RIVERDALE CITY COUNCIL AGENDA
CIVIC CENTER - 4600 S. WEBER RIVER DR.
TUESDAY – FEBRUARY 3, 2026

6:00 p.m. – Council Meeting *(Council Chambers)*

A. **Welcome & Roll Call**
B. **Pledge of Allegiance** – Matt Hennessy
C. **Invocation** – TBA, by invitation

D. **Public Comment**
(This is an opportunity to address the City Council regarding your concerns or ideas. No action will be taken during public comment. Please try to limit your comments to three minutes.)

E. **Presentations and Reports**

1. Mayor's Report
2. City Council Assignment Reports

F. **Consent Items**

1. Consideration to reappoint Colleen Henstra to the Planning Commission for a 4-year term.
2. Consideration to appoint Melissa Carey to the Planning Commission for a 1-year term.
3. Consideration to approve meeting minutes from:
   January 6, 2026 Council Meeting
   January 20, 2026 Council Meeting

G. **Action Items**

1. Consideration of Resolution #2026-01 approving the purchase of playground equipment for Golden Spike Park in an amount not to exceed $300,000.00
   Presenter: Shawn Douglas

2. Consideration of Resolution #2026-02 adopting updates to the Riverdale City Construction and Development Standards
   Presenter: Shawn Douglas

3. Consideration of Resolution #2026-03 approving the purchase/trade of surplus backhoe for Mini Excavator
   Presenter: Shawn Douglas

4. Discussion and consideration of Resolution #2026-04 approving the Weber County Pre-Disaster Mitigation Plan
   Presenter: Matt Hennessy/Steve Brooks

5. Consideration of Ordinance #1002 notifying the public of a pending ordinance regarding a temporary land use regulation to remove cluster subdivisions from the R-1-6 zone.
   Presenter: Brandon Cooper

6. Discussion and action: Council Rules and Procedures Update
   Presenter: Steve Brooks

7. Discussion: PRUD zoning text amendment
   Presenter: Brandon Cooper

H. **Upcoming Events**

- President's Day February 16th – offices closed (city offices, court, senior center)

I. Comments

1. City Council
2. City Staff
3. Mayor

J. Adjournment

In compliance with the Americans with Disabilities Act, persons in need of special accommodation should contact the City Offices (801) 394-5541 at least 48 hours in advance of the meeting.

Certificate of Posting

The undersigned, duly appointed City Recorder, does hereby certify that the above notice and agenda was posted within the Riverdale City limits on this 30th day of January, 2026 at the following locations: 1) Riverdale City Hall Noticing Board 2) the City website at http://www.riverdalecity.com/ 3) the Public Notice Website: http://www.utah.gov/pmn/index.html.

Michelle Marigoni
Riverdale City Recorder

**The City Council meeting on February 3, 2026 is viewable electronically and may be accessed by clicking on the link below. The regular City Council Chambers will be available for in-person participation. The Agenda for the meeting is also attached above. **

https://www.youtube.com/channel/UCegcYe-pIXSRZGd5llencvA/videos?view_as=subscriber

Minutes of the Regular Meeting of the Riverdale City Council held Tuesday, January 6, at 6:00 p.m. at the Civic Center, 4600 S Weber River Dr., Riverdale City, Weber County, Utah.

Present:	City Council:	Braden Mitchell, Mayor Alan Arnold, Councilmember Bart Stevens, Councilmember Anne Hansen, Councilmember Michael Richter, Councilmember
	City Employees:	Steve Brooks, City Administrator/Attorney Casey Warren, Police Chief Brandon Cooper, Community Development Director Michelle Marigoni, City Recorder
	Excused:	Kent Anderson, Councilmember
	Visitors:	Steffani Ebert James Ebert Larry Hansen Joey Tracy Melanie Hansen Debbie Stevens Lucas Stevens

Welcome & Roll Call

The City Council meeting began at 6:00 p.m. Mayor Mitchell called the meeting to order and welcomed those in attendance, including all Council Members, City Staff, and members of the public.

Pledge of Allegiance – Casey Warren

Invocation – Braden Mitchell

Public Comment

Mayor Mitchell invited members of the public to speak. No public comments were received.

Presentations and Reports

1. **Mayor's Report**

   UDOT meeting – bridges will not be finished until mid-May.

   WACOG – 9 new mayors. Mitchell on regional growth, transportation, county transportation committees, vice chair

2. **City Council Assignment Reports**
3. **Swearing In – Mayor Mitchell, Councilmembers Anne Hansen and Bart Stevens**

   Mayor Mitchelle, Councilor Hansen, and Councilor Stevens were administered the oath by City Recorder Michelle Marigoni.

4. **Swearing In – Parker Ebert, Police**

   Chief Warren introduced Parker Ebert as a class leader who was the academic award recipient, as well as firearms, and PT awards in his academy. Officer Ebert was administered the oath by City Recorder Michelle Marigoni.

Consent Items

1. Consideration to approve meeting minutes from:

December 16 , 2025 Council Work Session
December 16, 2025 Council Meeting

Mayor Mitchell asked if there were any changes to the minutes. There were none.

MOTION: Councilmember Arnold moved to approve the consent items. Councilmember Richter seconded the motion. There was not any discussion regarding this motion, which passed unanimously in favor.

Action Items

1. **Consideration of Ordinance #999 regarding proposed text amendments to Riverdale City Code Title 10, Chapter 22 Planned Residential Unit Development (PRUD).**

Councilor Hansen suggested the item be tabled until they can look at it closer and have the suggestions from the planning commission added.

Motion: Councilmember Arnold moved to table Ordinance #999 regarding proposed text amendments to Riverdale City Code Title 10, Chapter 22 Planned Residential Unit Development (PRUD) until the next

Second: Councilmember Hansen

Discussion: Hansen, Cooper, Arnold discussed reasons for not addressing the ordinance until the corrections are made and everyone can have a chance to review it fully.

Councilor Hansen:	Yes
Councilor Richter:	Yes
Councilor Arnold:	Yes
Councilor Stevens:	Yes
Councilor Anderson:	Absent

Motion passed unanimously.

2. **Consideration to enter into a closed session pursuant to Utah code 52-4-205 (a-e) (Roll call vote).**

Motion: Councilmember Arnold moved to enter a closed session under the following sections:
52-4-205 (a) Discussion of the character, professional competence, or physical or mental health of an individual;
52-4-205 (d) Strategy sessions to discuss the purchase, exchange, or lease of real property;
52-4-205 (e) Strategy sessions to discuss the sale of real property.

Second: Councilmember Stevens

Councilor Arnold:	Yes
Councilor Hansen:	Yes
Councilor Stevens:	Yes
Councilor Richter:	Yes
Councilor Anderson:	Absent

Motion passed unanimously, closed session began at 6:28 p.m.

Present in closed session: Mayor Mitchell, Councilor Arnold, Councilor Stevens, Councilor Hansen, Councilor Richter

Motion: Councilmember Hansen moved to adjourn the closed session and return to open meeting.
Second: Councilmember Richter

Councilor Arnold:	Yes
Councilor Hansen:	Yes
Councilor Stevens:	Yes
Councilor Richter:	Yes
Councilor Anderson:	Absent

Motion passed unanimously, closed session ended at 7:45 p.m.

Upcoming Events

- Christmas Tree Pickup – January 7th
- Ribbon Cutting for Back Nine Golf – January 9th at 12:00 p.m.
- Meet the Contractor Open House (UDOT) – January 14th 5:30-7:30 p.m.
- Local Officials Day at the Legislature – January 21st

- Martin Luther King Day, offices closed – January 19th
- AFCU Topping Ceremony January 7th

Comments

1. City Council - Annie wanted to reassess the council assignments, and she would like to have the senior board. Will be put on the next agenda. Housing, mosquito abatement, CTC, youth council, emergency preparedness, veteran's, etc.

2. City Staff

   Council rules and procedures update should be on the next meeting.
   Annual disclosures
   OPMA training

3. Mayor

Adjournment

Having no further business to discuss, Councilmember Arnold moved to adjourn the meeting. Councilmember Richter seconded the motion. The meeting was adjourned at 7:56 p.m.

Date Approved:

Minutes of the Regular Meeting of the Riverdale City Council held Tuesday, January 20, 2026, at 6:00 p.m., at the Civic Center, 4600 S Weber River Dr., Riverdale City, Weber County, Utah.

Present:	City Council:	Braden Mitchell, Mayor Alan Arnold, Councilmember / Mayor pro tem Bart Stevens, Councilmember Anne Hansen, Councilmember Michael Richter, Councilmember Kent Anderson, Councilmember
	City Employees:	Steve Brooks, City Administrator/Attorney Brandon Cooper, Community Development Director Casey Warren, Police Chief Matthew Hennessy, Fire Chief Cody Cardon, Business Administrator Shawn Douglas, Public Works Director Michelle Marigoni, City Recorder
	Excused:	
	Visitors:	Melissa & Ben Carey Janet Deschamp Mikkel Deschamp Paige Hess Gordon Bowen James Deschamp Preston Deschamp Lori Fleming Mike Davis Stacey Davis Cody Hansen Mike Dunkley Luke Martineau Steve Flinders Shauna Flinders Blake Flinders Wendy Anderson Matt White Melissa Carey

Welcome & Roll Call

The City Council meeting began at 6:00 p.m. Mayor Mitchell called the meeting to order and welcomed those in attendance, including Council Members, City Staff, and members of the public.

Pledge of Allegiance – Michael Richter

Invocation – Kent Anderson

Public Comment

Mayor Mitchell invited members of the public to speak.

Melissa Carey stated she lives directly across from the proposed rezone on Ritter Drive and has resided there most of her life. She opposed the rezone, noting a similar request was denied four to five years ago for 100+ two-story townhomes. She argued nothing has changed to justify rezoning to R-4 for 59 three-story townhomes, which would generate approximately 590 daily vehicle trips. She highlighted safety concerns with exits onto a risky section of Ritter Drive with poor visibility, especially at sunset, and potential for tripling the population on the street. She expressed worry that rezoning one property could lead to similar requests on adjacent parcels, potentially resulting in 150+ units or apartments. She questioned enforcement of proposed agreements for construction timelines, reversion to prior zoning, and five-year owner-occupancy requirements. She raised fire safety issues due to topography creating a "canyon" effect with limited exits, ongoing parking and visibility problems, and urged denial to preserve neighborhood character over outside investors.

Janet Deschamps thanked the council for their service and stated she watches all meetings online due to her long-term love for the city (over 35 years). She opposed any general plan amendment, citing its purposes including adequate

open space, preventing overcrowding and congestion, enhancing home life security, and stabilizing property values—none of which she believed the proposal supports. She described the site as an entrance to Riverdale with potential traffic and parking mess, a "wall" of townhomes harming views and values, and increased future traffic from nearby developments (e.g., 5600 South, MotorVu, South Weber subdivisions) using Ritter Drive as a shortcut. She urged Council to leave the general plan unchanged, noting R-1-6 is preferable to R-4 and that considering changes feels like a disregard for longtime residents.

Mercedes Garcia lives on Parker Drive and expressed concern about poor nighttime lighting on Parker Drive from the fire station north to River Valley Drive, with inconsistent pole lighting creating dangerous darkness for runners, walkers, and dog owners, especially early mornings. She requested additional lights, possibly from UDOT, and asked if neighborhood support (e.g., petitions) could help.

Preston Deschamps, longtime Riverdale resident now in Layton, recalled growing up on Ritter Drive with strict rules against using the road in late afternoons/evenings due to poor visibility from sun glare. He described a traumatic incident where a neighbor was struck by a vehicle. He opposed the 59 townhomes, predicting starter/rental units for young families, adding ~125 vehicles and more street parking despite red curbs, increasing foot traffic and risks to children on a dangerous road. He noted growing area traffic from developments making Ritter Drive a known shortcut and questioned assessing safety for new families unaware of risks.

Matthew White lives on Ritter Drive. He noted planning commission discussions on building height equivalence but argued three-story townhomes closer to the street create a "wall" unlike single-family homes with setbacks. He opposed red curbing on his side, anticipating spillover parking by residents' visitors blocking driveways.

Steve Flinders lives on corner of Ritter and 1345. He knows most council lives on the other side of town. Ritter has started getting increased traffic. He opposed the 59-unit three-story proposal as not fitting the neighborhood, preferring single-family homes over "stack them and rack them" development.

James Deschamps (with financial interest), with multi-family development experience, opposed due to inevitable insufficient parking leading to street issues despite approvals.

Mike Dunkley lives right across the street and opposed the townhomes across from his forever home, valuing the street's unique single-family character and mountain views. He suggested single-family is more reasonable, echoed parking concerns, and questioned potential retaining walls

Mike Davis, Ritter Drive resident (bottom of the street), stated he has lived there for 36 years and remembered when the road had only about 30 cars per day with a country feel. He expressed sympathy for residents at the top of the hill, who would face a hillside behind and townhomes in front. He questioned the road's capacity for more traffic, noting no improvements have addressed the Coleman development. While he appreciated the new sidewalk, he said the added bike lane has widened the road and encouraged faster speeds, with frequent passing on the double-yellow line when drivers obey the limit—a weekly occurrence. He is not opposed to growth but urged thoughtful consideration of resident impacts, suggesting traffic calming measures as promised in a 2020 email (with only the bike lane added since). He asked the council to imagine how they would feel if this development were near their own homes.

Josie Torres, Ritter Drive resident (directly across from the project), described the block as family-friendly with grandchildren, nieces, and nephews visiting, and welcomed her new neighbor Matt. She was present when Ritter Drive was opened (previously kept closed due to heavy traffic). The plan included narrowing the street for slower speeds, but that has not happened. She opposed the tall townhomes, saying residents would be trapped between large structures on both sides; in a fire or emergency, added people and traffic would block escape. Backing out of driveways is already dangerous, with drivers passing while turning in. She feared the road would become business-like access rather than residential. Evening visibility is poor, and she could not imagine the congestion from so many homes and families. She noted people walking up from Cherry Creek and prior break-ins on the property, which attracts problems; the townhomes would add too many families, congestion, and traffic.

Stacey Davis lives on Ritter. She requested Council visit to experience the heavy, fast traffic preventing safe driveway access, especially during school hours.

Presentations and Reports

1. Mayor’s Report

Mayor Mitchell had nothing for this meeting.

2. City Administration Report

a. Department Reports December

Mr. Brooks noted positive sales-tax trends but awaited holiday and Trader Joe's impacts. Cody Cardon explained the holiday spending was not on the sales tax report yet and will show up in February. Sales tax continues to be higher than it has been, exceeding 2021 and 2022 numbers.

b. January Anniversaries Employee Recognition
c. Staffing Authorization Plans
d. Community Development Report

Cody Cardon explained the holiday spending was not on the sales tax report yet and will show up in February. Sales tax continues to be higher than it has been, exceeding 2021 and 2022 numbers.

Indoor Hockey program has now started. It has been very popular and is getting a lot of participants from surrounding cities.

3. **Swearing In – Councilmember Kent Anderson**

   Councilmember Kent Anderson was sworn in by City Recorder Michelle Marigoni.

Consent Items

1. **Consideration to appoint Cody Hansen to the Planning Commission**

   Councilor Hansen recused herself due to being related to Cody. Councilor Arnold expressed concerns as the Planning Commission should not have any influence on the City Councill and having two family members could be seen that way. However, Cody will not be swayed by Councilor Hansen. Therefore:

   Councilor Arnold moved to appoint Mr. Hansen to the Planning Commission for a 1-year term. Councilor Richter seconded the motion and all voted in favor (Councilor Hansen abstained).

2. **Review, update and approval of City Council assignments**

   Councilor Arnold moved to reappoint Councilor Stevens to the Mosquito Abatement Board. This was seconded by Councilor Hansen and all voted in favor.

Action Items

Councilor Arnold proposed addressing items 2 and 3 first. Council agreed.

1. **Item #2 - Consideration of Ordinance #1000 regarding a proposed General Plan amendment which modifies the Riverdale City General Plan as it relates to the Future Land Use Map.**

   Mr. Cooper presented the request to change the Future Land Use Map from detached to attached residential for 4.35 acres at 1526 W Ritter Drive to allow 59 townhomes. He noted consistency with general plan elements for higher density in appropriate areas, acceptable traffic levels per study, and planning commission's positive recommendation (3-2 vote). He explained procedures were followed properly with the general plan amendment and rezone considered in the same meeting cycle, and a development agreement would make the rezone conditional; council could revert to R-1-6 if obligations unmet. He addressed HOA difficulties, noting the PRUD/PD update (item 1) aims to improve enforcement.

   Council discussion was extensive. Councilor Arnold criticized aspects of prior developments like Riverwell not adhering to site plans, raised concerns about crime, planning commission training needs, speeding on Ritter Drive, and noted a 2020 denial of townhomes followed by 2021 approval of R-1-6. He emphasized the council should prioritize protecting current residents over changes. Mayor Mitchell stated he does not view the city as having "two sides," driving the south side often to stay informed.

   Councilor Richter urged focus on the general plan update without delving too deeply into the rezone details.

   Councilor Stevens expressed disappointment with Riverwell (voted against it), noting the change from C-3 to residential did not match expectations, and previous discussions set density at R-1-6, which should remain.

Councilor Anderson noted the planning commission's forward recommendation relied heavily on the development agreement's reversion mechanism to prior zoning; he was unaware council would need further action for reversion and would be concerned if changes were needed later.

Councilor Hansen questioned the "safety net" of the development agreement, noting it would be difficult to defend a reversion followed by a new owner requesting rezone again. She also asked about detached residential allowing mixed use, with Mr. Cooper clarifying the mixed-use overlay permits multifamily in certain contexts.

Councilor Richter expressed apprehension about changing the plan prematurely without more discussion or a detailed site plan.

Motion: Councilmember Arnold moved to deny Ordinance #1000 regarding a proposed General Plan amendment which modifies the Riverdale City General Plan as it relates to the Future Land Use Map, as the application does harm an adjacent property owner, and is not in harmony with the surrounding neighborhood.

Second: Councilmember Hansen

Councilor Richter mentioned safety concerns may need to be included.

Councilor Arnold amended the motion to include safety concerns based upon testament from residents who live on and frequent the road and increased traffic of this magnitude would adversely affect the safety of the residents. Second was in agreement.

Councilor Arnold:	Yes
Councilor Richter:	Yes
Councilor Anderson:	Yes
Councilor Stevens:	Yes
Councilor Hansen:	Yes

Motion passed unanimously to deny the General Plan update.

2. **Item #3** - Consideration of Ordinance #1001 rezoning approximately 4.35 acres, located at 1526 W Ritter Drive, from Single-Family Residential (R-1-6) to Multiple-Family Residential (R-4).

   Mr. Cooper noted the rezone is inconsistent following the General Plan update denial.

   Motion: Councilmember Arnold moved to deny Ord 1001 based on the finding that it does not comply with the general plan. It adversely affects a joining property owner and, based on testimony of the residents, a development of this size and scope would jeopardize the safety of those who use and frequent Ritter Drive.
   Second: Councilmember Richter

Councilor Hansen:	Yes
Councilor Stevens:	Yes
Councilor Arnold:	Yes
Councilor Anderson:	Yes
Councilor Richter:	Yes

   Motion passed unanimously to deny the rezone.

3. **Item # 1** - Consideration of Ordinance #999 regarding proposed text amendments to Riverdale City Code Title 10, Chapter 22 Planned Residential Unit Development (PRUD).

   Mr. Cooper summarized modernization to Planned Development (PD) for flexibility in residential/commercial/mixed-use, aligning with state code and addressing maintenance/HOA issues.
   Mr. Douglas highlighted improvements from past experiences.
   Council discussed zone applicability, spot zoning risks, open space reduction, waivers, and enforcement.

Motion to untable (previously tabled): Councilor Arnold moved, Councilor Hansen seconded. Passed unanimously.

Motion: Councilmember Arnold moved to table
Second: Councilmember Richter

There was no discussion on the motion.

Councilor Stevens:	Yes
Councilor Anderson:	Yes
Councilor Hansen:	Yes
Councilor Richter:	Yes
Councilor Arnold:	Yes

Motion passed unanimously. Item is tabled.

4. Discussion regarding Council Rules and Procedures

   Mr. Brooks reminded Council to review rules post-election and direct inquiries to him.

5. Consideration to enter into a closed session pursuant to Utah code 52-4-205 (a) discussion of the character, professional competence, or physical or mental health of an individual and (c) discussion of pending or reasonably imminent litigation (Roll call vote).

   Motion: Councilmember Arnold moved to enter the closed session
   Second: Councilmember Richter

There was no discussion on the motion.

Councilor Richter:	Yes
Councilor Stevens:	Yes
Councilor Arnold:	Yes
Councilor Hansen:	Yes
Councilor Anderson:	Yes

Motion passed unanimously, closed session began at 8:42 pm.

Present in closed session:
Mayor Mitchell, Councilor Arnold, Councilor Stevens, Councilor Hansen, Councilor Richter, Councilor Anderson, Cody Cardon, Steve Brooks, Michelle Marigoni

Motion: Councilmember Arnold moved to end the closed session and reopen the meeting.

Second: Councilmember Hansen

There was no discussion on the motion.

Councilor Richter:	Yes
Councilor Hansen:	Yes
Councilor Stevens:	Yes
Councilor Anderson:	Yes
Councilor Arnold:	Yes

Motion passed unanimously, meeting reopened at 9:05 p.m.

Upcoming Events

Comments

City Council

Councilor Arnold stated packets need comments from department heads or a no concerns signature. Mr. Cooper noted any comments are included in the packet, but suggested a routing sheet could be implemented.

City Staff

Mr. Brooks reported there was a fire in the Civic Center lobby due to construction on January 19. There was no damage.

Mayor

Mayor Mitchell reported vandalism and vinyl fences broken. The police responded before he could even get out to see the damage.

Adjournment

Having no further business to discuss, Councilmember Arnold moved to adjourn the meeting. Councilmember Richter seconded the motion. The meeting was adjourned at 9:27 p.m.

