.00	$21,349.00
Striping and Paint	GAL	10	$250.00	$2,500.00
Driveway w/ Crosspan	EA	3	$7,600.00	$22,800.00
5' H/C Ramp	EA	12	$2,600.00	$31,200.00
			Subtotal:	**$125,904.00**

ASPHALT - BASHER DRIVE	UNIT	QUANTITY	UNIT COST	EXTENDED
Aggregate Base (10" @3976 SY)	CY	1,105	$60.00	$66,300.00
6" HMA Paving	SY	3,861	$48.00	$185,328.00
			Subtotal:	**$251,628.00**

I hereby attest that the quantities listed above were prepared by me, or under my direct supervision, and accurately represent the construction quantities for improvements proposed on the final construction documents for the above referenced project. The provided unit costs are estimates only and are subject to change.

Cassandra Unger

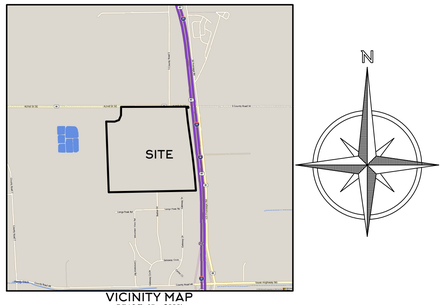
2/18/2026

Registered Professional Engineer — Date



JOHNSTOWN COMMERCIAL CENTER

Being a Replat of Lot A & B Recorded Exemption No. 1061-3-1-RECX15-0131,
Situate in the Northeast Quarter of Section 3, Township 4 North, Range 68 West of the 6th P.M.
Town of Johnstown, County of Weld, State of Colorado



VICINITY MAP
SCALE: 1" = 2000'

DEDICATION

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned being all the owners and lienholders of the following described property to wit:

A parcel of land situate in the Northeast Quarter (NE1/4) of Section Three (3), Township Four North (T.4N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.) being more particularly described as follows:

Lot A & Lot B, Recorded Exemption No. 1061-3-1-RECX15-0131, according to the plat recorded December 17, 2015 at Reception No. 4165964, being located in the NE 1/4 of Section 3, Township 4 North, Range 68 West of the 6th P.M., County of Weld, State of Colorado except that portion as conveyed by Special Warranty Deed recorded April 27, 2022 at Reception No. 4822378.

Said parcel contains 5,403,119 Square Feet or 124.039 Acres more or less by this survey.

do hereby cause said land to be laid out and platted under the name of JOHNSTOWN COMMERCIAL CENTER, and do hereby dedicate to the public forever all public rights of way, easements and other places designated or described for public uses. All conditions, terms and specifications designated or described herein shall be binding on the owners, their heirs, successors and assigns.

Owners:

_____
NAME

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF WELD)
The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

Owners:

_____ _____
NAME

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF WELD)
The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

LIENHOLDERS

By:_____ As:_____

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF WELD)
The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

LIENHOLDERS

By:_____ As:_____

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF WELD)
The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

SURVEYOR'S CERTIFICATE

I, Steven Parks, certify that this plat accurately represents the results of a survey made by me or under my responsible charge.

PRELIMINARY

_____
Steven Parks - On Behalf of Majestic Surveying, LLC
Colorado Licensed Professional Land Surveyor #38348

CERTIFICATE OF APPROVAL BY THE PLANNING COMMISSION

Approved this _____ day of _____, 20___, by the Planning Commission of the Town of Johnstown, Colorado.

_____
Mayor

_____
Chairman of the Planning Commission

_____
Town Clerk

DEVELOPMENT AGREEMENT NOTE

A Development Agreement has been filed in conjunction with this plat. That agreement should be viewed for additional stipulations or requirements that may encumber the property.

TITLE COMMITMENT NOTE

For all information regarding easements, rights-of-way and title of records, Majestic Surveying, LLC relied upon Title Commitment Number 100-00504980-201-TH7, Amendment No. 1, effective April 10, 2025, and Title Commitment Number NCSO01443-AM, effective July 8, 2025, as prepared by Fidelity National Title to delineate the aforesaid information.
This survey does not constitute a title search by Majestic Surveying, LLC to determine ownership or easements of record.

ZONING NOTE

The entire property is in Zone I-1 Industrial Light (Town of Johnstown)

TOWN COUNCIL

This plat, to be known as JOHNSTOWN COMMERCIAL CENTER, is approved and accepted by the Town of Johnstown, by Resolution Number_____, passed and adopted on final reading at a regular meeting of the Town Council of the Town of Johnstown, Colorado held on the _____ day of _____, 20___.

_____ Attest:_____
Mayor Town Clerk

BASIS OF BEARINGS AND LINEAL UNIT DEFINITION

Assuming the North line of the Northeast Quarter of Section 3, Township 4 North, Range 68 West of the 6th P.M., monumented as shown on this drawing, as bearing North 89°49'34" East, being a Grid Bearing of the Colorado State Plane, North Zone, North American Datum 1983/2011, a distance of 2558.39 feet and with all other bearings contained herein relative thereto.

The lineal dimensions as contained herein are based upon the "U.S. Survey Foot".

SURVEYOR'S NOTES

1. The 18' Harry Lateral Ditch Easement, recorded April 24, 1885 as Book 43 Page 162 of the Records of the Weld County Clerk and Recorder, has been placed at an approximate location, based on the centerline of the ditch, as measured by this survey.

NOTICE

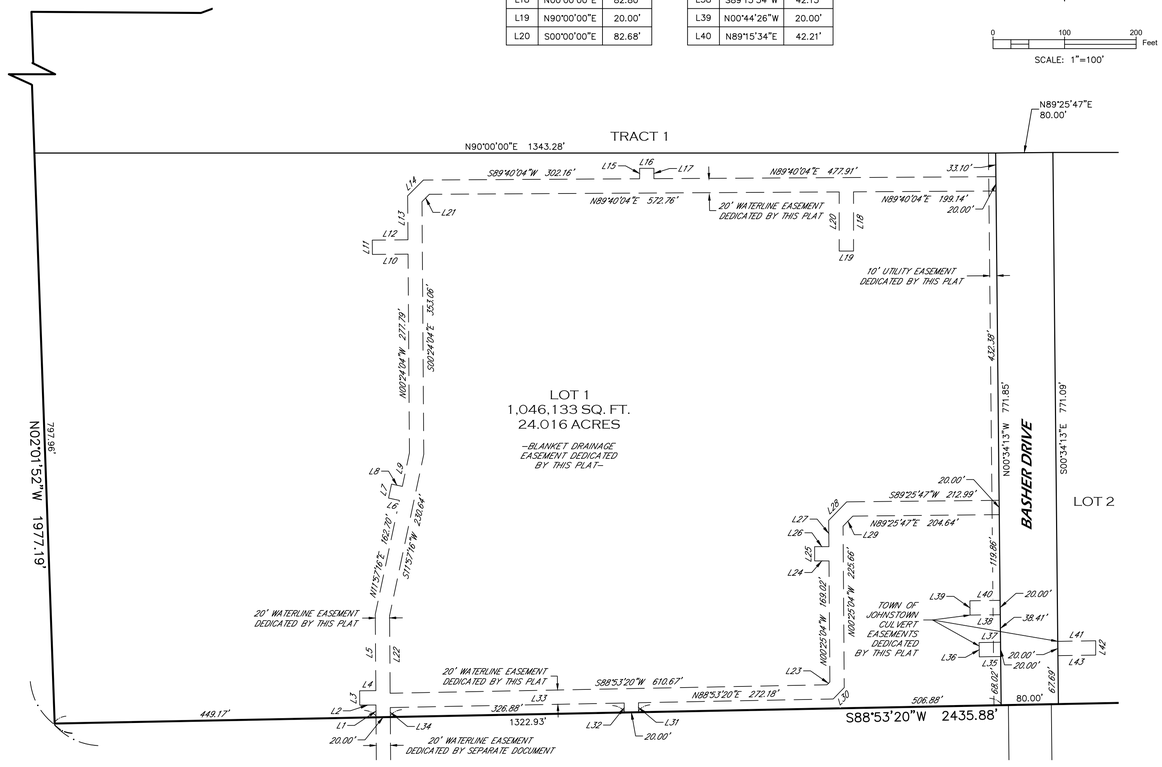
According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-80-105 C.R.S. 2012)

CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	CH BEARING
C1	109.09'	394.00'	15°51'51"	108.74'	N35°47'47"E
C2	96.83'	546.00'	10°09'39"	96.70'	N33°03'05"E
C3	108.89'	614.00'	10°09'39"	108.74'	S33°03'05"W
C4	90.26'	326.00'	15°51'51"	89.97'	S35°47'47"W
C5	13.59'	26.00'	29°56'34"	13.43'	S12°53'35"W

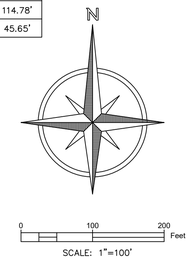
LINE TABLE		
LINE	BEARING	LENGTH
L1	N00°25'04"W	17.24'
L2	N89°34'56"E	22.61'
L3	S00°25'04"E	20.00'
L4	S89°34'56"W	22.61'
L5	N00°25'04"W	106.81'
L6	N78°02'44"W	15.44'
L7	N11°57'16"E	20.00'
L8	S78°02'44"E	15.44'
L9	N11°57'16"E	47.94'
L10	S89°27'37"W	49.82'
L11	N00°32'23"W	20.00'
L12	N89°27'37"E	49.87'
L13	N00°24'04"W	61.44'
L14	N44°51'22"E	31.17'
L15	S00°00'00"E	14.58'
L16	N90°00'00"W	20.00'
L17	N00°00'00"E	14.46'
L18	N00°00'00"E	82.80'
L19	N90°00'00"E	20.00'
L20	S00°00'00"E	82.68'

LINE TABLE		
LINE	BEARING	LENGTH
L21	S44°51'22"W	14.59'
L22	N00°25'04"W	108.38'
L23	S44°05'22"W	5.68'
L24	N89°59'55"E	20.07'
L25	S00°00'00"E	20.00'
L26	N90°00'00"W	19.93'
L27	S00°25'04"E	36.64'
L28	S44°05'22"W	36.14'
L29	N44°05'22"E	19.61'
L30	N44°05'22"E	22.11'
L31	S00°00'00"E	13.26'
L32	N00°00'00"E	13.26'
L33	N88°53'20"E	326.98'
L34	N00°24'34"W	13.26'
L35	S89°07'36"W	29.85'
L36	N00°52'24"W	20.00'
L37	N89°07'36"E	29.96'
L38	S89°15'34"W	42.15'
L39	N00°44'26"W	20.00'
L40	N89°15'34"E	42.21'

LINE TABLE		
LINE	BEARING	LENGTH
L41	S89°07'36"W	52.99'
L42	N00°00'00"E	20.00'
L43	N89°07'36"E	52.79'
L44	N42°23'31"E	111.45'
L45	N27°58'16"E	40.29'
L46	N89°49'34"E	77.12'
L47	S27°58'16"W	76.67'
L48	S42°23'31"W	114.78'
L49	N88°53'20"E	45.65'



LOT 1 EASEMENT DEDICATION DETAIL
SCALE 1"=100'



SCALE: 1"=100'

MAJESTICSURVEYING.COM
(970)-833-5698

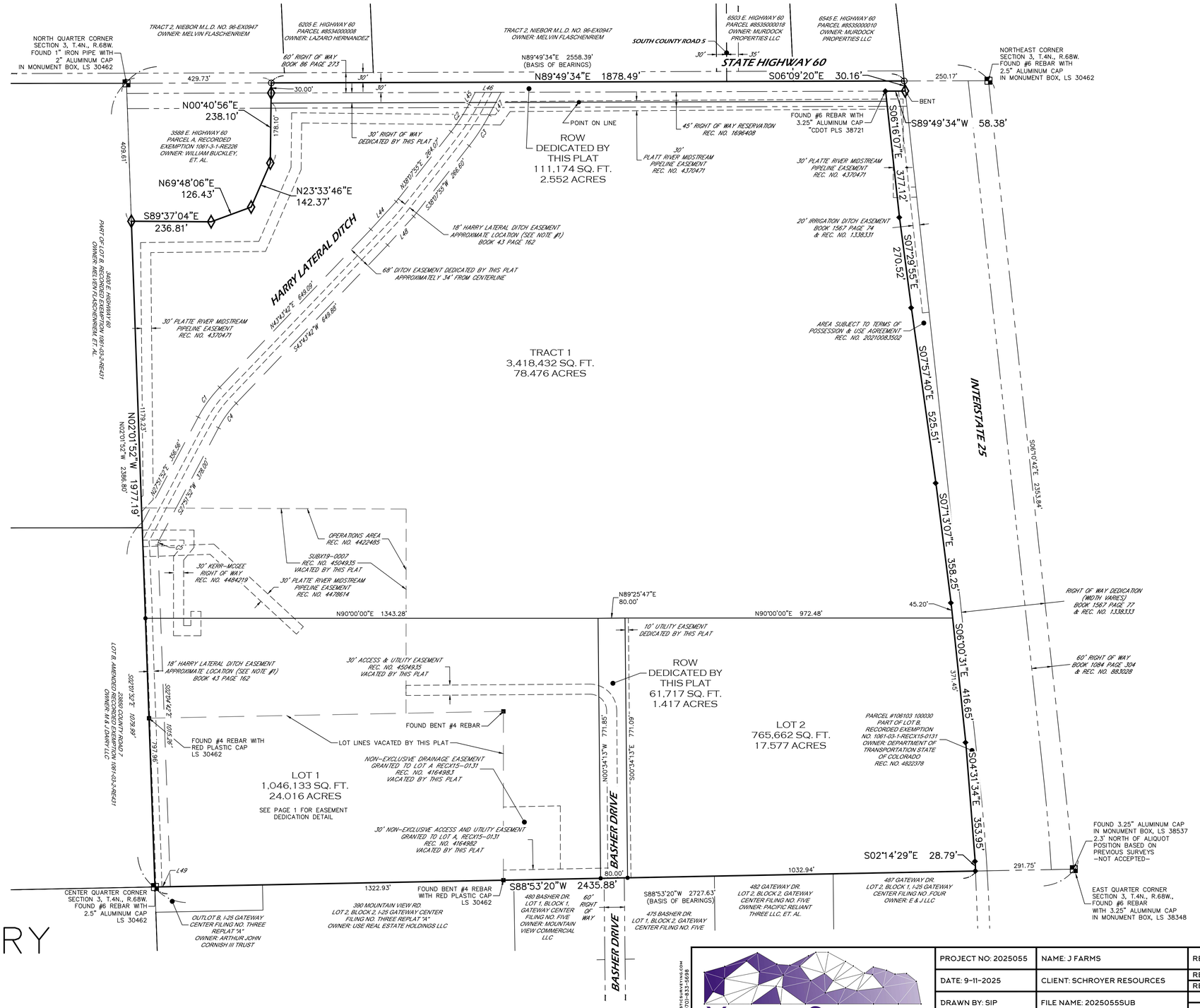
MAJESTIC SURVEYING
MAJESTIC SURVEYING, LLC 1111 DIAMOND VALLEY DRIVE #104, WINDSOR, CO 80550

PROJECT NO: 2025055	NAME: J FARMS	REVISIONS:	DATE:
DATE: 9-11-2025	CLIENT: SCHROYER RESOURCES	REDLINES/REVISIONS	12-1-25
DRAWN BY: SIP	FILE NAME: 2025055SUB	REDLINES/REVISIONS	1-26-26
CHECKED BY: SIP	SCALE: 1"=100'		

1
SHEET 1 OF 2

JOHNSTOWN COMMERCIAL CENTER

Being a Replat of Lot A & B Recorded Exemption No. 1061-3-1-RECX15-0131,
Situate in the Northeast Quarter of Section 3, Township 4 North, Range 68 West of the 6th P.M.
Town of Johnstown, County of Weld, State of Colorado



LEGEND

- BOUNDARY LINE
- EASEMENT LINE
- RIGHT OF WAY LINE
- SECTION LINE
- ALIQUOT CORNER AS DESCRIBED
- FOUND MONUMENT AS DESCRIBED
- FOUND #6 REBAR WITH 3.25" ALUM. CAP LS 38721 0.7'WEST OF LOT CORNER
- FOUND #4 REBAR WITH YELLOW PLASTIC CAP, LS 32444
- CALCULATED POSITION
- SET #4 REBAR WITH 1" RED PLASTIC CAP LS 38348

PRELIMINARY

Steven Parks - On Behalf of Majestic Surveying, LLC
Colorado Licensed Professional Land Surveyor #38348
stevenp@majesticsurveying.com

NOTICE

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-80-105 C.R.S. 2012)

MAJESTIC SURVEYING
MAJESTIC SURVEYING, LLC 1111 DIAMOND VALLEY DRIVE #104, WINDSOR, CO 80550
MAJESTICSURVEYING.COM (970)-833-5698

PROJECT NO: 2025055	NAME: J FARMS	REVISIONS:	DATE:
DATE: 9-11-2025	CLIENT: SCHROYER RESOURCES	REDLINES/REVISIONS	12-1-25
		REDLINES/REVISIONS	1-26-26
DRAWN BY: SIP	FILE NAME: 2025055SUB		
CHECKED BY: SIP	SCALE: 1" = 150'		

2

SHEET 2 OF 2

Town of Johnstown

List of Bills - January 20, 2026 - February 18, 2026

Vendor	Description	Dept	Amount
4990 Ronald Reagan LLC	Police substation lease	PD	$ 3,039.50
A&M Custom Machine Inc	Supplies	UTIL	97.50
AC/DC Electric	Building maintenance	PW	4,897.99
Aclara Technologies	Software	UTIL	33,948.13
All Copy Products	Copier supplies	Various	1,114.44
All Terrain Landscaping	Christmas lights	PW	348.00
AM Construction Supply Inc	Supplies	PW	1,799.97
American Auto Hail Repair LLC	Hail damage repair	PD	14,522.17
American Ramp Company	Skatepark equipment	PW	37,495.28
Aqua Engineering	Central Wastewater Treatment Plant	UTIL	82,612.70
Autoplex Restyling Center	Vehicle maintenance	PW	531.99
Avalis Wayfinding Solutions, Inc	Parish corridor	ADM	301.00
Baseline Associates, Inc	Supplies	PD	425.00
Batteries Plus	Supplies	UTIL	69.90
Bell Gould Linder & Scott, P.C.	Legal services	ADM	1,592.50
Benesch	Sandra Drive project / High Plains realignment	PW	27,653.95
BHA Design Incorporated	Alley project	PW	28,396.01
Big Thompson Ditch & Mfg. Co.	Water assessment fee	UTIL	12,275.00
Bludot Technologies Inc.	Software	ADM	2,340.00
Browns Hill Engineering & Controls	Electrical maintenance	UTIL	5,772.28
Callyo 2009 Corp	Software	PD	3,540.00
Central Weld County Water District	Interconnect	UTIL	1,190.45
CenturyLink	Phone / internet	PW/UTIL	1,527.33
Cintas	Floor mat service / supplies	PW	2,327.22
City of Fort Collins	Lab testing	UTIL	5,220.00
CivicPlus	Software	ADM	853.65
Civil Resources	Lone Tree Raw Water Line	UTIL	13,218.50
Collab Architecture, LLC	Senior Center design	ADM	35,030.00
Colorado Analytical Labs	Lab testing	UTIL	4,371.80
Colorado Materials, Inc.	Johnstown Reservoir maintenance	PW	12,612.66
Colorado Tree Coalition	Arbor Day trees	PW	8,630.00
Community Center Refund	Community Center refunds	ADM	800.00
Connell Resources, Inc.	Colorado & Roosevelt roundabout / supplies	PW	141,904.68
Consolidated Hillsborough Ditch Co	Annual water assessments	UTIL	10,596.56
Consolidated Home Supply Ditch	HWY 60 project	PW	233,924.50
Coren Printing, Inc	Supplies	PD	278.37
Costar Realty	Software	ADM	920.72
CWWUC	Dues	UTIL	444.00
Denali Water Solutions LLC	Sludge removal	UTIL	8,149.49
Denver Industrial Sales & Services Co	Paving materials	PW	185.00
Dietze and Davis P.C.	Billback - Legal services	ADM	600.00
Dog Waste Depot	Dog waste bags	ADM	284.91
DR Horton	Permit fee refund	UTIL	14,000.00
Dream Builders Inc	Maestas St. drainage	PW	214,583.10
Employee reimbursement	Supplies / training	ADM	1,762.21
Envirotech Services, Inc	Ice slicer	PW	25,016.81
Envisio Solutions Inc	Software	ADM	15,000.00
Equidox Software Company	Software	ADM	3,000.00
Ergomed	Pre-employment screening	PD	55.00
Finalcover LLC	Training	PD	4,545.00
First Class Security Systems	Fire system monitoring	PW	148.80
First National Bank	Custodial services	ADM	830.10
First Responder Trauma Counselors	Peer support	PD	1,530.00
Flock Safety	Flock software service	PD	18,000.00
Flowpoint Environmental Systems Inc.	Software	UTIL	3,672.00
Fox Tuttle Transportation Group, LLC	Parish corridor	ADM	13,275.00
Front Range Compliance Services LLC	DOT consulting services	ADM	2,715.00

Vendor	Description	Dept	Amount
Frontier Fertilizer & Chemical	Chemicals	PW	90.00
Frontier Self Storage	Storage	PW	580.00
Frost Solutions, LLC	Software	PW	9,672.00
Galloway & Company, Inc.	Survey services	PW	1,050.00
Glenn A. Jones Library	Monthly support	ADM	176,875.58
Go Play Inc.	Playground equipment	PW	572.30
Grainger, Inc.	Supplies	UTIL	3,381.93
Great Western Railway of CO	Crossing agreement	UTIL	16,413.70
Greeley Electric Repair Inc.	Electrical services	UTIL	491.00
Greeley Lock and Key	Supplies	PD	334.00
Ground Engineering Consultants, Inc.	Dev. Serv. Building / WTP expansion	ADM/UTIL	6,537.50
Hach Company	Lab equipment	UTIL	3,893.86
Harry Lateral Ditch Co	Water assessment fee	UTIL	2,062.50
HCC Tactical	Supplies	PD	2,880.15
Helton & Williamsen, P.C.	Billback - Legal services	ADM	2,266.50
Helton & Williamsen, P.C.	Legal service - water	UTIL	8,862.90
Herc Rentals	Equipment rental	PW	6,987.37
Heron Lakes Investments, LLC	Lone Tree Raw Water Line	UTIL	43,720.75
Hill & Robbins, PC	Billback - Engineering services	ADM	341.00
Hinkle & Company, PC	2025 Financial audit	ADM	7,500.00
Hydrant Meter Deposit Refund	Hydrant meter deposit refund	ADM	31,750.00
IMEG Corp	Engineering services	ADM	800.00
Indigo Water Group	Dues	UTIL	1,140.00
Intellichoice, Inc	Software	ADM	15,339.17
J&S Contractors Supply Co.	Plow blades	PW	7,942.44
J&T Consulting, Inc.	Johnstown Reservoir toe drain	PW	2,713.40
John Deere Financial	Supplies	PW	817.25
Johnstown Breeze	Billback - Legal notices	ADM	727.92
Johnstown Breeze	Legal notices	ADM	13,280.91
Johnstown Downtown Dev. Assn.	Reimbursement	ADM	6,371.47
Johnstown Historical Society, Ltd	Annual support	ADM	71,150.00
Kelly Supply Co	Supplies	UTIL	224.32
Kimball Midwest	Supplies	PW	677.91
Kings III Emergency Communications, LLC	Elevator maintenance	ADM	99.82
Kinsco, LLC	Uniforms	PD	604.00
Language Line Services Inc.	Translation services	PD	1,804.33
Law Enforcement Systems	Supplies	PD	432.00
Law Office of Avi Rocklin LLC	Billback - Legal services	ADM	11,026.00
Law Office of Avi Rocklin LLC	Legal services	ADM	8,185.50
Lexipol, LLC	Software	PD	3,150.00
Lightfield Enterprises Inc	Concrete maintenance	PW	49,061.45
Loveland Ford-Lincoln	Vehicle maintenance	PD	1,023.31
Lowe's	Supplies	UTIL	1,533.87
L-Tron Corporation	Software	PD	2,310.00
Mac Equipment, Inc	Supplies	PW	2,457.54
Mail N Copy	Mailings	ADM	2,172.93
Matrix Design Group, Inc.	Maestas St. drainage / Stormwater Master Plan	UTIL	16,122.50
Medicine for Business and Industry	Lab testing	PW	112.00
MGS Incorporated	Fleet parts	PW	238.53
Moltz Construction Inc.	Central Wastewater Treatment Plant	UTIL	2,257,999.92
Mountain States Pipe & Supply	Water meters	UTIL	129,114.00
Mr. J's Cleaning Services LLC	Town facilities cleaning	ADM	2,950.00
MWH Constructors	WTP expansion	UTIL	1,711,801.43
Napa Auto Parts, Inc	Supplies	Various	824.97
Nat'l Asc of Field Training Officers	Training	PD	750.00
NOCO Door Services	Building maintenance	PW	1,800.00
North Front Range Metro Planning Org.	Dues	ADM	2,028.00
North Front Range Water Quality	Dues	UTIL	3,472.88
Northern Colorado Constructors, Inc.	Johnstown Reservoir maintenance	PW	80,152.17

Vendor	Description	Dept	Amount
O.J. Watson Company Inc	2025 snowplow upfitting	PW	228,626.44
Original Equipment Auto Glass	Vehicle maintenance	PW/PD	90.00
Parkland USA Corp	Fuel	Various	9,811.23
Paul's Plumbing & Heating	Jetting services	UTIL	15,000.00
Petty cash	Supplies	ADM	132.09
Pioneer Press of Greeley Inc	Printing services	Various	52.00
Pitney Bowes	Postage	ADM	127.80
Pitney Bowes Bank Inc Purchase Power	Postage	ADM	58.23
Placer Labs Inc.	Software	ADM	17,000.00
PlowOps, Inc.	Software	PW	4,320.00
Poudre Valley REA	Utilities	PW	49,493.73
Pro Hydraulic and Machine Inc.	Vehicle maintenance	PW	885.00
ProGreen EXPO	Training	PW	1,440.00
Progressive Urban Management Assoc Inc	Johnstown Downtown Districts project	ADM	7,791.00
PVS DX, INC	Chemicals - water / wastewater	UTIL	10,655.50
Quality of Life & Safety Designs LLC	Fire system monitoring	PW	25.00
Red Wing	Uniforms	PW	496.99
Redi Services, LLC	Portolet	PW	4,910.00
Resource Central	Garden in a box	UTIL	2,016.00
Ricoh USA	Supplies	ADM	22.86
Rise Broadband	Phone / internet	UTIL	112.70
Ronald L. Bakel	Lone Tree Raw Water Line	UTIL	43,138.00
SAFEBuilt LLC	Inspection services	ADM	35,000.00
Sam's Club	General supplies	Various	675.72
Sirchie Acquisition CO LLC	Supplies	PD	209.50
Site Selectors Guild, Inc.	Training	ADM	2,500.00
SiteOne Landscape Supply	Landscaping supplies	PW	4,451.30
Skaggs Companies, Inc.	Uniforms	PD	966.00
SKM Engineering	SCADA	UTIL	7,475.00
Specialized Elevator Corp	Elevator maintenance	PW	262.91
Stericycle, Inc.	Shred services	PD/ADM	112.20
Striglos	Software	ADM	1,176.00
Summit Data Protection LLC	IT services	Various	6,120.00
Sunbelt Rentals	Equipment rental	PW	5,615.35
TDS	Phone / internet	Various	8,372.00
Terracon Consultants, Inc.	Maestas St. drainage	PW	3,037.50
The Home Depot	Supplies	PW/UTIL	4,770.81
The Jamar Company	Building maintenance	PW	915.71
The Tree Guys LLC	Tree maintenance	PW	11,100.00
ThereSquared LLC	Public Art Master Plan	ADM	9,742.76
Thermoelectric	Building maintenance	PW	3,315.00
Tier One Networking, LLC	Computer equipment	ADM	4,487.00
TimberLAN	IT services	Various	5,832.00
TopShelf Printers	Printed marketing supplies	ADM	3,843.63
Town of Johnstown	Utilities	PW/UTIL	3,808.87
UC Health	Lab services	PD	594.00
UMB Card Services	P-card training / travel / supplies	Various	34,007.60
United Power, Inc	Utilities	PW	3,051.91
University of Denver	Grant refunded	PD	2,800.00
Upper Case Printing Ink	Newsletter / utility bill printing	ADM/UTIL	4,687.60
Upstate Colorado Economic Dev	Dues	ADM	15,000.00
Utility Refund	Utility refunds	ADM	15,867.05
Verizon Connect	Phone / internet	Various	239.25
Verizon Wireless	Phone / internet	Various	7,437.40
Waste Connections of Colorado Inc.	Trash service	PW	106,842.14
Weld County Dept of Public Health	Lab services	UTIL	1,147.50
Weld County Sheriff	Jail fees	PD	115.74
Weld County Treasurer	Property taxes	ADM	2,052.54
Western Material Handling	2 forklifts	PW	74,038.00

Vendor	Description	Dept	Amount
Western Plains Construction	Pavement maintenance	PW	83,083.66
Western States Land Services LLC	Lone Tree Raw Water Line	UTIL	5,590.78
Xcel Energy	Utilities	Various	49,910.69
YMCA of Northern Colorado	Monthly support	ADM	85,182.09
Young's Funeral Service	Refund	PW	125.00
			$ 6,814,417.93

Town of Johnstown

TOWN MANAGER'S REPORT



March 2026

JohnstownCO.gov

TOWN MANAGER'S REPORT

Administration, Finance, Planning, Human Resources, and Communications

Upcoming Council Meetings & Work Sessions

If there are topics that the Council would like Staff to schedule for discussion, please let me know. The following topics are recommended for Council discussion (all meetings will be held in the Town Council Chambers unless otherwise indicated):

- March 2, 2026 – Regular Council Meeting
- March 16, 2026 – Regular Council Meeting
- March 23, 2026 – Council Work Session 6 p.m. (Placeholder/Tentative)

Strategic Plan Update

At their regular meeting on February 18, 2025, the Town of Johnstown Town Council formally adopted the updated Town of Johnstown Strategic Plan. This update builds on the strong foundation established in prior years and reflects the continued growth of our organization and community. The Strategic Plan serves as a roadmap for the Town's priorities, guiding decision-making, resource allocation, and key initiatives to ensure we remain focused on delivering high-quality services and thoughtful, sustainable growth. We appreciate the Council's leadership and look forward to continuing the important work outlined in the plan.

Bond Rating Review

The Town recently completed its bond rating review for the 2022 Sewer Bond issuance with S&P Global Ratings, and we are pleased to share that our rating remains A+ with a stable outlook. This is great news and reflects the Town's strong financial management, responsible planning, and ongoing commitment to maintaining reliable utility services.

Senior/Community Center Facility

Design work on the Town's future Senior/Community Center continues to move forward, with recent discussions focused on finding practical ways to manage construction costs and keep the project within budget. Staff and project partners are carefully reviewing materials, layout options, and building features to ensure the facility remains both high quality and fiscally responsible.

2026 Budget

- The statutorily required documents were submitted to the State of Colorado (Department of Local Affairs) on January 30 (prior to the deadline).
- Continued progress is being made on the publication of the 2026 Budget Book, with the goal of submission to the Government Finance Officers Association by March 31, 2026.

Municipal Court – January 2026

- A total of 130 cases being closed.
    - Code Violations: 7
    - Traffic Violations: 55
    - Theft: 52
    - Other Criminal Cases: 14
    - Parking: 2

FY 2025 Town External Financial Audit

TOWN MANAGER'S REPORT

The Finance Department continues to prepare for the final fieldwork phase of the 2025 external financial audit. Hinkle & Company will be on site near the end of March to complete this phase. Presentation of the audit results to Town Council is planned for their regular meeting scheduled on June 15, 2026.

February GOAT Award

The February GOAT Award was presented to Logan Follet in the PW Department. Logan was instrumental in the repairs at the Low Point WWTP where we had a roof leak that required replacement of dry wall and flooring area. He's also helped a ton with reorganization of the Town Hall space while we've been crammed in waiting for the DSB to be completed too.

Revenue Bond Compliance

The Finance Director and Deputy Town Manager completed the annual review of reserve fund compliance for the 2021 Sewer and 2024 Water bonds. Both reserves are in compliance and will be reviewed by Hinkle & Company during the audit.

Town Banking Services

The Finance Director and Deputy Finance Director met with representatives from First National Bank to review the Town's overall performance for 2025. Adjustments are being made to ensure that the Town's accounts are structured in a manner which fully maximizes the FNBO's product offerings and performance. FNBO also provided suggestions for opportunities for enhancements for Town Staff consideration.

Utility Billing Statistics for January

- 8,469 Statements generated
- 5 New Builds processed
- 26 Service Orders processed

Workers Compensation

We are pleased to announce that the Town just achieved cost containment certification with the State of Colorado. This gives us a 5% discount on our worker's compensation premiums each year, starting in 2026. Cost containment is a set of documentation that proves we go above and beyond standard requirements to implement policies and programs designed to keep employees safe at work.

Hiring Updates

- We are pleased to announce that after a lengthy search we have secured a new Utilities Director, Greg Venette. His start date is scheduled for March 9, 2026.
- Also starting in March, we have a Police Records Supervisor that has passed our intensive background screening process.
- Several internal candidates have received new positions including Tim Baillargeon – Streets Manager, David Ostermiller – Parks Manager, and Justin Scrivner – Fleet Manager.
- We are pleased to welcome to our team a new Planning & Development Director, Water and Sewer System Operator II, Multimedia Content Specialist, Emergency Management Coordinator, Police Officer, and Police Cadet. All of these team members started in January and February.
- We are currently in the process of filling the roles of Professional Standards Sergeant, Grant Coordinator, Streets Maintenance Technician, Police Cadet, and Community Service Officer.
- The Finance Department has reviewed the 36 submitted applications for the Grant Coordinator position opening and will be moving into interviews soon.

TOWN MANAGER'S REPORT

Johnstown Cemetery

- In 2025, the Clerk's Office processed the following:
    - 21 Burials
    - 17 Cremation Burials
    - 27 Plots Purchases

April 7, 2026 Election

- TABOR notices will be mailed to each registered elector household by March 6, 2026.
- Ballots will be mailed on March 16, 2026.

Records Requests

In 2025, the Clerk's Office processed 185 requests for public records.

Downtown Improvement District Project

As part of the ongoing Downtown Improvement District feasibility project, Town Staff attended the Front Range Fire Rescue Board meeting to discuss the upcoming DDA election and the potential TIF impacts to the district. During the meeting, Staff provided an overview of what a DDA is, how the election process works, and how tax increment financing (TIF) could affect the district.

February Business of the Month

The Town is proud to recognized Stitches Quilt Shop as Johnstown's Business of the Month for the month of February.

February Biz Walk

Town Staff met with DCubed USA which is a new aerospace company located in Johnstown at the Gateway Industrial Park. They are an aerospace company from Germany and have established an R&D and sales office in Johnstown. We are excited to welcome companies within the aerospace industry and grow our local workforce.

Police Department

Stats: January 2026

- Officers responded to 1130 calls for service.
- Officers took 26 traffic accident reports.
- Officers conducted 169 traffic stops
- Officers issued 78 traffic citations
- Officers made 10 physical arrests
    - Code Violations (53)
    - Code Tickets (53)
    - Animal Complaints (37)
    - Suspicious Activity (85)
    - Disturbances (14)
    - Disturbance with Weapons (1)
    - Vandalism (7)
    - Trespassing (2)
    - Theft (39)
    - Burglar Alarms (26)
    - Harassments (16)
    - Assaults (6)
    - Stolen Vehicles (7)
    - Sex Offense (2)
    - Mental Health Crisis (11)
    - Business Checks (19)

Case of Interest

Officers responded to a local hotel on a disturbance in progress. Multiple people were on scene trying to get into a room they didn't have access to. The individuals were intoxicated and yelling at Staff. Officers were able to locate the individuals and charge multiple people with possession of drugs, paraphernalia, and criminal possession of financial devices.

TOWN MANAGER'S REPORT

Training

- FBI-LEEDA IA Investigation – Sergeant Timme completed the FBI Internal Investigation course hosted by the Boulder County Sheriff's Office.
- National Threat Evaluation and Reporting Training – Commander Oglesby attended the National Threat Evaluation and Reporting Training hosted by the Larimer County Sheriff's Office.

Community Policing, Outreach, & Miscellaneous Items

- Law Enforcement Hiring Expo – Officer Harrell, Michaela Telck, and Commander Oglesby attended the Law Enforcement Hiring Expo in Westminster. Multiple law enforcement agencies were there recruiting potential future law enforcement officers.
- Veterans Resource/Job Fair – Officer Kelley and Commander Oglesby attended the Weld County Veterans Resource/Job Fair. They worked hard to recruit potential future police officers who have served in our armed forces.
- Career Connections – Students from Roosevelt Middle School and Roosevelt High School spent the morning at the Johnstown Police Department learning about law enforcement. Officers set up specific stations where the kids got to experience dusting for latent fingerprints and conducting roadside maneuvers and learning about the collateral experience of being a drone pilot.

THE REST OF THIS COLUMN IS INTENTIONALLY BLANK



*Law Enforcement Learning



*Law Enforcement Learning

Public Works

A total of 64 work orders were completed this month consisting of various activities including pothole patching, street sweeping, gravel road grading, road

TOWN MANAGER'S REPORT

sign repair, funerals and a variety of other street, park and cemetery related maintenance work.

Parish Avenue Pedestrian Lighting

All holiday lighting has been removed from the downtown area. Staff is now working to clean all the lenses on the pedestrian light fixtures and are installing new "daylight" color LED bulbs that will provide much brighter and more consistent pedestrian lighting in the downtown area. A total of 68 fixtures are being cleaned and upgraded with the new bulbs.

NW Corner of Parish & Highway 60

Staff is working to remove and clean the existing cobble rock and reinstall it along with new mulch in this planting area. The irrigation system is also being repaired so that new plantings can be installed this spring that will provide more variety and color to this high visibility corner leading into the downtown area.

Town Hall Roof Repairs

The stone cap surrounding the Town Hall roof has begun to deteriorate and cause isolated water leakage into the building. A contractor will be installing a new metal cap over the stone to help prevent further deterioration and stop the water leaks.

Street Sign Replacement

Several worn and faded street name signs have been replaced in the area of town north of Hwy 60 between Greeley Ave. and Telep Ave.

2026 Pavement Maintenance Program

Construction bids are currently being solicited for the 2026 asphalt mill and overlay. slurry seal and concrete replacement projects. Bids are due in early March. It is expected that Council contract award recommendations for each project will be ready by early April.

Lake Pumphouse Roof Replacement

The roof shingles at the Johnstown Reservoir pump house were recently replaced due to wind and hail damage. The cost was covered by the Town's insurance.



*New Roof Installation

Utilities

WTP Highlights

- Blayne Banghart passed the Water Distribution 4 exam.
- The Town replaced the Automatic Transfer Switch (ATS) which was malfunctioning. This switch automatically transfers to generator power when the primary power to the Water Treatment Plant fails. There are additional components that need to be replaced on the generator, but the initial work was completed when the WTP was down temporarily for construction related services on February 19, 2026.

TOWN MANAGER'S REPORT

- Existing DAF maintenance was performed at the WWTP. This maintenance includes cable replacement and pulley system improvements.

Water Treatment Plant

- Maximum Daily Flow: 1.785 MGD out of 6 MGD
- Average Daily Plant Influent flow: 1.583 MGD
- Average Daily Plant Effluent flow to distribution: 1.577 MGD
- Average Daily System Demand: 1.564MGD
- Totalized Monthly Distribution Flow: 25.247 MG
- Totalized Utilization of Little Thompson Interconnect: 0.00 MG; Average daily 0.00 MGD

Low Point WWTP

- Average Daily Flow: 0.456MGD
- Facility Maintenance: Pulley, belt, and motor mount service maintenance was completed on Aerzen blower 3. The motor was laser aligned by Aerzen representatives.
- Treatment Performance: We achieved 98.7% solids removal. We are on track to remove approximately 38,625 pounds of waste removed.

Central WWTP

- Average Daily Flow: 0.934
- Process Upgrades: Site storm water tie in has been completed. Moltz Construction is starting to break down the construction trailer and move unnecessary equipment offsite.
- System Transition: Preliminary lagoon sludge evaluation was completed this month by Denali in preparation of lagoon decommissioning in the Spring.
- Facility Modifications: The administrative building locker rooms and showers have been completed at Central WWTP.
- Treatment Performance: We achieved 99.4% removal of solids, equating to approximately 135,028 pounds of waste removed.

Sewer Collections and Water Distribution Systems (C&D)

- Issues Reported: 9
- Work Orders Completed: 106

Collection

- Routine System Checks: 10

Distribution

- Water Service Shut Offs: 15
- New Meter Installs: 23
- Meter Replacements/Reprogram: 34
- Monthly Manual Reads: 5
- Locate Tickets Completed: 415
- Hydrant Meters: 4
- Routine PRV Checks: 8 Locations
- Routine system flushes: 9 Locations

Inspections, Installations & Work Orders

- 1500' water main
- 2,200' storm sewer main
- 700' sewer main
- 178 building permit inspections

Capital Projects

Measatas Street Storm Drainage

The warmer winter weather has allowed for the concrete alley pavement construction to proceed in the alley north of Molinar Street between Parish Ave and Maestas Street. The concrete pavement work is

TOWN MANAGER'S REPORT

expected to be completed by late February which will conclude all work on this project.



*Alley Paving Adjacent to Maestas

Highway 60 & Colorado Boulevard Intersection

Utility relocation work is underway to accommodate the intersection reconstruction work. Relocation work is expected to run through the Summer and be complete in time for the intersection reconstruction work to start in early Fall.

Water Treatment Plant Expansion

In February, Xcel set all three transformers and installed the natural gas service to each building. Xcel is still working on installing the permanent power feed to the plant but the temporary feed keeps the project moving forward without delay. The exterior of the buildings, including the roofing, is nearly complete. The contractor continues to install internal piping and has installed the remaining six granular activated carbon (GAC) vessels. In March, the contractor will start installing some of the vertical turbine pumps for the membrane feed and the distribution pump station.

Lone Tree Raw Water Transmission Line

Town Staff are continuing to coordinate with the design engineer and the landman on obtaining all necessary easements. Once easements are obtained, this will allow the construction plans to be finalized and submitted to the appropriate jurisdictions.

Central Wastewater Treatment Plant

The contractor continues to install miscellaneous stormwater infrastructure in preparation for final site grading and paving this spring. The lagoon decommissioning may start later this month if the lagoons are not frozen.

Johnstown Reservoir Toe Drain

The contractor has completed the installation of the toe drain. The contractor is on schedule to finish grading and seeding in March and then the project will get closed out with the State to ensure that there are no level restrictions.

Sandra Drive Storm Drainage

Utility relocations continue for the Sandra Drive project. Xcel Electric and Lumen are the last utilities to be relocated, and they have begun their respective work with an anticipated completion of April 2026.

Weld County Road 15 Reconstruction

Staff has issued a Request for Proposals for design services for the Weld County Road 15 Reconstruction project that will occur from the Little Thompson River Bridge south to Weld County Road 44. This work will include subgrade investigation and provide asphalt design section recommendations to replace this failed

TOWN MANAGER'S REPORT

road section. Proposals are anticipated to be reviewed and a consultant selection made in late March 2026.

450 S. Parish Avenue
Johnstown, CO 80534
970-587-4664
JohnstownCO.gov

Town Council Agenda Communication

Agenda Date: March 2, 2026

Subject: Resolution 2026-11: Approving and Adopting the Town of Johnstown Comprehensive Stormwater Master Plan

Attachments:
1. Resolution No. 2026-11
2. Stormwater Master Plan Presentation
3. Town of Johnstown SWMP

Presented by: Eric Jones, Engineer

Agenda Item Description:

Enclosed for your review is a request to approve and adopt the Town of Johnstown Comprehensive Stormwater Master Plan.

On November 6, 2023, Town Council approved Resolution: 2023-47 authorizing the Town of Johnstown to enter into a grant award agreement with the Colorado Division of Homeland Security & Emergency Management. The primary objective of this grant is to modernize the existing Stormwater Master Plan by identifying flow patterns, assessing current and projected stormwater runoff, pinpointing areas of concern, locating local and "regional" drainage facilities, and evaluating the condition of storm drain systems, catch basins, open channels, and other storm drain facilities that contribute to the discharge of stormwater into the Big Thompson and Little Thompson Rivers.

On April 1, 2024, Town Council approved awarding a contract to Matrix Design Group Inc. for consulting services to develop a new Comprehensive Stormwater Master Plan. On April 22, 2024, the Town of Johnstown entered into a Service Agreement with Matrix Design Group, Inc. The scope of services included GIS data review, the Stormwater Master Plan Report, 10-year CIP, and Rate Study. The project was completed in January 2026 and the Stormwater Master Plan is attached for reference. The Master Plan includes Hydrological, Hydraulic, and Alternative analysis and shows conceptual designs. This updated Master Plan will not only guide us in making informed decisions regarding future land development and capital improvement projects, but also serve as an essential tool for effectively communicating risk to the Town Council and residents alike. The Master Plan provides a high-level view of the stormwater basins across the entire growth management area and outlines necessary improvements to improve the resiliency of our current and future stormwater system.

Strategic Plan Alignment:

Natural & Built Environment

- Invest in, enhance, and conserve our natural environment

Quality Infrastructure & Facilities

- Ensure future infrastructure and facilities are sustainable, resilient, and aligned with community growth

Legal Advice:

Town Attorney Drafted the Resolution.

Financial Advice:

N/A

Recommended Action:

Staff recommends the approval of the resolution as presented.

Suggested Motions:

For Approval: I move to approve Resolution 2026-11: Approving and Adopting the Town of Johnstown Comprehensive Stormwater Master Plan.

For Denial: I move to deny Resolution 2026-11.

Reviewed and Approved for Presentation



Town Manager

TOWN OF JOHNSTOWN, COLORADO
RESOLUTION NO. 2026-11

RESOLUTION APPROVING AND ADOPTING
THE TOWN OF JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

WHEREAS, the Town of Johnstown, Colorado (the "Town") is a Colorado home rule municipality, duly organized and existing under the laws of the State of Colorado and the Town's Home Rule Charter; and

WHEREAS, the Town Council is vested with authority to administer the affairs of the Town; and

WHEREAS, on or about April 22, 2024, the Town Council retained Matrix Design Group, Inc., a Colorado corporation ("Matrix"), to prepare a comprehensive stormwater master plan to provide the Town with information to make sound decisions related to the Town's stormwater system and the infrastructure related thereto; and

WHEREAS, Matrix completed the project in December of 2025 and provided a copy of the Comprehensive Stormwater Master Plan to the Town; and

WHEREAS, on March 2, 2026, Town staff presented the Comprehensive Stormwater Master Plan to the Town Council; and

WHEREAS, after review, and based on Town staff's report and recommendation to the Town Council, the Town Council desires to adopt the Town of Johnstown Comprehensive Stormwater Master Plan; and

WHEREAS, the Town Council finds that the adoption of this Resolution is in the best interests of the citizens of the Town.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF JOHNSTOWN, COLORADO, THAT:

1. The Town Council hereby adopts the Town of Johnstown Comprehensive Stormwater Master Plan, dated December 2025, a copy of which is attached hereto as Exhibit A, which shall supersede and replace all previously adopted stormwater master plans.

2. The Town Clerk is hereby directed to post the Town of Johnstown Comprehensive Stormwater Master Plan, dated December 2025, on the Town's website.

3. This Resolution shall be effective upon adoption.

PASSED, SIGNED, APPROVED, AND ADOPTED THIS ___ day of March, 2026.

ATTEST: TOWN OF JOHNSTOWN, COLORADO

By:_____ By:_____
Meghan Martinez, Town Clerk Michael P. Duncan, Mayor

EXHIBIT A

Town of Johnstown Comprehensive Stormwater Master Plan, dated December 2025
(Attached)

Stormwater Master Plan

Eric Jones, PE – Engineering Department

Background

- Under Resolution 2023-47, the Town entered into a Grant Agreement with the Colorado Department of Homeland Security & Emergency Management
  - Provided $458,060.00 to the Town for the Stormwater Master Plan
  - The Town matched with $50,340.00
- The Town entered a Professional Services Agreement with Matrix Design Group Inc. on April 22, 2024.
  - On July 16,2024, a separate Professional Services Agreement with Sanborn Map Company was executed to provide LiDar Mapping information to assist with gathering Topographical Information.
- The Project commenced in May of 2024 and was finished in December of 2025
    - Final Milestone is to adopt the Stormwater Master plan to close out the Grant
- Period of Performance ended December 31, 2025
  - To satisfy the grant we have 90 days to adopt the master plan

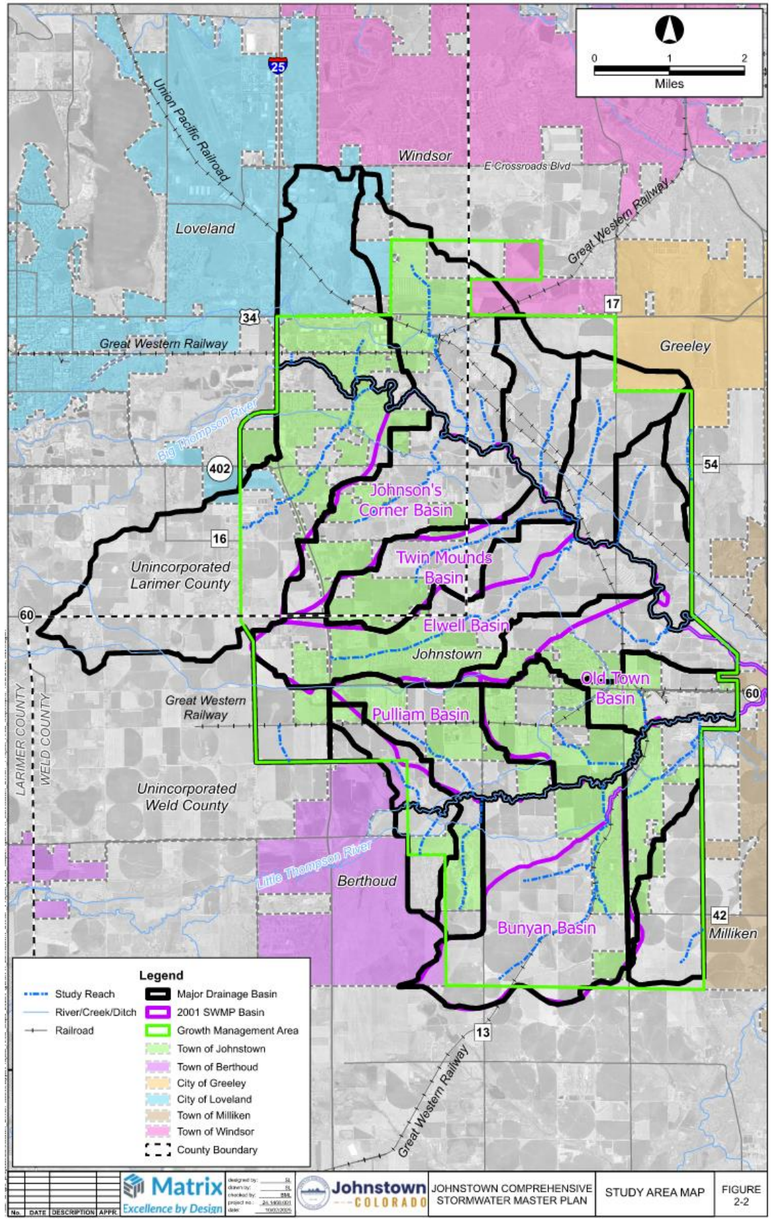
What is a Stormwater Master Plan?

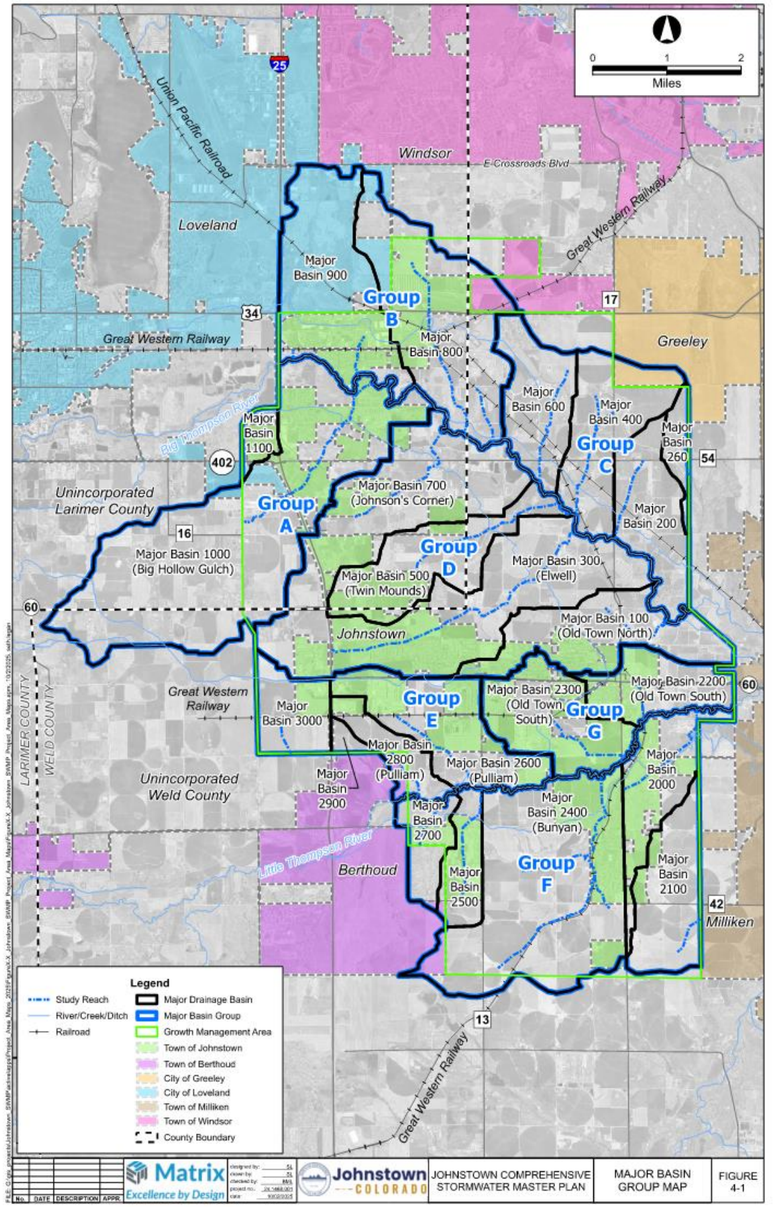
- A tool to provide guidance for drainage and flood control related improvements
  - Preserves flood paths and existing drainage features
  - Helps to control flooding
  - Large-scale rather than small-scale

- The Goals
  - Highlight areas that may be susceptible to flooding
  - Propose projects that will be necessary to prevent flooding
  - Provide guidance for facilities to slow down flows to mimic historical patterns

- Does not include Floodplain studies for the Big Thompson and Little Thompson Rivers

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COLORADO





Why do we need this Stormwater Master Plan?

- The existing Master Plan was developed in 2001
  - Since 2021, the Town has grown significantly in size and area
  - The Growth Management Area (GMA) has increased beyond the current scope of the existing Master Plan

- Create a plan to guide growth and protect existing drainage routes to mitigate flooding
  - With the increased size of the GMA, a significant portion of the GMA did not have a defined drainage basin or established route that could keep up with the impervious area that comes growth
  - Reduces reliance on development stormwater studies
  - Provides staff a tool to ensure that development is accounting for both upstream and downstream conditions

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What does the Stormwater Master Plan Include?

- The Stormwater Master Plan includes the following:
  - Hydrological Analyses
  - Hydraulic Analysis
  - Alternatives Analysis
  - Conceptual Design
  - Appendix

How will this Master Plan help the Town of Johnstown?

- Provides a high-level view of the stormwater basins throughout the Growth Management Area
- Outlines necessary improvements to improve the resiliency of our current and future stormwater system
- Establishing regional facilities, preserving existing flow paths with dedicated channel improvements, provide overall design guidance for future growth
- It is a starting point for future site-specific analysis

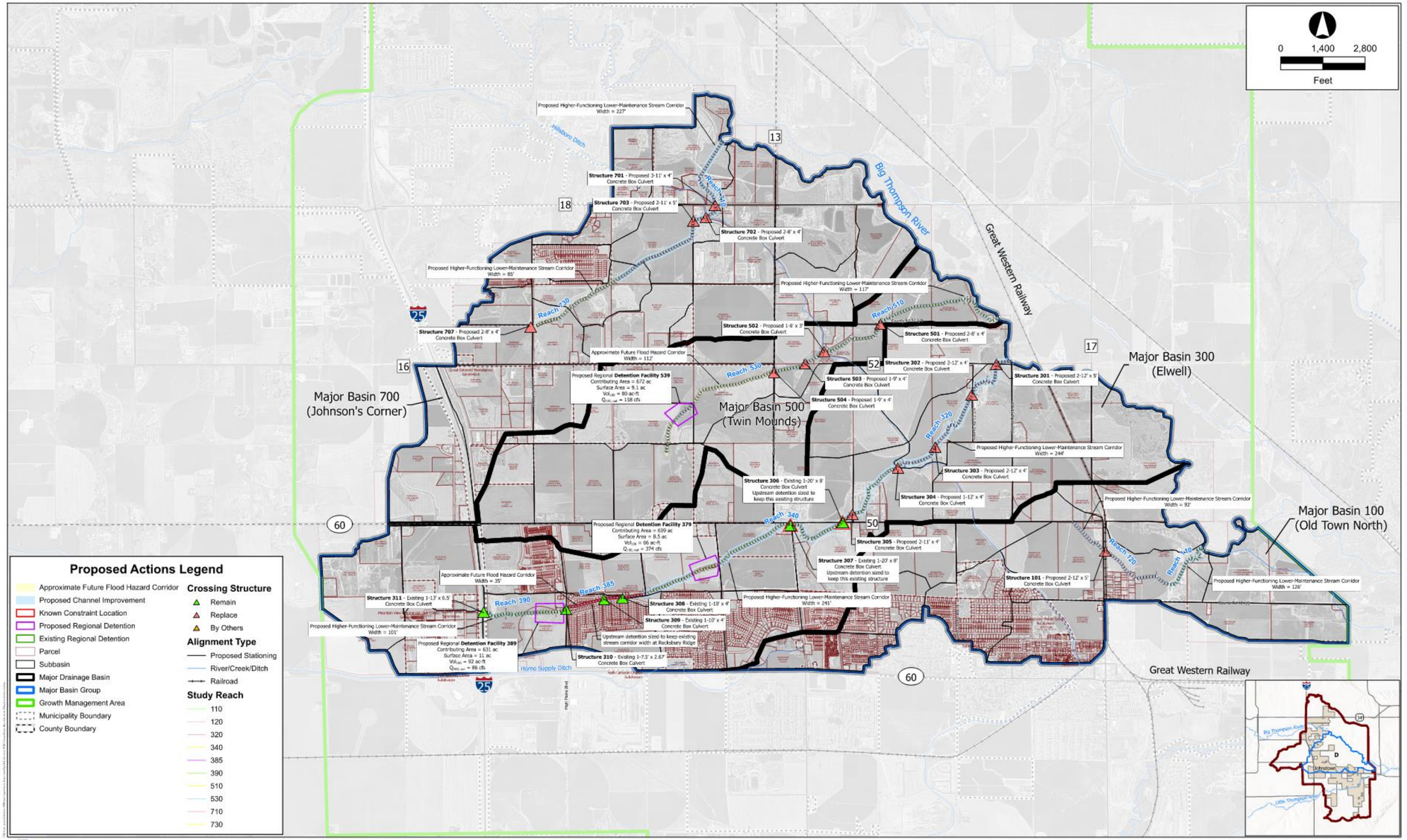


Figure 6-6 - Major Basin Group - D
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

Project Identification

- Three project types
  - Detention
    - Reduce peak flows
  - Channel Improvements
    - Safely convey the major storm flows
  - Crossing
    - Safely convey major flows under a roadway, railroad, or irrigation ditch

- Total number of projects: 95
  - Detention: 12
  - Channel Improvements: 33
  - Crossings: 50

- Projects with potential Town responsibility: 20
  - Detention: 5
  - Channel Improvements: 5
  - Crossings: 13

CIP Project Approach

- The plan created a list of projects that will provide benefit to the town within its current boundaries and throughout the total Growth Management Area while prioritizing areas already annexed

  - Tier 1 projects: 3
    - 0-10 Year Plan
    - High Impact
  - Tier 2 Projects: 4
    - 10-20 Year Plan
    - Medium Impact
  - Tier 3 Projects: 3
    - 20+ Year Plan with ability to move up
    - Low Impact
  - Tier 4 Projects: 10
    - Locations in unannexed parts of GMA
    - Varied Impact

Major Group	Reach ID	Improvement Type	Description of Proposed Project	Tier
D	390	Detention	92 acre-ft regional detention facility immediately upstream of High Plains Blvd	1
D	340	Detention	66 acre-ft regional detention facility 3000 feet upstream of Colorado Blvd	1
G	2210	Crossing Detention Channel	1-8'x3' Concrete Box Culvert at CO State Highway 60 Modification to existing outlet structure in Mountain View Subdivision Higher-Functioning Lower-Maintenance Stream Corridor Width = 37', Length = 2700'; Incorporate drop structures	1
B	830	Channel	Higher-Functioning Lower-Maintenance Stream Corridor Width = 75', Length = 3000'	2
A	1020	Detention	94 acre-ft regional detention facility immediately upstream of Hilsboro Ditch	2
E	2900	Crossing	1-7' x 3' Concrete Box Culvert at Weld County Road 46	2
F	2445	Crossing	1-6' x 3' Concrete Box Culvert at Weld County Road 42	2
B	940	Channel Crossing	Higher-Functioning Lower-Maintenance Stream Corridor Width = 48', Length = 800' 1-6' x 6' Concrete Box Culvert at Great Western Railway	3
F	2450	Detention	103 acre-ft regional detention facility upstream of Great Western Railway	3
D	730	Crossing	2-8' x 4' Concrete Box Culvert at S Larimer County Road 3e	3
C	430	Crossing	1-10' x 5' Concrete Box Culvert at Weld County Road 54	4
C	610	Crossing	1-7' x 6' Concrete Box Culvert at Private Road	4
C	630	Crossing	2-7' x 3' Concrete Box Culvert at Farmers Ditch	4
C	610	Crossing	1-9' x 6' Concrete Box Culvert at Hill and Brush Ditch	4
C	610	Crossing	1-7' x 6' Concrete Box Culvert at Great Western Railway	4
D	710	Crossing	3-11' x 4' Concrete Box Culvert at E Larimer County Road 18	4
C	430	Crossing	1-10' x 5' Concrete Box Culvert at Hill and Brush Ditch	4
E	3010	Channel	Higher-Functioning Lower-Maintenance Stream Corridor Width = 77', Length = 2800'	4
D	110	Channel	Higher-Functioning Lower-Maintenance Stream Corridor Width = 126', Length = 2200'	4
C	610	Crossing	2-8' x 4' Concrete Box Culvert at Weld County Road 54	4

Next Steps

- Close out current grant
- Opportunity for additional grant funding
- Implementation on Town Website to replace the 2001 Master Plan
- Enforce on future development
- CIP Planning
  - Detailed design and plans
  - Construction of Projects

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Questions?







Town of Johnstown Comprehensive Stormwater Master Plan

Concept Design

November 2025

Technical Appendices contained in separate file

Sponsor:

Johnstown COLORADO

Consultant:

Matrix

EXECUTIVE SUMMARY

This study updates the 2001 Stormwater Master Plan (SMWP) for the Town of Johnstown study based on significant growth within and near this Colorado community. This 2025 SWMP expands from the six original major basins included in the 2001 SWMP to provide hydrologic calculations and drainageway planning concepts for 23 major basins that fall within Johnstown's Growth Management Area (GMA). This includes 11 major basins that are tributary to the Big Thompson River, and 12 major basins that are tributary to the Little Thompson River. This study applies updated mapping that includes topography and existing and future land use projections, develops alternative drainageway planning concepts, and prepares a concept design of facilities for implementation. The introduction of higher-functioning and lower-maintenance streams throughout the GMA are introduced herein and is significantly different than the previous approach which focused on spillway structures at irrigation canal crossings and limited storm drain improvements within the Old Town area.

The major problems identified in the Johnstown GMA watersheds are due to the expected significant increase in flows under future conditions without mitigation. The impact of future development on the watershed without mitigation is expected to increase both the 100-year flows and more frequent floods above the existing levels. In particular, the expected increased runoff is many times above the rates found for agricultural land uses, which form many of the historic uses in the Johnstown area. This increase in runoff will not only provide an increased threat of flooding and structural damages in the future, but also have significant negative impacts on water quality and stream stability. Alternatives were evaluated to offset the impacts of future development by focusing on reducing flood magnitudes, increasing conveyance capacities, removing pollutants from the runoff, and stabilizing the major drainageways.

The only regulatory floodplains within Johnstown are along the Big Thompson River and Little Thompson River. However, this does not mean that these river corridors are the only locations with flood hazards. Unmapped flood hazards exist within each of the major basins, and this study recommends establishing self-maintaining, multi-purpose, and sustainable stream corridors, also known as higher-functioning, lower-maintenance streams (HFLMS). The HFLMS considers all of the functions of the stream, not just flood conveyance, to establish an overall corridor width that the stream requires to remain or be restored to a healthy and stable condition. Johnstown is expected to undergo significant development in the future. This presents an opportunity to preserve the lower-maintenance stream corridor before these major drainageways experience development. Preservation of existing channel geometry and new channel cross-sections sized for future hydrology conditions were considered along each reach. In general, HFLMS consist of a bankfull channel with wide floodplain terraces. Stream management corridor preservation allows the drainageways to adapt to watershed changes by avulsing and migrating without causing hazards and damage to infrastructure, which results in a more sustainable system and requires less regular stream management.

Roadway and railway embankments significantly affect the floodplain, so it will be important to increase the capacity of critical transportation route crossings to convey the 100-year flow. Most of the identified major crossings are undersized for a 100-year event flood under existing conditions, and certainly will be more frequently overtopped under future fully developed conditions of the watershed.

Irrigation ditches currently intercept much of the storm flows on multiple major drainageways. Under existing conditions there is little if any observed flows downstream of the larger irrigation canals, and existing downstream crossings have functioned relatively well in the past with small sized culverts to convey the intermittent flows. However, as future expected hydrology increases, and surface flows become more common, the ditch companies are expected to encounter more frequent overtopping, erosion, and bank failure. This 2025 SMWP identifies irrigation crossing locations that should be improved to separate the major drainageway storm flows from irrigation canals in the future.

The recommended plan was chosen based on a combination of quantitative and qualitative measures, seeking to minimize stormwater and flood-related damages to major drainageways, public infrastructure, and private property. In addition, known constraint locations where recently constructed or approved designs for storm infrastructure along the major drainageways were identified and upstream improvements sized to preserve the functionality of these recent drainage features. Key goals of the recommended plan include:

1. Deliverables that can be utilized by multiple audiences;
2. Identify existing choke points within the storm system;
3. Implement stormwater detention effectively;
4. Implement channel improvements effectively;
5. Implement Crossing improvements effectively.

This Stormwater Master Plan is intended to provide a flexible framework from which effective drainage policy can be conceived and implemented by the Town of Johnstown. The proposed Master Plan improvements have only been conceptually sized to serve as a starting point for preserving space for the major drainageway corridors and initial conservative costs are provided to help plan for future regional detention and crossing improvements. Note that this document only contains the report portion of the 2025 SWMP, the technical appendices are provided in a separate file. These two documents together should be used alongside the current Johnstown stormwater design standards and criteria and Capital Improvement Plan.

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1.0 INTRODUCTION

1.1 Authorization

Matrix Design Group, Inc. (Matrix) was retained to complete a Comprehensive Stormwater Master Plan (SWMP) for the Town of Johnstown (Johnstown). The Professional Services Agreement regarding the Johnstown SWMP was executed on April 22nd, 2024.

1.2 Purpose and Scope

The purpose and scope of this project is to update the SWMP for the Johnstown Growth Management Area (Study Area). The previous Johnstown SWMP, published in 2001 by The Engineering Company, comprised a smaller area and features six major basins. The drainage area considered in this study covers the current Johnstown Growth Management Area (GMA) and features 23 major basins.

There has been considerable development throughout the Johnstown GMA since the 2001 study. In addition, modeling input parameters such as land imperviousness have changed since the 2001 study. These significant changes justify a need to substantially update the SWMP. Stakeholder goals include:

- Deliverables that can be utilized by multiple audiences, including maintenance crews, town councilors, engineers, and members of the public.
- Identifying existing choke points within the system through data collection on undersized culverts and missing conveyance elements.

The SWMP was prepared by completing the following sequential project phases:

- Field assessments
- Identification of areas of concern
- Baseline Hydrology
- Alternatives Analysis
- Concept Design

This plan is about more than pipes and drains—it's about protecting our homes, roads, and waterways from flooding and pollution. With your help, we're planning a smarter, cleaner future for Johnstown's stormwater system.

The Town of Johnstown’s Stormwater Master Plan outlines a proactive approach to managing our storm water infrastructure. This document helps ensure your project meets drainage and water quality requirements efficiently minimizing downstream impact and streamlining approvals. Regional solutions and pre-planned infrastructure can reduce the need for costly on-site detention.

1.3 Planning Process

The sole project sponsor is the Town of Johnstown, which secured funding for this project through the Colorado Department of Homeland Security and Emergency Management (DHSEM) Hazard Mitigation Grant Program. Participants from the project sponsors are listed in Section 1.6. A project advisory committee consisting of representatives from the project sponsors held a kickoff meeting on April 24th, 2024, at the Johnstown Town Hall (see enclosed Meeting Minutes in Appendix A). Progress meetings are generally held monthly or as needed to coordinate key milestones. Public meetings are planned for this project, but have not yet occurred, to gather input from residents, stakeholders and interested parties.

1.4 Mapping and Surveys

Mapping information for this project was obtained from several sources. Given the multi-jurisdictional makeup of the watershed, attempts were made to use the best available data. The following describes the various mapping components and their sources.

Topographic Contours

One-foot contour data is derived from three data sources: 2014 DRCOG LiDAR, 2021 Cameron Peak Fire LiDAR, and 2024 Johnstown/Sanborn LiDAR.

Aerial Photography

Color aerial ortho-photography is derived from Nearmap imagery.

Base Mapping

Base mapping information, including street centerlines, parcels, zoning, jurisdictional boundaries, and existing storm system were provided by Johnstown. Other base mapping was downloaded from Weld County and Larimer County as appropriate.

Coordinate System and Datum

All GIS mapping and data for this study were developed using the NAD 1983 HARN State Plane Colorado North FIPS 0501 coordinate system in U.S. feet.

Survey information

A detailed survey was not performed for this project.

1.5 Data Collection

Existing drainage studies and construction documents were collected from stakeholders. Over 180 documents were collected reviewed for relevance. See Appendix H for a summary of all collected references.

The primary references used for this study are as follows:

- 2001 Storm Water Master Plan for the Town of Johnstown by The Engineering Company (2001 *SWMP*)
- 2024 Johnstown Streets and Stormwater Design Standards Update
- Volumes 1, 2, and 3 of the Mile High Flood District Urban Storm Drainage Criteria Manual

Hydrology Soil Groups were gathered from the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO).

1.6 Acknowledgements

A Technical Advisory Committee (TAC) made up of project sponsors provided guidance during the study process. The TAC met regularly throughout the course of the project study. Representatives who were directly involved with this study are listed below:

Table 1-1 Project Participants

Name	Representing	Project Role
Jason Elkins	Town of Johnstown	Project Manager
Doug Gossett	Town of Johnstown	Project Manager
Eric Jones	Town of Johnstown	Project Engineer
Shelley Cobau	IMEG	Grant Administrator
Emily Drosselmeyer	DHSEM	Grant Administrator
Matthew West	DHSEM	Grant Administrator
Jen Gardner	Logan Simpson	Public Outreach
Drew Beck	Matrix Design Group	Officer-in-Charge
Chris Martin	Matrix Design Group	Director of GIS
Ben Liu	Matrix Design Group	Project Manager
Mylo Grote	Matrix Design Group	Project Engineer
Sabastian Ortega	Matrix Design Group	Project Engineer
Maya Fives	Matrix Design Group	Ecological Technician
Nastaran Khodaei	Matrix Design Group	GIS Analyst
Seth Legan	Matrix Design Group	GIS Analyst
Ryan DeGroot	Matrix Design Group	Project Engineer
Megan Sawyer	Matrix Design Group	Project Engineer
Zoe Brouillet	Matrix Design Group	Project Engineer

2.0 STUDY AREA DESCRIPTION

2.1 Project Area

The Johnstown GMA sits just west of the confluence of the Big Thompson River and Little Thompson River. The study area consists of the current Johnstown GMA and upstream areas directly tributary to the GMA. This includes Big Hollow Gulch Basin defined by the 2024 *Hydraulic Analysis for Regional Drainage Facilities and Irrigation Storage Improvements Big Hollow Gulch and the Ridge Development* by Anderston Consulting Engineers. The overall study area boundary is approximately 31.7 square miles larger than what was considered in *Storm Water Master Plan for the Town of Johnstown* by The Engineering Company in 2001. The northern half of the Johnstown GMA is tributary to the Big Thompson River, while the southern half is tributary to the Little Thompson River, as shown in **Figure 2-2**.