Date Approved:

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G1

SUBJECT: Consideration of Resolution #2026-01 approving the purchase of playground equipment for Golden Spike Park in an amount not to exceed $300,000.00

PRESENTER: Shawn Douglas, Public Works Director

INFORMATION:

a. Executive Summary
b. Resolution 2026-01
c. Big T Recreation Playground Quote

BACK TO AGENDA

City Council Executive Summary

For the Council meeting on:	Petitioner:
February 3, 2026	Shawn Douglas Public Works Director

Summary of Proposed Action

Consideration of Golden Spike Park Playground Equipment purchase in the amount of $300,000.00

Summary of Supporting Facts & Options

We would propose purchasing new equipment for the playground at Golden Spike Park. The designs provided are from Big T Recreation. Big T Recreation is approved on the state bid purchasing contracts. The proposed purchase amount for the playground is $296,122.25. Our crew will be doing the tear out and prep for the new equipment. I would ask that you approve the purchase in a not to exceed the budgeted amount of $300,000.00. That amount would allow for the purchase and installation of the new equipment and cover the removal and disposal. I would recommend approval.

Legal Comments – City Attorney

Steve Brooks, Attorney

Fiscal Comments – Business Administrator/Budget Officer

Cody Cardon,
Business Administrator

Administrative Comments – City Administrator

Steve Brooks,
City Administrator

RESOLUTION NO. 2026-01

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERDALE, UTAH, APPROVING THE PURCHASE OF NEW PLAYGROUND EQUIPMENT FOR GOLDEN SPIKE PARK FROM BIG T RECREATION

WHEREAS, Riverdale City is committed to providing safe, modern, and accessible recreational facilities for its residents; and

WHEREAS, the existing playground equipment in the City's parks requires replacement to meet current safety standards and community needs; and

WHEREAS, Big T Recreation has been selected to provide innovative and high-quality playground designs that will serve as the basis for the new installations; and

WHEREAS, the proposed project includes the removal of the existing outdated playground equipment, as well as the preparation, installation, and commissioning of new playground equipment at Golden Spike Park; and

WHEREAS, the estimated cost for the new playground equipment has been determined at $296,122.25; and

WHEREAS, the total cost of the project shall not exceed $300,000.00, which includes all expenses related to the removal of the old equipment and the installation of the new equipment;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Riverdale, Utah, as follows:

1. Approval of Purchase and Installation:
The purchase, removal of old equipment, preparation, and installation of new playground equipment at Golden Spike Park using designs from Big T Recreation is hereby approved, subject to the total project cost not exceeding $300,000.00.

2. Allocation of Funds:
The funds allocated for this project shall be utilized in accordance with the following breakdown:
Playground equipment: $296,122.25
The combined costs, inclusive of removal, preparation, and installation services, shall not exceed $300,000.00.

3. Project Oversight and Implementation:
The Mayor is authorized and directed to:
- Negotiate and execute any necessary contracts or agreements with Big T Recreation and any other involved vendors or contractors.
- Ensure that all project milestones, safety standards, and quality control measures are met in accordance with city policies and practices.
- Report periodically to the City Council on the progress of the project and any issues that may arise.

4. Effective Date:

This Resolution shall take effect immediately upon its passage and adoption by the City Council.

PASSED, APPROVED, AND ADOPTED by the City Council of the City of Riverdale, Utah, on this the _____ day of _____, 2026.

_____
Braden Mitchell
Mayor

ATTEST:

_____
Michelle Marigoni
City Recorder

VOTE:

Alan Arnold	___Yea	___ Nay	___Absent
Bart Stevens	___ Yea	___ Nay	___ Absent
Michael Richter	___ Yea	___ Nay	___ Absent
Anne Hansen	___ Yea	___ Nay	___ Absent
Kent Anderson	___ Yea	___ Nay	___ Absent

QUOTE

Big T Recreation
11618 S. State St #1602
Draper, UT 84020
801-572-0782
taft@bigtrec.com

Date	Quote #
01/28/2026	21487

Exp. Date
03/31/2026

Shipping Address
Riverdale City 4600 S Weber River Dr Riverdale, UT 84405

PRODUCT	DESCRIPTION	QTY	RATE	AMOUNT
	Golden Spike Park Playground Project 2026			
Playground Structure	New Playground By Playworld Reference Design # 26-18070A (1/27/2026) Triple Playground Tower with Integrated Shade All Abilities Elements: Accessible See Saw, Cozy Cocoon, Communication Board, Accessible Whirl, Flexrider Hangout, Inclusive Swing Seat, Sensory Play Concerto Vibes and Congas, Shaded Benches, Roller Slide, and Double Decker Cone Spinner.	1	217,391.25	217,391.25
Installation	Installation of Playground Equipment	1	48,981.00	48,981.00
Surfacing	250 Cubic Yards of Engineered Wood Fiber	1	11,774.00	11,774.00
Surfacing	Poured In Place Rubber for Under Accessible Swings 300 Sqft	1	9,614.00	9,614.00
Freight	Freight Direct Trucks Estimated 21,140 LBS	1	8,362.00	8,362.00
	Reference State Contract #PA4281			
	City Tax Exempt Certificate Due at Time of Order			

SUBTOTAL	
TAX	
TOTAL	$296,122.25

Accepted By

Accepted Date

Acceptance of this quote agrees to the terms and conditions set by Big T Recreation. Please contact us with any questions or concerns P: 801.572.0782, F: 801.216.3077 or E: taft @bigTrec.com or merit@bigTrec.com.

We thank you for your business.

Golden Spike Park

Riverdale, Utah

26-18070A

Sales Representative

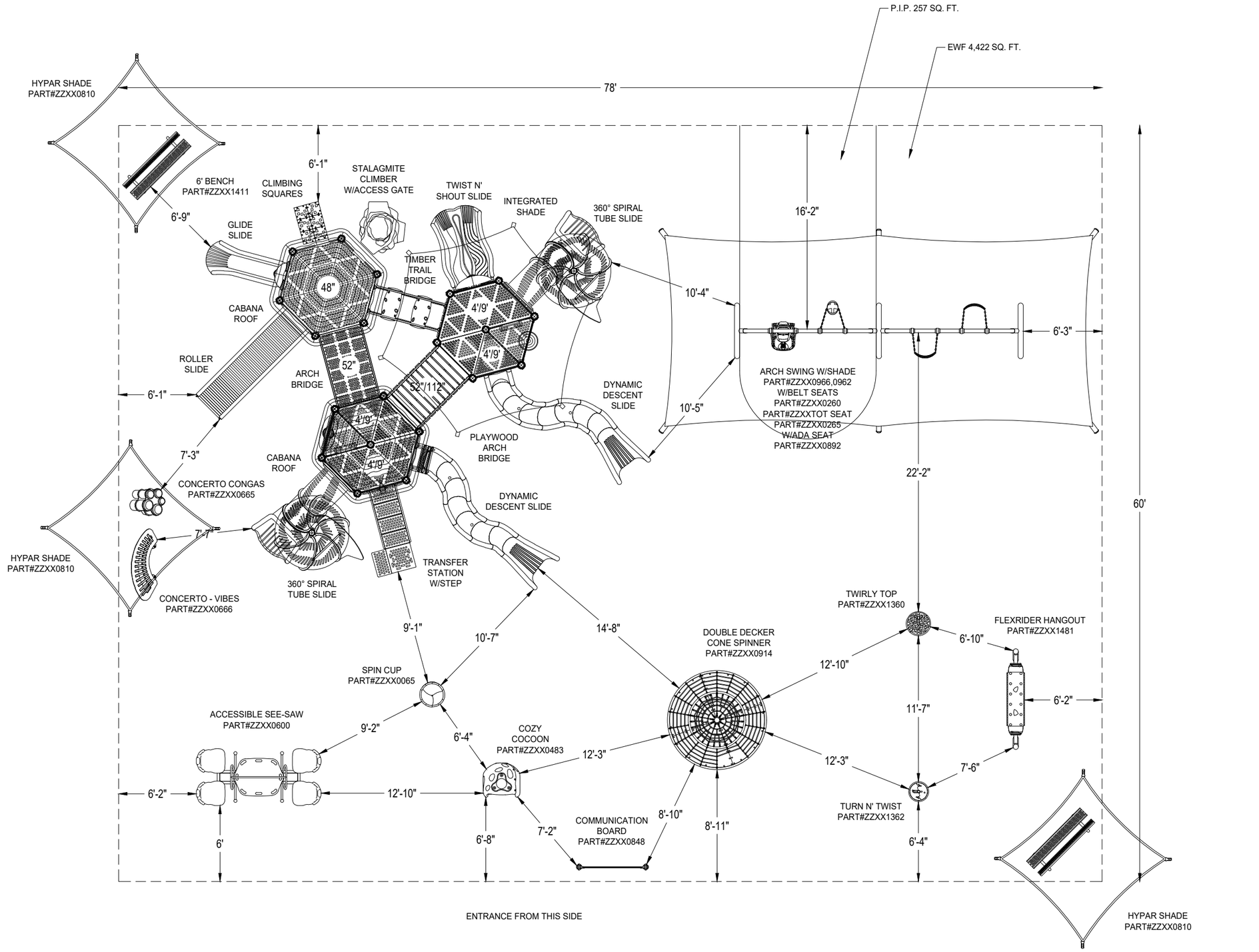
BIG T RECREATION

Equipment Manufacturer

PLAYWORLD
The world needs play.

POST & COMPONENT	ROTOMOLD PLASTIC	2-COLOR PLASTIC	PLASTISOL
Azure	Orange	Beige-Gray	Gray
Yellow	Cyan		
	Graystone		

ROPE	SHADE
Orange	Desert Sand



*PLAYGROUND SUPERVISION REQUIRED

PLAYWORLD

BIG T RECREATION
11618 S. State Street #1602
Draper, UT 84020

EQUIPMENT SIZE:
36'5" x 31'3" x 19'9"

USE ZONE:
78' X 60'

AREA:
4,680 SqFt.

PERIMETER:
276 Ft.

FALL HEIGHT:
9 Ft. 4 In.

USER CAPACITY:
130

AGE GROUP:
5-12

ADA SCHEDULE

	Total Elevated Play Activities: 19		
	Total Ground-Level Play Activities: 16		
	Accessible Elevated Activities	Accessible Ground-Level Activities	Accessible Ground-Level Play Types
Required	10	6	3
Provided	11	16	6

✓ ASTM F1487-21
✓ CPSC #325

PROJECT NO:
26-18070A

SCALE:
1/8"=1'0"

DRAWN BY:
MICHAEL BORDNER

Paper Size
B

DATE:
27-JAN-2026

GOLDEN SPIKE PARK
RIVERDALE, UTAH

Golden Spike Park

Riverdale, Utah

26-18070A

Sales Representative

BIG T RECREATION

Equipment Manufacturer

PLAYWORLD
The world needs play.

POST & COMPONENT	ROTOMOLD PLASTIC	2-COLOR PLASTIC	PLASTISOL
Azure	Orange	Beige-Gray	Gray
Yellow	Cyan		
	Graystone		

ROPE	SHADE
Orange	Desert Sand

Golden Spike Park

Riverdale, Utah

26-18070A

Sales Representative

BIG T RECREATION

Equipment Manufacturer

PLAYWORLD
The world needs play.

POST & COMPONENT	ROTOMOLD PLASTIC	2-COLOR PLASTIC	PLASTISOL
Azure	Orange	Beige-Gray	Gray
Yellow	Cyan		
	Graystone		

ROPE	SHADE
Orange	Desert Sand

Golden Spike Park

Riverdale, Utah

26-18070A

Sales Representative

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POST & COMPONENT	ROTOMOLD PLASTIC	2-COLOR PLASTIC	PLASTISOL
Azure	Orange	Beige-Gray	Gray
Yellow	Cyan		
	Graystone		

ROPE	SHADE
Orange	Desert Sand

Golden Spike Park - Option 2

Riverdale, Utah

26-18070A

Sales Representative

BIG T RECREATION

Equipment Manufacturer

PLAYWORLD
The world needs play.

POST & COMPONENT	ROTOMOLD PLASTIC	2-COLOR PLASTIC	PLASTISOL
Cobalt	Orange	Beige-Gray	Gray
Chartreuse	Chartreuse		
	Graystone	ROPE	SHADE
	Cobalt	Orange	Green

Golden Spike Park - Option 2

Riverdale, Utah

26-18070A

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Golden Spike Park - Option 2

Riverdale, Utah

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Cobalt	Orange	Beige-Gray	Gray
Chartreuse	Chartreuse		
	Graystone	ROPE	SHADE
	Cobalt	Orange	Green

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G2

SUBJECT: Consideration of Resolution #2026-02 adopting updates to the Riverdale City Construction and Development Standards

PRESENTER: Shawn Douglas, Public Works Director

INFORMATION:

a. Executive Summary
b. Resolution 2026-02
c. 2026 Riverdale City Standard Drawings
d. 2026 Riverdale City Standard Specifications

BACK TO AGENDA

City Council Executive Summary

For the Council meeting on:	Petitioner:
February 3, 2026	Shawn Douglas, Public Works Director

Summary of Proposed Action

Consideration of adopting updates to the Riverdale City Construction and Development Standards

Summary of Supporting Facts & Options

We need to make some minor changes to our standards. Some of the changes are to materials that are changing in the industry, such as moving from copper water services to poly water services. Other changes or updates are based on problems that have presented during construction and need to be clarified or addressed. The changes are highlighted in red. I would recommend approval.

Legal Comments – City Attorney

Steve Brooks, Attorney

Fiscal Comments – Business Administrator/Budget Officer

Cody Cardon,
Business Administrator

Administrative Comments – City Administrator

Steve Brooks,
City Administrator

RESOLUTION NO. 2026-02

A RESOLUTION ADOPTING POLICIES & PROCEDURES CONCERNING CONSTRUCTION AND DEVELOPMENT STANDARDS

WHEREAS, for many years, Riverdale City has followed the accepted standard policies and practices concerning construction and development projects involving public works; and

WHEREAS, it is necessary, from time to time, to make amendments to the policies and practices in order to update, supplement, change, clarify, or otherwise revise certain sections of the practices; and

WHEREAS, the City desires to have the most recent adopted standards available and accessible to the public in order to ensure that construction projects occurring within the City are performed at the highest level available and that there is no question or confusion as to what policies the City follows; and

WHEREAS, the Council finds that adopting these policies will help to eliminate any issues concerning a lack of knowledge, understanding and clarification in order for city projects to obtain quality results and to make the best use of public time and funds and the Council further finds is in the best interest of the City and that this will promote the health, safety and general welfare and well-being of the community.

NOW, THEREFORE, BE IT HEREBY RESOLVED by the Riverdale City Council that the amendments made to the policy and practices as set forth in Attachment "1," attached hereto and incorporated herein by reference, concerning CONSTRUCTION AND DEVELOPMENT STANDARDS, is hereby adopted and that the Mayor is authorized and directed to execute any related documents on behalf of Riverdale City to facilitate the intent of this Resolution.

This resolution shall take effect immediately upon its adoption and passage.

PASSED AND ADOPTED this ____ day of February, 2026

_____
Braden Mitchell, Mayor

Attest:

_____
Michelle Marigoni, City Recorder

VOTE:

Alan Arnold	___Yea	_____ Nay	____Absent
Bart Stevens	___ Yea	___ Nay	___ Absent
Michael Ritchter	___ Yea	___ Nay	___ Absent
Anne Hansen	___ Yea	___ Nay	___ Absent
Kent Anderson	___ Yea	___ Nay	___ Absent

RIVERDALE CITY

Construction and Development Standards

January 2026

Riverdale City

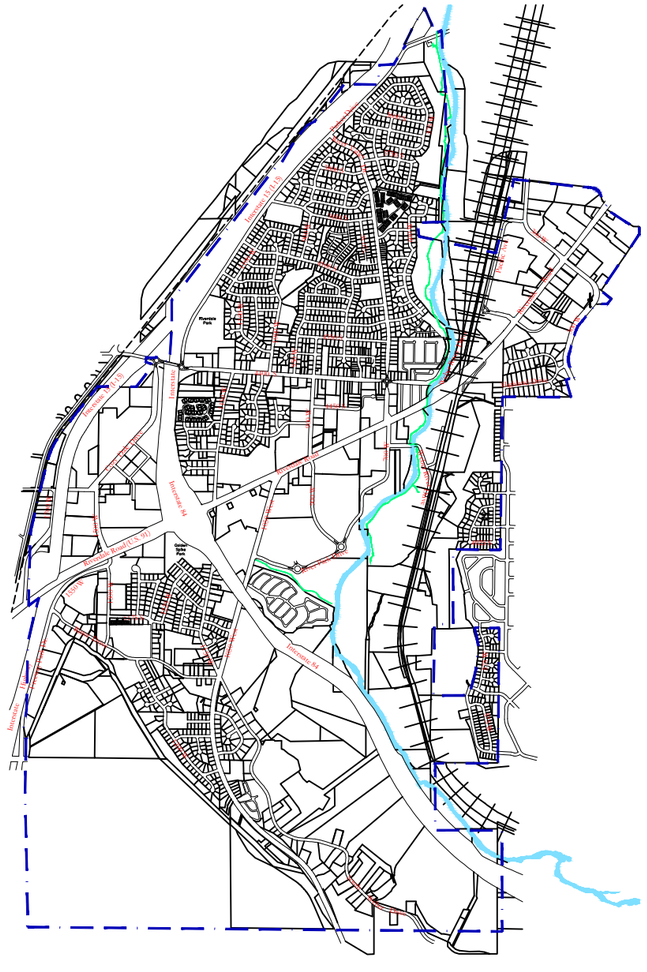
SUBMITTED & RECOMMENDED

City Engineer

APPROVAL

Braden Mitchell
Mayor

Shawn Douglas
Public Works Director



INDEX OF DRAWINGS

SPECIAL NOTE:

Any items not described by these standards shall be subject to review and approval by the City Manager and Public Works Director, or their designees.

At the City's sole discretion, alternate methods of construction or deviations from these standards may be required or approved by the City Manager and Public Works Director (or their designees), when such are necessary to meet the best interests of the City.

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: TITLE SHEET

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~ 01 Title Sheet.dwg
SHEET: 1 of 22

LEGEND
SS = Sanitary Sewer
IRR = Irrigation
CW = Culinary Water
SW = Storm Water
Gas = Natural Gas
℄ = Centerline of the road

Concrete sidewalk
Property line
Utility sleeves shall extend 1' beyond curb & gutter
Street sign location (typ.) See sheet 7 of 22
1'-0"
7'-0"
Concrete curb & gutter (typical) pan joints every 10' expansion joints every 100'
Main sanitary sewer
5'
5'
Main culinary water
Main secondary water
Utility Sleeve
5'-0"
5'-0"
Expansion joint (typ)
Main sanitary sewer
Main culinary water
Gas Main
Cold joint
Waterway See sheet 3 of 22
Cold joint
10' public utility easement
Wheel chair ramp / pedestrian access (typical) See sheet 5 of 22
R=10.5'
Standard catch basin as specified by the City Engineer
Manhole see sheet 10 of 22 (typical)
Survey monument See sheet 6 of 22
Align valves as shown
℄ Street
Storm water
Storm drain manhole See sheet 12 of 22 (typical)
Storm drain manhole
Combination box
1/2" expansion joint (typical)
Stop sign location (typ.) See sheet 7 of 22
2'
4'
Concrete sidewalk See sheets 3 & 5 of 22
Main secondary water
Standard catch basin as specified by the City Engineer See sheets 13, 14, 15, 16 & 17 of 22
R=20' (Min)
See sheet 19 of 22
Space fire hydrants no more than 500' apart in residential areas or as approved by the Fire Chief

Geotechnical Report Note:

1. A Geotechnical Report is required on all new Construction.

NOTES:

1. Land drains installed must be approved by the City Engineer. When allowed, pipes shall not be perforated or designed to accept water within the street right-of-way.
2. Land drains to be located in front or rear yard easements or where specified by City Engineer.
3. Radius on 80' and 100' right-of-ways shall be 25'.
4. Property line radius shall be 9.5' smaller than TBC radius.
5. All concrete shall be prepared and delivered by an approved ready mix company per Section 4 of the specifications.
6. All concrete collars to be constructed 1/4" below finish asphalt surfacing.
7. Land drains to be located in front or rear yard easements or where specified by City Engineer.
8. See sheets 19, 20, & 21 of 22 for culinary water details.