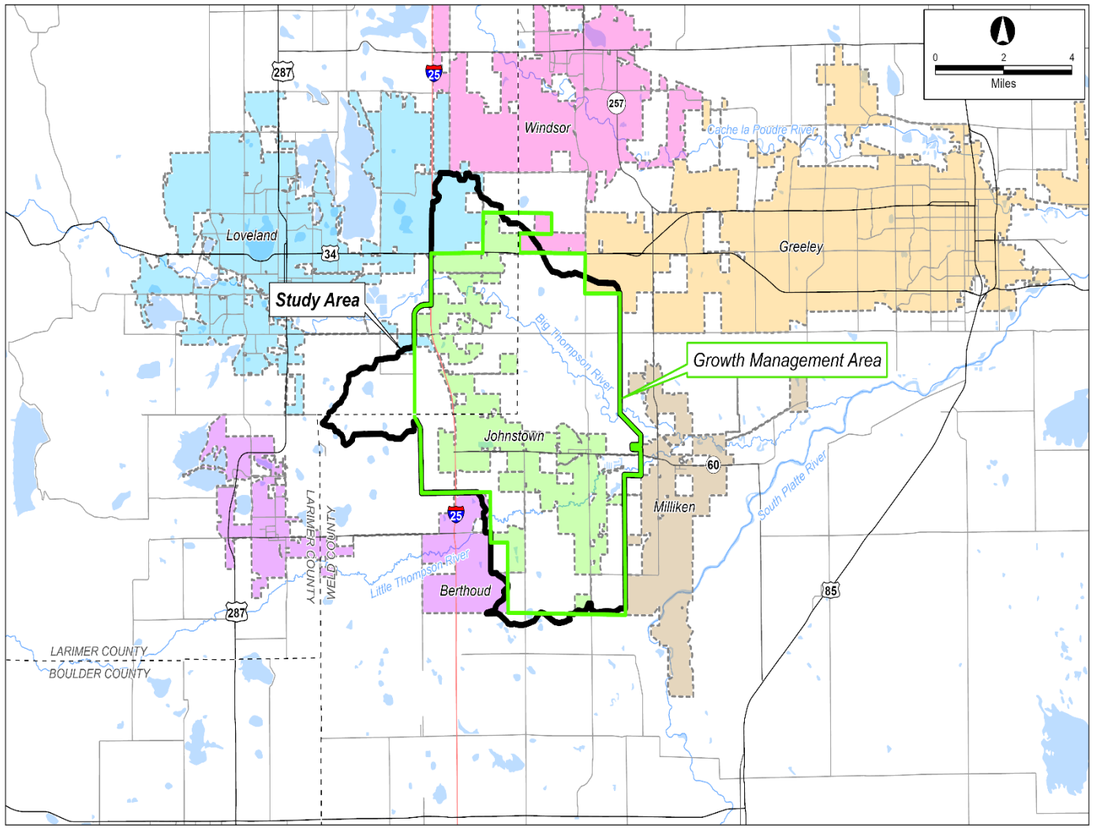
The study area is situated mostly east of I-25, south of US Highway 34, and north of Weld County Road 40. The study area is approximately 55.4 square miles and has been divided into 22 major drainage basins. For this study, basins have generally been numbered from downstream to upstream, with major basins tributary to the Big Thompson River numbered from 100 to 1000 and major basins tributary to the Little Thompson River numbered from 2000 to 3000.

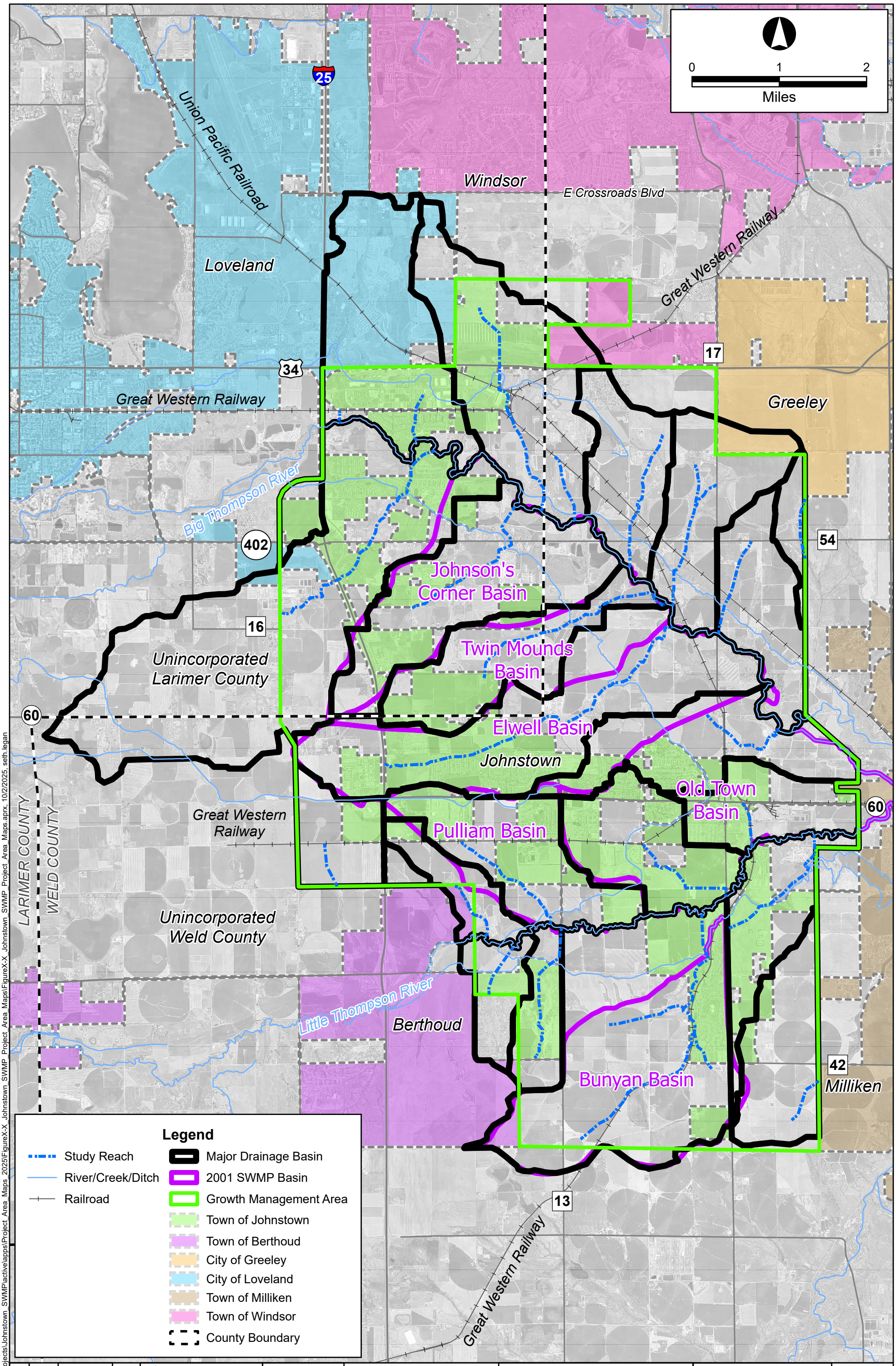
The study area broadly slopes from west to east, and slopes within the GMA are an average of 1.48%. The highest point in the study area is approximately 5,200 ft and is in Major Basin 1000 (Big Hollow Gulch) located west of the GMA. The lowest point is approximately 4,750 ft and is in Major Basin 100 (Old Town North) – along the eastern edge, where the Big Thompson River leaves the study area. Early in the project, Matrix performed a historical elevation change analysis using the available 2014 and 2021 LiDAR data. This analysis revealed that there were a large number of areas within the GMA that had significantly changed in topography since 2014, so the Town of Johnstown contracted with Sanborn to obtain 2024 LiDAR data for the entire GMA. Some of the major basins extend upstream of the Johnstown GMA, so previously available topography was used at those locations. The elevation data and sources used for this study is shown in **Figure 2-3**.

The 2001 *SWMP* defined 6 major drainage basins; 5 of these basins have been preserved and boundaries adjusted to better represent current topography and surface flow directions. The Old Town Basin has been subdivided into two major drainage basins to split outflows tributary to the Big Thompson River and Little Thompson River.

Numerous irrigation canals are present throughout the study area; this includes but is not limited to the Hillsboro Ditch, Homesupply Ditch, Farmers Ditch, and Hill & Brush Ditch. These irrigation features vary in size from small tailwater canals to large canals with raised embankments. The existing irrigation canals generally do not follow topographic drainage paths and often act as a barrier or sink for surface runoff.

Figure 2-1 Vicinity Map





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No.	DATE	DESCRIPTION	APPR.

Matrix Excellence by Design

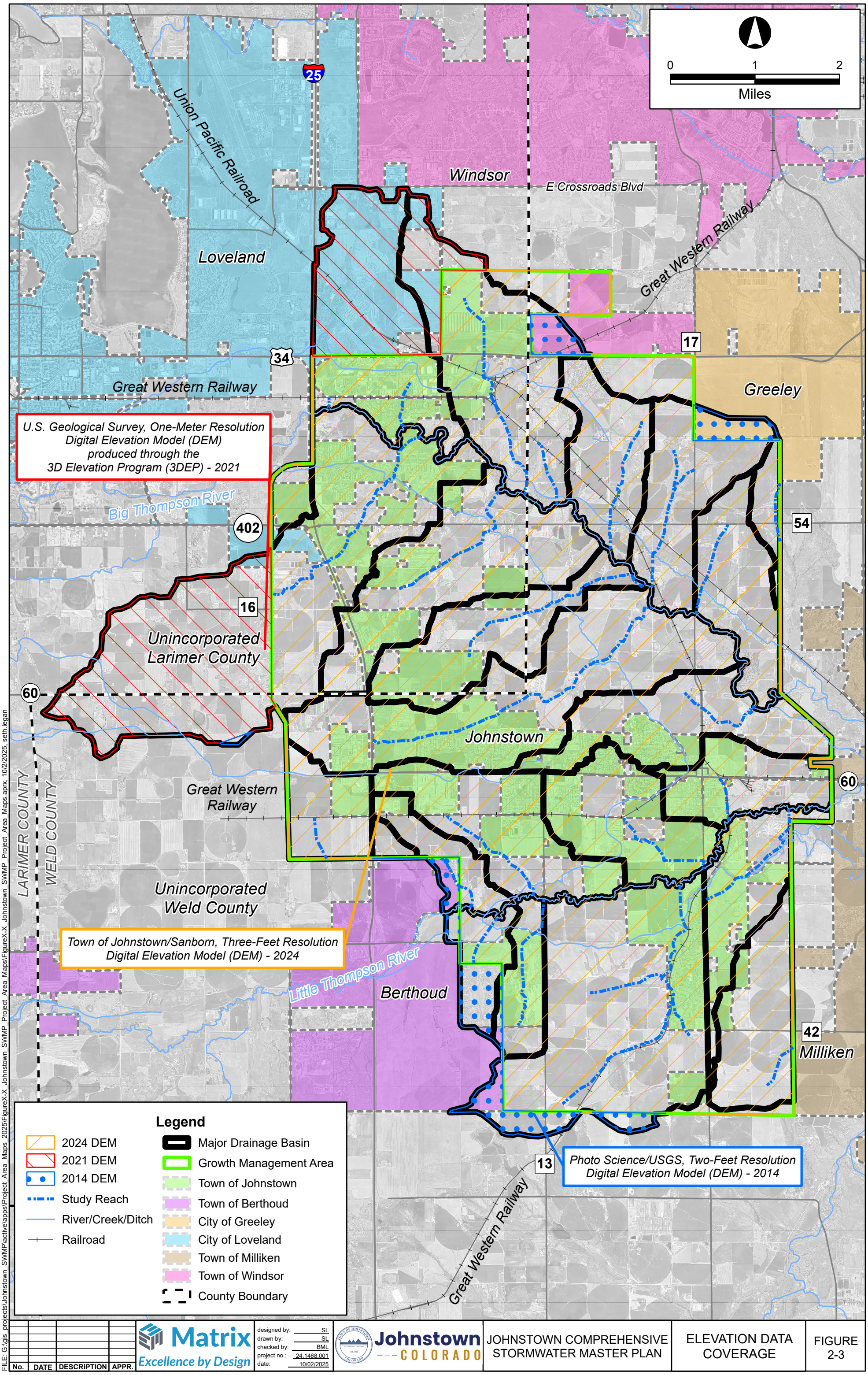
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drawn by: SL
checked by: BML
project no.: 24.1468.001
date: 10/02/2025

Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

STUDY AREA MAP

FIGURE 2-2



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date: 10/02/2025

Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

ELEVATION DATA COVERAGE

FIGURE 2-3

2.2 Land Use

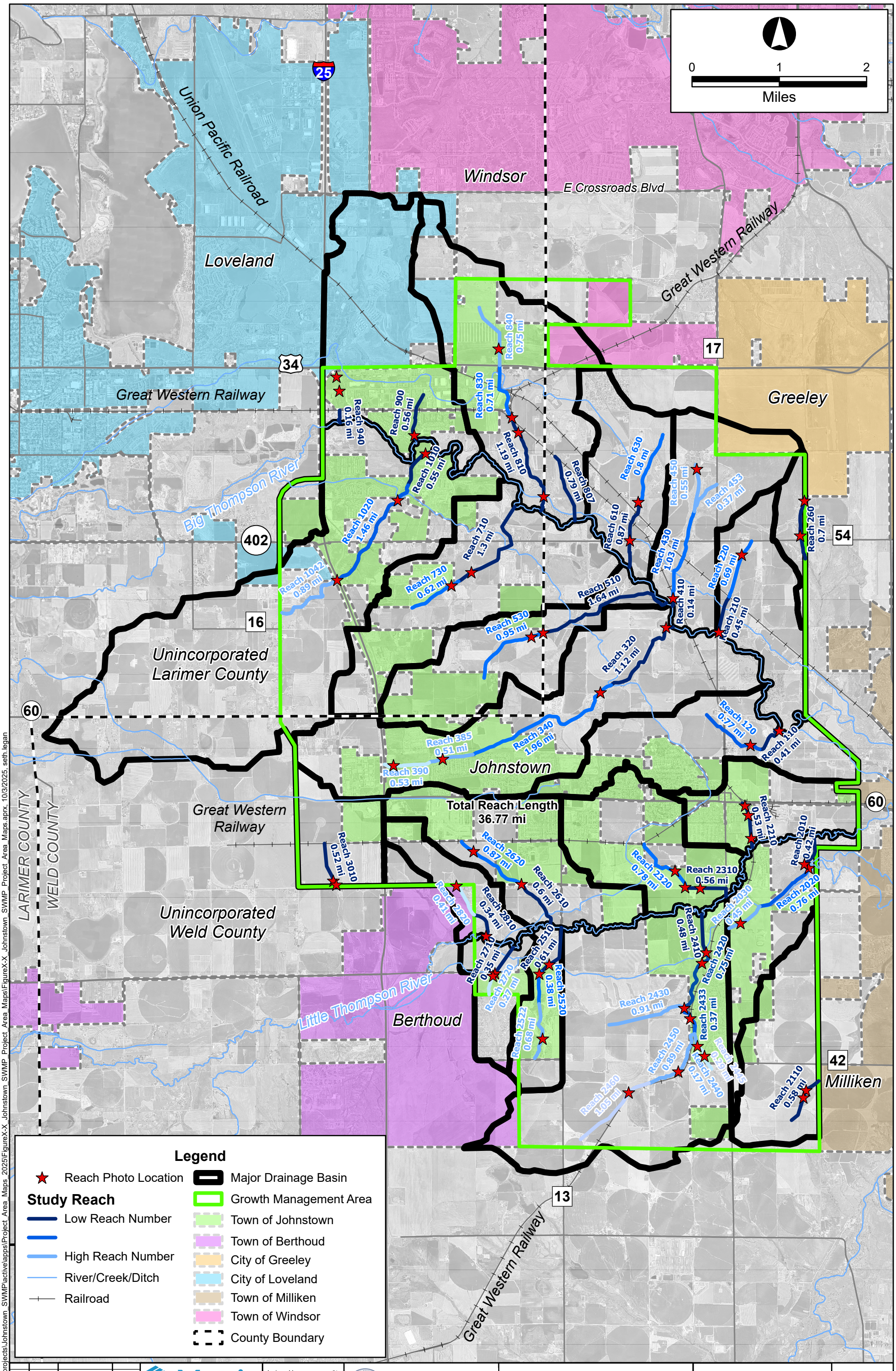
At the time of the 2001 *SWMP*, Johnstown consisted of single-family, residential, commercial, and public areas surrounded by agricultural fields. Since 2001, development has accelerated significantly. According to the *2021 Johnstown Area Comprehensive Plan* by Logan Simpson, the town population increased by 78% between 2006 and 2020 (growing from 10,096 to 18,000 people). Development of mixed-use, retail, and commercial projects have expanded to the northeast portions of the GMA, although most development still surrounds the Interstate-25 (I-25) corridor. High density multifamily housing has also increased near activity centers. Agricultural land remains throughout the Johnstown GMA.

For the existing conditions, land cover data was obtained from Johnstown and the National Resources Conservation Service (NRCS) for reference. Nearmap imagery was used to ocularly assess existing land use in conjunction with the land cover data to determine the best-fit land use.

Future impervious values were taken by comparing zoned use description to Table 6-5 in the Johnstown Streets and Stormwater Design Standards Update 2024 Draft. These values were either equal to or greater than existing land use values.

Land topography and major land use shifts were used to determine the paths of the reaches (**Figure 2-4**) within the major drainageways, shown in Appendix B and described in Section 2.3.

Dedicated parks and open space areas are relatively sparse within the Johnstown GMA. A map of publicly owned lands can be found in Figure 2-5, and a map of parks and open space can be found in **Figure 2-6**. For detailed existing and future land-use (and data sources), see **Figure B-1**, the Interactive Hydrology Map in Appendix B.



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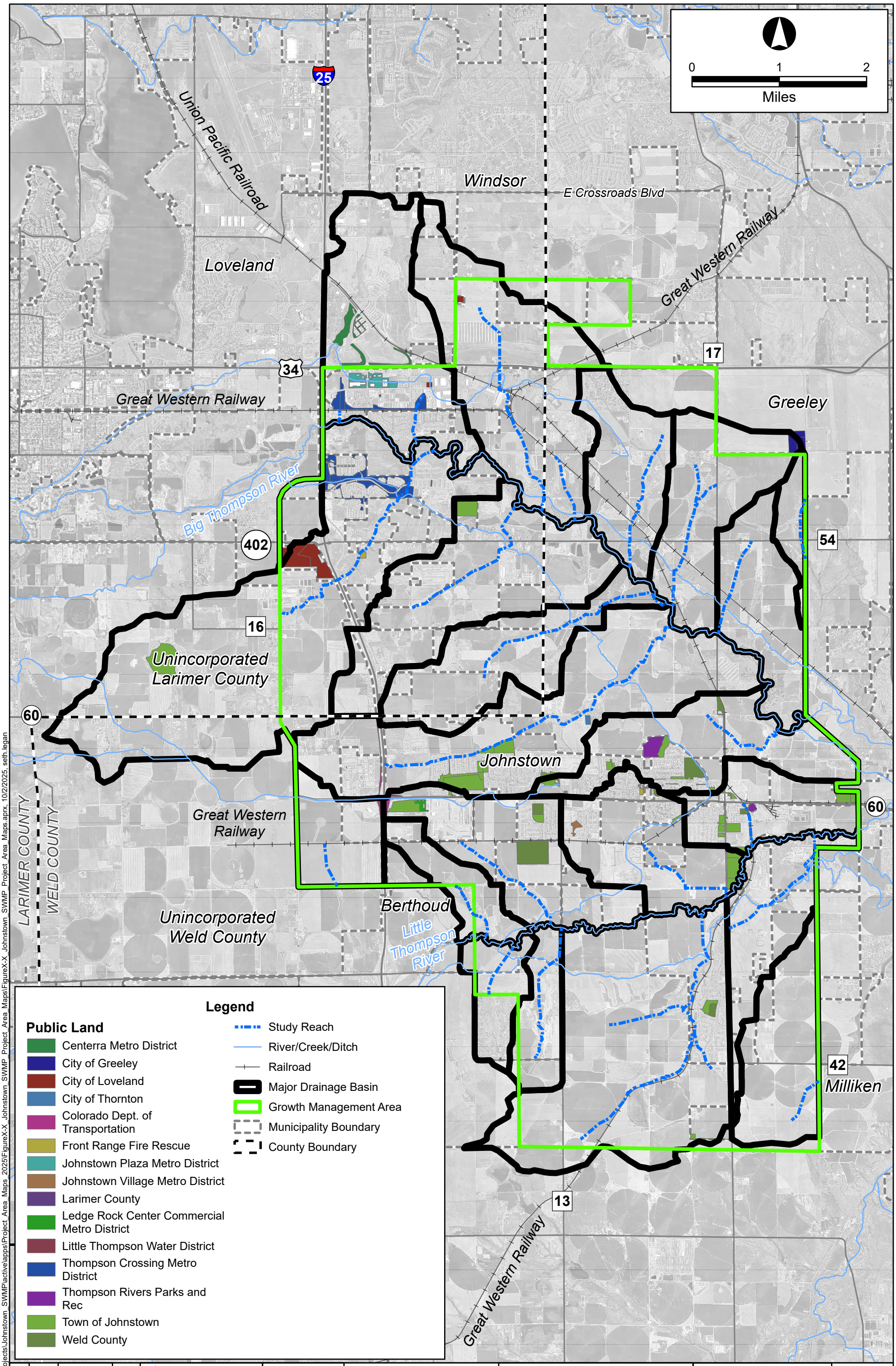
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Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

REACH MAP

FIGURE 2-4



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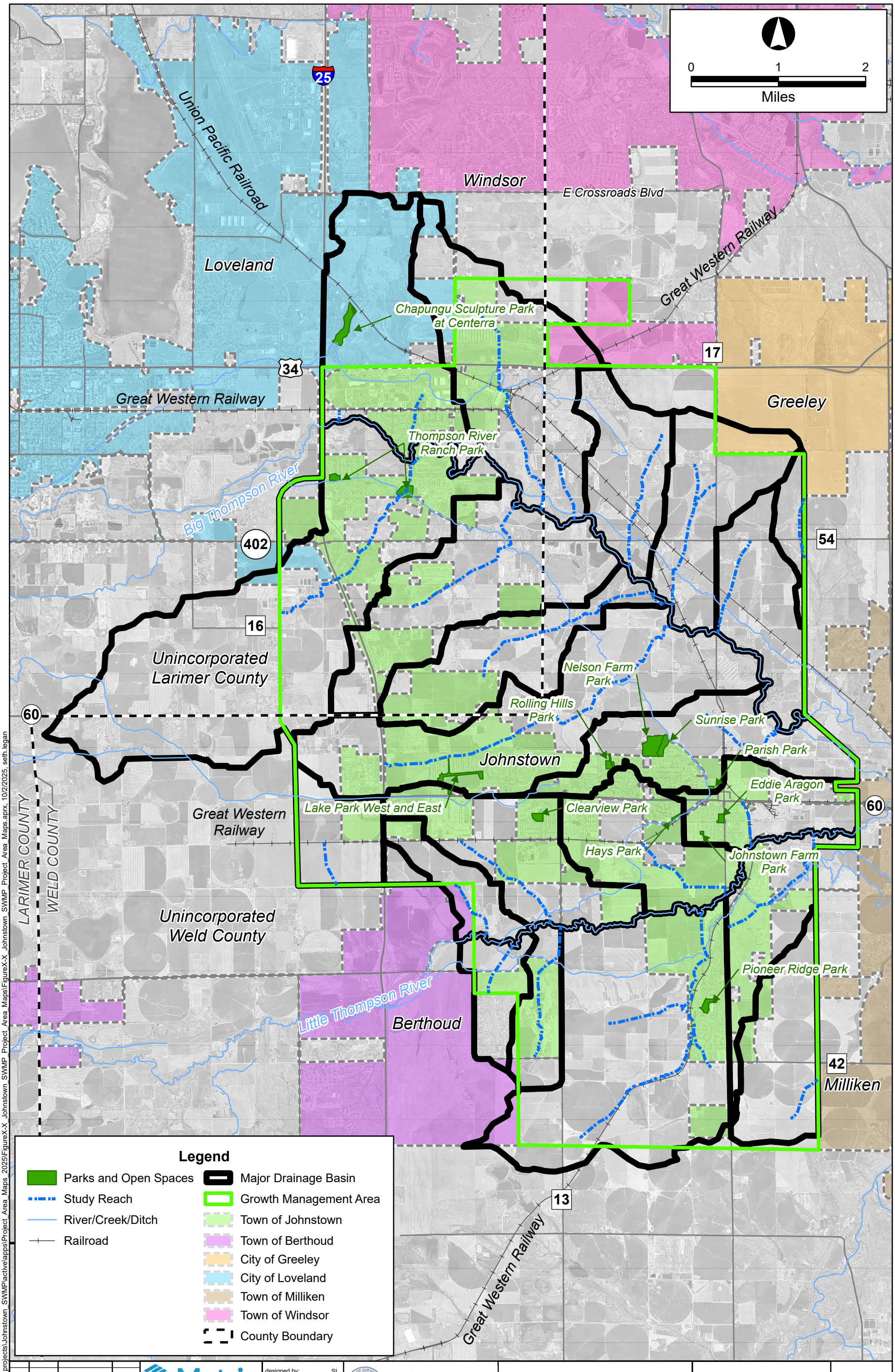
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Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

PUBLIC OWNED LAND

FIGURE 2-5



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drawn by: SL
checked by: BML
project no.: 24.1468.001
date: 10/02/2025

Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

PARKS AND OPEN SPACE

FIGURE 2-6

2.3 Major Drainageway Descriptions

Major drainageways have been delineated using the 2024 topography to identify the most important surface runoff path(s) within each major basin. Each major drainageway starts at the Big Thompson River or Little Thompson River and extends upstream to the point where either the contributing area is small enough to no longer be considered regional drainage, the existing channel or swale entirely disappears, or the drainageway reaches the Johnstown GMA boundary. All of the major drainageways within the study area were visited by Matrix field crews in August-September 2024 to verify and assess existing conditions, flow patterns, and crossing structures. Many of the reaches through agricultural areas are not well-defined, and some of the major drainageways are intercepted by existing irrigation canals and do not have visible downstream flowpaths.

Major drainageways have been assigned the same number identification as the corresponding major basin. Most of the major drainageways have been split into multiple reaches to allow for analysis and discussion of relatively homogeneous lengths of drainageway. The reaches are also numbered from downstream to upstream as shown in **Figure 2-4**. Descriptions of the major drainageways and their corresponding reaches follow. A representative photo for each reach is also including in the following text, and these photo locations are marked in **Figure 2-4**.

Major Basin 100 – Old Town North

Major Drainageway 100 contains Reaches 110 and 120. This major drainageway starts at Weld County Road (WCR)-50 and generally flows east to the confluence with the Big Thompson River (shown in Figure 2-7). The major drainageway stays north of WCR-48 ½. Reach 110 features a meandering, well-vegetated channel that is interspersed with small wet ponds. Reach 120 represents predominantly overland flow across Whitehall farmlands as shown in Figure 2-8. WCR-17 and the closely located, parallel Great Western Railway (GWR) are the only significant crossing within Major Drainageway 100.



Figure 2-7 Reach 110 confluence with Big Thompson River



Figure 2-8 Reach 120

Major Basin 200

Major Drainageway 200 contains Reach 210 and Reach 220. This major drainageway starts at WCR-54 and flows across several farms, generally flowing north to south to the confluence at the Big Thompson River. Reach 210 extends from the Union Pacific Railroad (UPR), crossing the tracks, the Hill and Brush Ditch, and WCR-52 before discharging directly to the Big Thompson River. As shown Figure 2-9 this reach is not well-defined and is difficult to discern through the active farmlands. The crossing at the UPR features a large trestle bridge, but the Hill and Brush Ditch and WCR-52 both block flows to some extent. Further upstream, Reach 220 features a defined grass swale that also supports a wetland ecosystem, shown in Figure 2-10. There is an informal wet pond in line with Reach 220 immediately upstream of the UPR crossing.



Figure 2-9 Reach 210



Figure 2-10 Reach 220

Major Basin 260

Both the Major Basin and Major Drainageway 260 are cutoff by the eastern study limits. Major Drainageway 260 only comprises one reach. Reach 260 starts and ends at the eastern GMA boundary, flowing south across WCR-54 and towards a confluence with the Big Thompson River that is located outside of the study area. Near WCR-54, Reach 260 features stock ponds located on private land (Figure 2-11) before crossing the Greeley and Loveland Irrigation Canal. This reach is well-vegetated with grasses and wetland species. The upstream end of Major Drainageway 260 is a low-lying area with a wide flowpath (Figure 2-12).



Figure 2-11 Reach 260 stock pond



Figure 2-12 Upstream Reach 260

Major Basin 300 – Elwell Basin

Major Drainageway 300 is one of the longer drainageways in the GMA, containing Reaches 390, 385, 340, and 320. Major Drainageway 300 flows from southwest to northeast into the Big Thompson River and crosses WCR-52, WCR-15 ¼, the Hillsboro Ditch, WCR-50, WCR-13, and High Plains Boulevard. The major drainageway is only defined up to downstream of I-25. The downstream-most Reach 320 is characterized by perennial flows and heavy vegetation including trees (Figure 2-13). The Hillsboro Ditch appears to intercept runoff from Reach 340 and serves as the divider between Reach 320 from Reach 340. Upstream of the canal, Reach 340 consists of channelized flow through agricultural areas (Figure 2-14). Reach 385 crosses through residential development within the Rocksbury Ridge Subdivision (Figure 2-15) in a series of turfgrass greenways. Reach 390 crosses through the undeveloped grassland next to I-25 (Figure 2-16).



Figure 2-13 Downstream Reach 320



Figure 2-14 Reach 340 channel



Figure 2-15 Reach 385 Rocksbury Ridge Subdivision



Figure 2-16 Reach 390 channel

Major Basin 400

Major Drainageway 400 contains Reach 410, Reach 430, Reach 440, Reach 450, and Reach 453. This drainageway flows from north to south, with the southernmost confluence at the Big Thompson River. The downstream-most Reach 410 follows a small roadside swale along WCR-15 ½ (Figure 2-17). Reach 430 extends from the Hill and Brush Ditch, which appears to intercept surface runoff, past the UPR, and WCR-54 crossings to an informal wet pond that serves as a confluence for the upper tributaries. At roadway crossings, the drainageway's flow is confined through culverts, many of which were not included in the initial Johnstown Infrastructure Database. Upstream of the existing confluence north of WCR-54, Major Drainageway 400 forks into Reach 440 and Reach 450. Both of these upstream reaches feature broad, defined channels with dense vegetation (Figure 2-18). Reach 453 crosses WCR-17, and both reach definitions terminate on the downstream side of the Greeley and Loveland Irrigation Canal – no defined channels were observed upstream of the large canal in this major basin.



Figure 2-17 Reach 410 next to WCR-15 1/2



Figure 2-18 Reach 450 upstream

Major Basin 500 – Twin Mounds Basin

Major Drainageway 500, containing Reaches 510 and 530, is located within the boundaries of the 2001 Master Plan Twin Mounds Basin and flows east-northeast. Major Drainageway 500 extends through both Weld County and Larimer County, with Reach 510 existing in Weld County as the downstream portion of the drainageway, ending at the Big Thompson River, and Reach 530 existing in Larimer County upstream. Weld County Road 13 serves as the divider between the two reaches. Between the confluence with the Big Thompson River and WCR-52 ¼, Reach 510 is poorly defined through agricultural fields. Between WCR-52 ¼ and Weld County Road 13, Reach 510 is a broad, defined channel that crosses agricultural fields (Figure 2-19), WCR-52 ¼, and the Hillsboro Ditch. Upstream, Reach 530 does not have any major crossings and follows a smaller channel between agricultural fields (Figure 2-20). Some stretches feature wetland areas dominated by cattails.



Figure 2-19 Reach 510 (Google Earth, 7/2023)



Figure 2-20 Reach 530

Major Basin 600

Major Drainageway 600 contains two reaches, Reach 610 and Reach 630, and flows generally north to south to the confluence at the Big Thompson River. Downstream Reach 610 flows adjacent to WCR-15 (Figure 2-21) and crosses Weld County Road 54, the GWR and the UPR. The roadside swale is vertically entrenched through some sections, suggesting that this drainageway may not be stable over time. A livestock pond marks the start of Reach 610 and the end of Reach 630 (Figure 2-22), which crosses Coyote Ridge Drive and the Greeley and Loveland Irrigation Canal. Upstream of the canal, Reach 630 is a poorly defined swale through agricultural or fallow lands. Portions of Major Drainageway 600 are buried and flow through culverts, while others are exposed roadside swales.



Figure 2-21 Reach 610 (Google Earth, 7/2023)



Figure 2-22 Livestock pond between Reach 610 and 630

Major Basin 700 – Johnson's Corner Basin

Major Drainageway 700 is entirely within Larimer County. It contains Reach 710 downstream and Reach 730 upstream and flows northeast from LCR-3E to the confluence with the Big Thompson River. Reach 710, which crosses Larimer County Road (LCR)-18, is not well-defined between the confluence and the Hillsboro Ditch, which appears to intercept runoff. Upstream of the canal, Reach 710 is a small, well-vegetated channel through agricultural fields (Figure 2-23). An informal wet pond located immediately southeast of the Ridge at Johnstown development serves as the transition point between the reaches. Reach 730 has no major crossings before reaching its most upstream point at LCR-3E and is mainly a broad channel through agricultural lands characterized by dense grasses and wetland vegetation (Figure 2-24).



Figure 2-23 Reach 710



Figure 2-24 Reach 730

Major Basin 800

Major Basin 800 contains two drainageways. Reach 807 is a small drainageway with a unique outfall to the Big Thompson River, located entirely within Weld County. Reach 807 begins at the GWR and flows south over agricultural lands and the Hill and Brush Ditch.

The primary Major Drainageway 800, located entirely within Larimer County, consists of Reaches 810, 830 and 840. It starts north of US-34 and flows from north to south to the confluence with the Big Thompson River. The downstream Reach 810 extends from the river across the Hill and Brush Ditch, then a short stretch along the roadside swale adjacent to Weld County Road 13 at the county line (Figure 2-25), before turning into a broad, well defined channel through agricultural lands. The upstream part of Reach 810 crosses East LCR-20C (Figure 2-26) before ending at the GWR.

Reach 830 does not feature a well-defined channel. This reach is composed of multiple manmade sections, passing through the informal detention area created by the triangle-shaped embankments of multiple GWR tracks (Figure 2-27), then a formal detention pond and underground conveyance within the existing bread factory site, then across the UPR, Farmers Ditch, Eisenhower Boulevard and ends at U.S. Highway 34.

Reach 840 is a flat farm field that extends from U.S. Highway 34, passes through Greeley and Greeley and Loveland Irrigation Canal before reaching its most upstream point amidst farmlands. Reach 840 does not have a defined channel upstream of the UPR crossing (Figure 2-28). Major Drainageway 800 is the only study reach that extends north of US-34.



Figure 2-25 Reach 810



Figure 2-26 Reach 810 @ LCR-20C



Figure 2-27 Reach 830



Figure 2-28 Reach 840

Major Basin 900

Major Basin 900 contains two drainageways with two unique outfalls to the Big Thompson River. The eastern drainageway, known as Reach 900, flows from north to south to the confluence with the Big Thompson River. There is an existing embankment with a small pipe and boulder basin immediately upstream of the river confluence (Figure 2-29), then the majority of Reach 900 features a wide, defined channel with dense grasses and wetland vegetation. The upstream portion of this reach crosses Zeiler Lane and the GWR before ending at a large detention basin and manmade lake. These upstream features are located between new residential and commercial properties that were being constructed in 2024.

Reach 940, extends from Ronald Reagan Blvd and drains to the big Thompson river. The downstream-most section of the reach is poorly defined through an existing trailer park that features an existing wet pond on the downstream side of the GWR crossing. Upstream of the GWR, Reach 940 is a wide, well-defined channel with heavy vegetation including trees along the banks. Figure 2-30 shows the wet pond located immediately downstream of the Ronald Reagan Boulevard crossing.

Reach 950 generally extends from US-34 to Ronald Reagan Boulevard. This channel features a wide, well-vegetated bottom (see Figure 2-31). A consistent flow passes through the channel, accumulating near Ronald Reagan Boulevard. Note that the study limits end at US-34 but this major drainageway continues north.



Figure 2-29 Reach 900



Figure 2-30 Reach 940 pond



Figure 2-31 Reach 950 Confluence

Major Basin 1000 – Big Hollow Gulch

Major Basin 1000 is one of the largest basins within this study, but much of the basin area is located outside (west of) the study limits. Major Drainageway 1000 consists of three reaches and generally flow from the western boundary of the GMA northeast to the confluence with the Big Thompson River. As shown in **Figure 2-32**, the downstream most Reach 1010 features a wide, shallow channel that is dominated by dense grasses and cattails and areas of standing water. Reach 1020 (**Figure 2-33**) has three distinct segments: the downstream section has partially piped flows under the existing park that lies between River Ranch Parkway and the Hillsboro Ditch. The middle segment, extending from the Hillsboro Ditch to LCR-18, runs through active pasture and features a wide channel with dense grass and cottonwood trees along the banks. The upper segment, from LCR-18 to I-25 was an active construction site in 2024.

As shown in **Figure 2-34**, eutrophication was observed below the large bridge crossings at I-25, but this stagnant water is likely due to the active construction site immediately downstream and is likely not intended to be permanent. Reach 1042 extends from I-25 to LCR-7 and follows a wide, meandering path through a large dairy farm. The channel bottom features dense grasses and reeds and sometimes has multiple braided paths. The dairy farm operators reported that the existing natural channel handled the 2013 storms well even though I-25 was inundated downstream.



Figure 2-32 Reach 1010 vegetation



Figure 2-33 Reach 1020 Channel



Figure 2-34 Reach 1042 @ I-25

Major Basin 1100

Major Basin 1100 is the smallest basin in the study and does not contain any defined reaches. Any water that falls within this basin flows north, parallel to I-25, passes through a farm field, and ultimately drains into a detention pond. During larger events, this detention pond will flood, spilling water into the Big Thompson.

Major Basin 2000

Major Drainageway 2000 contains Reach 2010, Reach 2020, and Reach 2030, and flows from southwest to northeast before reaching the confluence with the Little Thompson River. The downstream-most Reach 2010 does not have a well-defined channel section and crosses WCR-46 ½ before ending at the Hillsboro Reservoir embankment (Figure 2-35). Reach 2020 represents the Hillsboro Reservoir (Figure 2-36) and ends at the Hillsboro Ditch. Upstream of the canal, Reach 2030 is a broad swale that flows through open farmland (Figure 2-37) before ending just east of WCR-17.



Figure 2-35 Reach 2010



Figure 2-36 Reach 2020



Figure 2-37 Reach 2030

Major Basin 2100

Major Drainageway 2100, containing only one reach, is a compact reach in the southeast corner of the GMA. Reach 2110 flows through two agricultural fields and a series of culverts before discharging out of the east side of the study area at WCR-19. Downstream of WCR-19, this major drainageway continues to flow north-northeast to ultimately outfall in the Little Thompson River. Reach 2110 supports a good diversity of plant species (Figure 2-38), but many of these species are non-native such as kochia (*Bassia scoparia*; Figure 2-39).



Figure 2-38 Reach 2110 vegetation



Figure 2-39 Reach 2110 kochia

Major Basin 2200 – Old Town South

Major Drainageway 2200 contains Reach 2210 and flows almost directly north-south from East South 1st Street in Weld County to the confluence at the Little Thompson River. Reach 2210 has one major crossing downstream at WCR-46 ½ and flows parallel along the western edge of the GWR (Figure 2-40). It is likely that this historic flowpath was not designed as a formal drainage conveyance, and there is minimal vegetation along the GWR Right of Way (Figure 2-41). Note that new residential developments along the west side of Major Drainageway 2200 have constructed alternate flowpaths that parallel the historic drainageway and appear to have a different outfall to the river (Figure 2-42).



Figure 2-40 Reach 2210 along GWR



Figure 2-41 Reach 2210 vegetation



Figure 2-42 Alternate flowpath of Major Drainageway 2200

Major Basin 2300 – Old Town South

Major Drainageway 2300 comprises two reaches. It flows from west to east, from Weld County Road 15 southeast and east through agricultural lands to the downstream confluence with the Little Thompson River. From the river confluence, the downstream Reach 2310 extends north along WCR-17 before a shift in direction, running west parallel to WCR-46 (Figure 2-43). Reach 2310 primarily consists of small roadside swales and is ephemeral (Figure 2-44). Reach 2320 transitions to a shallow swale through a series of farmland plots, the upstream end stopping just east of WCR-15. Parts of this reach are surrounded by non-native kochia and common reed (*Phragmites australis;* Figure 2-45).



Figure 2-43 Reach 2310 along WCR-46



Figure 2-44 Reach 2310



Figure 2-45 Reach 2320

Major Basin 2400 – Bunyan Basin

Major Drainageway 2400 contains the greatest number of reaches within the GMA due to its large variations in land use and well-defined tributary channels. Reach 2410, Reach 2420, Reach 2430, Reach 2433, Reach 2440, Reach 2445, Reach 2450 and Reach 2460 comprise the primary major drainageway as it flows from south to north to the confluence with the Little Thompson River. Downstream-most Reach 2410 extends from the river confluence through agricultural land to the Hillsboro Ditch, supporting a variety of native species like plains cottonwood (*Populus deltoides*) and peachleaf willow (*Salix amygdaloides*) saplings (Figure 2-46). Reach 2410 does not typically have a defined channel since the Hillsboro Ditch appears to intercept most upstream flows. Reach 2420 extends from the Hillsboro Ditch to the upstream confluence with Reach 2430. This reach features a meandering, defined channel with dense grass vegetation (Figure 2-47).

Reach 2430 is the first (downstream-most) tributary, extending from Major Drainageway 2400 west through agricultural fields and crossing WCR-15 (Figure 2-48). Reach 2433 is a short reach that extends between the confluences of Reach 2430 and Reach 2440. It has similar character to Reach 2420 but is significantly impacted by a crossing of the GWR (Figure 2-49).

Reach 2440 is the second tributary, extending from Major Drainageway 2400 southeast to Reach 2445. Portions of Reach 2440 are medium-sized defined channels with heavy vegetation, and other portions have a concrete low-flow channel and mowed grass. The channel expands to a wide base once the reach starts reaching GWR (Figure 2-50).Reach 2445 extends from the beginning of 2440 and through a developed residential neighborhood and across road Pekin Drive and WCR-42 (Figure 2-51). Upstream of WCR-42 is an agricultural complex where the defined channel ends.

Reach 2450 extends from the confluence with Reach 2440 to WCR-15 and crosses the GWR and WCR-42. This reach generally is a well-defined, grass channel that is somewhat constrained between agricultural fields on the northwest and the parallel GWR embankment on the southeast (Figure 2-52).

The upstream-most reach of Major Drainageway 2400 is Reach 2460, extending from the crossing at WCR-15 to Hill Lake. The downstream section of Reach 2460 follows a swale next to the GWR embankment (Figure 2-53), and upstream section travels through agricultural fields in a shallow swale.

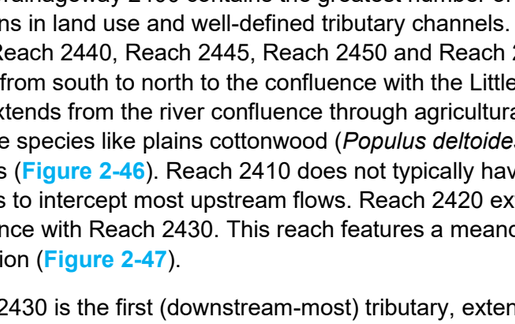


Figure 2-46 Reach 2410

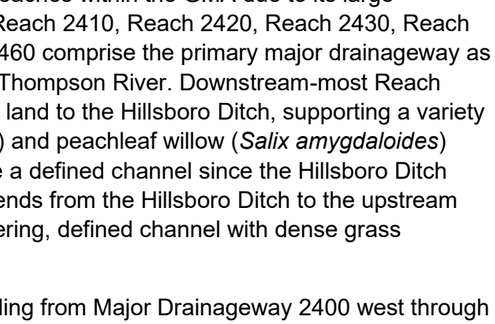


Figure 2-47 Reach 2420

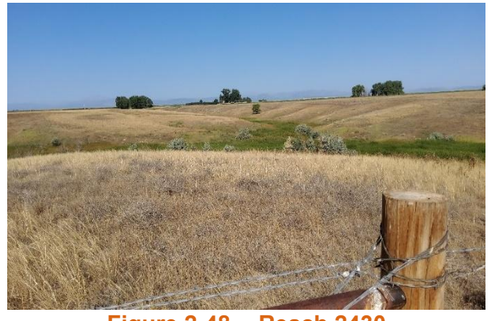


Figure 2-48 Reach 2430



Figure 2-49 Reach 2433

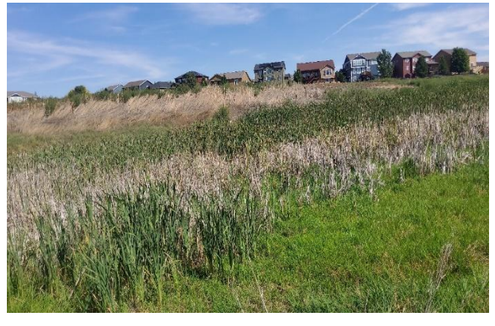


Figure 2-50 Reach 2440



Figure 2-51 Reach 2445



Figure 2-52 Reach 2450



Figure 2-53 Reach 2460 swale

Major Basin 2500

Major Drainageway 2500 contains downstream Reach 2510, midstream Reach 2520 and upstream Reach 2522, flowing south to north to the confluence with the Little Thompson River. Just upstream of the Little Thompson River, Reach 2510 crosses agricultural fields and the Hillsboro Ditch and spans from the Little Thompson and up to Reach 2520 at WCR-44 (Figure 2-54). Reach 2520 is a newly constructed channel, which has medium vegetation and moves through undeveloped land and a series of water bodies, including South Lake Podtburg and minor detention basins (Figure 2-55). Reach 2522 Starts at South Lake Podtburg and spans all the way upstream just north of WCR-42. As of 2024 (Field Notes) this area is under construction and has not been completed. (Figure 2-56).



Figure 2-54 Reach 2510



Figure 2-55 Reach 2520



Figure 2-56 Reach 2522

Major Basin 2600 – Pulliam Basin

Major Drainageway 2600 flows southeast to the confluence with the Little Thompson River, containing Reach 2610 and Reach 2620 in its extensive flowpath over multiple crossings. Reach 2610, the downstream reach, is heavily covered by rocks and broken concrete with bushes scatter around. It crosses the Hillsboro Ditch and agricultural lands before transitioning upstream to Reach 2620 at WCR-46. At WCR-46, the reach exists as surface water flowing under a bridge (Figure 2-57). Reach 2620 is relatively channelized through agricultural lands and covered with native grasses while having a low flow channel in the middle. It supports native species like softstem bulrush (*Schoenoplectus tabernaemontani*; Figure 2-58), and its upstream point is just south of the GWR.



Figure 2-57 Reach 2610



Figure 2-58 Reach 2620

Major Basin 2700

Major Drainageway 2700 contains only Reach 2710. It flows south to north before reaching the confluence at the Little Thompson River. Reach 2710 is a broad swale just upstream of the Little Thompson River and flows over agricultural lands(**Figure 2-59 & Figure 2-60**), the Hillsboro Ditch, and WCR-44.



Figure 2-59 Reach 2710



Figure 2-60 Reach 2710

Major Basin 2800 – Pulliam Basin

Major Drainageway 2800 flows from just south of WCR-46 upstream to the confluence of the Little Thompson River downstream. Reach 2810 is the only reach in Major Drainageway 2800, flowing north to southeast over agricultural land and no major crossings. Some portions of Reach 2810 are heavily vegetated and travel through narrowleaf willow (*Salix exigua*) and plains cottonwood trees (**Figure 2-61**). The upstream end of Reach 2810 dissipates into a wide, low-lying area (**Figure 2-62**).



Figure 2-61 Reach 2810 heavy vegetated areas



Figure 2-62 Reach 2810 Upstream

Major Basin 3000

Major Drainageway 3000 contains a truncated Reach 3010 that extends north to south. The channel is a broad swale that has a small dirt channel in the middle. The reach goes through agricultural farmland and downstream end of Reach 3010 is a small dirt area just north of WCR-46 (Figure 2-63). The only major crossing for Major Drainageway 3000 is the GWR and Reach 3010 only runs through farmland (Figure 2-64).



Figure 2-63 Reach 3010 Downstream



Figure 2-64 Reach 3010 Upstream

2.4 Flood History

Flooding history throughout Johnstown is not thoroughly documented, with the exception of the Big Thompson River and Little Thompson River. After the 2013 floods, these two rivers were included in the Colorado Hazard Mapping Program (CHAMP) that determined revised hydrology and floodplain mapping. See **Figure 2-65** for a map of the regulatory floodplains within the study area.

None of the major drainageways within this study have mapped regulatory floodplains, but recent heavy storms have resulted in known significant flooding. During an event on May 28th, 2024, Johnstown received hail and over 2 inches of total rainfall in some areas. Despite having numerous existing storm systems, due to its disconnected and undersized status much of Johnstown has experienced mild to severe flooding during storm events.

The following local flooding issues have been identified as points of concern within the Town of Johnstown:

- Hillsboro Ditch (near Old Town) – the 2001 *SWMP* focused on flooding issues related to this irrigation canal. The canal intercepts runoff at various locations, both at major drainageways and smaller conveyance areas, then overtops at other locations and runoff can flow into developed neighborhoods.
- Maestes Street – existing residential properties between Maestes Street and South Parish Avenue, north of Molinar Street have experienced multiple flooding events due to a lack of a formal storm drain collection system.
- Country Acres – the original design of this subdivision called for a 4.5 ac-foot detention basin, but sometime in the late 1990s or early 2000s the size of the detention basin was drastically reduced, and homes were constructed within the ponding limits.
- High Plains Boulevard / LCR-3 – this arterial road near Thompson River Ranch was reconstructed at a grade approximately 2.5-feet lower than the previous roadway grade , resulting in approximately 3-feet of flooding over the roadway during annual spring runoff events.
- White Hall Development – the downstream conveyance capacity is limited, resulting in downstream flooding after the White Hall Development was constructed to outfall runoff at historic flow rates.
- Great Western Railroad (various locations) – existing crossings are not large enough to support the volume of flow for existing or future storm events.
- Colorado Department of Transportation (CDOT) (various locations) – existing crossings are roadside swales are not large enough to support the volume of flow for existing or future storm events.
- Roosevelt High school – there is concern that the constructed detention facility may not adequately protect downstream properties since the Town of Johnstown did not have compliance authority when the property was built. Although the focus of this study is primarily to discuss regional drainage issues, Matrix completed a rough HEC-RAS 2-D (version 6.6) rain-on-grid model to show pluvial flooding risks throughout the GMA and help guide hydrologic flowpath decisions. Note this model is not to be used for regulatory purposes, but the relative 100-year flood depth risks are included in the **Interactive Hydrology Figure B-1** in Appendix B.

0 1 2
Miles

Windsor
E Crossroads Blvd
Loveland
Union Pacific Railroad
Great Western Railway
Great Western Railway
Greeley
Great Western Railway
Big Thompson River
High Plains Blvd / LCR-3
Colorado Department of Transportation
Unincorporated Larimer County
Johnstown
Hillsboro Ditch (near Old Town)
Colorado Department of Transportation
Country Acres
Roosevelt High School
Whitehall Development
Maestes Street
Great Western Railway
LARIMER COUNTY
WELD COUNTY
Unincorporated Weld County
Little Thompson River
Berthoud
Milliken
Great Western Railway
25
34
17
402
16
54
60
60
42
13

Legend

- Local Flooding Issue Location
- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Regulatory Floodway
- Study Reach
- River/Creek/Ditch
- Railroad
- Major Drainage Basin
- Growth Management Area
- Municipality Boundary
- County Boundary

No.	DATE	DESCRIPTION	APPR.

Matrix Excellence by Design

designed by: SL
drawn by: SL
checked by: BML
project no.: 24.1468.001
date: 10/02/2025

Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

FLOODPLAIN MAP

FIGURE 2-65

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2.5 Detention Basin Analysis

The Town of Johnstown did not already have Geographic Information System (GIS) data that showed detention basins with the GMA, so Matrix used aerial photography and topography to identify 57 detention basins. These mapped detention basins, along with an inventory analysis of storm drainpipe and culverts, were included in the July 2024 *Existing Stormwater Infrastructure Assessment* by Matrix. The identified detention basins were further investigated to determine their significance for regional hydrograph routing in Johnstown. 53 were identified as dry detention basins and the remaining 4 identified as wet ponds. Design information such as construction/as-built plans and drainage reports were only available for 22 of the detention basins.

Each detention basin was assessed for contributing area, with regionally significant detention basins classified as those that surpassed the threshold of 130-acres contributing area. Out of the 57 detention basins analyzed, only three qualified as regional detention basins. The largest was at East Ledge Rock Center in Subbasin 2360, followed by Rocksbury Ridge in Subbasin 360, and then Clearview in Subbasin 2617. Excerpted design information from these three detention basins is included in Appendix H. The last assessment criteria was whether each detention basin had a permanent maintenance agreement in place or was owned and operated by a public entity. None of the detention basins that met the minimum contributing area criteria had known maintenance agreements, therefore no regional detention basins were modeled for baseline hydrology.

2.6 Wells

The study area has a great number of oil and gas wells, with 1,228 abandoned, producing, and shut-in wells (which are not currently producing but are mechanically capable of production) shown in **Figure 2-66**. The greatest number of wells (486) are categorized as plugged and abandoned. As shown in **Figure 2-66**, well locations are most dense on the eastern side of the GMA within unincorporated Weld County, which is an inverse to Johnstown's growth and development patterns that have concentrated in the west near the I-25 corridor. There are currently 348 producing wells within the GMA, scattered throughout the study area.

0 1 2
Miles

Union Pacific Railroad
Windsor
E Crossroads Blvd
Great Western Railway
Loveland
Greeley
Great Western Railway
Big Thompson River
Unincorporated Larimer County
Johnstown
Great Western Railway
LARIMER COUNTY
WELD COUNTY
Unincorporated Weld County
Little Thompson River
Berthoud
Milliken
Great Western Railway

25
34
17
402
54
16
60
60
42
13

Legend

- Abandoned Location
- Drilling
- Plugged and Abandoned
- Producing
- Shut-In
- Temporarily Abandoned
- Study Reach
- River/Creek/Ditch
- Railroad
- Major Drainage Basin
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary

Abandoned Location: Permit Vacated; Per Operator: Well has not been spud;
Shut-In Well: Completed well is not producing but is mechanically capable of production

FILE: G:\gis projects\Johnstown_SWMP\activeapps\Project Area Maps_2025\FigureX-X_Johnstown_SWMP_Project_Area_Maps\FigureX-X_Johnstown_SWMP_Project_Area_Maps.aprx, 10/2/2025, seth.legan

No.	DATE	DESCRIPTION	APPR.

Matrix Excellence by Design

designed by: SL
drawn by: SL
checked by: BML
project no.: 24.1468.001
date: 10/02/2025

Johnstown COLORADO

JOHNSTOWN COMPREHENSIVE STORMWATER MASTER PLAN

OIL AND GAS WELLS

FIGURE 2-66

2.7 Environmental Assessment

Wetlands and Riparian Areas

Using the inventory of wetland and riparian areas from the National Wetlands Inventory, 2009 aerial, by the U.S. Fish and Wildlife Service (USFWS), it was determined that there are significant wetland areas scattered throughout Johnstown. These palustrine emergent and palustrine scrub-shrub wetlands mainly exist along the Big Thompson River and the Little Thompson River.

Threatened and Endangered Species

According to the Information for Planning and Consultation (IPaC), with excerpts pulled for this study area located in **Figure D-1** in **Appendix D**, the USFWS currently lists the following threatened and endangered species for Johnstown:

Group	Species	Status
Mammals	Preble's Meadow Jumping Mouse	Threatened
Birds	Eastern Black Rail	Threatened
Birds	Piping Plover	Threatened
Birds	Whooping Crane	Endangered
Fishes	Pallid Sturgeon	Endangered
Insects	Monarch Butterfly	Proposed Threatened
Insects	Suckley's Cuckoo Bumble Bee	Proposed Endangered
Flowering Plants	Ute Ladies'-tresses	Threatened
Flowering Plants	Western Prairie Fringed Orchid	Threatened

The USFWS online map of Critical Habitat for Threatened and Endangered Species does not show any areas of critical habitat within the study area.

3.0 HYDROLOGIC ANALYSES

3.1 Overview

The overall basin boundary is a modification of the Growth Management Area shapefile provided by the Town of Johnstown, incorporating any major basins that flow into the designated growth area. The study boundary primarily encompasses the Town of Johnstown, with smaller areas extending into the City of Loveland, Town of Windsor, and City of Greeley. Sub-basin boundaries were initially generated using Personal Computer Storm Water Management Model (PCSWMM) version 7.6.3695 and subsequently revised using the 2024 contours provided by the Town of Johnstown.

The Colorado Unit Hydrograph Procedure (CUHP 2005), Version 2.0.1, was used to generate hydrographs for each subbasin. These hydrographs were routed using Environmental Protection Agency Stormwater Management Model (EPA SWMM), Version 5.2, build 5.2.3. Physical parameters for the routing model were calculated in ArcGIS Pro (3.4.2), which allowed for the incorporation of accurate elevation points and precise channel lengths derived from geospatial data. The physical routes were then imported into EPA SWMM.

For the current study, a rain-on-mesh 2D HEC-RAS 6.4 model was utilized along with the storm system GIS information provided by the Town of Johnstown to inform flow patterns in the SWMM routing model. The SWMM model was used to provide all quantitative flows as the HEC-RAS 2D model was not calibrated to provide quantitative flows or flood depths.

3.2 Design Rainfall

The rainfall duration used with CUHP varies with the size of the watershed being analyzed. For watersheds 2 square miles or greater, an adjustment is made to the depth reduction factor (DRF) to consider the averaging effects of greater watershed size (area correction). DRF were applied to point rainfall estimates to account for the decrease in average precipitation intensity as the area of a storm increases.

For this study, the focus was on the outfalls of the major drainageways rather than the Big and Little Thompson Rivers themselves. A comparison of peak flows along each major basin with a total contributing area greater than 2 square miles was performed to determine the appropriate DRF to use at each node location, this analysis is included in Appendix B. From the USDCM, Table 5-1: Storm Duration and Area Adjustment for CUHP modeling (reproduced below in Table 3-1) recommends a 2-hour storm duration for watershed area less than 15 square miles. The 2-hour storm duration was used because all major basins within this study have total areas less than 15 square miles.

Table 3-1 Storm Duration and Area Adjustment for CUHP Modeling

Design Storm	Watershed Area (square miles)	Recommended Storm Duration	Apply DRF?
2-, 5-, and 10-Year	$A \leq 2.0$	2 hours	No
	$2.0 < A < 15.0$	2 hours	Yes – Use Table 5-3
	$A \geq 15.0$	6 hours	Yes – Use Table 5-3
25-, 50-, 100-, and 500-Year	$A < 15.0$	2 hours	No
	$A \geq 15.0$	6 hours	Yes – Use Table 5-4

Point rainfall values were obtained from the Point Precipitation Frequency estimates in NOAA Atlas 14 for a point within the basin (Latitude 40.3361, Longitude -104.9073), as summarized in Table 3-2 below.

Appendix B, Table B-1, shows the detailed rainfall distributions for each event, including the corresponding DRF used.

Table 3-2 NOAA Atlas 14 One-Hour Point Rainfall Depths (Inches)

	WQ	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
1-hr	0.60	0.84	1.11	1.39	1.86	2.29	2.78	4.15
6-hr	NA	1.27	1.65	2.05	2.73	3.35	4.07	6.11

3.3 Watershed Characteristics

A summary of the CUHP model parameters can be found in Appendix B, Table B-2, Table B-3, and Table B-4. 1-foot contour topography along with 2D modeling was used to determine the existing conditions flow path lengths and distance to centroid values. The highest elevation point of the watershed is 5,168 feet, located on the southwest side of Major Basin 1000, subbasin 1074. The lowest point being 4,703 feet, located on the east side of Major Basin 2200, subbasin 2223. The average slope within the watershed is 1.5%. See Appendix B **Figure B-1** Interactive Hydrology Map for detailed spatial information on each subbasin.

3.3.1 Watershed Soil

The watershed consists mainly of Natural Resources Conservation Service (NRCS) Hydrologic Soil Group (HSG) C/D and B, with small areas of Type A near the main channel of the Big Thompson and Little Thompson. These soil groups were determined using the Natural Resources Conservation Services, Web Soil Survey tool. HSG-A soils are generally characterized by the highest infiltration rates and HSG-C/D soils are characterized by the lowest infiltration rates. For any large waterbodies present in the study area, a soil group was assigned based on the largest surrounding soil group around the water body. Table 3-3 shows the HSG distribution by area within the study area. and **Figure B-1** Interactive Hydrology Map shows HSGs within each basin.

Table 3-3 Hydrologic Soil Group Distribution

Study Area Basin Only				
HSG	**A**	**B**	**C/D**	
Infiltration	**High**	**Moderate**	**Low**	**Total**
Area (acre)	4,807	13,493	16,490	34,790
% Area	14	39	47	100

3.3.2 Watershed Delineation

The overall basin boundary is a modification of the Growth Management Area shapefile provided by the Town of Johnstown, including any upstream basins that flow into the designated growth area. The study area spans approximately 54 square miles and is divided into 23 major drainage basins, which are further subdivided into 265 sub-basins.

Sub-basin boundaries were initially generated using Personal Computer Storm Water Management Model (PCSWMM) version 7.6.3695 and subsequently refined using the 2024 contours provided by the Town of Johnstown. Major basin and sub-basin boundaries were established based on topographic and physical drainage boundaries, such as major roadways, railroads, and both the Little and Big Thompson Rivers. Generally, sub-basins were targeted to be approximately 160 acres, although larger sub-basins were retained in some cases, particularly in undeveloped areas. A summary of the major basin delineations is presented in Table 3-4. There are active rail lines and corridors throughout the Johnstown GMA. The rail lines represent mostly continuous berms throughout the GMA and contribute in some places to flooding issues. Areas where berms are visible are reflected in sub-basin delineations.

Several irrigation canals remain active throughout the Johnstown GMA. These canals are pervasive and impact the drainage throughout the study area. Areas where a reach or flow path is clearly truncated are reflected in reach delineation. However, hydrograph routing was generally assumed to ignore the irrigation canals and follow historic/natural paths. While many irrigation features appear to intercept and capture runoff during smaller storm events, during a large rainfall event the canals will likely already be full and storm flows must bypass or overtop the canals.

Table 3-4 Summary of Major Basin Delineations

Major Basin	Total Area (sq. mi.)	Sub-basin Area (acre) Average	Sub-basin Area (acre) Minimum	Sub-basin Area (acre) Maximum	Total No. of Subbasins
100	1.87	119	39	176	13
200	1.78	143	80	187	8
260	0.42	133	85	181	2
300	5.45	136	75	247	23
400	2.25	120	43	222	12
500	2.21	129	74	177	11
600	1.73	138	73	180	8
700	3.82	110	47	223	21
800	3.98	111	57	190	23
900	3.49	117	47	209	19
1000	7.93	134	33	269	39
1100	0.35	222	222	222	1
2000	1.67	118	43	198	9
2100	1.84	147	124	199	8
2200	1.45	133	102	193	7
2300	2.08	133	61	194	10
2400	5.85	156	58	282	24
2500	0.89	142	121	167	4
2600	2.38	152	62	219	10
2700	0.82	175	167	189	3
2800	0.85	136	78	192	4
2900	0.16	101	101	101	1
3000	1.1	141	69	220	5
Entire Watershed	**54**	**137**	**33**	**282**	**265**

3.3.3 Watershed Imperviousness

The Town of Johnstown, consisting primarily of undeveloped land, anticipates a significant number of development projects in the coming years. To assess the impact of these developments, a GIS-based approach was employed to calculate the composite percent imperviousness within the watershed, considering both existing and future land use information. For existing imperviousness, parcel and aerial imagery data from Larimer, Johnstown and Weld counties were used to create a singular imperviousness layer map. For future imperviousness, a new set of parcel data along with the Johnstown 2021 comprehensive plan land use map, were combined to create a singular future layer. Where existing parcel land use had a higher percentage impervious than the projected future land use, the existing value was

kept in future. The land use data described in the comprehensive plan, in conjunction with NLCD Land Use and Tables 6-3 and 6-2 from the USDCM, were utilized to establish percent impervious values for each land use type. For parcels where existing land use differed from the impervious value of their zoning, equivalent MHFD land use was manually assigned. The imperviousness per sub-basin was determined using a weighted area average calculation, with results displayed in the Land Use Map and the Sub-Basin Imperviousness Map in **Figure B-1** Appendix B. Table 3-5 lists each land use type and the associated percent impervious values used in the analysis.

Table 3-5 Land Use Imperviousness

Land Use Description	Impervious %
Deciduous Forest	5
Wetlands	5
Grassland/Herbaceous	5
Cultivated Crops	5
Barren Land (Rock/Silt/Clay)	25
Developed Very Low Intensity	30
Developed Low Intensity	40
Gravel Road	40
Railroad	50
Developed Medium Intensity	60
Multifamily	75
Developed High Intensity	80
Industrial	95
Road	97
Open Water	100

3.3.4 Infiltration

Variable infiltration rates based on Horton's equation are derived from Table 6-7 of the MHFD USDCM Criteria. These rates were determined by a weighted average based on soil type. The infiltration and decay coefficients for each sub-basin can be found in Table B-4 of Appendix B. Table 3-6 below shows the infiltration losses by soil type.

Table 3-6 Infiltration Losses by Soil Type

NRCS Hydrologic Soil Group	Infiltration (in/hr) Initial - f_i	Infiltration (in/hr) Final - f_o	Decay Coefficient - a
A	5	1	0.0007
B	4.5	0.6	0.0018
C	3	0.5	0.0018
D	3	0.5	0.0018

3.3.5 Watershed Detention

No detention areas were modeled for Baseline Hydrology, in accordance with MHFD's policy of recognizing only regional, publicly-owned facilities with assured ongoing maintenance. During research, no regional detention facilities were identified, and it could not be confirmed that continuous maintenance would be performed on any existing facilities serving local subdivision. Therefore, to maintain a conservative approach and align with the MHFD guidelines, storage routing for existing local detention facilities was not added to the Baseline Hydrology routing models.

3.3.6 Depression Loss

Depression losses/retention storage were determined using Table 6-6 in the *USDCM* (reproduced below as Table 3-7). An impervious depression loss of 0.1-inches and a pervious depression loss of 0.4-inches was used for all sub-basins in both the existing and future conditions. The subbasins depression losses can be found in Appendix B, Table B-4.

Table 3-7 Typical Depression Losses for Various Land Covers

(All values in inches for use with the CUHP.)

Land Cover	Range in Depression (Retention) Losses	Recommended
Impervious:		
Large paved areas	0.05 - 0.15	0.1
Roofs-flat	0.1 - 0.3	0.1
Roofs-sloped	0.05 - 0.1	0.05
Pervious:		
Lawn grass	0.2 - 0.5	0.35
Wooded areas and open fields	0.2 - 0.6	0.4

3.3.7 Directly Connected Impervious Area

Directly connected impervious area (DCIA) is a way to model runoff reduction impacts of green infrastructure that adds pervious buffers between upstream impervious runoff-generating areas and conveyance systems like channels and pipes. A directly connected impervious area (DCIA) level of zero was used for Baseline Hydrology.

3.4 Hydrograph Routing

Manning's roughness coefficients, shown in Table 3-8, were determined by analyzing 2024 aerial imagery, supplemented by field observations and cross-referenced with the Town of Johnstown's Storm Drain Design Standards, Table 6-12. The Manning's n values used for each SWMM link are shown graphically in Figure B-3 of Appendix B. Note that Johnstown has two sets of roughness values for different uses. One set results in slower propagation times and is intended to be used in hydrologic analyses.

Table 3-8 Manning's Roughness Values

Routing Element Description	N
Water	0.01
Concrete	0.06
Native Grass	0.05
Agriculture	0.07
Herbaceous Wetland	0.12
Willow/Bushes	0.16
*As recommended in USDCM Chapter 8 Section 7.2.3 and Town of Johnstown Storm Drain Design Standards, Table 6-12	

These hydrographs were routed using Environmental Protection Agency Stormwater Management Model (EPA SWMM), Version 5.2, build 5.2.3. Physical parameters for the routing model were calculated in ArcGIS Pro (3.4.2). The drainage system was modeled using a network of channels, junction points, and direct flow elements. Nodes were placed at sub-basin outfalls, major culvert or storm crossings, and storm system junctures. Conveyance element input parameters include length, slope, Manning's roughness coefficient, and cross-section geometry. The EPA SWMM input parameters are included in Appendix B, labeled as SWMM Input. A schematic of the EPA SWMM model elements, including subbasins, design points, and conveyance elements, is shown in Figure B-1 of Appendix B.

Existing channel elements were determined from digital project mapping. Length, change in elevation, and cross-section shape were estimated from one-foot interval topographic mapping and aerial imagery for each routing reach. The study area reaches were modeled as trapezoidal channels, with swales being modeled with a bottom width of zero. As future channel geometries are not yet known, the existing reach geometry was also used for the future conditions routing model.

3.4.1 Depth Reduction Factor Adjustments

Matrix ran sensitivity tests on five Major Basins (300, 500, 700, 1000, 2400) using Correction Area adjustments. CUHP models were executed for correction area 3.5 and 8.5 scenarios across 2-, 5-, and 10-year storm events, with results applied to SWMM nodes draining areas over 2 sq mi. To verify realism, line graphs comparing Correction Area impacts were plotted (Appendix B, **Figure B-2**). These visuals guided final basin-specific decisions, ensuring adjustments matched observed hydrological patterns without overcomplicating parameters like impervious area or roughness coefficients.

Major Basin 300:

- The upstream portion of the main drainageway will use CUHP results without any correction factors up to SWMM Node 379. After this point, CUHP results with a 3.5 correction factor will be applied to all downstream SWMM nodes within the main drainageway.

Major Basin 500

- The main drainageway will be maintained without any correction factors. This decision is based on the fact that the outfall is the only SWMM node with a drainage area exceeding 2.0 square miles and applying a DRF would result in a lower peak flow than the immediately upstream node.

Major Basin 700

- The main drainageway will be maintained without any correction factors. This decision is based on the fact that the outfall is the only SWMM node with a drainage area exceeding 2.0 square miles and applying a DRF would result in a lower peak flow than the immediately upstream node.

Major Basin 1000

- The upstream portion of the main drainage way will use CUHP results without correction factors up to SWMM Node 1065. After this point, CUHP results with a 3.5 correction factor will be applied to all downstream nodes until Node 1041. Beyond Node 1041, an 8.5 correction factor will be used for all downstream nodes. Nodes 1041 and 1039 will carry forward the results from Node 1052 to ensure realistic total flow transition between 3.5 and 8.5 results due to the massive drop in total flow.

Major Basin 2400

- The upstream portion of the main drainageway will use CUHP results without any correction factors up to SWMM Node 2459. After this point, CUHP results with a 3.5 correction factor will be applied to all downstream SWMM nodes within the main drainageway.

3.5 Results of Analysis

Table 3-9 Peak Flow at Key Locations

Locations	Design Points / Conveyance Elements	Total Drainage Area		Station[1]	Existing Conditions Peak Flows (cfs)							Future Conditions Peak Flow (cfs)						
		(acres)	(mi^2)	(ft)	Q_2	Q_5	Q_{10}	Q_{25}	Q_{50}	Q_{100}	Q_{500}	Q_2	Q_5	Q_{10}	Q_{25}	Q_{50}	Q_{100}	Q_{500}
Drainageway 110 - Outfall to Big Thompson River	O_109	1,075	2	0+00	73	116	191	493	751	1,135	2,095	188	280	402	780	1,103	1,565	2,743
Drainageway 210 - Outfall to Big Thompson River	O_209	543	1	0+00	7	17	48	228	398	650	1,278	121	181	260	551	797	1,132	1,989
Drainageway 310 - Outfall to Big Thompson River	O_309	2,643	4	0+00	168	275	478	1,411	2,107	3,123	5,273	530	802	1,152	2,395	3,311	4,601	5,566
Drainageway 410 - Outfall to Big Thompson River	O_409	1,188	2	0+00	14	32	137	552	873	1,343	2,479	279	422	633	1,267	1,752	2,415	3,018
Drainageway 510 - Outfall to Big Thompson River	O_509	1,417	2	0+00	9	23	84	510	844	1,337	2,571	225	351	521	1,174	1,663	2,360	3,817
Drainageway 610 - Outfall to Big Thompson River	O_609	501	1	0+00	44	64	101	298	462	697	1,268	148	221	323	658	915	1,246	1,702
Drainageway 710 - Outfall to Big Thompson River	O_709	1,405	2	0+00	80	135	229	738	1,116	1,667	3,039	313	469	659	1,381	1,904	2,630	4,464
Drainageway 710 - Crossing at S. CR 3 E	Divider_753	47	0	101+00	6	10	17	40	57	78	133	24	34	46	78	103	133	213
Drainageway 810 - Outfall to Big Thompson River	O_809	1,118	2	0+00	42	80	181	468	712	1,053	1,925	232	350	501	888	1,205	1,652	2,789
Drainageway 810 - Detention N of GW Railway	839	763	1	70+00	40	70	148	372	551	801	1,418	187	264	361	641	867	1,193	1,987
Drainageway 940 - Outfall to Big Thompson River	O_909	755	1	0+00	84	124	182	414	621	913	1,675	190	299	419	756	1,031	1,420	2,408
Drainageway 900 - Outfall to Big Thompson River	O_929	1,093	2	0+00	166	265	438	898	1,264	1,773	3,044	441	648	884	1,491	1,962	2,604	3,606
Drainageway 900 - Detention S of Ronald Reagan	922	683	1	29+00	35	60	125	318	466	668	1,162	158	226	330	600	803	1,066	1,745
Drainageway 950 - Crossing at E. Eisenhower Blvd WB	Divider_925	475	1	32+00	35	61	125	322	469	671	1,165	159	233	336	606	809	1,072	1,752
Drainageway 929, Confluence North of HW 34	959	816	1	N/A	151	237	386	805	1,118	1,546	2,595	414	597	807	1,358	1,773	2,309	3,685
Drainageway 929 - Crossing at Centerra Pkwy SB	Divider_984	273	0	N/A	71	107	171	333	455	606	991	174	245	330	529	684	872	1,361
Drainageway 1010 - Outfall to Big Thompson River	O_1009	4,456	7	0+00	69	157	283	1,812	2,843	4,331	6,670	355	610	922	2,765	3,975	5,667	6,795
Drainageway 1020 - Crossing at Hillsboro Ditch	Divider_1023	263	0	39+00	34	51	70	205	281	378	624	63	89	118	280	369	480	769
Major Basin 1100 - Outfall	O_1100	808	1	0+00	13	23	48	177	270	391	688	189	264	346	547	713	916	1,434
Drainageway 2010 - Outfall to Little Thompson River	O_2009	808	1	0+00	14	22	39	175	322	560	1,146	123	182	250	512	744	1,087	1,931
Drainageway 2110 - Crossing at WCR-19	O_2109	538	1	0+00	6	14	72	283	436	650	1,168	123	186	293	601	827	1,124	1,876
Drainageway 2210 - Outfall to Little Thompson River	O_2209	212	0	1+00	69	96	127	234	321	435	729	85	117	153	269	362	482	789
Drainageway 2210 - Crossing at W. Centennial Dr	Divider_2212	143	0	1+00	47	64	84	152	208	282	469	51	69	90	160	218	293	484
Drainageway 2310 - Outfall to Little Thompson River	O_2309	678	1	0+00	54	85	137	380	573	850	1,522	134	201	288	613	862	1,202	2,052
Drainageway 2310 - Crossing at WCR 46	Divider_2322	556	1	3+00	56	88	153	323	447	608	1,010	112	165	247	455	609	804	1,298
Drainageway 2410 - Outfall to Little Thompson River	O_2409	2,878	4	0+00	44	98	250	1,078	1,714	2,645	4,952	434	673	992	2,235	3,149	4,442	6,672
Drainageway 2510 - Outfall to Little Thompson River	O_2509	568	1	0+00	21	38	81	298	476	729	1,348	138	205	299	635	894	1,236	2,107
Drainageway 2610 - Outfall to Little Thompson River	O_2609	880	1	0+00	64	105	213	585	864	1,256	2,210	210	318	483	973	1,338	1,830	2,761
Drainageway 2710 - Outfall to Little Thompson River	O_2709	524	1	0+00	39	65	121	357	531	768	1,351	82	128	205	484	688	959	1,640
Drainageway 2810 - Outfall to Little Thompson River	O_2809	431	1	0+00	9	18	43	152	241	376	704	86	129	185	365	505	701	1,180
Major Basin 2900 - Crossing at WCR-46	O_2909	101	0	N/A	6	10	29	85	125	177	308	92	126	165	251	322	413	638
Drainageway 3010 - Crossing at WCR-46	O_3009	498	1	0+00	9	22	88	301	459	678	1,208	234	337	472	820	1,084	1,420	2,293

[1] Station (distance along major drainageway from confluence).

Table 3-10 Total Runoff Volume at Key Locations

Major Basin	Locations	Design Points / Conveyance Elements	Total Drainage Area		Station[1]	Existing Conditions Runoff Volume (ac-ft)							Future Conditions Runoff Volume (ac-ft)						
			(acres)	(mi^2)	(ft)	V_2	V_5	V_{10}	V_{25}	V_{50}	V_{100}	V_{500}	V_2	V_5	V_{10}	V_{25}	V_{50}	V_{100}	V_{500}
100	Drainageway 110 - Outfall to Big Thompson River	O_109	1,075	1.68	-	16	23	36	79	115	165	292	36	50	68	112	150	200	328
200	Drainageway 210 - Outfall to Big Thompson River	O_209	543	0.85	-	2	3	7	24	41	66	127	15	21	29	48	67	91	154
300	Drainageway 310 - Outfall to Big Thompson River	O_309	2,643	4.13	-	168	46	76	196	286	408	706	79	114	157	277	371	491	715
400	Drainageway 410 - Outfall to Big Thompson River	O_409	1,188	1.86	-	4	8	23	75	114	171	313	279	422	633	125	168	223	338
500	Drainageway 510 - Outfall to Big Thompson River	O_509	1,417	2.21	-	9	8	19	86	134	201	368	40	57	79	145	196	261	427
600	Drainageway 610 - Outfall to Big Thompson River	O_609	501	0.78	-	4	7	12	33	49	72	131	148	221	323	49	67	90	137
700	Drainageway 710 - Outfall to Big Thompson River	O_709	1,405	2.20	-	17	26	41	108	157	223	390	48	68	91	157	209	273	445
700	Drainageway 710 - Crossing at S. CR 3 E	Divider_753	47	0.07	-	1	1	2	4	5	8	13	24	34	46	5	7	9	15
800	Drainageway 810 - Outfall to Big Thompson River	O_809	1,118	1.75	-	13	21	42	91	132	185	322	232	350	501	138	180	232	371
800	Drainageway 810 - Detention N of GW Railway	839	763	1.19	-	8	14	28	62	89	125	219	187	264	361	92	121	156	251
900	Drainageway 910 - Outfall to Big Thompson River	O_909	755	1.18	-	16	24	39	73	101	137	230	190	299	419	100	129	164	258
900	Drainageway 900 - Outfall to Big Thompson River	O_929	1,093	1.71	-	29	43	64	112	152	203	338	441	648	884	154	196	245	362
900	Drainageway 900 - Detention S of Ronald Regan	922	683	1.07	-	6	10	18	40	56	79	137	158	226	330	59	77	99	158
900	Drainageway 929 - Crossing at E. Eisenhower Blvd WB	Divider_925	475	0.74	-	6	10	18	39	56	79	137	159	233	336	59	77	98	157
900	Drainageway 929, Confluence North of HW 34	959	816	1.28	-	23	33	50	89	121	162	270	414	597	807	125	159	199	307
900	Drainageway 929 - Crossing at Centerra Pkwy SB	Divider_984	273	0.43	-	7	10	16	27	37	50	83	174	245	330	36	47	59	93
1000	Drainageway 1010 - Outfall to Big Thompson River	O_1009	4,456	6.96	-	36	61	93	350	506	718	1,203	112	162	220	476	641	850	1,234
1000	Drainageway 1020 - Crossing at Hillsboro Ditch	Divider_1023	263	0.41	-	4	6	8	17	23	31	51	6	8	11	20	27	34	55
1100	Major Basin 1100 - Outfall	O_1100	808	1.26	-	1	2	4	13	20	30	56	189	264	346	28	36	46	73
2000	Drainageway 2010 - Outfall to Little Thompson River	O_2009	808	1.26	-	3	5	10	34	59	95	185	123	182	250	69	96	132	227
2100	Drainageway 2110 - Outfall to Little Thompson River	O_2109	538	0.84	-	1	2	10	34	52	77	141	123	186	293	55	74	99	165
2200	Drainageway 2210 - Outfall to Little Thompson River	O_2209	212	0.33	-	8	11	14	22	29	38	64	85	117	153	24	32	41	66
2200	Drainageway 2210 - Crossing at W. Centennial Dr	Divider_2212	143	0.22	-	5	7	9	14	19	25	42	51	69	90	14	19	26	42
2300	Drainageway 2310 - Outfall to Little Thompson River	O_2309	678	1.06	-	9	14	22	50	73	105	186	134	201	288	67	91	123	205
2300	Drainageway 2310 - Crossing at W. CR 46	Divider_2322	556	0.87	-	7	12	19	37	51	70	118	112	165	247	44	59	77	126
2400	Drainageway 2410 - Outfall to Little Thompson River	O_2409	2,878	4.50	-	44	33	61	193	292	427	770	79	114	159	292	396	531	835
2500	Drainageway 2510 - Outfall to Little Thompson River	O_2509	568	0.89	-	3	6	11	33	52	79	145	138	205	299	53	73	99	167
2600	Drainageway 2610 - Outfall to Little Thompson River	O_2609	880	1.38	-	10	15	29	67	98	139	245	210	318	483	94	125	166	265
2600	Drainageway 2610 - Crossing at Carsin Ln	Divider_2634	224	0.35	-	1	2	3	6	8	11	18	32	45	63	8	10	13	20
2700	Drainageway 2710 - Outfall to Little Thompson River	O_2709	524	0.82	-	6	9	15	38	56	80	142	82	128	205	45	64	88	151
2800	Drainageway 2810 - Outfall to Little Thompson River	O_2809	431	0.67	-	2	4	9	27	41	62	112	86	129	185	44	60	80	132
2900	Drainageway 2910 - Outfall to Little Thompson River	O_2909	101	0.16	-	0	1	2	7	10	15	27	92	126	165	13	17	22	34
3000	Drainageway 3010 - Outfall to Little Thompson River	O_3009	498	0.78	-	1	3	11	33	51	74	134	234	337	472	64	82	105	167

[1] Station (distance along major drainageway from confluence) to be determined in Alternatives Analysis

3.6 Previous Studies Comparison

The *2001 Storm Water Master Plan*, prepared by The Engineering Company, covers a study area of 23.7 square miles, significantly smaller than the 53 square miles in this study. This difference in coverage area can be due to the rapid population growth experienced by the Town of Johnstown in recent years which was previously mentioned in Section 2.2 of this report. The 2001 SWMP divided the area into six major drainage basins: Bunyan, Elwell, Johnson's Corner, Old Town, Pulliam, and Twin Mounds Basin. These major basins were included in this study, but some changes to the delineations were made based on 2024 topography.

Figure 2-2 broadly shows the differences in studied basin shapes between the 2001 SWMP and this 2025 Update.

Table 3-11 shows the difference in calculated peak flows between the 2001 SWMP and this study (sometimes referred to as "Matrix 2025" in tables). In general, this study found significantly higher peak discharges across the study area. Some notable differences in the hydrologic methods that help explain the differences between these two studies are:

- The 2001 SWMP included detention facilities in routing models, which are not accounted for in the current study;
- For percent impervious, the 2001 SWMP used 7.5% for undeveloped areas and 40% for developed areas. This study followed the current MHFD guidelines, which depending on specific land use recommend 5% to 30% for undeveloped or park use types and 35% to 90% for developed use types.
- The 2001 SWMP only modeled developed land uses near Old Johnstown and assumed pre-development conditions everywhere else. This study models developed uses wherever they were found in the existing conditions analysis.
- The 2001 SWMP calibrated results to reproduce very low discharge per acre rates based on the assumption that the farmlands in Johnstown should lead to lower runoff rates than typically found in Front Range communities. Reflecting that many areas within the GMA are being developed, this study does not include a similar downward calibration.

The *2024 Hydraulic Analysis for Regional Drainage Facilities and Irrigation Storage Improvements Big Hollow Gulch and the Ridge Development*, prepared by Anderson Consulting Engineering Inc., was one of the few previous drainage reports that focused on an entire major basin instead of an isolated area tied to a specific development. SWMM results from this study were compared with the 2024 Big Hollow Gulch results at key locations in Table 3-12. This comparison showed that peak flows from this study are much higher than peak flows in the previous report. Some notable differences in the hydrologic methods that help explain the differences between these two studies are:

- The 2024 Big Hollow Gulch report total area was 6.72 square miles, whereas this study found the corresponding Major Basin 1000 area to be 7.93 square miles. The 2024 Big Hollow Gulch report used 2013 topography, and this study used 2024 topography.
- This study generally subdivided the watershed into (more numerous) smaller subbasins, with a largest subbasin area of 269 acres versus 687 acres in the 2024 Big Hollow Gulch report.
- The 2024 Big Hollow Gulch report used storm hyetographs from the 2001 SWMP, while this study used precipitation estimates from the 2024 *Town of Johnstown Streets and Stormwater Design Standards Update*, which is based on NOAA Atlas 14 values.
- The 2024 Big Hollow Gulch report used the 2019 NLCD to estimate impervious values. This study also used NLCD mapping where more detailed information was unavailable, but the assigned percent impervious values were different. As shown in Table 3-13, neither study used a subbasin percent impervious higher than 35% in existing conditions, but the 2024 Big Hollow Gulch report had many subbasins with percent impervious below 10%. This study had a minimum % impervious of 11% within Major Basin 1000.

Both studies used EPA SWMM for hydrograph routing, so the discrepancies discussed above likely resulted in significantly different subbasin hydrographs that were then routed in a similar manner along Big Hollow Gulch. The conveyance map from the 2024 Big Hollow Gulch report is included in Appendix H for reference.

Table 3-11 Results Comparison with 2001 SWMP

Major Basin	Location	2001 SWMP		This Study		Existing Conditions Q_{100}			This Study Future Conditions Q_{100} (cfs)
		SWMM Element	Area (ac)	SWMM Element	Area (ac)	2001 SWMP (cfs)	This Study (cfs)	Increase / Decrease (%)	
100	Outfall into Big Thompson	41a	597	O_109	213	428	1,136	166	1,680
300	Outfall into Big Thompson	31l	-	O_316	395	399	448	12	518
300	Outfall into Big Thompson	31a	-	O_309	2,643	672	3646	443	5,317
300	North Johnstown Reservoir	31e	235	387	972	235	1,714	630	2,711
500	Outfall into Big Thompson	22a	1,850	O_509	1,417	746	1,634	119	2,821
2400	Outfall into Hillsboro Ditch	61a	-	2419	2,691	1,575	2,987	90	4,869
2400	Hill Lake	61m	358	2469	380	235	540	130	875
2400	Weld County Rd 42	61l	-	2449	1,468	687	1,862	171	3,103
2600	Outfall into Little Thompson	52a	-	O_2609	880	266	1,362	412	1,956
500	Outfall into Big Thompson	22a	1,850	O_509	1,417	746	1,634	119	2,821

Table 3-12 Results Comparison with 2024 Big Hollow Gulch Report

Location	2024 Big Hollow Gulch		This Study		Existing Conditions Q_{100}		
	SWMM Element	Area (ac)	SWMM Element	Area (ac)	2024 Big Hollow Gulch (cfs)	This Study (cfs)	Increase / Decrease (%)
I-25	DP2	3,740	1037	3,586	2,134	4,543	113
Jennifer Crossing (Proposed Location)	N11	3,932	1033	3,738	2,206	4,777	117
Elsie Crossing (Proposed Location)	N10	4,031	1031	3,787	2,260	4,818	113
Larimer County Road 18 Crossing	N9	4,055	1031	3,787	2,273	4,818	112
River Ranch Parkway	N3	4,293	1028	4,206	2,314	4,942	114
Confluence with Big Thompson River	N1	4,301	O_1009	4,456	2,315	5,336	131

Table 3-13 Impervious Comparison Major Basin 1000

2024 Big Hollow Gulch		This Study		Increase / Decrease (%)
Subbasin ID	% Impervious Existing	Subbasin ID	% Impervious Existing	
S152	30	1030	29	3
S200	20	1038,1042	33	65
S202	5	1040, 1046	19	280
S203	8	1048	11	43
S204	15	1040	27	79
S205	13	768	30	127
S210	5	1054	17	234
S211	5	1060	14	186
S220	8	1058, 1054, 1062	15	82
S230	5	1064, 1056	18	253
S240	10	1072, 1070, 1074, 1068	17	70
S250	35	1080, 1082, 1076	23	36
S251	8	1088, 1090, 1092, 1080	16	98
S1	13	1010	21	64
S2	19	1010	21	12
S3	17	1020	14	19
S4	12	1020	14	15
S5	11	1030	29	165
S6	7	1030, 1020	21	206
S7	20	1034	29	45
S8	11	1032	21	88
S9	13	1032	21	59
S10	12	1034	29	141
S11	10	1036, 1034	32	218
S12	6	1032, 1034	25	313
S13	11	1036, 1034	32	189

4.0 HYDRAULIC ANALYSIS

4.1 Evaluation of Existing Facilities

Major crossing structures have been identified where major drainageways cross significant public roadways, railroads, and irrigation canals. This approach was taken because these crossings serve critical functions for the community and should be protected against flood damages.

Detention areas were excluded from existing models to comply with MHFD's policy of recognizing only regional, publicly owned facilities with assured ongoing maintenance. During the research, no regional detention facilities were identified, and it could not be confirmed that continuous maintenance would be performed on any existing facilities serving local subdivisions.

Irrigation canals were also included in the crossing analysis. Most crossings currently do not have any existing culverts that keep the irrigation water and stormwater separate. Irrigation features that appear to be capturing storm runoff are marked in the Major Crossing Structure Inventory Tables in the following sections. This study includes recommended culvert sizing to adequately pass the 100-year storm event without overtopping and mixing flows.

To more clearly present mapped information within each major basin, the 23 major basins have been grouped into seven groups for large format exhibits. Each group, labeled A through G, contains between one to five major basins. An overview map of the major basin groups is included as **Figure 4-1**. Below are the major basin groups, along with their corresponding major basins:

Group A

Includes Major Basin 1000 (Big Hollow Gulch) and 1100 shown in **Figure 4-2**.

Group B

Includes Major Basins 800 and 900 shown in **Figure 4-3**.

Group C

Includes Major Basins 200, 260, 400, and 600 shown in **Figure 4-4**.

Group D

Includes Major Basins 100 (Old Town North), 300 (Elwell), 500 (Twin Mounds), and 700 (Johnson's Corner) shown in **Figure 4-5**.

Group E

Includes Major Basins 2600 (Pulliam), 2800, 2900, and 3000 shown in **Figure 4-6**.

Group F

Includes Major Basins 2000, 2100, 2400 (Bunyan), 2500, and 2700 shown in **Figure 4-7**.

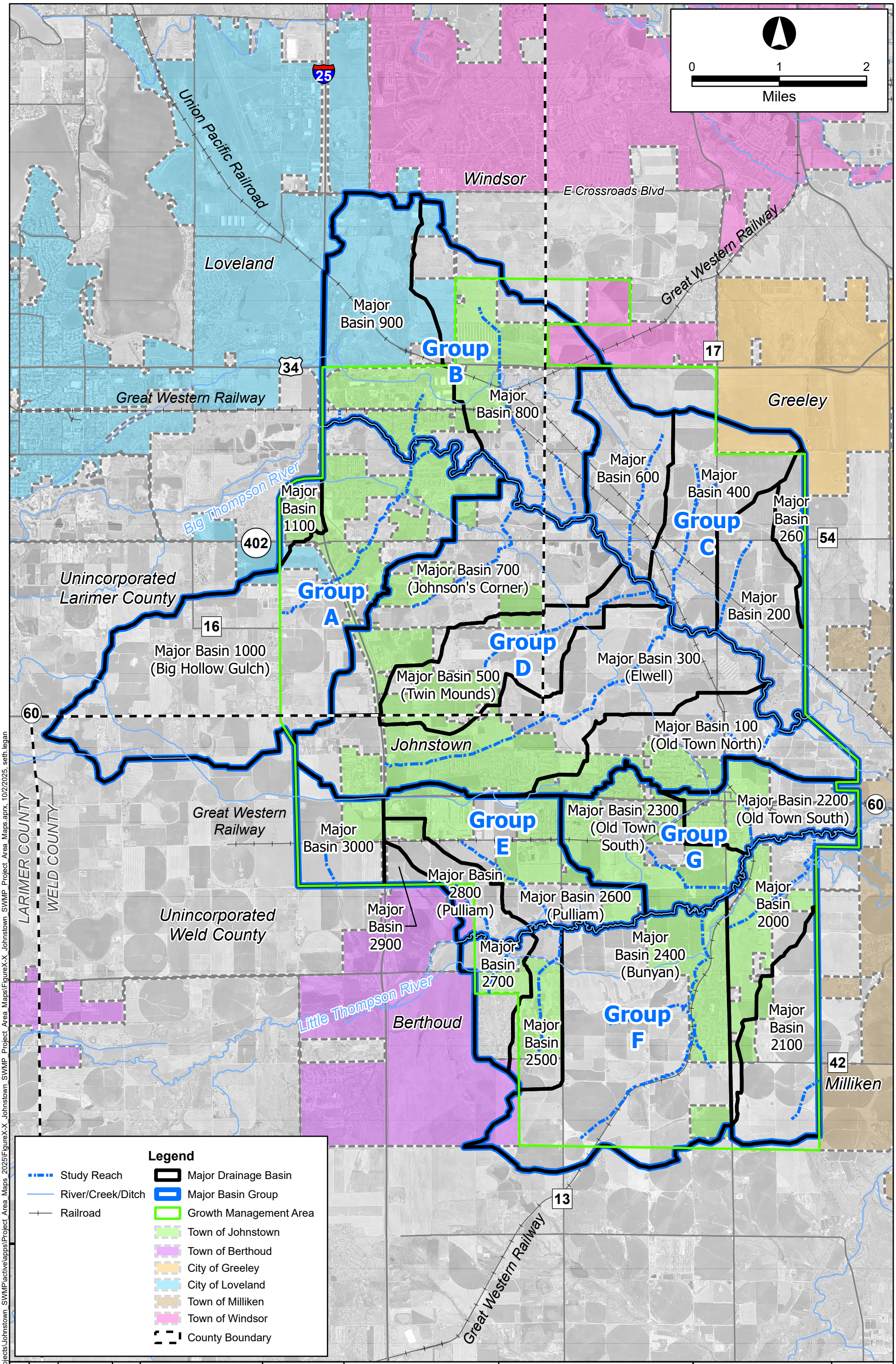
Group G

Includes Major Basins 2200 (Old Town South) and 2300 (Old Town South) shown in **Figure 4-8**.

Following the figures for each major basin group, a more detailed analysis of the existing structures is provided, including the locations of each major crossing structure, detention, and canals on the main drainageway.

The following acronyms are used in the major crossing tables:

CBC	Concrete box culvert
CFS	Cubic feet per second
CMP	Corrugated metal pipe
WCR	Weld County road
LCR	Larimer County road
CSP	Corrugated steel pipe
HDPE	High-density polyethylene
HERCP	Horizontal elliptical reinforced concrete pipe
LF	Linear feet
RCP	Reinforced concrete pipe



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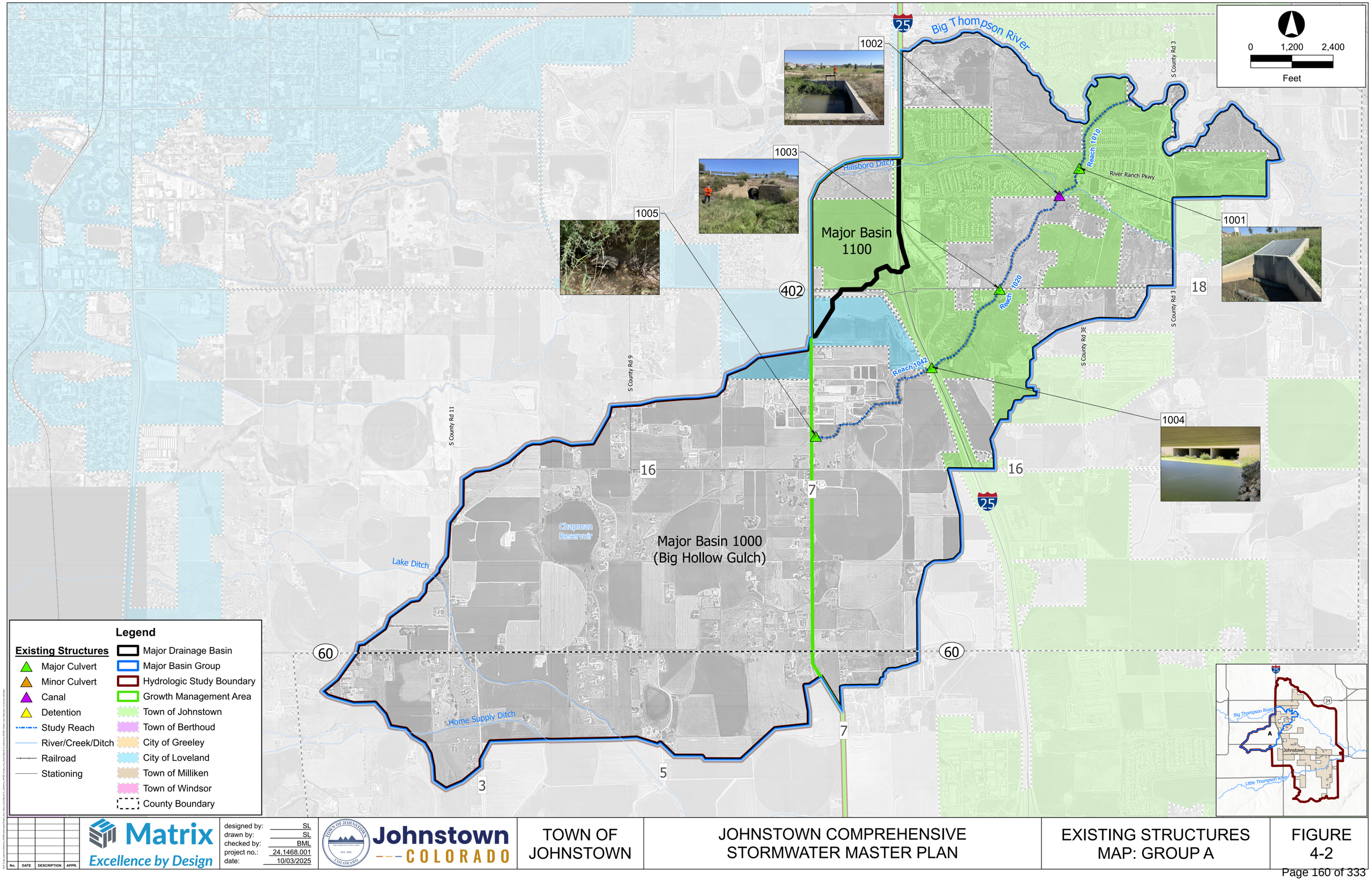
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MAJOR BASIN GROUP MAP

FIGURE 4-1



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EXISTING STRUCTURES MAP: GROUP A

FIGURE 4-2

4.1.1 Major Basin Group A

The Major Basin Group A drainageway has a total of five major existing facilities: four culvert crossings and one canal—the Hillsboro Ditch—that runs through the area. A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-1. Two additional culverts are currently being constructed between structure Crossings 1004 and 1003; however, these were not included in the existing analysis since the data used were collected prior to the start of construction.

Table 4-1 Major Crossing Structure Inventory - Group A

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
1001	1010	1000	River Ranch Pkwy	Roadway	N/A	29+00	22" x 15" RC Elliptical Culvert	151	< 2-Year	19
1002	1010	1000	Hillsboro Ditch	Irrigation	No	39+00	N/A	N/A	N/A	N/A*
1003	1020	1000	LCR-18	Roadway	N/A	74+00	104" x 68" RC Archway	34	2-Year	495
1004	1020	1000	I-25	Highway	N/A	106+00	3 - 15' x 6' CBC	200	50-Year	4,168
1005	1042	1000	LCR-7	Roadway	N/A	153+00	12" CMP (buried)	30	< 2-Year	0

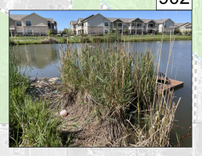
*The drainageway crosses over the Hillsboro Ditch, which is conveyed in a concrete box culvert.

0 1,200 2,400
Feet

Major Basin 900
Major Basin 800
Union Pacific Railroad
Great Western Railway
Great Western Railway
Big Thompson River
Centerra Pkwy
Draft Horse Dr
E County Rd 24
E County Rd 20E
Thompson Pkwy
S County Rd 3
Weld County Rd 15
Greeley and Loveland Irrigation Canal
Farmers Ditch
Hill and Brush Ditch
Reach 940
Reach 900
Reach 830
Reach 840
Reach 810
Reach 807
3
13
18
34
25
945
944
942
901
902
802
801
806
808
807
805
804
803















Legend

Existing Structures

- Major Culvert
- Minor Culvert
- Canal
- Detention
- Study Reach
- River/Creek/Ditch
- Railroad
- Stationing

- Major Drainage Basin
- Major Basin Group
- Hydrologic Study Boundary
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary

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EXISTING STRUCTURES MAP: GROUP B

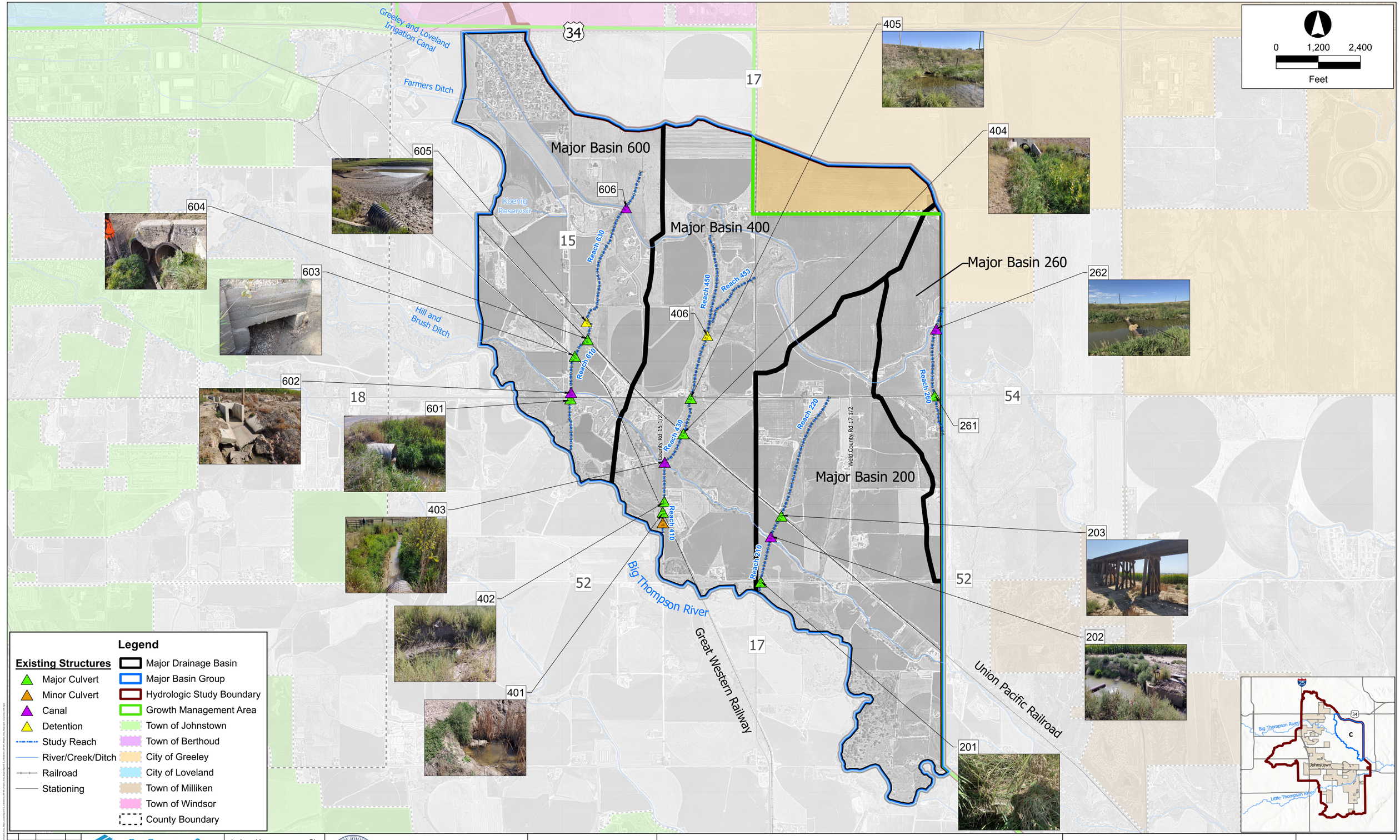
FIGURE 4-3

4.1.2 Major Basin Group B

Major Basin Group B contains four drainageways and a total of 13 major existing facilities. These include eight culvert crossings, three detention basins, and three canal crossings: the Greeley and Loveland Irrigation Canal, the Farmers Ditch, and the Hill and Brush Ditch. A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-2.

Table 4-2 Major Crossing Structure Inventory - Group B

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
801	810	800	Hill and Brush Ditch	Irrigation	Yes	9+00	N/A	N/A	N/A	N/A
802	810	800	LCR - 20C	Roadway	N/A	54+00	24” HDPE	45	< 2-Year	21
803	830	800	Great Western Railway	Railroad	N/A	62+00	12” CMP	60	< 2-Year	4
804	830	800	Great Western Railway	Railroad	N/A	70+00	15" CMP (buried)	62	< 2-Year	0
805	830	800	Union Pacific Railroad	Railroad	N/A	86+00	24” CSP	35	< 2-Year	26
806	830	800	Farmers Ditch	Irrigation	Yes	95+00	N/A	N/A	N/A	N/A
808	840	800	Greeley and Loveland Irrigation Canal	Irrigation	Yes	110+00	N/A	N/A	N/A	N/A*
942	940	900	Great Western Railway	Railroad	N/A	8+00	48” CMP	150	< 2-Year	280
944	950	900	Ronald Reagon Blvd	Roadway	N/A	20+00	6' x 4' CBC	200	2-Year	428
945	950	900	US-34	Highway	N/A	32+00	30” CSP	630	< 2-Year	33



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EXISTING STRUCTURES MAP: GROUP C

FIGURE 4-4

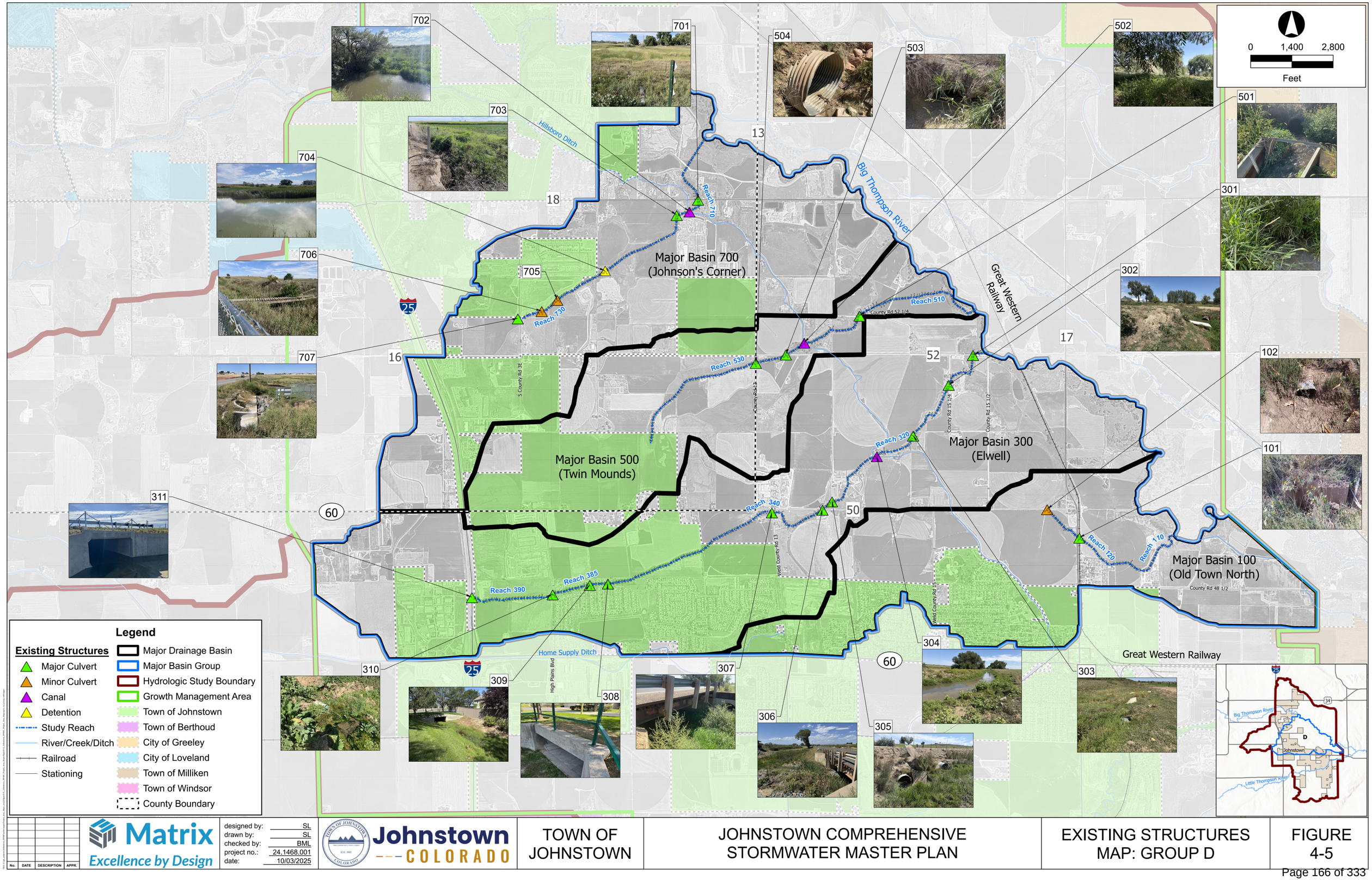
4.1.3 Major Basin Group C

Major Basin Group A drainageway contains a total of 15 existing facilities: nine culvert crossings, one bridge crossing, and five canal crossings, which include the Hillsboro Ditch, Hill and Brush Ditch, and the Greeley and Loveland Irrigation Canal. Table 4-3 provides details for each existing structure, including their corresponding reaches and capacities.

Table 4-3 Major Crossing Structure Inventory - Group C

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
201	210	200	WCR-52	Roadway	N/A	3+00	18" CMP	33	< 2-Year	8
202	210	200	Hill and Brush Ditch	Irrigation	Yes	17+00	N/A	N/A	N/A	N/A
203	220	200	Union Pacific Railroad	Railroad	N/A	23+00	100' Span Bridge	N/A	100-Year	25,000
261	260	260	WCR-54	Roadway	N/A	11+00	Unknown*	38	Unknown	Unknown
262	260	260	Greeley and Loveland Irrigation Canal	Irrigation	No	31+00	18" CMP	70	< 2-Year	8
401	410	400	Great Western Railway	Railroad	N/A	7+00	15" CMP	58	< 2-Year	7
402	410	400	WCR 15 1/2	Roadway	N/A	10+00	24" CMP	36	< 2-Year	13
403	430	400	Hill and Brush Ditch	Irrigation	Yes	21+00	32" CMP	22	< 2-Year	59
404	430	400	Union Pacific Railroad	Railroad	N/A	32+00	108" CMP	84	10-Year	996
405	430	400	WCR-54	Roadway	N/A	42+00	36" CMP	52	< 2-Year	49
601	610	600	WCR-54	Roadway	N/A	16+00	38"x26" CMP	52	10-Year	362
602	610	600	Hill and Brush Ditch	Irrigation	Yes	17+00	24" CSP	29	< 2-Year	14
603	610	600	Great Western Railway	Railroad	N/A	28+00	4'x2' CBC	63	< 2-Year	105
604	610	600	Union Pacific Railroad	Railroad	N/A	35+00	36" CSP	102	< 2-Year	90
606	630	600	Greeley and Loveland Irrigation Canal	Irrigation	Yes	77+00	N/A	N/A	N/A	N/A

*The existing culvert at major crossing 261 was not found, however, Matrix believes that a culvert does exist at this location.



Legend

Existing Structures

- Major Culvert
- Minor Culvert
- Canal
- Detention
- Study Reach
- River/Creek/Ditch
- Railroad
- Stationing

- Major Drainage Basin
- Major Basin Group
- Hydrologic Study Boundary
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary

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EXISTING STRUCTURES MAP: GROUP D

FIGURE 4-5

4.1.4 Major Basin Group D

Major Basin Group D drainageway has in total 20 existing facilities: 17 culverts crossing and 3 canal crossings (Hillsboro Ditch). A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-4.

Table 4-4 Major Crossing Structure Inventory - Group D

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
101	120	100	Great Western Railway, WCR-17	Railroad	N/A	48+00	Not Found / No Culvert	N/A	N/A	N/A
301	320	300	WCR-52	Roadway	N/A	5+00	24" CMP	61	< 2-Year	11
302	320	300	WCR-15 1/4	Roadway	N/A	21+00	24" CMP	60	< 2-Year	23
303	320	300	Private Road	Roadway	N/A	45+00	18" CMP	76	< 2-Year	3
304	340	300	Hillsboro Ditch	Irrigation	Yes	59+00	N/A	N/A	N/A	N/A
305	340	300	Private Road	Roadway	N/A	83+00	2-36" CMP	64	< 2-Year	134
306	340	300	WCR-50	Roadway	N/A	88+00	20'x7' Bridge	30	10-Year	1,174
307	340	300	WCR-13	Roadway	N/A	108+00	20'x7' Bridge	33	10-Year	1,174
308	385	300	Emergency Vehicle Access	Railroad	N/A	170+00	10'x4' CBC	63	2-Year	333
309	385	300	River Rock Drive	Roadway	N/A	177+00	10'x4' CBC	103	2-Year	340
310	390	300	High Plains Blvd	Roadway	N/A	190+00	7.5'x2.67' CBC	203	< 2-Year	119
311	390	300	I-25	Highway	N/A	217+00	13'x6.5' CBC	224	10-Year	728
501	510	500	WCR-52 1/4	Roadway	N/A	46+00	18" HDPE	52	< 2-Year	8
502	510	500	Hillsboro Ditch	Irrigation	Yes	69+00	N/A	N/A	N/A	N/A
503	510	500	WCR-52	Roadway	N/A	76+00	32" CMP	62	< 2-Year	14
504	530	500	LCR-13	Roadway	N/A	86+00	42" CMP	48	< 2-Year	96
701	710	700	E LCR-18	Roadway	N/A	25+00	12" CMP	43	< 2-Year	4
702	710	700	Hillsboro Ditch	Irrigation	Yes	31+00	N/A	N/A	N/A	N/A
703	710	700	Private Road	Roadway	N/A	36+00	4.67'x2.67' CBC	15	< 2-Year	13
707	730	700	S LCR-3e	Roadway	N/A	101+00	4-48"x24" HERCP	53	2-Year	267

0 900 1,800
Feet

2603

2602

2601

3001

2901

2801

High Plains Blvd

Carlson Blvd

25

13

60

46

7

15

Home Supply Ditch

Great Western Railway

Major Basin 2600
(Pulliam)

Major Basin 3000

Major
Basin 2900

Major Basin 2800

Reach 3010

Reach 2620

Reach 2610

Reach 2820

Reach 2810

Hillsboro Ditch

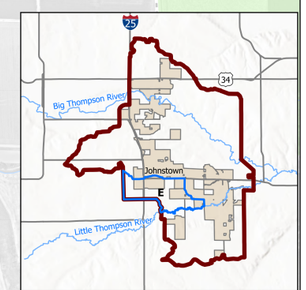
Little Thompson River

Legend

Existing Structures

- Major Culvert
- Minor Culvert
- Canal
- Detention
- Study Reach
- River/Creek/Ditch
- Railroad
- Stationing

- Major Drainage Basin
- Major Basin Group
- Hydrologic Study Boundary
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary



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EXISTING STRUCTURES MAP: GROUP E

FIGURE 4-6

4.1.5 Major Basin Group E

Major Basin Group E drainageway has in total 4 existing facilities: 3 culverts crossing and 1 canal crossing (Hillsboro Ditch). A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-5.

Table 4-5 Major Crossing Structure Inventory - Group E

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
2601	2610	2600	Hillsboro Ditch	Irrigation	Yes	8+00	N/A	N/A	N/A	N/A
2602	2620	2600	WCR-46	Roadway	N/A	32+00	16'x9' Bridge	30	50-Year	1,215
2901	N/A	2900	WCR-46	Roadway	N/A	N/A	32" CMP	33	< 2-Year	5
3001	3010	3000	WCR-46	Roadway	N/A	0+00	20" CMP	50	< 2-Year	19

0 1,200 2,400
Feet

Weld County Rd 46 1/2

Great Western Railway

Little Thompson River

Hillsboro Ditch

Miner Longan Ditch

Farmers Extension Canal

Hill Lake

Hillsboro Reservoir

Northmoor Dr

Major Basin 2700

Major Basin 2500

Major Basin 2400 (Bunyan)

Major Basin 2000

Major Basin 2100

Reach 2010
Reach 2020
Reach 2030
Reach 2110
Reach 2410
Reach 2420
Reach 2430
Reach 2433
Reach 2440
Reach 2445
Reach 2450
Reach 2460
Reach 2510
Reach 2520
Reach 2522
Reach 2710
Reach 2720

2001
2401
2501
2502
2503
2402
2403
2444
2445
2405
2406











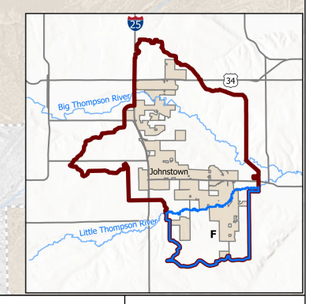


13 15 17 19
40 42 44 46

Legend

Existing Structures
- Major Culvert
- Minor Culvert
- Canal
- Detention
- Study Reach
- River/Creek/Ditch
- Railroad
- Stationing

- Major Drainage Basin
- Major Basin Group
- Hydrologic Study Boundary
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary



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EXISTING STRUCTURES MAP: GROUP F

FIGURE 4-7

4.1.6 Major Basin Group F

The Major Basin Group F drainageway has a total of nine major existing facilities: six culvert crossings, one detention facility, and one canal—the Hillsboro Ditch—that runs through the area. A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-6.

Table 4-6 Major Crossing Structure Inventory - Group F

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
2001	2020	2000	Hillsboro Ditch	Irrigation	Yes	62+00	N/A	N/A	N/A	N/A
2401	2410	2400	Hillsboro Ditch	Irrigation	Yes	25+00	N/A	N/A	N/A	N/A
2402	2433	2400	Great Western Railway	Culvert	N/A	75+00	8' x 6' CBC	50	5-Year	780
2403	2450	2400	Great Western Railway	Culvert	N/A	85+00	8' x 6' CBC	50	5-Year	600
2405	2450	2400	WCR-42	Culvert	N/A	105+00	18' x 16' CM Arch Pipe	50	100-Year	3,178
2406	2460	2400	WCR-15	Culvert	N/A	132+00	3' RCP	180	2-Year	62
2444	2445	2400	Perkin Dr	Culvert	N/A	14+00	6' RCP	100	100-Year	320
2445	2445	2400	WCR-42	Culvert	N/A	20+00	Buried	75	< 2-Year	0
2501	2510	2500	Hillsboro Ditch	Irrigation	Yes	25+00	N/A	N/A	N/A	N/A

0 800 1,600
Feet

2202



2201



Great Western Railway

Greeley Ave

Hillsboro Ditch

Weld County Rd 48 1/2

Charlotte St

15

60

Major Basin 2300
(Old Town South)

Reach 2210

Major Basin 2200
(Old Town South)

60

Greeley Ave

County Rd 46 1/2

19

Reach 2320

13

Little Thompson River

Reach 2310

46

Great Western Railway

2301



15

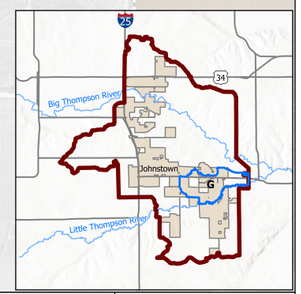
17

Legend

Existing Structures

- Major Culvert
- Minor Culvert
- Canal
- Detention
- Study Reach
- River/Creek/Ditch
- Railroad
- Stationing

- Major Drainage Basin
- Major Basin Group
- Hydrologic Study Boundary
- Growth Management Area
- Town of Johnstown
- Town of Berthoud
- City of Greeley
- City of Loveland
- Town of Milliken
- Town of Windsor
- County Boundary



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EXISTING STRUCTURES MAP: GROUP G

FIGURE 4-8

4.1.7 Major Basin Group G

Major Basin Group G drainageway has in total 3 existing culverts crossing facilities. A table showing each of the existing structures, corresponding reaches and capacity can be seen in Table 4-7.

Table 4-7 Major Crossing Structure Inventory - Group G

Structure Number	Reach Number	Major Basin	Location	Crossing Type	Accepts Storm Runoff	Structure Station	Existing Structure Size/Type	Approximate Length (LF)	Existing Estimated Capacity (Future Flow)	Existing Capacity (CFS)
2201	2210	2200	WCR-46 1/2	Roadway	N/A	1+00	60" RCP	93	10-Year	196
2202	2210	2200	SH-60	Roadway	N/A	28+00	20"x30" CMP	76	< 2-Year	33
2301	2310	2300	WCR-46	Roadway	N/A	5+00	32" HDPE	40	< 2-Year	55

5.0 ALTERNATIVES ANALYSIS

5.1 Alternative Development Process

During the alternative development process, options were evaluated based on their applicability, effectiveness, and ease of implementation. This recommended approach combines channel improvements, crossing structures, and detention facilities to best meet the project's goals and constraints. Three broad categories of alternatives were initially considered for each reach within the study area. Following collaborative discussions with the Town of Johnstown, a single preferred alternative was selected.

The proposed alternative incorporates distributed detention facilities with storage capacity to detain the Excess Urban Runoff Volumes (EURVs) for each subbasin, tailored based on subbasin size and land use. This method provides a general estimate of EURV detention requirements to manage the impact of full subbasin development on flow rates (see Appendix E). Channel improvements are designed to establish channel geometry capable of safely conveying the 100-year storm event in a non-erosive manner. Proposed crossing structures were added in locations where existing canals obstruct the drainageway or where roadways lack adequate crossings and RRs.

Additional regional detention facilities were incorporated in areas where existing channels are constrained by adjacent development and cannot reasonably be physically expanded. In these locations, where high flow velocities (greater than 5 feet per second) persist and channel widening is not feasible due to surrounding infrastructure or property boundaries, detention facilities provide an effective means to reduce erosive potential and enhance overall stormwater management.

5.2 Criteria and Constraints

Each major drainageway was evaluated comprehensively so that the effects of upstream alternatives on downstream reaches could be determined. Improvements criteria and constraints are listed below.

Channel Improvements

Proposed channel improvements assumed a trapezoid cross section with 5H:1V side slopes. The bottom width of the channel was widened until the average 100-year velocity was below 5 feet per second along with having a depth below 5 feet. A freeboard depth of 1.5 feet was assumed and used to calculate the required top width, which was given in the corridor width recommendations. Note that Johnstown's Storm Drainage Design Standards require 1 foot of freeboard or one third of the flow depth, whichever is greater, so 1.5 feet is conservative for most channels. Future stream corridors should also plan space for maintenance access paths.

Crossing Improvements

Proposed crossing improvements were designed to handle the flow of a 100-year flood, ensuring adequate capacity for such an extreme event. A maximum headwater-to-depth ratio (HW/D) of 1.5, per the Town's Storm Drainage Design Standards, was used to size the proposed crossing structures at roadway and railway crossings. The HW/D criterion was not used in sizing the irrigation canal crossing structures.

Detention

In addition to the EURVs added to all subbasins, regional detention facilities were incorporated in suitable areas where existing developed channels are constrained by adjacent development and cannot reasonably be physically expanded. The Mile High Flood District (MHFD) Detention workbook version 4.06 was used to design the conceptual regional detention basins. The workbook has an integrated CUHP model that runs and determines the necessary volume to detain. For consistency, the same CUHP inputs used to develop hydrology were used in the detention basin worksheets. When this was not possible the inputs were kept as close as possible. Regional detention was formalized at existing detention locations and future maintenance agreements will be needed.

5.3 Alternative Modeling

The Environmental Protection Agency's Stormwater Management Model (SWMM) version 5.2 was utilized to simulate the proposed drainage improvements. Hydraulic calculations were performed using the kinematic wave flow routing method within SWMM. Two separate models were developed: a baseline "do nothing" scenario and a model reflecting the proposed improvements. The specific methods used for modeling each alternative are discussed below.

Do Nothing

The "do-nothing" SWMM model was used as the baseline for evaluating channel stability under future build-out conditions. This model incorporates future 100-year flows, future land uses, and existing channel geometries. Any reaches that had velocities over the threshold, the existing channel was deemed to be inadequate to convey future flows, and no action was not considered a viable option.

Future 100-year flows were used for the SWMM input hydrology. Hydraulic inputs for the nodes and links matched the existing and future conditions SWMM models. A channel threshold 100-year velocity criteria was set at 5 ft/s for the boundary between erosive and non-erosive flows. This threshold is typically appropriate for vegetated channels without hardened erosion protection.

Proposed (Recommended Alternative)

The proposed SWMM model includes the recommended improvements needed to meet the criteria for the major drainageways. This model incorporates future 100-year flows and future land uses (with EURVs added to each subbasin, see paragraph below). The channel geometries were kept the same as the "do-nothing" model if the threshold velocity was not exceeded. If the threshold velocity was exceeded, the channel geometry was modified. If channel widening was not possible, regional detention facilities and/or grade control were implemented to reduce velocities.

Channel improvements were modeled in SWMM. For regional stormwater planning purposes, a trapezoid with 5H:1V side slopes and a varying bottom width was assumed for channel geometry. This bottom width is used to size an approximate future 100-year flood corridor width. Other link inputs were not changed. Channel size was based on meeting the threshold velocity criteria of 5 feet per second. The reported channel top widths for each alternative include 1.5 feet of freeboard. The peak discharge in each reach is dependent on upstream conditions. For simplicity and to create a more consistent corridor, a single proposed width is recommended for each reach. However, many reaches are comprised of

multiple distinct sections, and hydraulic results for these individual links are included in the following tables for reference.

Each subbasin in this model includes an associated EURV, complete with a dedicated outlet and weir. The size and configuration of each EURV were determined based on the respective subbasin's area and land use characteristics. Inflows generated from CUHP were routed directly into these EURV detention basins. The outlets and weirs were designed to achieve the MHFD standard 120-hour drain time, aligning with the calculated storage volumes of the EURVs. EURV detention calculations are for regional stormwater planning only and not intended to be used for actual design. Each proposed development must go through a more detailed design process to appropriately size stormwater facilities.

The hydraulic capacities of major crossing structures were analyzed with HY-8 version 8.0.0.1 software. This software was used to calculate the capacity of the existing crossing structures as well as size the crossing structures needed in the proposed condition. For rough cost planning purposes, the simplest culvert configurations that fully convey the future 100-year flows were sized in this study.

5.4 Alternative Results

Alternatives maps, with proposed recommendations, are shown based on their corresponding Major Basin Group Letter below:

Group A

Includes Major Basin 1000 (Big Hollow Gulch) and 1100 shown in **Figure 5-1**.

Group B

Includes Major Basins 800 and 900 shown in **Figure 5-2**.

Group C

Includes Major Basins 200, 260, 400, and 600 shown in **Figure 5-3**.

Group D

Includes Major Basins 100 (Old Town North), 300 (Elwell), 500 (Twin Mounds), and 700 (Johnson's Corner) shown in **Figure 5-4**.

Group E

Includes Major Basins 2600 (Pulliam), 2800, 2900, and 3000 shown in **Figure 5-5**.

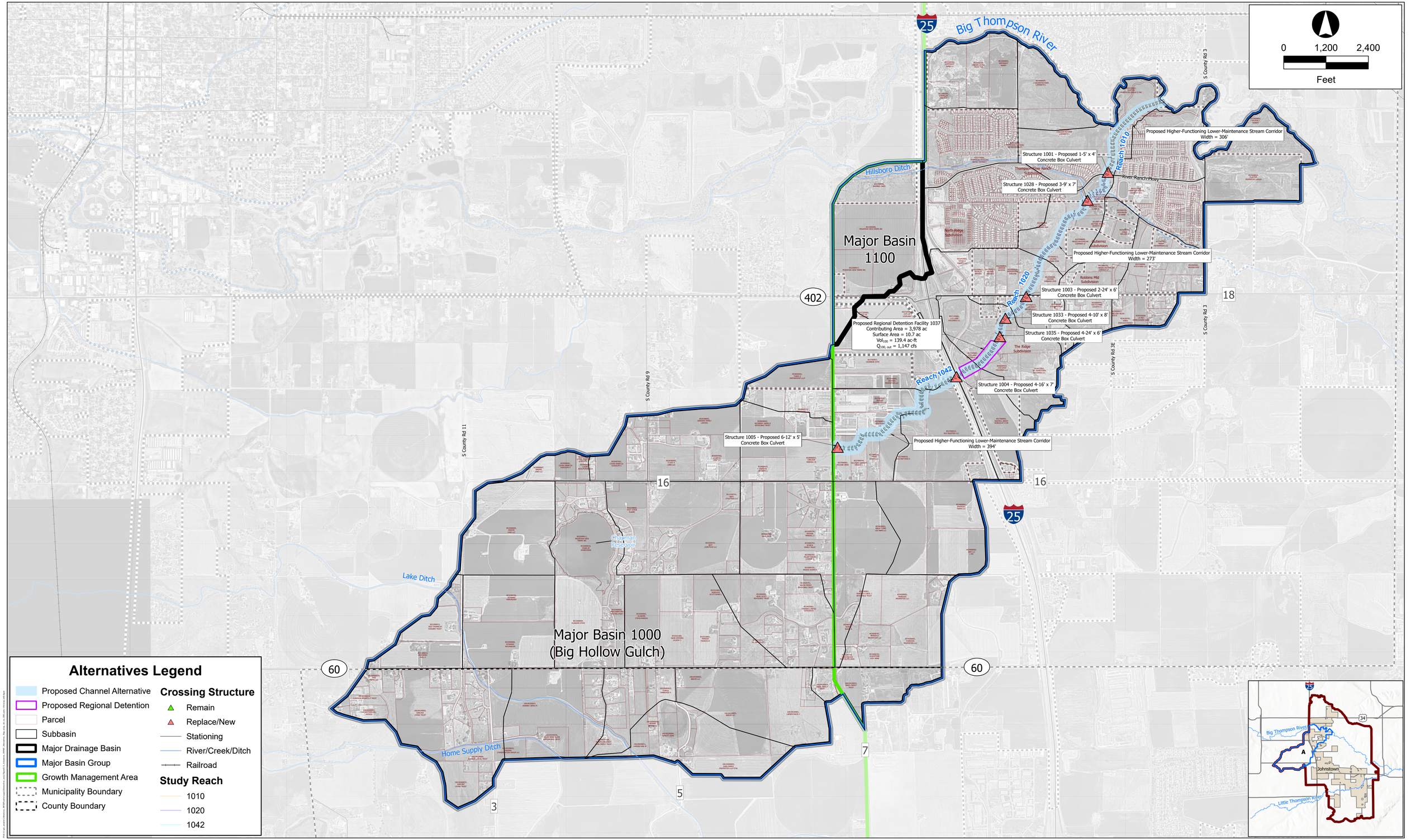
Group F

Includes Major Basins 2000, 2100, 2400 (Bunyan), 2500, and 2700 shown in **Figure 5-5**.

Group G

Includes Major Basins 2200 (Old Town South) and 2300 (Old Town South) shown in **Figure 5-7**.

Following the figures for each major basin group, alternatives results and recommendations can be found below.



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Matrix
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Figure 5-1 - Major Basin Group - A
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.1 Major Basin Group A

Group A is comprised of two major basins: Major Basin 1000 (Big Hollow Gulch) and Major Basin 1100. Both major basins drain to the Big Thompson River. Major Basin 1100 does not include any reaches and drains directly into a large detention area adjacent to the I-25 highway. With the Big Thompson River running alongside, this detention area will overflow into the river during significant storm events. No previous studies were found for this location. Detailed data on flow velocities, discharge rates, and channel improvements are available in Table 5-1, Table 5-2 and Table 5-3 respectively, while the capacities and dimensions for all proposed structures are provided in Table 5-4.

Major Basin 1000 (Big Hollow Gulch)

The Major Basin 1000 reaches extend from Larimer County Road 7 to the Big Thompson River. This area was included in the *Hydraulic Analysis for Regional Drainage Facilities and Irrigation Storage Improvements Big Hollow Gulch and the Ridge Development*, completed in May 2024, and in the *Final Drainage Report, THE RIDGE AT JOHNSTOWN (EAST VILLAGE)*, completed in February 2020. The 2024 and 2020 reports primarily focused on a proposed development known as “The Ridge” and recommended several new crossings, as well as channel enlargements within the project area. However, the hydrology results from both analyses differ from those in this Master Plan, making the proposed channels and crossings unsuitable for accommodating our 100-year flow requirements.

Reach 1010

Reach 1010 is the most downstream segment, running from River Ranch Parkway to the Big Thompson River. The area surrounding this channel is almost entirely developed. Although the 100-year flow velocity remains below 5 feet per second, water depths can exceed 7 feet, creating a significant risk for the nearby community. To mitigate these depth-related hazards, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. There are no existing or planned culverts within this reach.

Reach 1020

Reach 1020 is the middle segment, extending from I-25 to River Ranch Parkway. Downstream of Reach 1020, an overland bridge crosses the canal, passing by Peaceful View Playground and leading into a small local detention pond where existing Structure 1001 is located.

To manage high peak flows, a new crossing— Structure 1028—is proposed right before the overland bridge. The existing Structure 1001 would need to be upsized to handle the additional flows from a 100-year storm that Structure 1028 cannot accommodate.

Upstream portions of Reach 1020 have recently experienced new development, which generally aligns with the recommendations outlined in the 2024 Big Hollow Gulch Study by Anderson Consulting Engineers, Inc. That study called for the addition of several new detention basins within local developments, as well as the construction of a regional drainage facility. It also recommended installing new culverts and upgrading existing ones. The regional detention basin proposed in the 2024 Big Hollow Gulch Study has been incorporated into our model to help mitigate downstream flows.

The channel dimensions and proposed culvert sizes from the 2024 study did not fully meet our criteria. As a result, each was increased in size, while still maintaining as much consistency as possible with the 2024 recommendations. This includes modifications to existing Structure 1003, as well as the proposed structures 1033 and 1035.

Reach 1043

Reach 1043 is the most upstream segment, stretching from Larimer County Road 7 to I-25, and features significant variation in channel size due to the presence of a local dairy farm. While the area remains undeveloped, it receives substantial flows, which are evident in aerial imagery. To accommodate these large volumes, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed, which will also help address the considerable depths observed at this location.

There are two existing crossings in this reach: Structure 1004, a triple box culvert under I-25, and culvert 1005, an embedded 1-foot CMP. To theoretically manage the high flows, both Structure 1004 and 1005 will need to be changed to box culverts and upgraded to a larger size. These proposed upgrades are designed for a 100-year rain event.

Major Basin 1100

Major Basin 1100 does not include any reaches and drains directly into a large detention area adjacent to the I-25 highway. With the Big Thompson River running alongside, this detention area will overflow into the river during significant storm events. No previous studies were found for this location.

Table 5-1 100-Year Channel Velocity – Group A

Velocity (ft/s)				
Reach	**SWMM Links**	**Existing**	**Do Nothing**	**Proposed**
1010	L_1019	3.7	4.1	3.1
1010	Overflow_1028	13.0	14.0	4.5
1020	L_1029	5.0	5.4	4.8
1020	L_1031	7.3	8.0	4.7
1020	L_1033	5.8	6.5	4.8
1020	L_1035	6.8	7.7	3.3
1020	L_1037	4.2	4.7	-
1042	L_1039	6.5	7.2	4.9
1042	L_1041	5.7	6.3	4.3
1042	L_1052	7.7	8.3	4.8
1042	L_1053	6.9	7.5	4.8

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-2 100-Year Channel Discharge – Group A

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
1010	L_1019	5,047	6,897	3,299
1010	Overflow_1028	4,924	6,737	116
1020	L_1029	4,925	6,739	3,151
1020	L_1031	4,806	6,594	3,098
1020	L_1033	4,767	6,559	3,091
1020	L_1035	4,625	6,420	3,081
1020	L_1037	4,531	6,276	-
1042	L_1039	4,379	6,054	4,827
1042	L_1041	4,054	5,629	4,575
1042	L_1052	3,482	4,684	3,886
1042	L_1053	3,347	4,441	3,705

Table 5-3 Proposed Channel Geometry - Group A

Channel Geo					
Reach	Pr. Change	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
1010	Yes	250	5	4.1	306
1020	Yes	230	5	2.8	273
1042	Yes	350	5	2.9	394

Table 5-4 Proposed Crossing Structures - Group A

Structure Number	Reach Number	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
1001	1010	Roadway	5' x 4' CBC	186
1028	1020	Irrigation	3 - 9' x 7' CBC	2,493
1003	1020	Roadway	2 - 24' x 6' CBC	4,902
1033	1020	Roadway	4 - 10' x 8' CBC	3,878
1035	1020	Roadway	2 - 24' x 6' CBC	5,878
1004	1043	Highway	4 - 16' x 7' CBC	6,159
1005	1043	Roadway	6 - 12' x 5' CBC	3,527

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

0 1,200 2,400
Feet

Major Basin 900

Major Basin 800

Union Pacific Railroad

Great Western Railway

Great Western Railway

Carlberg Pkwy

Draft Horse Dr

E County Rd 24

E County Rd 20E

Keller Substation Subdivision

Prpe Mtd Subdivision

Encore Subdivision

Thompson Pkwy Subdivision

2534 West Subdivision

Crowne At 2534 Manor Subdivision

Atlas Garage & Storage 2534 Corners Subdivision

Iron Horse Subdivision

Thompson Crossing 2 Subdivision

S County Rd 3

Weld County Rd 15

Greeley and Loveland Irrigation Canal

Farmers Ditch

Hill and Brush Ditch

Big Thompson River

Reach 940

Reach 950

Reach 900

Reach 830

Reach 810

Reach 807

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 94'

Structure 808 - Proposed 3-7' x 3' Concrete Box Culvert

Structure 945 - Proposed 2-10' x 7' Concrete Box Culvert

Structure 807 - Proposed 2-8' x 2' Concrete Box Culvert

Structure 806 - Proposed 2-7' x 4' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 188'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 113'

Structure 944 - Proposed 1-12' x 10' Concrete Box Culvert

Structure 805 - Proposed 3-12' x 4' Concrete Box Culvert

Structure 804 - Proposed 3-10' x 5' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width =145'

Structure 803 - Proposed 3-12' x 4' Concrete Box Culvert

Structure 942 - Proposed 2-9' x 8' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 522'

Structure 802 - Proposed 3-7' x 6' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 307'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 100'

Structure 801 - Proposed 3-8' x 6' Concrete Box Culvert

Structure 800 - Proposed 3-8' x 4' Concrete Box Culvert

3

13

13

18

34

34

25

Alternatives Legend

- Proposed Channel Alternative
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure

- Remain
- Replace/New
- Stationing
- River/Creek/Ditch
- Railroad

Study Reach

- 807
- 810
- 830
- 900
- 940
- 840
- 950

B

Big Thompson River

Johnstown

Little Thompson River

34

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Figure 5-2 - Major Basin Group - B
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.2 Major Basin Group B

Major Basin Group B is comprised of two primary basins: Major Basin 800 and Major Basin 900. Both basins discharge into the Big Thompson River. Detailed data on flow velocities, discharge rates, and channel improvements are available in Table 5-5, Table 5-6, and Table 5-7, respectively, while the capacities and dimensions for all proposed structures are provided in Table 5-8.

Major Basin 800

Major Basin 800 contains two primary drainageways, both of which cross the Union Pacific Railroad and the Great Western Railway. The first drainageway consists solely of Reach 807, while the second includes Reaches 810, 830, and 840. The surrounding area is largely undeveloped and is primarily agricultural farmland.

Reach 807

Reach 807 is the sole reach within one of Major Basin 800's two primary drainageways, extending from the Great Western Railroad to the Big Thompson River and passing through undeveloped agricultural land. There are no major existing structures within the channel, and a proposed structure (Structure 900) is recommended to cross underneath the Hill and Brush Ditches. This crossing will be able to manage flows from up to a 25-year rainfall event, after which excess water will pass over the Hill and Brush Ditch via a land bridge and discharge into the Big Thompson. To accommodate the large volumes of water expected during a 100-year storm event, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed.

Reach 810

Reach 810 extends from the Great Western Railroad to the Big Thompson River, passing through undeveloped agricultural land. The channel width varies, narrowing in some areas, which can contribute to over-road flooding. To address these issues, a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Near the Big Thompson outfall, the channel drains into the Hill and Brush Ditch, where a proposed Structure 801 is recommended to pass beneath the canal. Upstream, Structure 802 is proposed at Larimer County Road 20C to accommodate a 100-year rain event.

Reach 830

Reach 830 extends from US-35 to the Great Western Railroad, passing through the Farmers Ditch and beneath the Union Pacific Railroad near the Canyon Bakehouse. There are no defined channels throughout the reach, but drainage flows into a detention area that appears to have formed at the crossing of the Union Pacific and Great Western Railroads. In total, four proposed structures—803, 804, 805, and 806—are planned. To ensure safer water conveyance, a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended.

Reach 840

Reach 840 starts around the upper region of Major Basin 800 and extends all of the way to US-34. It passes through undeveloped agricultural land with large portion of the water going into the Land and Greeley Ditch. To help with future development, a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Separation of the runoff and the canal is needed with a proposed Structure 808 going underneath the canal. Another proposed structure is recommend going underneath US-34, Structure 807. Both structures are design to handle 100-year rainfall events.

Major Basin 900

Major Basin 900 is comprised of two primary drainageways, with one containing only Reach 900 and the other containing Reaches 940 and 950. The basin has undergone substantial development, with numerous areas still under construction and additional projects planned.

Reach 900

Reach 900 runs from Ronald Reagan Boulevard to the Big Thompson River, passing through areas that are already built up as well as places where new construction is happening. Along the way, the channel goes through a pond and a detention pond, but it's not clear how often the detention pond is maintained. There aren't any major road crossings in this part of the channel. To address these conditions, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended.

Reach 940

Reach 940 stretches from Ronald Reagon Boulevard to the Big Thompson River and runs through an area that has seen a large amount of new development. Because of this, the channel now experiences high water speeds and deep flows, especially during storms. To address these conditions, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. There are two major crossings in this reach, structures 942 and 944, all of which are currently too small to handle large storm events. New, larger crossings have been proposed to help the channel safely carry water during a 100-year flood.

Reach 950

Reach 950 extends from US-34 to Ronald Reagan Boulevard, with new developments on both sides of the channel. The channel experiences large discharges that result in high velocities. To manage these conditions, a well-defined, efficient, and lower-maintenance stream corridor is recommended. There is a single major structure crossing at US-34— Structure 945—which is currently undersized. New, larger crossings have been proposed to help the channel safely carry water during a 100-year flood.

Table 5-5 100-Year Channel Velocity – Group B

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
807	L_812	4.8	5.5	5.0
810	L_819	6.3	7.2	3.7
830	L_839	3.2	3.8	4.8
840	L_859	4.3	4.7	4.9
900	L_919	7.6	8.8	5.0
940	L_937	10.2	11.3	5.0
950	L_959	5.9	6.6	4.5

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-6 100-Year Channel Discharge – Group B

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
807	L_812	618	1,029	731
810	L_819	1,092	1,705	1,212
830	L_839	872	1,342	1,020
840	L_859	454	605	476
900	L_919	996	1,526	1,184
940	L_937	1,961	2,912	1,856
950	L_959	1,648	2,511	1,667

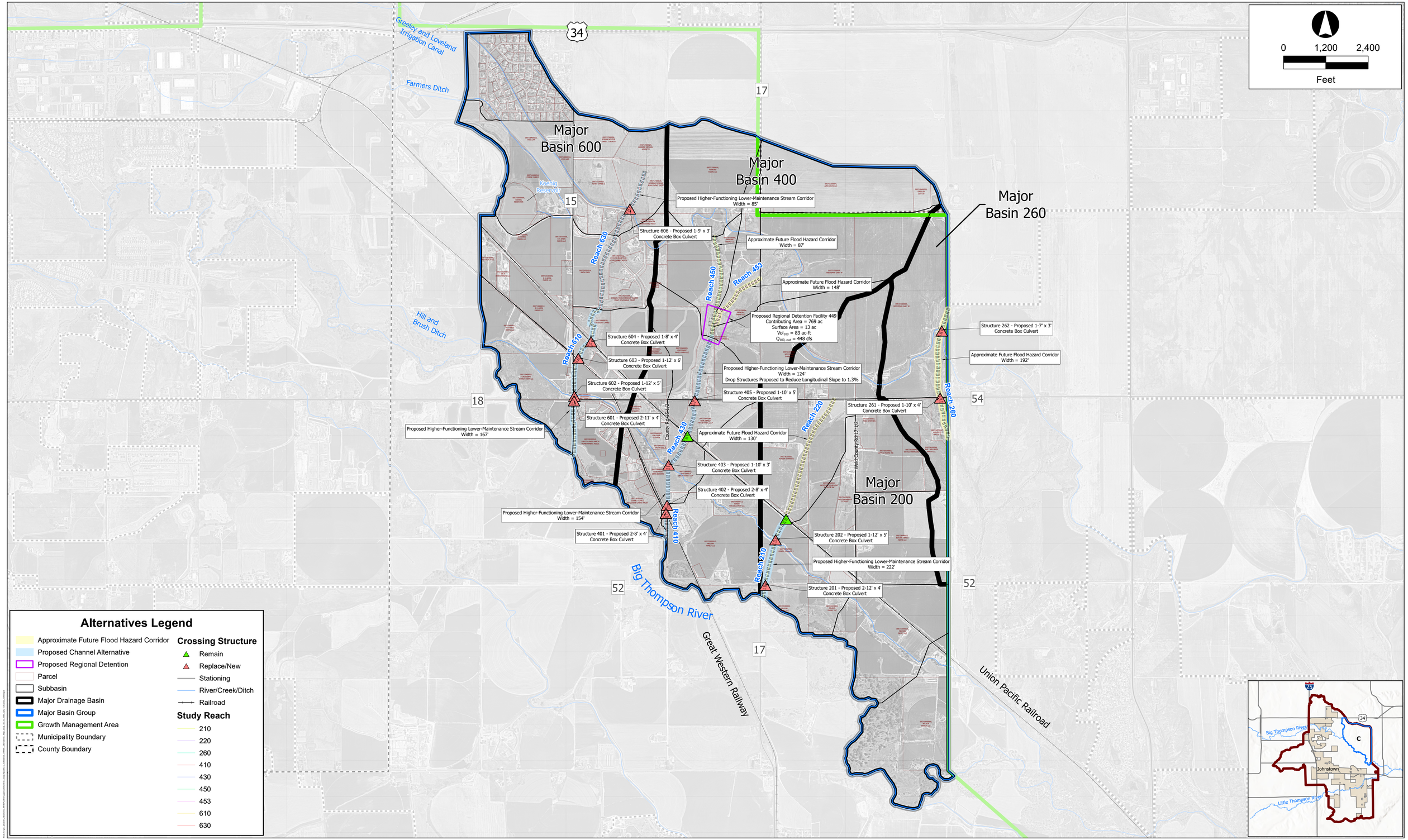
Table 5-7 Proposed Channel Geometry - Group B

Channel Geo					
Reach	Pr. Change	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
807	Yes	65	5	2	100
810	Yes	280	5	1.2	307
830	Yes	160	5	1.3	188
840	Yes	60	5	1.9	94
900	Yes	110	5	2	145
940	Yes	500	5	0.7	522
950	Yes	75	5	2.3	113

Table 5-8 Proposed Crossing Structures - Group B

Structure Number	Reach Number	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
800	807	Irrigation	3 - 8' x 4' CBC	730
801	810	Irrigation	3 - 8' x 6' CBC	1,208
802	810	Roadway	3 - 7' x 6' CBC	1,259
803	810	Railroad	3 - 12' x 4' CBC	1,190
804	830	Railroad	3 - 10' X 5' CBC	1,190
805	830	Railroad	3 - 12' x 4' CBC	1,022
806	830	Irrigation	2 - 7' X 4' CBC	476
807	830	Roadway	2 - 8' x 4' CBC	476
808	830	Irrigation	3 - 7' X 3' CBC	476
942	940	Railroad	2 - 9' x 8' CBC	1,857
944	940	Roadway	12' x 10' CBC	1,667
945	950	Highway	2 - 10' x 7' CBC	1,667

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).