STANDARD INTERSECTION DETAILS

SCALE: NONE

1
-

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

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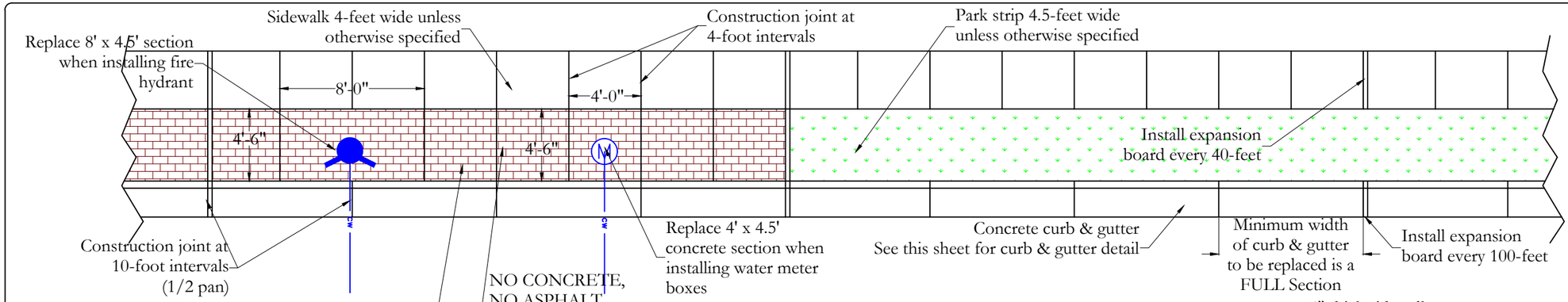
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STANDARD INTERSECTION DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 2 of 22



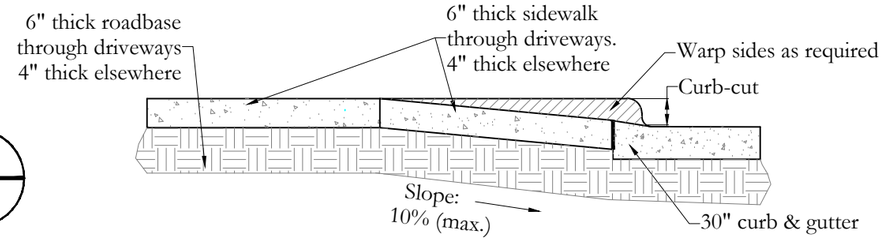
PLAN VIEW
NO SCALE

NOTE: Pre-approval is required for concrete to be placed in the park strip. Contractor must meet all current sidewalk specifications and must box out for all utilities. Concrete parkstrip must be stamped and colored to distinguish between sidewalk and parkstrip. Riverdale City is not responsible for any replacement

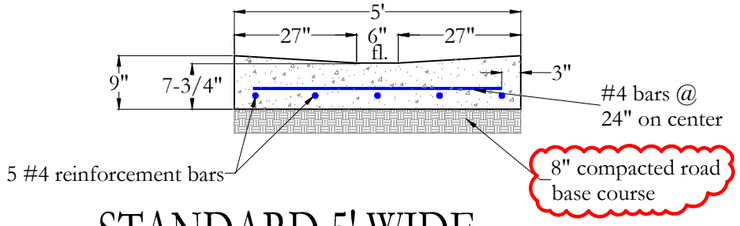
SIDEWALK DETAILS

SCALE: NONE

1
-



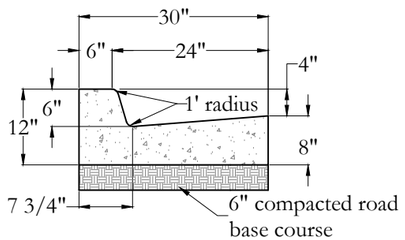
CROSS-SECTION DRIVEWAY
NO SCALE



STANDARD 5' WIDE WATERWAY

SCALE: NONE

2
-



NOTE:
Contractor to provide expansion joints at a spacing not to exceed 100 feet and where new concrete materials abut existing ramps, curb and gutter, and other concrete, or as directed by the Engineer.

STANDARD 30" CURB & GUTTER

SCALE: NONE

3
-

NOTES:

1. A minimum 6-inch depth of roadbase or crushed gravel (1" minus) material shall be placed to grade & compacted to 95% of maximum dry density under driveway, waterway, and curb & gutter prior to placement of concrete.

2. A minimum 4-inch depth of roadbase material shall be placed to grade and compacted to 95% of maximum dry density under sidewalk prior to placement of concrete.

3. Where construction is adjacent to State Highway Frontage, State Highway Department requirements shall govern.

4. Concrete for sidewalks, curb & gutters, driveway approaches and waterways shall be 3/4-inch maximum aggregate with a minimum compressive strength of 4,000 PSI at 28 days.

5. Expansion joints shall be constructed by placing an approved material, (typically bituminous impregnated fiberboard), the full depth of the concrete. Expansion material **shall be installed prior to the placement of the concrete** and set flush with the finish level of the sidewalk. **Concrete shall not be installed below the expansion joint**.

6. Construction joint is made by inserting 1/8-inch Steel plate into the concrete; finish with 1/2-inch radius edging tool or other method approve by Engineer.

7. Slope sidewalk to roadway at 2% grade.

8. Locate all inlet grates 2-feet minimum away from the pedestrian crosswalk, with all drainage intercepted before it gets to the pedestrian crosswalk area.

9. Minimum temperature for placement of concrete without protection is 40°F. (See Technical Specifications)

10. Below 40° F, all concrete to be protected for 10 days. (Portable heater may be required, as directed - See Technical Specifications)

11. All roadbase shall meet UDOT standards and specifications. Recycled concrete will NOT be permitted to use as a roadbase substitute.

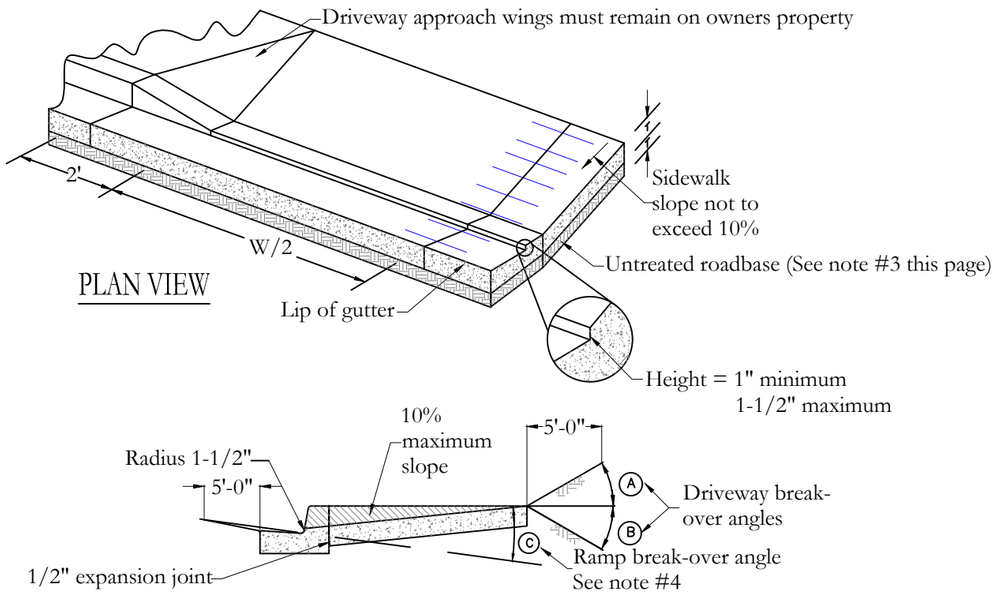
CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH
TITLE: SIDEWALK, WATERWAY, CURB & GUTTER DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 3 of 22



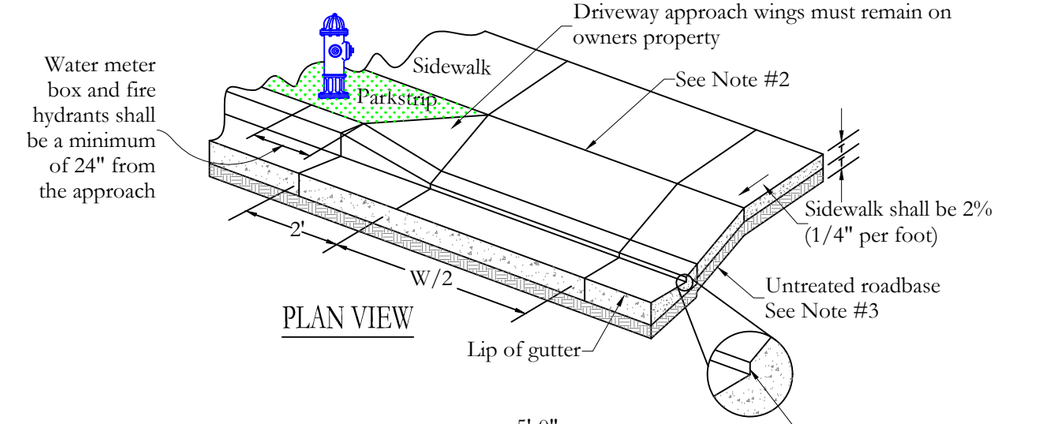
PLAN VIEW

TYPICAL SECTION

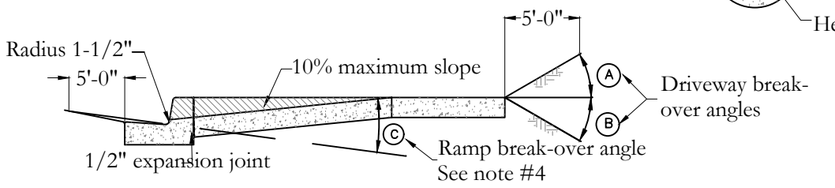
FLARE DRIVEWAY DETAIL WITHOUT PARKSTRIP

1 / -

SCALE: NONE



PLAN VIEW



TYPICAL SECTION

FLARE DRIVEWAY DETAIL WITH PARKSTRIP

2 / -

SCALE: NONE

NOTES:

1. Edge concrete with 1/2-inch radius edging tool.

2. Place 1/2-inch expansion joint between driveway apron and curb and in the driveway centerline if "W" is greater than 20-feet. Filler material shall be full depth of concrete.

3. Use 6-inch thick untreated roadbase or gravel (1.5-inch minus) under curb, gutter and sidewalk. Compact to 95% of the maximum dry density. All roadbase shall meet UDOT standards and specifications. Recycled concrete will NOT be permitted to use as a roadbase substitute.

4. Difference in slope of driveway ramp and the slope of a line between the gutter and a point on the roadway 5-feet from the front edge of the gutter shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.

5. All concrete slabs with a length/width ratio greater than 2:1 shall have contraction joints installed as required to stay within the 2:1 ratio.

6. Front edge of sidewalk to be set at an elevation of 2% higher than the top of back of curb.

7. Installation of the sidewalk adjacent to the back of curb REQUIRES SPECIAL APPROVAL FROM THE PUBLIC WORKS DIRECTOR PRIOR TO INSTALLATION. The sidewalk shall be a minimum of 5-feet wide unless otherwise specified with the special approval. With a parkstrip, the sidewalk must be a minimum of 4-feet wide unless otherwise specified.

8. Minimum of 12-feet between driveways in residential and commercial zones is required.

9. Angle cut toward the flowline of the curb.

DRIVE APPROACH DIMENSIONS

DIMENSION	LENGTH ACCORDING TO ZONE
W	24'-0" min. residential zones 34'-0" max. residential zones 34'-0" max. commercial/industrial zones *Riverdale City Public Works Director to approve any driveway approaches needing wider widths.
T	0'-6" Residential zones 0'-8" Commercial/industrial zones

TABLE OF DIMENSIONS

DIMENSION		ZONE
A	≤ 12 % ≤ 6 %	Residential zone Commercial/industrial zones
B	≤ 13 % ≤ 6 %	Residential zone Commercial/industrial zones
C	≤ 15 % ≤ 6 %	Residential zone Commercial/industrial zones

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801.866.0550

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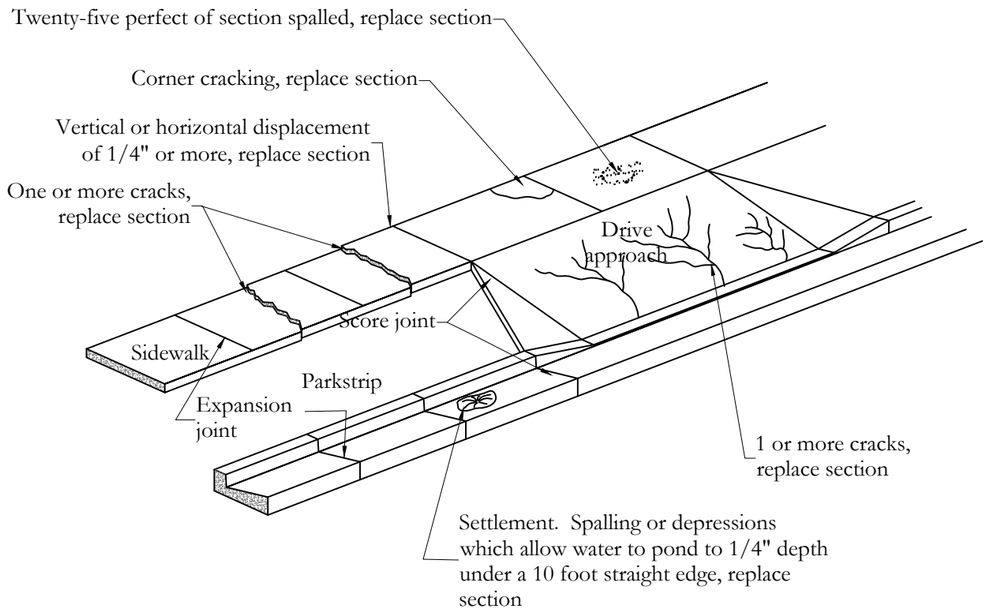
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: DRIVEWAY APPROACH DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 4 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



NOTES:

1. Replacement is required if any component has one or more of the conditions shown. Otherwise repair section under the direction of the City or Engineer.

2. Concrete work shall not be done during inclement weather. (See temperature specifications in the Technical Specifications) Finish shall be aesthetically acceptable (ie. No discoloration with smooth broomed finish.

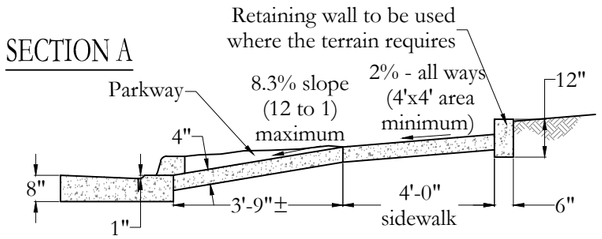
3. The minimum length of curb & gutter that can be replaced is a Full Section.

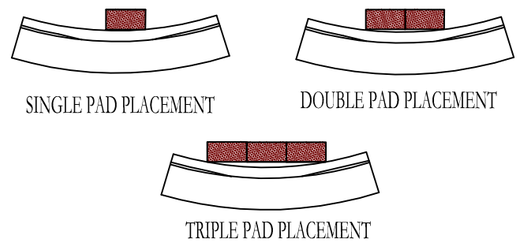
REPLACEMENT CRITERIA FOR NEW CONCRETE & ADJACENT EXISTING CONCRETE CURB & GUTTER AND SIDEWALK

1 / -

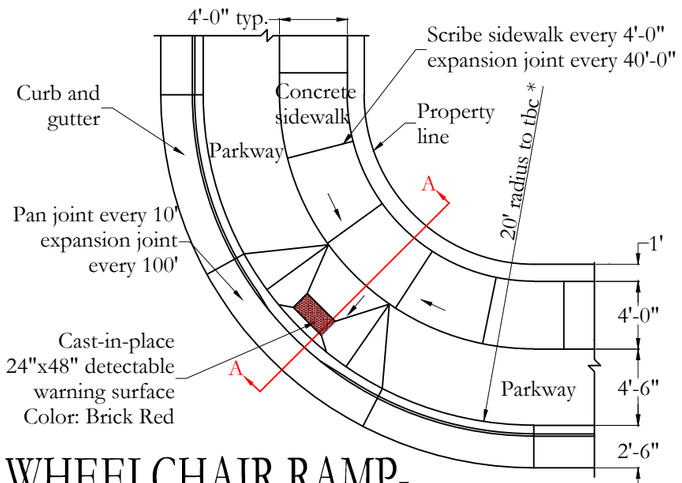
SCALE: NONE

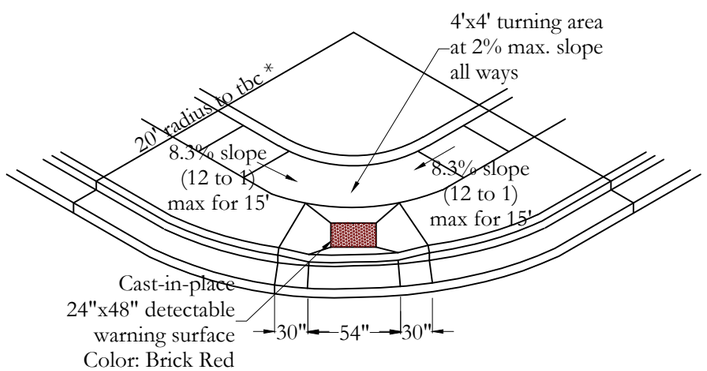
SECTION A





PAD PLACEMENT





PICTORIAL VIEW

WHEELCHAIR RAMP- PEDESTRIAN ACCESS

2 / -

SCALE: NONE

NOTES:

1. A minimum 6" depth of roadbase material or crushed gravel shall be placed to grade and compacted under handicap ramps to 95% of maximum dry density prior to placement of concrete.

2. Locate all inlet grates 2' minimum away from the pedestrian crosswalk, with all drainage intercepted before storm water crosses the crosswalk area.

3. Slopes shown are maximum slopes.

4. Expansion joints shall be constructed by placing an approved material, (typically bituminous impregnated fiberboard), the full depth of the concrete. Expansion material shall be set 1/4" below the finish level of sidewalk ramp. Expansion material shall be installed prior to the placement of concrete. **Concrete shall not be installed below the expansion joint.**

5. When a city roadway intersects with a UDOT road, a 35' minimum radius (or other) will be required as per UDOT requirement.

6. Detectable warning surface materials & installation must conform to "ADA cast-in-place tactile warning panels" requirements & specifications.

7. Detectable warning panels by "ADA Solutions, Inc.", color to be specified by City (other products to be approved by City prior to installation).

8. This detail is for new construction of wheelchair ramps. When modifying any existing ramps, contact Riverdale City Public Works Inspector for engineering and modification.

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

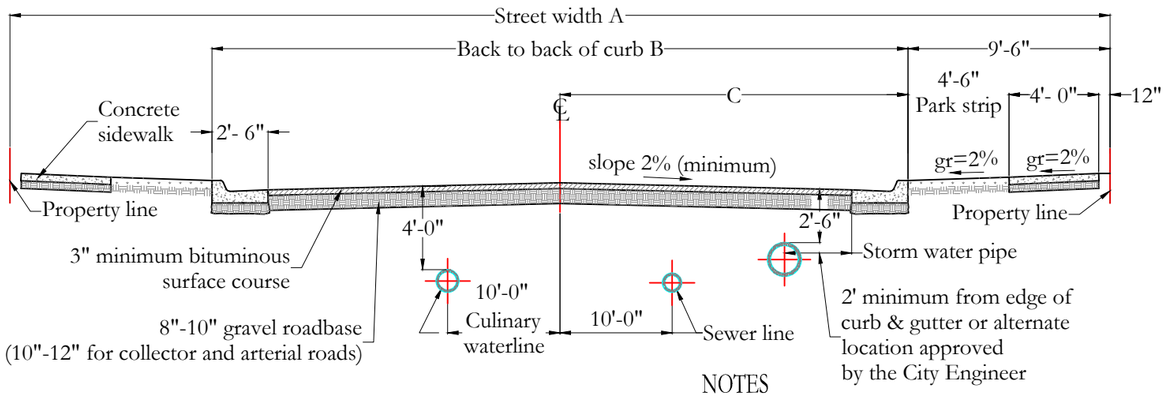
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: CONCRETE & WHEELCHAIR RAMP DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 5 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



STANDARD URBAN ROADWAY SECTION

SCALE: NONE

1
-

Street designation	R.O.W. WIDTH (A)	T.B.C. TO T.B.C. (B)	℄ TO T.B.C. (C)
Minor	50'	31'	15.5'
Standard Residential	60'	41'	20.5'
Collector	66'	47'	23.5'
Minor Arterial	80'	61'	31.5'
Major Arterial	100'	81'	40.5'

NOTES

1. Maximum difference in elevation between curb on opposite side of street shall not exceed 1'-0".

2. Pavement thickness shall be considered as minimum and may be increased by the Engineer when the subgrade c.b.r. is less than 10 or when a greater depth is necessary to provide sufficient stability.

3. All roadbase shall meet UDOT standards and specifications. Recycled concrete will NOT be permitted to use as a roadbase substitute.

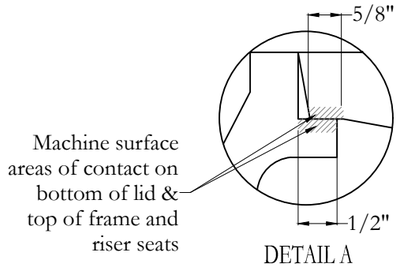
4. Minor and major arterial streets shall be constructed with a 10" untreated base course and 3" bituminous surface course or as required.

5. Minimum storm water pipe size is 15" diameter.

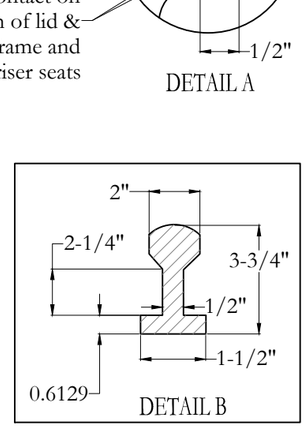
6. Minimum water line size is 8" diameter.

7. Minimum sanitary sewer line size is 8" diameter.

8. Chip Seal Coat materials shall not be placed in a cul-de-sac. Substitute with Polymer Seal Coat materials (High density mineral bonds, Mastics, Onyx, HA5, Micro-surfacing, Slurry seals & others as approved).

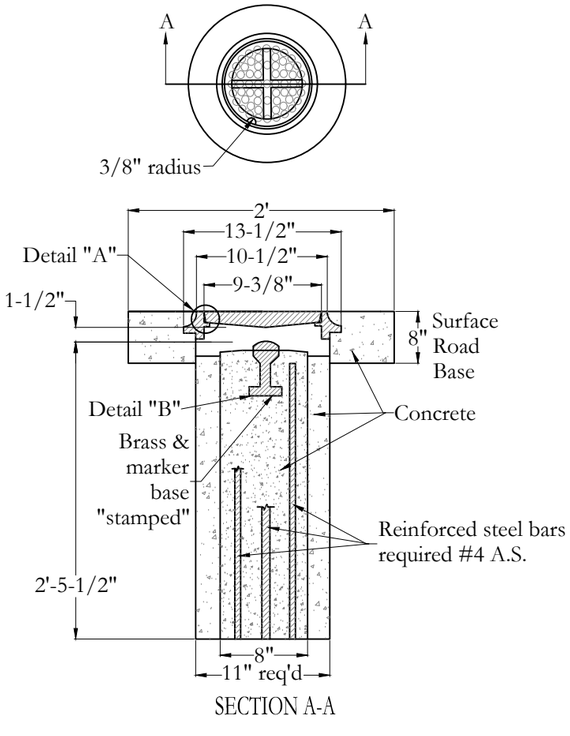


DETAIL A



DETAIL B

NOTE: Recess steel frame 1/8" & taper road surface 1"



SECTION A-A

SURVEY MONUMENT

SCALE: NONE

2
-

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

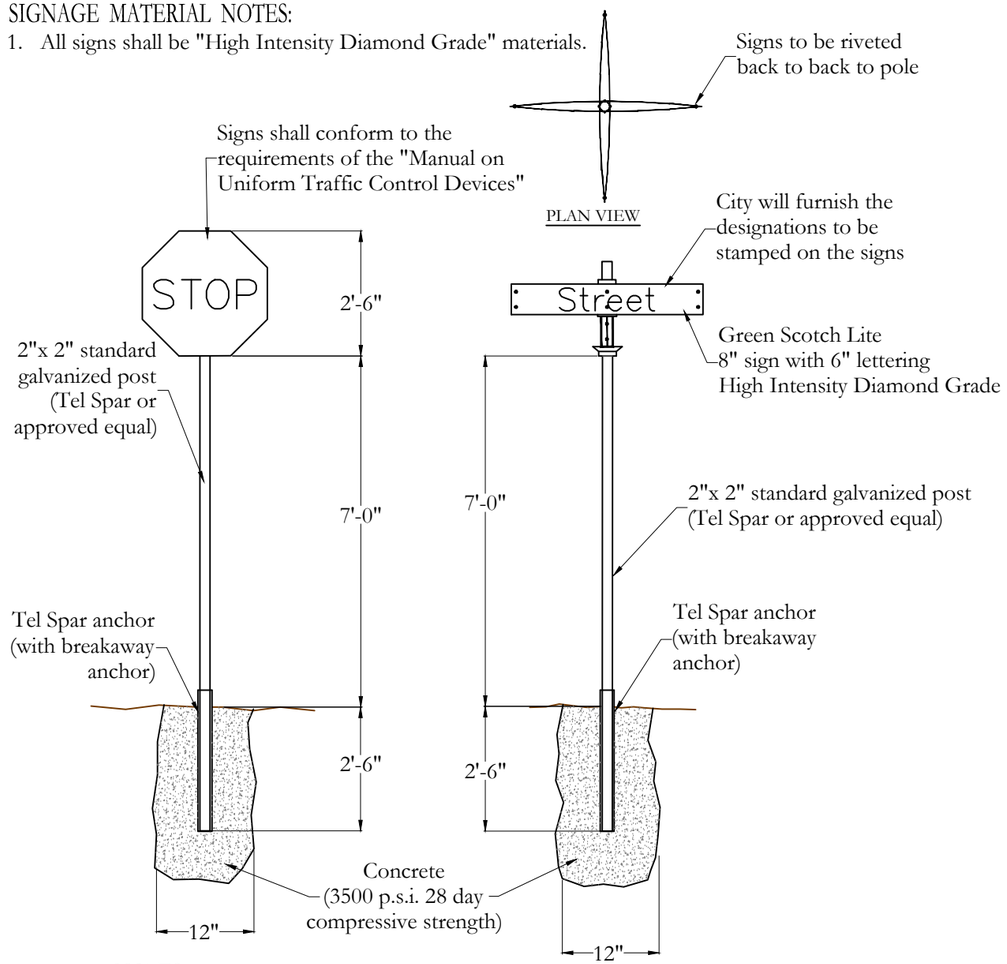
TITLE: STANDARD ROADWAY SECTION & SURVEY MONUMENT DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 6 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025
DATE: 1/28/2026 11:58 AM

SIGNAGE MATERIAL NOTES:

1. All signs shall be "High Intensity Diamond Grade" materials.



NOTES:

1. Secure Riverdale City's approval of sign format and installation.

2. Install the edge of the sign 2-feet from the vertical extension of the back of curb as near as possible to the approach curb point of curvature. Signs should not overhang sidewalk or curb & gutter

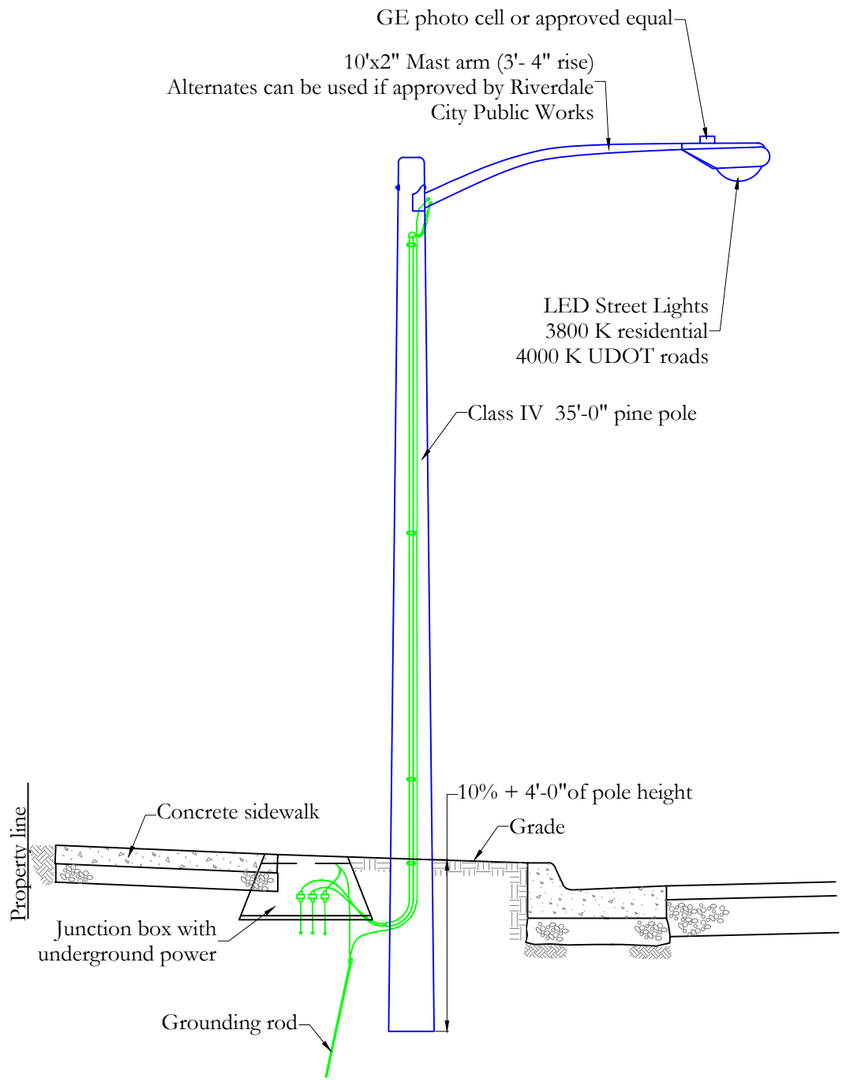
3. All street signs (Stop, Speed, etc.) shall be 7-feet minimum from ground to the bottom of the sign.

4. Placement of all street signs to be approved by Riverdale City.

STREET AND REGULATORY STANDARD DETAILS

1 / -

SCALE: NONE



NOTE:

1. All materials and electrical connections must meet the requirements of Rocky Mountain Power's electrical standards
2. Street light poles shall be located at roadway intersections (near fire hydrants where possible) and at other required locations per City Engineer

Optional pole design may be substituted. Approval will be required by City prior to installation.

STREET LIGHT POLE DETAIL

2 / -

SCALE: NONE

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

DATE: DECEMBER 2025

DRAWN: JEO/KSM

CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

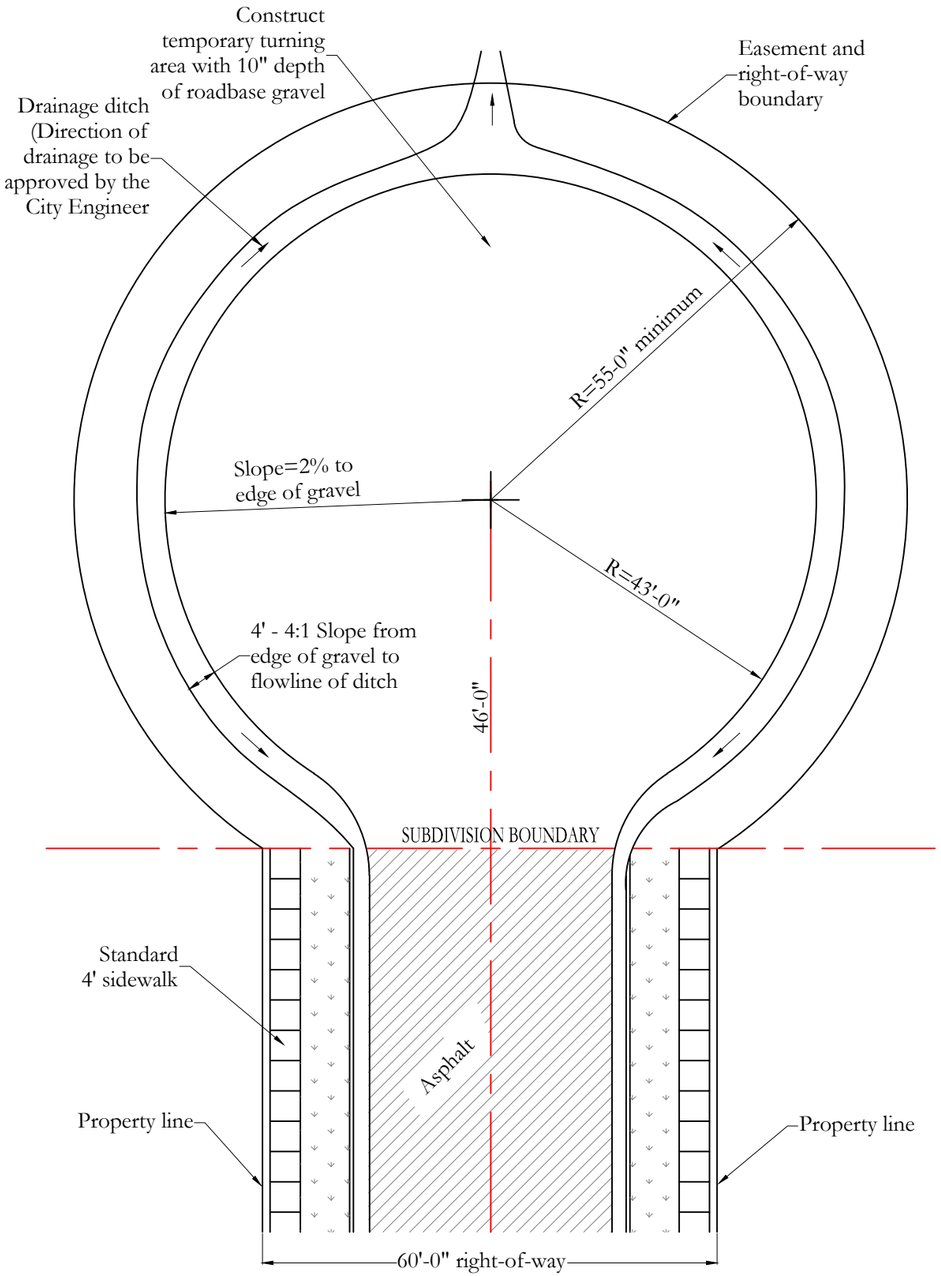
TITLE: STREET SIGNS & LIGHT DETAILS

CLIENT: RIVERDALE CITY

PROJECT NUMBER: RC.00002

FILE: ~02-09 rc ST stds.dwg

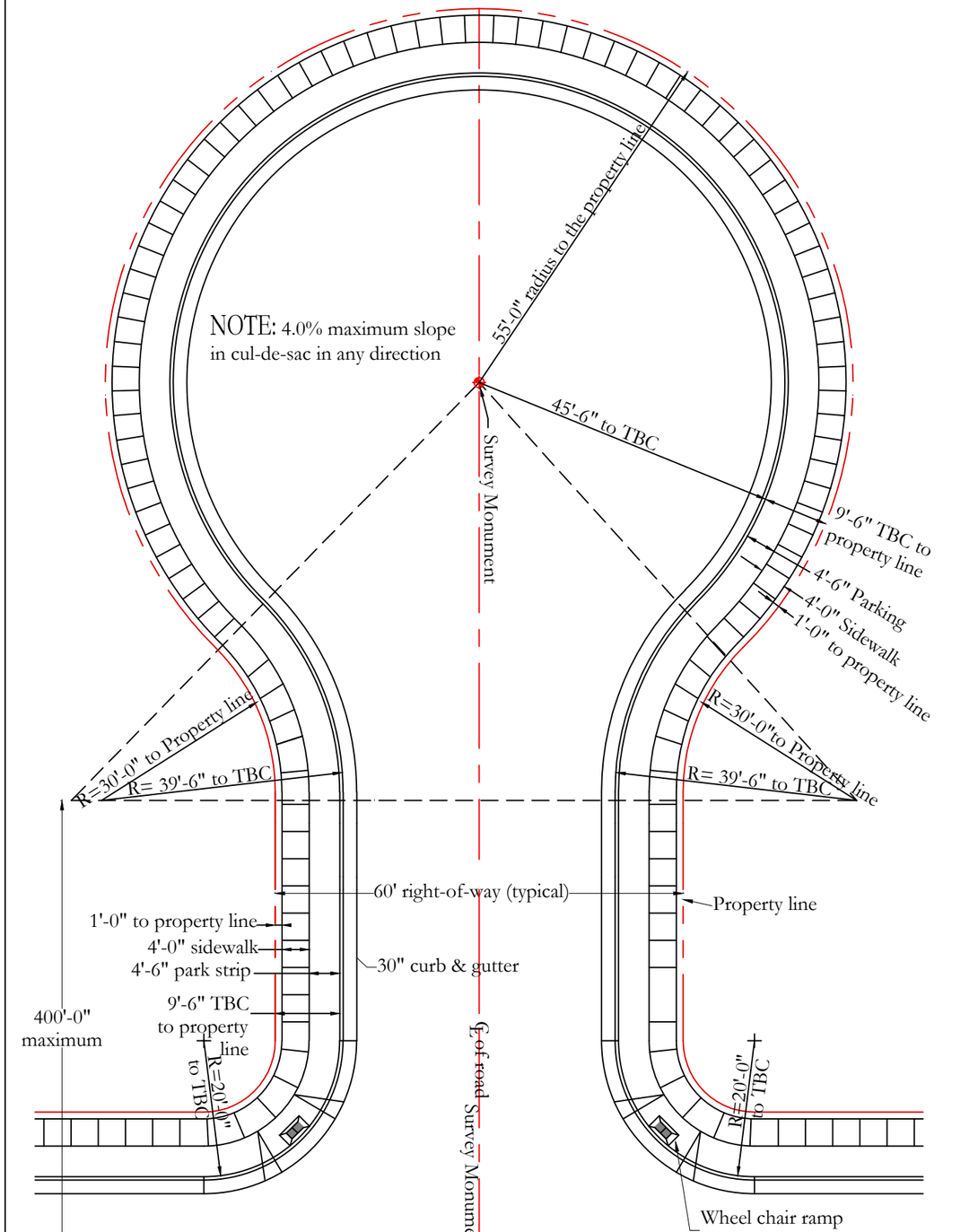
SHEET: 7 of 22



TEMPORARY TURN-AROUND

SCALE: NONE

1
-



CUL-DE-SAC

SCALE: NONE

2
-

CIVIL ENGINEERING CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

NO.	DATE	BY	REVISIONS

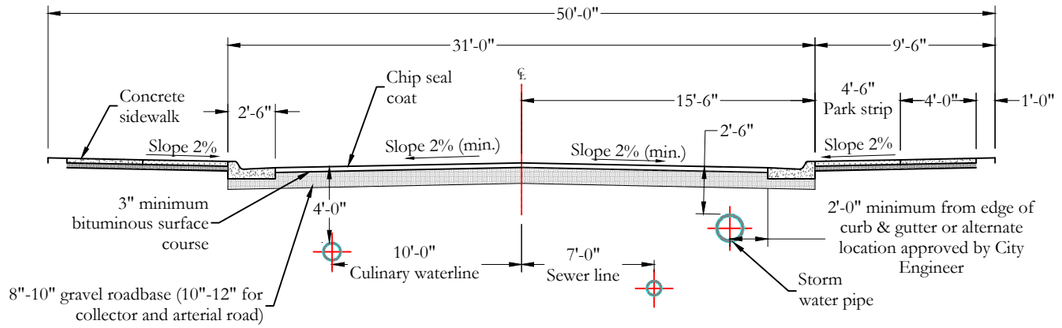
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: TEMPORARY TURN-AROUND & CUL-DE-SAC DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 8 of 22

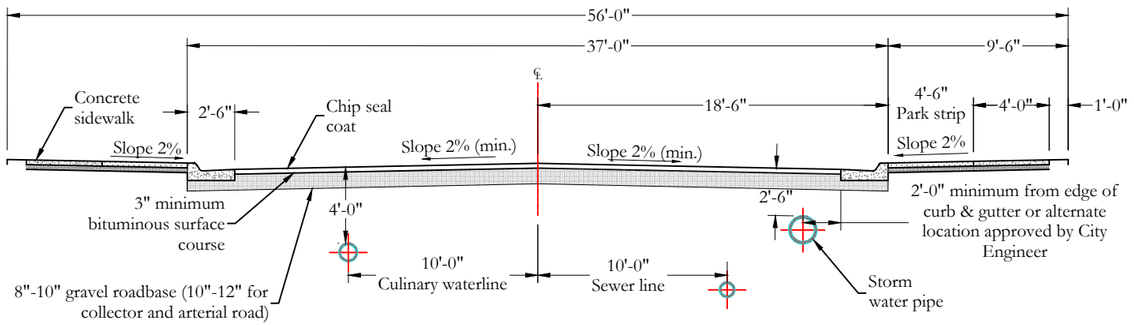
LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



TYPICAL 50-FOOT ROADWAY SECTION

1 / -

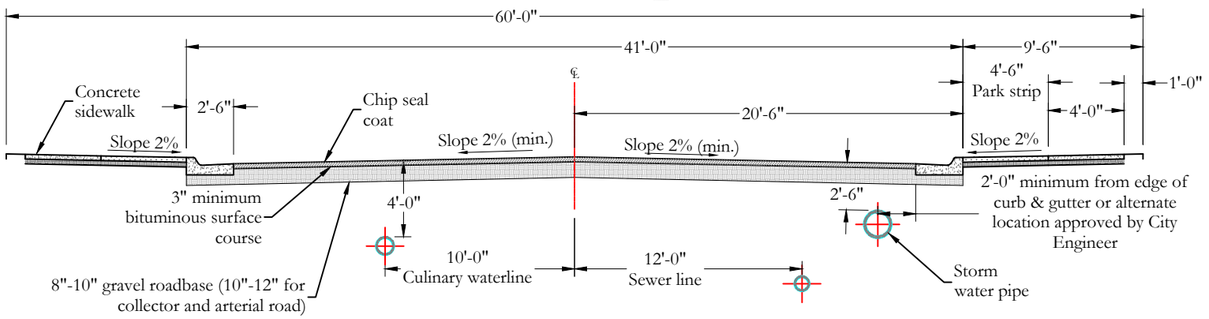
SCALE: 1/8" = 1'-0"



TYPICAL 56-FOOT ROADWAY SECTION

2 / -

SCALE: 1/8" = 1'-0"



TYPICAL 60-FOOT ROADWAY SECTION

3 / -

SCALE: 1/8" = 1'-0"

Street designation	R.O.W. WIDTH (A)	T.B.C. TO T.B.C. (B)	℄ TO T.B.C. (C)
Minor	50'	31'	15.5'
Standard Residential	56'	37'	18.5'
Standard Residential	60'	41'	20.5'

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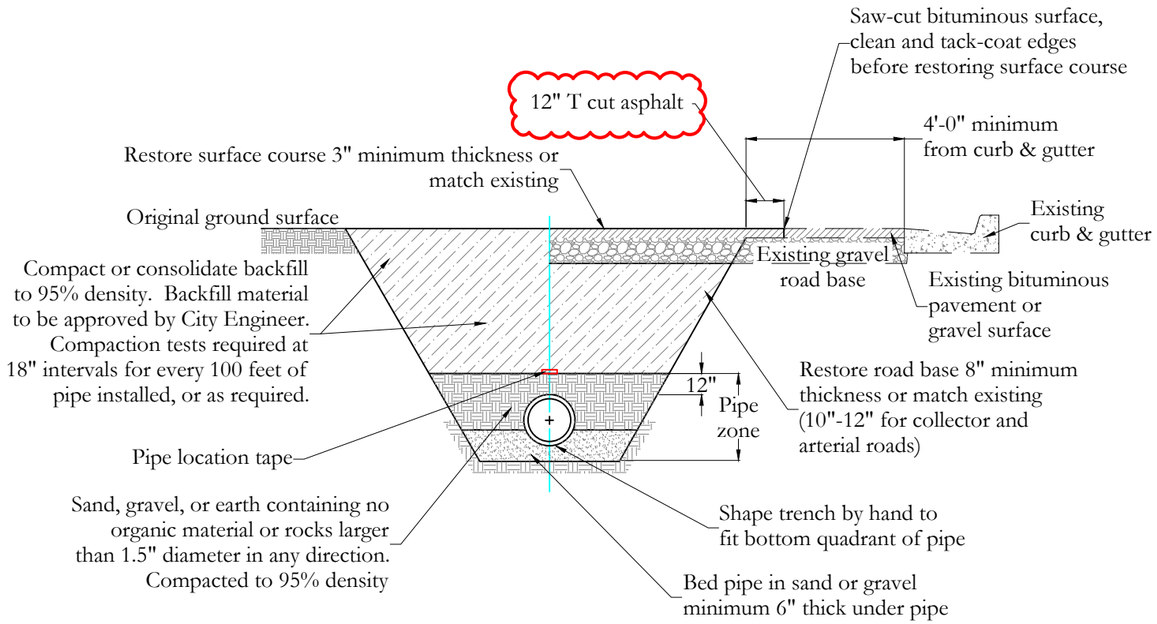
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STANDARD ROADWAY SECTION DETIALS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~02-09 rc ST stds.dwg
SHEET: 9 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



NOTES:

1. The contractor shall be responsible for meeting all current OSHA and UOSH requirements for trench safety.

2. Contractor shall locate all underground utilities before laying pipe within 200' of said utilities which may be exposed, damaged or crossed as shown on the drawings or as "blue staked" the contractor will make arrangements with the utility company to move the utility if necessary or obtain permission from the project engineer to modify grade of pipeline in order to go around utilities.