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Figure 5-3 - Major Basin Group - C
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.3 Major Basin Group C

Major Basin Group C is comprised of four major basins: Major Basin 200, Major Basin 260, Major Basin 400, and Major Basin 600. Each basin discharges into the Big Thompson River. Detailed information on velocities, discharges, channel geometries, and major crossings can be found in Table 5-9, Table 5-10, Table 5-11, and Table 5-12, respectively. Refer to Appendix E for the proposed major crossings calculations.

All the major basins within Group C are outside of Johnstown's current limits but mostly within the Town's growth management area. The *Storm Water Master Plan for the Town of Johnstown*, dated April 2001, did not include any of the major basins with Group C.

Major Basin 200

Major Drainageway 200 extends between the Big Thompson River and Weld County Road 54.

Reach 210

Reach 210 is the downstream portion of Major Drainageway 200, extending between the Big Thompson River and the Union Pacific Railroad. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two major crossing structures: Structures 201 and 202. These crossings are located at Weld County Road 52 and the Hill and Brush Ditches, respectively. Both existing culverts at these locations do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities. The proposed culverts can be found in Table 5-12.

Reach 220

Reach 220 is the upstream portion of Major Drainageway 200, extending between the Union Pacific Railroad and Weld County Road 54. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Structure 203 is the only major crossing structure within Reach 220, located at the crossing with the Union Pacific Railroad. The existing bridge has capacity to pass the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacity.

Major Basin 260

Major Drainageway 260 extends between the growth management area boundary that runs north-south about a mile west of Weld County Road 21.

Reach 260

Reach 260 represents the entirety of Major Drainageway 200. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

This reach contains two major crossing structures: Structures 261 and 262. These crossings are located at Weld County Road 54 and the Greeley and Loveland Irrigation Canal, respectively. Both existing culverts at these locations do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities. The proposed culverts can be found in Table 5-12.

Major Basin 400

Major Drainageway 400 extends between the Big Thompson River and Weld County Road 17. Note that the upstream portion of this major drainageway splits into two Reaches (450 and 453).

Reach 410

Reach 410 is the downstream portion of Major Drainageway 400, extending between the Big Thompson River and the Great Western Railway. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Reach 430

Reach 430 is the middle portion of Major Drainageway 400, extending between the Great Western Railway and the existing pond about 0.3 miles north of Weld County Road 54. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor, and drop structures to decrease the longitudinal slope to 1.3%. In addition to the channel improvements, the proposed condition includes a regional detention facility in the location of the existing pond at the upstream end of this reach. The details of this detention facility can be found in Figure 5-3.

This reach contains five major crossing structures: Structures 401, 402, 403, 404, and 405. These crossings are located at the Great Western Railway, Weld County Road 15 ½, the Hill and Brush Ditch, the Union Pacific Railroad, and Weld County Road 54, respectively. All existing culverts in this reach, except for Structure 404, do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities. The proposed culverts can be found in Table 5-12.

Reach 450

Reach 450 is one of the upstream portions of Major Drainageway 400, extending between the existing pond about 0.3 miles north of Weld County Road 54 and about 600 feet south of the Greeley and Loveland Irrigation Canal. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Reach 453

Reach 453 is one of the upstream portions of Major Drainageway 400, extending between the existing pond about 0.3 miles north of Weld County Road 54 and Weld County Road 17. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Major Basin 600

Major Drainageway 600 extends between the Big Thompson River and about 900 feet north of the Greeley and Loveland Irrigation Canal.

Reach 610

Reach 610 is the downstream portion of Major Drainageway 600, extending between the Big Thompson River and about 1,100 feet north of the Union Pacific Railroad. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains four major crossing structures: Structures 601, 602, 603, and 604. These crossings are located at Weld County Road 54, the Hill and Brush Ditch, the Great Western Railway, and the Union Pacific Railroad, respectively. All existing culverts in this reach do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities. The proposed culverts can be found in Table 5-12.

Reach 630

Reach 630 is the upstream portion of Major Drainageway 600, extending between about 1,100 feet north of the Union Pacific Railroad and about 900 feet north of the Greeley and Loveland Irrigation Canal l. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 606 is the only major crossing structure within Reach 630, located at the crossing with the Greeley and Loveland Irrigation Canal. There is no existing structure or protection at this crossing. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. The proposed culvert can be found in Table 5-12.

Table 5-9 100-Year Channel Velocity – Group C

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
210	L_219	4.8	7.9	5.0
220	L_222	2.6	4.8	4.4
260	L_264	1.9	3.7	3.4
410	L_419	8.1	13.5	4.9
430	L_429	8.4	14.5	4.9
453	L_455	2.6	5.0	4.7
450	L_459	2.1	4.6	3.9
610	L_619	6.2	10.1	5.0
630	L_639	2.9	5.9	5.0

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-10 100-Year Channel Discharge – Group C

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
210	L_219	480	918	705
220	L_222	285	497	385
260	L_264	211	381	317
410	L_419	1,305	2,638	556
430	L_429	1,226	2,496	488
453	L_455	520	941	784
450	L_459	225	548	368
610	L_619	615	1,160	869
630	L_639	298	616	450

Table 5-11 Proposed Channel Geometry - Group C

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
210	Yes	200	5	0.7	222
220	No	65	12	1.2	130
260	No	150	10	0.6	192
410	Yes	130	5	0.9	154
430	Yes	100	5	0.9	124
450	No	70	3	1.3	87
453	No	100	8	1.5	148
610	Yes	140	5	1.2	167
630	Yes	55	5	1.5	85

Table 5-12 Proposed Crossing Structures - Group C

Structure Number	Reach Number	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
201	210	Roadway	2-12'x4' CBC	908
202	210	Irrigation	1-12'x5' CBC	908
203	220	Railway	Ex. 100' Span Bridge	735
261	260	Roadway	1-10'x4' CBC	320
262	260	Irrigation	1-7'x3' CBC	320
401	430	Railway	2-8'x4' CBC	556
402	430	Roadway	2-8'x4' CBC	556
403	430	Irrigation	1-10'x3' CBC	488
404	430	Railway	Ex. 108" CMP	488
405	430	Roadway	1-10'x5' CBC	479
601	610	Roadway	2-11'x4' CBC	884
602	610	Irrigation	1-12'x5' CBC	884
603	610	Railway	1-12'x6' CBC	884
604	610	Railway	1-8'x4' CBC	708
606	630	Irrigation	1-9'x3' CBC	481

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

0 1,400 2,800
Feet

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 277'
Hillsboro Ditch
Structure 701 - Proposed 3-12' x 5' Concrete Box Culvert
Reach 710
Structure 703 - Proposed 2-12' x 6' Concrete Box Culvert
Structure 702 - Proposed 2-10' x 4' Concrete Box Culvert
Big Thompson River
Great Western Railway
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 167'
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 122'
Reach 730
Reach 510
Structure 707 - Proposed 2-12' x 4' Concrete Box Culvert
Structure 502 - Proposed 1-8' x 3' Concrete Box Culvert
Structure 501 - Proposed 2-12' x 4' Concrete Box Culvert
Approximate Future Flood Hazard Corridor Width = 124'
Structure 302 - Proposed 2-12' x 5' Concrete Box Culvert
Major Basin 300 (Elwell)
Reach 530
Proposed Regional Detention Facility 539
Contributing Area = 672 ac
Surface Area = 12 ac
Vol_{100} = 69 ac-ft
$Q_{100, out}$ = 230 cfs
Structure 503 - Proposed 1-12' x 4' Concrete Box Culvert
Structure 301 - Proposed 2-12' x 6' Concrete Box Culvert
Major Basin 700 (Johnson's Corner)
Major Basin 500 (Twin Mounds)
Structure 504 - Proposed 1-12' x 4' Concrete Box Culvert
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 308'
Reach 320
Structure 303 - Proposed 2-12' x 5' Concrete Box Culvert
Structure 304 - Proposed 2-10' x 4' Concrete Box Culvert
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 123'
Major Basin 100 (Old Town North)
Reach 340
Proposed Regional Detention Facility 379
Contributing Area = 609 ac
Surface Area = 11 ac
Vol_{100} = 75 ac-ft
$Q_{100, out}$ = 482 cfs
Structure 305 - Proposed 2-12' x 5' Concrete Box Culvert
Reach 120
Reach 170
Approximate Future Flood Hazard Corridor Width = 57'
Drop Structures Proposed to Reduce Longitudinal Slope to 0.4%
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 301'
Structure 101 - Proposed 2-12' x 5' Concrete Box Culvert
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 136'
Structure 311 - Proposed 2-12' x 5' Concrete Box Culvert
Reach 385
Reach 390
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 160'
Structure 310 - Proposed 1-12' x 4' Concrete Box Culvert
Proposed Regional Detention Facility 389
Contributing Area = 631 ac
Surface Area = 13 ac
Vol_{100} = 52 ac-ft
$Q_{100, out}$ = 180 cfs
Home Supply Ditch
Great Western Railway

Alternatives Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Alternative
- Proposed Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure

- Remain
- Replace/New
- Stationing
- River/Creek/Ditch
- Railroad

Study Reach

- 110
- 120
- 320
- 340
- 385
- 390
- 510
- 530
- 710
- 730

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Figure 5-4 - Major Basin Group - D
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.4 Major Basin Group D

Major Basin Group D is comprised of four major basins: Major Basin 100 (Old Town North), Major Basin 300 (Elwell), Major Basin 500 (Twin Mounds), and Major Basin 700 (Johnson's Corner). All the major basins within Group D discharge into the Big Thompson River. Detailed information on velocities, discharges, channel geometries, and major crossings can be found in Table 5-13, Table 5-14, Table 5-15, and Table 5-16, respectively. Refer to Appendix E for the proposed major crossings calculations.

Major Basin 100 (Old Town North)

Major Drainageway 100 extends between the Big Thompson River and Weld County Road 50. Major Basin 100 was included in the *Storm Water Master Plan for the Town of Johnstown*, dated April 2001. This basin was named "Old Town North". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 100. Note that the alignment of the upstream portion of Major Drainageway 100 differs from the alignment assumed in the 2001 Master Plan.

Reach 110

Reach 110 is the downstream portion of Major Drainageway 100, extending about 0.41 miles southwest from the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. There are currently no existing or proposed culverts or crossings along this reach.

Reach 120

Reach 120 is the upstream portion of Major Drainageway 100, extending northwest from the upstream end of Reach 110 to Weld County Road 50. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 101 is the only major crossing structure within Reach 120, located at the crossing with Weld County Road 17 and the Great Western Railway. No existing culvert could be found. Flood flows presumably overtop Weld County Road 17 and the Great Western Railway. In the proposed condition, a 2-12'x5' concrete box culvert conveys the 100-year flows. The culvert capacity can be found in Table 5-16.

Major Basin 300 (Elwell)

Major Drainageway 300 extends between the Big Thompson River and I-25. Major Basin 300 was included in the 2001 Master Plan and was named "Elwell Basin". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 300.

Reach 320

Reach 320 is the furthest downstream portion of Major Drainageway 300, extending between the Hillsboro Ditch and the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains three crossing structures: Structures 301, 302, and 303. These crossings are located at Weld County Road 52, Weld County Road 15 ¼, and a private road, respectively. Each of the existing culverts at these locations is undersized. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Reach 340

Reach 340 is a portion of Major Drainageway 300, extending between the north edge of the Rocksbury Ridge development and the Hillsboro Ditch. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. In addition to the channel improvements, the proposed condition includes a regional detention facility in the undeveloped land downstream of the Rocksbury Ridge development. The details of this detention facility can be found in Figure 5-4.

This reach contains three roadway crossing structures: Structures 305, 306, and 307. These crossings are located at a private road, Weld County Road 50, and Weld County Road 13, respectively. One of the three existing culverts at these locations is undersized. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Reach 340 crosses the Hillsboro Ditch at crossing number 304. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, a double 10'x4' concrete box culvert is recommended to route the 100-year flow underneath the canal.

Reach 385

Reach 385 is a portion of Major Drainageway 300, extending between High Plains Blvd and the north edge of the Rocksbury Ridge development. The area surrounding this reach is developed as single-family residential. This reach will be unstable in future conditions without proposed channel improvements, which include decreasing the longitudinal slope to 0.4% via drop structures. Widening the channel bottom was not considered an option since the channel is confined within the existing Rocksbury Ridge development. In addition to the drop structures, the proposed condition includes a regional detention facility in the undeveloped land immediately upstream of the High Plains Drive crossing within Reach 390. The details of this detention facility can be found in Figure 5-4.

This reach contains two roadway crossing structures: Structures 308 and 309. These crossings are located at an emergency vehicle access and River Rock Drive, respectively. Both existing culverts at these locations have capacity for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Reach 390

Reach 390 is the furthest upstream portion of Major Drainageway 300, extending between I-25 and High Plains Blvd. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two crossing structures: Structures 310 and 311. These crossings are located at High Plains Blvd and I-25, respectively. Both existing culverts at these locations are undersized for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Major Basin 500 (Twin Mounds)

Major Drainageway 500 extends between the Big Thompson River and the north boundary of the Revere North Filing No. 1 subdivision. Major Basin 500 was included in the 2001 Master Plan and was named "Twin Mounds Basin". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 500.

Reach 510

Reach 510 is the downstream portion of Major Drainageway 500, extending between S County Line Road and the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two crossing structures: Structures 501 and 503. These crossings are located at Weld County Road 52 ¼ and Weld County Road 52, respectively. Both existing culverts at these locations are undersized for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Reach 510 crosses the Hillsboro Ditch at Crossing number 502. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, an 8'x3' concrete box culvert is recommended to route the 100-year flow underneath the canal.

Reach 530

Reach 530 is the upstream portion of Major Drainageway 500, extending between the north boundary of the Revere North Filing No. 1 subdivision and S County Line Road. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows, if these flows are attenuated via a proposed regional detention facility. This proposed regional detention facility is located in the undeveloped land downstream of the Revere North Filing No. 1 subdivision. The details of this detention facility can be found in Figure 5-4.

Structure 504 is the only major crossing structure within Reach 530, located at the crossing with S County Line Road. The existing culvert is undersized for the proposed 100-year flow. The proposed culvert capacity can be found in Table 5-16.

Major Basin 700 (Johnson's Corner)

Major Drainageway 700 extends between the Big Thompson River and S Larimer County Road 3e. Major Basin 700 was included in the 2001 Master Plan and was named "Johnson's Corner Basin". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 700.

Reach 710

Reach 710 is the downstream portion of Major Drainageway 700, extending between the southeast corner of the Ridge at Johnstown development and the Big Thompson River. The area surrounding this reach is mostly agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two crossing structures: Structures 701 and 703. These crossings are located at E Larimer County Road 18 and a private road, respectively. Both existing culverts at these locations are undersized for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 5-16.

Reach 710 crosses the Hillsboro Ditch at Crossing number 702. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, a double 10'x4' concrete box culvert is recommended to route the 100-year flow underneath the canal.

Reach 730

Reach 730 is the upstream portion of Major Drainageway 700, extending between S County Road 3e and the southeast corner of the Ridge at Johnstown development. The area surrounding this reach is mostly agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 707 is the only major crossing structure within Reach 730, located at the crossing with S Larimer County Road 3e. The existing culvert is undersized for the proposed 100-year flows. The proposed culvert capacity can be found in Table 5-16.

Table 5-13 100-Year Channel Velocity – Group D

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
110	L_114	3.3	6.1	5.0
120	L_119	2.8	4.6	4.6
120	L_129	1.9	3.2	3.1
320	L_311	3.7	7.1	3.8
320	L_329	3.7	7.0	3.1
320	L_339	7.9	12.6	4.4
340	L_349	8.8	13.9	4.3
340	L_359	7.8	12.5	4.8
340	L_369	2.6	4.8	1.9
340	L_379	5.6	9.6	2.7
340	L_387	5.8	10.1	3.6
385	L_384	4.6	7.9	5.0
385	L_389	7.0	11.5	5.0
390	L_393	5.2	9.0	4.9
510	L_519	4.3	7.9	4.9
510	L_527	2.3	4.5	2.7
510	L_529	7.1	11.9	3.9
530	L_539	3.6	7.1	4.0
530	L_549	2.7	5.3	4.8
710	L_719	4.4	7.8	5.0
710	L_729	3.8	6.6	4.3
710	L_738	2.8	5.9	3.5
730	L_739	2.5	4.9	4.4
730	L_749	3.5	6.8	4.8

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-14 100-Year Channel Discharge – Group D

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
110	L_114	1,043	1,633	1,170
120	L_119	1,054	1,640	1,178
120	L_129	560	866	677
320	L_311	3,052	5,251	1,459
320	L_329	2,772	4,724	1,124
320	L_339	2,727	4,627	1,047
340	L_349	2,659	4,454	999
340	L_359	2,562	4,259	857
340	L_369	2,400	3,965	607
340	L_379	1,986	3,252	480
340	L_387	1,589	2,686	947
385	L_384	1,265	2,143	592
385	L_389	972	1,789	317
390	L_393	784	1,398	977
510	L_519	1,249	2,632	849
510	L_527	1,174	2,442	677
510	L_529	1,024	2,089	403
530	L_539	806	1,629	226
530	L_549	681	1,364	948
710	L_719	1,390	2,532	1,519
710	L_729	1,281	2,277	1,374
710	L_738	1,218	2,119	1,265
730	L_739	1,039	1,864	1,086
730	L_749	804	1,403	831

Table 5-15 Proposed Channel Geometry - Group D

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
110	Yes	100	5	2.1	136
120	Yes	80	5	2.8	123
320	Yes	280	5	1.3	308
340	Yes	280	5	0.6	301
385	Yes	10	4	4.4	57
390	Yes	130	5	1.5	160
510	Yes	140	5	1.2	167
530	No	30	10	3.2	124
710	Yes	250	5	1.2	277
730	Yes	80	5	2.7	122

Table 5-16 Proposed Crossing Structures - Group D

Structure Number	Reach Number	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
101	120	Railway	2-12'x5' CBC	1,198
301	320	Roadway	2-12'x6' CBC	1,459
302	320	Roadway	2-12'x5' CBC	1,136
303	320	Roadway	2-12'x5' CBC	1,094
304	340	Irrigation	2-10'x4' CBC	1,094
305	340	Roadway	2-12'x5' CBC	1,014
306	340	Roadway	Ex. 20'x8' CBC	857
307	340	Roadway	Ex. 20'x8' CBC	694
308	385	Roadway	Ex. 10'x4' CBC	332
309	385	Roadway	Ex. 10'x4' CBC	332
310	390	Roadway	12'x4' CBC	332
311	390	Roadway	2-12'x5' CBC	1,030
501	510	Roadway	2-12'x4' CBC	863
502	510	Irrigation	8'x3' CBC	404
503	510	Roadway	12'x4' CBC	403
504	530	Roadway	12'x4' CBC	404
701	710	Roadway	3-12'x5' CBC	1,530
702	710	Irrigation	2-10'x4' CBC	1,399
703	710	Roadway	2-12'x6' CBC	1,399
707	730	Roadway	2-12'x4' CBC	836

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

0 900 1,800
Feet

Home Supply Ditch

25

High Plains Blvd

Carlson Blvd

13

60

Ledge Rock Subdivision

Welty Ridge Subdivision

Clearview Subdivision

Major Basin 2600 (Pulliam)

Great Western Railway

Major Basin 3000

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 126'

Reach 3010

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 122'

Whitehall Subdivision

Reach 2620

Hillsboro Ditch

Structure 3001 - Proposed 2-11' x 5' Concrete Box Culvert

Structure 2901 - Proposed 1-10' x 3' Concrete Box Culvert

46

7

Major Basin 2900

25

Reach 26 10

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 236'

Structure 2601 - Proposed 2-10' x 4' Concrete Box Culvert

Suncatcher Subdivision

Reach 2810

Approximate Future Flood Hazard Corridor Width = 123'

15

13

Little Thompson River

Major Basin 2800

Alternatives Legend

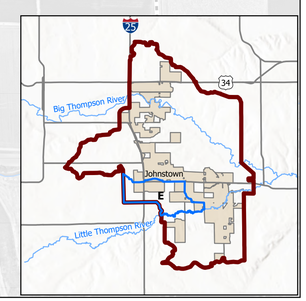
- Approximate Future Flood Hazard Corridor
- Proposed Channel Alternative
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure

- Remain
- Replace/New
- Stationing
- River/Creek/Ditch
- Railroad

Study Reach

- 2610
- 2620
- 2810
- 3010



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Figure 5-5 - Major Basin Group - E
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.5 Major Basin Group E

Major Basin Group E includes four major basins: Major Basin 2600 (Pulliam), Major Basin 2800, Major Basin 2900, and Major Basin 3000. All of the major basins within Group E discharge into the Little Thompson River. Detailed information on velocities, discharges, channel geometries, and major crossings can be found in Table 5-17, Table 5-18, Table 5-19, and Table 5-20, respectively. Refer to Appendix E for the proposed major crossings calculations.

Major Basin 2600 (Pulliam)

Major Drainageway 2600 extends between the Little Thompson River and the Great Western Railway. Major Basin 2600 was included in the *Storm Water Master Plan for the Town of Johnstown*, dated April 2001. This basin was named "Pulliam Basin". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for Major Drainageway 2600.

Reach 2610

Reach 2610 is the downstream portion of Major Drainageway 2600, extending between the Little Thompson River and Weld County Road 46. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Reach 2610 crosses the Hillsboro Ditch at crossing 2601. In significant storm events, flows appear to overtop the berm on the south side of the canal and continue south to the Little Thompson River. The *Storm Water Master Plan for the Town of Johnstown*, dated April 2001, states that there is "an existing overflow structure very near to this crossing, and therefore an additional structure would likely not be necessary." However, a double 10'x4' concrete box culvert is recommended to route the 100-year flow under the canal to ensure that the drainageway does not discharge stormwater into the canal.

Reach 2620

Reach 2620 is the upstream portion of Major Drainageway 2600, extending between Weld County Road 46 and the Great Western Railway. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 2602 is the only major crossing structure within Reach 2620, located at the crossing with Weld County Road 46. The existing bridge at this location has capacity for the proposed condition flows. However, this bridge may need to be replaced or repaired in the future due to its current condition. Refer to Table 4-5 for the existing crossing capacity.

Major Basin 2800

Major Basin 2800 was not included in the 2001 Master Plan. This major basin is outside of the current Johnstown town boundary and includes an area outside of the town's growth management area.

Reach 2810

Reach 2810 represents the entirety of Major Drainageway 2800, extending between a private road and the Little Thompson River. The area surrounding this reach is agricultural. This reach is anticipated to be stable in future conditions with its existing channel geometry. However, establishing a right-of-way or drainage easement is recommended to ensure that the Town has access to the channel to perform maintenance or future improvements. This also gives the Town the ability to prevent development in the drainageway corridor that would create drainage issues.

Major Basin 2900

Major Basin 2900 does not include any major drainageways that were analyzed as part of this report since no defined channel was observed. However, if the existing land use changes, establishing a drainageway corridor in this major basin is recommended. Note that there are existing wetlands downstream of Weld County Road 46.

Structure 2901 is the only major crossing structure within Major Basin 2900, located at the crossing with Weld County Road 46. The existing culvert at this location is undersized. Refer to Table 4-5 for the existing culvert capacity. In the proposed condition, a 10'x3' concrete box culvert conveys the 100-year flows. This short and wide box culvert was chosen due to cover concerns. The proposed culverts can be found in Table 5-20.

Major Basin 3000

Major Basin 3000 was not included in the 2001 Master Plan. This major basin is outside of the current Johnstown town boundary but inside of the town's growth management area.

Reach 3010

Reach 3010 represents the entirety of Major Drainageway 3000, extending between a farm field north of the Great Western Railway and Weld County Road 46. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 3001 is the only major crossing structure within Reach 3010, located at the crossing with Weld County Road 46. The existing culvert at this location is undersized. Refer to Table 4-5 for the existing culvert capacity. In the proposed condition, a 2-11'x5' concrete box culvert conveys the 100-year flows. This relatively short and wide box culvert was chosen due to cover concerns. The proposed culverts can be found in Table 5-20.

Table 5-17 100-Year Channel Velocity – Group E

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2610	L_2619	6.7	11.5	4.9
2620	L_2621	4.2	7.0	5.0
2620	L_2629	4.5	7.4	4.8
2810	L_2812	3.0	5.5	5.0
3010	L_3019	3.4	6.4	5.0

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-18 100-Year Channel Discharge – Group E

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2610	L_2619	990	1,590	1,098
2620	L_2621	785	1,220	815
2620	L_2629	552	838	580
2810	L_2812	252	523	383
3010	L_3019	363	878	586

Table 5-19 Proposed Channel Geometry - Group E

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2610	Yes	210	5	1.1	236
2620	Yes	90	5	1.7	122
2810	No	75	10	0.9	123
3010	Yes	100	5	1.1	126

Table 5-20 Proposed Crossing Structures - Group E

Structure Number	Reach Number	Crossing Type	Structure Size	Design Q_{100} (cfs)[A]
2601	2610	Irrigation	2-10'x4' CBC	1,304
2602	2620	Roadway	Ex. 16'x9' Bridge	1,126
2901	N/A	Roadway	10'x3' CBC	266
3001	3010	Roadway	2-11'x5' CBC	999

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

0 1,200 2,400
Feet

Major Basin 2000

Major Basin 2700

Major Basin 2400 (Bunyan)

Major Basin 2500

Major Basin 2100

Little Thompson River

Hillsboro Ditch

Miner Longan Ditch

Farmers Extension Canal

Hill Lake

Hillsboro Reservoir

Great Western Railway

Weld County Rd 46 1/2

County Rd 19

Noahbeck Dr

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 199'

Structure 2011 - Proposed 3-7' x 4' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 81'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 66'

Structure 2031 - Proposed 3-5' x 4' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 578'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 225'

Structure 2710 - Proposed 4-7' x 3' Concrete Box Culvert

Structure 2711 - Proposed 3-6' x 4' Concrete Box Culvert

Structure 2401 - Proposed 5-12' x 6' Concrete Box Culvert

Structure 2510 - Proposed 4-9' x 3' Concrete Box Culvert

Structure 2511 - Proposed 3-8' x 4' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 294'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 121'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 211'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 253'

Structure 2402 - Proposed 3-10' x 7' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 263'

Structure 2403 - Proposed 3-10' x 7' Concrete Box Culvert

Approximate Future Flood Hazard Corridor Width = 178'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width =79'

Approximate Future Flood Hazard Corridor Width = 65'

Structure 2445 - Proposed 2-6' x 3' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 256'

Structure 2406 - Proposed 3-6' x 5' Concrete Box Culvert

Structure 2101 - Proposed 3-8' x 3' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 116'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 60'

Reach 2010
Reach 2020
Reach 2030
Reach 2110
Reach 2410
Reach 2420
Reach 2430
Reach 2433
Reach 2440
Reach 2445
Reach 2450
Reach 2460
Reach 2510
Reach 2520
Reach 2522
Reach 2710

Alternatives Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Alternative
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure
- Remain
- Replace/New
- Stationing
- River/Creek/Ditch
- Railroad

Study Reach
- 2010
- 2020
- 2030
- 2110
- 2410
- 2420
- 2430
- 2433
- 2440
- 2445
- 2450
- 2460
- 2510
- 2520
- 2522
- 2710

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Figure 5-6 - Major Basin Group - F
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.6 Major Basin Group F

Major Basin Group F is comprised of five Major Basins: 2000, 2100, 2400, 2500, and 2700. All subbasins and their associated reaches within Group F ultimately discharge into the Little Thompson River. Detailed data on flow velocities, discharge rates, and channel improvements are available in Table 5-21,Table 5-22, and Table 5-23, respectively, while the capacities and dimensions for all proposed structures are provided in Table 5-24.

Major Basin 2000

Major Basin 2000 includes Reaches 2010, 2020, and 2030 and consists primarily of undeveloped agricultural farmland. In the middle of the basin is the Little Thompson Reservoir which the Hillsboro Ditch runs along. At some point parts of the reservoir drain into the canal with the rest draining north to the Little Thompson River through an unknown crossing size.

Reach 2010

Reach 2010 is a channel that flows through undeveloped agricultural land and currently crosses both Weld County Road 19 and Weld County Road 46 ½. It spans from the outfall of the Little Thompson Reservoir to the Little Thompson River. The channel initially starts wide but gradually narrows down to a minor channel, which limits its capacity to manage larger flows. To create a stable and effective drainage system capable of handling significant rainfall events, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Rather than maintaining the existing alignment that crosses both Weld County Road 19 and Weld County Road 46 ½, the channel will be redirected north to cross only Weld County Road 46 ½. At this crossing, Structure 2010, a box culvert is proposed to efficiently convey the increased flows expected from future storm events.

Reach 2020

Reach 2020 encompasses both the Little Thompson Reservoir and a small channel that flows directly into it. The primary issue in this area is that portions of the reservoir drain directly into the Hillsboro Ditch. To address this, it is recommended that the reservoir be separated from the irrigation canal in the future. Additionally, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. There are no major crossing structures located in this area.

Reach 2030

Reach 2030 passes through undeveloped agricultural land and currently does not have a defined channel. To effectively manage runoff from a 100-year rainfall event, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At present, water from this area flows into the Hillsboro Ditch and can overflow into the Little Thompson Reservoir during periods of high flow. A future improvement would involve constructing a proposed crossing, Structure 2031, to direct water into the reservoir rather than allowing it to enter the canal directly.

Major Basin 2100

Major Basin 2100 includes reach 2110 and consists primarily of undeveloped agricultural farmland. The contours indicate that water flows northward, but the current road network suggests runoff could overtop Weld County Road 19 during significant flow events. Despite its size, this major basin contains only a single reach.

Reach 2110

Reach 2101 is an agricultural swale that crosses a field before reaching Weld County Road 19, then continues north along a small drainage channel. The current channel cannot accommodate flows from a 100-year rainfall event. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Instead of directing water north along the existing swale, a new crossing beneath Weld County Road 19 is recommended, as the reach on the opposite side of the road already experiences overtopping during major events. The proposed structure, 2110, will be sized to efficiently convey increased flows.

Major Basin 2400 (Bunyan Basin)

Major Basin 2400, originally called Bunyan Basin in the 2001 study, is the largest drainageway in Group F and includes reaches 2410, 2420, 2430, 2433, 2440, 2445, 2450, and 2460. This basin extends from Hills Lake, follows the Great Western Railway of Colorado, and ultimately flows into the Little Thompson. Most of the surrounding land consists of undeveloped agricultural farmland. In the middle section, the drainageway passes adjacent to the Stroh Farm subdivision, a developed area that contributes most of the runoff to the main channel.

Reach 2410

Reach 2410 extends from the Hillsboro Ditch to the Little Thompson River and currently consists of undeveloped farmland. The existing conditions lack a defined channel, making improvements necessary to effectively manage runoff and convey flows. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. There are no major crossings in this reach.

Reach 2420

Reach 2420 extends from Reach 2433 to the Hillsboro Ditch, which it currently drains into. To prevent direct drainage into the canal, a new channel alignment and size are proposed. This includes constructing a culvert, Structure 2401, to carry flows beneath the Hillsboro Ditch, ensuring effective water conveyance without impacting the canal's capacity. Developing a well-defined, higher-functioning, and lower-maintenance stream corridor along this reach is recommended to improve drainage management and reduce potential flooding risks.

Reach 2430

Reach 2430 passes through agricultural fields, extending past Weld County Road 15 and into the main drainageway. This reach currently lacks a fully defined channel and is unable to effectively manage runoff from significant rainfall events. Channel improvements are needed to establish a well-defined, higher-functioning, and lower-maintenance stream corridor.

Reach 2433

Reach 2433 is a smaller section that extends from Structure 2003 to Structure 2002, running along the railroad. The existing channel requires improvements to better manage flows and enhance stability. Additionally, the current box culvert at this location will need upgrades to increase its capacity and ensure effective water conveyance. Developing a well-defined, higher-functioning, and lower-maintenance stream corridor along this reach is recommended to support long-term drainage performance.

Reach 2440

Reach 2440 runs through the Stroh Farm subdivision, extending from Pekin Drive to the main drainageway line. This reach consists of a wide swale that is currently capable of handling existing flow conditions without the need for improvements. The existing crossing, Structure 2444, is also adequate to convey flows effectively. Overall, the channel and associated infrastructure in this reach function well within the developed area.

Reach 2445

Reach 2445 runs through the Stroh Farm subdivision, spanning from Weld County Road 42 to Pekin Drive. This area is already fully developed, and the existing channel is capable of handling the required flows without the need for further improvements. There is a crossing at this reach, Structure 2445, which will require upgrades to ensure continued effective performance.

Reach 2450

Reach 2450 extends from Weld County Road 15 to Weld County Road 42 and features a large channel. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At Weld County Road 15, there is an existing Structure (2405), which consists of an arch pipe that is currently sufficient to handle the expected flows. Near the end of the reach, there is a box culvert, Structure 2403, that runs underneath the Great Western Railroad and will need proposed improvements to handle 100-year flows.

Reach 2460

Reach 2460 is the uppermost section of the drainageway, extending from Hills Lake to Weld County Road 15, and runs parallel to the Great Western Railway through undeveloped farmland. The existing channel is currently a small swale and is not adequate to accommodate a 100-year flood event. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At Weld County Road 15, there is an existing culvert (Structure 2406) that is completely filled with sediment, making its original size difficult to determine. To adequately manage future flows, a proposed structure will be needed at this location.

Major Basin 2500

Major Basin 2500 encompasses a newly constructed golf course named Bella Ridge, which is scheduled to open in late 2025. It includes Reaches 2510, 2520, and 2522. About half of the channels inside of the major basin have been designed while the other half are still being constructed. There are multiple reservoirs that the main drainageway crosses along with a canal crossing.

Reach 2510

Reach 2510 extends from Weld County Road 44 to the Little Thompson River, passing through undeveloped agricultural land and crossing the Hillsboro Ditch. The current alignment diverts the channel into a swale parallel to Weld County Road 13, but the proposed plan is to realign the channel to flow directly through the field. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At the canal crossing, a proposed structure, 2510, will be needed to ensure the channel can safely convey high flows associated with major storm events.

Reach 2520

Reach 2520 begins at the outfall of Reservoir Number 2, passes through the Bella Ridge Golf Course, and continues to Weld County Road 44. Since the outflow rate from the detention facility is not currently known, the channel will need to be redesigned to safely accommodate 100-year storm flows. The downstream end of the channel leads into a detention pond, which appears to be both undersized and still under construction. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. An outfall from this detention pond will be required to cross under Weld County Road 44, and a proposed structure, 2511, will be needed to ensure proper drainage.

Reach 2522

Reach 2522 extends from Weld County Road 42, through Bella Ridge, to Marshall Reservoir Number 2. As of 2025, the channel in this reach remains under construction. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. There is a detention outlet structure along this reach, though its exact dimensions are currently unknown.

Major Basin 2700

Major Basin 2700 encompasses a newly constructed golf course named Bella Ridge, which is scheduled to open in late 2025. It has a single Reach 2710. Currently, the area lacks any formal drainage channels or detention facilities. However, aerial imagery reveals noticeable water accumulation in certain low-lying spots, indicating potential drainage challenges. To address this, a crossing is planned beneath Weld County Road 44 to manage water flow effectively and prevent surface flooding. This infrastructure will be essential to accommodate runoff from the golf course and surrounding areas once it becomes operational.

Reach 2710

Reach 2710 passes through agricultural fields, the Hillsboro Ditch, and the Bella Ridge golf course. Presently, there are no crossings along this reach, which poses challenges for effective water conveyance during major storm events. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. To address the lack of crossings, two new culverts, Structures 2719 and 2711, are proposed. These structures will be needed to ensure the channel can safely convey high flows associated with a 100-year rainfall event.

Table 5-21 100-Year Channel Velocity – Group F

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2010	L_2019	6.2	7.3	4.9
2020	L_2029	2.7	3.5	3.4
2030	L_2032	4.2	6.0	4.9
2110	L_2122	5.5	6.8	5.0
2410	L_2419	8.2	9.4	4.9
2420	L_2421	4.6	5.5	4.7
2420	L_2429	5.2	6.2	5.0
2420	L_2431	4.7	5.6	4.7
2433	L_2432	5.1	6.0	4.4
2430	L_2434	7.3	9.0	4.9
2430	L_2436	3.5	4.4	4.5
2433	L_2439	6.1	7.2	4.9
2440	L_2444	-	-	3.9
2440	L_2445	5.8	7.3	4.8
2450	L_2449	7.0	8.3	5.0
2450	L_2451	3.7	4.4	3.1
2450	L_2454	4.5	5.4	3.5
2450	L_2459	7.5	8.8	4.9
2460	L_2469	4.9	5.6	4.9
2510	L_2519	5.2	6.2	4.1
2520	L_2522	6.2	7.9	5.0
2520	L_2539	6.1	7.9	5.0
2710	L_2719	4.5	4.8	4.1
2711	L_2729	3.3	3.6	4.9

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-22 100-Year Channel Discharge – Group F

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2010	L_2019	558	1,113	784
2020	L_2029	274	609	459
2030	L_2032	144	314	240
2110	L_2122	188	345	260
2410	L_2419	2,883	4,874	3,603
2420	L_2421	2,832	4,802	3,600
2420	L_2429	2,742	4,662	3,529
2420	L_2431	2,657	4,503	3,413
2433	L_2432	2,317	3,886	2,946
2430	L_2434	352	660	537
2430	L_2436	169	336	271
2433	L_2439	2,131	3,672	2,780
2440	L_2444	-	-	250
2440	L_2445	159	318	254
2450	L_2449	1,817	3,138	2,384
2450	L_2451	1,720	2,966	2,253
2450	L_2454	1,480	2,550	1,915
2450	L_2459	1,243	2,195	1,746
2460	L_2469	512	853	633
2510	L_2519	618	1,144	785
2520	L_2522	433	811	565
2520	L_2539	164	322	255
2710	L_2719	520	694	573
2711	L_2729	316	373	311

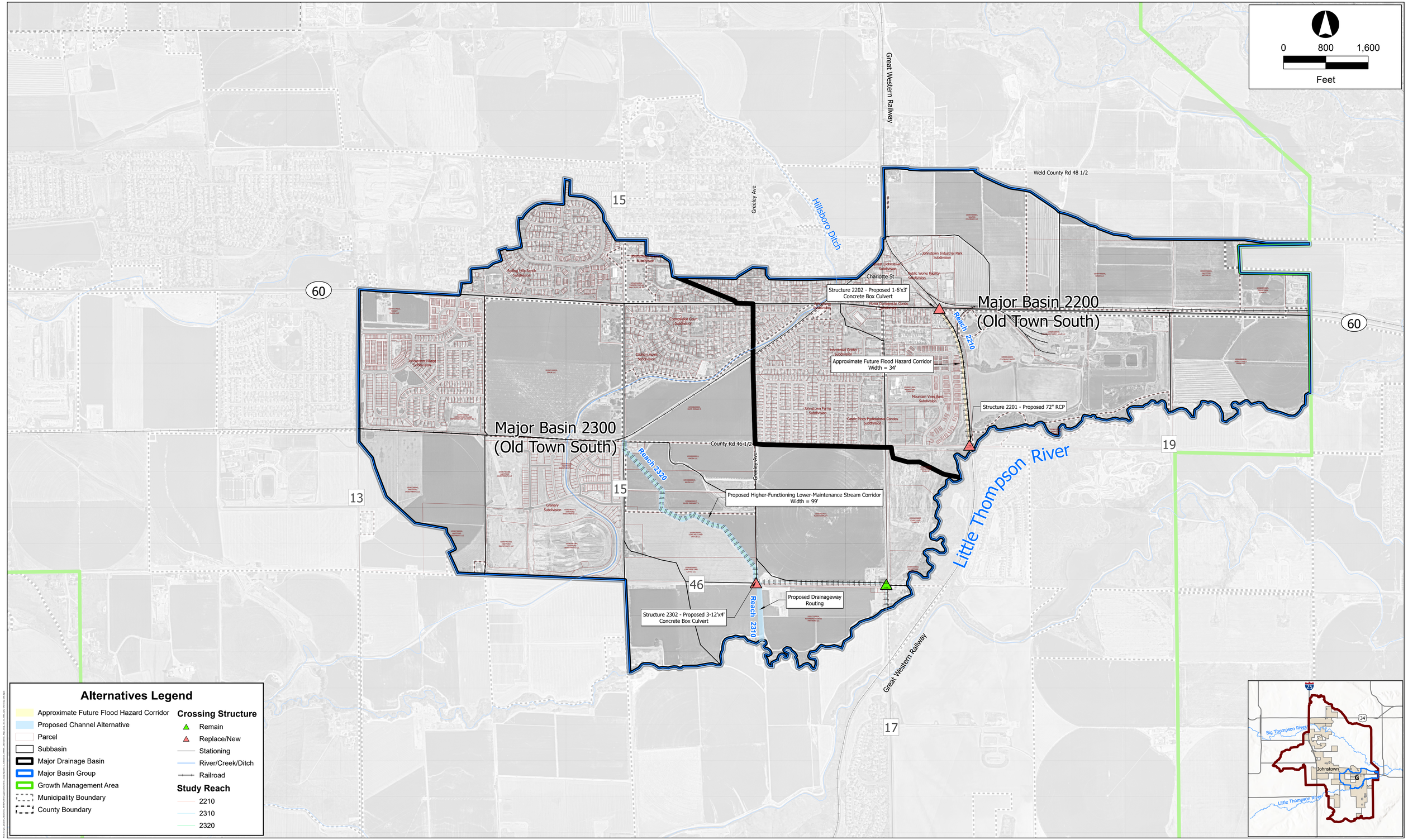
Table 5-23 Proposed Channel Geometry - Group F

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2010	Yes	175	5	0.9	199
2020	Yes	40	5	2.6	81
2030	Yes	40	5	1.1	66
2110	Yes	30	5	1.5	60
2410	Yes	550	5	1.3	578
2420	Yes	250	5	2.9	294
2433	Yes	220	5	2.8	263
2430	Yes	220	5	1.8	253
2445	No	170	2	0.4	178
2440	No	30	6	1.4	64.8
2450	Yes	220	5	2.1	256
2460	Yes	90	5	1.4	119
2510	Yes	200	5	1	225
2520	Yes	190	5	0.6	211
2522	Yes	55	5	0.9	79
2710	Yes	100	5	0.6	121

Table 5-24 Proposed Crossing Structures - Group F

Structure Number	Reach Number	Structure Size and Type	Design Q_{100} (cfs)[A]
2011	2010	3 - 7' x 4' CBC	784
2031	2020	3 - 5' x 4' CBC	459
2101	2110	3 - 8' x 3' CBC	575
2401	2410	5 - 12' x 6' CBC	3,672
2402	2433	3 - 10' x 7' CBC	2,953
2403	2450	3 - 10' x 7' CBC	2,388
2406	2460	3 - 6' x 5' CBC	871
2445	2445	2 - 6' x 3' CBC	253
2510	2510	4 - 9' x 3' CBC	850
2511	2510	3 - 8' x 4' CBC	850
2710	2710	4 - 7' x 3' CBC	583
2711	2710	3 - 6' x 4' CBC	583

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).



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Figure 5-7 - Major Basin Group - G
Recommended Alternatives Map (July 2025)
Johnstown Comprehensive Stormwater Master Plan

5.4.7 Major Basin Group G

Major Basin Group G includes two major basins: Major Basin 2200 and Major Basin 2300. Both these major basins were included in the southern portion of the Old Town Basin from the *Storm Water Master Plan for the Town of Johnstown*, dated 2001. These major basins discharge into the Little Thompson River. Detailed information on velocities, discharges, channel geometries, and major crossings can be found in Table 5-25, Table 5-26, Table 5-27, and Table 5-28, respectively. Refer to Appendix E for the proposed major crossings calculations.

Major Basin 2200 (Old Town South)

Major Basin 2200 was included in the 2001 Master Plan within the Old Town basin. The 2001 Master Plan recommends constructing Major Drainageway 2200 "as part of a storm drain system serving Old Johnstown." However, the 2001 Master Plan also labels the portion of this drainageway along the Great Western Railroad as "Open Channel", so the 2001 Master Plan's recommendation is not clear.

Reach 2210

Reach 2210 runs along the west side of the Great Western Railway south of SH-60 to its confluence with the Little Thompson River immediately south of WCR-46 ½. This drainageway is not currently stable enough to withstand future flows. Note that the amount of stormwater runoff directed to this channel decreased with the Mountain View West development. Refer to the approved *Mountain View West Final Drainage Report*, prepared by Olsson Associates, dated March 2018. This development directs runoff from the Mountain View West site and from the Johnstown Colony subdivision to a detention pond north of WCR-46 ½ and west of the Great Western Railway. This runoff historically would have entered the main drainageway in this basin prior to the Mountain View West development. The subdivisions within the drainage basin to the west of Parish Avenue and south of SH-60 (Johnstown Center and Johnstown Farms) do not contribute to Reach 2210. Instead, stormwater runoff from these subdivisions is routed south along Parish Avenue and discharges to the Little Thompson River south of Centennial Drive (WCR-46 ½). Refer to the *Parish Avenue and Johnstown Colony Drainage Improvements (Maestes Street Drainage Alternative Design) Final Drainage Report*, prepared by Matrix Design Group, dated May 2025.

The subdivisions within Major Basin 2200 north of SH-60 (W South 1st Street) and west of the Great Western Railway drain southeast, eventually entering the storm sewer system along SH-60. This storm sewer system discharges into Reach 2210 at its northern terminus at the Great Western Railway and SH-60 crossing. It is anticipated that the contributing area to Reach 2210 will not significantly increase in impervious area with future development.

Much of the agricultural land east of the Great Western Railway within Major Basin 2200 will likely become developed in future years, which will have hydrologic impacts to the basin. However, no reaches or crossing structures within this portion of Major Basin 2200 were identified as significant conveyances under existing conditions. It should be noted, however, that these conveyances could become more hydraulically significant with future land use changes or development. Furthermore, the conveyances within the portion of Major Basin 2200 south of SH-60 and west of Weld County Road 17 were also not considered significant enough to analyze as part of this report. This area is already developed, so a significant change in hydrology is not anticipated. Due to the high velocities in Reach 2210 and the narrow existing drainageway corridor between the Great Western Railway and existing development, leaving the channel width as-is but adding drop structures to decrease the longitudinal slope of the channel to a maximum of 0.9% is recommended. Acquiring land for public ROW or establishing a drainage easement is recommended to ensure the Town can maintain this channel in the future. A 34-feet wide ROW or drainage easement is recommended to capture the channel width needed for the conveyance of the future 100-year flow. Detailed information on velocities, discharges, and channel geometries can be found in Table 5-25, Table 5-26, and Table 5-27, respectively.

There are two major crossing structures that were analyzed as part of this study. HY-8 version 8.0.0.1 software was used to evaluate the hydraulic capacity of the crossings. Refer to Table 5-28 for the proposed improvements associated with these crossing structures. The crossing at SH-60 (Structure 2202) would need to be upsized to a 6'x3' concrete box culvert in order to pass the 100-year future flows without overtopping the road. This structure was chosen in part due to the low cover constraint. The crossing at WCR-46 ½ (Structure 2201) should be upsized to a 72" RCP to pass the 100-year without overtopping. Note that the *Mountain View West Final Drainage Report* proposes that their pond outfall connects directly to the existing 60" RCP culvert under WCR-46 ½ with a storm manhole. Refer to Appendix E for crossing structure capacity calculations.

Major Basin 2300 (Old Town South)

Major Basin 2300 comprises two reaches, designated as Reaches 2310 and 2320, which were evaluated in the Country Acres Stormwater Masterplan, prepared by Alred Benesch & Company, dated May 27, 2024. The Country Acres Stormwater Masterplan discusses two main alternatives that would allow the existing detention pond to drain effectively and prevent flooding issues in Sandra Drive.

The first alternative involves designing and constructing an inverted siphon outlet from the existing pond to convey water beneath the Hillsboro Ditch onto the Klein property, where a suitably engineered detention facility would be established. This approach also necessitates channelizing the flow from the siphon outlet to the southwest corner of the property, the designated location for the new detention facility. The outflow from this detention facility would be integrated into the proposed Reach 2310. The second alternative involves buying four additional lots located west of the current detention pond, then expanding the pond to accommodate the volume needed for 100-year storm events according to the original plan. There were no reported flooding problems prior to the construction of these homes.

The Town of Johnstown is pursuing the second alternative of acquiring adjacent land and expanding the detention pond. This alternative was determined to provide lower overall costs, require fewer modifications to the storm sewer system, minimize flooding on Sandra Drive, and result in less temporary construction than the first alternative. However, there is currently a temporary solution in place and this project will require additional coordination to provide permanent flood protection for the community.

There are numerous subdivisions that either have been recently constructed, are currently under construction, or are planned to be constructed soon within Major Basin 2300. Most of these developments (M&N, Pintail, Johnstown Village, Mallard Ridge, Maplewood Acres, and Granary) are not directly tributary to Reach 2310 or 2320. Instead, these developments have a separate storm sewer system that outfalls to the Little Thompson River on the west side of WCR-15, as shown in the Offsite Storm Sewer Construction Plans, prepared by Atwell, dated March 12, 2020. The storm sewer construction plans were included in the appendix of the Final Drainage Report for The Granary – Filing 1 & 2, prepared by Galloway, dated June 15, 2022.

There are also undeveloped portions of Major Basin 2300 that do not directly drain to Reaches 2310 or 2320. These areas are currently agricultural and will likely see changes in land use as they are developed in the future. Even though they were not deemed significant enough to include in this report, these smaller areas may become hydraulically significant as the hydrology in this basin changes due to development.

Reaches 2310

Reach 2310 extends from WCR-46 to the Little Thompson River. The drainageway varies in channel size as it flows east from WCR-46 to WCR-17. The Country Acres Stormwater Masterplan suggests acquiring a 150-foot wide ROW and installing drop structures to maintain a 0.7% channel slope. This study agrees with constructing a channel that diverts the major drainageway south across WCR-46 to the Little Thompson River rather than east, but recommends a slightly narrower corridor.

There is one major crossing structure (Structure 2302). HY-8 version 8.0.0.1 software was used to evaluate the hydraulic capacity of the crossing. Structure 2302 is located where the proposed drainageway crosses WCR-46 approximately 2,500 feet west of WCR-17. The Country Acres Stormwater Masterplan proposes a triple 12'x4' concrete box culvert at this crossing. Matrix has verified that this culvert will pass the future proposed 100-year flow without overtopping the road. However, a double 9'x4' concrete box culvert would also have capacity for the 100-year event. Refer to Appendix E for crossing structure capacity calculations.

Reaches 2320

Reach 2320 extends from the intersection of WCR-46 ½ and WCR-15 to WCR-46, with channel dimensions varying as it traverses agricultural land. The Country Acres Stormwater Masterplan proposes the acquisition of a 150-foot wide right-of-way and the installation of drop structures to maintain a 0.7% channel slope. This channel is the same one previously recommended for Reach 2310, effectively combining both reaches. Similar to recommendations for Reach 2310, this study supports the development of the recommended channel described in the Country Acres Stormwater Masterplan, although a slightly a narrower corridor would also suffice.

Table 5-25 100-Year Channel Velocity – Group G

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2210	L_2215	4.4	6.3	4.9
2310	L_2319	2.6	4.4	4.2
2320	L_2332	3.7	6.2	4.9

Any Values with a RED text have a velocity above 5 ft/s.

Table 5-26 100-Year Channel Discharge – Group G

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2210	L_2215	186	222	126
2310	L_2319	753	1,200	921
2320	L_2332	692	1,075	782

Table 5-27 Proposed Channel Geometry - Group G

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2210	No	10	4	1.5	34
2310	Yes	40	5	4.4	99
2320	Yes	40	5	2.4	79

Table 5-28 Proposed Crossing Structures - Group G

Structure Number	Reach Number	Crossing Type	Structure Size	Design Q_{100} (cfs)[A]
2201	2210	Roadway	72" RCP	245
2202	2210	Roadway	6'x3' CBC	130
2302	2310	Roadway	2 - 9'x4' CBC	926

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

6.0 CONCEPTUAL DESIGN

6.1 Plan Development Overview

The Town of Johnstown reviewed the recommended plan described in Section 5.0 Alternatives Analysis, which modeled all subbasins using EURV detention to reflect future development scenarios. That recommended plan included limited proposed regional detention facilities to reduce peak flows. The overarching feedback from the Town was that the Alternatives Analysis results and associated recommendations were too dissimilar to stormwater improvements that had recently been constructed or approved within the Town, and this project team needed to make more of an effort to ensure that recent improvements would still be compatible with the Comprehensive Stormwater Master Plan recommendations. Matrix explored the viability of three different hydrologic approaches:

1. Proposed conditions land use hydrology with EURV detention in every subbasin (Alternatives Analysis approach).
2. Existing conditions land use hydrology – this approach assumed that any future development would be required to match the pre-development hydrograph peak and characteristics.
3. Proposed conditions land use hydrology with full spectrum detention in every subbasin – this approach assumed that any future development would match 90% of the pre-development peak flows by implementing full spectrum detention that accounts for both EURV and 100-year events.

Matrix prepared sample hydrograph comparisons, which showed that Approach 2 resulted in the highest peak flows and quickest time to peak for each drainageway. Approach 1 and Approach 3 created very similar hydrographs, but Approach 3 resulted in slightly lower peak flows at the subbasin level and more noticeable reductions at some of the downstream locations. Through the review process, the Town and Matrix also identified several locations that have important constraints tied to recently built or approved storm infrastructure. Existing and previously approved detention facilities, together with upstream mitigation improvements, were incorporated to ensure that the recently constructed storm infrastructure can safely convey the future 100-year storm events.

Matrix and the Town met on September 2, 2025 to discuss the preferred Concept Design approach, and the Town directed Matrix to move forward with the full-spectrum detention hydrologic approach together with including additional existing and proposed detention facilities in the major basins with existing and previously approved constraints. It is important to note that all Stormwater Master Plan proposed crossings, channel improvements, and detention facilities were sized with the assumption that each subbasin includes full-spectrum detention as it is developed in the future, and all existing detention facilities described and included in subsequent descriptions are properly maintained to ensure they operate as designed.

6.2 Modeling Design Adjustments

In the Alternatives Analysis, a conservative modeling approach was applied. Only regional detention facilities with supporting report data were included; meaning many detention basins lacking documentation were excluded. To represent future development conditions, subbasin inflows were modeled using EURV. This method did not target a specific peak outflow for the 100-year storm event. Instead, it incorporated an emergency overflow weir designed to convey the 100-year flow at a depth of one foot. While this approach reduced flows compared to the baseline model, it did not meet the Town of Johnstown's full-spectrum detention criteria.

To align with these criteria, Matrix updated the model to roughly incorporate full spectrum detention, with outflow hydrographs calibrated to release a maximum flow rate equal to 90% of the existing peak runoff during the 100-year event. These existing flows refer to 2024/2025 land use conditions and were not retroactively reduced to historic levels. Additionally, the Town requested that specific areas already approved for development or under construction retain their originally designed detention facilities, pipes, and channels. As a result, additional detention basins were added to the model where they were needed to significantly influence peak flows. Supporting Excel sheets and equations documenting the full spectrum detention approach are provided in Appendix F.

In the Alternatives Analysis model, proposed detention basins and their outlets were modeled using the MHFD Detention Sheet, which required numerous assumptions that represent decisions that should be made during detailed design. In contrast, the Concept Design approach utilized functional storage curves for proposed detention basins. All proposed detention basin volumes were assigned a side slope of 5:1, with the length set to twice the width. Proposed pond depths were reviewed to ensure the water depth was between 8 and 9 feet, resulting in a maximum embankment depth of 10 feet when including at least one foot of freeboard. Existing reservoirs within the system that were believed to have significant impacts on the storm runoff within the respective watershed were modeled. At locations where it seemed possible to add storm detention on top of an existing reservoir that was not currently designed for storm function, proposed outlet modifications were suggested. These were sized to drain 99% of the total inflow volume by 120 hours.

6.3 Criteria and Constraints

Each major drainageway was evaluated comprehensively so that the effects of upstream alternatives on downstream reaches could be determined. Improvements criteria and constraints are listed below.

Channel Improvements

Proposed channel improvements assumed a trapezoid cross section with 5H:1V side slopes. The bottom width of the channel was widened until the average 100-year velocity was below 5 feet per second along with having a depth below 5 feet. A freeboard depth of 1.5 feet was assumed and used to calculate the required top width, which was given in the corridor width recommendations. Note that Johnstown's Storm Drainage Design Standards require 1 foot of freeboard or one third of the flow depth, whichever is greater, so 1.5 feet is conservative for most channels. Future stream corridors should also plan space for maintenance access paths.

Crossing Improvements

Proposed crossing improvements were designed to handle the flow of a 100-year flood, ensuring adequate capacity for such an extreme event. A maximum headwater-to-depth ratio (HW/D) of 1.5, per the Town's Storm Drainage Design Standards, was used to size the proposed crossing structures at roadway and railway crossings. The HW/D criterion was not used in sizing the irrigation canal crossing structures. It is important to note that while irrigation canal crossings have been conceptually sized, they are not intended to serve as final or complete designs. Rather, they should be viewed as a starting point for discussions around waterway crossings. Coordination with each irrigation owner or district is required, as many existing canals are in low-slope areas and some owners have unique utility separation needs that may require significant grade changes to the drainageway. In particular, irrigation crossings near the Little or Big Thompson Rivers will prove challenging since deeper culverts may result in depressed drainageway grades that cannot be

brought back to the surface before the confluence with the downstream river. Alternate crossing solutions such as piping storm flows directly to rivers, siphons, overflow bridges, or other innovative ways to separate storm flows may be considered.

Detention

In addition to the full spectrum detention modeled in all subbasins, regional detention facilities were incorporated in suitable areas where existing developed channels are constrained by adjacent development and cannot reasonably be physically expanded. Any proposed detention during the concept design phase was done using the functional curve method on SWMM. The outlets for these ponds were done through HY-8 8.00.2 with the aim to have the detention pond max water depth be between 8 and 9 feet. Regional detention was formalized at existing detention locations and future maintenance agreements will be needed.

Existing and Approved Construction

Several areas within the Town of Johnstown have recently built or approved construction plans that affect major drainageways. These areas were modeled according to their original drainage designs, and additional recommendations were made to ensure that detention facilities, crossings, and channels function properly under the flow conditions generated by the updated Concept Design model. These locations were not subject to the same H/W ratio or freeboard constraints as newly designed areas and were not re-evaluated during this phase.

The Town has noted that some of the previously approved site designs might not reach construction, or require additional scrutiny due to expiration of permits. It is important to note that any changes to approved plan modeled – such as detention basins, channel geometry, or flow control structures – could significantly impact downstream elements of the Concept Design model. Adjustments to upstream flow characteristics may alter peak flows, timing, and hydraulic performance of downstream crossings and detention facilities, potentially requiring redesign or recalibration of those structures.

6.4 Master Plan Description

The Master Plan will minimize stormwater and flood-related damages to streams, public infrastructure, and private property. In addition, we recommend approaches to protect and enhance water quality, promote opportunities to allow runoff infiltration, and preserve the natural character of the drainageways and their terrestrial and aquatic habitat resources.

The Master Plan improvements are intended to provide long-term flood hazard protection to the community while adhering to the Town of Johnstown drainage criteria. The cost summaries for each major drainageway are provided in the following discussion for each Major Basin group.

The Master Plan analysis generally include the following assumptions:

- CUHP version 2.0.1 with DCIA = 0 option as Low Impact Development (LID) was not looked at. Master Plan CUHP inputs and results are provided in Appendix-F.
- EPA SWMM version 5.2.4 was used to analyze future channel stability and size recommended floodplain sections. Master Plan SWMM inputs are included in Appendix F-5, and Master Plan SWMM results are provided in Appendix F-6
- HY-8 version 8.00.2 was used to determine the number and size of culverts required to convey the Master Plan (future conditions) 100-year peak flows. Most crossings were sized to provide maximum headwater-to-depth ratios (HW/D) of 1.5. Master Plan HY-8 inputs and results are included in Appendix F-2.
- Estimated earthwork quantities for channel improvements did not assume a balanced earthwork system (where soils removed from one location can be used for fill at another location). Balanced earthwork would result in lesser costs but might not be feasible due to project phasing and multiple landowners within most reaches.
- For the Master Plan, proposed stream corridor widths were estimated by sizing a trapezoidal channel that conveys the 100-year flows at a depth under 5 feet (for flood safety) and velocity under 5 feet/second (for stream stability).
- Estimated quantities to re-vegetate the channel corridor and embankments were based on the square footage of the recommended stream management corridor.
- Additional capital improvement costs, including engineering (15% of capital improvement cost subtotal), mobilization (5%), stormwater management and erosion control (5%), legal/administrative (5%), contract administration and construction management (10%) were included in the cost estimates. A substantial contingency cost (25% of capital improvement cost subtotal) was also included. Note that site-specific cost breakdowns such as dewatering and traffic control were not explicitly defined for this study.
- Annual maintenance of proposed culverts, channel, regional detention and hydraulic structures was included in the total costs. Annual maintenance for existing storm facilities is not included in the Master Plan costs.
- Full spectrum detention for each subbasin is assumed to be constructed by developers and not included in the Master Plan costs.
- The construction cost index (CCI) data for the first quarter of 2025 was used to adjust for inflation for the whole study area. The published CDOT CCI was 2.38.

6.4.1 General Recommendations

This report generally recommends the following:

1. Preserve a stream management corridor and establish a higher-functioning and lower-maintenance stream. The lower-maintenance stream cross-section and stream management corridor should be designed by a professional trained in fluvial geomorphology.
2. Increase capacity of all major roadway and railroad crossing structures to convey the Master Plan 100-year flow using culvert structures or bridges. Distributed crossing layouts, where low-flows are conveyed separately from overbank flows, should be implemented in downstream reaches with wide floodplains.
3. Provide crossings where major drainageways cross irrigation canals. Many irrigation canals have historically accepted or intercepted storm runoff, but major drainageway flows should be separated from irrigation water where feasible.

4. New land development and publicly funded projects provide to the maximum extent practicable runoff volume control practices. This includes minimizing directly connected impervious areas, employing infiltrating green infrastructure (GI) and Best Management Practices (BMPs), and constructing both full spectrum and EURV basins.

5. All BMPs for all new development, redevelopment, and publicly funded projects provide to the maximum extent practicable Water Quality Capture Volume (WQCV).

6. The overall layout of a development that incorporates LID, detention facilities, and channel improvements should promote the contiguous overland connection between the various elements and areas to maximize benefits of these spaces and mitigate wildlife/human conflicts.

7. Development should promote the design of communities that incorporate existing topography and topographic features and minimize oversimplified overlot grading to promote and augment existing stormwater conveyance features and areas.

8. Development to promote stormwater conveyance should incorporate separated “undeveloped spaces” to promote the development and/or preservation of environmentally sensitive areas.

9. Natural or architectural forms and native and natural building materials should be utilized to the maximum extent possible to enhance community cohesivity and cultural character. Natural forms should be promoted over maximizing usable space within a parcel which tends to promote an unnatural square or rectangle shape.

10. Designs should consider in situ soils and incorporate considerations for amendments to increase permeability and vegetation establishment success.

11. Native vegetation should be utilized to the maximum extent possible. Successful designs will include the provision of supplemental watering to support efficient native vegetation establishment.

6.4.2 Vision Statement, Goals, and Objectives

Vision Statement

The vision for the successful implementation of the Town of Johnstown concept design is of an easy to understand stormwater conveyance system that identifies existing choke points and utilizes detention, crossings, and channel improvements to promote stormwater volume reduction and water quality enhancement while achieving flood protection for the 100-year future conditions storm event.

Goals & Objectives

To achieve the vision for the Town of Johnstown concept design, the following goals and corresponding objectives have been identified:

Goal #1 – Deliverables that can be utilized by multiple audiences

Objective #1 – Separate appendices intended for technical audiences into separate document(s) from report body that can be more readily consumed and understood

Objective #2 – Organize discussion into logical geographic major basin groups to facilitate discussion and understanding

Goal #2 – Identify existing choke points within the storm system

Objective #1 – Identify and document which major channel reaches should be preserved versus those requiring structural improvements.

Objective #2 – Identify and document which crossing structures should be improved.

Objective #3 – Align recommendations with recently constructed or approved infrastructure to ensure these structures remain functional.

Goal #3 – Implement stormwater detention effectively

Objective #1 – Reduce future conditions 100-year peak flows and volumes to existing conditions levels or lower.

Objective #2 – Promote development that provides detention facilities that allow for multiple uses of the facility such as a community use area or as preserved wildlife habitat in combination with the stormwater conveyance to uplift stormwater conveyance improvements as a community amenity.

Objective #3 – Support long-term maintenance of detention facilities by determining achievable performance criteria and effective planning and budgeting by detention facility owners.

Goal #4 – Implement channel improvements effectively

Objective #1 – Safely convey future conditions 100-year flows.

Objective #2 – Promote development that uplifts stormwater conveyance improvements into community amenities by realizing the direct and indirect benefits provided by the healthy ecosystems of natural channel systems.

Objective #3 – Support long-term maintenance of channel improvements by determining achievable performance criteria and effective planning and budgeting by channel landowners.

Goal #5 – Implement Crossing improvements effectively

Objective #1 – Safely convey future conditions 100-year flows and reduce ponding.

Objective #2 – Support long-term maintenance of crossing improvements by determining achievable performance criteria and effective sizing.

6.4.3 Stormwater Detention Facilities

Stormwater detention facilities manage stormwater quantity by attenuating peak flows during flood events. Depending on the design, they can also enhance stormwater quality by incorporating design components to promote sedimentation, infiltration, and biological uptake (MHFD, 2017). For the purposes of this study, detention sizing focused on determining the 100-year detention volume for budgeting, but detailed design and implementation should include water quality improvements within the same allotted volume.

On-Site and Sub-Regional Detention

On-site and sub-regional stormwater detention facilities are a small or medium scale design element typically implemented on the neighborhood or singular development (Commercial and Industrial) and are typically owned by an individual owner, Homeowner's Association (HOA), Metropolitan District or similar development group/entity. Operation and maintenance of these can be split across several beneficiaries which can make for complexity in long-term planning.

Regional

Regional stormwater detention facilities are the largest scale design element implemented on a regional level and are typically owned by a municipality. Operation and maintenance of these are typically assumed by the municipality and funded by taxpayer initiatives.

Stormwater Detention Facility Guidelines

Refer to the *Streets and Stormwater Design Standards Update* (Town of Johnstown, 2024) and the *Urban Storm Drainage Criteria Manual, Volume 3: Stormwater Quality* (MHFD, 2021) for detailed guidelines and performance criteria of detention facilities. Some additional non-engineering considerations that lead to more pleasing detention spaces are listed below:

- Stormwater detention facilities should allow for multiple uses of the facility such as a community use area or as preserved wildlife habitat in combination with the stormwater conveyance to uplift stormwater conveyance improvements as a community amenity.
- Consider the sun and aspect and impacts on detention facility slopes. Consider incorporating elements such as a northern-facing sledding hill as an intentional design feature.
- Incorporate a natural or architectural form in the forebay, sedimentation bay, and micropool elements.
- Consideration should be given to water depth and length of time detained. Maximizing water detention depth and length of time thresholds can limit the plant palette opportunities that can survive during periods of extended detention.

6.4.4 Channel Improvements

Channel improvements can be a small to large scale design element implemented on a site to a regional scale, however the major drainageways discussed in this document are regional by nature. Ownership, operation and maintenance of these are typically assumed by the municipality and funded by taxpayer initiatives. In order of decreasing importance, channel improvements can provide flood conveyance, water quality improvements, and volume reduction capabilities. The following channel improvements are regionally accepted and promoted:

- **Constructed wetland channel:** Channel that uses dense vegetation to slow down runoff allowing for biological uptake and sedimentation to occur.
- **Rosgen stream classification:** A system that categorizes streams based on channel morphology.
- **Channel morphology:** Also known as river morphology, is the complete study of the channel from geography to channel fluid dynamics.
- **Multistage Design:** Channels that have multiple stages, with lower stages designed to minimize sediment deposition and provide ecological benefit during frequent storms, while higher stages improve bank stability and provide capacity for larger storms.
- **Grade control structures:** An earthen, wooden, concrete, or other material structure used to prevent gully development and bed erosion. It works by reducing the stream slope and flow velocity which leads to less erosion. Some forms of grade control structures are:
    - **Soil lifts:** Compacted course soil, wrapped with biodegradable fabric, used for erosion control. Usually lined around the stream banks, with the hope that vegetation growth occurs, creating a more stable bank.
    - **Riprap:** A permanent layer of large boulders or stones typically used to stabilize and protect the soil surface against erosion and scour in areas of concentrated flow or wave energy.
    - **Log / rock drop:** Layers of rock or logs placed into a section of a fast-flowing, highly eroded, and largely impermeable streambed to slow down water, recharge water tables, and create healthy riparian habitats. It also has the potential to weaken floods, filter water, sequester carbon, reestablish wetland ecosystems, and regulate microclimates.
    - **Log / rock vane:** Rocks or logs placed in a way that cuts into the stream channel in an upstream direction. These features can slow the rate of water flow significantly, reducing the risk of erosion.
    - **Log / rock toe:** A row of stone or logs are placed at the toe of an eroding bank, parallel to the stream. The toe is considered the bottom of the slope and supports the weight of the bank. This improvement helps with erosion control, preservation of much of the existing vegetation on the bank slope and encourages the growth of additional vegetation as the bank slope stabilizes.

Although the concept design calculations assumed a simple trapezoidal shape to facilitate planning, it is recommended that the major drainageways use multiple stages and variable side slopes to mimic stable natural streams. It is not expected that switching to a more complex section will substantially change the required top widths.

Channel Guidelines

Refer to the *Streets and Stormwater Design Standards Update* (Town of Johnstown, 2024) and the *Urban Storm Drainage Criteria Manual, Volume 1: Management, Hydrology and Hydraulics* (MHFD, 2024) for detailed guidelines and performance criteria of channels. For major drainageways, natural multistage channels are strongly preferred, Additional guidance on these types of channels can be found in *Natural Channel Design: Fundamental Concepts, Assumptions, and Methods* (Rosgen, 2011). Some additional non-engineering considerations that lead to more pleasing stream corridors are listed below:

- Channel improvements should focus on promoting and incorporating natural system processes to support ecosystem services, the many and varied benefits to humans provided by the natural environment and healthy ecosystems.
- Improvements to the extent possible should focus on preservation of areas within the natural channels that are in good condition to support efficient establishment of adjacent channel modifications.
- Channel improvements should focus water quality improvements at point sources such as stormwater outfalls to capitalize on this water source.
- While improvements should focus on enhancing and preserving natural resources, select areas of community use for nature exploration and nature play should be incorporated at key locations to promote community appeal and education while minimizing wildlife/human conflicts.
- Culverts and outfalls should be sized and designed in a way to promote safe wildlife (terrestrial or aquatic) passage.

Proposed channel improvements should feature multiple stages to facilitate ecological communities and multiple objectives. See Figure 6-1 for an example of a typical section of a higher-functioning, lower-maintenance stream corridor. This type of channel design combines potentially perennial flows and an attractive riparian zone at the bottom with normally dry floodplain benches to provide community flood protection during infrequent large storms. For simplicity and to create a more consistent corridor, a single proposed width is recommended for each reach. However, many reaches are comprised of multiple distinct sections, and hydraulic results for these individual links are included in the following tables for reference.

Improved major drainageway crossing structures are proposed at all roadway and railroad crossing locations. The concept design calculations assumed simple culverts with existing embankment and channel thalweg profiles to facilitate planning. When more detailed survey information is available during future design, it is recommended that grade changes and distributed layouts (where low-flows are conveyed separately from overbank flows) are explored to implement crossings that minimize maintenance requirements and ecological disruptions. A distributed culvert layout such as shown in Figure 6-2 is recommended. A distributed culvert design features a primary culvert barrel (or bridge span) at the low point of the channel with secondary openings that are only used during larger storms. This type of design usually results in better ecological connections and less maintenance costs.

6.5 Concept Design Results

Concept design maps, with proposed recommendations along with cost, are shown based on their corresponding Major Basin Group Letter below:

Group A

Includes Major Basin 1000 (Big Hollow Gulch) and 1100 shown in **Figure 6-3**.

Group B

Includes Major Basins 800 and 900 shown in **Figure 6-4**.

Group C

Includes Major Basins 200, 260, 400, and 600 shown in **Figure 6-5**.

Group D

Includes Major Basins 100 (Old Town North), 300 (Elwell), 500 (Twin Mounds), and 700 (Johnson's Corner) shown in **Figure 6-6**.

Group E

Includes Major Basins 2600 (Pulliam), 2800, 2900, and 3000 shown in **Figure 6-7**.

Group F

Includes Major Basins 2000, 2100, 2400 (Bunyan), 2500, and 2700 shown in **Figure 6-8**.

Group G

Includes Major Basins 2200 (Old Town South) and 2300 (Old Town South) shown in **Figure 6-9**.

Following the figures for each major basin group, concept design results and recommendations can be found below.