3. The contractor shall determine the actual location of existing service connections and utilities and take the necessary steps to avoid them. Contractor is responsible for any damage occurring during construction.

4. All sewer lines to be installed at a minimum 10' distance from any water lines and installed with a minimum of 4' cover to the top of the pipe.

5. All sanitary sewer pipelines shall be air & displacement tested along with a video tape recording of the pipelines interior, per the requirements of "Section 6, Paragraph G" of the "Technical Specifications".

6. All Sanitary Sewer pipelines shall be re-video recorded/taped for displacement failures just prior to the expiration of the 1-year warrantee period. Should the pipeline be displaced horizontally or vertically the Public Works Director and/ or the City Engineer shall determine the extent of the required repairs. It shall be the Contractors full responsibility to immediately make all required repairs and all costs associated with the repairs shall be paid by the Contractor.

7. With all private construction, the Contractor must submit to Riverdale City Public Works the "As Constructed" Plans, copies of the video recording of the pipe line testing and all the collection pipes (storm & sewer) must be cleaned.

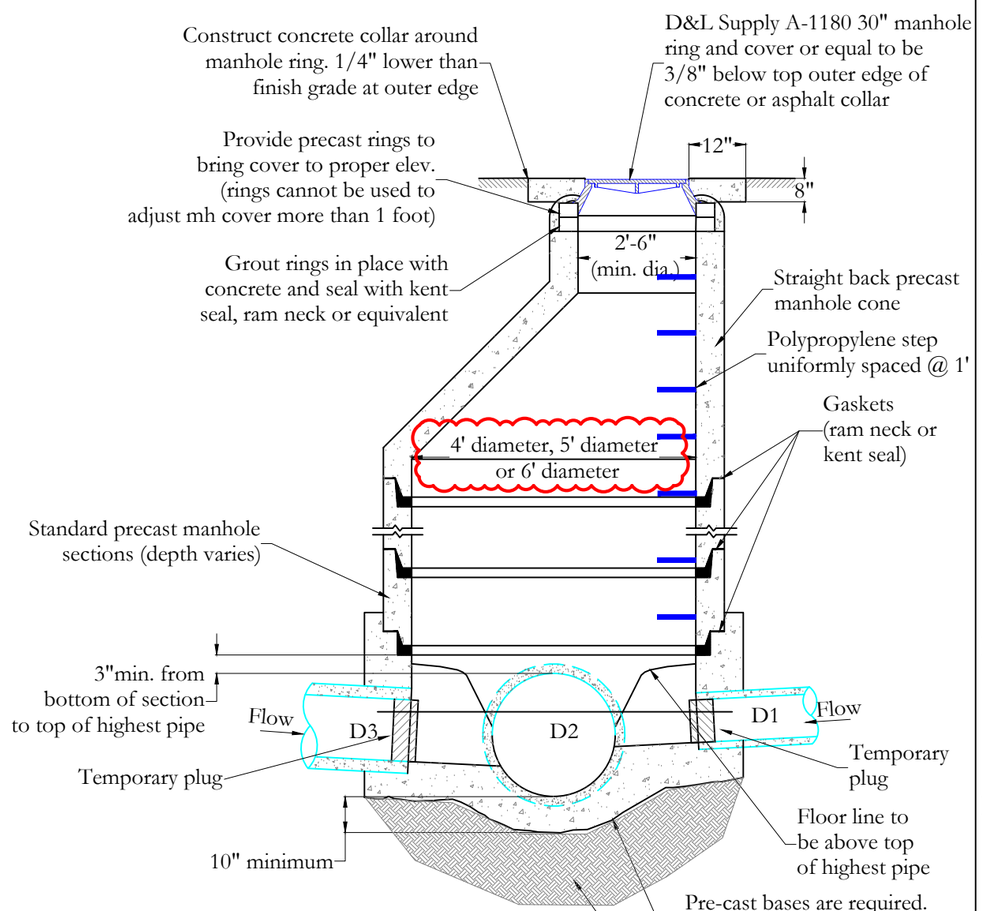
8. All abandoned lines 6" and larger are to be flow filled with lean concrete. Manhole to be removed shall be removed to within the 24" above the abandoned pipe.

STANDARD SEWER TRENCH CROSS-SECTION

1

-

SCALE: NONE



NOTES:

1. If grade allows, inverts of D1 & D3 shall be required to match top of D2.

2. After all grading around manhole has been completed and final surfacing is in place, remove debris and temporary plugs or plywood from inside of manholes.

3. If manhole is to be poured in place, follow same pattern as shown except use 10" minimum wall thickness.

4. Manholes deeper than 20 feet shall have an 18" thick concrete base.

5. Cone and wall sections shall conform with ASTM C-478 standard.

6. Abandoned manholes are to be removed to within the 24" of top of abandoned pipe

STANDARD SANITARY SEWER MANHOLE

2

-

SCALE: NONE

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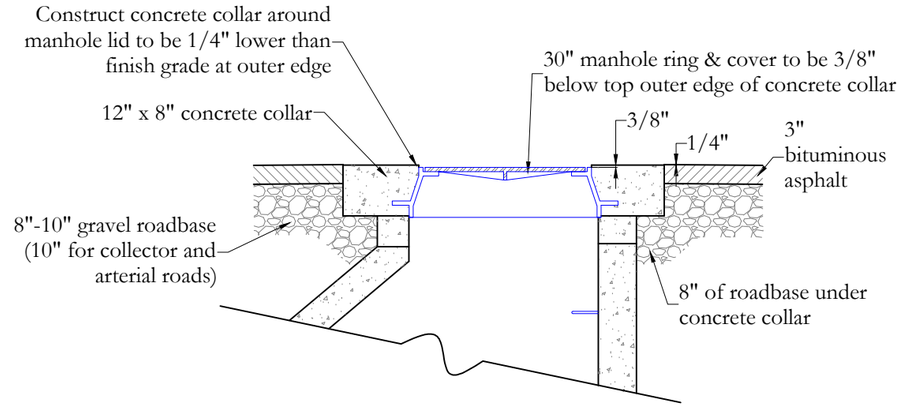
NO.	DATE	BY	REVISIONS

DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: SANITARY SEWER TRENCH & MANHOLE DETAILS

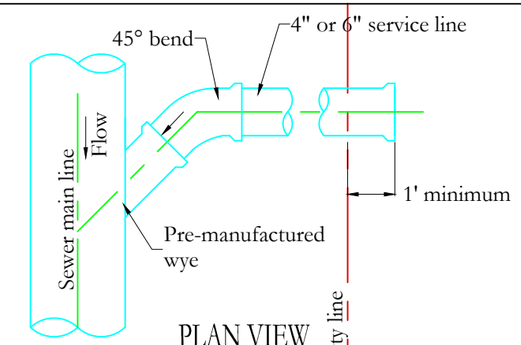
CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~10-11 rc SS stds.dwg
SHEET: 10 of 22



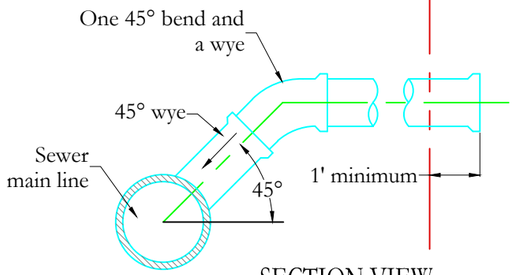
MANHOLE CONCRETE COLLAR DETAIL

1
-

SCALE: NONE



PLAN VIEW



SECTION VIEW

NOTES:

1. All house services shall be 4" diameter. Commercial and public services shall be 6" diameter unless directed otherwise and shall be extended from main lines to property lines. The lateral from the main to the residential/commerial is owned and maintained by the property owner.

2. All sanitary sewer laterals shall not be connected to a manhole unless pre-approved by Riverdale City.

3. Recommended minimum grade shall be 1% for 6" service line and 2% for 4" service line.

4. Contractor shall use a "Inserta Tee" for an existing connection and a "WYE" for a new connection.

5. All 90° bends at connection to main must be constructed with one 45° bend and a wye.

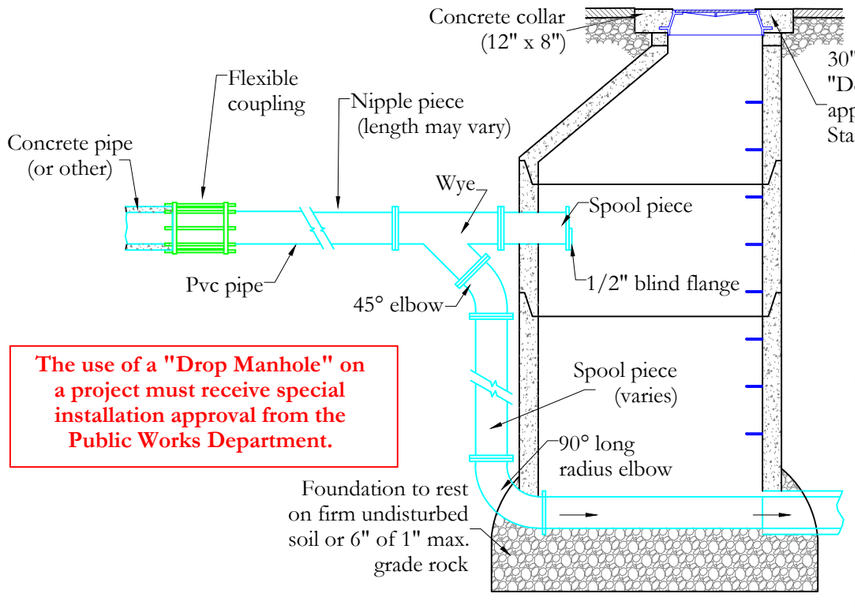
6. Direct nose on is allowed when connecting to existing main line. use rubber boot as per city with stainless steel straps, if required. Core cut existing pipe, do not break out with a hammer.

7. Notify city 24 hours in advance of any connection. Every connection to be inspected by City.

STANDARD SANITARY SEWER CONNECTION

3
-

SCALE: NONE



The use of a "Drop Manhole" on a project must receive special installation approval from the Public Works Department.

NOTES:

1. Piping outside of manhole may be schedule 40 PVC if encased in 3/4" washed gravel- min. 6" cover.

2. Use drop manhole only when drop exceeds 2'- 0" or more above the flow line of the main line.

3. All pipe for drop manhole to be flanged ductile iron pipe or alternate schedule 40 pvc. if encased in 3/4" washed gravel minimum.

4. All sanitary sewer manholes shall be precast with rubber boot seal. Any cast-in-place manholes must be approved by Riverdale City prior to installation.

STANDARD SANITARY SEWER DROP MANHOLE

2
-

SCALE: NONE

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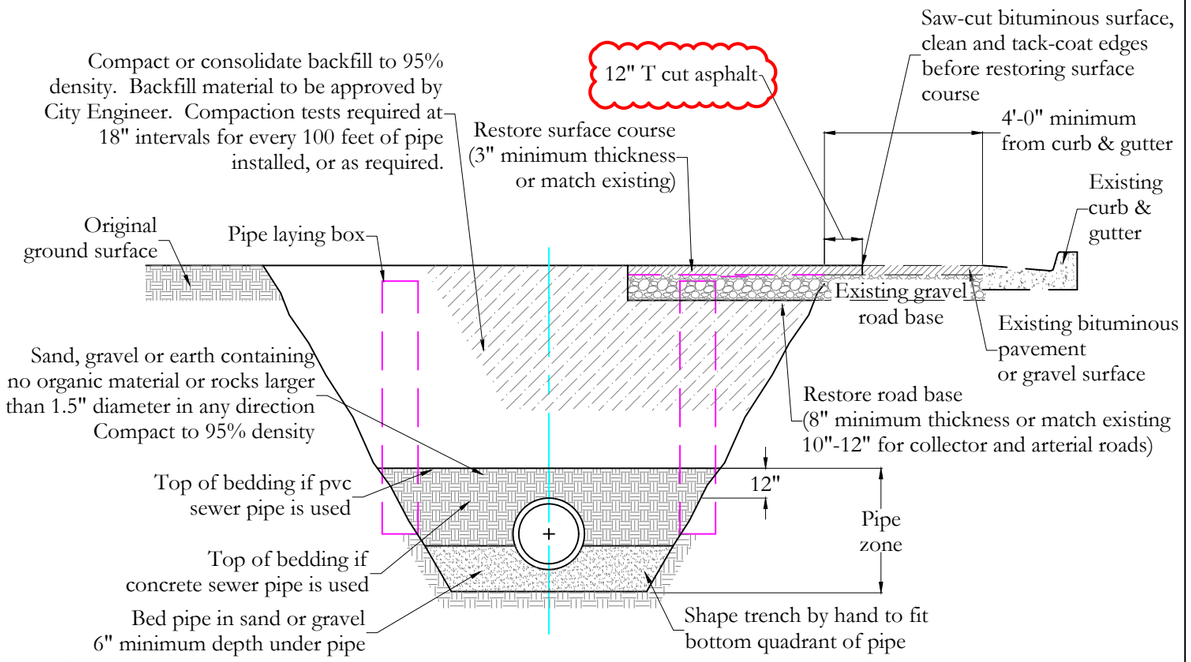
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: SANITARY SEWER CONCRETE COLLAR, DROP MANHOLE & CONNECTION DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: 09-10 rc SS stds.dwg
SHEET: 11 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025
DATE: 1/28/2026 11:58 AM



NOTES:

1. The contractor shall be responsible for meeting all current OSHA and UOSH requirements for trench safety.

2. Contractor shall locate all underground utilities before laying pipe within 200' of said utilities which may be exposed, damaged or crossed as shown on the drawings or as "blue staked" the contractor will make arrangements with the utility company to move the utility if necessary or obtain permission from the project engineer to modify grade of pipeline in order to go around utilities.

3. All storm water pipes to be installed in roadway or under curb and gutter with approval by the City Engineer.

4. Minimum pipe size for storm water pipe is 15" diameter and must be concrete.

5. Minimum depth of storm water pipe shall be 24" cover over top of pipe bell for standard backfill material, or as approved by City Engineer.

6. For all new construction, a storm water/oil/grit/debris separator is required. Sizing of the separation unit to be determined by the Design Engineer and stamped Engineering Calculations must be submitted for review.

7. Upon completion of the project storm drainage system the installed pipe, manholes, junction boxes, inlet boxes and all storm water facilities must be cleaned in the presence of the Public Works Storm Water Manager. A video of the completed work is required upon completion of cleaning and should be given to Riverdale City.

8. All Storm Water pipelines shall be air & displacement tested along with a video recording of the pipelines interior, per the requirements of "Section 6, Paragraph G" of the "Technical Specifications".

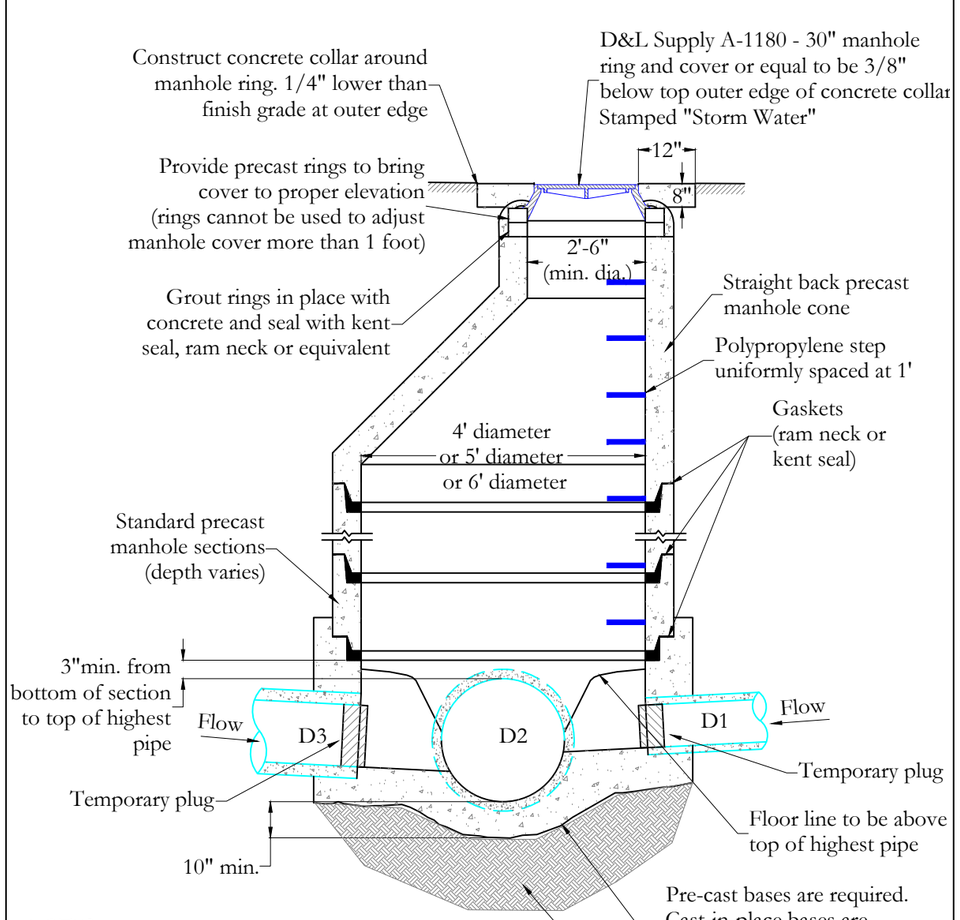
9. All Storm Water pipelines shall be re-video recorded/taped for displacement failures just prior to the expiration of the 1-year warrantee period. Should the pipeline be displaced horizontally or vertically the Public Works Director and/or the City Engineer shall determine the extent of the required repairs. It shall be the Contractors full responsibility to immediately make all required repairs and all costs associated with the repairs shall be paid by the Contractor.

10. All abandoned lines 6" and larger are to be flow filled with lean concrete. Manhole to be removed shall be removed to within the 24" above the abandoned pipe.

STORM WATER TRENCH CROSS-SECTION

1
-

SCALE: NONE



NOTES:

1. If grade allows, inverts of D1 & D3 shall be required to match top of D2.

2. After all grading around manhole has been completed and final surfacing is in place, remove debris and temporary plugs or plywood from inside of manholes.

3. If manhole is to be poured in place, follow same pattern as shown except use 10" min wall thickness.

4. Manholes deeper than 20 feet shall have an 18" thick concrete base.

5. Cone and wall sections shall conform with ASTM C-478 standard.

6. Abandoned manholes are to be removed to within the 24" of top of abandoned pipe

STANDARD STORM WATER MANHOLE

2
-

SCALE: NONE

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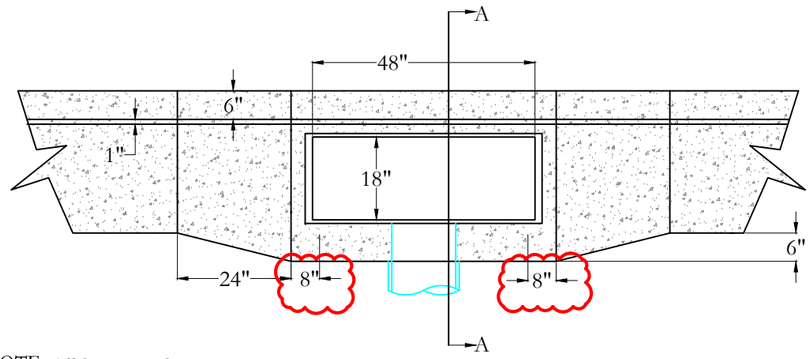
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

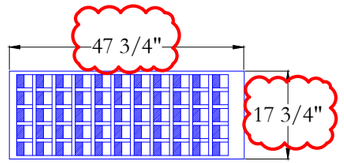
TITLE: STORM WATER TRENCH & MANHOLE DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 12 of 22



NOTE: All boxes to be constructed with troughs.

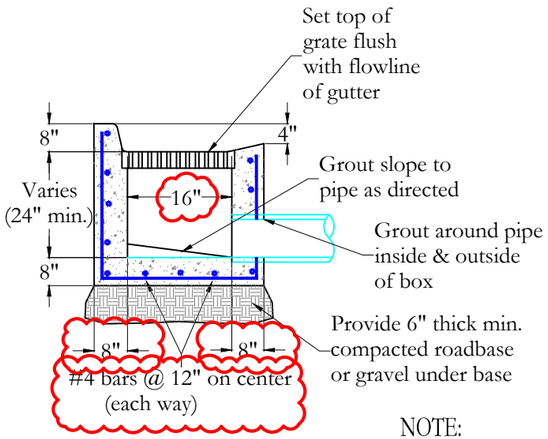
PLAN



GRATE

FRAME

* D&L I-1803 or equal
* Cast iron or galvanized steel



SECTION 'A'

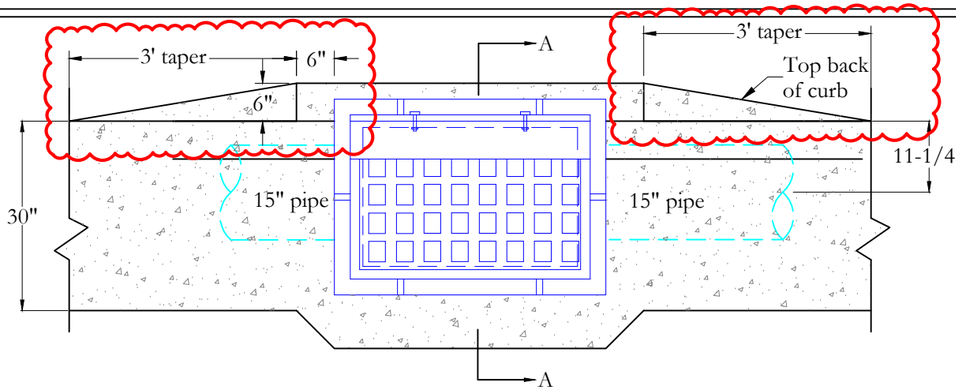
NOTE:
1. All storm water catch basins installed shall be cast-in-place. Any pre-cast boxes must be approved by Riverdale City prior to construction.

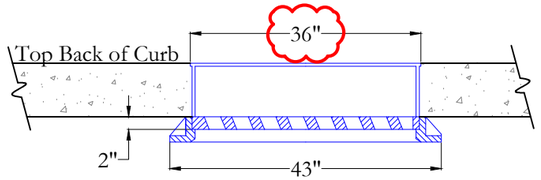
2. Standard catch basin only to be used with approval from public works.

STANDARD CATCH BASIN

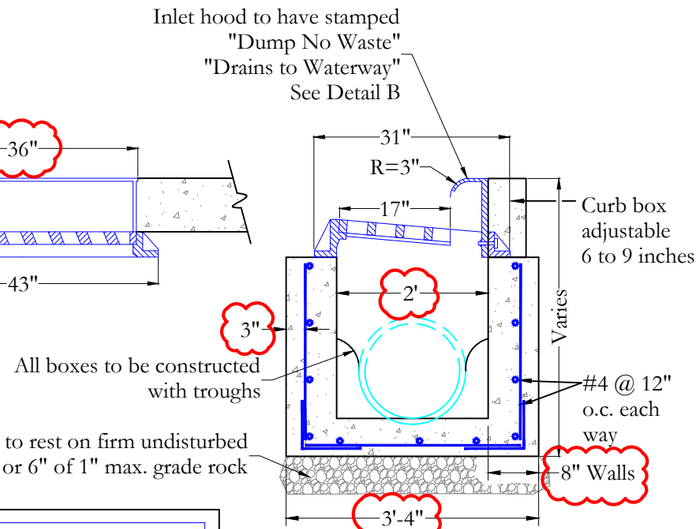
SCALE: NONE

1
-





Inlet frame and grate with adjustable curb box (D&L Supply I-3517 or acceptable equal)



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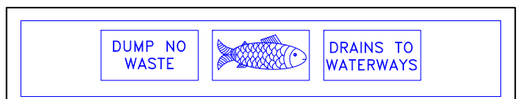

Detail B

NOTES:

1. All storm water catch basins installed shall be cast-in-place. Any pre-cast boxes must be approved by Riverdale City prior to construction.

2. All reinforcement shall be #4 deformed steel, grade 60.

3. All reinforcement shall be placed at 12" o.c. each way in the floor and the walls.

4. The adjustable curb box inlet grate shall be bicycle safe. D&L Supply I-3517 or acceptable equal.

5. All pipes in the box shall be cut with the interior of the box and grouted smooth.

6. Rebar shall have 3" clear on earth side of structure.

HOODED CATCH BASIN

SCALE: NONE

2
-

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5141 SOUTH 1500 WEST
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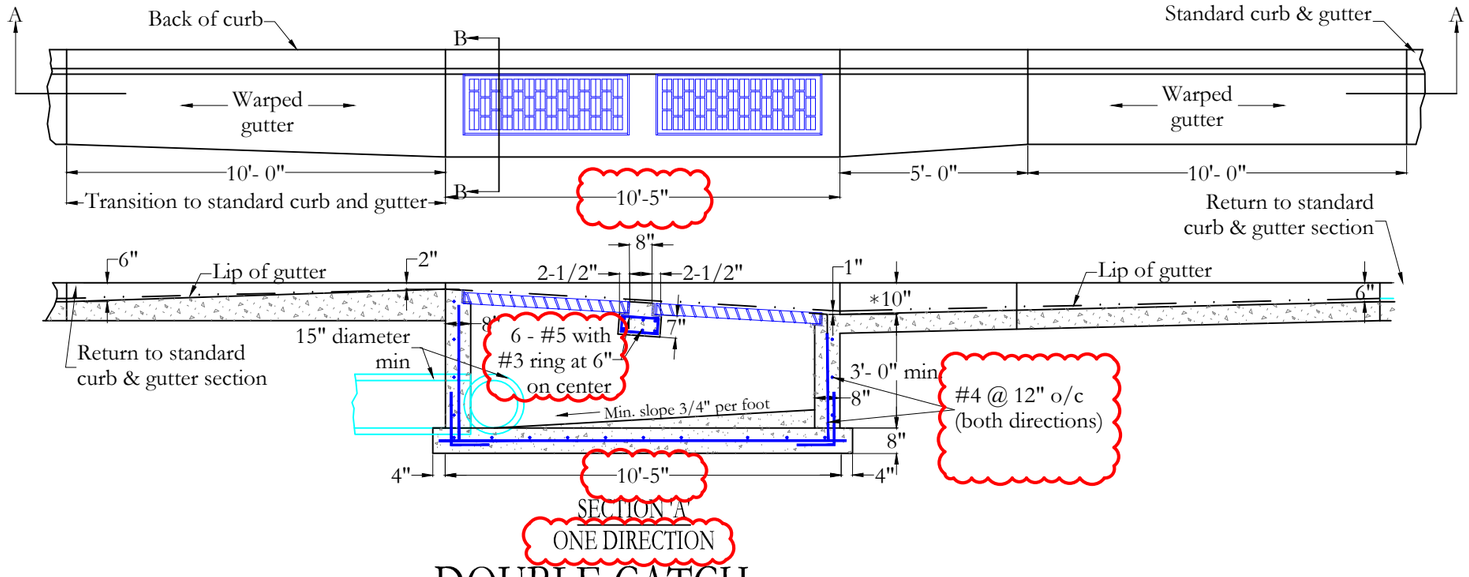
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STORM WATER STANDARD & HOODED CATCH BASIN DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 13 of 22



DOUBLE CATCH BASIN TYPE I

SCALE: NONE

1
-

NOTES:

1. All storm water catch basins installed shall be cast-in-place. Any pre-cast boxes must be approved by Riverdale City prior to construction.

2. Transition to standard curb and gutter is the same for all type I catch basins.

3. Grate size is the same for all catch basins (see grate detail sheet 12 of 18).

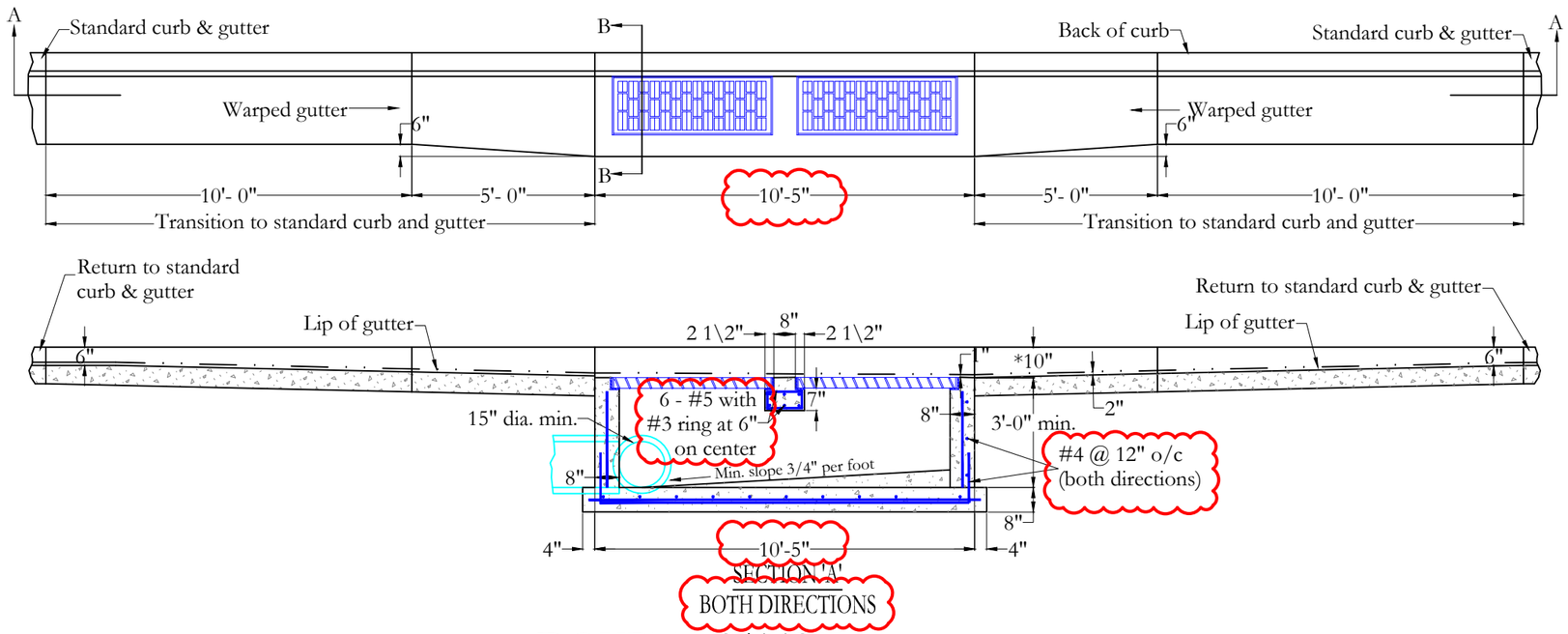
4. All reinforcement shall have a minimum of 2" concrete cover.

5. The minimum storm drainage pipe diameter shall be 15" diameter and shall be reinforced concrete pipe (rcp).

6. All storm water boxes and manholes to have troughs installed.

7. * Depth may vry from 10" to 6" as directed by city engineer.

8. Concrete class 4000 psi and rebar 60,000 psi as per ASTMA615.



DOUBLE CATCH BASIN TYPE II

SCALE: NONE

2
-

NOTES:

1. All storm water catch basins installed shall be cast-in-place. Any pre-cast boxes must be approved by Riverdale City prior to construction.

2. Transition to standard curb and gutter is the same for all type II catch basins.

3. Grate size is the same for all catch basins (see grate detail sheet 13).

4. All reinforcement shall have a minimum of 3" concrete cover.

5. The minimum storm drainage pipe diameter shall be 15" diameter and shall be reinforced concrete pipe (rcp).

6. All storm water boxes and manholes to have troughs installed.

7. * Depth may vary from 10" to 6" as directed by city engineer.

8. Concrete class 4000 psi and rebar 60,000 psi as per ASTMA615.

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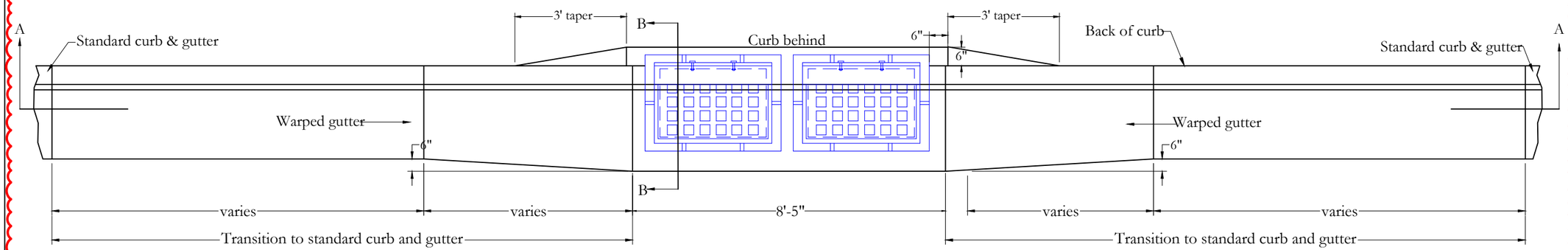
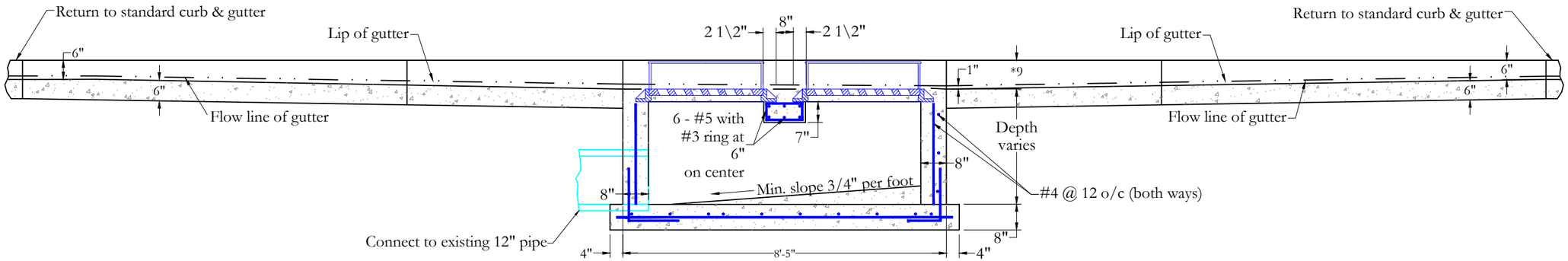
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STORM WATER DOUBLE CATCH BASIN TYPE I & II DETAILS

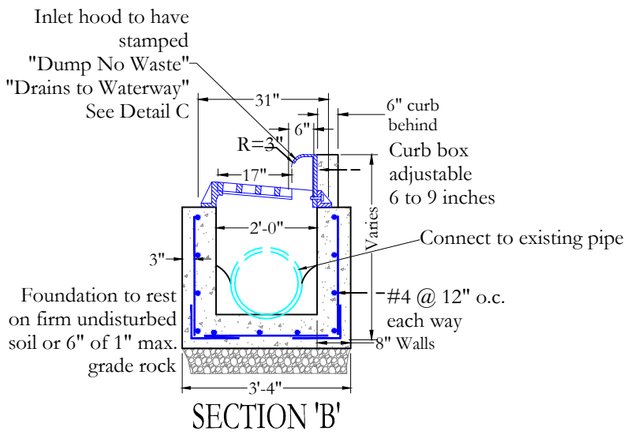
CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 14 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM





SECTION 'A'



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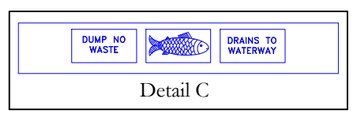

Detail C

NOTES:

1. All reinforcement shall be #4 deformed steel, grade 60.
2. All reinforcement shall be placed at 12" o.c. each way in the floor and the walls.
3. The adjustable curb box inlet grate shall be bicycle safe. D&L Supply I-3517 or acceptable equal.
4. All pipes in the box shall be cut with the interior of the box and grouted smooth.
5. Rebar shall have 3" clear on earth side of structure.
6. Details here are for "cast-in-place" box.
7. *Depth may vary from 10" to 6" as directed by the city Engineer.
8. Grate size is 17 3/4" x 35 1/2" and frame size is 31" x 43".

DOUBLE HOODED CATCH BASIN (TYP II)

SCALE: NONE

1
-

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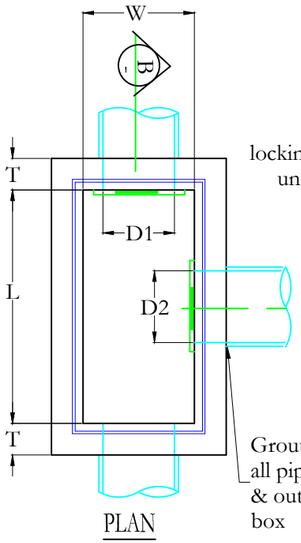
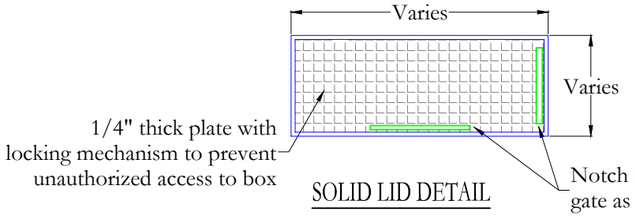
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STORM WATER DOUBLE HOODED CATCH BASIN

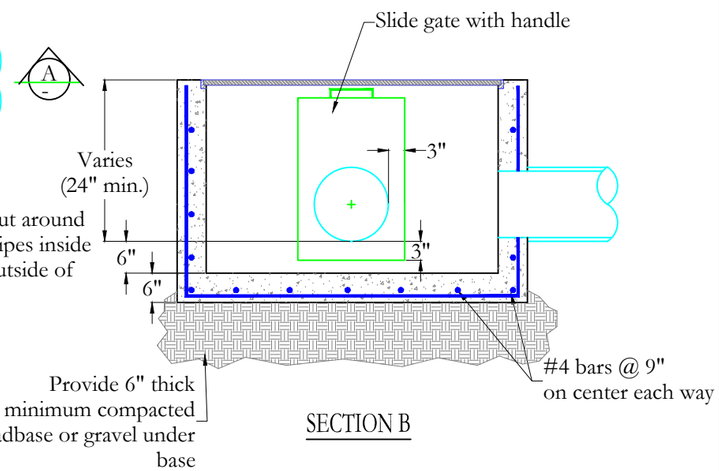
CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 15 of 22

LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM

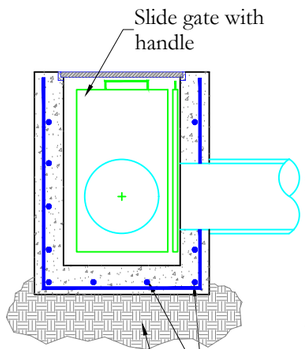


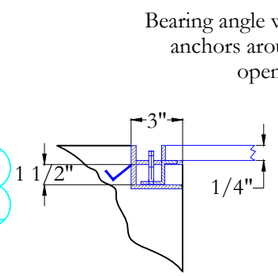


SOLID LID DETAIL

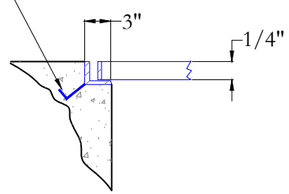


SECTION B





LOCKING MECHANISM
2 - Required



EDGE DETAIL

DIMENSIONS
W= D1 + 12" (24" min.) L= D2 + 12" (44" min.) T=6" if L is less than or equal to 5'-0" T=8" if L is greater than 5'-0"

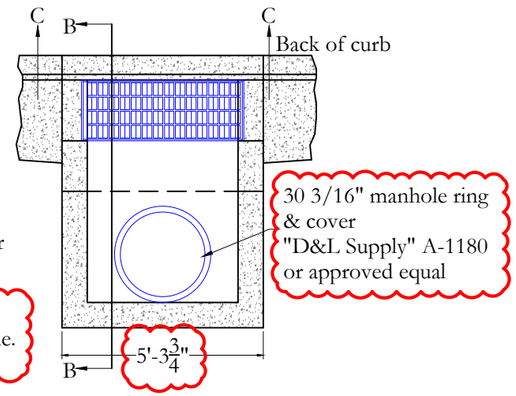
STANDARD DIVERSION BOX

SCALE: NONE

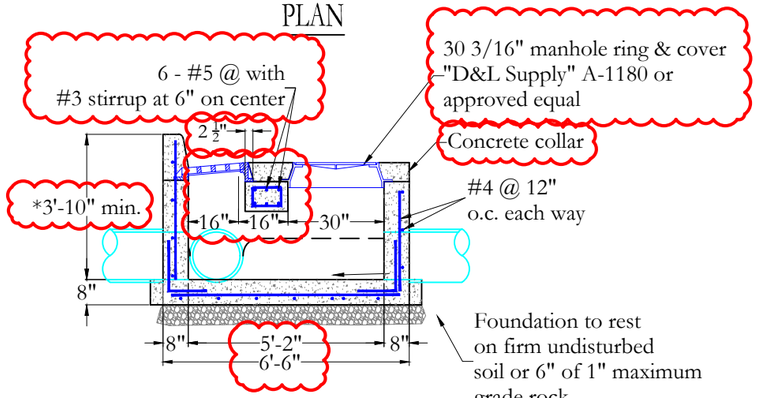
1

-

NOTE:
1. Details here are for "cast-in-place" box.
2. * Depth can vary according to the grade.