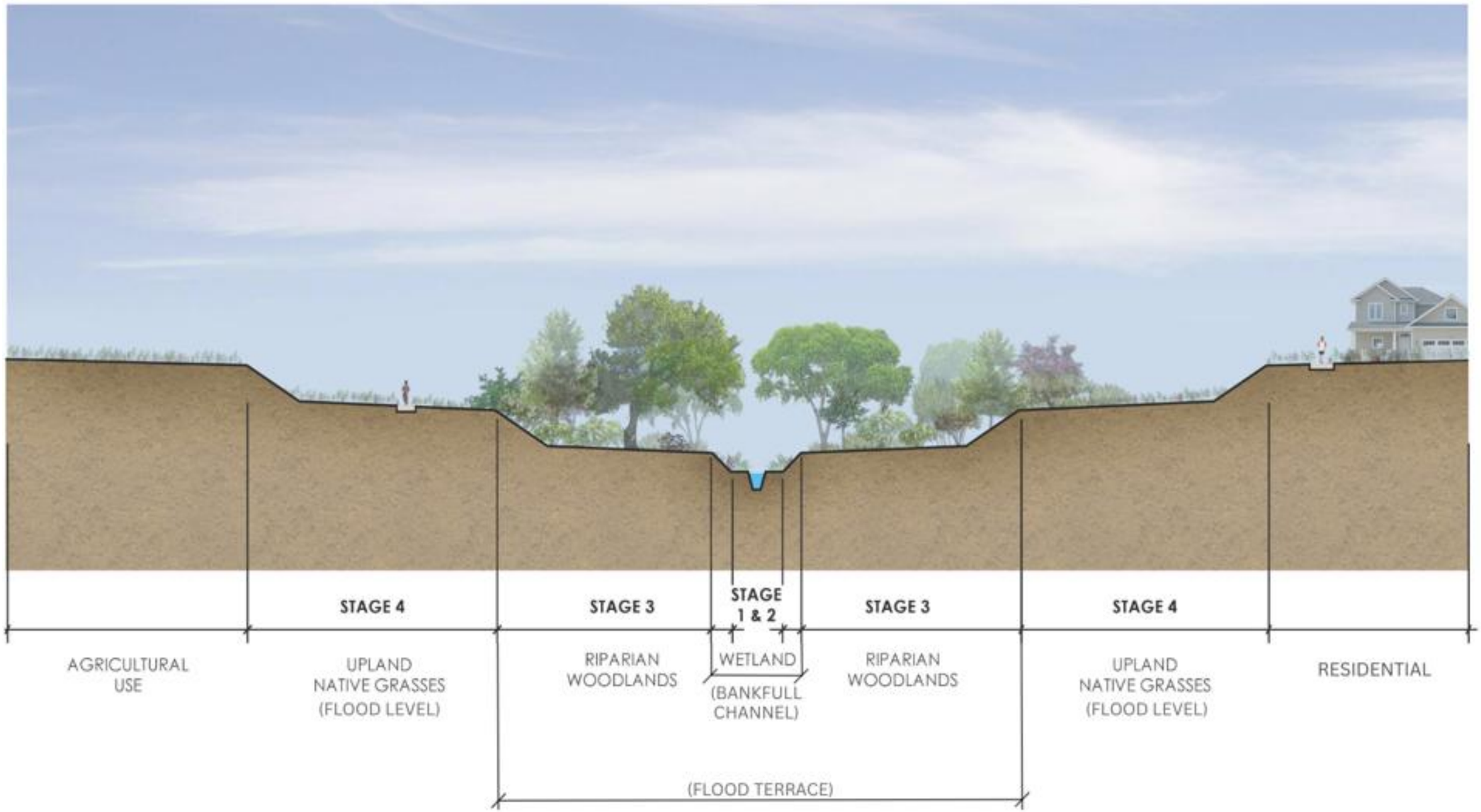


Figure 6-1 Typical Section of a Higher-functioning, Lower-maintenance Stream Corridor

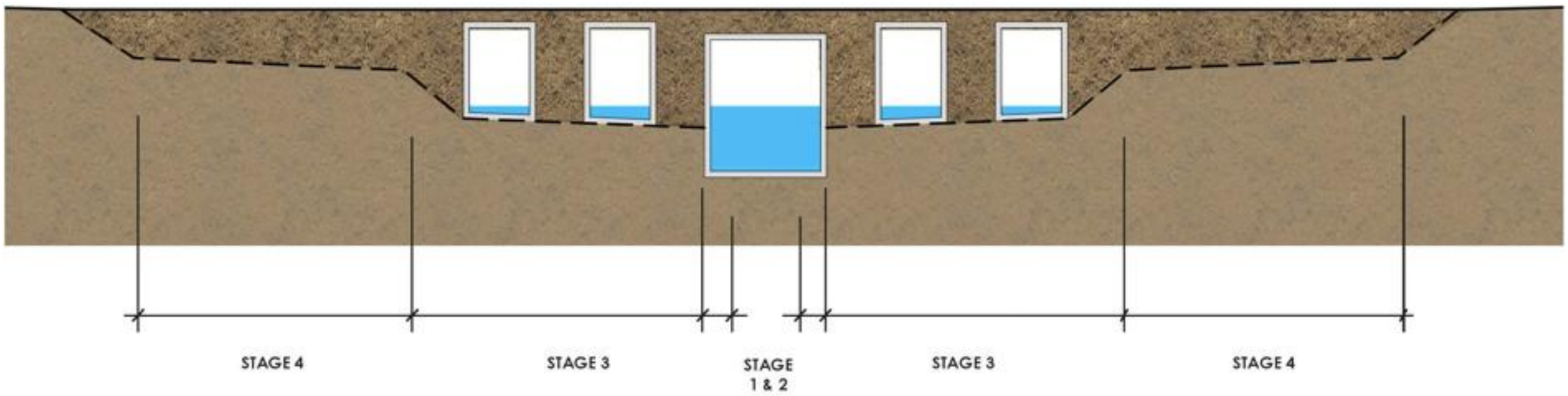


Figure 6-2 Distributed Culvert Layout

0 1,200 2,400
Feet

Major Basin 1100

Major Basin 1000
(Big Hollow Gulch)

Big Thompson River
Hillsboro Ditch
Lake Ditch
Home Supply Ditch

Structure 1001 - Proposed 3-8' x 4'
Concrete Box Culvert

Structure 1028 - Existing 2-66" RCP
$Q_{100,\ Pipe}$ Constraint = 674 cfs
Excess storm flows in detention conveyed over existing land bridge
$Q_{100,\ Land}$ = 890 cfs

Proposed Regional **Detention Facility 1023**
Contributing Area = 4,206 ac
Surface Area = 9.3 ac
Vol_{100} = 94 ac-ft
$Q_{100,\ out}$ = 1564 cfs

Approximate Future Flood Hazard Corridor
Width = 254'

Approximate Future Flood Hazard Corridor
Width = 183'

Structure 1003 - BY OTHERS 1-24' x 6'
Concrete Box Culvert
Q_{100} Constraint = 2,450 cfs

Approximate Future Flood Hazard Corridor
Width = 263'

Regional **Detention Facility BHD** BY OTHERS
Contributing Area = 3,739 ac
Surface Area = 10.5 ac
Vol_{100} = 94 ac-ft
$Q_{100,\ out}$ = 1,445 cfs

Structure 1033 - BY OTHERS 4-10' x 4'
Concrete Box Culvert
Q_{100} Constraint = 2,180 cfs

Structure 1035 - BY OTHERS 1-24' x 6'
Concrete Box Culvert
Q_{100} Constraint = 2,900 cfs

Proposed Regional **Detention Facility 1037**
Contributing Area = 3,492 ac
Surface Area = 3.9 ac
Vol_{100} = 30 ac-ft
$Q_{100,\ out}$ = 2,489 cfs

Structure 1004 - Existing 3-15' x 6'
Concrete Box Culvert
Q_{100} Constraint = 3,900 cfs

Structure 1005 - Proposed 4-11' x 4'
Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 241'

Proposed Modification to Existing Chapman Reservoir
Detention Facility 1073
Contributing Area = 921 ac
Surface Area = 58.8 ac
Vol_{100} = 101 ac-ft
$Q_{100,\ out}$ = 42 cfs

Chapman Reservoir

Reach 1010
Reach 1020
Reach 1042

S County Rd 3
S County Rd 9
S County Rd 11
River Ranch Pkwy
Johnstown River Ranch Subdivision
North Ridge Subdivision
Robbins Mid Subdivision
Gutierrez Subdivision
The Ridge Subdivision

25
402
18
16
7
60
5
3

Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Known Constraint Location
- Regional Detention By Others
- Proposed Regional Detention
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure

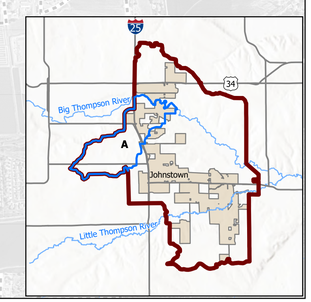
- Remain
- Replace
- By Others

Alignment Type

- Proposed Stationing
- River/Creek/Ditch
- Railroad

Study Reach

- 1010
- 1020
- 1042



Johnstown COLORADO
Matrix
Excellence by Design

Figure 6-3 - Major Basin Group - A
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.1 Major Basin Group A

Group A is comprised of two major basins: Major Basin 1000 (Big Hollow Gulch) and Major Basin 1100. Both major basins drain to the Big Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-1, Table 6-2, Table 6-3 and Table 6-4 respectively. Refer to Appendix F for the proposed major crossings calculations.

The costs for proposed channel improvements, crossings, and detention facilities were estimated using the Urban Drainage and Flood Control District's UD-MP Version 2.2 Excel tool. Existing structures that remain unchanged are excluded from the concept design, along with their associated costs and maintenance. Full-spectrum detention is recommended for all new developments; however, the costs for these facilities are not included in the Master Plan budget, as they are the responsibility of developers.

See Table 6-5 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 1000 (Big Hollow Gulch)

The Major Basin 1000 reaches extend from Larimer County Road 7 to the Big Thompson River. This area was included in the *Hydraulic Analysis for Regional Drainage Facilities and Irrigation Storage Improvements Big Hollow Gulch and the Ridge Development*, completed in May 2024, and in the *Final Drainage Report, THE RIDGE AT JOHNSTOWN (EAST VILLAGE)*, completed in February 2020.The 2024 and 2020 reports primarily focused on a proposed development known as “The Ridge” and recommended several new crossings, as well as channel enlargements within the project area. This Master Plan aimed to comply with updated restrictions by reducing peak flows through detention.

Reach 1010

Reach 1010 is the most downstream segment, running from River Ranch Parkway to the Big Thompson River. The area surrounding this channel is almost entirely developed. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway. There are no existing or planned culverts within this reach.

Reach 1020

Reach 1020 is the central segment of the study area, extending from I-25 to River Ranch Parkway. Downstream of Reach 1020, an overland bridge crosses the Hillsboro Ditch canal near Peaceful View Playground. This bridge helps the drain runoff into a small local detention pond where existing Structure 1001 is located.

Upstream of the canal, an existing Detention Facility 1023 conveys flow beneath the canal through two 66-inch reinforced concrete pipes (Structure 1028). To manage high peak flows while maintaining Structure 1028, an increase in detention 1023 is proposed just upstream of the overland bridge. This configuration allows a portion of the flow to pass over the land bridge into the playground detention area. Structure 1001 will need to be upsized to accommodate the additional flow resulting from a 100-year storm event, which exceeds the capacity of Structure 1028. The alternative is allowing the smaller detention to overtop, as the water will travel to Reach 1010 with little impact on the local area.

Upstream portions of Reach 1020 have recently experienced new development, which generally aligns with the recommendations outlined in the 2024 Big Hollow Gulch Study by Anderson Consulting Engineers, Inc. That study called for the addition of several new detention basins within local developments, as well as the construction of a regional drainage facility. It also recommended installing new culverts and upgrading existing ones. The regional detention basin proposed in the 2024 Big Hollow Gulch Study has been incorporated into our model to help mitigate downstream flows. This Master Plan does not include significant changes to any structures or channels located within the approved Ridge development.

Reach 1042

Reach 1042 is the most upstream segment, stretching from Larimer County Road 7 to I-25, and features significant variation in channel size due to the presence of a local dairy farm. While the area remains undeveloped, it receives substantial flows, which are evident in aerial imagery. To accommodate these large volumes, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed, which will also help address the considerable depths observed at this location.

There are two existing crossings within this reach: Structure 1004, a triple box culvert beneath I-25, and Structure 1005, an embedded 1-foot corrugated metal pipe (CMP). Although both structures are undersized for future flows, Structure 1004 at I-25 is a relatively large, recently constructed crossing that was used as a known constraint for this Master Plan. As a result, any crossing proposed as part of the 2024 Ridge Development must function as originally designed. To accommodate this constraint, Proposed Regional Detention 1037 is recommended to reduce future peak flows within Major Drainageway 1000 at and downstream of I-25.

Additionally, while not part of the main drainageway, a modification to the Chapman Reservoir (Detention Facility 1073) was included in the model to convert it into a functional detention facility. While the storage volume of the reservoir will remain unchanged, a formal outlet structure will be required to improve drainage in the upstream subbasin of the model. This will allow a smaller recommended size for Structure 1005 and Proposed Regional Detention 1037. Additional sizing details for Proposed Regional Detention 1037 can be found in Figure 6-3.

Major Basin 1100

Major Basin 1100 does not include any reaches and drains directly into a large detention area adjacent to the I-25 highway. With the Big Thompson River running alongside, this detention area will overflow into the river during significant storm events. No previous studies were found for this location.

Table 6-1 100-Year Channel Velocity – Group A

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
1010	L_1019	3.7	4.1	2.5
1020	L_1029	5.0	5.4	4.8
1020	L_1031	7.3	8.0	5.0
1020	L_1033	5.8	6.5	3.6
1020	L_1035	6.8	7.7	4.6
1020	L_1037	4.2	4.7	-
1042	L_1039	6.5	7.2	4.6
1042	L_1041	5.7	6.3	4.0
1042	L_1052	7.7	8.3	4.3
1042	L_1053	6.9	7.5	4.4

Any Values with a RED text have a velocity above 5 ft/s.

Table 6-2 100-Year Channel Discharge – Group A

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
1010	L_1019	5,047	6,897	1,585
1020	L_1029	4,924	6,737	756
1020	L_1031	4,806	6,594	1,542
1020	L_1033	4,767	6,559	1,513
1020	L_1035	4,625	6,420	1,472
1020	L_1037	4,531	6,276	-
1042	L_1039	4,379	6,054	2,434
1042	L_1041	4,054	5,629	2,237
1042	L_1052	3,482	4,684	1,738
1042	L_1053	3,347	4,441	1,613

Table 6-3 Proposed Channel Geometry - Group A

Channel Geo					
Reach	Pr. Change	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
1010	No	200	6	3.00	254
1020	No	130	5	3.80	183
1042	Yes	200	5	2.60	241

Table 6-4 Proposed Crossing Structures – Group A

Structure Number	Reach Number	Location	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
1001	1010	River Ranch Pkwy	Overflow	3 - 8' x 4' CBC	890
1028	1020	Hillsboro Ditch	Irrigation	Ex. 2 - 66" RCP	1,708
1003	1020	LCR-18	Roadway	Ex. 24' x 6' CBC	1,547
1033	1020	-	Roadway	Ex. 4 - 10' x 4' CBC	1,515
1035	1020	-	Roadway	Ex. 24' x 6' CBC	1,472
1004	1043	I-25	Highway	Ex. 3 - 15' x 6' CBC	2,490
1005	1043	LCR-7	Roadway	4 - 11' x 4' CBC	1,614
Chapman Outlet	-	-	Reservoir	1 - 36" RCP	80

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-5 Cost Estimate Summary – Group A

Reach	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [a]	50 Year O & M Capital Costs	Total Cost [b]
1020	$221,999	$707,479	$0	$10,222,594	$18,857,774	$1,701,450	$20,559,224
1042	$613,734	$388,620	$5,637,755	$3,262,530	$16,451,317	$12,280,900	$28,732,217
Total	**$835,733**	**$1,096,099**	**$5,637,755**	**$13,485,124**	**$35,309,091**	**$13,982,350**	**$49,291,441**

a. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.
b. Total cost includes capital cost plus operations and maintenance cost over 50 years.

0 1,200 2,400
Feet

Drains North, See Comprehensive Drainage Plan for Greeley Oklahoma Basin

Major Basin 900

Major Basin 800

Union Pacific Railroad

Great Western Railway

Big Thompson River

Reach 940

Reach 930

Reach 910

Reach 900

Reach 807

Reach 840

Regional **Detention Facility 959**
Contributing Area = 879 ac
Surface Area = 6.8 ac
Vol_{100} = 117 ac-ft
$Q_{100, out}$ = 61 cfs

Detention Facility - Galloway Pond BY OTHERS
Contributing Area = 569 ac
$Q_{100, out}$ = 12 cfs

Regional **Detention Facility 941**
Contributing Area = 1045 ac
Surface Area = 5.6 ac
Vol_{100} = 24 ac-ft
$Q_{100, out}$ = 108 cfs

Detention Facility - Pond 1 BY OTHERS
Contributing Area = 25 ac
$Q_{100, out}$ = 7 cfs

Approximate Future Flood Hazard Corridor
Width = 111'

Detention Facility - Pond 5 BY OTHERS
Contributing Area = 431 ac
$Q_{100, out}$ = 5.5 cfs

Detention Facility - Pond 4 BY OTHERS
Contributing Area = 69 ac
$Q_{100, out}$ = 15 cfs

Proposed Higher-Functioning Lower Maintenance Stream Corridor
Width = 75'

Structure 945 - 1-30" Corrugated Metal Pipe
Q_{100} Constraint = 79 cfs

Regional **Detention Facility 939**
Contributing Area = 1045 ac
Surface Area = 1 ac
Vol_{100} = 4 ac-ft
$Q_{100, out}$ = 106 cfs

Regional **Detention Facility 921**
Contributing Area = 683 ac
Surface Area = 7.3 ac
Vol_{100} = 57 ac-ft
$Q_{100, out}$ = 108 cfs

Proposed **Detention Facility 839**
Contributing Area = 572 ac
Surface Area = 5.5 ac
Vol_{100} = 47 ac-ft
$Q_{100, out}$ = 36 cfs

Structure 806 - Proposed 2-7' x 4' Concrete Box Culvert

Structure 944 - 1-6' x 4' Concrete Box Culvert
Q_{100} Constraint = 108 cfs

Regional **Detention Facility 829**
Contributing Area = 702 ac
Surface Area = 7.9 ac
Vol_{100} = 29 ac-ft
$Q_{100, out}$ = 35 cfs

Structure 804 - BY OTHERS - 18" RCP

Structure 803 - Proposed 30" RCP

Structure 942 - Proposed 1-6' x 6' Concrete Box Culvert

Approximate Future Flood Hazard Corridor
Width = 69'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 48'

Structure 802 - Proposed 1-5' x 3' Concrete Box Culvert

Approximate Future Flood Hazard Corridor
Width = 59'

Structure 801 - Proposed 1-5' x 3' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 76'

Structure 800 - Proposed 3-7' x 3' Concrete Box Culvert

Greeley and Loveland Irrigation Canal

Farmers Ditch

Hill and Brush Ditch

Great Western Railway

Weld County Rd 15

E County Rd 24

E County Rd 20E

S County Rd 3

Draft Horse Dr

Centennial Pkwy

Thompson Pkwy

Kerns Substation Subdivision

Prpl Mtd Subdivision

Encore Subdivision

2534 Subdivision

2534 West Subdivision

Atlas Garage & Storage 2534 Condos Subdivision

Iron Horse Subdivision

Crowne At 2534 Minor Subdivision

Thompson Crossing Subdivision

3

13

18

34

25

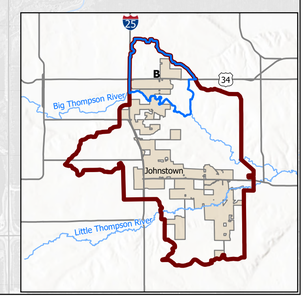
Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Known Constraint Location
- Regional Detention By Others
- Proposed Regional Detention
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure
- Remain
- Replace
- By Others

Alignment Type
- Proposed Stationing
- River/Creek/Ditch
- Railroad

Study Reach
- 807
- 810
- 830
- 840
- 900
- 940



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Figure 6-4 - Major Basin Group - B
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.2 Major Basin Group B

Major Basin Group B is comprised of two primary basins: Major Basin 800 and Major Basin 900. Both basins discharge into the Big Thompson River. Large portions of these watersheds have recently constructed development or improvements approved to be built. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-6, Table 6-7, Table 6-8 and Table 6-9 respectively. Refer to Appendix F for the proposed major crossings calculations.

The costs for proposed channel improvements, crossings, and detention facilities were estimated using the Urban Drainage and Flood Control District's UD-MP Version 2.2 Excel tool. Existing structures that remain unchanged are excluded from the concept design, along with their associated costs and maintenance. Full-spectrum detention is recommended for all new developments; however, the costs for these facilities are not included in the Master Plan budget, as they are the responsibility of developers.

See Table 6-10 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 800

Major Basin 800 contains two primary drainageways, both of which cross the Union Pacific Railroad and the Great Western Railway. The first drainageway consists solely of Reach 807 which surrounding area is largely undeveloped and is primarily agricultural farmland. The second includes Reaches 810, 830, and 840, of which portions of the reaches have approved designs in the encore subdivision, which is in the 2024 Final Drainage Report, Encore Major Infrastructure Filing 1, by TST Inc. Consulting Engineers.

Reach 807

Reach 807 is the sole reach within one of Major Basin 800's two primary drainageways, extending from the Great Western Railroad to the Big Thompson River and passing through undeveloped agricultural land. There are no major existing structures within the channel, and a proposed structure (Structure 800) is recommended to cross underneath the Hill and Brush Ditches. This crossing will be able to manage flows from up to a 25-year rainfall event, after which excess water will pass over the Hill and Brush Ditch via a land bridge and discharge into the Big Thompson. To accommodate the large volumes of water expected during a 100-year storm event, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed.

Reach 810

Reach 810 extends from the Great Western Railroad to the Big Thompson River, passing through undeveloped agricultural land. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway. Near the Big Thompson outfall, the channel drains into the Hill and Brush Ditch, where a proposed Structure 801 is recommended to pass beneath the canal. Upstream, Structure 802 is proposed at Larimer County Road 20C to accommodate a 100-year storm event. Finally Structure 803 which goes under the Great Western Railroad is undersized and will need a proposed improvement to ensure safer water conveyance.

Reach 830

Reach 830 extends from US-34 to the Great Western Railroad, passing through the Farmers Ditch and beneath the Union Pacific Railroad near the Canyon Bakehouse. There are no defined channels throughout the reach, but drainage flows into a detention area that appears to have formed at the crossing of the Union Pacific and Great Western Railroads. In the 2023 encore final drainage report, the idea of building a detention before the Union Pacific Railroad was brought up, but little information on the design was found. In replacement, a proposed detention was recommended.

Reach 840

Reach 840 starts around the upper region of Major Basin 800 and extends all of the way to US-34. It passes through undeveloped agricultural land with a large portion of the water going into the Greeley and Loveland Irrigation Canal. An approved development plan was made in the encore area which diverts the drainageway to the west side of the area. There are also multiple detention ponds that were approved that use a pumping system to transport the water to an existing 30" Pipe that will drainage all the way to the Big Thompson River.

Major Basin 900

Major Basin 900 is comprised of two primary drainageways, with one containing only Reach 900 and the other containing Reaches 940 and 950. This major basin is a part of the 2534 subdivision which includes multiple reports which can be found in the reference section. The basin has undergone substantial development, with numerous areas still under construction and additional projects planned.

Reach 900

Reach 900 runs from Ronald Reagan Boulevard to the Big Thompson River, passing through areas that are already built up as well as places where new construction is happening. Along the way, the channel goes through a pond and a detention pond. There aren't any major road crossings in this part of the channel. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Reach 940

Reach 940 extends from the Great Western Railway to the Big Thompson River, traversing an area that has undergone significant recent development. As a result, the channel now experiences increased flow velocities and depths, particularly during storm events. To mitigate these impacts, it is recommended to establish a well-defined stream corridor that offers improved hydraulic performance and reduced maintenance requirements.

Structure 942, located at the railway crossing, currently begins as a 6' x 6' concrete box culvert (CBC) and transitions into a smaller corrugated metal pipe (CMP). The proposed improvement involves removing the CMP and continuing the 6' x 6' CBC throughout the reach for consistency and enhanced capacity.

Upstream, three detention basins are present, each with existing outlet structures. These basins have been modeled to release flows that closely match the results presented in Galloway's 2023

Final Drainage Report. The corresponding outlet configurations and performance can be seen in Figure 6-4.

Table 6-6 100-Year Channel Velocity – Group B

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
807	L_812	4.8	5.5	4.8
810	L_819	6.3	7.2	2.9
830	L_849	6.1	6.7	-
840	L_869	4.0	4.2	3.8
900	L_919	7.6	8.8	4.5
940	L_937	10.2	11.3	4.7

Any Values with a RED text have a velocity above 5 ft/s.

Table 6-7 100-Year Channel Discharge – Group B

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
807	L_812	618	1,029	497
810	L_819	1,092	1,705	104
830	L_849	808	1,207	485
840	L_869	329	384	255
900	L_919	996	1,526	412
940	L_937	1,961	2,912	106

Table 6-8 Proposed Channel Geometry - Group B

Channel Geo					
Reach	Pr. Change	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
807	Yes	40	5	2.1	76
810	No	40	4	0.9	59
830	Yes	40	5	2.00	75
840	No	0.001	15	2.2	111
900	No	50	3	1.7	69
940	Yes	25	5	0.8	48

Table 6-9 Proposed Crossing Structures – Group B

Structure Number	Reach Number	Location	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
800	800	Hill and Brush Ditch	Irrigation	3 - 7' x 3' CBC	497
801	810	Hill and Brush Ditch	Irrigation	1 - 5' x 3' CBC	104
802	810	LCR - 20C	Roadway	1 - 5' x 3' CBC	110
803	810	Great Western Railway	Railroad	1 - 66" RCP	35
804	830	Great Western Railway	Railroad	1 - 18" RCP	35
806	830	Ditch	Irrigation	2 - 7' x 4' CBC	458
942	940	Great Western Railway	Railroad	1 - 6' x 6' CBC	106
944	940	Ronald Reagon Blvd	Roadway	Ex. 1 - 6 ' x 4' CBC	108
945	950	US-34	Highway	Ex. 1 - 30" RCP	61

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-10 Cost Estimate Summary – Group B

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
807	$172,613	$355,946	$666,288	$0	$1,915,524	$1,025,000	$2,940,524
810	$0	$209,357	$0	$0	$356,954	$23,600	$380,554
830	$62,332	$288,368	$246,855	$0	$974,887	$395,000	$1,369,887
800 Total	$234,945	$853,671	$913,143	$0	$3,247,365	$1,443,600	$4,690,965
940	$21,577	$255,487	$424,346	$0	$1,180,694	$215,000	$1,395,694
900 Total	$21,577	$255,487	$424,346	$0	$1,180,694	$215,000	$1,395,694
Group	**$256,522**	**$1,109,158**	**$1,337,489**	**$0**	**$4,428,059**	**$1,658,600**	**$6,086,659**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

Drains North, See Comprehensive Drainage Plan for Greeley Oklahoma Basin

Major Basin 600

Major Basin 400

Major Basin 260

Major Basin 200

Greeley and Loveland Irrigation Canal

Farmers Ditch

Hill and Brush Ditch

Koenig Reservoir

Big Thompson River

Great Western Railway

Union Pacific Railroad

County Road 15 1/2

Weld County Rd 17 1/2

34

17

15

18

54

52

52

17

Approximate Future Flood Hazard Corridor Width = 72'

Structure 606 - Proposed 2-7' x 3' Concrete Box Culvert

Approximate Future Flood Hazard Corridor Width = 86'

Approximate Future Flood Hazard Corridor Width = 140'

Proposed Regional **Detention Facility 449**
Contributing Area = 769 ac
Surface Area = 8.0 ac
Vol_{100} = 64 ac-ft
$Q_{100, out}$ = 433 cfs

Structure 604 - Proposed 1-7' x 6' Concrete Box Culvert

Structure 603 - Proposed 1-7' x 6' Concrete Box Culvert

Structure 602 - Proposed 1-9' x 6' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 142'

Structure 405 - Proposed 1-10' x 5' Concrete Box Culvert

Structure 601 - Proposed 2-8' x 4' Concrete Box Culvert

Structure 404 - Existing 1-108" Corrugated Metal Pipe

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 117'

Approximate Future Flood Hazard Corridor Width = 125'

Structure 403 - Proposed 1-10' x 5' Concrete Box Culvert

Structure 402 - Proposed 2-8' x 4' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 172'

Structure 401 - Proposed 2-8' x 4' Concrete Box Culvert

Structure 262 - Proposed 1-6' x 4' Concrete Box Culvert

Approximate Future Flood Hazard Corridor Width = 188'

Structure 261 - Proposed 1-6' x 4' Concrete Box Culvert

Structure 203 - Existing 100' Bridge

Structure 202 - Proposed 1-12' x 5' Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 162'

Structure 201 - Proposed 2-9' x 4' Concrete Box Culvert

Reach 630
Reach 450
Reach 453
Reach 610
Reach 430
Reach 220
Reach 260
Reach 410
Reach 210

0 1,200 2,400
Feet

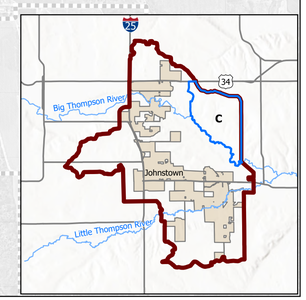
Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Proposed Regional Detention
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure
- Remain
- Replace
- By Others

Alignment Type
- Proposed Stationing
- River/Creek/Ditch
- Railroad

Study Reach
- 210
- 220
- 260
- 410
- 430
- 450
- 453
- 610
- 630



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Figure 6-5 - Major Basin Group - C
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.3 Major Basin Group C

Major Basin Group C is comprised of four major basins: Major Basin 200, Major Basin 260, Major Basin 400, and Major Basin 600. Each basin discharges into the Big Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-11, Table 6-12, Table 6-13, and Table 6-14 respectively. Refer to Appendix F for the proposed major crossings calculations.

The costs for proposed channel improvements, crossings, and detention facilities were estimated using the Urban Drainage and Flood Control District's UD-MP Version 2.2 Excel tool. Existing structures that remain unchanged are excluded from the concept design, along with their associated costs and maintenance. Full-spectrum detention is recommended for all new developments; however, the costs for these facilities are not included in the Master Plan budget, as they are the responsibility of developers.

See Table 6-15 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

All the major basins within Group C are outside of Johnstown's current limits but mostly within the Town's growth management area. The *Storm Water Master Plan for the Town of Johnstown*, dated April 2001, did not include any of the major basins with Group C.

Major Basin 200

Major Drainageway 200 extends between the Big Thompson River and Weld County Road 54.

Reach 210

Reach 210 is the downstream portion of Major Drainageway 200, extending between the Big Thompson River and the Union Pacific Railroad. The area surrounding this reach is agricultural and does not have a define channel. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two major crossing structures: Structures 201 and 202. These crossings are located at Weld County Road 52 and the Hill and Brush Ditches, respectively. Both existing culverts at these locations do not have capacity for the proposed 100-year flow and will require proposed culverts. Refer to Table 4-3 for the existing culvert capacity.

Reach 220

Reach 220 is the upstream portion of Major Drainageway 200, extending between the Union Pacific Railroad and Weld County Road 54. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Structure 203 is the only major crossing structure within Reach 220, located at the crossing with the Union Pacific Railroad. The existing bridge has capacity to pass the proposed 100-year flow and will not require any improvements. Refer to Table 4-3 for the existing culvert capacity.

Major Basin 260

Major Drainageway 260 extends between the growth management area boundary that runs north-south about a mile west of Weld County Road 21/State Highway 257.

Reach 260

Reach 260 represents the entirety of Major Drainageway 200. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

This reach contains two major crossing structures: Structures 261 and 262. These crossings are located at Weld County Road 54 and the Greeley and Loveland Irrigation Canal, respectively. Both existing culverts at these locations do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities.

Major Basin 400

Major Drainageway 400 extends between the Big Thompson River and Weld County Road 17. Note that the upstream portion of this major drainageway splits into two Reaches (450 and 453).

Reach 410

Reach 410 is the downstream portion of Major Drainageway 400, extending between the Big Thompson River and the Great Western Railway. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Reach 430

Reach 430 is the middle portion of Major Drainageway 400, extending between the Great Western Railway and the existing pond about 0.3 miles north of Weld County Road 54. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. In addition to the channel improvements, the proposed condition includes a regional detention facility in the location of the existing pond at the upstream end of this reach. The details of this detention facility can be found in Figure 6-5.

This reach contains five major crossing structures: Structures 401, 402, 403, 404, and 405. These crossings are located at the Great Western Railway, Weld County Road 15 ½, the Hill and Brush Ditch, the Union Pacific Railroad, and Weld County Road 54, respectively. All existing culverts in this reach, except for Structure 404, do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities.

Reach 450

Reach 450 is one of the upstream portions of Major Drainageway 400, extending between the existing pond about 0.3 miles north of Weld County Road 54 and about 600 feet south of the Greeley and Loveland Irrigation Canal. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Reach 453

Reach 453 is one of the upstream portions of Major Drainageway 400, extending between the existing pond about 0.3 miles north of Weld County Road 54 and Weld County Road 17. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Major Basin 600

Major Drainageway 600 extends between the Big Thompson River and about 900 feet north of the Greeley and Loveland Irrigation Canal.

Reach 610

Reach 610 is the downstream portion of Major Drainageway 600, extending between the Big Thompson River and about 1,100 feet north of the Union Pacific Railroad. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains four major crossing structures: Structures 601, 602, 603, and 604. These crossings are located at Weld County Road 54, the Hill and Brush Ditch, the Great Western Railway, and the Union Pacific Railroad, respectively. All existing culverts in this reach do not have capacity for the proposed 100-year flow. Refer to Table 4-3 for the existing culvert capacities.

Reach 630

Reach 630 is the upstream portion of Major Drainageway 600, extending between about 1,100 feet north of the Union Pacific Railroad and about 900 feet north of the Greeley and Loveland Irrigation Canal. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows. A future flood hazard corridor is recommended to provide the Town with the ability to limit development near the drainageway.

Structure 606 is the only major crossing structure within Reach 630, located at the crossing with the Greeley and Loveland Irrigation Canal. There is no existing structure or protection at this crossing. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events.

Table 6-11 100-Year Channel Velocity – Group C

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
210	L_219	6.8	7.9	4.9
220	L_222	4.0	4.8	4.0
260	L_264	2.9	3.7	2.8
410	L_419	11.6	13.5	4.5
430	L_429	11.6	14.5	4.8
453	L_455	4.1	5.0	3.9
450	L_459	3.3	4.6	3.2
610	L_619	8.7	10.1	4.9
630	L_639	4.7	5.9	4.6

Any Values with a RED text have a velocity above 5 ft/s.

Table 6-12 100-Year Channel Discharge – Group C

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
210	L_219	531	918	498
220	L_222	316	497	293
260	L_264	213	381	192
410	L_419	1,413	2,638	588
430	L_429	1,323	2,496	514
453	L_455	539	941	492
450	L_459	239	548	220
610	L_619	644	1,160	586
630	L_639	309	616	283

Table 6-13 Proposed Channel Geometry - Group C

Channel Geo					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
210	Yes	140	5	0.70	162
220	No	65	12	1.00	125
260	No	150	10	0.40	188
410	Yes	150	5	0.70	172
430	Yes	120	5	0.70	142
450	No	70	3	1.10	86
453	No	100	8	1.00	140
610	Yes	90	5	1.20	117
630	No	30	7	1.50	72

Table 6-14 Proposed Crossing Structures – Group C

Structure Number	Reach Number	Location	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
201	210	WCR-52	Roadway	2 - 9' x 4' CBC	631
202	210	Hill and Brush Ditch	Irrigation	1 - 12' x 5' CBC	631
203	220	Union Pacific Railroad	Railway	Ex. 100' Span Bridge	502
261	260	WCR-54	Roadway	1 - 6' x 4' CBC	192
262	260	Greeley and Loveland Irrigation Canal	Irrigation	1 - 6' x 4' CBC	192
401	430	Great Western Railway	Railway	2 - 8' x 4' CBC	588
402	430	WCR 15 1/2	Roadway	2 - 8' x 4' CBC	588
403	430	Hill and Brush Ditch	Irrigation	1 - 10' x 5' CBC	514
404	430	Union Pacific Railroad	Railway	Ex. 108" CMP	514
405	430	WCR-54	Roadway	1 - 10' x 5' CBC	495
601	610	WCR-54	Roadway	2 - 8' x 4' CBC	588
602	610	Hill and Brush Ditch	Irrigation	1 - 9' x 6' CBC	588
603	610	Great Western Railway	Railway	1 - 9' x 6' CBC	588
604	610	Union Pacific Railroad	Railway	1 - 7' x 6' CBC	448
606	630	Greeley and Loveland Irrigation Canal	Irrigation	2 - 7' x 3' CBC	285

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-15 Cost Estimate Summary – Group C

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
210	$206,176	$405,282	$2,205,487	$0	$4,657,536	$594,600	$5,252,136
260	$0	$147,562	$0	$0	$251,594	$10,800	$262,394
200 Total	$206,176	$552,844	$2,205,487	$0	$4,909,130	$605,400	$5,514,530
410	$57,538	$0	$908,832	$0	$1,607,098	$150,000	$1,757,098
430	$644,901	$444,662	$10,048,805	$6,960,064	$30,403,173	$2,907,000	$33,310,173
400 Total	$702,439	$444,662	$10,957,637	$6,960,064	$32,010,271	$3,057,000	$35,067,271
610	$297,278	$507,386	$5,574,591	$0	$10,667,050	$1,179,800	$11,846,850
630	$0	$1,094,206	$0	$0	$1,865,621	$41,500	$1,907,121
600 Total	$297,278	$1,601,592	$5,574,591	$0	$12,532,671	$1,221,300	$13,753,971
Group	**$1,205,893**	**$2,599,098**	**$18,737,715**	**$6,960,064**	**$49,452,072**	**$4,883,700**	**$54,335,772**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

0 1,400 2,800
Feet

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 227'

Hillsboro Ditch

Structure 701 - Proposed 3-11' x 4'
Concrete Box Culvert

Reach 710

Structure 703 - Proposed 2-11' x 5'
Concrete Box Culvert

Structure 702 - Proposed 2-8' x 4'
Concrete Box Culvert

Big Thompson River

Great Western Railway

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 85'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 117'

Reach 730

Reach 510

Structure 707 - Proposed 2-8' x 4'
Concrete Box Culvert

Structure 502 - Proposed 1-6' x 3'
Concrete Box Culvert

Structure 501 - Proposed 2-8' x 4'
Concrete Box Culvert

Approximate Future Flood Hazard Corridor
Width = 112'

Structure 302 - Proposed 2-12' x 4'
Concrete Box Culvert

Structure 301 - Proposed 2-12' x 5'
Concrete Box Culvert

Major Basin 300
(Elwell)

Major Basin 700
(Johnson's Corner)

Proposed Regional **Detention Facility 539**
Contributing Area = 672 ac
Surface Area = 9.1 ac
Vol_{100} = 80 ac-ft
$Q_{100, out}$ = 158 cfs

Reach 530

Structure 503 - Proposed 1-9' x 4'
Concrete Box Culvert

Structure 504 - Proposed 1-9' x 4'
Concrete Box Culvert

Major Basin 500
(Twin Mounds)

Reach 320

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 244'

Structure 303 - Proposed 2-12' x 4'
Concrete Box Culvert

Structure 306 - Existing 1-20' x 8'
Concrete Box Culvert
Upstream detention sized to
keep this existing structure

Structure 304 - Proposed 1-12' x 4'
Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 92'

Reach 340

Proposed Regional **Detention Facility 379**
Contributing Area = 609 ac
Surface Area = 8.5 ac
Vol_{100} = 66 ac-ft
$Q_{100, out}$ = 374 cfs

Structure 305 - Proposed 2-11' x 4'
Concrete Box Culvert

Major Basin 100
(Old Town North)

Reach 120

Reach 170

Structure 307 - Existing 1-20' x 8'
Concrete Box Culvert
Upstream detention sized to
keep this existing structure

Structure 101 - Proposed 2-12' x 5'
Concrete Box Culvert

Approximate Future Flood Hazard Corridor
Width = 35'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 126'

Structure 311 - Existing 1-13' x 6.5'
Concrete Box Culvert

Reach 385

Reach 390

Structure 308 - Existing 1-10' x 4'
Concrete Box Culvert

Structure 309 - Existing 1-10' x 4'
Concrete Box Culvert

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 241'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 101'

Upstream detention sized to keep existing
stream corridor width at Rocksbury Ridge

Proposed Regional **Detention Facility 389**
Contributing Area = 631 ac
Surface Area = 11 ac
Vol_{100} = 92 ac-ft
$Q_{100, out}$ = 86 cfs

Structure 310 - Existing 1-7.5' x 2.67'
Concrete Box Culvert

Home Supply Ditch

Great Western Railway

13 18 16 17 52 50

25 60

Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Known Constraint Location
- Proposed Regional Detention
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure

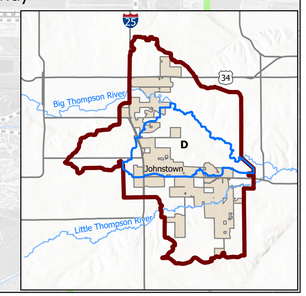
- Remain
- Replace
- By Others

Alignment Type

- Proposed Stationing
- River/Creek/Ditch
- Railroad

Study Reach

- 110
- 120
- 320
- 340
- 385
- 390
- 510
- 530
- 710
- 730



Johnstown COLORADO

Matrix
Excellence by Design

Figure 6-6 - Major Basin Group - D
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.4 Major Basin Group D

Major Basin Group D is comprised of four major basins: Major Basin 100 (Old Town North), Major Basin 300 (Elwell), Major Basin 500 (Twin Mounds), and Major Basin 700 (Johnson's Corner). All the major basins within Group D discharge into the Big Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-16, Table 6-17, Table 6-18, Table 6-19, and Table 6-20, respectively. Refer to Appendix F for the proposed major crossings calculations.

See Table 6-20 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 100 (Old Town North)

Major Drainageway 100 extends between the Big Thompson River and Weld County Road 50. Major Basin 100 was included in the *Storm Water Master Plan for the Town of Johnstown*, dated April 2001. This basin was named "Old Town North". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 100. Note that the alignment of the upstream portion of Major Drainageway 100 differs from the alignment assumed in the 2001 Master Plan.

Reach 110

Reach 110 is the downstream portion of Major Drainageway 100, extending about 0.41 miles southwest from the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. There are currently no existing or proposed culverts or crossings along this reach.

Reach 120

Reach 120 is the upstream portion of Major Drainageway 100, extending northwest from the upstream end of Reach 110 to Weld County Road 50. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 101 is the only major crossing structure within Reach 120, located at the crossing with Weld County Road 17 and the Great Western Railway. No existing culvert could be found. Flood flows presumably overtop Weld County Road 17 and the Great Western Railway. In the proposed condition, a concrete box culvert conveys the 100-year flows under both the roadway and the railroad. The culvert capacity can be found in Table 6-19.

Major Basin 300 (Elwell)

Major Drainageway 300 extends between the Big Thompson River and I-25. Major Basin 300 was included in the 2001 Master Plan and was named "Elwell Basin". The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 300.

Reach 320

Reach 320 is the furthest downstream portion of Major Drainageway 300, extending between the Hillsboro Ditch and the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains three crossing structures: Structures 301, 302, and 303. These crossings are located at Weld County Road 52, Weld County Road 15 ¼, and a private road, respectively. Each of the existing culverts at these locations is undersized. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Reach 340

Reach 340 is a portion of Major Drainageway 300, extending between the north edge of the Rocksbury Ridge development and the Hillsboro Ditch. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. In addition to the channel improvements, the proposed condition includes a regional detention facility in the undeveloped land downstream of the Rocksbury Ridge development. The details of this detention facility can be found in Figure 6-6.

Reach 340 crosses the Hillsboro Ditch at crossing number 304. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, a concrete box culvert is recommended to route the 100-year flow underneath the canal. The proposed culvert size can be found in Table 6-19.

This reach contains three roadway crossing structures: Structures 305, 306, and 307. These crossings are located at a private road, Weld County Road 50, and Weld County Road 13, respectively. The proposed Regional Detention Facility 379 reduces peak flows such that Structures 306 and 307 can remain. However, the existing Structure 305 is undersized for the 100-year event with or without upstream detention. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Reach 385

Reach 385 is a portion of Major Drainageway 300, extending between High Plains Blvd and the north edge of the Rocksbury Ridge development. The area surrounding this reach is developed as single-family residential. This reach will be stable in future conditions if Regional Detention Facility 389 is installed in the undeveloped land immediately upstream of the High Plains Drive crossing within Reach 390. The details of this detention facility can be found in Figure 6-6. The proposed 100-year corridor width for this reach, with 1.5 feet of freeboard, is 35 feet. The existing channel is about 26 feet wide between private property to the north and the sidewalk along Juniper Street to the south. Since Juniper Street is lower than the property to the north of the channel, flow that exceeds the 26-foot width will spill into the Juniper Street right-of-way. Any overtopping flow that enters Juniper Street will be routed to a curb inlet by the intersection of Moss Rock Way and discharged into the Rocksbury Ridge First Filing Pond 1.

This reach contains two roadway crossing structures: Structures 308 and 309. These crossings are located at an emergency vehicle access and River Rock Drive, respectively. The upstream proposed Regional Detention Facility 389 ensures that both existing culverts at these sites can handle the projected 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Reach 390

Reach 390 is the furthest upstream portion of Major Drainageway 300, extending between I-25 and High Plains Blvd. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor. In addition to the channel improvements, the proposed condition includes a Regional Detention Facility 389 in the undeveloped land immediately upstream of High Plains Blvd. The details of this detention facility can be found in Figure 6-6.

This reach contains two crossing structures: Structures 310 and 311. These crossings are located at High Plains Blvd and I-25, respectively. Structure 311 can handle the proposed 100-year flow. With the upstream proposed Regional Detention Facility 389, Structure 310 also accommodates up to a 100-year event. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Major Basin 500 (Twin Mounds)

Major Drainageway 500 extends between the Big Thompson River and the north boundary of the Revere North Filing No. 1 subdivision. Major Basin 500 was included in the 2001 Master Plan and was named “Twin Mounds Basin”. The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 500.

Reach 510

Reach 510 is the downstream portion of Major Drainageway 500, extending between S County Line Road and the Big Thompson River. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two crossing structures: Structures 501 and 503. These crossings are located at Weld County Road 52 ¼ and Weld County Road 52, respectively. Both existing culverts at these locations are undersized for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Reach 510 crosses the Hillsboro Ditch at crossing number 502. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, a concrete box culvert is recommended to route the 100-year flow underneath the canal. The proposed culvert size can be found in Table 6-19.

Reach 530

Reach 530 is the upstream portion of Major Drainageway 500, extending between the north boundary of the Revere North Filing No. 1 subdivision and S County Line Road. The area surrounding this reach is agricultural. The existing channel geometry is sufficient to handle proposed flows, if these flows are attenuated via upstream proposed Regional Detention Facility 539. This proposed regional detention facility is located in the undeveloped land downstream of the Revere North Filing No. 1 subdivision. The details of this detention facility can be found in Figure 6-6.

Structure 504 is the only major crossing structure within Reach 530, located at the crossing with S County Line Road. The existing culvert is undersized for the proposed 100-year flow. The proposed culvert capacity can be found in Table 6-19.

Major Basin 700 (Johnson’s Corner)

Major Drainageway 700 extends between the Big Thompson River and S Larimer County Road 3e. Major Basin 700 was included in the 2001 Master Plan and was named “Johnson’s Corner Basin”. The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for the entirety of Major Drainageway 700.

Reach 710

Reach 710 is the downstream portion of Major Drainageway 700, extending between the southeast corner of the Ridge at Johnstown development and the Big Thompson River. The area surrounding this reach is mostly agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

This reach contains two road crossing structures: Structures 701 and 703. These crossings are located at E Larimer County Road 18 and a private road, respectively. Both existing culverts at these locations are undersized for the proposed 100-year flow. Refer to Table 4-4 for the existing culvert capacities. The proposed culverts can be found in Table 6-19.

Reach 710 crosses the Hillsboro Ditch at crossing number 702. The 2001 Master Plan recommended constructing a spillway and bank protection at this crossing. There is no existing structure or protection. Flows appear to overtop the berm on the northeast side of the canal near the crossing in significant storm events. To ensure that the drainageway does not discharge stormwater into the canal, a concrete box culvert is recommended to route the 100-year flow underneath the canal. The proposed culvert size can be found in Table 6-19.

Reach 730

Reach 730 is the upstream portion of Major Drainageway 700, extending between S County Road 3e and the southeast corner of the Ridge at Johnstown development. The area surrounding this reach is mostly agricultural. This reach will be unstable in future conditions without proposed improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 707 is the only major crossing structure within Reach 730, located at the crossing with S Larimer County Road 3e. The existing culvert is undersized for the proposed 100-year flows. The proposed culvert capacity can be found in Table 6-19.

Table 6-16 100-Year Channel Velocity – Group D

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
110	L_114	3.3	6.1	4.9
120	L_119	2.8	4.6	4.9
120	L_129	1.9	3.2	3.3
320	L_311	3.7	7.1	3.8
320	L_329	3.7	7.0	3.1
320	L_339	7.9	12.6	4.3
340	L_349	8.8	13.9	4.3
340	L_359	7.8	12.5	4.9
340	L_369	2.6	4.8	2.0
340	L_379	5.6	9.6	2.7
340	L_387	5.8	10.1	3.3
385	L_384	4.6	7.9	3.4
385	L_389	7.0	11.5	5.0
390	L_393	5.2	9.0	4.9
510	L_519	4.3	7.9	4.8
510	L_527	2.3	4.5	2.7
510	L_528	4.1	8.2	3.3
510	L_529	7.1	11.9	4.0
530	L_539	3.6	7.1	3.5
530	L_549	2.7	5.3	4.3
710	L_719	4.4	7.8	4.9
710	L_729	3.8	6.6	4.2
710	L_738	2.8	5.9	3.4
730	L_739	2.5	4.9	4.3
730	L_749	3.5	6.8	4.8

Any values in red have velocities above 5 ft/s.

Table 6-17 100-Year Channel Discharge – Group D

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
110	L_114	1,043	1,633	1,033
120	L_119	1,054	1,640	1,039
120	L_129	560	866	520
320	L_311	3,052	5,251	1,155
320	L_329	2,772	4,724	882
320	L_339	2,727	4,627	820
340	L_349	2,659	4,454	786
340	L_359	2,562	4,259	711
340	L_369	2,400	3,965	580
340	L_379	1,986	3,252	373
340	L_387	1,589	2,686	583
385	L_384	1,265	2,143	86
385	L_389	972	1,789	86
390	L_393	784	1,398	591
510	L_519	1,249	2,632	570
510	L_527	1,174	2,442	461
510	L_529	1,024	2,089	303
530	L_539	806	1,629	158
530	L_549	681	1,364	634
710	L_719	1,390	2,532	1,174
710	L_729	1,281	2,277	1,030
710	L_738	1,218	2,119	919
730	L_739	1,039	1,864	776
730	L_749	804	1,403	582

Table 6-18 Proposed Channel Geometry - Group D

Channel Geometry					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
110	Yes	90	5	2.1	126
120	Yes	40	5	3.7	92
320	Yes	220	5	0.9	244
340	Yes	220	5	0.6	241
385	Yes	10	4	1.6	35
390	Yes	70	5	1.6	101
510	Yes	90	5	1.2	117
530	No	30	10	2.6	112
710	Yes	200	5	1.2	227
730	Yes	50	5	2	85

Table 6-19 Proposed Crossing Structures - Group D

Structure Number	Reach Number	Location	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
101	120	Great Western Railway, WCR-17	Railway	2 - 12' x 5' CBC	1,052
301	320	WCR-52	Roadway	2 – 12' x 5' CBC	1,155
302	320	WCR-15 1/4	Roadway	2 - 12' x 4' CBC	882
303	320	Private Road	Roadway	2 - 12' x 4' CBC	821
304	340	Hillsboro Ditch	Irrigation	1 - 12' x 4' CBC	821
305	340	Private Road	Roadway	2 - 11' x 4' CBC	787
306	340	WCR-50	Roadway	Ex. 1 - 20' x 8' CBC	711
307	340	WCR-13	Roadway	Ex. 1 - 20' x 8' CBC	583
308	385	Emergency Vehicle Access	Roadway	Ex. 1 - 10' x 4' CBC	86
309	385	River Rock Drive	Roadway	Ex. 1 - 10' x 4' CBC	86
310	390	High Plains Blvd	Roadway	Ex. 1 - 7.5' x 2.67' CBC	86
311	390	I-25	Roadway	Ex. 1 - 13' x 6.5' CBC	596
501	510	WCR-52 1/4	Roadway	2 - 8' x 4' CBC	571
502	510	Hillsboro Ditch	Irrigation	1 - 6' x 3' CBC	303
503	510	WCR-52	Roadway	1 - 9' x 4' CBC	303
504	530	S County Line Road	Roadway	1 - 9' x 4' CBC	303
701	710	E LCR-18	Roadway	3 - 11' x 4' CBC	1,182
702	710	Hillsboro Ditch	Irrigation	2 - 8' x 4' CBC	1,058
703	710	Private Road	Roadway	2 - 11' x 5' CBC	1,058
707	730	S LCR-3e	Roadway	2 - 8' x 4' CBC	594

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-20 Cost Estimate Summary - Group D

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
110	$153,434	$0	$1,431,828	$0	$2,594,701	$550,000	$3,144,701
120	$201,382	$181,128	$1,624,470	$0	$3,279,928	$1,004,000	$4,283,928
100 Total	$354,816	$181,128	$3,056,298	$0	$5,874,629	$1,554,000	$7,428,629
320	$740,797	$828,921	$11,963,954	$0	$22,552,649	$1,519,700	$24,072,349
340	$1,467,209	$419,121	$17,871,215	$7,177,566	$44,889,982	$3,915,250	$48,805,232
390	$364,405	$0	$1,518,252	$10,005,092	$20,011,707	$2,417,350	$22,429,057
300 Total	$2,572,411	$1,248,042	$31,353,421	$17,182,658	$87,454,338	$7,852,300	$95,306,638
510	$560,992	$372,649	$6,391,530	$0	$12,093,918	$2,195,000	$14,288,918
530	$218,163	$81,843	$0	$8,700,080	$15,191,342	$1,632,350	$16,823,692
500 Total	$779,155	$454,492	$6,391,530	$8,700,080	$27,285,260	$3,827,350	$31,112,610
710	$875,051	$576,390	$10,943,501	$0	$20,516,466	$1,764,400	$22,280,866
730	$143,844	$170,158	$510,324	$0	$1,304,067	$780,300	$2,084,367
700 Total	$1,018,895	$746,548	$11,453,825	$0	$21,820,533	$2,544,700	$24,365,233
Group	**$4,725,277**	**$2,630,210**	**$52,255,074**	**$25,882,738**	**$142,434,760**	**$15,778,350**	**$158,213,110**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

0 900 1,800
Feet

Home Supply Ditch
High Plains Blvd
Carlson Blvd
25
13
60
46
7
15
Great Western Railway
Hillsboro Ditch
Little Thompson River

Major Basin 3000
Major Basin 2600 (Pulliam)
Major Basin 2900
Major Basin 2800

Welty Ridge Subdivision
Ledge Rock Subdivision
Clearview Subdivision
Whitehall Subdivision
Suncatcher Subdivision

Reach 3010
Reach 2620
Reach 2610
Reach 2910
Reach 2920

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 77'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 102'

Proposed Higher-Functioning Lower-Maintenance Stream Corridor
Width = 176'

Outside of the GMA
Approximate Future Flood Hazard Corridor
Width = 119'

Approximate Future Flood Hazard Corridor
Width = 119'

Structure 3001 - Proposed 2-9' x 4' Concrete Box Culvert

Structure 2901 - Proposed 1-7' x 3' Concrete Box Culvert

Structure 2801 - Proposed 1-9' x 3' Concrete Box Culvert

Structure 2602 - Existing 16' x 9' Bridge

Structure 2601 - Proposed 2-9' x 3' Concrete Box Culvert

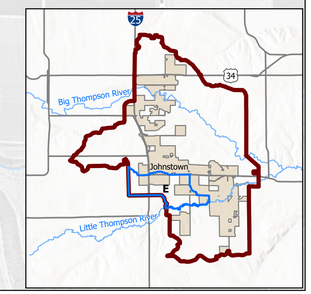
Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure
- Remain
- Replace

Alignment Type
- Proposed Stationing
- River/Creek/Ditch
- Railroad

Study Reach
- 2610
- 2620
- 2810
- 2820
- 3010



Johnstown COLORADO
Matrix Excellence by Design

Figure 6-7 - Major Basin Group - E
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.5 Major Basin Group E

Major Basin Group E includes four major basins: Major Basin 2600 (Pulliam), Major Basin 2800, Major Basin 2900, and Major Basin 3000. All of the major basins within Group E discharge into the Little Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-21, Table 6-22, Table 6-23, Table 6-24, and Table 6-25, respectively. Refer to Appendix F for the proposed major crossings calculations.

See Table 6-25 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 2600 (Pulliam)

Major Drainageway 2600 extends between the Little Thompson River and the Great Western Railway. Major Basin 2600 was included in the *Storm Water Master Plan for the Town of Johnstown*, dated April 2001. This basin was named “Pulliam Basin”. The 2001 Master Plan recommends establishing a drainageway with a minimum width of 100 feet for Major Drainageway 2600.

Reach 2610

Reach 2610 is the downstream portion of Major Drainageway 2600, extending between the Little Thompson River and Weld County Road 46. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Reach 2610 crosses the Hillsboro Ditch at crossing 2601. In significant storm events, flows appear to overtop the berm on the south side of the canal and continue south to the Little Thompson River. The 2001 Master Plan states that there is “an existing overflow structure very near to this crossing, and therefore an additional structure would likely not be necessary.” However, a concrete box culvert is recommended to route the 100-year flow under the canal to ensure that the drainageway does not discharge stormwater into the canal. Refer to Table 6-24 for the proposed culvert size.

Reach 2620

Reach 2620 is the upstream portion of Major Drainageway 2600, extending between Weld County Road 46 and the Great Western Railway. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 2602 is the only major crossing structure within Reach 2620, located at the crossing with Weld County Road 46. The existing bridge at this location has capacity for the proposed condition flows. However, this bridge may need to be replaced or repaired in the future due to its current condition. Refer to Table 4-5 for the existing crossing capacity.

Major Basin 2800

Major Basin 2800 was not included in the 2001 Master Plan. This major basin is outside of the current Johnstown town boundary and includes an area outside of the town’s growth management area.

Reach 2810

Reach 2810 represents the downstream portion of Major Drainageway 2800, extending between the Little Thompson River and a private road at the edge of Johnstown’s Growth Management Area (GMA) boundary. The area surrounding this reach is agricultural. This reach is anticipated to be stable in future conditions with its existing channel geometry. However, establishing a right-of-way or drainage easement is recommended to ensure that the Town has access to the channel to perform maintenance or future improvements. This also gives the Town the ability to prevent development in the drainageway corridor that would create drainage issues.

Reach 2820

Reach 2820 represents the portion of Major Drainageway 2800 outside of Johnstown’s GMA, extending between a private road at the GMA boundary and Weld County Road 46. The area surrounding this reach is agricultural. This reach is anticipated to be stable in future conditions with its existing channel geometry. Since this reach is outside of the GMA, no right-of-way or drainage easement is necessary. If Johnstown does acquire this land, establishing a right-of-way or drainage easement is recommended for maintenance or future improvements.

Structure 2801 is the only major crossing structure within Major Basin 2800, located at the crossing with Weld County 46. The existing structure type is unknown and is likely undersized. In the proposed condition, a concrete box culvert conveys the 100-year flows. This short and wide box culvert was chosen due to cover concerns. The proposed culvert can be found in Table 6-24.

Major Basin 2900

Major Basin 2900 does not include any major drainageways that were analyzed as part of this report since no defined channel was observed. However, if the existing land use changes, establishing a drainageway corridor is recommended in this major basin. Note that there are existing wetlands downstream of Weld County Road 46.

Structure 2901 is the only major crossing structure within Major Basin 2900, located at the crossing with Weld County Road 46. The existing culvert at this location is undersized. Refer to Table 4-5 for the existing culvert capacity. In the proposed condition, a concrete box culvert conveys the 100-year flows. This short and wide box culvert was chosen due to cover concerns. The proposed culverts can be found in Table 6-24.

Major Basin 3000

Major Basin 3000 was not included in the 2001 Master Plan. This major basin is outside of the current Johnstown town boundary but inside of the town’s GMA.

Reach 3010

Reach 3010 represents the entirety of Major Drainageway 3000, extending between the Great Western Railway and Weld County Road 46. The area surrounding this reach is agricultural. This reach will be unstable in future conditions without proposed channel improvements, which include the establishment of a defined higher-functioning, lower-maintenance stream corridor.

Structure 3001 is the only major crossing structure within Reach 3010, located at the crossing with Weld County Road 46. The existing culvert at this location is undersized. Refer to Table 4-5 for the existing culvert capacity. In the proposed condition, a concrete box culvert conveys the 100-year flows. This relatively short and wide box culvert was chosen due to cover concerns. The proposed culverts can be found in Table 6-24.

Table 6-21 100-Year Channel Velocity – Group E

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2610	L_2619	6.7	11.5	4.9
2620	L_2621	4.2	7.0	4.9
2620	L_2629	4.5	7.4	4.5
2810	L_2812	3.0	5.5	4.0
2820	L_2814	2.9	5.4	3.9
3010	L_3019	3.4	6.4	4.9

Any Values with a RED text have a velocity above 5 ft/s.

Table 6-22 100-Year Channel Discharge – Group E

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2610	L_2619	990	1,590	800
2620	L_2621	785	1,220	636
2620	L_2629	552	838	409
2810	L_2812	252	523	215
2820	L_2814	252	523	215
3010	L_3019	363	878	317

Table 6-23 Proposed Channel Geometry - Group E

Channel Geometry					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2610	Yes	150	5	1.1	176
2620	Yes	70	5	1.7	102
2810	No	75	10	0.7	119
2820	No	75	10	0.7	119
3010	Yes	50	5	1.2	77

Table 6-24 Proposed Crossing Structures - Group E

Structure Number	Reach Number	Location	Crossing Type	Structure Size	Design Q_{100} (cfs)[A]
2601	2610	Hillsboro Ditch	Irrigation	2 - 9' x 3' CBC	1,019
2602	2620	WCR-46	Roadway	Ex. 16' x 9' Bridge	809
2801	2810	WCR-46	Roadway	1 - 9' x 3' CBC	216
2901	n/a	WCR-46	Roadway	1 - 7' x 3' CBC	159
3001	3010	WCR-46	Roadway	2 - 9' x 4' CBC	626

Table 6-25 Cost Estimate Summary - Group E

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
2610	$309,265	$265,871	$5,401,421	$0	$9,971,999	$808,600	$10,780,599
2620	$251,727	$0	$1,925,024	$0	$3,533,893	$1,125,000	$4,658,893
2600 Total	$560,992	$265,871	$7,326,445	$0	$13,505,892	$1,933,600	$15,439,492
2820	$0	$52,594	$0	$0	$89,674	$3,300	$92,974
2800 Total	$0	$52,594	$0	$0	$89,674	$3,300	$92,974
2901	$0	$45,089	$0	$0	$76,876	$3,300	$80,176
2900 Total	$0	$45,089	$0	$0	$76,876	$3,300	$80,176
3010	$115,075	$168,106	$1,379,448	$0	$2,753,657	$680,000	$3,433,657
3010 Total	$115,075	$168,106	$1,379,448	$0	$2,753,657	$680,000	$3,433,657
Group	**$676,067**	**$531,660**	**$8,705,893**	**$0**	**$16,426,099**	**$2,620,200**	**$19,046,299**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

0 1,200 2,400
Feet

Proposed Actions Legend

- Approximate Future Flood Hazard Corridor
- Proposed Channel Improvement
- Known Constraint Location
- Proposed Regional Detention
- Existing Regional Detention
- Parcel
- Subbasin
- Major Drainage Basin
- Major Basin Group
- Growth Management Area
- Municipality Boundary
- County Boundary

Crossing Structure
- Remain
- Replace

Alignment Type
- Existing Stationing
- Proposed Stationing
- River/Creek/Ditch
- Railroad

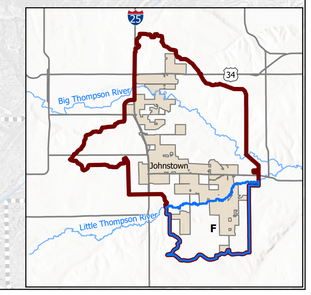
Study Reach
- 2010
- 2020
- 2030
- 2110
- 2410
- 2420
- 2430
- 2433
- 2440
- 2445
- 2450
- 2460
- 2510
- 2520
- 2522
- 2710
- 2720

Major Basin 2000
Major Basin 2700
Major Basin 2400 (Bunyan)
Major Basin 2500
Major Basin 2100

Little Thompson River
Great Western Railway
Weld County Rd 46 1/2
County Rd 19
Hillsboro Reservoir
Hillsboro Ditch
Miner Longan Ditch
Farmers Extension Canal
Hill Lake
Johnstown Farms Subdivision
Grays Farm Subdivision
Rowhouse Dr

Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 134'
Structure 2011 - Proposed 2-8' x 4' Concrete Box Culvert
Reach 2010
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 43'
Structure 2031 - Proposed 1-12' x 4' Concrete Box Culvert
Reach 2020
Reach 2030
Upstream detention sized to reduce stream corridor width
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 158'
Reach 2410
Structure 2401 - Proposed 2-7' x 3' Concrete Box Culvert
Reach 2420
Proposed Regional **Detention Facility 2419**
Contributing Area = 2,558 ac
Surface Area = 6 ac
Vol_{100} = 46 ac-ft
$Q_{100, out}$ = 875 cfs
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 121'
Approximate Future Flood Hazard Corridor Width = 177'
Structure 2444 - Existing 72" RCP
Approximate Future Flood Hazard Corridor Width = 60'
Structure 2445 - Proposed 1-6' x 3' Concrete Box Culvert
Structure 2405 - Existing 18' x 16' CM Arch Pipe
Reach 2433
Reach 2440
Reach 2445
Reach 2450
Reach 2460
Structure 2406 - Proposed 2-7' x 5' Concrete Box Culvert
Reach 2110
Structure 2101 - Proposed 2-8' x 3' Concrete Box Culvert
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 46'
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 155'
Structure 2510 - Proposed 1-9' x 3' Concrete Box Culvert
Reach 2510
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 163'
Structure 2511 - Proposed 2-8' x 4' Concrete Box Culvert
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 151'
Reach 2520
Proposed Higher-Functioning Lower-Maintenance Stream Corridor Width = 150'
Reach 2430
Structure 2402 - Existing 1-8' x 6' Concrete Box Culvert
Structure 2403 - Existing 1-8' x 6' Concrete Box Culvert Upstream Detention sized to keep this existing structure
Proposed Regional **Detention Facility 2449**
Contributing Area = 1,573 ac
Surface Area = 12 ac
Vol_{100} = 103 ac-ft
$Q_{100, out}$ = 527 cfs
Reach 2522
Approximate Future Flood Hazard Corridor Width = 63'
Approximate Future Flood Hazard Corridor Width = 73'
Proposed Modification to Existing Hill Lake Regional **Detention Facility 2469**
Contributing Area = 381 ac
Surface Area = 33 ac
Vol_{100} = 49 ac-ft
$Q_{100, out}$ = 24 cfs
Proposed Regional **Detention Facility 2469**
Contributing Area = 381 ac
Surface Area = 33 ac
Vol_{100} = 49 ac-ft
$Q_{100, out}$ = 24 cfs
Reach 2710
Reach 2720
Existing alignment of Reach 2710
Proposed realignment of Reach 2710 downstream of WCR-44 to avoid impractical Hillsboro Ditch crossing
Proposed Higher-Functioning Lower Maintenance Stream Corridor Width = 74'
Structure 2711 - Proposed 2-7' x 4' Concrete Box Culvert
Approximate Future Flood Hazard Corridor Width = 294'

13 15 17 19 42 44 46 40



Johnstown COLORADO
Matrix Excellence by Design

Figure 6-8 - Major Basin Group - F
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.6 Major Basin Group F

Major Basin Group F is comprised of five Major Basins: 2000, 2100, 2400, 2500, and 2700. All subbasins and their associated reaches within Group F ultimately discharge into the Little Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-26, Table 6-27, Table 6-28, Table 6-29, and Table 6-30, respectively.

See Table 6-30 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 2000

Major Basin 2000 includes Reaches 2010, 2020, and 2030 and consists primarily of undeveloped agricultural farmland. In the middle of the basin is the Little Thompson Reservoir which the Hillsboro Ditch runs along. At some point parts of the reservoir drain into the canal with the rest draining north to the Little Thompson River through an unknown outlet size.

Reach 2010

Reach 2010 is a channel that flows through undeveloped agricultural land and currently crosses both Weld County Road 19 and Weld County Road 46 ½. It spans from the outfall of the Little Thompson Reservoir to the Little Thompson River. The channel initially starts wide but gradually narrows down to a minor channel, which limits its capacity to manage larger flows. To create a stable and effective drainage system capable of handling significant rainfall events, the creation of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Rather than maintaining the existing alignment that crosses both Weld County Road 19 and Weld County Road 46 ½, the channel will be redirected north to cross only Weld County Road 46 ½. At this crossing, Structure 2011, a box culvert is proposed to efficiently convey the increased flows expected from future storm events. Refer to Table 6-29 for the proposed culvert size.

Reach 2020

Reach 2020 encompasses both the Little Thompson Reservoir and a small channel that flows directly into it. The primary issue in this area is that portions of the reservoir drain directly into the Hillsboro Ditch. To address this, it is recommended that the reservoir be separated from the irrigation canal in the future. There are no major crossing structures located in this area. No channel improvements are proposed since this reach is within a reservoir.

Reach 2030

Reach 2030 passes through undeveloped agricultural land and currently does not have a defined channel. To effectively manage runoff from a 100-year rainfall event, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At present, water from this area flows into the Hillsboro Ditch and can overflow into the Little Thompson Reservoir during periods of high flow. A future improvement would involve constructing a proposed concrete box culvert, Structure 2031, to contain the Hillsboro Ditch and routing the drainageway overtop the Hillsboro Ditch. The drainageway could not be routed underneath the Hillsboro Ditch due to the existing topography and the downstream Hillsboro Reservoir water surface elevation.

Major Basin 2100

Major Basin 2100 includes reach 2110 and consists primarily of undeveloped agricultural farmland. The contours indicate that water flows northward, but the current road network suggests runoff could overtop Weld County Road 19 during significant flow events. This large basin has only one reach since most runoff is sheet flow towards WCR-19. Downstream of the study boundary at WCR-19, a future drainageway may be necessary and should be coordinated with the Town of Milliken.

Reach 2110

Reach 2101 is an agricultural swale that crosses a field before reaching Weld County Road 19, then continues north along a small drainage channel. The current channel cannot accommodate flows from a 100-year rainfall event. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is proposed. Instead of directing water north along the existing swale, a new crossing beneath Weld County Road 19 is recommended, as the reach on the opposite side of the road already experiences overtopping during major events. The proposed crossing, Structure 2101, will be sized to efficiently convey increased flows. Refer to Table 6-29 for the proposed culvert size.

Major Basin 2400 (Bunyan Basin)

Major Basin 2400, originally called Bunyan Basin in the *Storm Water Master Plan for the Town of Johnstown*, dated 2001, is the largest drainageway in Group F and includes Reaches 2410, 2420, 2430, 2433, 2440, 2445, 2450, and 2460. This basin extends from Hills Lake, follows the Great Western Railway of Colorado, and ultimately flows into the Little Thompson. Most of the surrounding land consists of undeveloped agricultural farmland. In the middle section, the drainageway passes adjacent to the Stroh Farm subdivision, a developed area that contributes most of the runoff to the main channel.

Reach 2410

Reach 2410 extends from the Hillsboro Ditch to the Little Thompson River and currently consists of undeveloped farmland. The existing conditions lack a defined channel, making improvements necessary to effectively manage runoff and convey flows. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. The proposed Regional Detention Facility 2419 is located upstream of the Hillsboro Ditch in Reach 2420 and is designed to reduce peak flows to minimize the required stream corridor width for Reach 2410. There are no major crossings in this reach.

Reach 2420

Reach 2420 extends from the junction of Reach 2430 and Reach 2433 to the Hillsboro Ditch, which it currently drains into. To prevent direct drainage into the canal, a new channel alignment and size are proposed. This includes constructing a culvert, Structure 2401, to carry flows beneath the Hillsboro Ditch, ensuring effective water conveyance without impacting the canal's capacity. Developing a well-defined, higher-functioning, and lower-maintenance stream corridor along this reach is recommended to improve drainage management and reduce potential flooding risks. Regional Detention Facility 2419 is proposed at the downstream end of Reach 2420, sized to reduce the stream corridor width of downstream Reach 2410 and decrease the required size of Structure 2401. Regional Detention Facility 2419 is located in an area that contains existing wetlands. As such, the Town may want to implement a wetland storage facility instead of a typical dry detention basin.

Reach 2430

Reach 2430 passes through agricultural fields, extending past Weld County Road 15 and into the main drainageway. This reach currently lacks a fully defined channel and is unable to effectively manage runoff from significant rainfall events. Channel improvements are needed to establish a well-defined, higher-functioning, and lower-maintenance stream corridor.

Reach 2433

Reach 2433 is a shorter section that extends from Structure 2403 to the junction with Reach 2430 at the upstream end of Reach 2420, running along the railroad. The existing channel requires improvements to better manage flows and enhance stability. Developing a well-defined, higher-functioning, and lower-maintenance stream corridor along this reach is recommended to support long-term drainage performance. Reach 2433 contains one crossing, Structure 2402, which has capacity for the proposed 100-year flow.

Reach 2440

Reach 2440 runs through the Stroh Farm subdivision, extending from Pekin Drive to the main drainageway line, where it joins the upstream end of Reach 2433. This reach consists of a wide swale that is currently capable of handling existing flow conditions without the need for improvements. The existing crossing, Structure 2444, is also adequate to convey flows effectively. Overall, the channel and associated infrastructure in this reach function well within the developed area.

Reach 2445

Reach 2445 runs through the Stroh Farm subdivision, spanning from south of Weld County Road 42 to Pekin Drive. This area is already fully developed, and the existing channel is capable of handling the required flows without the need for further improvements. There is a crossing at this reach, Structure 2445, which will require upgrades to ensure continued effective performance.

Reach 2450

Reach 2450 extends from Weld County Road 15 to the Great Western Railway and features a large channel. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At Weld County Road 15, the existing Structure 2405 is currently sufficient to handle the expected flows. Structure 2403, located at the crossing of the Great Western Railway at the downstream end of the reach, also has capacity for the proposed 100-year flow. The proposed Regional Detention Facility 2449 is located at the downstream end of Reach 2450 and was sized to reduce peak flows so the existing box culvert at Structure 2403 could remain.

Reach 2460

Reach 2460 is the uppermost section of the drainageway, extending from Hills Lake to Weld County Road 15, and runs parallel to the Great Western Railway through undeveloped farmland. The existing channel is currently a small swale and is adequate to accommodate a 100-year flood event, if improvements are made to Hill Lake (Regional Detention Facility 2469). The proposed improvements consist of an outlet structure that releases a 100-year peak flow of 24 cfs. At Weld County Road 15, there is an existing culvert (Structure 2406) that is completely filled with sediment, making its original size difficult to determine. To adequately manage future flows, a proposed structure will be needed at this location.

Major Basin 2500

Major Basin 2500 encompasses the majority of the newly constructed golf course named Bella Ridge, which is scheduled to open in late 2025. Major Basin 2500 includes Reaches 2510, 2520, and 2522. About half of the channels inside of the major basin have been designed while the other half are still being constructed. There are multiple reservoirs that the main drainageway crosses along with a crossing of the Hillsboro Ditch.