PLAN



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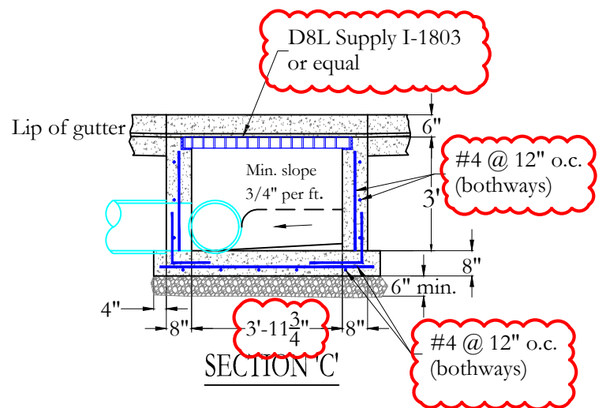

SECTION 'C'

STANDARD COMBINATION BOX

SCALE: NONE

2

-

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NO.	DATE	BY	REVISIONS

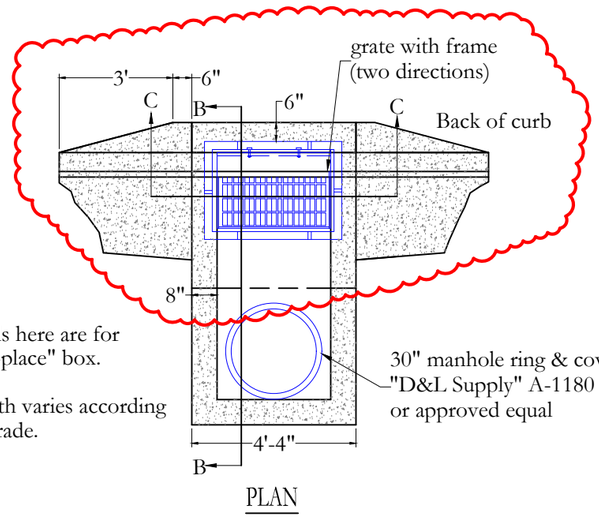
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STORM WATER DIVERSION & COMBINATION BOX DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 16 of 22

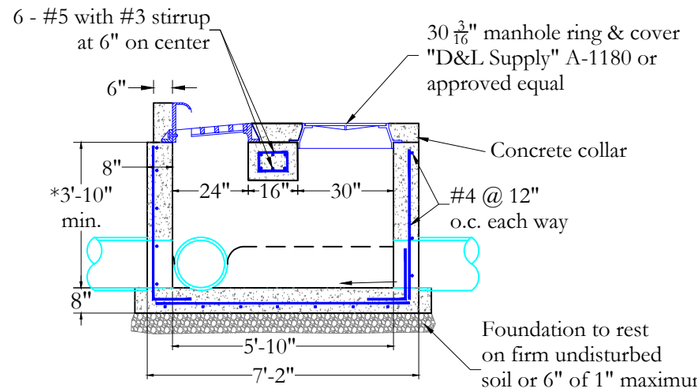
LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



PLAN

NOTE:
1. Details here are for "cast-in-place" box.

2. *Depth varies according to the grade.



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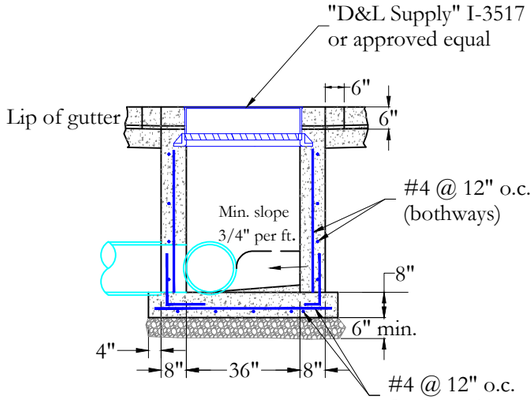

SECTION 'C'

HOODED COMBINATION BOX

SCALE: 1/4"=1'

1
-

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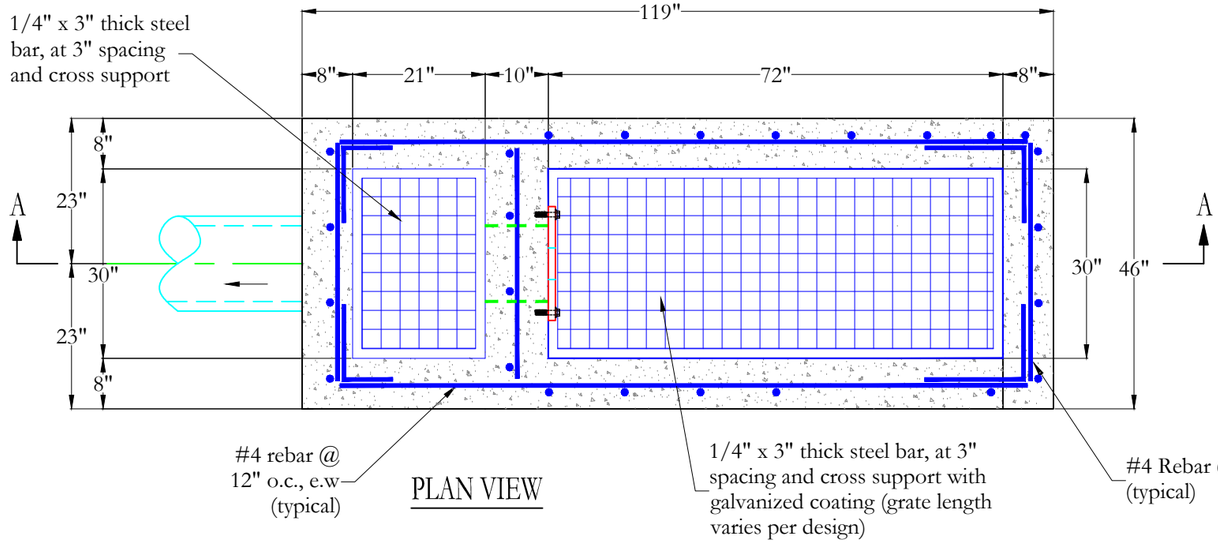
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: STORM WATER HOODED COMBINATION BOX

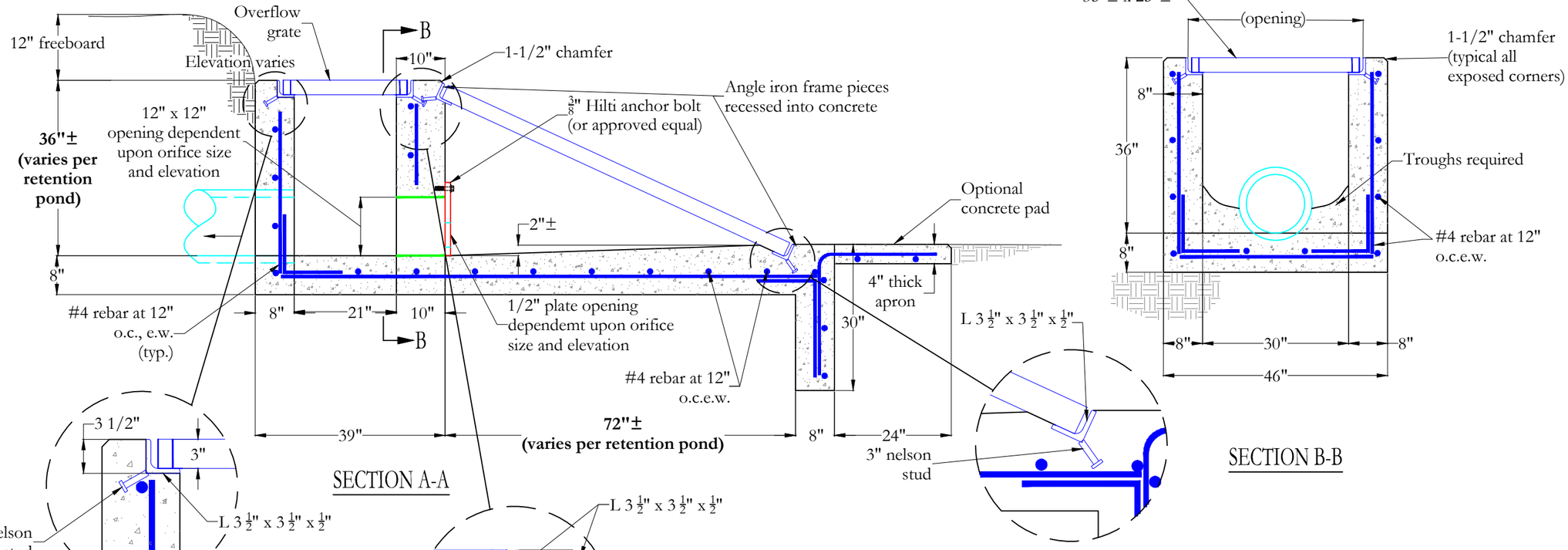
CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 17 of 22



PLAN VIEW

NOTES:

1. All reinforcements shall be #4 deformed and grade 60.
2. All reinforcements shall be placed @ 12" o.c. each way in the floor and wall.
3. All design specifications, dimensions and requirements shall be strictly followed as per the engineer's direction.
4. All pipes in the box shall be cut with the interior of box and grouted smooth.
5. Rebar shall have 3" clear cover on earth side of structure.
6. All exposed concrete corners to have a 1 $\frac{1}{2}$" chamfer corners.
7. Concrete strength should be min. 4,000 psi.



SECTION A-A

SECTION B-B

INLET / OUTLET STRUCTURE

SCALE: 1/2" = 1'- 0"

1-B
-

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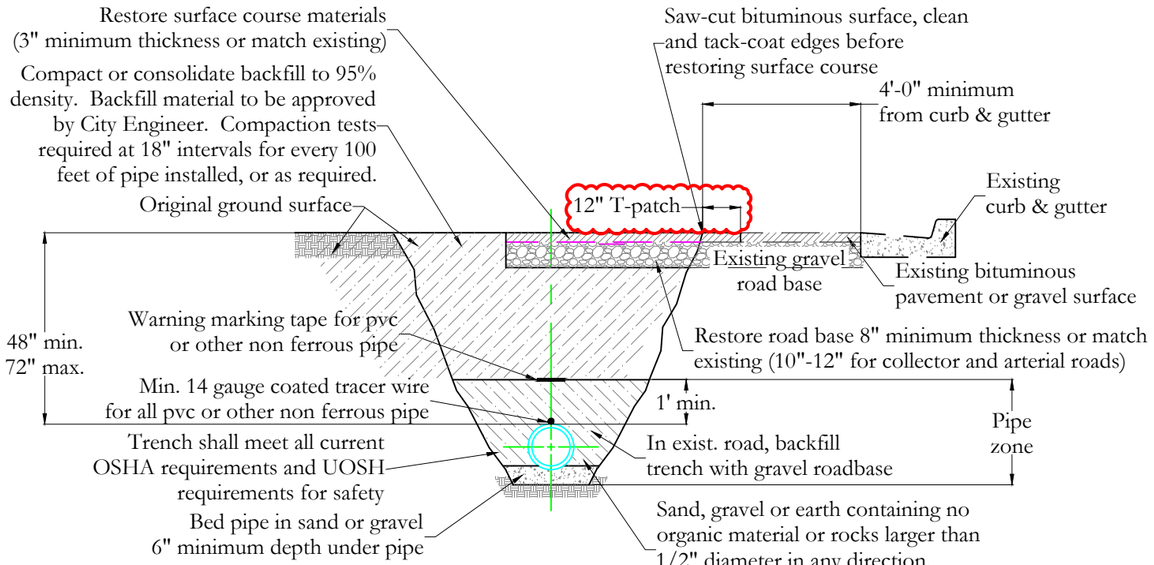
DATE: DECEMBER 2025
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH
TITLE: STORM WATER INLET / OUTLET STRUCTURE DETAIL

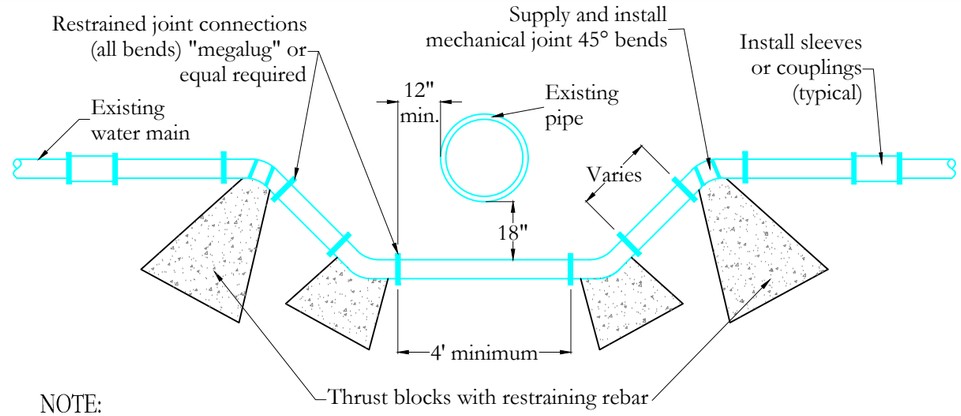
CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~12-18 rc SW stds.dwg
SHEET: 18 of 22



CULINARY WATER TRENCH CROSS-SECTION

1 / -

SCALE: NONE



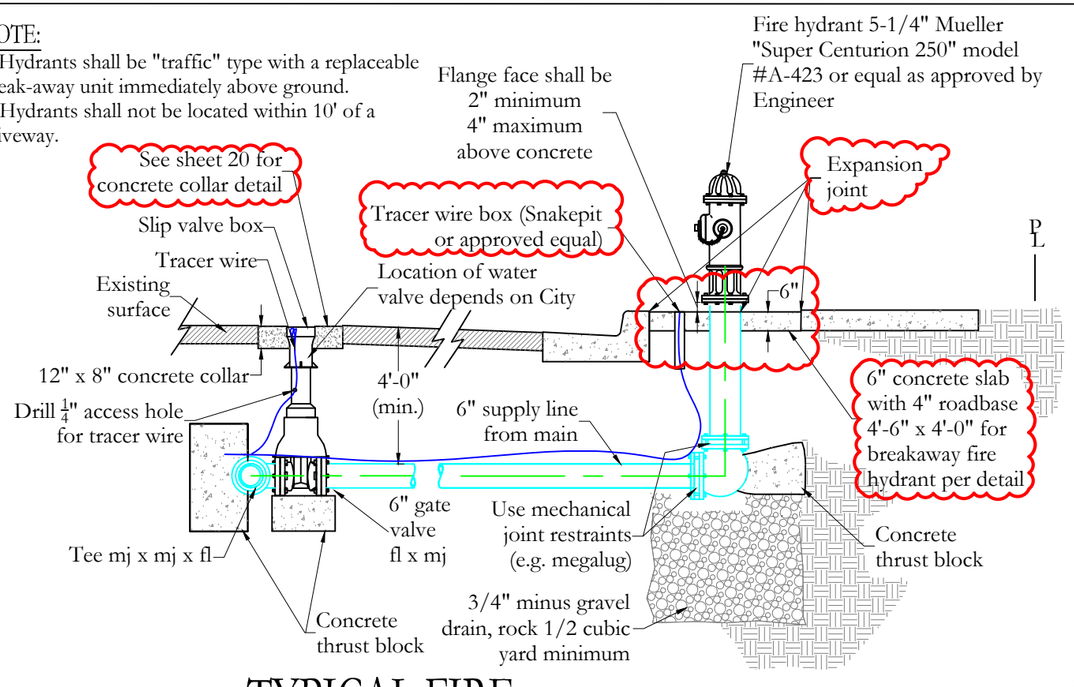
NOTE:
City residents or commercial water users to be given 48-hour written notice before looping or shutting down any waterline.

TYPICAL WATER LOOP

2 / -

SCALE: NONE

NOTE:
1. Hydrants shall be "traffic" type with a replaceable break-away unit immediately above ground.
2. Hydrants shall not be located within 10' of a driveway.



TYPICAL FIRE HYDRANT CONNECTION

3 / -

SCALE: NONE

WATER LINE PIPING AND MISCELLANEOUS NOTES:

1. Water lines 12 inches and larger shall be ductile iron class-51. Water lines 10 inches and smaller shall be pvc C-900 DR-18 or ductile iron Class-51. All waterlines shall be a minimum of 8-inches in diameter.

2. Valves larger than 12-inches shall be butterfly valves. Concrete collars required around all valve boxes.

3. Ductile iron pipe and fittings shall be wrapped with polyethylene and have cathodic protection where required.

4. Whenever possible "hot tap" connections required. Hot tap valve to be supported during connection. Contractor to notify City 24-hours in advance of making connection.

5. Contractor shall contact property owners 48-hours in advance with written notice for shutting off water

6. Pipe zone shall be backfilled with sand or material as approved by project engineer.

7. The following tests must be passed before the waterline is connected for service. All disinfection and testing shall follow all AWWA specifications and standards (see the Technical Specification discharge of waste water).
   a. Pipeline inspection - alignment, grade, class of pipe, & brass wedges installation
   b. Pressure Test - Must keep a minimum of 200 PSI for 2-hours
   c. Chlorination Test - Must keep a minimum of 30 PPM for 24-hours.
   d. Clear Water Test
   e. Bacteria Test - 2 tests are required. The 2nd test must be taken 24-hours after the 1st test is performed. (See Technical Specifications for additional detail information)

8. Upon completion of a new waterline a sampling tap valve shall be installed on the blow-off pipe at the ends of the pipe to aid with the water sampling and tests that are required in Item 9 above.

9. Terminations for tracer wire for pvc piping is to be located at the surface of valve boxes. The wire is to be brought on the outside of the bottom section of the water valve box and brought inside through the top section of the box. Tracer wire shall be extended to the ground surface adjacent fire hydrants into the snake pits with extra wire.

10. A fire hydrant (for pipeline flushing) shall be installed at the end of all cul-de-sac's & dead-end streets.

11. All mechanical joint restraint (e.g. megalug) connections, flange fittings and all other fittings using connection bolts must be furnished and installed with bluebolts.

12. All abandoned lines 6" and larger are to be flow filled with lean concrete. Abandoned water valves are shall have top removed, valve shut and be filled with concrete. Manhole to be removed shall be removed to within the 24" above the abandoned pipe.

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NO.	DATE	BY	REVISIONS

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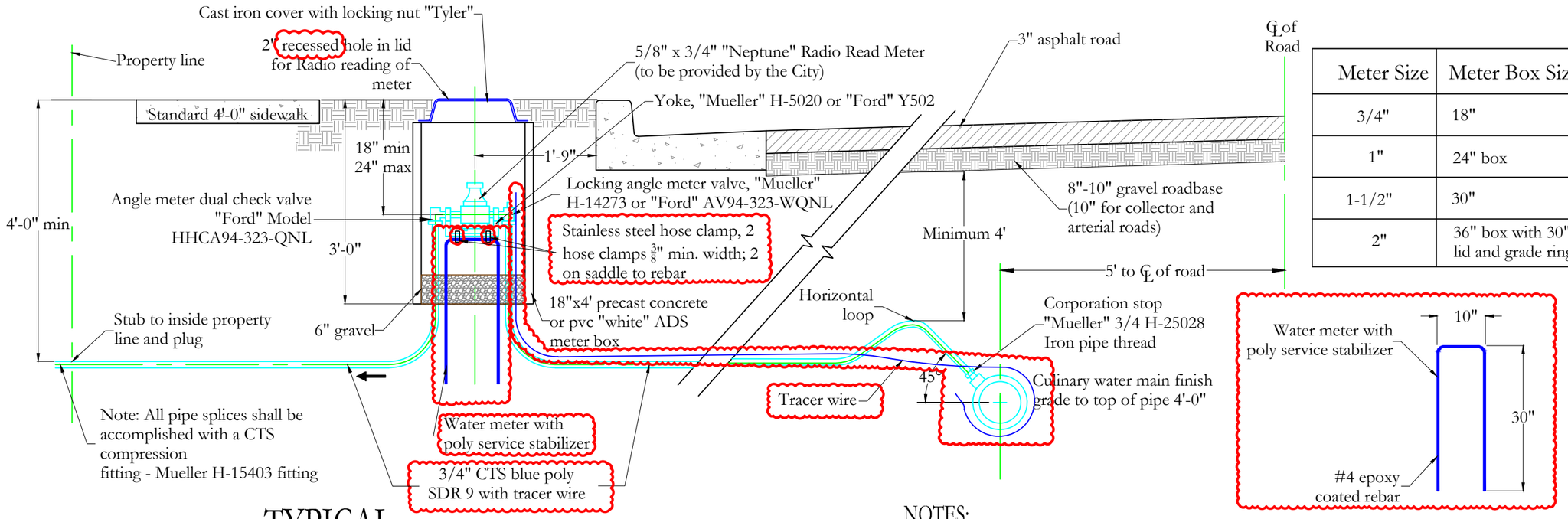
DRAWN: JEO/KSM
CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: CULINARY WATER TRENCH, FIRE HYDRANT & WATER LOOP DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~19-21 rc CW stds.dwg
SHEET: 19 of 22

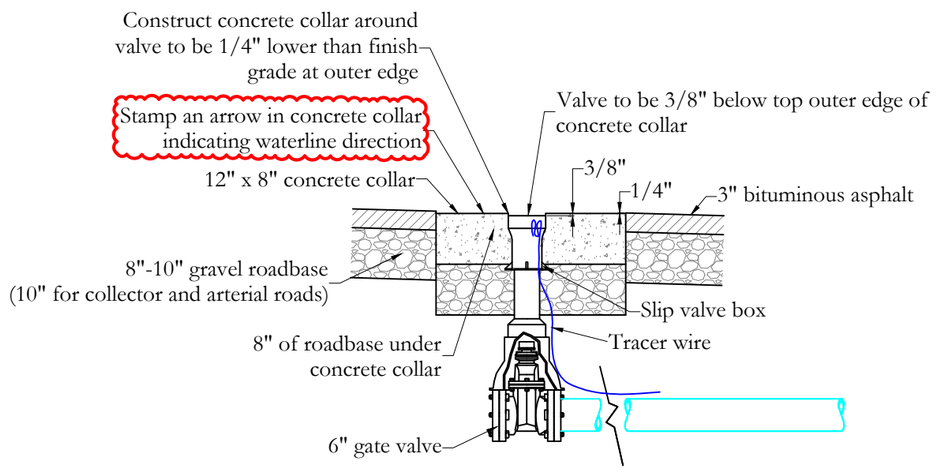


Meter Size	Meter Box Size
3/4"	18"
1"	24" box
1-1/2"	30"
2"	36" box with 30" lid and grade ring

TYPICAL WATER CONNECTION

SCALE: NONE

1 / -



GATE VALVE CONCRETE COLLAR

SCALE: NONE

2 / -

NOTES:

1. Backfill: Install backfill in lifts not exceeding 8" after compaction. Compact each lift to an average dry density of 95% with no density test result less than 92%.

2. Residential water meters provided by City. Commercial and industrial water meters to be approved by City.

3. Pipe: 3/4" CTS blue poly SDR 9 with tracer wire.

4. Placement: All meters are to be centered in the park strip and must be placed near midpoint of the lot. Meters must not be located in a driveway, or in a sidewalk, and must be 24" away from driveway approaches.