Reach 2510

Reach 2510 extends from Weld County Road 44 to the Little Thompson River, passing through undeveloped agricultural land and crossing the Hillsboro Ditch. The current alignment diverts the channel into a swale parallel to Weld County Road 13, but the proposed plan is to realign the channel to flow directly through the field. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. At the canal crossing, a proposed culvert, Structure 2510, will be needed to route storm flows underneath the Hillsboro Ditch.

Reach 2520

Reach 2520 begins at the outfall of Marshall Reservoir Number 2, passes through the Bella Ridge Golf Course, and continues to Weld County Road 44. Since the outflow rate from the reservoir is not currently known, the channel will need to be redesigned to safely accommodate 100-year storm flows. The downstream end of the channel leads into a detention pond, which appears to be both undersized and still under construction. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended. An outfall from this detention pond will be required to cross under Weld County Road 44, and a proposed culvert, Structure 2511, will be needed to ensure proper drainage.

Reach 2522

Reach 2522 extends from Weld County Road 42, through Bella Ridge, to Marshall Reservoir Number 2. As of 2025, the channel in this reach remains under construction. The existing channel geometry is stable to handle proposed flows. Future monitoring of the channel is recommended, to ensure that any modifications made to the channel geometry by the golf course do not negatively impact the stability of the channel. There is a detention outlet structure along this reach, though its exact dimensions are currently unknown.

Major Basin 2700

Major Basin 2700 encompasses a portion of the newly constructed golf course named Bella Ridge, which is scheduled to open in late 2025. It has two reaches, Reach 2710 and Reach 2720. Currently, the area lacks any formal drainage channels or detention facilities. However, aerial imagery reveals noticeable water accumulation in certain low-lying spots, indicating potential drainage challenges. To address this, a proposed culvert, Structure 2711, is planned beneath Weld County Road 44 to manage water flow effectively and prevent surface flooding. This infrastructure will be essential to accommodate runoff from the golf course and surrounding areas once it becomes operational.

Reach 2710

The existing Reach 2710 alignment passes through agricultural fields and across the Hillsboro Ditch. Due to topographic constraints of crossing the drainageway under the Hillsboro Ditch, this study recommends routing Reach 2710 such that it discharges to the Little Thompson River, upstream of where the Hillsboro Ditch crosses the river. This proposed alignment avoids an expensive crossing of the Hillsboro Ditch and significantly reduces the amount of stormwater runoff from Major Basin 2700 that enters the ditch. Reach 2710 also could not handle the proposed flows in its existing condition. To create a stable and effective drainage system capable of handling significant rainfall events, the development of a well-defined, higher-functioning, and lower-maintenance stream corridor is recommended.

Reach 2720

Reach 2720 alignment passes through the west end of the Bella Ridge golf course. The existing geometry of this reach can handle proposed flows. Future monitoring of the channel is recommended, to ensure that any modifications made to the channel geometry by the golf course do not negatively impact the stability of the channel.

Table 6-26 100-Year Channel Velocity – Group F

Velocity				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2010	L_2019	6.2	7.3	4.9
2030	L_2032	4.2	6.0	4.9
2110	L_2122	5.5	6.8	4.8
2410	L_2419	8.2	9.4	4.8
2420	L_2421	4.6	5.5	3.6
2420	L_2429	5.2	6.2	3.8
2420	L_2431	4.7	5.6	3.3
2433	L_2432	5.1	6.0	3.3
2430	L_2434	7.3	9.0	4.8
2430	L_2436	3.5	4.4	2.3
2433	L_2439	6.1	7.2	3.6
2440	L_2444	-	-	3.1
2445	L_2445	5.8	7.3	4.0
2450	L_2449	7.0	8.3	4.8
2450	L_2451	3.7	4.4	3.0
2450	L_2454	4.5	5.4	3.3
2450	L_2459	7.5	8.8	4.6
2460	L_2469	4.9	5.6	2.1
2510	L_2519	5.2	6.2	4.1
2520	L_2522	6.2	7.9	4.8
2522	L_2539	6.1	7.9	4.4
2710	L_2719	4.5	4.8	4.8
2720	L_2729	3.3	3.6	3.2

Any values in red have velocities above 5 ft/s.

Table 6-27 100-Year Channel Discharge – Group F

Discharge				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2010	L_2019	558	1,113	503
2020	L_2029	274	609	262
2030	L_2032	144	314	135
2110	L_2122	188	345	172
2410	L_2419	2,883	4,874	875
2420	L_2421	2,832	4,802	984
2420	L_2429	2,742	4,662	967
2420	L_2431	2,657	4,503	889
2433	L_2432	2,317	3,886	618
2430	L_2434	352	660	317
2430	L_2436	169	336	152
2433	L_2439	2,131	3,672	575
2440	L_2444	-	-	143
2440	L_2445	159	318	144
2450	L_2449	1,817	3,138	1,080
2450	L_2451	1,720	2,966	999
2450	L_2454	1,480	2,550	774
2450	L_2459	1,243	2,195	671
2460	L_2469	512	853	24
2510	L_2519	618	1,144	543
2520	L_2522	433	811	371
2520	L_2539	164	322	148
2710	L_2719	520	694	459
2720	L_2729	316	373	283

Table 6-28 Proposed Channel Geometry - Group F

Channel Geometry					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2010	Yes	110	5	0.9	134
2020	No	N/A - Ex. Hillsboro Reservoir			
2030	Yes	15	5	1.3	43
2110	Yes	15	5	1.6	46
2410	Yes	130	5	1.3	158
2420	Yes	130	5	1.8	163
2433	Yes	90	5	1.6	121
2430	Yes	130	5	0.5	150
2440	No	170	2	0.3	177
2445	No	30	6	1.0	60
2450	Yes	90	5	2.2	127
2460	No	10	15	0.6	73
2510	Yes	130	5	1.0	155
2520	Yes	130	5	0.6	151
2522	No	45	4	0.7	63
2710	Yes	40	5	1.9	74
2720	No	280	4	0.3	294

Table 6-29 Proposed Crossing Structures - Group F

Structure Number	Reach Number	Location	Crossing Type	Structure Size and Type	Design Q_{100} (cfs)[A]
2011	2010	WCR-46 1/2	Roadway	2 - 8' x 4' CBC	537
2031	2020	Hillsboro Ditch	Irrigation	1 - 12' x 4' CBC	N/A (Hillsboro Ditch)
2101	2110	WCR-19	Roadway	2 - 8' x 3' CBC	344
2401	2410	Hillsboro Ditch	Irrigation	2 - 7' x 3' CBC	875
2402	2433	Great Western Railway	Railway	Ex. 1 - 8' x 6' CBC	618
2403	2450	Great Western Railway	Railway	Ex.1 - 8' x 6' CBC	527
2405	2450	WCR-42	Roadway	Ex. 18' x 16' CM Arch Pipe	3,178
2406	2460	WCR-15	Roadway	2 - 7' x 5' CBC	671
2444	2445	Perkin Dr	Roadway	Ex. 1 - 72" RCP	253
2445	2445	WCR-42	Roadway	1 - 6' x 3' CBC	144
2510	2510	Hillsboro Ditch	Irrigation	1 - 9' x 3' CBC	558
2511	2510	WCR-44	Roadway	2 - 8' x 4' CBC	558
2711	2710	WCR-44	Roadway	2 - 7' x 4' CBC	461

[A]Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-30 Cost Estimate Summary - Group F

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
2010	$163,023	$125,581	$1,177,308	$0	$2,384,448	$554,000	$2,938,448
2020	$0	$85,881	$0	$0	$146,426	$4,300	$150,726
2030	$93,499	$0	$558,155	$0	$1,045,155	$1,000,000	$2,045,155
2000 Total	$256,522	$211,462	$1,735,463	$0	$3,576,029	$1,558,300	$5,134,329
2110	$76,717	$71,552	$482,613	$0	$1,021,567	$752,500	$1,774,067
2100 Total	$76,717	$71,552	$482,613	$0	$1,021,567	$752,500	$1,774,067
2410	$207,855	$0	$3,248,474	$0	$5,746,504	$625,000	$6,371,504
2420	$441,601	$263,664	$1,502,445	$5,002,546	$11,982,158	$1,933,100	$13,915,258
2430	$423,141	$0	$5,107,710	$0	$9,131,788	$1,200,000	$10,331,788
2433	$130,179	$0	$1,154,389	$0	$2,098,411	$500,000	$2,598,411
2445	$0	$225,648	$0	$0	$384,729	$18,000	$402,729
2450	$583,287	$0	$1,519,535	$11,201,353	$22,272,400	$3,091,200	$25,363,600
2460	$0	$163,216	$0	$50,000	$363,535	$5,000	$368,535
2400 Total	$1,786,063	$652,528	$12,532,553	$16,253,899	$51,979,525	$7,372,300	$59,351,825
2510	$273,304	$1,173,723	$2,729,388	$0	$6,928,109	$845,000	$7,773,109
2520	$165,421	$0	$649,784	$0	$1,273,302	$500,000	$1,773,302
2500 Total	$438,725	$1,173,723	$3,379,172	$0	$8,201,411	$1,345,000	$9,546,411
2710	$71,203	$582,017	$2,131,416	$0	$4,697,608	$457,500	$5,155,108
2700 Total	$71,203	$582,017	$2,131,416	$0	$4,697,608	$457,500	$5,155,108
Group	**$2,629,230**	**$2,691,282**	**$20,261,217**	**$16,253,899**	**$69,476,140**	**$11,485,600**	**$80,961,740**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

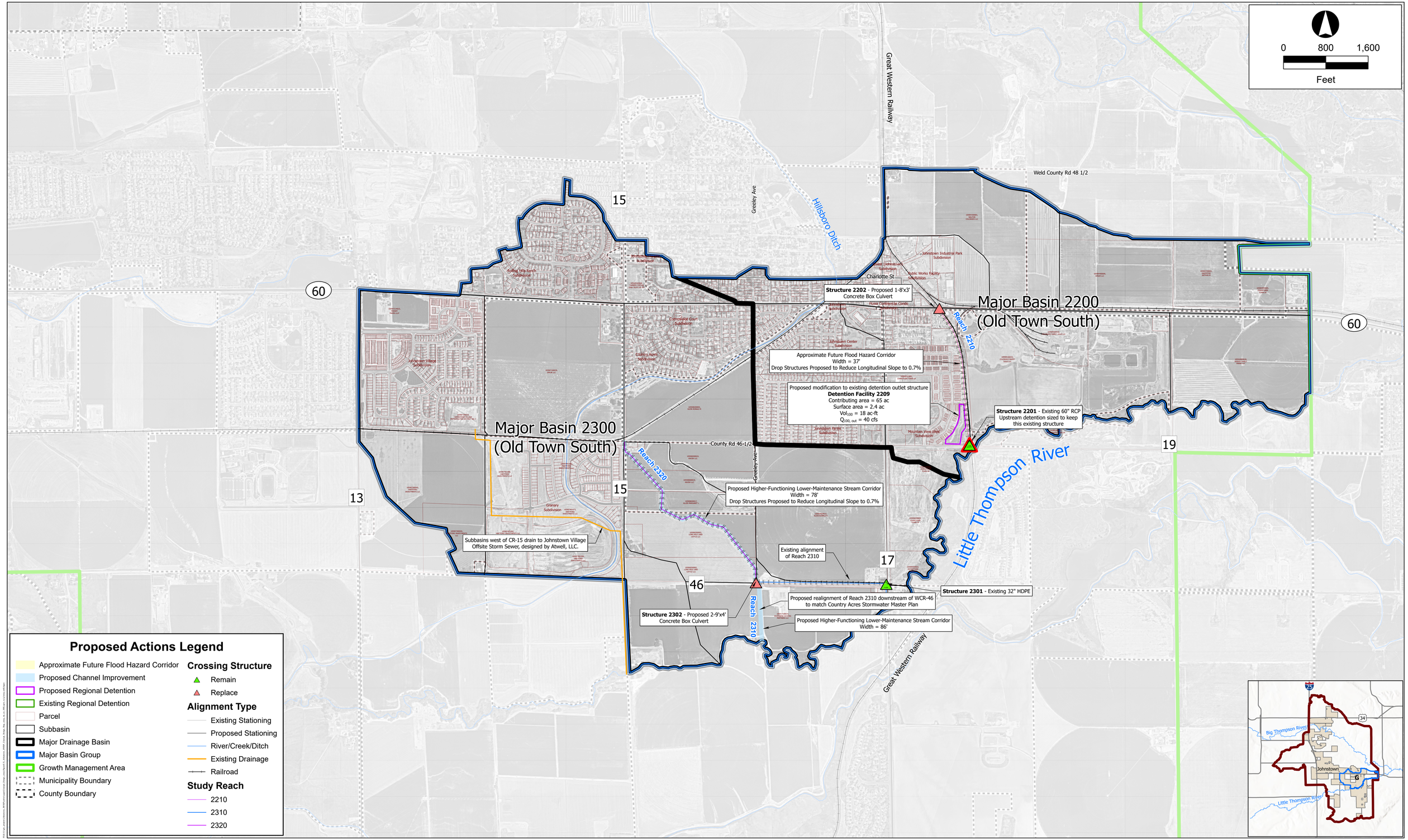


Figure 6-9 - Major Basin Group - G
Concept Design Map (November 2025)
Johnstown Comprehensive Stormwater Master Plan

6.5.7 Major Basin Group G

Major Basin Group G includes two major basins: Major Basin 2200 and Major Basin 2300. Both these major basins were included in the southern portion of the Old Town Basin from the *Storm Water Master Plan for the Town of Johnstown*, dated 2001. These major basins discharge into the Little Thompson River. Detailed information on Master Plan velocities, discharges, channel geometries, and major crossings can be found in Table 6-31, Table 6-32, Table 6-33, Table 6-34, and Table 6-35, respectively. Refer to Appendix F for the proposed major crossings calculations.

See Table 6-35 for a cost summary of Master Plan improvements within this major group. This summary provides estimates for proposed property acquisition, crossing improvement, channel improvement, regional detention, soft costs associated with capital improvements, and operations and maintenance over 50 years for each major drainageway. Detailed cost summaries showing individual costs within each study reach are included in Appendix F.

Major Basin 2200 (Old Town South)

Major Basin 2200 was included in the 2001 Master Plan within the Old Town basin. The 2001 Master Plan recommends constructing Major Drainageway 2200 “as part of a storm drain system serving Old Johnstown.” However, the 2001 Master Plan also labels the portion of this drainageway along the Great Western Railroad as “Open Channel”, so the 2001 Master Plan’s recommendation is not clear.

Reach 2210

Reach 2210 runs along the west side of the Great Western Railway south of SH-60 to its confluence with the Little Thompson River immediately south of WCR-46 ½. This drainageway is not currently stable enough to withstand future flows. Note that the amount of stormwater runoff directed to this channel decreased with the Mountain View West development. Refer to the approved *Mountain View West Final Drainage Report*, prepared by Olsson Associates, dated March 2018. This development directs runoff from the Mountain View West site and from the Johnstown Colony subdivision to a detention pond north of WCR-46 ½ and west of the Great Western Railway. This runoff historically would have entered the main drainageway in this basin prior to the Mountain View West development. The subdivisions within the drainage basin to the west of Parish Avenue and south of SH-60 (Johnstown Center and Johnstown Farms) do not contribute to Reach 2210. Instead, stormwater runoff from these subdivisions is routed south along Parish Avenue and discharges to the Little Thompson River south of Centennial Drive (WCR-46 ½). Refer to the *Parish Avenue and Johnstown Colony Drainage Improvements (Maestes Street Drainage Alternative Design) Final Drainage Report*, prepared by Matrix Design Group, dated May 2025.

The subdivisions within Major Basin 2200 north of SH-60 (W South 1st Street) and west of the Great Western Railway drain southeast, eventually entering the storm sewer system along SH-60. This storm sewer system discharges into Reach 2210 at its northern terminus at the Great Western Railway and SH-60 crossing. It is anticipated that the contributing area to Reach 2210 will not significantly increase in impervious area with future development. This part of Old Town also does not contain storm detention and there is little opportunity to implement such facilities since this area is already in a fully-developed condition.

Much of the agricultural land east of the Great Western Railway within Major Basin 2200 will likely become developed in future years, which will have hydrologic impacts to the basin. However, no reaches or crossing structures within this portion of Major Basin 2200 were identified as significant conveyances under existing conditions. It should be noted, however, that these conveyances could become more hydraulically significant with future land use changes or development. Furthermore, the conveyances within the portion of Major Basin 2200 south of SH-60 and west of Weld County Road 17 were also not considered significant enough to analyze as part of this report. This area is already developed, so a significant change in hydrology is not anticipated. Due to the high velocities in Reach 2210 and the narrow existing drainageway corridor between the Great Western Railway and existing development, leaving the channel width as-is but adding drop structures to decrease the longitudinal slope of the channel to a maximum of 0.7% is recommended. Acquiring land for public ROW or establishing a drainage easement to ensure the Town can maintain this channel in the future is also recommended. A 37-feet wide ROW or drainage easement is recommended to capture the channel width needed for the conveyance of the future 100-year flow.

There are two major crossing structures in this reach that were analyzed as part of this study. HY-8 version 8.0.0.1 software was used to evaluate the hydraulic capacity of the crossings. Refer to Table 6-34 for the proposed improvements associated with these crossing structures. The crossing at SH-60 (Structure 2202) would need to be upsized in order to pass the 100-year future flows without overtopping the road. This structure was chosen in part due to the low cover constraint. The existing crossing at WCR-46 ½ (Structure 2201, existing 60” RCP culvert) has capacity to pass the 100-year without overtopping if the existing Mountain View West detention facility is improved to release a peak flow of 40 cfs in the 100-year event. The existing detention facility outfall releases 66 cfs directly into the crossing culvert in the 100-year event per the *Mountain View West Final Drainage Report*, prepared by Olsson Associates, dated March 2018. It appears that the proposed reduction in peak outflow could be accomplished by modifications to the outlet structure and minimal, if any, expansion to the pond area and volume. Refer to Appendix F for crossing structure capacity calculations.

Major Basin 2300 (Old Town South)

Major Basin 2300 comprises two reaches, designated as Reaches 2310 and 2320, which were evaluated in the *Country Acres Stormwater Masterplan*, prepared by Alred Benesch & Company, dated May 27, 2024. The *Country Acres Stormwater Masterplan* discusses two main alternatives that would allow the existing detention pond to drain effectively and prevent flooding issues in Sandra Drive.

The first alternative involves designing and constructing an inverted siphon outlet from the existing pond to convey water beneath the Hillsboro Ditch onto the Klein property, where a suitably engineered detention facility would be established. This approach also necessitates channelizing the flow from the siphon outlet to the southwest corner of the property, the designated location for the new detention facility. The outflow from this detention facility would be integrated into the proposed Reach 2310. The second alternative involves buying four additional lots located west of the current detention pond, then expanding the pond to accommodate the volume needed for 100-year storm events according to the original plan. There were no reported flooding problems prior to the construction of these homes.

The Town of Johnstown is pursuing the second alternative of acquiring adjacent land and expanding the detention pond. This alternative was determined to provide lower overall costs, require fewer modifications to the storm sewer system, minimize flooding on Sandra Drive, and result in less temporary construction than the first alternative. However, there is currently a temporary solution in place and this project will require additional coordination to provide permanent flood protection for the community.

There are numerous subdivisions that either have been recently constructed, are currently under construction, or are planned to be constructed soon within Major Basin 2300. Most of these developments (M&N, Pintail, Johnstown Village, Mallard Ridge, Maplewood Acres, and Granary) are not directly tributary to Reach 2310 or 2320. Instead, these developments have a separate storm sewer system that outfalls to the Little Thompson River on the west side of WCR-15, as shown in the *Offsite Storm Sewer Construction Plans*, prepared by Atwell, dated March 12, 2020. The storm sewer construction plans were included in the appendix of the *Final Drainage Report for The Granary – Filing 1 & 2*, prepared by Galloway, dated June 15, 2022.

There are also undeveloped portions of Major Basin 2300 that do not directly drain to Reaches 2310 or 2320. These areas are currently agricultural and will likely see changes in land use as they are developed in the future. Even though they were not deemed significant enough to include in this report, these smaller areas may become hydraulically significant as the hydrology in this basin changes due to development.

Reaches 2310

Reach 2310 extends from WCR-46 to the Little Thompson River. The drainageway varies in channel size as it flows east from WCR-46 to WCR-17. The *Country Acres Stormwater Masterplan* suggests acquiring a 150-foot wide ROW and installing drop structures to maintain a 0.7% channel slope. This study agrees with constructing a channel that diverts the major drainageway south across WCR-46 to the Little Thompson River rather than east, but recommends a slightly narrower corridor.

There is one major crossing structure (Structure 2302). HY-8 version 8.0.0.1 software was used to evaluate the hydraulic capacity of the crossing. Structure 2302 is located where the proposed drainageway crosses WCR-46 approximately 2,500 feet west of WCR-17. The *Country Acres Stormwater Masterplan* proposes a triple 12'x4' concrete box culvert at this crossing. Matrix has verified that this culvert will pass the future proposed 100-year flow without overtopping the road. However, a double 9'x4' concrete box culvert would also have capacity for the 100-year event. Refer to Appendix E for crossing structure capacity calculations.

Reaches 2320

Reach 2320 extends from the intersection of WCR-46 ½ and WCR-15 to WCR-46, with channel dimensions varying as it traverses agricultural land. The *Country Acres Stormwater Masterplan* proposes the acquisition of a 150-foot wide right-of-way and the installation of drop structures to maintain a 0.7% channel slope. This channel is the same one previously recommended for Reach 2310, effectively combining both reaches. Similar to recommendations for Reach 2310, this study supports the development of the recommended channel described in the *Country Acres Stormwater Masterplan*, although a slightly a narrower corridor would also suffice.

Table 6-31 100-Year Channel Velocity – Group G

Velocity (ft/s)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2210	L_2215	4.4	6.3	4.8
2310	L_2319	2.6	4.4	3.8
2320	L_2332	3.7	6.2	4.9

Any values in red have velocities above 5 ft/s.

Table 6-32 100-Year Channel Discharge – Group G

Discharge (cfs)				
Reach	SWMM Links	Existing	Do Nothing	Proposed
2210	L_2215	186	222	153
2310	L_2319	753	1,200	666
2320	L_2332	692	1,075	577

Table 6-33 Proposed Channel Geometry - Group G

Channel Geometry					
Reach	Pr. Change?	Width Bottom (ft)	Side Slope (Hor:1' Vert)	Depth (ft)	Width Top (ft)
2210	No	10	4	1.9	37
2310	Yes	40	5	3.1	86
2320	Yes	40	5	2.3	78

Table 6-34 Proposed Crossing Structures - Group G

Structure Number	Reach Number	Location	Crossing Type	Structure Size	Design Q_{100} (cfs)[A]
2201	2210	WCR-46 1/2	Roadway	Ex. 1 - 60" RCP	192
2202	2210	SH-60	Roadway	1 - 8' x 3' CBC	175
2302	2310	WCR-46	Roadway	2 - 9' x 4' CBC	668

[A] Crossing structures designed to convey proposed conditions flow (Q_{100}).

Table 6-35 Cost Estimate Summary - Group G

Reach[a]	Acquisition Capital Cost	Crossing Improvement Capital Cost	Channel Improvement Capital Cost	Regional Detention Capital Cost	Total Capital Cost [b]	50 Year O & M Capital Costs	Total Cost [c]
2210	$0	$112,407	$288,831	$50,000	$769,361	$305,600	$1,074,961
2200 Total	$0	$112,407	$288,831	$50,000	$769,361	$305,600	$1,074,961
2310	$59,216	$463,975	$863,513	$0	$2,322,582	$326,500	$2,649,082
2320	$172,613	$0	$1,771,921	$0	$3,193,738	$1,397,350	$4,591,088
2300 Total	$231,829	$463,975	$2,635,434	$0	$5,516,320	$1,723,850	$7,240,170
Group	**$231,829**	**$576,382**	**$2,924,265**	**$50,000**	**$6,285,681**	**$2,029,450**	**$8,315,131**

a. Subtotals for each major drainageway are provided in the light gray rows

b. Total capital cost also includes mobilization, stormwater management/erosion control, engineering, legal/administration, construction management, and contingency estimates.

c. Total cost includes capital cost plus operations and maintenance cost over 50 years.

6.6 Prioritization and Phasing

Please refer to the separate Capital Improvement Plan for prioritization strategies in each major drainageway. Work within each major basin can be carried out independently from the other drainageways. Within each drainageway, improvements typically should start at the downstream end and progress upstream. Work should start with the relatively easy and most cost-effective improvements and continue to the major capital improvements that require extensive planning, time, and budget.

6.7 Water Quality Impacts

The Town of Johnstown is expected to face increasing permitting requirements for stormwater discharges to the Big Thompson River and Little Thompson River as the community grows. To proactively address water quality improvements, the following three general approaches should be considered and are described further below.

1. Non-Structural Water Quality Controls
2. Treatment within the Watershed
3. Treatment at Storm Drain Outfalls

1. Non-Structural Water Quality Controls

Much of the study area is comprised of single-family residential or agricultural land uses. An aggressive non-structural BMP campaign is recommended to promote water quality which affects how people use the watershed by limiting over fertilization and promoting proper pet or livestock waste management. Public education that improves water quality could have a significant impact on the bacteria and nutrient loading at the watershed scale. Other non-structural BMPs such as education and outreach should also be used to supplement structural BMPs.

2. Treatment within the Watershed

Although there may be little opportunity to provide additional water quality treatment for existing development in the Old Town area, most other areas of Johnstown have opportunities to locally improve water quality by integrating new water quality enhancements like extended detention basins or vegetated buffer strips within the recommended Higher-Functioning Lower-Maintenance stream corridors. Local water-quality treatment facilities are already provided for many of the newly developed areas outside of the Old Town area.

Most of the major drainageways within the study area are surface flow. While the benefits are not quantified in this report, open channel conveyance does provide an opportunity for sediment fallout and nutrient uptake. Areas classified as Hydrologic Soil Groups A or B have the potential to allow infiltration best management practices. Water quality enhancement opportunities can be explored as an element of new capital improvement projects, such as green streets, forebays, and vegetated buffer strips. Furthermore, appropriate vegetation selection and maintenance activities are critical in managing potential nutrient sources, as well as organic compounds associated with herbicides and pesticides.

3. Treatment at Storm Drain Outfalls

Structural water quality facilities at storm drain inlets can be used to treat or enhance stormwater runoff before they outfall into the drainageways. Bioretention facilities constructed near existing inlets within the subbasins could provide water quality opportunities during smaller storm events and grass swales could be implemented in neighborhoods where there are no existing curb and gutter, or storm drain systems.

6.8 Operations and Maintenance

Routine maintenance is recommended to:

- Maintain channel conveyance by removing sediment, trash and debris, which could restrict flow;
- Manage noxious weeds and invasive plant species;

Maintenance of the channel improvements generally occurs on a regular basis (weed management and selective mowing) and as-needed basis (post significant flood events). Critical crossing structures may need to be cleaned out on a more frequent basis to maintain conveyance capacity. Overall, implementation of the improvements to provide 100-year capacity should result in reduced maintenance costs after a major flood event.

6.9 Environmental and Safety Assessment

Future improvements should serve to enhance the stream corridors and potentially meet the visions for regional trail connections. Preserving and improving the natural riparian corridor is one of the underlying intangible benefits of many of the recommended improvements. Delineation and a jurisdictional determination regarding the wetlands should be made to determine permitting requirements.

Providing 100-year flood event conveyance will increase public safety by preventing the crossing streets from overtopping and providing easier access for emergency vehicles during a large storm event. Flood damages to structures adjacent to major drainageways could be prevented by identifying additional improvements to reduce or relocate the flood hazard areas.

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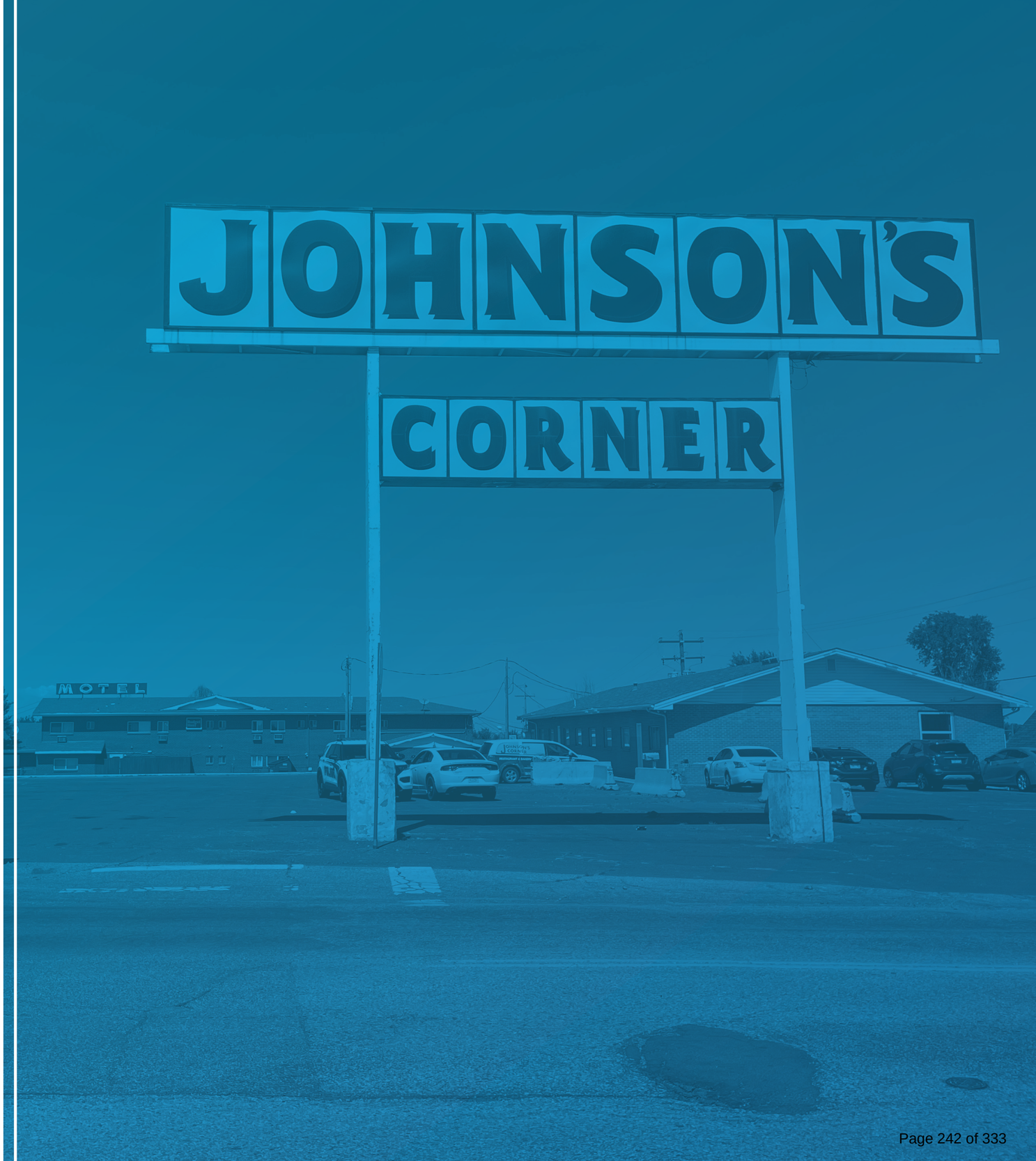
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Matrix



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Town Council Agenda Communication

Agenda Date: March 2, 2026

Subject: Ordinance 2026-287 Rieder Farm Change of Zone Request for Zoning Case No. ZON25-0001

Attachments:
1. Ordinance No. 2026-287
2. Application
3. Vicinity Map
4. Zoning Map
5. Staff Presentation
6. Applicant Presentation

Presented by: James Shrout, Planner

Agenda Item Description:

Platte Land & Water, LLC (Applicant) is seeking to rezone approximately 37.9 acres of property currently zoned as Holding Agriculture (H-A; Ordinance 2023-240) to Mixed Use – Downtown (MU-DT) and high-density residential (R-3) zoning. The subject property is located at the southwest quadrant of the Parish Ave (WCR 17) and WCR 48 ½ intersection. This property is bound by the Hillsborough Ditch on the west, with Roosevelt Middle School on the west side of the ditch. This property was annexed into the Town in 2023 (Ordinance 2023-239) and has historically been used for agricultural purposes.

SURROUNDING ZONING, LAND USE & JURISDICTION
North: A – Agriculture in Weld County
South: R-1 – Residential in Town of Johnstown
East: H-A – Agriculture in Town of Johnstown
West: R-1 – Residential in Town of Johnstown

LAND USE DESIGNATION
The property is subject to two land use designations: Medium Density/Intensity and as an Activity Center.

Pursuant to the Town's adopted Comprehensive Plan, the intent and desired character of Medium Density/ Intensity (MDI) areas, is described as follows:

A Medium Density/Intensity area (MDI) will generally be characterized by a more balanced, and wider-ranging mix of land uses—incorporating walk-up apartment buildings, townhomes, small lot (3,500-5,000 SF) attached and detached single-family housing, in close proximity to neighborhood-scale shopping, personal services, restaurants, small medical facilities, and facilities such as libraries and recreational centers. MDI areas may also occur along arterials and other major

corridors, and may serve as the next layer away from the High Density/Intensity areas they may neighbor, as a transition to lower density neighborhoods. MDI's will offer complete neighborhoods with a diversity of shops and services, including schools and civic facilities, within walking or biking distance from residential areas; and offer good walking connections along with larger-scale multi-modal trails.

Commercial uses may be developed as stand-alone sites or be grouped in small 10 to 20-acre centers or campuses. Johnstown's Downtown would be ideal for this level of development. Reuse and redevelopment of existing structures may occur, with historic residences and structures changing to offices, boutiques, or personal services with alley-served parking. Commercial centers in an MDI will feature more walkability, perhaps offering covered arcades or awnings, pedestrian-scaled signage, shade trees and nice landscaping that helps slow traffic and break-up parking areas, and enjoyable outdoor spaces to gather. Rooftop and sidewalk patios, along with courtyard plazas offer patrons enjoyable places to meet and eat, gather and chat with friends.

Residential neighborhoods will provide a range of housing options and provide street and trail connections to adjacent neighborhoods. Housing will be encouraged to provide porches that extend closer to the sidewalks, and garages that are alley-loaded or setback to offer a safer, slower, and more interesting streetscape. Future considerations may include accessory dwelling or carriage house units to increase affordability and diversity. These are great neighborhoods to encourage and accommodate a diversity of lifestyles and income ranges, and allow active-agers to remain in Johnstown once larger family homes and yards may be less desirable.

The property is also subject to an Activity Center overlay, as depicted in the Town's adopted Comprehensive Plan, Future Land Use Map.

Activity Centers have been identified as strategic areas that support local and regional transportation networks, living, employment, recreation, and services. These areas are intended to be mixed-use centers that make a highly efficient use of space by offering high-density residential areas supported by a diversity of shops and services and a vibrant public realm. Activity Centers continue to develop at highway interchanges, Downtown, and generally in conformance with other characteristics of a High Density/Intensity area. While three of the four activity centers are located along the I-25 corridor making them convenient for motorized travelers, these centers should also connect to the Town's trail network, facilitating and encouraging active modes of transportation, and enhancing recreation opportunities for the community. These centers are ideal opportunities for the Town to consider future transit or other transportation services, and connections to nearby systems.

PROJECT DESCRIPTION & ANALYSIS

The subject property is currently zoned H-A and was annexed into the Town of Johnstown in 2023. The applicant proposes to change the zoning from H-A to MU-DT and R-3 to support the future expansion of the existing Downtown Johnstown. This rezone is supported by the passing of the Downtown Master Plan, Resolution No. 2025-20.

The zoning map presented in Attachment three (3) demonstrates a 300' flexible zoning space that will allow development to occur fluently between the two zoning districts, reducing the number of rezones needed in the future. This flexible zoning space was imperative for staff to allow development to continue without undue delays. The flexible zoning space will allow for approved MU-DT and R-3 uses within the defined area.

Any portion of the property lying within one hundred fifty feet (150') of the zoning boundary between the MU-DT zoning district and the R-3 zoning district may be assigned to either such zoning district. The election of the zone district assignment shall be made by the owner at the time of approval of

the final plat, and such assignment shall be conclusively established and shown on the final plat prior to its recordation. If any of the property lying within one hundred fifty feet (150') is replatted, its assignment can change.

MU-DT
Pursuant to the LUDC, the MU-DT district provides an integrated mix of retail, service, entertainment, and civic uses, and supporting office and residential uses, in a compact and walkable format. This district preserves the historic "main street" scale and small-town character of Johnstown. It is the vibrant heart of the community with a high level of civic design, walkable urban patterns, and a concentration of diverse, small-scale uses. The MU-DT zoning district's relation to the comprehensive plan is the general application for the Downtown Activity Center.

R-3
Pursuant to the LUDC, the R-3 zoning district provides residential living (small- or large-scale residential building types) in a moderate-to high-density pattern in suburban areas or walkable neighborhoods. This district should be located as a transition between lower-density neighborhoods or more intense non-residential uses, and where a high level of accessibility, public amenity an support services are immediately available.

NEIGHBORHOOD MEETING
On January 12, 2026, a neighborhood meeting was held at the Johnstown Senior Center. Notices advertising this meeting were mailed to all property owners within 800 feet of the subject property. Approximately twenty (20) members of the community attended this neighborhood meeting to ask questions regarding the proposed change in zoning. The primary topics of discussion included:

- Increase traffic concerns and traffic calming measures.
- Expanding ROW and potentially losing land.
- Raymond Street extending to the north.
- Loss of views for large commercial and residential buildings.
- Density of the proposed residential zoning.
- How the zoning line was determined between R-3 and MU-DT zonings.

These issues, questions, and concerns were addressed during the neighborhood meeting as follows:

- Traffic studies will provide a scope of the potential traffic concerns to reduce concerns for vehicular and pedestrian conflicts. Traffic calming measures could be implemented to reduce impacts.
- Proposed road networks will likely come from the newly zoned property and not from existing residential areas.
- Conceptual plans to extend Raymond Street to the north are purely conceptual in nature and have not been submitted for Town review.
- Residential uses are necessary to support the MU-DT zoning district.
- The density is not currently provided as plans have not been conceptualized. The applicant indicated that street networks, parks and recreational areas, as well as detention basins, would need to be identified, which would impact the overall density of the property.
- The zoning line was determined based on a conceptual idea that Raymond Street would extend to the North and then follow a curvilinear path that would intersect with Parish Ave.

PLANNING AND ZONING COMMISSION
On January 28, 2026, a public hearing was held before the Planning and Zoning Commission. The Commission heard testimony from Staff and the applicant regarding the rezoning efforts. Approximately ten (10) members of the community attended this public hearing to voice their opinions on this rezoning effort. The primary topics of discussion included:

- Density of the residential
- Increased traffic
- Loss of agricultural land
- Compliance with the Comprehensive Plan

The Planning and Zoning Commission voted to rezone the Rieder Farm property from H-A zoning to MU-DT and R-2 zoning. The basis of this lower-density zoning was that the future land use map in the Comprehensive Plan identifies this area as a medium-density/intensity area and not a high-density/intensity area.

PUBLIC NOTICE & AGENCY REFERRALS
Notices for the Planning and Zoning Commission public hearing were mailed to all property owners of record within 800 feet of the subject property on January 15, 2026. This notice provided the date, time, and location of the Planning and Zoning Commission public hearing and a project description. Notice for the Planning & Zoning Commission public hearing was published in the local newspaper of record, the Johnstown Breeze, on Thursday, January 15, 2026.

ZONING & DEVELOPMENT STANDARDS
The Town of Johnstown Land Use and Development Code identifies the following criteria for review of a rezoning proposal decision:

1. The rezone furthers one or more of the purposes of these regulations in Section 17-1-3, and on balance, any purposes that may be undermined are outweighed by the benefits of the purposes it furthers.
2. The proposal is consistent with the goals and objectives of the Comprehensive Plan and any other plan, policy, or guidance adopted pursuant to that plan.
3. The change is consistent with the intent of the proposed zoning district, specifically considering:
    1. The design of streets, civic spaces, and other open space;
    2. The pattern, scale, and format of buildings and sites; and
    3. The compatibility and transition with other complementary uses and development in the vicinity.
4. The change is necessary for at least one of the following reasons:
    1. There has been a material change in the character of the area or in the Town generally, such that the proposed rezone is in the public interest.
    2. The change will serve a community need or provide an amenity or benefit to the surrounding area that was not anticipated at the time of the initial zoning.
5. The town or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district.
6. Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design, and engineering practices or are outweighed by broader public benefits to the surrounding community.
7. If owner-initiated, at least two-thirds of the subject property owners within the change zone boundary have signed the application.

8. If owner initiated, the subject property has not been included in a rezone action in the prior 12 months, with the exception of property in the H-A zoning district which was established concurrently with annexation.
9. The recommendations of any professional staff and advisory review bodies have been considered.

COMPREHENSIVE PLAN ALIGNMENT
The proposed zoning designation complies with the intent and character of the activity center areas, as defined in the Town's adopted Comprehensive Plan by occurring along arterials and other major corridors, and creating an attractive streetscape, offering a diversity of shops and services within walking or biking distance from residential areas. This rezoning effort will meet goal L2.3 of the Comprehensive plan by expanding the extent of the downtown as development and redevelopment near the current core area, as proposed.

Strategic Plan Alignment:

Healthy & Resilient Economy

- Invest in the development of a vibrant and interconnected downtown
- Drive projects and initiatives that promote Johnstown as a premier destination for business

Legal Advice:

The Town Attorney has provided Ordinance 2026-287.

Financial Advice:

N/A

Recommended Action:

Staff recommends approval of this change of zone request pursuant to the findings of fact listed below:

1. ***The rezone furthers one or more of the purposes of these regulations in Section 17-1-3, and on balance any purposes that may be undermined are outweighed by the benefits of the purposes it furthers, because;***

This rezone implements the Comprehensive Plan, and other plans and programs authorized under the guidance of the Comprehensive Plan. This rezone will promote planning and urban design that emphasizes distinct places and unique elements of community character throughout Johnstown. The rezone will assist in the division of the Town into zones and districts that promote the character, intensity, and development patterns of distinct places identified in the Comprehensive Plan. This rezone will create compatibility within the area and will be transitional between complementary districts, uses, and buildings.

2. ***The proposal is consistent with the goals and objectives of the Comprehensive Plan and any other plan, policy, or guidance adopted pursuant to that plan, because;***

This proposal is consistent with Goal L2 of the Comprehensive Plan by revitalizing and maintaining

downtown as the heart of the community by way of seeking to expand the extent of Downtown as development and redevelopment near the current core area are proposed, utilizing more urban design standards to encourage an active streetscape and mix of uses.

3. ***The change is consistent with the intent of the proposed zoning district, specifically considering because;***

The proposed zoning designation will be a continuation of the MU-DT zoning by providing an integrated mix of retail, service, entertainment, and civic uses, and supporting residential uses, in a compact and walkable format. The proposed zoning designation will preserve the historic "main street" scale and small-town character of Johnstown.

4. ***The change is necessary for at least one of the following reasons because;***
    1. *There has been a material change in the character of the area or in the Town generally, such that the proposed rezone is in the public interest.* The proposed rezone is in the public interest by providing wider opportunities for retail and business development within the downtown. The residential zoning component will support the mixed-use downtown development by allowing owners to live, work, and shop in a pedestrian-friendly format.
    2. *The change will serve a community need or provide an amenity or benefit to the surrounding area that was not anticipated at the time of the initial zoning.* The initial zoning was approved as an interim zoning designation to allow for continued agricultural uses until development needs could be identified. With the approved Downtown Master Plan serving as the guiding document for the development of the downtown corridor, this mixed-use and residential zoning supports one another by providing places to live, work, and shop in a pedestrian-friendly format.

5. ***The Town or other agencies have the ability to provide services or facilities that may be necessary for anticipated uses in the proposed district, because;***

The Town and other responsible agencies have services in the vicinity of the project site, but at this time, there have been no applications for platting of the property to support development.

6. ***Any reasonably anticipated negative impacts on the area or adjacent property either are mitigated by sound planning, design, and engineering practices or are outweighed by broader public benefits to the surrounding community, because;***

The subject property will be governed by the adopted Land Use and Development Code to lessen the impact on adjacent property owners.

7. ***If owner initiated, at least two-thirds of the subject property owners within the change zone boundary have signed the application, because;***

The property subject to this proposed change in zoning is owner-initiated.

Suggested Motions:

For Approval: I move that the Town Council approve MU-DT and R-3 zoning, approving the Change of Zone pursuant to Zoning Case No. ZON25-0001.

For Approval: I move that the Town Council approve MU-DT and R-2 zoning, approving the Change of Zone pursuant to Zoning Case No. ZON25-0001, as recommended by the Planning and Zoning Commission.

For Denial: I move that the Town Council deny the Change of Zone pursuant to Zoning Case No. ZON25-0001, because…

Reviewed and Approved for Presentation



_____
Town Manager

TOWN OF JOHNSTOWN, COLORADO
ORDINANCE NO. 2026-287

ORDINANCE APPROVING THE REZONING OF REAL PROPERTY KNOWN AS RIEDER FARMS, LOCATED IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH P.M., TOWN OF JOHNSTOWN, COUNTY OF WELD, STATE OF COLORADO, CONSISTING OF APPROXIMATELY 39.3556 ACRES, FROM HOLDING AGRICULTURAL (H-A) TO MIXED-USE DOWNTOWN (MU-DT) AND MULTI-FAMILY NEIGHBORHOOD (R-3)

WHEREAS, the Town of Johnstown, Colorado ("Town") is a Colorado home rule municipality, duly organized and existing under the laws of the State of Colorado and the Town's Home Rule Charter; and

WHEREAS, the Town Council is vested with authority to administer the affairs of the Town; and

WHEREAS, Platte Land & Water, LLC, a Delaware limited liability company, applied to rezone the real property known as "Rieder Farm," located in the North Half of the Southeast Quarter of Section 5, Township 4 North, Range 67 West of the 6th P.M., Town of Johnstown, County of Weld, State of Colorado, consisting of approximately 39.3556 acres, being more particularly described on Exhibit A, which is attached hereto and incorporated herein by this reference ("Property"), from Holding Agricultural (H-A) to Mixed-Use Downtown (MU-DT) for 15.5093 acres of the Property and Multi-Family Neighborhood (R-3) for 23.8463 acres of the Property; and

WHEREAS, on January 28, 2026, the Town's Planning and Zoning Commission held a public hearing and recommended approval of Mixed-Use Downtown (MU-DT) zoning for 15.5093 acres of the Property and, rather than Multi-Family Neighborhood (R-3) for the remaining 23.8463 acres of the Property, Mixed-Density Neighborhood (R-2) zoning; and

WHEREAS, on March 2, 2026, the Town Council held a public hearing to determine appropriate zoning for the Property and, after considering the recommendation of the Planning and Zoning Commission, the applicant's request, Town staff's recommendation, and the evidence received at the hearing, finds that the requested rezoning of the Property to Mixed-Use Downtown (MU-DT) and Multi-Family Neighborhood (R-3) conforms to the *Johnstown Area Comprehensive Plan* and to the Town's land use regulations, and should be approved; and

WHEREAS, Town Council hereby finds, determines and declares that this Ordinance is promulgated under the general police power of the Town, that it is promulgated for the preservation of the public health, safety and welfare and that this Ordinance is in the best interests of the citizens of the Town.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF JOHNSTOWN, COLORADO, THAT:

1. Recitals. The recitals set forth above are affirmed and incorporated herein.

2. Zoning Approval. Zoning of the Property shall hereby and hereinafter be designated as Mixed-Use Downtown (MU-DT) for 15.5093 acres of the Property and Multi-Family Neighborhood (R-3) for 23.8463 acres of the Property, as shown and depicted on Exhibit A.

3. Repeal. All other Ordinances, or parts thereof, in conflict with this Ordinance, including Ordinance No. 2023-239, are hereby repealed.

4. Effective Date. This Ordinance, after its passage on final reading, shall be numbered, recorded, published and posted as required by the Home Rule Charter of the Town of Johnstown, Colorado ("Charter") and the adoption, posting and publication shall be authenticated by the signature of the Mayor and the Town Clerk and by the Certificate of Publication. This Ordinance shall become effective upon final passage as provided by the Charter.

5. Recordation. Upon its effective date, the Town Clerk is hereby directed to file this Ordinance with the real estate records of the Weld County Clerk and Recorder.

INTRODUCED AND APPROVED on first reading by the Town Council of the Town of Johnstown, Colorado, this __ day of _____, 2026.

TOWN OF JOHNSTOWN, COLORADO

ATTEST:

By: _____ By: _____
Meghan Martinez, Town Clerk Michael P. Duncan, Mayor

PASSED UPON FINAL APPROVAL AND ADOPTED on second reading by the Town Council of the Town of Johnstown, Colorado, this _____ day of _____, 2026.

ATTEST:

By: _____ By: _____
Meghan Martinez, Town Clerk Michael P. Duncan, Mayor

EXHIBIT A
PROPERTY DESCRIPTION

A parcel of land, being that area defined on the Larson Property Zoning, as recorded July 30, 2024 as Reception No. 4973713 of the Records of the Weld County Clerk and Recorder (WCCR), situate in the Northeast Quarter (NE1/4) of Section Six (6), and the Northwest Quarter of Section Five (5), Township Four North (T.4N.), Range Sixty-seven West (R.67W.) of the Sixth Principal Meridian (6th P.M.), Town of Johnstown, County of Weld, State of Colorado and being more particularly described as follows:

BEGINNING at the East Quarter corner of said Section 6 and assuming the East line of said NE1/4 as bearing South 01°08'53" East, being a Grid Bearing of the Colorado State Plane Coordinate System, North Zone, North American Datum 1983/2011, a distance of 2533.00 feet, being monumented by a #6 rebar with 3.25" aluminum cap stamped LS 38065 at the Northeast corner and a #6 rebar with 3.25" aluminum cap stamped LS 23520 at the East Quarter corner and with all other bearings contained herein relative thereto; Thence along the South, West, North and East lines of said Reception No. 4973713 the following seven courses:

THENCE North 87°03'47" West a distance of 2718.67 feet;
THENCE North 02°27'28" West a distance of 1519.18 feet;
THENCE South 87°03'47" East a distance of 2753.49 feet;
THENCE North 88°51'07" East a distance of 30.00 feet;
THENCE South 01°08'53" East a distance of 1516.57 feet;
THENCE South 00°35'58" East a distance of 1.87 feet;
THENCE North 87°04'27" West a distance of 30.06 feet to the POINT OF BEGINNING.

Said described parcel of land contains 4,183,676 square feet or 96.045 acres, more or less (±).

Town of Johnstown

LAND USE APPLICATION FORM

Check all boxes that apply for the subject submittal.

Land Use	Land Division	Miscellaneous	
☐ Annexation & Establishment of Zoning	☐ Major Subdivision & Development Plan	☐ Wireless Communication Facility (WCF)	☐ Stand-alone Public Improvement/Utility/Road Plans
☑ Change of Zone	☐ Preliminary	☐ Small Cell	☐ Home Model Review
☐ Planned Development	☐ Final	☐ EFR or Base Station	☐ C-LOMR Review
☐ Site Development Plan	☐ Combined	☐ Alt. Tower Structure	☐ Floodplain Development Permit
☐ Use by Special Review (USR)	☐ Minor Subdivision	☐ Tower/Other - USR	☐ Alternative Compliance
☐ 17-10-3 Facility - USR	☐ Major Amendment	☐ Variance	☐ Appeal of Administrative Decision
☐ Amendment/Conversion	☐ Minor Amendment	☐ Permit, Home Occupation, Compliance Review, Other	

Property Information:

Parcel Number(s):	105905400017	County:	Larimer ☐ Weld ☑
Site Address:	NW Corner of Parish Ave. and North 2nd Street	Zoning:	Agricultural
Legal Description:	PT N2SE4 5-4-67 LOT B REC EXEMPT RE-1592 EXC COMM SE COR N2SE4 SEC TH N01D14W 1310.12 TO POB TH N88D59W 60.05 S01D14E 155.21 N88D38E 60 N01D14W 152.71 TO POB ALSO EXC BEG SE COR N2SE4 SEC TH N89D00W 60.05 N01D14W 965.18 N88D37E 60 S01D14E 967.65	Acres:	37.9
Project Name:	Reider Farm		
Project Description:	Rezoning of Reider Farm from agricultural to Mixed Use (MU-DT) and Residential (R-3)		

Applicant / Developer Contact: ☐ Check if Primary Point of Contact

Company:	Platte Land & Water ☑	Phone:	(269) 274-1225
Name:	Tod Matuga	Email:	tod@platteassets.com
Address:	3900 E. Mexico Ave. Ste. 614	City, State, Zip:	Denver, CO

Consultant / Representative Contact: ☐ Check if Primary Point of Contact

Company:	Land Asset Strategies	Phone:	(303) 905-3496
Name:	Don Guerra	Email:	don.guerra@landassetstrategies.com
Address:	619 12th Street, #31	City, State, Zip:	Golden, CO 80402

Property Owner Authorization for Land Use Action: (*Required)** ☐ Check if Primary Point of Contact

The undersigned (1) affirms ownership or authorized representation thereof of the subject property, and (2) hereby authorizes the individuals or entities listed herein as "Applicant" and/or "Representative" to represent me/us in all aspects of the land use process for the project being submitted with this application.

Company:	Platte Land & Water	Phone:	(269) 274-1225
Name:	Tod Matuga	Email:	tod@platteassets.com

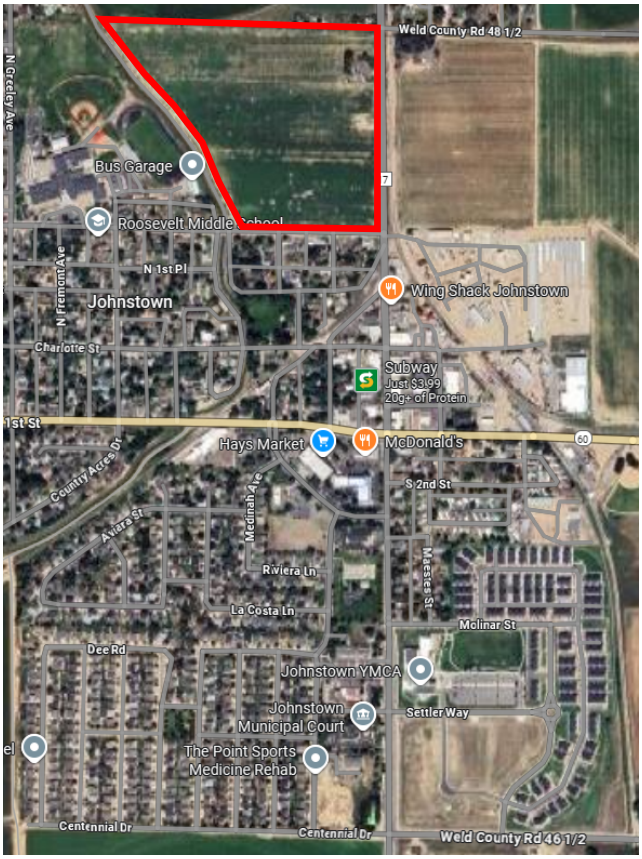
Tmatuga

_____ 4/10/2025 _____ _____ _____

*Signature of Property Owner | Date | *Signature of Property Owner | Date

Submit trust documents for any above-listed trust entity.
Submit a Statement of Authority and Certificate of Good Standing for any above-listed business entity.

Version 4.10.23


Weld County Rd 48 1/2
N Greeley Ave
Bus Garage
Roosevelt Middle School
N 1st Pl
N Fremont Ave
Johnstown
Wing Shack Johnstown
Charlotte St
Subway
Just $3.99
20g+ of Protein
1st St
Hays Market
McDonald's
60
County Acres Dr
Aviara St
Medinah Ave
S 2nd St
Maestes St
Riviera Ln
La Costa Ln
Mclinar St
Dee Rd
Johnstown YMCA
Johnstown
Municipal Court
Settler Way
The Point Sports
Medicine Rehab
Centennial Dr
Centennial Dr
Weld County Rd 46 1/2

RIEDER FARMS

LOCATED IN THE N1/2 OF THE SE1/4 OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH P.M., TOWN OF JOHNSTOWN, COUNTY OF WELD, STATE OF COLORADO

REZONING MAP

LEGAL DESCRIPTION ZONE MU-DT:

A PARCEL OF LAND BEING A PORTION OF LOT B, RECORDED EXEMPTION NO. 1059-5-4-RE1592, LOCATED IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN;

THE BASIS OF BEARINGS IS THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED AT THE CENTER QUARTER CORNER BY A 2.5" ALUMINUM CAP STAMPED "PLS 38197" IN A RANGE BOX, AND AT THE EAST QUARTER CORNER BY A 3.25" ALUMINUM CAP STAMPED "LS 16425" IN A RANGE BOX, BEING ASSUMED TO BEAR S88°59'03"E.

BEGINNING AT THE EAST QUARTER CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN;

THENCE ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5, N88°59'03"W A DISTANCE OF 60.05 FEET, TO THE WESTERLY RIGHT-OF-WAY LINE OF NORTH PARISH AVENUE AS DESCRIBED IN THE DOCUMENT RECORDED UNDER RECEPTION NO. 4892848 IN THE RECORDS OF THE WELD COUNTY CLERK AND RECORDER;

THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, BEING 60.00 FEET WESTERLY OF AND PARALLEL WITH THE EAST LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 5, S01°14'10"E A DISTANCE OF 155.21 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT A, RECORDED EXEMPTION NO. 1059-5-4-RE1592;

THENCE ON SAID NORTHERLY, WESTERLY AND SOUTHERLY LINES OF SAID LOT A THE FOLLOWING THREE (3) COURSES:

1. S88°38'11"W A DISTANCE OF 169.87 FEET;
2. S01°21'49"E A DISTANCE OF 189.78 FEET;
3. N88°37'56"E A DISTANCE OF 169.45 FEET, TO A POINT ON SAID WESTERLY RIGHT-OF-WAY LINE;

THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, S01°14'10"E A DISTANCE OF 965.18 FEET, TO A POINT ON THE SOUTH LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 5;

THENCE ON SAID SOUTH LINE, N89°00'17"W A DISTANCE OF 623.04 FEET;

THENCE DEPARTING SAID SOUTH LINE THE FOLLOWING THREE (3) COURSES:

1. N01°14'00"W A DISTANCE OF 434.24 FEET, TO A POINT OF CURVE;
2. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 250.00 FEET, A CENTRAL ANGLE OF 67°04'47" AND AN ARC LENGTH OF 292.69 FEET, TO A POINT OF NON-TANGENT;
3. N01°14'00"W A DISTANCE OF 639.87 FEET, TO A POINT ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5;

THENCE ON SAID NORTH LINE, S88°59'03"E A DISTANCE OF 470.23 FEET, TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 675,587 SQUARE FEET OR 15.5093 ACRES.

OWNER

PLATTE LAND & WATER, LLC, A DELAWARE LIMITED LIABILITY COMPANY

BY: _____

TITLE: _____

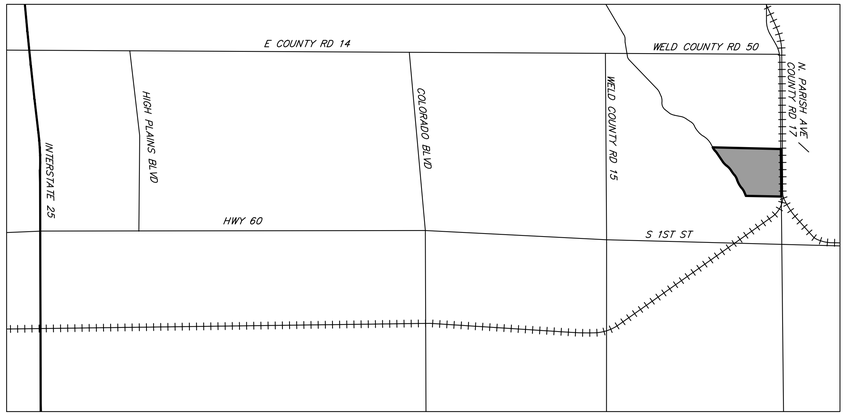
STATE OF _____)
COUNTY OF _____) SS
CITY OF _____)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS ___ DAY OF _____ , AD 20___ .

BY _____ AS _____ OF DIBC 96TH AND POTOMAC, LLC, A COLORADO LIMITED LIABILITY COMPANY.

WITNESS MY HAND AND SEAL:

MY COMMISSION EXPIRES: _____ _____
NOTARY PUBLIC



VICINITY MAP
SCALE: 1"=2000'

GENERAL NOTES:

1. ALL REFERENCES HEREON TO BOOKS, PAGES, MAPS AND RECEPTION NUMBERS ARE PUBLIC DOCUMENTS FILED IN THE RECORDS OF WELD COUNTY, COLORADO.
2. PER C.R.S. 38-51-106, "ALL LINEAL UNITS DEPICTED ON THIS LAND SURVEY PLAT ARE U.S. SURVEY FEET. ONE METER EQUALS 39.37/12 U.S. SURVEY FEET, EXACTLY ACCORDING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY."
3. THIS ZONING MAP DOES NOT REPRESENT A MONUMENTED LAND SURVEY NOR A LAND SURVEY PLAT.
4. NOTICE: PER C.R.S. 13-80-105, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.
5. ANY PORTION OF THE PROPERTY LYING WITHIN ONE HUNDRED FIFTY FEET (150') OF THE ZONING BOUNDARY BETWEEN THE MU-DT ZONE DISTRICT AND THE R-3 ZONE DISTRICT MAY BE ASSIGNED TO EITHER SUCH ZONE DISTRICT. THE ELECTION OF ZONE DISTRICT ASSIGNMENT SHALL BE MADE BY THE OWNER AT THE TIME OF APPROVAL OF THE FINAL PLAT, AND SUCH ASSIGNMENT SHALL BE CONCLUSIVELY ESTABLISHED AND SHOWN ON THE FINAL PLAT PRIOR TO ITS RECORDATION. IF ANY PORTION OF THE PROPERTY LYING WITHIN ONE HUNDRED FIFTY FEET (150') IS REPLATED ITS ASSIGNMENT CAN CHANGE.

SURVEYOR'S STATEMENT

I, DEREK LEE VAGIAS, A COLORADO PROFESSIONAL LAND SURVEYOR, DO HEREBY STATE THAT THIS ZONING MAP IS AN ACCURATE REPRESENTATION OF THE PROPERTY TO THE BEST OF MY KNOWLEDGE, INFORMATION, BELIEF, AND IN MY PROFESSIONAL OPINION. I FURTHER STATE THAT THIS CERTIFICATION DOES NOT EXTEND TO ANY UNNAMED PARTIES OR THE SUCCESSORS AND OR ASSIGNS.

DEREK LEE VAGIAS
COLORADO PLS NO. 38578
FOR AND BEHALF OF JR ENGINEERING LLC

LEGAL DESCRIPTION ZONE R-3:

A PARCEL OF LAND BEING A PORTION OF LOT B, RECORDED EXEMPTION NO. 1059-5-4-RE1592, LOCATED IN THE NORTH HALF OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN;

THE BASIS OF BEARINGS IS THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED AT THE CENTER QUARTER CORNER BY A 2.5" ALUMINUM CAP STAMPED "PLS 38197" IN A RANGE BOX, AND AT THE EAST QUARTER CORNER BY A 3.25" ALUMINUM CAP STAMPED "LS 16425" IN A RANGE BOX, BEING ASSUMED TO BEAR S88°59'03"E.

COMMENCING AT THE EAST QUARTER CORNER OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN;

THENCE ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5, N88°59'03"W A DISTANCE OF 530.28 FEET, TO THE POINT OF BEGINNING;

THENCE DEPARTING SAID NORTH LINE THE FOLLOWING THREE (3) COURSES:

1. S01°14'00"E A DISTANCE OF 639.87 FEET, TO A POINT OF NON-TANGENT CURVE;
2. ON THE ARC OF A CURVE TO THE LEFT WHOSE CENTER BEARS S24°09'13"E, HAVING A RADIUS OF 250.00 FEET, A CENTRAL ANGLE OF 67°04'47" AND AN ARC LENGTH OF 292.69 FEET, TO A POINT OF TANGENT;
3. S01°14'00"E A DISTANCE OF 434.24 FEET, TO THE SOUTH LINE OF THE NORTH HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 5;

THENCE ON SAID SOUTH LINE, N89°00'17"W A DISTANCE OF 342.50 FEET;

THENCE DEPARTING SAID SOUTH LINE THE FOLLOWING FOURTEEN (14) COURSES:

1. N12°01'41"W A DISTANCE OF 78.29 FEET, TO A POINT OF CURVE;
2. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 268.38 FEET, A CENTRAL ANGLE OF 20°04'43" AND AN ARC LENGTH OF 94.05 FEET, TO A POINT OF TANGENT;
3. N32°06'24"W A DISTANCE OF 39.51 FEET, TO A POINT OF CURVE;
4. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 782.25 FEET, A CENTRAL ANGLE OF 09°13'03" AND AN ARC LENGTH OF 125.85 FEET, TO A POINT OF TANGENT;
5. N22°53'21"W A DISTANCE OF 102.07 FEET, TO A POINT OF CURVE;
6. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 596.53 FEET, A CENTRAL ANGLE OF 12°53'22" AND AN ARC LENGTH OF 134.20 FEET, TO A POINT OF TANGENT;
7. N35°46'43"W A DISTANCE OF 201.96 FEET, TO A POINT OF CURVE;
8. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 833.52 FEET, A CENTRAL ANGLE OF 09°42'26" AND AN ARC LENGTH OF 141.22 FEET, TO A POINT OF TANGENT;
9. N45°29'09"W A DISTANCE OF 136.96 FEET, TO A POINT OF CURVE;
10. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 889.75 FEET, A CENTRAL ANGLE OF 11°00'24" AND AN ARC LENGTH OF 170.92 FEET, TO A POINT OF TANGENT;
11. N34°28'45"W A DISTANCE OF 132.78 FEET, TO A POINT OF CURVE;
12. ON THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 755.45 FEET, A CENTRAL ANGLE OF 06°08'36" AND AN ARC LENGTH OF 81.00 FEET, TO A POINT OF TANGENT;
13. N40°37'22"W A DISTANCE OF 90.23 FEET, TO A POINT OF CURVE;
14. ON THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 302.20 FEET, A CENTRAL ANGLE OF 15°04'46" AND AN ARC LENGTH OF 79.53 FEET, TO THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5, AND A POINT OF NON-TANGENT;

THENCE ON SAID NORTH LINE, S88°59'03"E A DISTANCE OF 1346.79 FEET, TO THE POINT OF BEGINNING;

CONTAINING A CALCULATED AREA OF 1,038,745 SQUARE FEET OR 23.8463 ACRES.

TOWN COUNCIL

THIS ZONING MAP IS APPROVED AND ACCEPTED BY THE TOWN OF JOHNSTOWN, BY ORDINANCE NUMBER _____ , PASSED AND ADOPTED ON FINAL READING AT A REGULAR MEETING OF THE TOWN COUNCIL OF THE TOWN OF JOHNSTOWN, COLORADO HELD ON THE _____ DAY OF _____ , 20___.

BY: _____ ATTEST: _____
MAYOR TOWN CLERK

REZONING MAP
RIEDER FARMS
JOB NO. 39830.00
11/21/2025
SHEET 1 OF 2

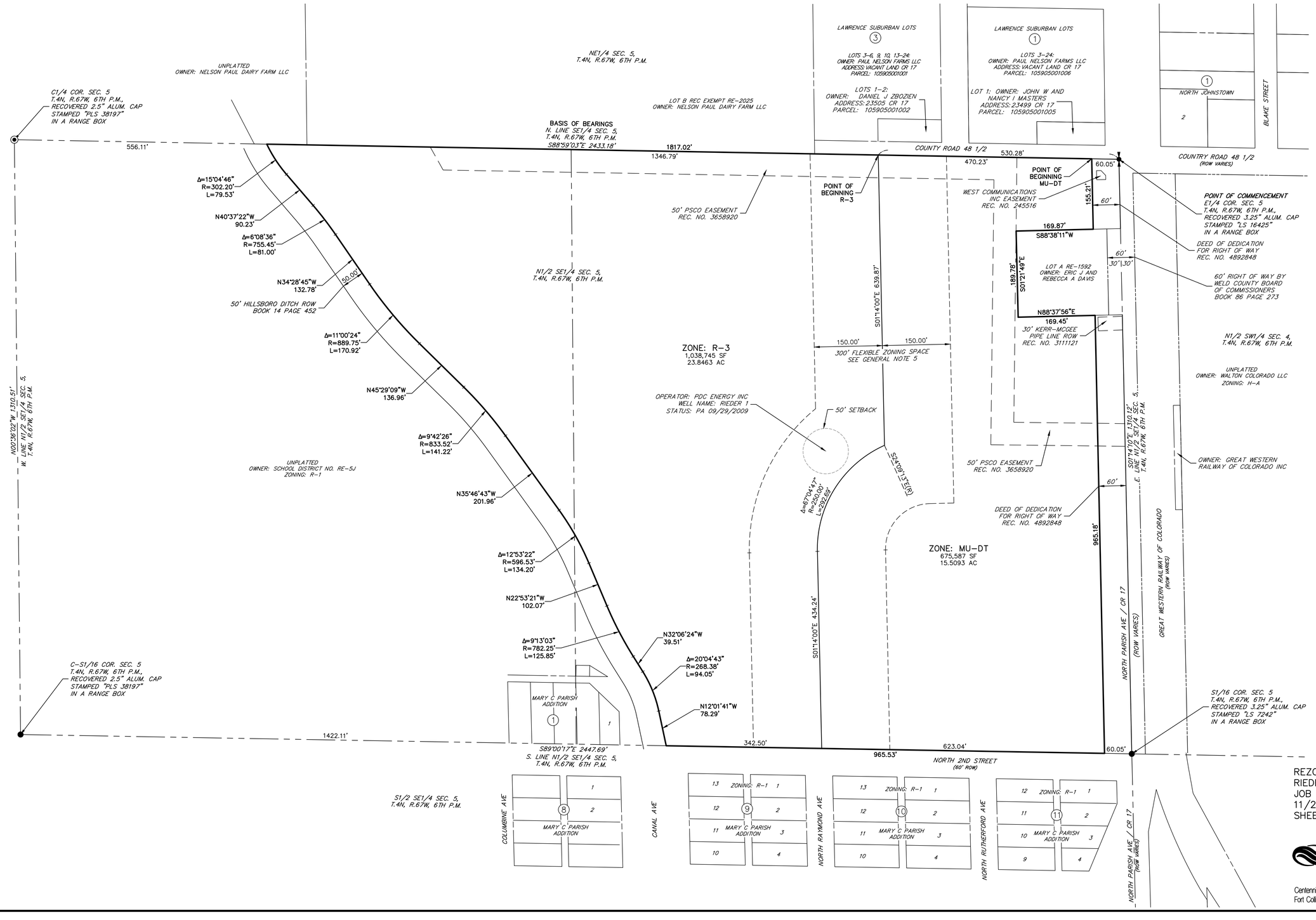
J·R ENGINEERING
A Westrian Company

Centennial 303-740-9393 • Colorado Springs 719-593-2593
Fort Collins 970-491-9888 • www.jrengineering.com

RIEDER FARMS

LOCATED IN THE N1/2 OF THE SE1/4 OF SECTION 5, TOWNSHIP 4 NORTH, RANGE 67 WEST OF THE 6TH P.M., TOWN OF JOHNSTOWN, COUNTY OF WELD, STATE OF COLORADO

REZONING MAP



REZONING MAP
RIEDER FARMS
JOB NO. 39830.00
11/21/2025
SHEET 2 OF 2

J·R ENGINEERING
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RIEDER FARM REZONE
CASE NO. ZON25-0001
PUBLIC HEARING

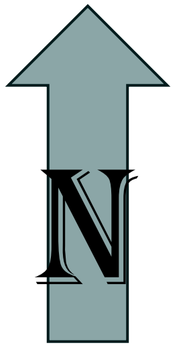
PLANNING AND ZONING COMMISSION
JANUARY 28, 2026

TOWN COUNCIL
MARCH 2, 2026

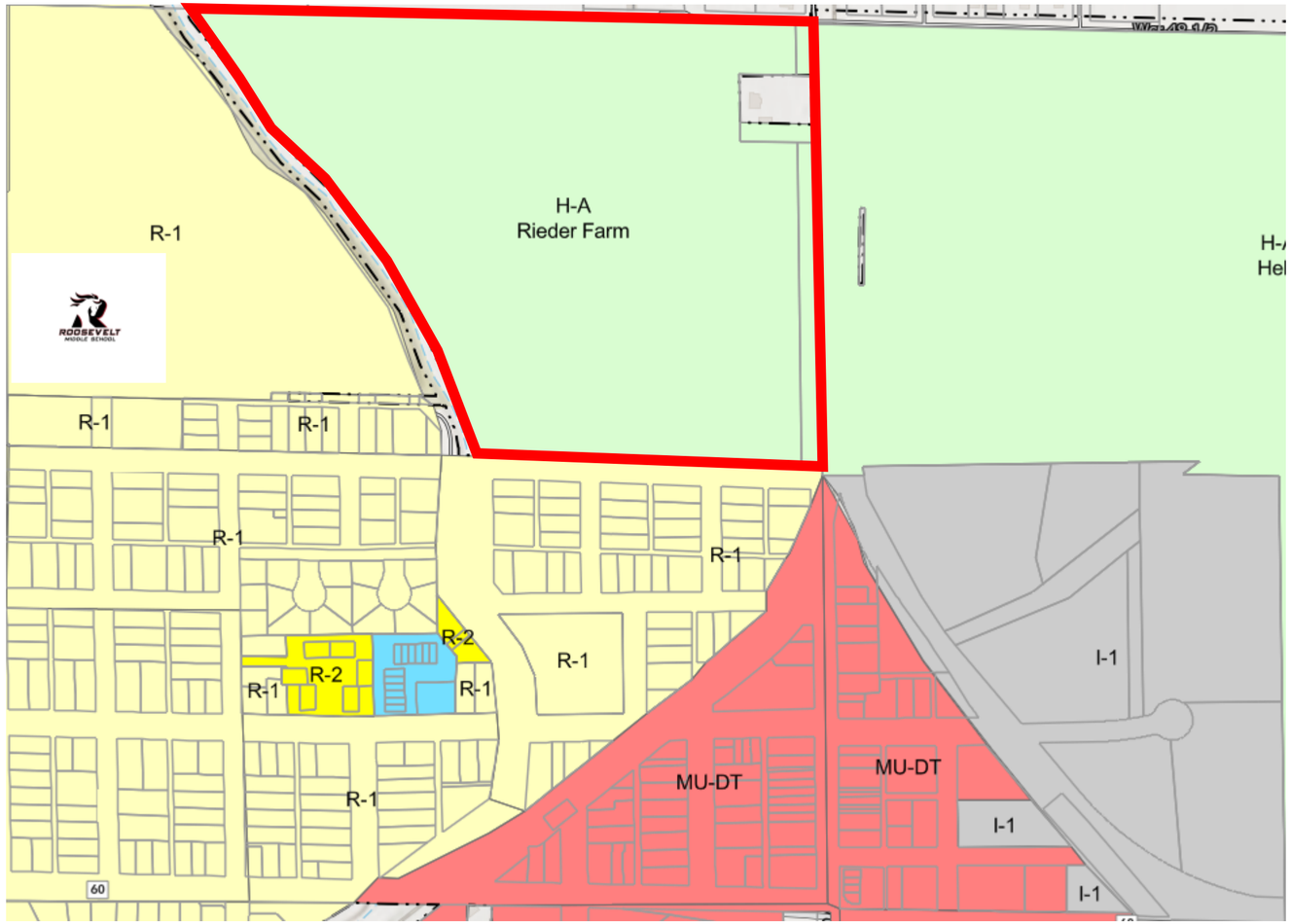
Johnstown
COLORADO

VICINITY MAP

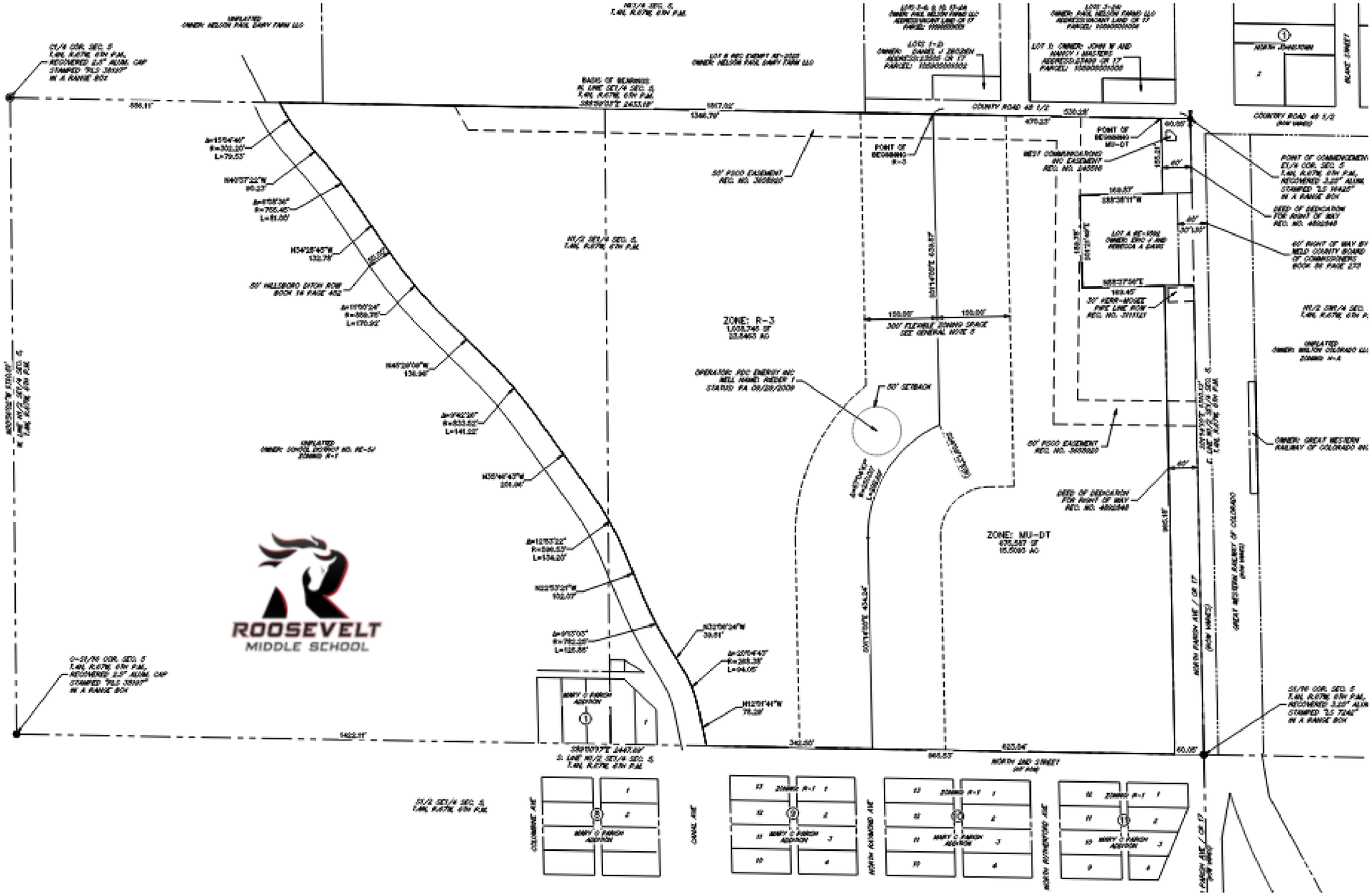




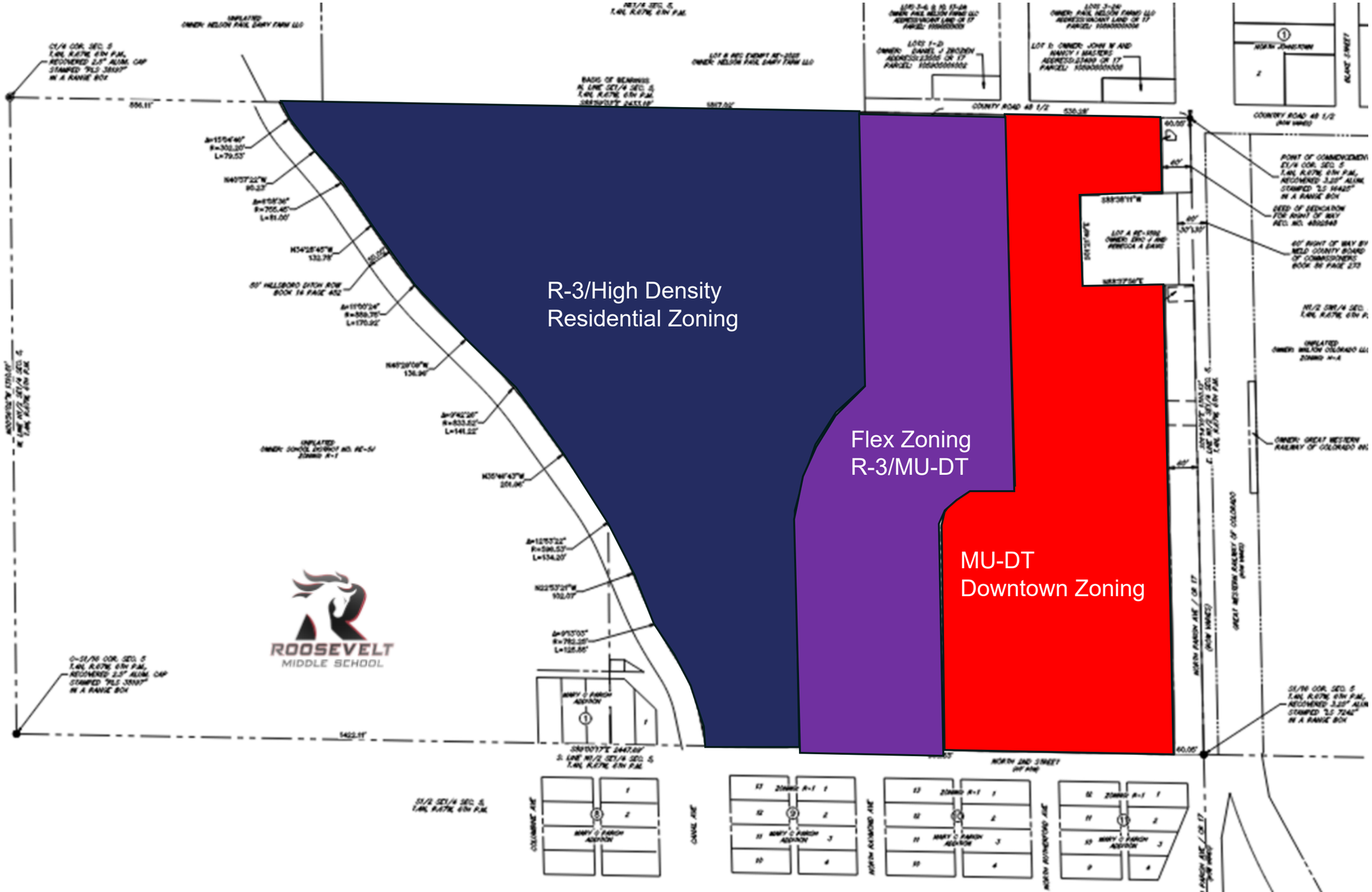
ZONING MAP


H-A
Rieder Farm
R-1
R-1
R-1
R-1
R-1
R-2
R-2
R-1
R-1
R-1
R-1
MU-DT
MU-DT
I-1
I-1
I-1
60

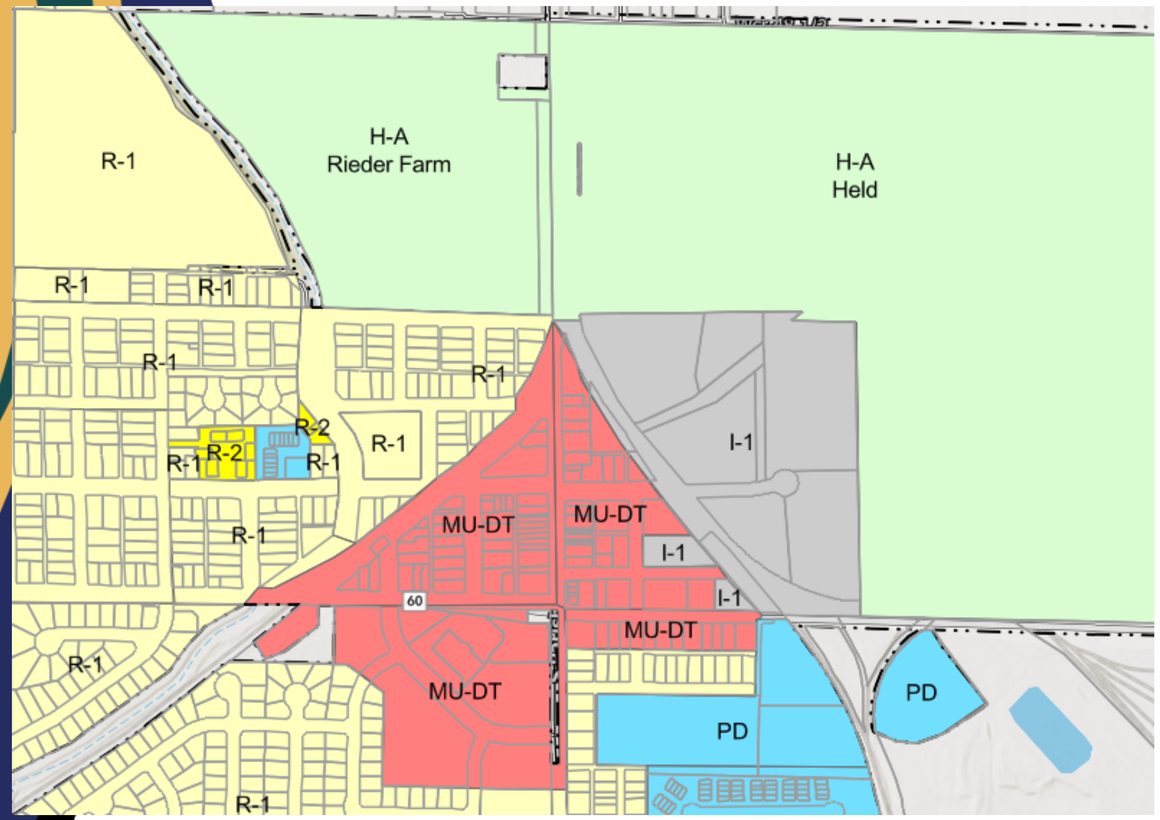
Rieder Farm Zoning Map - Proposed



Johnstown
COLORADO

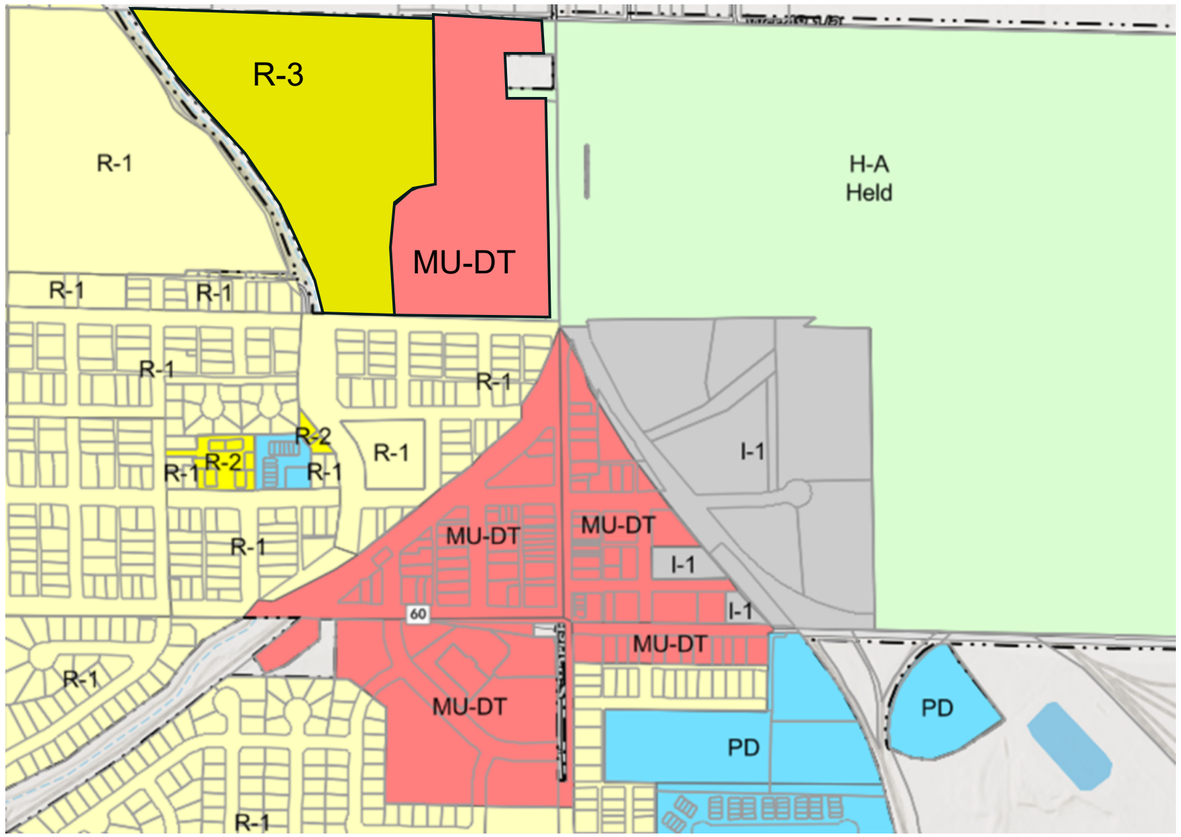


Downtown Zoning Map



Current Downtown Johnstown
Zoning District Boundaries

Proposed Downtown Johnstown
Zoning District Boundaries



Zoning Districts

Table 4-1: Zoning Districts & Intent	
District & Intent	*Relationship to Comprehensive Plan*
H-A – Holding / Agriculture. The H-A district is intended for agriculture and associated uses, and may include rural residential living with detached houses on acreages or very large "pre-development" lots. Due to the development patterns and inefficiency of providing municipal services, this area receives only limited infrastructure investment. It is used as a "pre-development" district to preserve open and rural lands, or to hold areas until more coordinated, compact, and efficient growth and development can occur.	Limited application as a pre-development area or to preserve agriculture lands in the very low intensity areas. Alternatively, the conservation pattern can be used to cluster development areas served by infrastructure in exchange for preserving large, in-tact areas of open space, natural areas, or agriculture lands.
R-3 – High Density Neighborhood The R-3 district provides residential living (small- or large-scale residential building types) in a moderate-to high-density pattern in suburban areas or walkable neighborhoods. This district should be located as a transition between lower-density neighborhoods or more intense non-residential uses, and where a high level of accessibility, public amenity and support services are immediately available.	General application in high-intensity areas, or limited applicability at strategic points and transitions to and within Activity Centers.
MU-DT – Downtown. The MU-DT district provides an integrated mix of retail, service, entertainment, and civic uses, and supporting office and residential uses, in a compact and walkable format. This district preserves the historic "main street" scale and small-town character of Johnstown. It is the vibrant heart of the community with a high level of civic design, walkable urban patterns, and a concentration of diverse, small-scale uses.	General application for Downtown Activity Center.

Key Points

- Designed to be an extension of the current downtown.
- Creates a visitor experience.
- Small-scale, boutique-style shopping experience.
  - Not a Ledge Rock or 2534 shopping experience.
- Civic gathering plaza – Community engagement spaces.
  - Spend leisure time outside.
- Healthy and Resilient Economy
  - Fosters economic growth and sustainability while building a thriving community that meets the evolving needs of residents, businesses, and visitors.
  - A vibrant downtown is critical to achieving this vision, serving as both an economic engine and a community gathering place.
- Cultivating a dynamic, walkable, and interconnected downtown that attracts businesses, supports local entrepreneurs, and offers a diverse range of amenities and services.

The goal is to preserve the spirit of the historic character while bringing amenities that apply to modern life. An increase in pedestrian foot traffic will consequently increase the patronage of local businesses.

Staff Recommendation

Staff recommends that the Planning and Zoning Commission recommend to the Town Council to approve ZON25-0001; rezoning the Rieder Farm property from H-A to MU-DT and R-3 zoning.

Planning and Zoning Commission Recommendation

The Planning and Zoning Commission recommends that the Town Council approve ZON25-0001; rezoning the Rieder Farm property from H-A to MU-DT and R-2 zoning.

Questions for staff?

Rieder Parcel

Planning Commission
January 28, 2026

terracina design
URBAN PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE

DEVELOPMENT MISSION



Site Context

Downtown Johnstown is in central Johnstown, Colorado, adjacent to the Hwy-60 corridor and approximately 4 miles east of I-25. The project area covers approximately 240 acres including recently annexed property to the north of Parish Avenue/County Road 17. The current urban core proper consists of approximately two blocks of retail and service-based businesses along Parish Avenue. Downtown Johnstown is regarded as the heart of the community and over the last couple of years major investments have been made to re-energize the corridor.

Development Mission

The Town has identified the downtown corridor as a mixed-used activity center within the 2021 adopted Comprehensive Plan. Based on the adopted plan, the goal is to revitalize the existing blocks of Downtown Johnstown known as "Parish Avenue", as well as "work with local land owners to develop and redevelop near the current core area, utilizing more urban design standards to encourage an active street scape and mix of uses". Planning for future uses and redevelopment in this area is a high priority for the Town since potential development projects are being contemplated.

The Town has identified the following concerns:

- The need for a unified vision for downtown that incorporates the newly adopted Downtown Johnstown brand and way-finding signage
- The physical expansion of downtown, including incremental redevelopment of industrial park and development of newly annexed parcels
- Identification of short-, medium-, long-term parking
- Address the current and future parking supply/inventory
- Address the aging street scape / streetscapes not conducive to downtown expansion
- Address the lack of public spaces and outdoor dining downtown
- Address the lack of pedestrian safety and connectivity
- Attract retail and entertainment-based businesses that activate the corridor for daytime and nighttime use
- Create a traffic detour to minimize heavy vehicle traffic on Parish Avenue

STAFF VISION

"Revitalizing Downtown Johnstown is not just about restoring buildings - it's about reinvigorating the heart of our community"



Parish Avenue



Local Grows Here



Downtown Entrance



Parish Park

Activate Downtown

How can we create spaces where people want to spend time? How can we serve the employees by creating jobs and promote a good working environment? What can we do to increase patrons? Create trails to bring attention to small businesses.

Residential

Height restrictive multifamily units that look like single family homes. Utilize the phrase "Form ever follows function" to determine density.

Commercial / Retail

How can we create a clear path for people to follow? Have available parking while maintaining safety.

Function

Facilitate an atmosphere that is welcoming to visitors and pedestrian friendly. Incorporate the train by bringing attention to it in a tasteful way. Require greenery for maximum amounts of natural shade.

NEW DISTRICTS/ZONING

RIEDER DISTRICT

Rieder is the name of the family that has historically owned the land. The proposed uses for the property will be a mixed-use concept that includes retail/commercial, office/flex, housing, and community spaces both indoor and outdoor along with recreational uses.

- 35,000 SF - 45,000 SF office/flex space (insurance companies, boutique firms, etc.)
- 100,000 SF - 250,000 SF retail/commercial
- 10,000 SF - 15,000 SF indoor venue
- 100,000 SF - 200,000 SF outdoor community area
- 150 - 200 mixed use housing units
- 75 - 125 townhomes
- 300 - 350 on-street guest parking spaces for housing
- 1,000 - 1,500 parking lot spaces for retail

HELD DISTRICT

Held is the name of the family that has historically owned the land. The proposed uses for the property will be a mixed-use concept that includes small scale seasonal retail/commercial, community spaces both indoor and outdoor, The Urban Farm, and housing.

- 10,000 - 15,000 SF Grange Hall community center that can include community programming and activities for all ages
- 100,000 - 200,000 SF outdoor community area
- 510 - 670 housing units
  - 300 - 350 townhomes
  - 30 - 50 courtyard homes
  - 100 - 150 duplex
  - 40 - 60 shotgun homes
  - 40 - 60 potential ADU (accessory dwelling units)
- 8,000 - 10,000 SF small scale retail vendors / adaptive uses

THE URBAN FARM DISTRICT

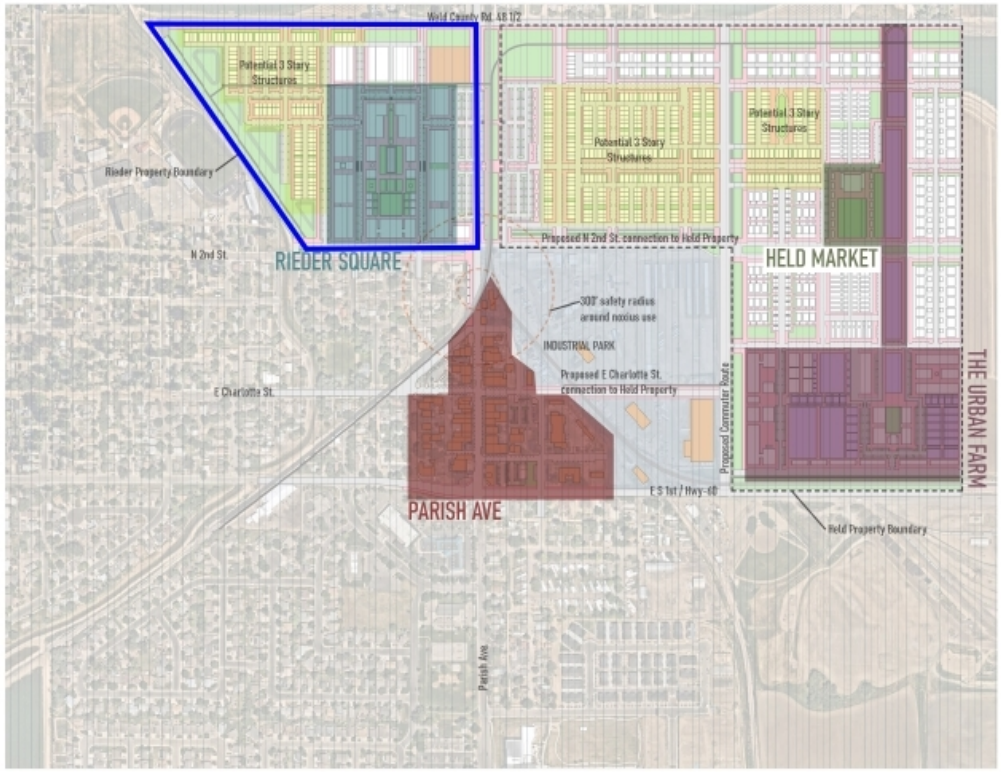
The Urban Farm will be a charming Town-run farm with various crops and orchards with facilities to process the produce. It will also provide an opportunity to attract various businesses such as artisanal shops and boutiques, farm-to-table restaurants/cafes, and breweries/distilleries. The Urban Farm will also focus on creating multi-use outdoor venue space and community gathering.

- 50,000 SF - 60,000 SF restaurant/brewery/distillery/etc.
- 12-16 acres farm fields and production facilities
- 120,000 SF - 150,000 SF orchards
- 10,000 SF - 15,000 SF outdoor community area

GREEN SPACE

Green spaces are strategically placed throughout the master plan to provide density relief and create a space for residents and visitors to spend time outside.

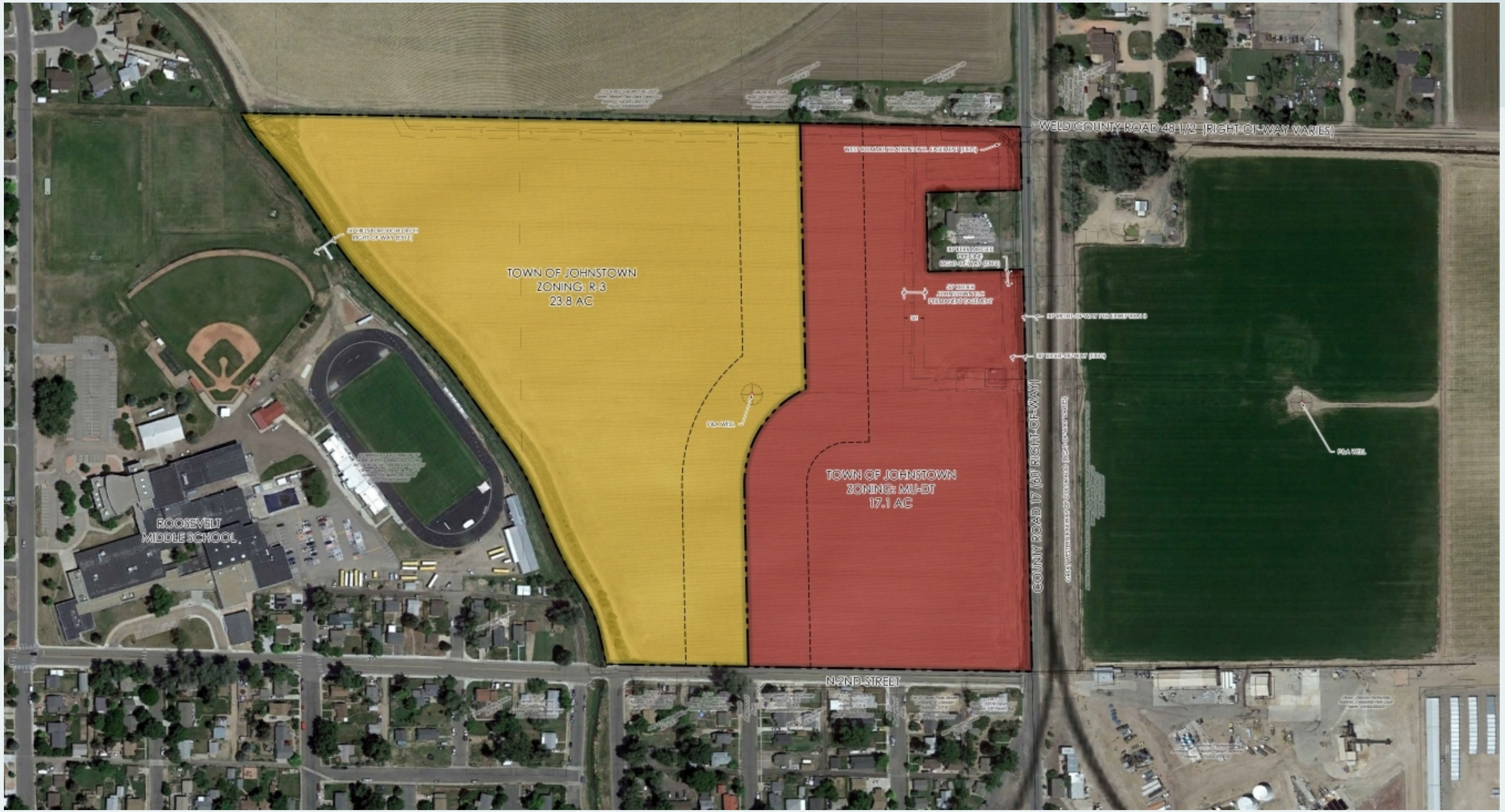
- 6,000 LF - 9,000 LF trails
- 300,000 SF - 400,000 SF linear parks
- 150,000 SF - 200,000 SF detention



TOTALS

- **MIXED USE** (includes commercial, retail, office/flex, residential) – 250,000 SF - 300,000 SF (5 - 7 ACRES)
- **OUTDOOR COMMUNITY/ GREEN SPACE** -- 1,000,000 SF - 1,500,000 SF (25 - 35 ACRES)
- **RETAIL/COMMERCIAL** – 50,000 SF - 60,000 SF (1 - 1.5 ACRES)
- **PUBLIC PARKING** – 500,000 SF - 600,000 SF (10 - 15 ACRES)
- **RESIDENTIAL** – 1,250,000 SF - 1,750,000 (30 - 35 ACRES) 775-970 Housing Units Total

- 150 - 200 mixed use (condos/apartments above retail)
- 30 - 50 courtyard homes (senior housing)
- 40 - 60 shotgun homes
- 375-475 townhomes
- 100 - 150 duplex
- 40 - 60 potential ADUs (accessory dwelling units)



Rieder Parcel Zoning Plan

Thank you

terracina design
URBAN PLANNING
CIVIL ENGINEERING
LANDSCAPE ARCHITECTURE

450 S. Parish Avenue
Johnstown, CO 80534
970-587-4664
JohnstownCO.gov

Town Council Agenda Communication

Agenda Date: March 2, 2026

Subject: Resolution 2026-13: Final Plat for North Ridge Subdivision Filing No. 2 and Consideration of the Subdivision Development and Improvement Agreement for North Ridge Subdivision, Filing No. 2, Phase I

Attachments:
1. Resolution 2026-13 North Ridge Filing No. 2 Subdivision
2. Final Plat
3. North Ridge No 2 Development and Improvement Agreement
4. Executed Joinder North Ridge Filling 2
5. Staff Presentation

Presented by: JT Stewart, Senior Planner

Agenda Item Description:

This Town Agenda Communication consists of multiple items for individual action:

- Resolution 2026-13, Final Plat for North Ridge Subdivision Filing No. 2; and
- Subdivision Development & Improvement Agreement for Filing No. 2 - Phase I.

Background and History:

The applicant has submitted concurrent applications for a Major Subdivision and Site Development Plan for the development of a 7-Eleven. To help realize the 7-Eleven facility in the North Ridge Planned Unit Development (PUD), the applicant must first subdivide the larger lot, which is the subject of this application. The Major Subdivision required Planning & Zoning Commission (PZC) review and subsequent consideration by Town Council. PZC heard this on 1/28/26 and supported the subdivision unanimously, 6-0. The Site Development Plan is reviewed administratively, and is not reviewed by the Planning and Zoning Commission or Town Council. Pursuant to the Town's adopted Land Use and Development Code, Section 17-2-2(C) states that the division of up to four lots is a minor plat subdivision. Since this project proposes the division of six lots, the project is considered a major subdivision (17-2-2(D)).

In addition to the major subdivision plat that was recommended for approval by PZC, Council will consider a development and improvement agreement for public utilities including water, waste water, and storm water.

FINDINGS OF FACT for the major subdivision. Section 17-2-2(E)(1) provides Review Criteria for the consideration of Final Plats. The criteria is listed below, followed by the findings of fact.

a. Criteria: The layout and design of the final plat is substantially consistent with the approved preliminary plat considering the number and size of lots and outlots, the block layout, street designs and access; the open space systems and civic design elements; the infrastructure systems; or other elements of coordinated developments. Deviations made necessary due to the further detail in planning, design and engineering, and which meet the standards of this code, are generally considered “substantially consistent” with the preliminary plat.

Findings: The layout and design of this subdivision is consistent with the approved preliminary plan.

b. Criteria: The construction plans for any utilities, infrastructure, and public or common facilities meet all technical specifications.

Findings: The major utilities and infrastructure needed for all future lots to tie into is proposed to be constructed in part by the concurrent site plan (7-Eleven) and are ensured via a Development Agreement (DA) that will be attached to this subdivision for Town Council review.

c. Criteria: All required improvements, dedications, fees, financial guarantees, and maintenance guarantees are provided.

Findings: All required fees and improvements will be satisfied during this subdivision and will be ensured by a subdivision DA.

d. Criteria: The phasing and timing of required improvements ensures construction and performance guarantees. Any phasing that meets an approved preliminary plat is presumed acceptable. Any deviations of the final plats from an approved phasing plan shall not alter the timing or coordination of required improvements or amenities in the approved preliminary plat.

Findings: Phasing and timing of required improvements has been captured in a DA.

e. Criteria: Deviations in the final plat from the approved preliminary plat may be considered where the change:
(1) Complies with all applicable zoning standards, subdivision design standards, and meets the intent and design objectives of those standards.
(2) Does not increase the impact of any development on required improvements beyond the capacity for required improvements identified in the preliminary plat.
(3) Does not impact any condition of the Planning and Zoning Commission or Town Council associated with the approval of the preliminary plat.
(4) Is generally consistent with development concepts in the preliminary plat in terms of land uses, scale, and intensity of development, and in no case changes the number of lots, dwelling units, buildings, or sizes of blocks and open spaces by more than 10 percent.
(5) If technical studies were required with the preliminary plat, the author of the study shall submit an amendment noting that the change does not impact any findings of the study.

Findings: There are no substantial deviations from the approved preliminary plat.

f. Criteria: Any other changes to the preliminary plat, including significant changes in the phasing or dedication of public lands and rights-of-way, may require resubmittal of a revised preliminary plat.

Findings: No significant changes have been found in this major subdivision, so a revised preliminary plan is not necessary.

Strategic Plan Alignment:

Healthy & Resilient Economy

- Drive projects and initiatives that promote Johnstown as a premier destination for business
- Support the local labor market and work with partners to grow diverse employment opportunities

Legal Advice:

The Town Attorney prepared the Resolution and the Development and Improvement Agreement.

Financial Advice:

N/A

Recommended Action:

Staff recommends approval of Resolution 2026-13 the Final Plat for North Ridge Subdivision Filing No. 2 and the Development and Improvement Agreement for North Ridge Subdivision Filing No. 2 - Phase I.

Suggested Motions:

RESOLUTION 2026-13 FINAL PLAT

For Approval: I move to approve Resolution 2026-13 the Final Plat for North Ridge Subdivision Filing No. 2 as presented.

For Denial: I move to deny Resolution 2026-13 for the following reasons....

NORTH RIDGE SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT

For Approval: I move to approve the Subdivision Development and Improvement Agreement for the North Ridge Subdivision Filing No. 2 - Phase I.

For Denial: I move to deny the North Ridge Subdivision Development & Improvement Agreement as presented.

Reviewed and Approved for Presentation



Town Manager

TOWN OF JOHNSTOWN, COLORADO
RESOLUTION NO. 2026-13__

APPROVING THE FINAL PLAT FOR THE NORTH RIDGE SUBDIVISION FILING NO. 2, BEING A REPLAT OF TRACT A AND LOT 2, NORTH RIDGE SUBDIVISION, SITUATED IN THE SOUTHEAST QUARTER OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 68 WEST OF THE 6TH P.M., TOWN OF JOHNSTOWN, COUNTY OF LARIMER, STATE OF COLORADO, CONSISTING OF APPROXIMATELY 14.134 ACRES

WHEREAS, the Town of Johnstown, Colorado ("Town") is a Colorado home rule municipality, duly organized and existing under the laws of the State of Colorado and the Town's Home Rule Charter; and

WHEREAS, the Town Council is vested with authority to administer the affairs of the Town; and

WHEREAS, Ridge II HoldCo, LLC, a Delaware limited liability company, and their affiliated entities seek approval of a Final Plat for the North Ridge Subdivision Filing No. 2, being a Replat of Tract A and Lot 2, North Ridge Subdivision, situated in the Southeast Quarter of Section 22, Township 5 North, Range 68 West of the 6th P.M., Town of Johnstown, County of Larimer, State of Colorado, consisting of approximately 14.134 acres; and

WHEREAS, on January 28, 2026, the Planning and Zoning Commission held a hearing, reviewed the request and recommended that the Town Council approve the Final Plat; and

WHEREAS, on March 2, 2026, the Town Council held a public hearing concerning approval of the Final Plat and, after considering the Planning and Zoning Commission's recommendation, reviewing the file and conducting such hearing, found that the Final Plat is consistent with the Town's Comprehensive Plan and the approved preliminary plat for the North Ridge Subdivision and meets the requirements contained in the Johnstown Municipal Code and the Town's regulations; and

WHEREAS, based on the foregoing, the Town Council desires to approve the Final Plat for the North Ridge Subdivision Filing No. 2.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF JOHNSTOWN, COLORADO, THAT:

Section 1. Final Plat Approval: The Final Plat for the North Ridge Subdivision Filing No. 2, being a Replat of Tract A and Lot 2, North Ridge Subdivision, situated in the Southeast Quarter of Section 22, Township 5 North, Range 68 West of the 6th P.M., Town of Johnstown, County of Larimer, State of Colorado, consisting of approximately 14.134 acres, attached hereto and incorporated herein by reference at Exhibit A, is hereby approved.

Section 2. Recording: The Town Clerk is hereby directed to obtain the appropriate signatures for the Final Plat and thereafter record the Final Plat at the office of the Larimer County Clerk and Recorder.

PASSED, SIGNED, APPROVED, AND ADOPTED THIS ___ day of _____, 2026.

ATTEST: **TOWN OF JOHNSTOWN, COLORADO**

By:_____ By:_____
Meghan Martinez, Town Clerk Michael P. Duncan, Mayor

EXHBIT A
Final Plat
(Attached)

NORTH RIDGE SUBDIVISION FILING NO. 2

Being a Replat of Tract A and Lot 2, North Ridge Subdivision

Situate in the Southeast Quarter of Section 22, Township 5 North, Range 68 West of the 6th P.M.

Town of Johnstown, County of Larimer, State of Colorado

DEDICATION

KNOW ALL MEN BY THESE PRESENTS that we, the undersigned being all the owners and lienholders of the following described property to wit:

A parcel of land situate in the Southeast Quarter of Section Twenty-two (22), Township Five North (T.5N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.), Town of Johnstown, County of Weld, State of Colorado, and being more particularly described as follows:

Tract A and Lot 2, North Ridge Subdivision as recorded January 13, 2023 at Reception No. 20230001573 of the Larimer County Clerk & Recorder.

Said parcel contains 615,698 Square Feet or 14.134 Acres more or less by this survey.

do hereby cause said land to be laid out and platted under the name of NORTH RIDGE SUBDIVISION FILING NO. 2, and do hereby dedicate to the public forever all public rights of way, easements and other places designated or described for public uses. All conditions, terms and specifications designated or described herein shall be binding on the owners, their heirs, successors and assigns.

Owners: Ridge II Holdco LLC

_____

BY: AS:

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

LIENHOLDERS: Sconset Resources

By:_____ As:_____

Witness my hand and seal this _____ day of _____, 20 ___.

NOTARIAL CERTIFICATE

STATE OF COLORADO)
ss
COUNTY OF LARIMER)

The foregoing instrument was acknowledged before me by _____ as _____this _____ day of _____, 20___.

Witness my Hand and Official Seal.

My commission expires: _____.

BASIS OF BEARINGS AND LINEAL UNIT DEFINITION

Assuming the Northeast line of Tract A, North Ridge Subdivision, monumented as shown on this plat, as bearing South 42°41'51" East, a distance of 1084.77 feet and with all other bearings contained herein relative thereto.

The lineal dimensions as contained herein are based upon the "U.S. Survey Foot".

TITLE COMMITMENT NOTE

For all information regarding easements, rights-of-way and title of records, Majestic Surveying, LLC relied upon Title Commitment Number 459-HS0843014-003, Amendment No. 2, dated September 10, 2025, as prepared by Heritage Title Company to delineate the aforesaid information.
This survey does not constitute a title search by Majestic Surveying, LLC to determine ownership or easements of record.

FLOOD PLAIN NOTE

The subject property is in flood zone 'X', "areas determined to be outside the 0.2% annual chance of floodplain" per FEMA flood map 08069C1213F effective December 19, 2006.

SURVEYOR'S CERTIFICATE

I, Steven Parks, certify that this plat accurately represents the results of a survey made by me or under my responsible charge.

DRAFT

Steven Parks - On Behalf of Majestic Surveying, LLC
Colorado Licensed Professional Land Surveyor #38348

TOWN COUNCIL

This plat, to be known as NORTH RIDGE SUBDIVISION FILING NO. 2, is approved and accepted by the Town of Johnstown, by Resolution Number_____, passed and adopted on final reading at a regular meeting of the Town Council of the Town of Johnstown, Colorado held on the _____ day of _____, 20___.

_____ Attest: _____
Mayor Town Clerk

MAINTENANCE NOTE: Maintenance access shall be provided to all storm drainage facilities to assure continuous operational capability of the system. The Metro District shall be responsible for the maintenance of all common access drives, drainage facilities including inlets, pipes, culverts, channels, ditches, hydraulic structures, and detention basins located within the access and drainage easements unless modified by separate agreements. All property owners shall be responsible to maintain all other improvements on their property outside of the easement areas. Should the Metro District or Owner fail to adequately maintain said facilities, the Town of Johnstown shall have the right to enter said land for the purposes of operations and maintenance. All such maintenance costs incurred by the Town will be assessed to responsible party.

GENERAL OVERLOT DRAINAGE NOTE: Lots and Tracts as platted may be required to convey surface drainage from other lots and tracts in this filing, in accordance with Town of Johnstown requirements and the approved drainage plan for this filing. No alterations to the grading of the lots and tracts may be made that would disrupt the approved drainage plan, without prior approval from the Town of Johnstown. All natural and improved drainage ways or drainage systems in said lots and tracts shall be maintained by the lot or tract owner. Should the owner fail to adequately maintain said facilities, the Town of Johnstown shall have the right to enter said land for the purposes of operations and maintenance of the drainage ways or drainage systems. All such maintenance costs incurred by the Town will be assessed to the property owner.

DEVELOPMENT AGREEMENT NOTE

A Development Agreement has been filed in conjunction with this plat. That agreement should be viewed for additional stipulations or requirements that may encumber the property.

NOTICE

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-80-105 C.R.S. 2012)

NORTH RIDGE SUBDIVISION FILING NO. 2
Land Use Table

Name	Description/Land Use	Area		Intended Fee Ownership	Maintenance Upon Completion & Acceptance
Lots	Private	583,296 sq. ft.	13.39 acres	Private	Private
Outlot A	Drainage Easement	32,402 sq. ft.	0.74 acres	Metro District	Metro District

LEGEND

- BOUNDARY LINE
- EASEMENT LINE
- RIGHT OF WAY LINE
- SECTION LINE
- ALIQUOT CORNER AS DESCRIBED
- FOUND MONUMENT AS DESCRIBED
- FOUND #4 REBAR WITH 1" RED PLASTIC CAP LS 38348

N

0 100 200 Feet

SCALE: 1"=100'


SITE
Big Thompson River
Cherry St
Loft Road Trl
Front Range Dr
Colony Blvd
Johnstown Rd
Parish Ave
Thompson Pkwy
Cherrylawn Ct
Cherrylawn Dr
Cherrylawn Cir
Cherrylawn Ln
Cherrylawn Pl
Cherrylawn Way
Broadmoor Bentwood Ct
Bentwood Ct
Ravenwood Ct
Ravenwood Dr
Ravenwood Ln
Ravenwood Pl
Ravenwood Way
Ranch Creek Dr
River Bend Ranch Rd
Silverado Ct
Silverado Dr
Silverado Pl
Silverado Way
Tumbleweed Ln
Tumbleweed Pl
Tumbleweed Way
Cherylee Ct
54th St SE
Colony Blvd SE
Weld County Rd 3
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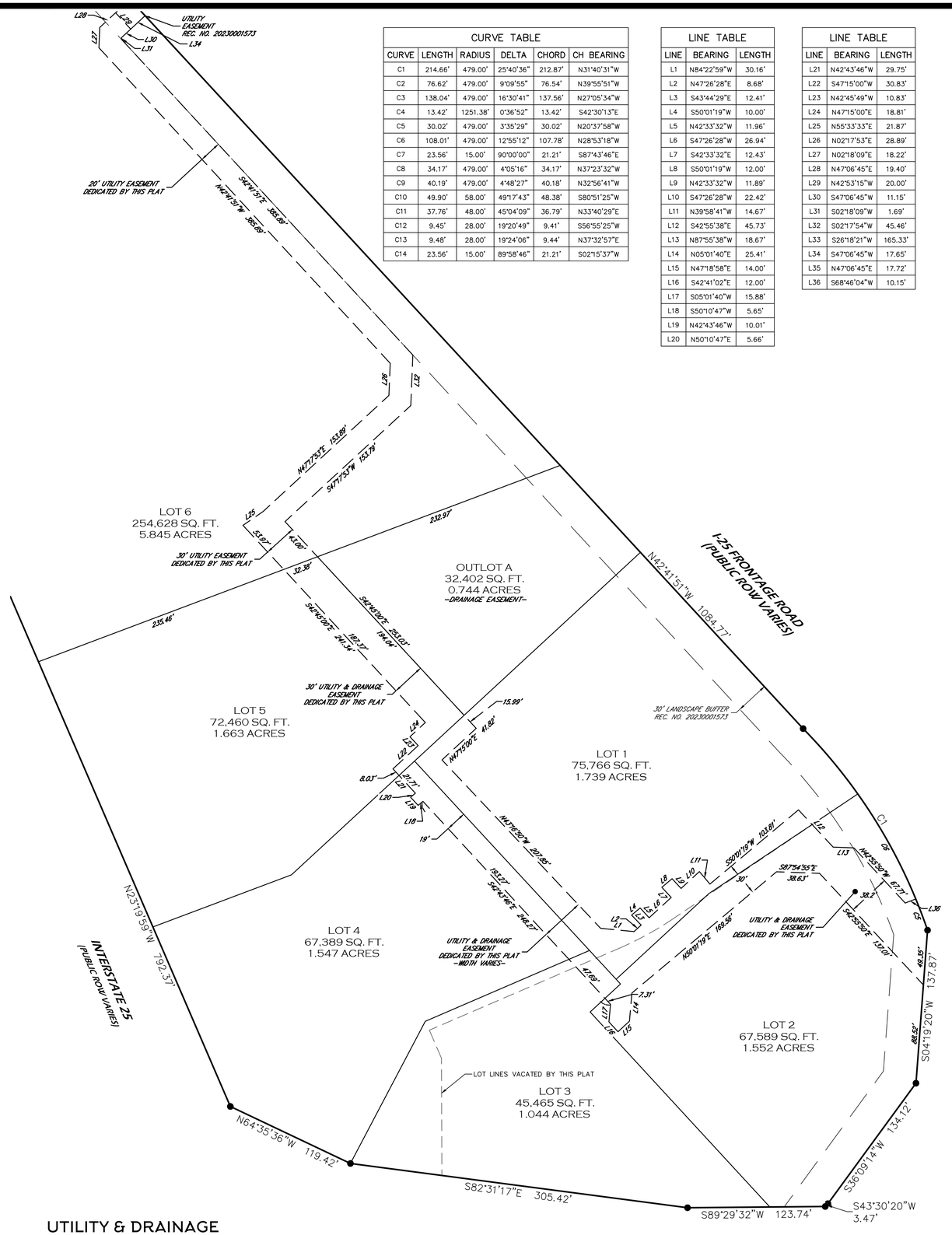
NORTH RIDGE SUBDIVISION FILING NO. 2

Being a Replat of Tract A and Lot 2, North Ridge Subdivision Situate in the Southeast Quarter of Section 22, Township 5 North, Range 68 West of the 6th P.M. Town of Johnstown, County of Larimer, State of Colorado

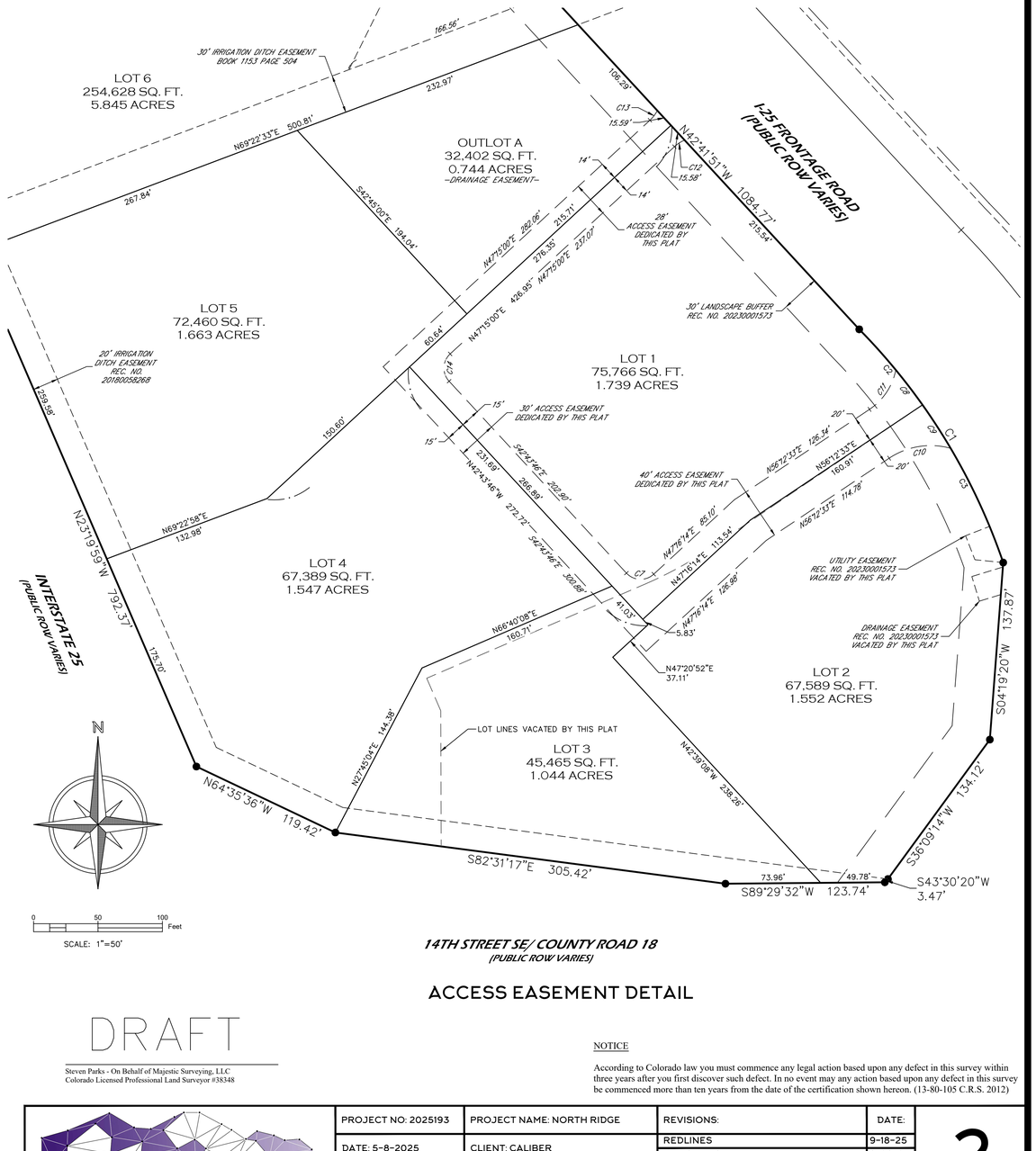
CURVE TABLE					
CURVE	LENGTH	RADIUS	DELTA	CHORD	CH BEARING
C1	214.66'	479.00'	25°40'36"	212.87'	N31°40'31"W
C2	76.62'	479.00'	9°09'55"	76.54'	N39°55'51"W
C3	138.04'	479.00'	16°30'41"	137.56'	N27°05'34"W
C4	13.42'	1251.38'	0°36'52"	13.42'	S42°30'13"E
C5	30.02'	479.00'	3°35'29"	30.02'	N20°37'58"W
C6	108.01'	479.00'	12°55'12"	107.78'	N28°53'18"W
C7	23.56'	15.00'	90°00'00"	21.21'	S87°43'46"E
C8	34.17'	479.00'	4°05'16"	34.17'	N37°23'32"W
C9	40.19'	479.00'	4°48'27"	40.18'	N32°56'41"W
C10	49.90'	58.00'	49°17'43"	48.38'	S80°51'25"W
C11	37.76'	48.00'	45°04'09"	36.79'	N33°40'29"E
C12	9.45'	28.00'	19°20'49"	9.41'	S56°55'25"W
C13	9.48'	28.00'	19°24'06"	9.44'	N37°32'57"E
C14	23.56'	15.00'	89°58'46"	21.21'	S02°15'37"W

LINE TABLE		
LINE	BEARING	LENGTH
L1	N84°22'59"W	30.16'
L2	N47°26'28"E	8.68'
L3	S43°44'29"E	12.41'
L4	S50°01'19"W	10.00'
L5	N42°33'32"W	11.96'
L6	S47°26'28"W	26.94'
L7	S42°33'32"E	12.43'
L8	S50°01'19"W	12.00'
L9	N42°33'32"W	11.89'
L10	S47°26'28"W	22.42'
L11	N39°58'41"W	14.67'
L12	S42°55'38"E	45.73'
L13	N87°55'38"W	18.67'
L14	N05°01'40"E	25.41'
L15	N47°18'58"E	14.00'
L16	S42°41'02"E	12.00'
L17	S05°01'40"W	15.88'
L18	S50°10'47"W	5.65'
L19	N42°43'46"W	10.01'
L20	N50°10'47"E	5.66'

LINE TABLE		
LINE	BEARING	LENGTH
L21	N42°43'46"W	29.75'
L22	S47°15'00"W	30.83'
L23	N42°45'49"W	10.83'
L24	N47°15'00"E	18.81'
L25	N55°33'33"E	21.87'
L26	N02°17'53"E	28.89'
L27	N02°18'09"E	18.22'
L28	N47°06'45"E	19.40'
L29	N42°53'15"W	20.00'
L30	S47°06'45"W	11.15'
L31	S02°18'09"W	1.69'
L32	S02°17'54"W	45.46'
L33	S26°18'21"W	165.33'
L34	S47°06'45"W	17.65'
L35	N47°06'45"E	17.72'
L36	S68°46'04"W	10.15'



UTILITY & DRAINAGE DEDICATION EASEMENT DETAIL



ACCESS EASEMENT DETAIL

DRAFT

Steven Parks - On Behalf of Majestic Surveying, LLC
Colorado Licensed Professional Land Surveyor #38348

NOTICE

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon. (13-80-105 C.R.S. 2012)

MAJESTIC SURVEYING
MAJESTIC SURVEYING, LLC 1111 DIAMOND VALLEY DRIVE #104, WINDSOR, CO 80550

PROJECT NO: 2025193	PROJECT NAME: NORTH RIDGE	REVISIONS:	DATE:
DATE: 5-8-2025	CLIENT: CALIBER	REDLINES	9-18-25
		REVISED LOT LINE	9-26-25
DRAWN BY: SIP	FILE NAME: 2025193SUB	REVISED EASEMENTS	12-22-25
		REVISED 'SEE PAGE2' PER TOWN	2-18-26
CHECKED BY: SIP	SCALE: 1" = 50'	ADDED DUPLICATE EASEMENT LABEL ON LOT 6 PER TOWN	2-18-26

2

SHEET 2 OF 2

SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT
FOR
TOWN OF JOHNSTOWN
(North Ridge Subdivision, Filing No. 2 – Phase I)

This Subdivision Development and Improvement Agreement ("Agreement"), made and entered into between and among the **Town of Johnstown, Colorado**, a Colorado home rule municipal corporation (the "Town") and **Ridge II HoldCo, LLC**, a Delaware limited liability company ("Developer"), and the **Ridge at Johnstown Metropolitan District No. 1**, a quasi-municipal corporation and political subdivision of the State of Colorado (the "District").

RECITALS

WHEREAS, Developer is the owner of a parcel of land situated in the Town of Johnstown, County of Larimer, State of Colorado, the description of which is set forth on **Exhibit A** attached hereto and incorporated herein by this reference (the "Property"); and

WHEREAS, Developer seeks to develop the Property and to designate such development as North Ridge Subdivision, Filing No. 2 ("Development"), consisting of six lots and one detention pond outlot;[1] and

WHEREAS, on or about December 5, 2022, the Town and CaliberCos, Inc., a Delaware corporation, an affiliated entity of Developer, entered into that certain Subdivision Development and Improvement Agreement concerning the North Ridge Subdivision, which was recorded in the Office of the Larimer County Clerk & Recorder on January 13, 2023, at Reception No. 202030001572 ("Original SDIA"); and

WHEREAS, the Original SDIA set forth obligations related to real property that also includes the Property subject to this Agreement; and

WHEREAS, to the extent of a conflict between this Agreement and the Original SDIA, this Agreement shall control the obligations related to the Property and shall supersede and replace the Original SDIA; and

WHEREAS, SW DEV STNL HWY 402 & I25 LLC, a Delaware limited liability company ("Lot 1 Owner"), is the owner of Lot 1 of the Development; and

[1] For the avoidance of doubt, the Town and CaliberCos, Inc. entered into the Original SDIA, as described in the Agreement, but did not technically enter into an agreement for a "Filing No. 1." Nonetheless, because this is the second Subdivision Development and Improvement Agreement for this Property, this Development is referenced as Filing No. 2.

WHEREAS, Lot 1 Owner seeks to construct and install certain Subdivision Improvements that will facilitate the development and occupancy of Lot 1 of the Development and provide infrastructure serving other portions of the Development (such initial phase of development being referred to herein as "Phase I"). The Subdivision Improvements to be constructed as part of Phase I are referred to herein as the "Phase I Subdivision Improvements," meaning the Public Improvements and Private Improvements shown on the applicable Approved Plans for Phase I. The Phase I Subdivision Improvements are to be constructed in accordance with the Development Plan, together with the Civil Engineering Construction Plans approved by the Town in connection therewith, as any of the foregoing may be amended or supplemented from time to time with Town approval (collectively, the "Approved Lot 1 SDP"). For the avoidance of doubt, the Town has not yet agreed upon the Approved Lot 1 SDP. Developer or subsequent lot owners shall remain responsible for the requirement to construct and install any other Subdivision Improvements that may be required to serve the remaining five lots; and

WHEREAS, to further development of Lot 1 of the Property, the Town, Developer and the District desire to enter into this Agreement to set forth more specific obligations related to the Phase I Subdivision Improvements, which include the Public Improvements associated with a substantial portion of the Development as a whole, the Public Improvements associated specifically with Lot 1 of the Development and the Private Improvements associated with Lot 1 of the Development and, to the extent not included therein, the improvements set forth on the Approved Lot 1 SDP; and

WHEREAS, if additional Public Improvements are required with respect to the Development, the parties agree to enter into a separate subdivision development and improvement agreement or similar such agreement as required by the Town; and

WHEREAS, Developer has submitted a final plat depicting the Development, which final plat is attached hereto as **Exhibit B-1** and incorporated herein by this reference ("Final Plat"); and

WHEREAS, the Town Council approved, or intends to approve, the Final Plat by passage of Resolution No. 2026-__, containing terms and conditions of approval of the Final Plat, which Resolution is, or will be, attached hereto as **Exhibit B-2** and incorporated herein by this reference ("Resolution"); and

WHEREAS, Developer understands and agrees that, as a further condition of approval of the Final Plat, Developer is required to construct certain Subdivision Improvements (defined below) to the Property, that Developer is responsible for the costs and expenses of those Subdivision Improvements unless otherwise provided herein, and that the Subdivision Improvements contemplated herein are reasonable, necessary, appropriate, and directly benefit the Development; and

WHEREAS, Developer agrees to undertake and complete the Development in accordance with this Agreement, the Final Plat, the Resolution, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations.

AGREEMENT

NOW, THEREFORE, in consideration of the premises cited above and the mutual covenants and promises contained herein, the sufficiency of which is acknowledged, the Town and Developer agree as follows:

RECITALS

The Recitals are incorporated as if fully set forth herein.

DEFINITIONS

For the purposes of this Agreement, the following words and terms shall be defined as follows:

1.1 **"Approved Plans"** shall mean: (1) with respect to the Public Improvements, the approved "Civil Engineering Construction Plans" related to the Development and on file with Town; and (2) with respect to the Private Improvements, the approved "Development Plan" and "Civil Engineering Construction Plans" related to the Development and on file with Town.

1.2 **"Civil Engineering Construction Plans"** shall mean the approved engineering plans for construction, installation and improvement of the Public and Private Improvements.

1.3 **"Code"** shall mean the Johnstown Municipal Code, as amended from time to time.

1.4 **"Developer"** shall mean the owner(s) of the Property described in **Exhibit A** and any heirs, successors, assigns or transferees of any of the Property described in **Exhibit A**. Notwithstanding the foregoing, an owner of a platted lot who joins this Agreement pursuant to a recorded joinder agreement approved by the Town shall be deemed a Developer only to the extent expressly provided in such joinder agreement.

1.5 **"Development"** shall mean all the Property, property rights and Subdivision Improvements within or associated with the legal description in **Exhibit A**.

1.6 **"Development Plan"** shall mean the approved plans for the construction, installation and improvement of the Private Improvements. For the avoidance of doubt, and notwithstanding the foregoing, the Development Plan referenced herein shall mean the site

development plan for the 7-Eleven development on Lot 1, as approved by the Town, and as it may be amended or supplemented from time to time with Town approval.

1.7 **"Dry Utilities"** shall mean electricity, natural gas, cable and telephone.

1.8 **"Maintenance Guarantee"** shall mean a guarantee that the Public Improvements constructed shall be free from defects and failures as more fully described in Paragraphs 5.2 and 5.4 below.

1.9 "**Notice of Construction Acceptance**" shall mean the written certification that the Public Improvements are accepted, which starts the two-year warranty period as provided herein.

1.10 "**Notice of Final Acceptance**" or "**Final Acceptance**" shall mean the written certification of final acceptance of the Public Improvements and, except as otherwise provided herein, the transfer of maintenance of the Public Improvements to the Town.

1.11 **"Private Improvements"** shall mean, without limitation, the construction, installation and improvement of privately owned and maintained common improvements including, but not limited to, stormwater improvements, landscaping, irrigation, fencing, entry signs, parks, open space, trails and postal service boxes. For the avoidance of doubt, and notwithstanding the foregoing, the Private Improvements referenced herein shall include only the Private Improvements for Phase I of the Development as more specifically set forth the Approved Lot 1 SDP.

1.12 **"Public Improvements"** shall mean, without limitation, the construction, installation, improvement and dedication of public improvements, including, but not limited to public thoroughfares and streets, sanitary sewer facilities, water line facilities, drainage facilities in the public right of way, irrigation structures, if any, that are not exclusively for the benefit of the Development, right-of-way landscaping and irrigation structures, street lighting and signage, and other public facilities and improvements to serve the Development. The Public Improvements include, but are not limited to, the improvements listed on **Exhibit B-3**, in whatever form they are referenced, that will be dedicated to the Town and the improvements listed on **Exhibit C**. For the avoidance of doubt, and notwithstanding the foregoing, the Public Improvements referenced herein shall include only the Public Improvements for Phase I of the Development, as more specifically set forth in **Exhibit C** and the Approved Lot 1 SDP.

1.13 **"Performance Guarantee"** shall mean a guarantee that the Public Improvements shall be constructed in conformance with the Approved Plans.

1.14 **"Subdivision Improvements"** shall mean the Public Improvements and Private Improvements.

1.15 **"Town"** shall mean the Town of Johnstown, Colorado.

1.16 **"Town Manager"** shall include the Town Manager and such person's authorized designees.

SUBDIVISION IMPROVEMENTS

2. Public Improvements

2.1 *Pre- Construction*

a. **Engineering Services:** Developer shall furnish, at its own expense, all engineering services in connection with design, construction, installation and improvement of the Public Improvements. Engineering services shall be performed by a professional engineer registered in the State of Colorado. Engineering services shall consist of, but not be limited to, survey, designs, plans and profiles, specifications, drawings, estimates, construction administration, and the furnishing of necessary documents in connection therewith, including but not limited to final engineering drawings, final sewer and water design plans and final drainage plans shown on the Civil Engineering Construction Plans.

b. **Civil Engineering Construction Plans:** Prior to commencing construction of the Public Improvements for the Development, Developer shall submit the Civil Engineering Construction Plans to the Town for review. Construction of the Public Improvements shall not commence until the Town provides written notice of approval of the Civil Engineering Construction Plans. Developer shall not thereafter modify the approved Civil Engineering Construction Plans without the written approval of the Town. The Town's review and approval of the Civil Engineering Construction Plans shall not limit or affect Developer's responsibility or liability for design, construction and installation of the Public Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection.

c. **Phasing of the Public Improvements**. Subdivision plats, planned unit development plans or site plans requiring the construction of Public Improvements may be developed in phases provided: (i) such phasing is approved by the Town and is consistent with the subdivision plats, planned unit development plans or site plans and any executed agreements pertaining to the Property; (ii) the phasing plan supports a logical sequence of development such that each phase can function independently or sequentially with a prior phase; and (iii) each sequential phase satisfies the Town's construction standards and specifications. If phasing of the Public Improvements is approved, construction acceptance, financial security and building permit eligibility may be approved or released according to the approved phasing plan. An approved phasing plan may only be modified upon written approval of the Town.

d. **Pre-Construction Meeting.** Subsequent to the Town's approval of the Civil Engineering Construction Plans and prior to the commencement of construction, the Developer and its contractors shall participate in a pre-construction meeting with the Town's Public Works Department. Among other matters, as determined by the Town, the purpose of the

meeting shall be to review: (i) the Approved Plans; (ii) permits needed for construction; (iii) relevant provisions of the Code and the Town's construction standards and specifications; and (iv) the construction inspection process and requirements for construction acceptance.

e. **Rights-of-Way, Easements and Permits**: Prior to commencing construction of the Public Improvements, Developer shall acquire, at its own expense, good and sufficient rights-of-way or easements, clear of any encumbrances, on all lands and facilities, if any, traversed by the proposed Public Improvements. All such rights-of-way and easements shall be conveyed to the Town and the documents of conveyance shall be furnished to the Town for recording. At the Town's request, Developer shall provide at its sole expense a policy of title insurance insuring title in the Town, free and clear of all liens and encumbrances, for all land, property and easements dedicated or conveyed to the Town or for public use. Any agreements or easements to which the Town may effectively become a party upon dedication or acceptance of the improvements shall be provided to the Town for review prior to execution of such agreement or easement and prior to issuance of building permits. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Public Improvements.

2.2 ***Construction of Public Improvements***

a. Upon satisfaction of the conditions set forth in Paragraph 2.1 and the notice requirement set forth below, Developer shall construct the Public Improvements at its own expense in accordance with this Agreement, the Final Plat, the Resolution, the Civil Engineering Construction Plans, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. All Public Improvements shall be installed and constructed within the rights-of-way or easements dedicated to the Town. Unless otherwise approved by the Town in writing, all materials used for constructing the Public Improvements shall be materials set forth on the Town's approved material list. Workmanship and materials shall be of good quality.

b. At least fourteen (14) days prior to the commencement of construction, Developer shall provide written notice to all property owners within an 800-foot radius of the construction limits indicated on the Civil Engineering Construction Plans and to any other property owners who are reasonably likely to be impacted by the construction of the fact of the construction along with contact information for the Developer. Prior to the commencement of the construction, such contact list shall be provided to the Town with a copy of the notification. Notification may be by U.S. mail or by delivering a printed flyer left at each affected home or business location.

2.3 ***Engineer's Opinion of Cost, Estimate of Cost of Public Improvements and Construction Schedule:*** Developer estimates the cost of the Public Improvements as set forth on the Engineer's Opinion of Cost, attached hereto and incorporated herein by reference as **Exhibit C**. Once construction begins, Developer shall keep the Town informed by periodic status reports of the progress of the work and a projection of when the Public Improvements will be completed as well as the cost of such Public Improvements.

2.4 ***Testing***: Developer shall employ, at its own expense, a qualified independent testing company, approved by the Town, to perform all testing of materials or construction that may be reasonably required by the Town. Developer shall furnish certified copies of test results to the Town.

2.5 ***Inspection***: At all times during construction of the Public Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Civil Engineering Construction Plans. Any material or work not conforming to the Civil Engineering Construction Plans shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

2.6 ***Completion of Construction:*** Developer shall complete construction of the Public Improvements no later than eighteen (18) months from the commencement of the construction, unless such completion date is extended for reasons beyond the reasonable control of Developer and Developer has obtained the Town's written consent to the extension.

2.7 ***Performance Guarantee***: To secure the construction, installation, improvement and completion of the Public Improvements, Developer shall furnish to the Town a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in a form approved by the Town in which the Town is designated as the beneficiary ("Performance Guarantee") in an amount equal to 110% of the cost of the improvements, which cost shall be certified by Developer's professional engineer licensed in the State of Colorado and approved by the Town. The Performance Guarantee shall be released after the Notice of Construction Acceptance has been provided for the Public Improvements and notice of approval has been provided for the Private Improvements. Notwithstanding the foregoing, the Lot 1 Owner may provide the Performance Guarantee solely with respect to the Phase I Public Improvements, and such Performance Guarantee shall be limited in amount to 110% of the cost of the Phase I Public Improvements. On the condition that the Lot 1 Owner provides the Performance Guarantee in the form acceptable to the Town, Developer shall not be required to provide a Performance Guarantee for the Phase I Public Improvements that are the subject of this Agreement.

3. Private Improvements

3.1 ***Pre-Construction:*** Prior to commencing construction of the Private Improvements, Developer shall submit a Development Plan to the Town. The Development Plan shall contain the proposed Private Improvements for the Development, including a plan for stormwater improvements, an irrigation system, landscaping and soil amendments, fencing, entry-way signage, street signs and posts, street lighting, parks, open space, trails and postal service boxes. Landscaping and fencing shall be designed in accordance with the Town's landscape guidelines. Construction of the Private Improvements shall not commence until the Town provides written notice of approval of the Development Plan. Developer shall not thereafter modify the approved Development Plan without the written approval of the Town. The Town's review and approval of the Development Plan shall not limit or affect Developer's

responsibility or liability for design, construction and installation of the Private Improvements, and Developer agrees to save and hold the Town harmless from any claims, fault or negligence attributable to such design, construction and installation, other than negligent designs which are required by the Town over Developer's written objection. In addition, Developer shall obtain all the requisite permits and licenses necessary for construction of the Private Improvements.

3.2 ***Construction of Private Improvements:*** Upon satisfaction of the conditions set forth in Paragraph 3.1, Developer shall construct the Private Improvements at its own expense in accordance with the terms of this Agreement, the Final Plat, the Resolution, the Development Plan, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. All landscaping services shall be performed by a professional landscape contractor. Certification of required soil amendment shall be signed by Developer and provided to the Town. Unless otherwise approved by the Town in writing, all materials used for constructing the Private Improvements shall be new and both workmanship and materials shall be of good quality.

3.3 ***Inspection***: At all times during construction and installation of the Private Improvements, the Town shall have the right, but not the duty, to inspect materials and workmanship, at Developer's cost. All materials and work must conform to the Development Plan. Any material or work not conforming to the Development Plan shall be promptly removed, repaired or replaced, at Developer's expense and to the satisfaction of the Town.

3.4 ***Completion of Private Improvements:*** Unless otherwise agreed in writing by the Town, the Private Improvements shall be completed no later than the date that the applicable Public Improvements are completed, unless such completion date is extended for reasons beyond the reasonable control of Developer and Developer has obtained the Town's written consent to the extension. The Town may, at its discretion, allow Developer to defer completion of the landscaping services between December 1 and March 1 of any given year provided that sufficient surety is provided to the Town. In addition, notwithstanding any other provision of this Agreement, the Town may provide written consent to Developer to defer completion of certain Private Improvements until a Site Development Plan is approved for each lot or at such later time as designated by the Town.

3.5 ***Replacement of Private Improvements:*** As replacement of the Private Improvements is necessary and warranted over time, including but not limited to decorative light fixtures, decorative street signs and all other decorative amenities in the Development, the Private Improvements shall be replaced by, as appropriate, the Developer, a homeowners or owners association or the District. The Town shall not be responsible for replacement of the Private Improvements.

4. **Dry-Utilities**

4.1 ***Utilities:*** Developer shall obtain all proper conveyances and arrangements for the installation and provision of the Dry Utilities to serve the Development. Developer shall provide

proof of such conveyances and arrangements to the Town, which proof may be in the form of contracts for such services, no later than the date that the Public Improvements are completed.

4.2 ***Easements:*** All easements approved by the utility companies shall be submitted to the Town.

ACCEPTANCE OF SUBDIVISION IMPROVEMENTS

5.1 ***Notice of Construction Acceptance***: Developer shall make written application to the Town for acceptance of the Public Improvements and for review of the Private Improvements, within thirty (30) days of the completion date of the Subdivision Improvements, with the exception of the improvements for which the Town has authorized an extension of time to complete. With respect to the Public Improvements, among other documents that may be required by the Town, the written application shall include one set of reproducible "as built" drawings and an affidavit executed by Developer affirming that the Public Improvements have been paid in full, certifying the final construction costs and including documentary evidence of the construction costs. If the Town requests, Developer shall provide lien waivers, or other acceptable assurance, from all subcontractors, suppliers and materialmen who have furnished labor, material or services for the design, construction or installation of the Subdivision Improvements. If the value of the work is less than $25,000, Developer may request a waiver from the Town Manager of the requirement to provide a lien waiver or other acceptable assurance. If the Town Manager agrees, the Town will provide written notice of such waiver. While the Town Manager retains sole discretion to agree to such waiver, the Town will not unreasonably withhold, condition, or delay its consent to such waiver or the issuance of such written notice. The affidavit and lien waivers may be reviewed by the Town, but the Town assumes no responsibility or liability to or for anyone regarding the veracity of the information so provided.

After the receipt of the written application, the Town shall use reasonable efforts to promptly inspect the Subdivision Improvements. If the Subdivision Improvements are satisfactory, Developer shall be entitled to a Notice of Construction Acceptance of the Public Improvements upon receipt of the Maintenance Guarantee and written approval of the Private Improvements. If the Subdivision Improvements are not satisfactory, the Town, upon coordination with Developer, shall prepare a punch list of all Subdivision Improvements that are not in compliance with the Approved Plans, subject to any changes that have been approved or required by the Town. After curing the defects and matters set forth on the punch list, Developer shall make a renewed written application to the Town for re-inspection of the Subdivision Improvements, which written application shall contain the items set forth above. The Town shall thereafter use reasonable efforts to promptly re-inspect the Subdivision Improvements. If the Subdivision Improvements are satisfactory, Developer shall be entitled to the issuance of a Notice of Construction Acceptance for the Public Improvements upon receipt of the Maintenance Guarantee and written approval of the Private Improvements.

5.2 ***Maintenance Guarantee.*** Prior to the issuance of the Notice of Construction Acceptance of the Public Improvements, Developer shall provide the Town with a maintenance

guarantee in the form of a cash escrow deposited with the Town, a bond in the form approved by the Town or an irrevocable letter of credit in a form approved by the Town in which the Town is designated as the beneficiary ("Maintenance Guarantee"). The Maintenance Guarantee shall equal fifteen percent (15%) of the total cost of the Public Improvements. The Maintenance Guarantee shall warrant and guarantee all expenses and costs for maintenance, repairs and replacements of the Public Improvements until Final Acceptance. The Maintenance Guarantee shall be released after Final Acceptance of all of the Public Improvements. The Maintenance Guarantee may also be used to ensure that the installed landscaping, a Private Improvement, is satisfactorily established during the period between the issuance of the Notice of Construction Acceptance and Final Acceptance of the Public Improvements. Notwithstanding that the Lot 1 Owner may provide the Performance Guarantee and construct the Public Improvements, Developer shall remain solely responsible for providing the Maintenance Guarantee for the Public Improvements.

5.3 ***Delivery of Notice of Construction Acceptance.*** Upon satisfaction of the conditions set forth above in Paragraphs 5.1 and 5.2, the Town shall provide written Notice of Construction Acceptance of the Public Improvements and written approval of the Private Improvements to Developer. At its discretion, the Town may issue a written Notice of Construction Acceptance of the Public Improvements and written approval of the Private Improvements prior to completion of all the Subdivision Improvements as long as the Performance Guarantee remains in effect for such uncompleted Subdivision Improvements. In which case, at the Town's discretion, Developer may be entitled to obtain building permits prior to completion of all the Subdivision Improvements, assuming satisfaction of the remaining terms of this Agreement and based on conditions otherwise set forth herein.

5.4 ***Maintenance, Repair and Replacement***: Until Final Acceptance, Developer shall warrant the Public Improvements. Developer shall promptly perform all maintenance and make all repairs and replacements of all defects or failures of the Public Improvements at Developer's expense and shall ensure that the installed landscaping is established. If, within ten (10) days after Developer's receipt of written notice from the Town requesting such maintenance, repairs or replacements, Developer shall not have undertaken with due diligence to make the same, the Town may make such maintenance, repairs or replacements at Developer's expense and shall be entitled to draw upon the Maintenance Guarantee, either before undertaking to make such repairs or at any time thereafter, or the Town may charge Developer for the costs thereof. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or the issuers of the Maintenance Guarantee. Notwithstanding the foregoing, the Town may, at its discretion and upon written advisement to Developer, be responsible for routine maintenance of the Public Improvements (street sweeping, snow removal, etc.).

5.5 ***Final Acceptance***: Two (2) years after the Town's issuance of the Notice of Construction Acceptance, which time period may be extended at the Town's discretion due to remedial or repair work that may be required by the Town during the first two (2) years, Developer shall make a written request to the Town for final inspection of the Public Improvements and for inspection of the landscaping. If the Town determines that the Public

Improvements and the landscaping are free of defects in materials and workmanship and have been repaired and maintained to the extent required, the Town shall provide certification of completion by issuance of a Notice of Final Acceptance of the Public Improvements and written approval of the landscaping. If the Town determines that the Public Improvements and/or the landscaping are not free of defects in materials and workmanship and have not been repaired and maintained to the extent required, the Town shall issue a written notice of non-compliance specifying the defects. Developer shall take such action as is necessary to cure the noncompliance and, upon curing the same, provide a new written request to the Town for a final inspection of the Public Improvements and/or the landscaping. Failure of the Developer to make a timely request for the issuance of a Notice of Final Acceptance shall not limit the Town's rights hereunder nor shall it limit the Town's right to utilize the Public Improvements as the Town deems appropriate.

Upon issuance of the Notice of Final Acceptance, the Maintenance Guarantee shall be released to Developer, and the Town shall thereafter maintain the Public Improvements dedicated to the Town. Notice of Final Acceptance and all releases may be recorded by Developer at the office of the Larimer County Clerk and Recorder.

5.6 ***Homeowners or Owners Association or Metropolitan District:*** Prior to issuance of the Notice of Final Acceptance and prior to the sale of lots in the Development, Developer shall establish a homeowners or owners association for the Development or shall delegate covenant enforcement and design review services to the District.

5.7 ***Landscape Verification:*** The landscaping set forth in the Development Plan shall be inspected and verified, upon completion, by the landscape professional(s) who created the plan. A letter from said professional shall be submitted to the Town verifying that the landscaping and irrigation were installed pursuant to the approved landscape plan. If the design professional(s) who created the landscape plan is no longer in business at the time of landscape installation, Developer shall contract with a licensed landscape architect to complete the inspection and submit the verification letter.

5.8 ***Dedication and Maintenance of Subdivision Improvements:*** Unless otherwise agreed by the Town and Developer: (1) the Public Improvements shall be owned, operated and maintained by the Town; (2) the Private Improvements shall be owned, operated and maintained by the Developer, a homeowners or owners association or the District; and (3) the Dry Utilities shall be owned, operated and maintained, as appropriate and otherwise authorized, by the Developer, a homeowners or owners association, or the appropriate public utility company.

WATER AND SEWER SERVICE

6.1 On or before approval of a Site Development Plan for each lot on the Property, the Town and Developer or the owner of the subject lot shall enter into a Water and Sewer Service Agreement setting forth their agreement concerning water rights dedication, preliminary projections of water and sewer demand and a commitment by the Town for water and sewer

service to the Development. The Water and Sewer Service Agreement, whenever executed, shall be incorporated into this Agreement and made a part hereof.

6.2 If the Developer hereinafter desires to utilize a non-potable water system to irrigate the Property, or any part thereof, the Town and Developer shall enter into a subsequent agreement regarding such system and, if appropriate, amend the Water and Sewer Service Agreement.

6.3 The District shall own and maintain public stormwater infrastructure for the Development, subject to acquisition of such stormwater infrastructure from the Developer by the District in accordance with the terms and conditions of that certain Infrastructure Acquisition and Project Fund Disbursement Agreement between Developer and the District dated December 5, 2024, or a similar successor agreement that the District and Developer have agreed to (the "Acquisition Agreement"). Developer or the District, as appropriate, shall provide the Town with a proposed operations and maintenance manual for the stormwater infrastructure for review and approval concurrently with the Civil Engineering Construction Plans. Upon approval, Developer or the District shall execute an operations and maintenance agreement with the Town addressing, among other issues, notification and remedies related to the operations, maintenance and repair of the stormwater infrastructure, including the Town's right to invoice Developer or the District, as appropriate, for repairs not completed by Developer or the District, as appropriate, which will include the Town's actual cost and an administrative fee. The operations and maintenance agreement shall be executed prior to issuance of the Notice of Construction Acceptance. If the District does not acquire the stormwater infrastructure from the Developer as contemplated herein, the Developer shall be and remain responsible for the obligations set forth above.

BUILDING PERMITS

7.1 The Town shall not issue a certificate of occupancy for Lot 1 of the Development 1 or building permits for any other Lot on the Development until: (1) the Final Plat has been recorded with the Larimer County Clerk and Recorder; (2) Developer has paid all applicable use tax due and owing to the Town and all other fees required by the Town, including but not limited to water and tap fees, impact fees, storm drainage fees and cash-in-lieu payments due, if any, to the Thompson School District R2-J; (3) Developer has received written notice of Notice of Construction Acceptance of the Public Improvements and written notice of approval of the Private Improvements, with the exception of the improvements for which the Town has authorized an extension of time to complete; (4) Developer has provided the Maintenance Guarantee; (5) meter and curb stop pass inspection; (6) Developer or the District, as appropriate, has executed the operations and maintenance agreement related to the stormwater infrastructure; and (7) all terms of this Agreement have been faithfully kept by Developer. In addition, on or before approval of a Site Development Plan for each lot on the Property, Developer, or the owner of the lot, shall have entered into a Water and Sewer Service Agreement for the lot, except that, with respect to Lot 1 of the Development, the Town agrees to defer the requirement to enter into a Water and Sewer Service Agreement up until, but prior to, the issuance of a certificate of occupancy for Lot 1.

7.2 Notwithstanding the foregoing, the Town may, at its sole discretion, issue building permits prior to completion of certain of the less critical Subdivision Improvements, as determined by the Town, on the condition that the Performance Guarantee remains in effect and such improvements be completed prior to the issuance of certificates of occupancy.

7.3 If at any time the Town determines that Developer is not in compliance with this Agreement, the Final Plat, the Resolution or the Approved Plans, the Town may, withhold the issuance of building permits after Notice to Developer pursuant to Paragraph 11.1, below.

OPERATION STANDARDS

8.1 Construction activity shall occur only during the times set forth in the Code.

8.2 Developer shall control all weeds growing within the Development. Prior to the commencement of construction, Developer shall provide a weed management plan to the Town, outlining the manner and frequency in which the weeds shall be controlled. The Town shall have the right to object to the weed management plan. Developer further agrees to use the appropriate herbicide and undertake mowing of the property within the Development. If, at the Town's sole determination, Developer does not control the weeds in or properly mow the Property, the Town may provide Developer with three (3) days written notice to cure the breach, which time period may be extended in writing by the Town Manager for good cause. If the breach is not cured, at the Town's sole determination, the Town shall issue a stop work order on all construction in the Development. The Town or Developer shall thereafter mitigate the nuisance by taking measures to control the weeds or mow the Property. If the Town mitigates the nuisance, upon fifteen (15) days of receipt of an invoice from the Town, Developer shall pay the invoice for services rendered, which will include the actual costs and a ten percent (10%) administrative fee. The stop order will be released, if one had been issued, upon Developer's payment of the invoice. If the Developer mitigates the nuisance, the stop order will be released upon a Town inspection and determination the nuisance has been mitigated.

8.3 Developer shall, at all times, keep the public right-of-way free from accumulation of waste material, rubbish, dirt and mud caused by Developer's operation. Developer shall remove such waste material, rubbish, dirt and mud no less than weekly and, at the completion of the work, shall promptly remove all debris waste materials, rubbish, dirt, mud, tools, construction equipment, machinery, building materials, trash containers, and portable toilets from the public right-of-way.

8.4 Whenever the Town determines that any activity is occurring which is not in compliance with the requirements of any federal or state regulations applicable to water quality or stormwater control, the Town may order all construction activity stopped upon service of written notice. Developer, or its contractors, shall immediately stop all activity until authorized in writing by the Town to proceed. If Developer or a responsible party is not on the site or cannot be located, the notice to stop work shall be posted in a conspicuous place upon the area

where the activity is occurring and shall state the nature of the violation. It shall be unlawful for any person to fail to comply with a stop work order.

8.5 In the event that Developer fails to perform the work specified in Paragraphs 8.2, 8.3 or 8.4 within a reasonable time period after receiving written notice from the Town, as determined by the Town, the Town may, in addition to other remedies, including those set forth in Paragraph 7.3, perform the work required and charge Developer for said cost. Developer shall pay the Town for all costs incurred by the Town in the performance of the above said service within ten (10) days of the Town submitting an invoice for said services. If Developer does not remit the costs, in addition to other remedies, the Town may draw on the Performance Guarantee or Maintenance Guarantee.

8.6 Developer shall ensure that Developer's subcontractors cooperate with the Town's construction inspectors in all manners. Developer shall take all steps necessary to prevent its construction activities from damaging adjacent properties.

DEVELOPMENT STANDARDS

9.1 Developer shall comply with the requirements contained in the applicable annexation agreement and any other duly executed agreement with the Town related to the Property, except as specifically amended by this Agreement.

9.2 Except as otherwise provided in this Agreement, the Final Plat, the Resolution or Approved Plans, Developer shall comply with the Code, the Town's zoning ordinances, subdivision regulations, landscape guidelines and construction standards and specifications and the Johnstown Design Guidelines or, if operative with respect to the Development, the approved design guidelines.

9.3 Developer shall dedicate all outlots and tracts containing open space, park areas, and trails to the District, subject to acquisition of such outlots and tracts from the Developer by the District in accordance with the terms and conditions of the Acquisition Agreement. The open spaces, parks, and trails shall be available for public use.

9.4 Upon completion of construction, Developer shall provide complete construction drawings and final as-built drawings to the Town in print and digital form, in a manner that conforms to the Town's format and content requirements.

9.5 Developer shall take all necessary steps to prevent its construction activities from harming water quality, water bodies and wetlands. All drainage and holding ponds shall be kept free of standing water by whatever means possible including, but not limited to, pumping water out of any holding ponds.

LIABILITY, INSURANCE AND COST REIMBURSEMENT

10.1 ***Indemnification***: Developer hereby agrees to indemnify and hold the Town, its employees, agents, representatives, insurers and self insurance pool harmless from and against any and all suits, demands, actions, damages, liability, losses, claims, fees and expenses, including attorney's fees, resulting or arising in any way from any breach or default of this Agreement or any acts or omissions of Developer, its employees, agents, consultants, representatives or subcontractors, except to the extent caused by gross negligence or willful misconduct of the Town. Developer shall promptly investigate, handle, respond to, and provide defense for and defend against any such liability, claims or demands at the sole expense of Developer. Developer also agrees to bear all costs, expenses and attorney's fees related thereto whether or not such liability, claims or demands are groundless, false or fraudulent.

10.2 ***Insurance:*** Developer shall for itself and for its contractors, subcontractors, representatives and agents engaged in the design, construction or installation of the Public Improvements and Private Improvements maintain such liability insurance including general liability, contractors liability, professional liability, comprehensive automobile liability and sufficient public liability insurance as will protect the Town, its employees, agents and representatives against any and all potential liability, claims, damage, demands, losses, and expenses which may be incurred or asserted pursuant to Paragraph 10.1 above. Liability insurance shall be in the minimum amount of One Million Dollars ($1,000,000.00) per occurrence and Two Million Dollars ($2,000,000.00) aggregate, or such greater amounts as may be established by the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as may be amended. Developer shall list the Town, its officers, employees, agents and representatives, as additional insureds on such liability policies. Whenever requested by the Town, Developer agrees to promptly submit certificates of insurance evidencing sufficient amounts, types and duration of insurance and showing the Town, its officers, employees, agents and representatives, as additional insureds. Developer shall not be relieved of any liability, claims, demands or other obligations assumed or set forth in this Development Agreement by reason of its failure to procure or maintain such insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations or types. In addition to the insurance specified above, Developer shall maintain workers compensation insurance, if so required by law, and shall require its contractors, subcontractors, representatives and agents engaged in the design, construction or installation of improvements to maintain workers compensation insurance in the amount required by law.

10.3 ***Drainage Liability***: Developer shall indemnify and hold the Town harmless from any liability the Town may have on account of any change in the nature, direction, quantity, or quality of drainage flow resulting from the Development. In addition, Developer shall reimburse the Town for any and all costs, fees, and expenses, including attorney's fees, which the Town incurs in acquiring any rights-of-way or easements which the Town is required to acquire or condemn or which the Town is held to have acquired or condemned for drainage as a result of this Development. This provision shall survive Final Acceptance and the termination of this Agreement.

10.4 ***Tax Liability***: Developer shall pay all outstanding taxes, encumbrances or obligations on any property dedicated or conveyed to the Town prior to or at the time of such dedication or conveyance, and shall indemnify and hold the Town harmless from any and all encumbrances, obligations or tax liability incurred prior to the dedication or conveyance to the Town.

10.5 ***Use Tax***: Developer shall pay all applicable use tax due and owing to the Town prior to the commencement of construction.

10.5 ***Cost Reimbursement to Town***: Developer shall reimburse the Town for professional consultants, including, but not limited to engineers, testing and inspection companies and attorneys, engaged by the Town to process and complete the Development.

10.6 ***Colorado Governmental Immunity Act:*** Nothing in this Agreement shall be construed to waive, limit or otherwise modify any governmental immunity that may be available by the law to the Town, its employees, or agents, or any other person acting on behalf of the Town and, in particular, the governmental immunity afforded pursuant to the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as amended. Similarly, nothing in this Agreement shall be construed to waive, limit or otherwise modify any governmental immunity that may be available by the law to the District, its employees, or agents, or any other person acting on behalf of the District and, in particular, the governmental immunity afforded pursuant to the Colorado Governmental Immunity Act, §§ 24-10-101 *et seq.*, C.R.S., as amended.

DEFAULTS AND REMEDIES

11.1 A default by Developer shall exist if Developer fails to fulfill or perform any material obligation contained in this Agreement, the Final Plat, the Resolution, or the Approved Plans, or Developer fails to comply with the Town's ordinances, resolutions and regulations and all other applicable laws and regulations. In the event of a default, the Town shall deliver written notice to Developer of such default and Developer shall have ten (10) days from receipt of such notice to cure the default. If the default is not of a type that may be cured within such ten (10) day period, Developer may provide written notice to the Town within such period that it is actively and diligently pursuing such cure and Developer shall thereafter have a reasonable time to cure the default, provided that Developer is at all times within that extended period actively and diligently pursuing a cure. In case of emergency, as determined by the Town, such written notice shall be deemed waived and the Town may proceed as it deems necessary at the expense of Developer or the issuers of the Performance Guarantee or Maintenance Guarantee.

11.2 If the default relates to the improvement secured by the Performance Guarantee and the default is not timely cured, the Town may draw on the Performance Guarantee. If the default arises subsequent to the issuance of the Notice of Construction Acceptance and the default is not timely cured, the Town may draw on the Maintenance Guarantee. In addition, and without limitation, if the default is not timely cured, the Town may withhold approval of any or

all building permits, certificates of occupancy, water meters or tap hook-ups for any area within the Development. Notwithstanding these rights and remedies, the Town may pursue whatever additional remedies it may have against Developer or anyone, either at law, equity or pursuant to this Agreement. The Town's remedies shall be cumulative.

11.3 If, after commencement of construction of the Public Improvements, Developer shall default in any obligation under this Agreement beyond any applicable notice and cure period, the Town may, at its discretion, complete such Public Improvements at Developer's expense, subject, however, to the Town first drawing upon and exhausting the Performance Guarantee or Maintenance Guarantee, as applicable, to the extent available for such work. The Town shall estimate the cost of such improvements and give notice to Developer to pay such cost estimate. The Town shall use such payment for said improvements and refund any money collected in excess of the actual cost of said improvements. Should payment not be made within thirty (30) days of such notice, and after the applicable Performance Guarantee or Maintenance Guarantee has been fully exhausted, the Town may assess the amount of the cost estimate, plus ten percent (10%) to defray the cost of collection as provided by state law, to the Property and file a lien against the Property, such lien to have priority over all liens except general taxes and prior special assessments and be placed upon the tax list for the current year to be collected in the same manner as taxes are collected. Subject to the foregoing, the Town may file such lien at any time after said thirty (30) days while Developer is in default of this Agreement.

SPECIAL PROVISIONS

12.1 The additional terms, conditions or provisions relating to the Development are set forth in **Exhibit B-3**, which is attached hereto, incorporated herein by this reference, and made a part of this Agreement.

MISCELLANEOUS

13.1 ***No Waiver***: Delays in enforcement or the waiver of any one or more breaches of this Agreement by the Town shall not constitute a waiver of any of the remaining terms or obligations.

13.2 ***Severability***: If any provisions or parts of this Agreement are judged to be unenforceable or invalid, to the extent practicable, such judgment shall not affect, impair or invalidate the remaining parts of this Agreement, the intention being that the various parts and provisions hereof are severable.

13.3 ***Recording of Agreement***: This Agreement shall be recorded with the approved Final Plat and shall be a covenant running with and against all the Property, property rights and improvements contained within the Development described in **Exhibit A** in order to put prospective owners, purchasers, successors, assigns, and others acquiring any interest in the property on notice as to the terms and obligations herein. No lots, tracts or parcels may be separately conveyed prior to recording the Agreement and the Final Plat.

13.4 ***Binding Effect***: Unless otherwise provided herein, this Agreement shall be binding upon Developer's heirs, successors, assigns, transferees and any other person or entity acquiring or purchasing any interest in any of the Property described in the attached **Exhibit A**, with the exception of a bona fide residential home buyer of a completed owner-occupied home.

13.5 ***Transfer or Assignments***: In the event of a sale or transfer of any portion of the Development, except to a bona fide residential home buyer of a completed owner-occupied home, the seller or transferor and the purchaser or transferee shall be jointly and severally liable for the performance of each of the obligations contained in this Agreement unless, prior to the transfer or the sale, a written agreement satisfactory to the Town delineating and allocating the various rights and obligations for the Subdivision Improvements has been approved and executed by the Town. The Town hereby approves the allocation of obligations set forth in any recorded joinder agreement and associated exhibit, including, with respect to Lot 1, **Exhibit C**. The scope of the liability of the purchaser or transferee may be set forth in the joinder.

13.6 ***Title and Authority***: Developer expressly warrants and represents to the Town that it is the record owner of the Property and further represents and warrants that the undersigned has full power and authority to enter into this Agreement. Developer understands that the Town is relying on the representations and warranties contained herein in approving in entering into this Agreement.

13.7 ***Notice:*** All notices, consents, applications or other instruments provided for under this Agreement shall be deemed properly given and received: (1) when personally delivered and received, when sent by messenger service, or when forwarded by electronic mail delivery, but only upon confirmation of receipt of such electronic mail; (2) on the next day after deposit for delivery with a nationally-recognized overnight courier service; or (3) three business days after deposit in the United States mail, by certified mail with return receipt requested, postage prepaid and addressed as follows:

TO DEVELOPER:

Ridge II HoldCo, LLC
Attention: ROY BADE
Copy: COURTNEY CRUMP
8901 E. Mountain View Rd, Ste 150
Scottsdale, AZ 85258
Email: Roy.Bade@caliberco.com
Email: Courtney.Crump@caliberco.com

TO TOWN:

Town of Johnstown
Attention: Town Manager
450 So. Parish
P. O. Box 609
Johnstown, CO 80534

Email: notices@johnstownco.gov;
mlecerf@johnstownco.gov

TO THE DISTRICT:

Ridge at Johnstown Metropolitan District No. 1
c/o Public Alliance, LLC
405 Urban St,
Lakewood, CO 80228
Phone: 720-213-6621
E-mail: contact@publicalliancellc.com

WITH A COPY TO:

WBA, PC
2154 E. Commons Ave., Suite 2000
Centennial, CO 80122
Attention: Robert G. Rogers, Esq.
Phone: (303) 858-1800
E-mail: rrogers@wbapc.com

13.8 ***Costs and Attorney Fees.*** If any judicial proceedings may hereafter be brought related to this Agreement, the Town, if the prevailing party, shall be entitled to recover the costs of such proceedings, including reasonable attorney's fees and reasonable expert witness fees.

13.9 ***Vested Right.*** The Final Plat shall have vested rights for a period of three (3) years from the date of this Agreement. If, after such time, no reasonable and substantial efforts have commenced to construct the Subdivision Improvements, as determined by the Town at its sole discretion, said plat may be vacated by action of the Town.

13.10 ***Responsible Agency Comments and Conditions.*** Any written comment or condition received from any responsible agency who participates in the review of the Subdivision Improvements shall, unless otherwise agreed by the Town in writing, be satisfied prior to the issuance of any building permits for the applicable phase of the Development. Responsible agencies may include, to the extent such agencies have jurisdiction and to the extent the Town elects to request or require such agency review, but are not limited to, the following:

a. Front Range Fire Rescue Fire Protection District or Loveland Fire Rescue Authority
b. Town Review Engineers – IMEG Corporation
c. Town Traffic Engineers – Felsburg Holt & Ullevig, Inc.
d. Town Water Modeling Engineers – JUB Engineers, Inc.
e. Town Water Engineers – Helton & Williamsen, P.C.
f. Little Thompson Water District
g. Larimer County
h. Weld County
i. Colorado Department of Transportation

13.11 ***Warranty of Developer:*** Developer warrants that the Subdivision Improvements shall be installed in a good and workmanlike manner and in compliance with the Approved Plans, this Agreement, the Final Plat, the Resolution, the Town's ordinances, resolutions and regulations and all other applicable laws and regulations and shall be substantially free of any defects in materials and workmanship.

13.12 ***Governing Law and Venue***. This Agreement and the interpretation thereof shall be governed by the laws of the State of Colorado and Municipal Code of the Town of Johnstown. Venue for any claim, proceeding or action arising out of this Agreement shall be in the County of Larimer, State of Colorado.

13.13 ***No Presumption.*** Each party acknowledges that it has obtained, or has had the opportunity to obtain, the advice of legal counsel of its own choosing in connection with the negotiation and execution of this Agreement and with respect to all matters set forth herein. In the event of any dispute, disagreement or controversy arising from this Agreement, the parties shall be considered joint authors and no provision shall be interpreted against any party because of authorship.

13.14 ***Entire Agreement.*** This Agreement constitutes the entire agreement and understanding between the parties concerning the subject matter contained herein and supersedes all prior agreements or understandings related to the subject matter of this Agreement. Except as expressly modified by this Agreement, the Original SDIA and the applicable annexation agreement shall remain in full force and effect. Any amendment to this Agreement must be in writing and signed by the parties.

13.15 ***Compliance with the Law***. Developer shall comply with all federal, state and local laws and regulations in the performance of the obligations under this Agreement.

13.16 ***No Third-Party Beneficiaries.*** No person or entity, other than a party to this Agreement, shall have any right of action under this Agreement including, but not limited to, lenders, lot or home buyers, materialmen, laborers or others providing work, services or materials for the Subdivision Improvements shall not have any right of action under this Agreement.

13.17 ***Force Majeure.*** Neither party shall be liable for a failure to perform hereunder if such failure is the result of force majeure, which shall mean causes beyond the reasonable control of a party such as acts of God, labor strikes, war, terrorism, fire, pandemic or epidemic or action or inaction of government authorities.

13.18 ***Headings.*** The paragraph headings herein are for the convenience and reference of the parties and are not intended to define or limit the scope or intent of this Agreement.

13.19 ***Subject to District's Annual Appropriation and Budget.*** The District does not intend hereby to create a multiple-fiscal year direct or indirect debt or other financial obligation whatsoever. The obligations of the District under this Agreement are subject to annual budgeting and appropriations, and Developer and the Town expressly understand and agree that the decision whether or not to budget and appropriate funds is within the discretion of the District's governing body, and the obligations of the District shall extend only to monies appropriated for the purposes of this Agreement and shall not constitute a mandatory charge, requirement or liability in any ensuing fiscal year beyond the then-current fiscal year. If the District fails to budget and appropriate sufficient funds to satisfy the District's obligations that are set forth in this Agreement, the Developer, or, if the Developer is no longer a viable legal entity, the lot owners collectively, shall be obligated to satisfy such obligations or establish an owners' association to undertake such obligations.

IN WITNESS WHEREOF, and agreeing to be fully bound by the terms of this Agreement, the parties have set their hands below on this 19th day of February, 2026.

RIDGE II HOLDCO, LLC, a Delaware limited liability company

By: _____
Name: Roy Bade
Its: Authorized Signatory

STATE OF ~~COLORADO~~ Arizona)
) ss.
COUNTY OF Maricopa)

SUBSCRIBED AND SWORN to before me this 19th day of February, 2026, by Roy Bade, as Authorized Signatory of Ridge II HoldCo, LLC.

WITNESS my hand and official seal.

My commission expires: 3/7/2028

OFFICIAL SEAL
SOFIE JAKELIS
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
COMM# 665360
My Comm. Expires March 7, 2028

_____
Notary Public

Ridge at Johnstown Metropolitan District No. 1

By: _____
Mark Hunter, President

STATE OF COLORADO)
)ss.
COUNTY OF BOULDER)

SUBSCRIBED AND SWORN to before me this ___ day of _____ 2026, by Mark Hunter, President, Ridge at Johnstown Metropolitan District No. 1.

WITNESS my hand and official seal.

_____
Notary Public

My commission expires: _____

Attest: _____

STATE OF COLORADO)
)ss.
COUNTY OF _____)

SUBSCRIBED AND SWORN to before me this ___ day of _____ 2026, by Ryan Schaeffer, Secretary, Ridge at Johnstown Metropolitan District No. 1.

WITNESS my hand and official seal.

_____
Notary Public

My commission expires: _____

TOWN OF JOHNSTOWN, COLORADO
a municipal corporation

By: _____
Michael P. Duncan, Mayor

ATTEST:

By: _____
Meghan Martinez, Town Clerk

SUBDIVISION DEVELOPMENT AND IMPROVEMENT AGREEMENT
FOR
THE TOWN OF JOHNSTOWN
(North Ridge Subdivision, Filing No. 2)

EXHIBITS

TABLE OF CONTENTS

EXHIBIT A:	Legal Description of the Property
EXHIBIT B-1:	Copy of Final Plat
EXHIBIT B-2:	Town Resolution Approving Development
EXHIBIT B-3:	Additional Terms, Conditions or Provisions
EXHIBIT C:	Engineer's Opinion of Costs - Public Improvements
EXHIBIT D:	Development Signs

EXHIBIT A
LEGAL DESCRIPTION
(Property)

A parcel of land situated in the Southeast Quarter of Section Twenty-two (22), Township Five North (T.5N.), Range Sixty-eight West (R.68W.) of the Sixth Principal Meridian (6th P.M.), Town of Johnstown, County of Weld, State of Colorado, and being more particularly described as follows:

Tract A and Lot 2, North Ridge Subdivision as recorded January 13, 2023 at Reception No. 20230001573 of the Larimer County Clerk & Recorder.

Said parcel contains 615,698 square feet or 14.134 acres more or less.

EXHIBIT B-1

PLAT

(SEE ATTACHED)

EXHIBIT B-2

(RESOLUTION APPROVING PLAT)

(SEE ATTACHED)

EXHIBIT B-3

ADDITIONAL TERMS, CONDITIONS OR PROVISIONS

1. All required Public Improvements for the Development and the drainage associated with each lot shall be completed and accepted by the Town prior to the issuance of a building permit, except that, with respect to Lot 1, upon approval of the Approved Lot 1 SDP, the Town agrees to issue a building permit prior to completion of the Public Improvements for the Development and the drainage for such lot, but shall not issue a Certificate of Occupancy for Lot 1 until the Phase I Subdivision Improvements are completed.

2. Developer is responsible for coordinating with all relevant agencies to obtain the necessary approvals and permits for any Public Improvement crossings in or associated with the Development. Proposed crossing agreements associated with public infrastructure shall be submitted to the Town for review prior to execution. Once approved by the Town, executed by the parties and recorded, the recorded crossing agreements shall be provided to the Town. The agencies include, but are not limited to, the Colorado Department of Transportation and the Gard Lateral Ditch Company. Upon information and belief, a crossing agreement or other agreement with the Gard Lateral Ditch Company is not required for the Phase I Subdivision Improvements.

3. As part of the Original SDIA concerning the North Ridge Subdivision, an interim pond, Pond 1N, was constructed at the southeast corner of Lot 6. In conjunction with any site-specific development plan for Lot 6 and prior to the issuance of a Certificate of Occupancy for Lot 6, a full-spectrum detention pond, in the form and manner approved by the Town, shall be designed and constructed and approved by the Town.

4. For purposes of clarity, and notwithstanding anything herein to the contrary, except for the Phase I Subdivision Improvements that are the subject of this Agreement, there shall be no obligation hereunder to commence or complete installation of any Subdivision Improvements, Public Improvements or otherwise, for the Development unless and until an application for development of the remaining five lots is submitted to the Town.

5. The Lot 1 Owner shall be responsible only for the construction of the Phase I Subdivision Improvements identified in **Exhibit C** and the Approved Lot 1 SDP. Approval of site development plans for other lots may impose additional requirements applicable solely to such lots.

6. The Town hereby approves, and acknowledges as permitted modifications to the North Ridge Design Guidelines, the construction by Lot 1 Owner of: (i) one pylon sign up to fifty feet (50') in height along I-25; and (ii) two additional monument signs, in each case at the locations set forth in **Exhibit D** attached hereto and incorporated herein by this reference (collectively, the "Development Signs"), which benefit the Development, and further acknowledges that the Development Signs comply with the Town's applicable signage criteria.

Such approval constitutes final approval of the Development Signs under the North Ridge Design Guidelines, and no further discretionary approvals, design review, or guideline modifications shall be required, except for ministerial permit review for compliance with applicable building, electrical, and life-safety codes. The owners of the lots served by the Development Signs shall be responsible for the maintenance of such signs pursuant to a separate written agreement to be executed prior to the issuance of a certificate of occupancy for Lot 1 and shall, within a reasonable time after execution, provide a copy of such agreement, as well as amendments, if any, to such agreement, to the Town.

In consideration of such approval, Developer shall construct a pedestrian plaza containing approximately six hundred (600) square feet on the first to be developed of Lot 3 or Lot 4 of the Development, no later than five (5) years after execution of this Agreement, which time frame may be extended by the Town Manager in writing. The design and location of the pedestrian plaza may be modified upon mutual agreement of the Town and Developer, provided the plaza includes benches, lighting, irrigated landscaping with at least three (3) shade trees, and public art provided by the Town at its sole cost. Prior to completion of the pedestrian plaza, Developer shall convey a public access easement, in a form approved by the Town, allowing public access to the pedestrian plaza. The District shall be responsible for operation and maintenance of the pedestrian plaza, subject to acquisition of such pedestrian plaza from Developer by the District in accordance with the terms and conditions of the Acquisition Agreement.

EXHIBIT C

ENGINEER'S OPINION OF COST – PUBLIC IMPROVEMENTS
(PHASE I SUBDIVISION IMPROVEMENTS)
(2 PAGES ATTACHED)

This **Exhibit C** identifies the Public Improvements to be constructed by the Lot 1 Owner as a part of the initial development of the Property, and, except as may be provided in the Approved Lot SDP, no other Subdivision Improvements shall be required to be constructed and no other Subdivision Improvements shall be required to be constructed pursuant to this Agreement.

The Lot 1 Owner shall have no obligation to construct any improvements not expressly identified in this **Exhibit C** and in the Approved Lot 1 SDP. Additional or modified improvements required in connection with the approval of site development plans for other lots within the Development shall be the responsibility of the owner of the applicable lot.

EXHIBIT C
ENGINEER'S OPINION OF PROBABLE COST
7-ELEVEN AT NORTH RIDGE - PUBLIC IMPROVEMENTS

This estimate is prepared as a guide and is subject to possible changes. It has been prepared to a standard of accuracy that, to the best of our knowledge and judgment, is sufficient to satisfy our understanding of the purpose of this estimate. K2 Civil Consultants makes no warranty, either expressed or implied, as to the accuracy of this estimate.

EROSION CONTROL	Quantity	Unit Price	Unit	Unit Cost	Subtotal	Comments/Assumptions
Concrete Washout	1	$900.00	EA	$900.00		
Construction Fence	1,420.00	$2.00	LF	$2,840.00		
Rock Socks	17	$4.50	EA	$76.50		
Inlet Protection	13	$100.00	EA	$1,300.00		
Sediment Basin	1	$3,000.00	EA	$3,000.00		
Silt Fence	1,395	$1.10	LF	$1,534.50		
Erosion Control Blanket	120	$2.30	SY	$276.00		
Temporary Seeding	1.70	$144.00	AC	$244.80		
Stabilized Construction Entrance - VTC	1	$2,500.00	EA	$2,500.00		
Stabilized Staging Area	1	$1,500.00	EA	$1,500.00		
SUBTOTAL					$14,171.80	

WATER SERVICE	Quantity	Unit Price	Unit	Unit Cost	Subtotal	Comments/Assumptions
Connection to Existing Water Main	2	$750.00	EA	$1,500.00		
Water Main 6" Pipe (C-900/DI)	50	$42.00	LF	$2,100.00		
Water Main 8" Pipe (C-900/DI)	1,560	$45.00	LF	$70,200.00		
6" Gate Valve	2	$750.00	EA	$1,500.00		
8" Gate Valve	10	$1,250.00	EA	$12,500.00		
Bends and Fittings (6" to 12" main)	15	$750.00	EA	$11,250.00		
Fire Hydrants	2	$5,850.00	EA	$11,700.00		
Air-VAC with Manhole	1	$3,000.00	EA	$3,000.00		
2" Blow off Valve	2	$800.00	EA	$1,600.00		
SUBTOTAL					$115,350.00	

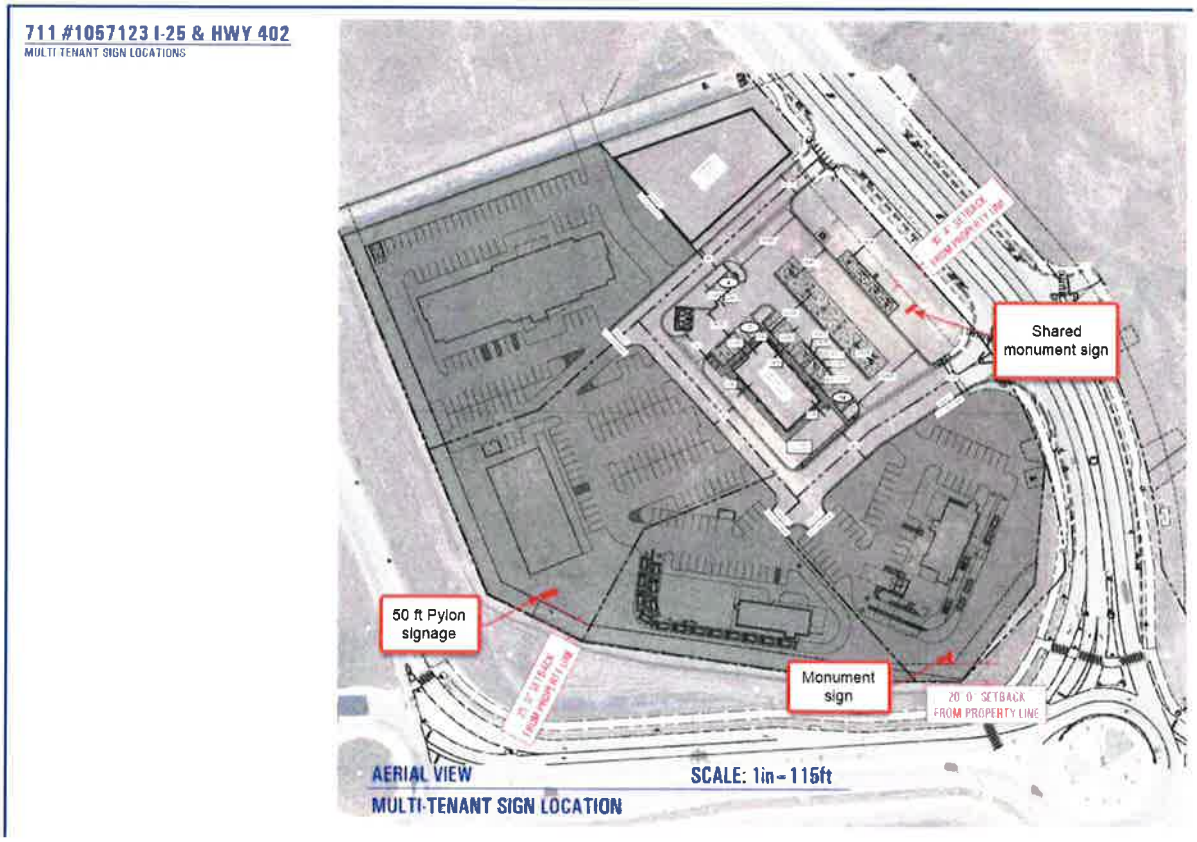
SANITARY SEWER SERVICE	Quantity	Unit Price	Unit	Unit Cost	Subtotal	Comments/Assumptions
Sewer Line 8" Pipe Main (PVC - SDR 35)	945	$45.00	LF	$42,525.00		
Manhole - 4' diameter	3	$5,000.00	EA	$15,000.00		
Manhole - 5' diameter with Intermediate Platform	2	$8,500.00	EA	$17,000.00		
New San. Main connection to Existing Main MH	1	$3,500.00	EA	$3,500.00		
SUBTOTAL					$78,025.00	

7-ELEVEN AT NORTH RIDGE - PUBLIC IMPROVEMENTS Summation			$207,546.80
Contingency	10%		$20,754.68
Subtotal			$228,301.48
Project Grand Total			**$228,301**



EXHIBIT D

DEVELOPMENT SIGNS



LIMITED JOINDER AGREEMENT
(North Ridge Subdivision, Filing No. 2)

This Limited Joinder Agreement (this "Joinder") is made and entered into as of February 19, 2026, by and among the **Town of Johnstown, Colorado**, a Colorado home rule municipal corporation (the "Town"), **Ridge II HoldCo, LLC**, a Delaware limited liability company ("Developer" or "Ridge II"), and **SW DEV STNL HWY 402 & I25 LLC**, a Delaware limited liability company ("Lot 1 Owner").

RECITALS

A. The Town and Developer have entered into that certain Subdivision Development and Improvement Agreement (North Ridge Subdivision, Filing No. 2 – Phase I) (the "Agreement"), which Agreement is recorded or will be recorded in the real property records of Larimer County, Colorado.

B. The Agreement contemplates the development of the property described therein, including Lot 1 of the Development.

C. Lot 1 Owner is acquiring title to Lot 1 and will construct certain Public Improvements and Private Improvements identified on **Exhibit C** to the Agreement and the Approved Lot 1 SDP (as defined in the Agreement).

D. The Town, Developer, and Lot 1 Owner desire to enter into this Joinder to allocate responsibility for such improvements while preserving the Agreement as a single, unified development agreement.

AGREEMENT

1. Defined Terms. All capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Agreement.

2. Limited Joinder; Performance Guarantee. Lot 1 Owner hereby joins in the Agreement solely for the limited purpose of being the Developer with respect to the Public Improvements and Private Improvements identified in **Exhibit C** to the Agreement (the "Phase I Subdivision Improvements") and the Approved Lot 1 SDP, and for the further limited purpose of providing the Performance Guarantee for the Phase I Subdivision Improvements pursuant to Section 2.7 of the Agreement.

3. Developer Status. Without limiting the obligations of Ridge II, Lot 1 Owner shall be deemed, along with Ridge II, to be the "Developer," with all obligations of the "Developer," under the Agreement with respect to only the Phase I Subdivision Improvements, except for the Maintenance Guarantee. For purposes of clarity, Lot 1 Owner shall have no other obligations with

respect to the Development, except those obligations of the "Developer" under the Agreement with respect to the Phase I Subdivision Improvements and as expressly set forth in this Joinder and **Exhibit C** to the Agreement, provided, however, that Lot 1 Owner shall have no obligation with respect to the Maintenance Guarantee, which shall remain solely the obligation of Developer.

4. Development Signs. Lot 1 Owner acknowledges and agrees that it is responsible for construction of the Development Signs as set forth in the Agreement. Lot 1 Owner further acknowledges that maintenance of the Development Signs shall be allocated among the owners of the lots served by such Development Signs pursuant to a separate written agreement, a copy of which shall be provided to the Town.

5. No Responsibility for Other Lots. Lot 1 Owner shall have no responsibility, financial or otherwise, for the development of Lots 2 through 6, for any improvements required in connection with site-specific development plans for such lots, or for any additional or modified improvements imposed after approval of the Final Plat except as expressly identified in **Exhibit C** to the Agreement.

6. Maintenance Guarantee. Notwithstanding that Lot 1 Owner is, along with Ridge II, the "Developer" under the Agreement with respect to the Phase I Subdivision Improvements, Ridge II shall remain solely responsible for providing the Maintenance Guarantee for the Phase I Subdivision Improvements in accordance with Section 5.2 of the Agreement. Lot 1 Owner shall have no obligation to provide any Maintenance Guarantee.

7. No Expansion of Obligations. Nothing in this Joinder shall be deemed to expand the obligations of Lot 1 Owner beyond those expressly set forth herein, nor to impose joint or several liability on Lot 1 Owner for obligations relating to other portions of the Development.

8. Incorporation by Reference. This Joinder is approved by the Town and is expressly incorporated into and made a part of the Subdivision Development and Improvement Agreement (North Ridge Subdivision, Filing No. 2 – Phase I).

9. Recording; Running with Land. This Joinder shall be recorded in the real property records of Larimer County, Colorado concurrently with or subsequent to the recording of the Agreement, and shall be deemed effective upon recording.

10. Miscellaneous. Except as expressly modified by this Joinder, the Agreement shall remain in full force and effect. This Joinder shall be governed by the laws of the State of Colorado and venue shall be in Larimer County, State of Colorado.

[Signature Pages Follow]

LOT 1 OWNER:

SW DEV STNL HWY 402 & I25 LLC,
a Delaware limited liability company

By: Alicia Rhymer
Name: Alicia Rhymer
Its: Authorized Signatory

STATE OF COLORADO)
) ss.
COUNTY OF JEFFERSON)

SUBSCRIBED AND SWORN to before me this 19th day of February, 2026, by Alicia Rhymer, as Authorized Signatory of SW DEV STNL HWY 402 & I25 LLC.

WITNESS my hand and official seal.

My commission expires: FEB 20, 2029

ALEXIS C LEWIS
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20254007171
MY COMMISSION EXPIRES FEB 20, 2029

Notary Public

DEVELOPER:

RIDGE II HOLDCO, LLC, a Delaware limited liability company

By: _____
Name: Roy Bade
Its: Authorized Signatory

STATE OF ~~COLORADO~~ Arizona)
) ss.
COUNTY OF Maricopa)

SUBSCRIBED AND SWORN to before me this 19 day of February, 2026, by Roy Bade, as Authorized Signatory of Ridge II HoldCo, LLC.

WITNESS my hand and official seal.

OFFICIAL SEAL
SOFIE JAKELIS
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
COMM# 665360
My Comm. Expires March 7, 2028

My commission expires: 3/7/2028

_____
Notary Public

[Developer Signature Page – Limited Joinder Agreement]

TOWN OF JOHNSTOWN, COLORADO
a municipal corporation

By: _____
Michael P. Duncan, Mayor

ATTEST:

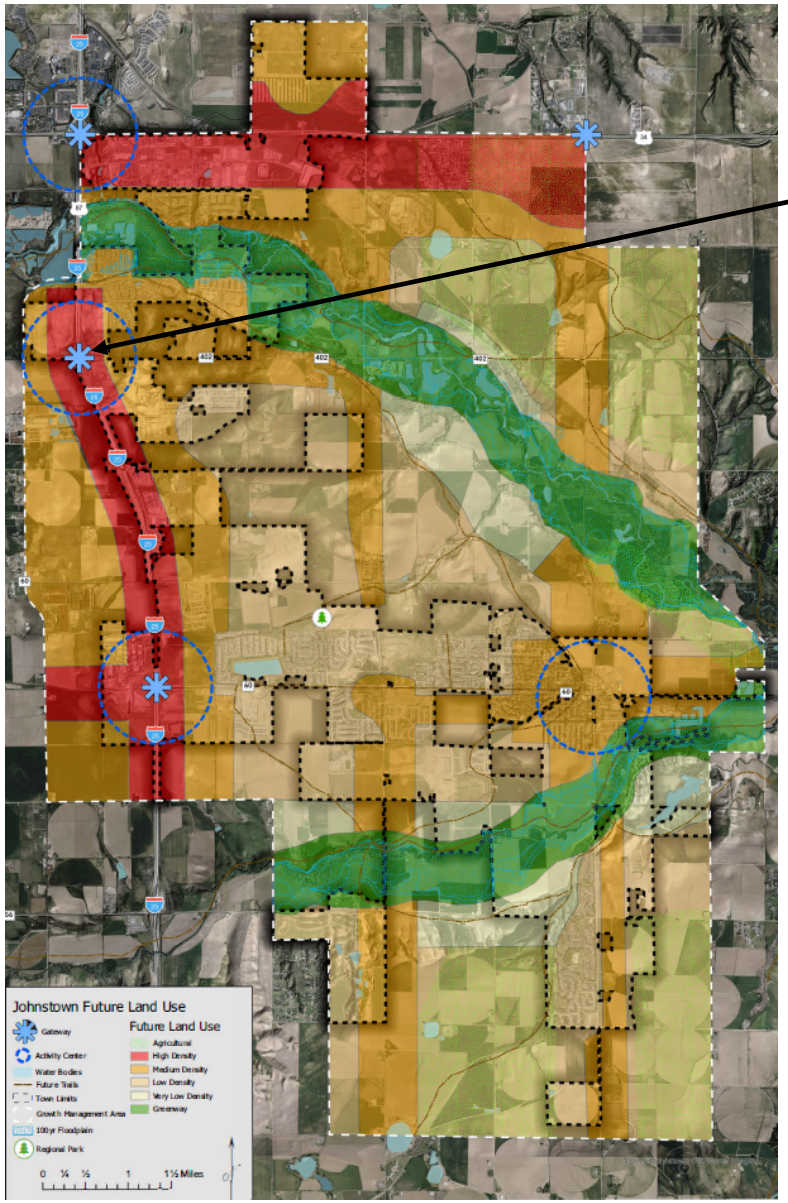
By: _____
Meghan Martinez, Town Clerk

NORTH RIDGE SUBDIVISION FILING NO 2

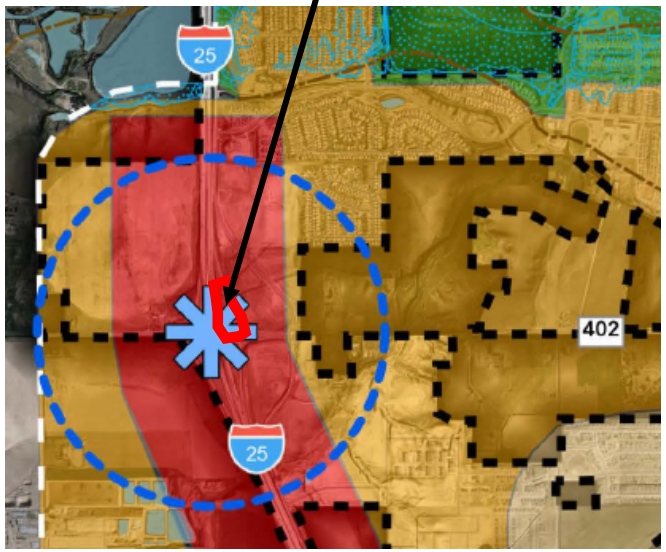
CASE NO. DEV25-0005

MARCH 2, 2026

Johnstown
COLORADO

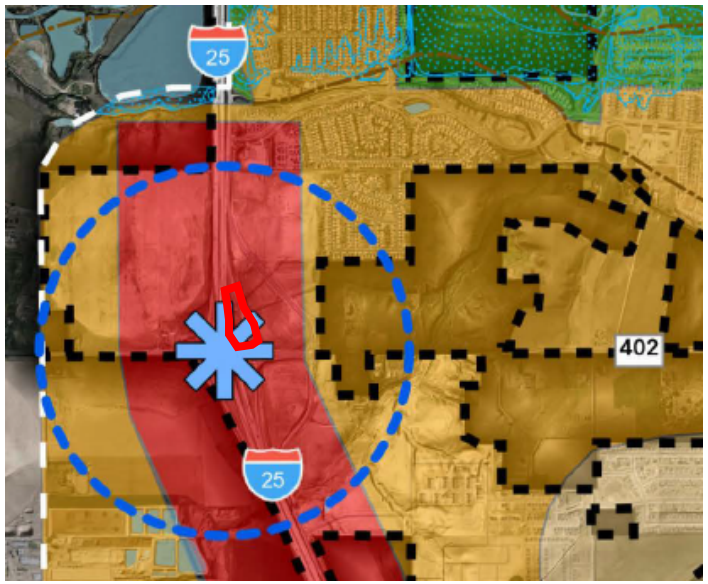


PROPOSED MAJOR SUBDIVISION



Gateway

Activity Center



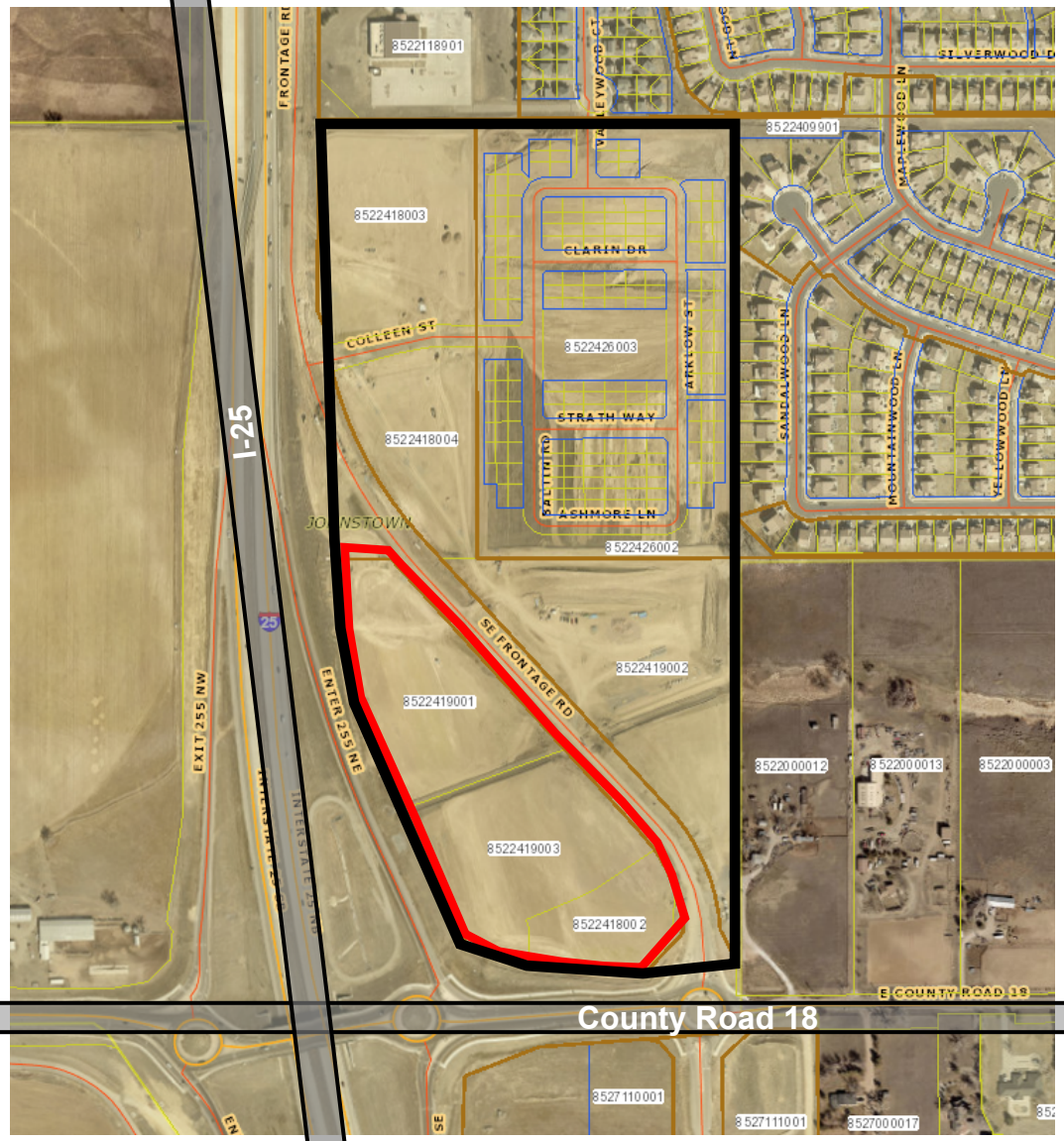
Activity Center

- Identified as strategy areas that support local networks between living, recreation, and service
- These areas are intended to be mixed-use centers that make a highly efficient use of space by offering a vibrant public realm.
- These centers should connect to the trail networks, facilitating and encouraging active modes of transpiration, and enhancing recreation opportunity for the community.

Gateway

- These are unique entrances into Town that are intended to define our community, both in terms of physical limits and identity, to welcome residents and visitors and slow traffic well outside Town Limits
- These gateways should be designed and landscaped to create cohesive, attractive, and celebratory landmarks that pay homage to Johnstown's character and values

VICINITY MAP



NORTH RIDGE SUBDIVISION

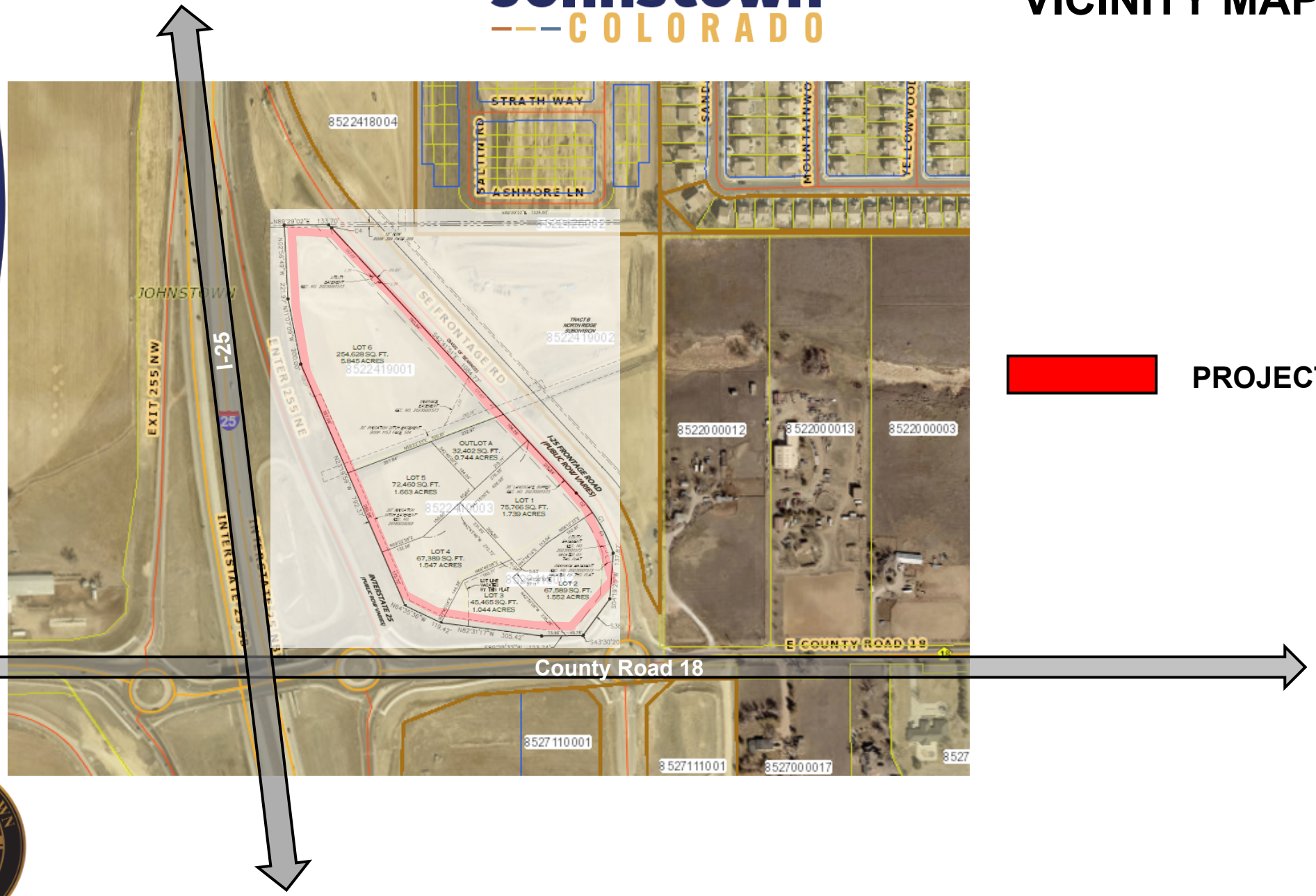
PROPOSED NORTH RIDGE SUBDIVISION FILING NO. 2

VICINITY MAP



PROJECT BOUNDARY

VICINITY MAP



PROJECT BOUNDARY

Research Update:

Johnstown, CO Wastewater Revenue Bond Rating Affirmed At 'A+'

February 18, 2026

Overview

- S&P Global Ratings affirmed its 'A+' long-term rating on Johnstown, Colo.'s wastewater revenue bonds outstanding.
- The outlook is stable.

Primary Contact

Stefenjoshua D Rasay
Washington DC
1-2023832046
stefen.joshua.rasay
@spglobal.com

Secondary Contact

Chloe S Weil
San Francisco
+ 1 (415) 371 5026
chloe.weil
@spglobal.com

Rationale

Security

Net system revenue secures the bonds. We view bond provisions as credit neutral. The rate covenant calls for 1.1x annual debt service and an additional bonds test of 1.1x maximum annual debt service. A surety policy will be used in lieu of a debt serve reserve.

Credit highlights

The rating reflects our view of the utility's smaller (more than 8,000 accounts) footprint in a fast-growing region in northern Colorado that is entering a capital-intensive period to expand its sewer infrastructure to meet future system demand. We believe conservative management practices, a favorable market position based on strong economic indicators, and an inexpensive wastewater bill will afford the utility flexibility to maintain robust financial metrics combined with affordable rates.

The rating further reflects our view of:

- The utility's primarily residential customer base with incomes 53% above the nation's average and a lack of customer concentration. The top 10 customers account for less than 10% of total operating revenue, which we believe provides revenue stability.
- The town's annualized residential sewer bill, which we consider inexpensive compared with that of peers in the Rocky Mountain region (averaging about $52.91 per month, or less than 1% of median household effective buying income;

- The utility's solid liquidity with more than $40 million (or more than 3,000 days' cash on hand) available as of Dec. 31, 2024. However, management plans to spend down cash over the next five years as it funds portions of the capital plan. Management has no plans to spend to a level below its informal target of 1.5x operating costs (approximately $7 million in 2026), and projection assumptions are conservative in nature.
- The utility's moderate-to-high debt burden (based on the system's size), which we expect will continue to decrease given the lack of additional debt plans in the near term.

The utility’s all-in debt service coverage limits upward credit movement. Although robust and averaging 2x in the past three years, coverage will rely on tap fees hereafter, especially considering minimal, Consumer Price Index-driven rate increases. According to forecasts, new customer fees will account for, on average, nearly half of gross revenue in the near term. In our view, a slowdown or cessation of such growth--especially if not expected by management--could cause a precipitous drop in financial performance and expose vulnerability in the financial profile.

Environmental, social, and governance

We consider environmental risk factors slightly elevated given the region's and town's growth needs, especially considering a history of violations related to the Colorado Department of Public Health and Environment Water Quality Control Division (2020). These matters have since been settled and resolved, with both wastewater treatment plants meeting permit limitations and engaging in monitoring, and the compliance order was lifted in late 2025. The utility’s plants, with continued growth, will eventually need expansion and updating to meet future regulations.

We consider social risk factors credit neutral given the affordable rates in the area. While most financial targets and goals are informal, we view governance risk factors as credit neutral given that the utility has embarked on longer-term planning and built up cash to partly fund its capital plan, demonstrating that it is forward-looking. We anticipate that this will continue, based on the needs of the system in the next 10 years.

Outlook

The stable outlook reflects our expectation that coverage will remain robust, dependent on healthy connection fee revenue (resulting from forecast growth in the area) paired with annual Consumer Price Index adjustment to rates.

Downside scenario

We could lower the rating within the next two years should expected growth in the area not be fully realized, leading to lower-than-expected connection fees and thus weaker coverage metrics. We could also consider lowering the rating if liquidity dips significantly as a function of unbudgeted operating expenses or revenue shortfalls.

Upside scenario

In the next two years, we could consider raising the rating should coverage remain robust and stable, supported by proactive rate setting policies that mitigate fluctuations in connection fees, amid maintenance of strong liquidity and the utility's progressing through its capital plan and continuing to pay down debt.

Town of Johnstown, Colorado--economic and financial data

		Fiscal year-end			
	Most recent	2024	2023	2022	Median (A+)
Economic data					
MHHEBI of the service area as % of the U.S.	153.0				94.0
Unemployment rate (%)	4.5				3.8
Poverty rate (%)	9.1				11.7
Water rate (6,000 gallons or actual; $)	0.0				41.5
Sewer rate (6,000 gallons or actual; $)	61.2				40.9
Annual utility bill as % of MHHEBI	0.7				1.3
Operational management assessment	Standard				Good
Financial data					
Total operating revenue ($000s)		4,361	3,434	3,330	7,991
Total operating expenses less depreciation ($000s)		2,459	2,012	1,433	5,921
Net revenue available for debt service ($000s)		11,390	4,834	2,863	--
Debt service ($000s)		2,768	2,763	1,953	--
S&P Global Ratings-adjusted all-in DSC (x)		4.1	1.7	1.5	1.7
Unrestricted cash ($000s)		48,114	66,815	42,699	7,687
Days' cash of operating expenses		7,142	12,121	10,876	564
Total on-balance-sheet debt ($000s)		53,158	55,073	56,216	16,465
Debt-to-capitalization ratio (%)		36.0	39.6	67.4	36.0
Financial management assessment	Standard	--	--	--	Good

Note: Most recent economic data available from our vendors. DSC--Debt service coverage. MHHEBI--Median household effective buying income.

Ratings List	
Ratings Affirmed	
Water & Sewer	
Town of Johnstown CO, Net Sewer Revenues	A+/Stable

The ratings appearing below the new issues represent an aggregation of debt issues (ASID) associated with related maturities. The maturities similarly reflect our opinion about the creditworthiness of the U.S. Public Finance obligor's legal pledge for payment of the financial obligation. Nevertheless, these maturities may have different credit ratings than the rating presented next to the ASID depending on whether or not additional legal pledge(s) support the specific maturity's payment obligation, such as credit enhancement, as a result of defeasance, or other factors.

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at https://disclosure.spglobal.com/ratings/en/regulatory/ratings-criteria for further information. A description of each of S&P Global Ratings' rating categories is contained in "S&P Global Ratings Definitions" at https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/sourceId/504352. Complete ratings information is available to RatingsDirect subscribers at www.capitaliq.com. All ratings referenced herein can be found on S&P Global Ratings' public website at www.spglobal.com/ratings.

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JohnstownCO.gov

February 25, 2026

Highway Safety Office (HSO)
Colorado Department of Transportation
2829 W. Howard Pl.
Denver, CO 80204

RE: Letter of Support for FY27 Highway Safety Office Community Traffic Safety Grant – NFRMPO's 2027 Northern Colorado Traffic Safety Roundtable

To Whom It May Concern,

On behalf of the Town of Johnstown, I am writing to express strong support for the North Front Range Metropolitan Planning Organization (NFRMPO) proposal to host a Northern Colorado Traffic Safety Roundtable during Federal Fiscal Year (FY) 2027 under the Community Traffic Safety Grant Program administered by the Colorado Department of Transportation's Highway Safety Office (HSO).

Between the beginning of 2022 and the end of 2024, 144 people lost their lives on roadways within the NFRMPO region. These tragic losses underscore the urgent need for coordinated data-driven traffic safety efforts across Northern Colorado. While individual communities are actively working to improve roadway safety, traffic crashes do not stop at jurisdictional boundaries. Strengthening regional coordination will directly support local efforts to reduce fatalities and serious injuries.

The proposed Roundtable will provide an important opportunity for Johnstown to collaborate with neighboring jurisdictions, federal and state partners, law enforcement, public health professionals, school districts, and community organizations around shared safety priorities. By enhancing regional understanding of crash trends, high-risk behaviors, and vulnerable road user safety, this effort will help our community better align local strategies with regional and statewide safety goals.

Participation in this regional Roundtable will support our ability to identify effective safety approaches, strengthen partnerships, and position our community for future safety-focused initiatives and funding opportunities. The development of a shared regional action framework

will further help ensure collaboration extends beyond the event itself and translates into coordinated next steps.

Johnstown values the NFRMPO's leadership in convening partners around this critical issue and plans to participate in the Roundtable and related coordination activities. We believe this effort will enhance our local traffic safety initiatives and support long-term progress toward reducing and ultimately eliminating traffic-related fatalities and serious injuries.

For these reasons, we strongly endorse this proposal and urge favorable consideration of FY2027 HSO funding. Supporting this Roundtable represents a meaningful investment in regional safety collaboration that will directly benefit communities across Northern Colorado.

Sincerely,

Matthew S. LeCerf
Town Manager

Cc: Mayor and Town Councilmembers
Tim Hoos, PW Director (NFRMPO TAC)

2027 Northern Colorado Traffic Safety Roundtable

Project Abstract

The North Front Range Metropolitan Planning Organization (NFRMPO) respectfully requests funding to host a Northern Colorado Traffic Safety Roundtable during Federal Fiscal Year 2027. Between the beginning of 2022 and the end of 2024, 144 people lost their lives on roadways within the NFRMPO region, highlighting the urgent need for coordinated, data-driven traffic safety action across jurisdictions and disciplines.

While NFRMPO leadership and regional partners have expressed strong support for advancing traffic safety through improved data analysis, policy alignment, and regional coordination, the region currently lacks a dedicated forum to convene transportation agencies, local governments, law enforcement, public health professionals, school districts, and community partners around shared safety priorities.

To address this gap, the NFRMPO proposes to hire a consultant to support safety data analysis, event planning, materials development, and outreach for a one-day, in-person Northern Colorado Traffic Safety Roundtable. The consultant will also support facilitation of the event, create regional traffic safety campaign and public outreach materials based on the top crash types and trends revealed through data analysis, and prepare a post-event summary and action framework outlining recommended regional approaches to reducing traffic-related fatalities and serious injuries.

The roundtable will strengthen regional collaboration, increase shared understanding of existing traffic safety initiatives, and identify gaps and opportunities for coordinated action. Presentations from federal, state, and local partners will focus on high-risk behaviors, vulnerable road users, crash data trends, and Safe Streets and Roads for All (SS4A) efforts. Outcomes from the event will inform future planning activities, policy updates, and grant applications, and will help position the region for effective implementation of safety strategies.

Due to budget limitations, the NFRMPO currently lacks the resources necessary to secure an appropriate venue, develop materials, and plan an event of this scale. Funding support from the Colorado Highway Safety Office will enable the NFRMPO to foster a regional culture of safety, strengthen cross-sector partnerships, and advance the shared goal of reducing and ultimately eliminating traffic-related fatalities and serious injuries across Northern Colorado.

	YMCA of Northern Colorado Johnstown Branch				
	Year-End	Annual Budget	Approved Budget	Proposed Budget	Variance from
Account Group Name	2025	2025	2026	2026	2025 Budget
Johnstown					
Revenue					
Contributions	131,458	37,500	75,000	38,625	37,500
Program Revenue	1,191,987	1,315,987	1,303,155	1,281,704	(12,832)
Membership Revenue	1,503,305	1,657,002	1,765,523	1,604,917	108,521
Rental Income	72,241	72,000	98,200	81,368	26,200
Sales of Inventory	1,289	0	0	1,328	0
Other Revenue	60	10,050	0	4,314	(10,050)
Total Revenue	**2,900,340**	**3,092,539**	**3,241,878**	**3,012,256**	**149,339**
Expenses					
Salaries and Wages	1,677,343	1,729,546	1,766,777	1,754,051	37,231
Benefits	132,926	106,182	97,938	127,512	(8,244)
Payroll Taxes	149,327	167,778	168,120	169,825	342
Program Supplies & Expenses	94,457	62,340	39,620	86,108	(22,720)
Occupancy	691,787	728,785	771,483	694,606	42,698
Special Event Expenses	185	0	0	191	0
Fundraising Expenses	29	0	0	30	0
Office Expenses	22,099	7,210	21,887	20,210	14,677
Technology	3,859	0	0	3,222	0
Travel & Related Expenses	1,933	2,400	11,100	1,353	8,700
Conferences & Training	1,164	4,150	3,700	4,030	(450)
YUSA Dues	4,189	21,425	10,500	13,513	(10,925)
Insurance	19,433	29,988	0	17,320	(29,988)
Miscellaneous Expense	15,121	1,840	1,400	(88)	(440)
Depreciation	10,846	13,586	14,753	9,258	1,167
Intra Y Allocation	280,715	432,081	444,814	443,875	12,733
Total Expenses	**3,105,414**	**3,307,313**	**3,352,094**	**3,345,016**	**44,781**
Change in Net Assets	**(205,073)**	**(214,774)**	**(110,216)**	**(332,760)**	**104,558**

Statement Of Activities Report

YMCA Of Northern Colorado - Johnstown

01/01/2026 - 01/31/2026

		Period 1 January 2026				Year to Date 2026		
Acco	Account Group Name	Actual	Budget	$ Variance	% Variance	Actual	Budget	Annual Budget
Revenue								
	Contributions	345	0	345	#DIV/0!	345	0	75,000
	Program Revenue	83,652	91,103	(7,451)	(8.18%)	83,652	91,103	1,303,155
	Membership Revenue	122,864	140,017	(17,153)	(12.25%)	122,864	140,017	1,765,523
	Rental Income	9,167	9,258	(91)	(0.98%)	9,167	9,258	98,200
Total Revenue		216,028	240,378	(24,350)	(10.13%)	216,028	240,378	3,241,878
Expenses								
	Salaries & Wages	107,399	119,506	(12,107)	(10.13%)	107,399	119,506	1,766,777
	Employee Benefits	7,109	7,616	(507)	(6.66%)	7,109	7,616	97,938
	Payroll Taxes	6,733	12,692	(5,959)	(46.95%)	6,733	12,692	168,120
	Program Supplies	5,824	2,533	3,291	129.92%	5,824	2,533	39,620
	Occupancy	67,291	56,493	10,798	19.11%	67,291	56,493	771,483
	Office Expenses	2,486	1,824	662	36.29%	2,486	1,824	21,887
	Transportation	850	925	(75)	(8.11%)	850	925	11,100
	Conferences & Training	0	183	(183)	(100.00%)	0	183	3,700
	Organizational Dues	0	875	(875)	(100.00%)	0	875	10,500
	Miscellaneous Expense	0	117	(117)	(100.00%)	0	117	1,400
	Depreciation	1,229	1,229	0	0.00%	1,229	1,229	14,753
	Intra Y Allocation	30,435	31,211	(776)	-2.49%	30,435	31,211	444,814
Total Expenses		229,356	235,204	(5,848)	-2.49%	229,356	235,204	3,352,094
Change in Net Assets		**(13,328)**	**5,174**	**(18,502)**	(357.60%)	**(13,328)**	**5,174**	**(110,216)**
Johnstown Subsidy Received		**41,666.67**				**41,666.67**	**41,666.67**	**500,000.00**