5. Property owner is responsible for service line from property side of meter.

6. Taps to PVC C900 require brass double strap saddle. Direct taps not allowed to PVC. Direct taps to ductile iron are allowed.

7. Back flow prevention devices are required.

8. 1-1/2" and 2" meters require a meter setter Mueller H1423 with Mueller H15428 fittings or approved equal.

9. All meters over 1" are required to have a bypass.

10. Water meter size shall be the same size as the supply line into site.

11. Any standards and specifications not shown shall follow all APWA specifications.

12. All mechanical joint restraint (e.g. megalug) connections, flange fittings and all other fittings using connection bolts must be furnished and installed with blue bolts.

13. No splices are allowed on tracer wire; continuous from fire hydrant to fire hydrant; fire hydrant shall have one line in and one line out. Locating wire to be installed on poly service.

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RIVERDALE, UT 84405
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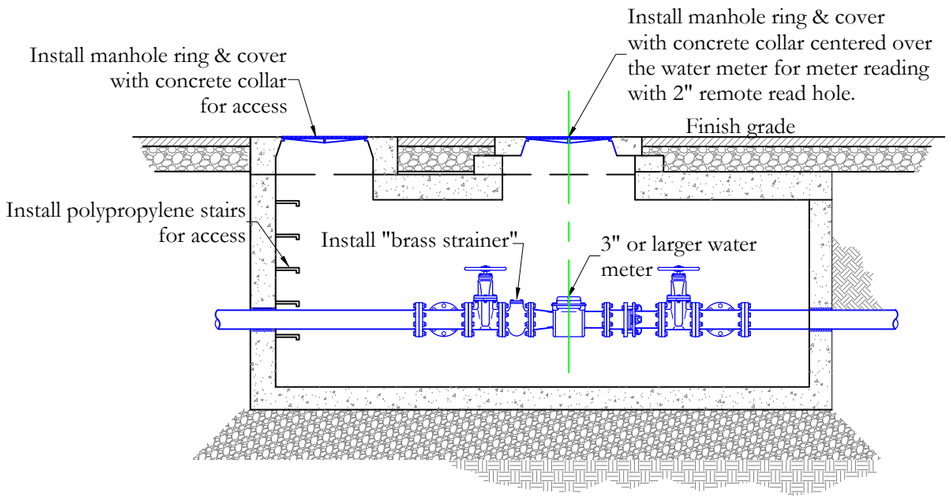
PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH
TITLE: CULINARY WATER CONNECTION & CONCRETE COLLAR DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~19-21 rc CW stds.dwg
SHEET: 20 of 22

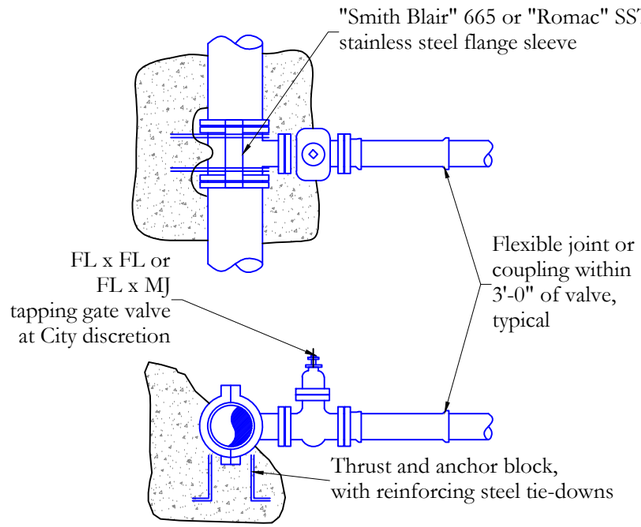
LOCATION: Z:\CEC Clients\Riverdale City\Riverdale City Standards\2025 - Public Works Standards\Standard Drawings - 2025 DATE: 1/28/2026 11:58 AM



3" & LARGER WATER METER VAULT

SCALE: NONE

1 / -

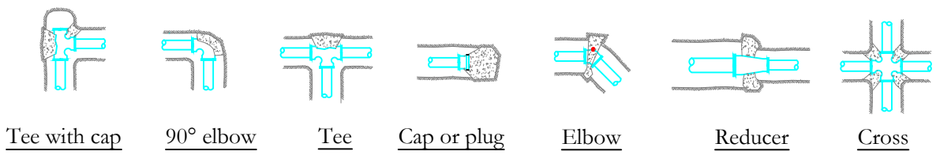


NOTE:
Gate valves required for all private waterlines and all fire lines at water main connection.

HOT TAP CONNECTION DETAIL

SCALE: NONE

2 / -



All utility trenching within road right-of-ways which are 66' wide or wider shall have flowable backfill material

Safe bearing loads	
Soil type	Safe bearing load (lb/ft²)
Sand	1000
Sand & gravel	1500
Sand & gravel cemented with clay	2000
Shale	5000

Thrust block area against trench wall (square feet) = Thrust on fitting / Safe bearing load of soil

All trenching for service connections shall have 100% roadbase backfill material above the pipe zone within any road right-of-way

Thrust on fittings in pounds @ 1 pound per square inch of water pressure *				
Pipe size	Tees	90° bends	45° bends	22.5° bends
8"	65.8	93	50.4	25.5
10"	107.5	152	82.4	41.7
12"	153.1	216.4	117.2	59.4

* multiply thrust by maximum water pressure

CONCRETE THRUST BLOCK DETAILS*

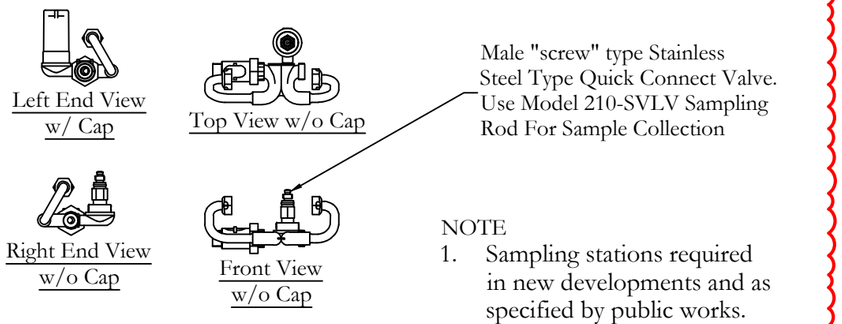
SCALE: NONE

3 / -

*All bolts on pipe fittings to be kept clear of concrete. Mega-lugs or One-lok to be used with thrust blocks

GENERAL NOTES

1. Bolt & nut accessories shall be in accordance with ANSI/AWWA C111/A21.11 having a fluoropolymer coating that is VOC compliant, resin-bolded and thermally cured. (i.e. "Blue Bolts" or equal)
2. All valves are required to include SCADA system and electronically controlled



NOTE
1. Sampling stations required in new developments and as specified by public works.

SAMPLING STATION

SCALE: NONE

4 / -

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DATE: DECEMBER 2025
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CHECKED: RTF

PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: CULINARY WATER METER VAULT, THRUST BLOCK, HOT TAP CONNECTION & SAMPLING STATION DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~19-21 rc CW stds.dwg
SHEET: 21 of 22

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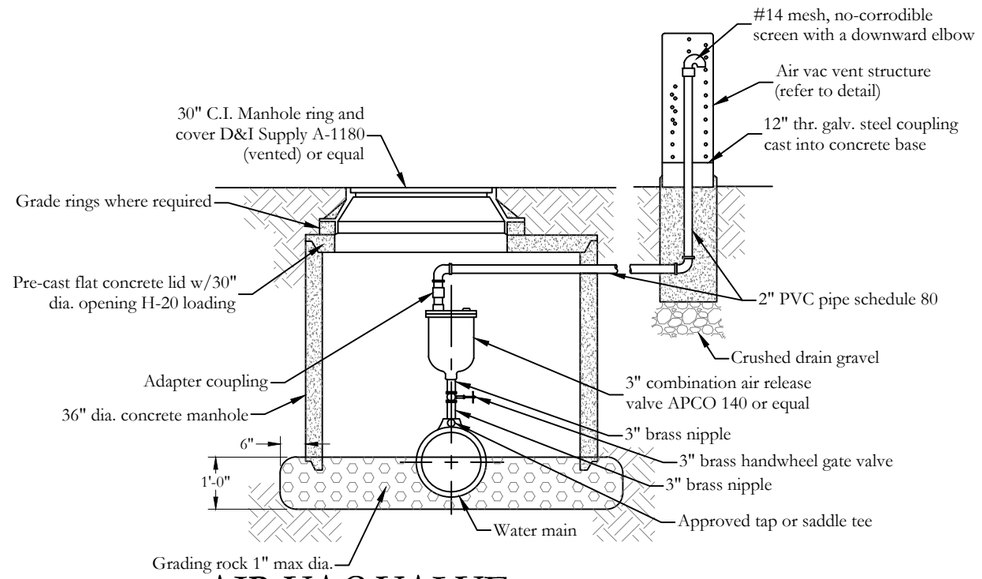
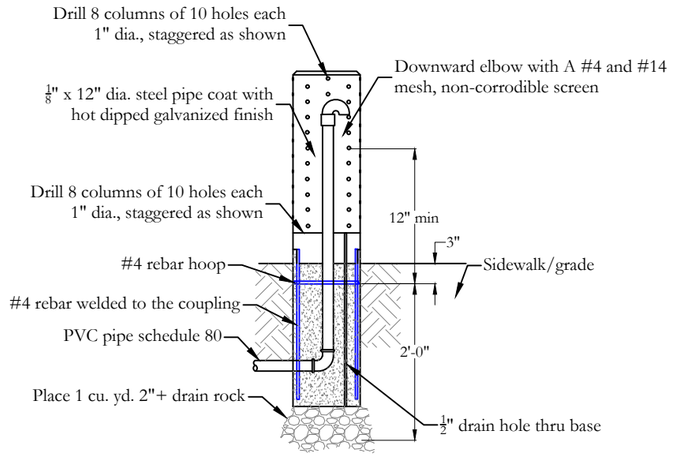


AIR VAC VALVE STRUCTURE

SCALE: NONE

1
-



AIR VAC VENT STRUCTURE

SCALE: NONE

2
-

NOTES

1. Combination air-vacuum relief valve size shall be determined by district engineering. Component & fitting sizes shall comply accordingly.
2. APCO 140 series combination air-vac. Shall be used unless otherwise approved by district engineering.
3. Water main shall be tapped in a manner approved by the engineer.
4. Locate vault in park strip, shoulder or toward edge of road out of line of traffic. Place vent structure in a safe and unobtrusive location approved by district inspector.

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PROJECT / LOCATION: CONSTRUCTION & DEVELOPMENT STANDARDS RIVERDALE CITY, UTAH

TITLE: AIR-VAC ASSEMBLY DETAILS

CLIENT: RIVERDALE CITY
PROJECT NUMBER: RC.00002
FILE: ~22 rc Air Vac stds.dwg
SHEET: 22 of 22

Riverdale City

Construction and Development Standards

Technical Specifications and Drawings

January 2026

CIVIL ENGINEERING
CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

CONSTRUCTION AND DEVELOPMENT STANDARDS

TECHNICAL SPECIFICATIONS
and
DRAWINGS

RIVERDALE CITY, UTAH

Adopted by the Riverdale City Council
January 2026

Mayor
Braden Mitchell

Council
Alan Arnold
Bart Stevens
Anne Hansen
Michael Richter
Kent Anderson

Public Works Director
Shawn Douglas

Prepared By

CIVIL ENGINEERING
CONSULTANTS, PLLC.
5141 SOUTH 1500 WEST
RIVERDALE, UT 84405
801.866.0550

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS

Section **Page Numbers**

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Continued
DRAWINGS

TECHNICAL SPECIFICATIONS

SECTION 1 - GENERAL IMPROVEMENT REQUIREMENTS

A. **Scope**. This section defines the general requirements for improvements to be built.

The improvements shall include all street improvements in front of all lots and along all dedicated streets to a connection with existing improvements of the same kind or to the boundary of the subdivision nearest existing improvements. Layout must provide for future extension to adjacent development and to be compatible with the contour of the ground for proper drainage. All water lines, sewer lines, and any other buried conduit shall be installed to the boundary lines of the subdivision.

SPECIAL NOTE: Any items not described by these standards shall be subject to review and approval by the City Manager and Public Works Director or their designees.

At the City's sole discretion, alternate methods of construction or deviations from these standards may be required or approved by the City Manager and Public Works Director (or their designees), when such are necessary to meet the best interests of the City.

B. **Geotechnical Report.** A geotechnical report shall be prepared by a licensed Geotechnical Engineer for all Commercial Projects and all Residential Subdivisions where new roadways and utility improvements are required.

The Geotechnical Report shall include, but is not limited to the following items:

(1) Executive Summary
(2) Scope of the Report
(3) Site conditions during the preparation of the Report
(4) Field Study
(5) Subsurface conditions on the site
(6) Subsurface water and range of the expected heights of the ground water
(7) Proposed construction
(8) Site grading
(9) Soils found on site
(10) Foundations – design parameters
(11) Concrete and/or asphalt paving on site
(12) Lateral earth pressures to be considered
(13) Seismicity and liquefaction concerns
(14) Groundwater and subsurface drain pipes
(15) Water soluble sulfates if found on site
(16) The Report shall contain drawings showing the location of the following:
    a. Location and depth of all test pits
    b. Soil logs of all test pits
    c. Notes in reference to all test pits and the soils found
    d. Legend of items on the Drawings
    e. Consolidation test results

f. Summary of laboratory test results and recommendations

C. **Storm Water Requirements.** All properties when developed or redeveloped shall have a licensed Professional Civil Engineer prepare a storm water study, for submittal and approval. The storm water study shall include but not be limited to the design of discharge orifice structures, detention basins and/or retention basins, emergency spillways, 12" tall free board basin berm, storm water cleaning facilities (certified by NJDEP and verified by NJCAT for 50 percent or greater TSS removal at median particle size of 75 microns; and oil/water separators), all on-site piping facilities and off-site piping facilities which must connect into City storm water facilities as required by the Public Works Director and/or the City Engineer.

(1) The storm water study shall be designed using current approved methods.
(2) The storm water study shall be based upon a 24-hour, 100-year storm water event using local rainfall intensity values.
(3) Discharge from the site shall be limited to pre-development values of = 0.2 cfs/acre.
(4) Offsite piping (piping on City right-of-way) shall utilize a minimum of a 15-inch diameter pipe.
(5) Storm water injection facilities shall not be approved without "Special Permission / Approval from the Public Works Director and the City Administrator".
(6) 80th percentile storm depth shall be 0.5 inches over the entire area.
(7) 80th percentile retention/detention basin shall drain/percolate/infiltrate within 48 hours

A "Storm Management Plan" is required to be developed and submitted to the Public Works Director and/or the City Engineer for review and approval. See Section 18 for additional specifications.

(1) For sites under 1.0 acres a "Best Management Plan with BMP's" shall be submitted for review and approval.
(2) For site over 1.0 acres a "Storm Water Pollution and Prevention Plan – SWPPP" is required to be prepared and submitted to the City for review and also must be submitted and approved by the Utah State Department of Environmental Quality (DEQ).

D. **Construction Drawings**. Complete and detailed construction plans and drawings of improvements shall be submitted to the City Engineer prior to commencing construction. No construction shall be started until plans have been checked and approved by the City Engineer.

E. **Standard for Construction Drawings**. The following instructions are for the purpose of standardizing the preparation of drawings to obtain uniformity in appearance, clarity, size, and style.

The construction plans shall be submitted in the current required amount with four (4) sets to be retained by the City Engineer, Public Works and Building & Zoning Department and one (1) set returned to the developer with approval signature of the City Engineer. This approved set shall be kept available at the construction site.

The construction plans and designs shall meet the standards defined in the specifications and drawings hereinafter outlined. The minimum information required on drawings for improvements are as follows:

All drawings and/or prints shall be clear and legible and conform to good engineering and drafting practice drawn in waterproof black ink on the plastic "mylar". The size of drawings shall be twenty-four (24) by thirty-six (36) inches (trim line) with one-half (1/2) inch border on top, bottom and right sides, also one and one-half (1-1/2) inch on the left side.

(1) In general, the following shall be included on drawings:

a. North arrow (plan).
b. Scale and elevations above sea level referenced to USGS datum.
c. Stationing and elevations for profiles.
d. Title block, located in lower right corner of sheet to include:

i. Name of City.
ii. Project title (subdivision, site plan, etc.).
iii. Specific type of construction and location of work.
iv. Space for approval signature of City Engineer and date.
v. Name of engineer or firm preparing drawings with license number.

(2) Curb and gutter, storm drain lines, and drainage structures, sidewalks, and street surfacing shall show:

a. Scale of Drawings: 1"=20' to 1"=50' horizontal; 1"=5' to 1"=10' vertical.
b. Both the plan view and profiles must be shown. In development along steep cross slopes, profiles each side of the street should be shown.
c. Stationing and the top of curb elevations with curve data and curb & gutter slope and flow directions must be shown.
d. Flow direction and type of cross drainage structures at intersections with adequate flow line elevations.
e. B.M. (Bench Mark) location and elevation above sea level (use USGS datum).
f. Typical Street cross-section with all distances shown.
g. Street Survey Monument locations.

(3) The Sanitary Sewer drawings shall show:

a. Scale: 1"=20' to 1"=50' horizontal; 1"=5' to 1"=10' vertical.
b. Location, size and slope of all pipelines and connections with existing systems.
c. Manhole size, location, and flow line elevations.
d. Type of pipe materials.
e. B.M. (Bench Mark) location and elevation above sea level (use USGS datum).

(4) Culinary water drawings shall show:

a. Scale: 1"=20' to 1"=50'.
b. Size and location of all water pipes, valves, hydrants, etc.
c. Type of pipe materials and pressure class.

d. Minimum cover indicated and bedding design.
e. All structures.

(5) Storm Water Pollution & Prevention Plan (SWPPP) with Best Management Practices (BMP's). See Section 18 in this document and the City's SWPPP requirements contained in a separate document. A copy of these can be obtained by Riverdale City Public Works Department.

(6) Each set of plans shall be accompanied by a separate sheet of details for structures which are to be constructed. All structures shall be designed in accordance with minimum requirements established by the Riverdale City Public Works specifications and drawings.

F. **Preconstruction Conference**. A preconstruction conference may be held before any excavation or other work is begun, if deemed necessary by the City. The meeting will be held in the City offices and will include the following:

(1) City Engineer, Public Works Director, other City Officials as required
(2) Developer
(3) Design Engineer and or Surveyor
(4) All Contractors and or Subcontractors, as required.
(5) Representatives of all local utility companies

Items pertaining to the construction and inspection of the proposed improvements will be discussed.

G. **Inspection**. All construction work involving the installation of improvements shall be subject to inspection by the City. Certain types of construction shall have continuous inspection while others may have only periodic inspections (City reserves the right to require continuous inspection).

(1) Continuous inspection involves all work to be done under direct observation of a City Inspector and shall be required on the following types of work:

a. Placement of street surfacing.
b. Placing of concrete curb and gutter, sidewalks, and other structures.
c. Pipeline connections and laying of sanitary sewer pipe, drainage pipe, culinary water pipe, valves, hydrants, and testing.

(2) Periodic inspections involve observation by a City Inspector on a periodical basis and shall be required on the following:

a. Street grading and gravel base.
b. Excavations for curb, gutter, and sidewalks.
c. Trenches for laying pipe.
d. Forms for curb, gutter, sidewalks, and structures.
e. Inspections as required with the storm water permit.

On construction requiring continuous inspection, no work shall be done except in the presence of an Authorized City Representative or his designed representative.

H. **Requests for Inspection**. Requests for inspections shall be made to the city by the person responsible for the construction. Requests for inspection of work requiring continuous inspection shall be made three (3) days prior to the commencing of the work. Notice shall also be given one (1) day in advance of the starting of work requiring periodic inspection.

I. **Construction Completion Inspection**. An inspection shall be made by an Authorized City Representative after all construction work is completed. Any faulty or defective work shall be corrected by the persons responsible for the work no longer than ten (10) days of the date of City Engineer's Inspection Report defining the faulty or defective work.

J. **Guarantee of Work**. The developer shall warrant and guarantee (and post bond or other security) that the improvements provided for hereunder, and every part thereof, will remain in good condition for a period of one (1) year, after the date of the Construction Completion Inspection Report by the City Engineer, and agrees to make all repairs to and maintain the improvements and every part thereof in good condition during the time with no cost to the city.

It is further agreed and understood that the determination for the necessity of repairs and maintenance of the work rests with an Authorized City Representative. His decision upon the matter shall be final and binding upon the developer. The guarantee hereby stipulated shall extend to and include, but shall not be limited to the entire street base, all pipes, joints, valves, backfill and compaction; as well as, the working surface, curbs, gutters, sidewalks, and other accessories that are, or may be affected by the construction operations. Whenever in the judgment of the City Engineer said work shall be in need of repairs, maintenance, or rebuilding, he shall cause a written notice to be served to the developer; and thereupon the developer shall undertake and complete such repairs, maintenance, or rebuilding. If the developer fails to do so within ten (10) days from the date of the service of such notice, City Officials shall have such repairs made, and the cost of such repairs shall be paid by the developer together with 25% in addition thereto as and for stipulated damages for such failure on the part of the developer to make the repairs.

Note: If the Public Works Director sees that an emergency exists, He will make the necessary repairs and those repair costs may be billed by the City to the Developer.

SECTION 2 – EARTHWORK

A. **General**. This section defines the minimum requirements for excavating and backfilling for structures; construction requirements for embankments and fills; subgrade preparation for pavements and other surface improvements. All recommendations contains in the "Geotechnical Report" shall take precedence over the following minimum requirements.

B. **Excavation for Structures**. All structures shall be built on undisturbed original subsoil or engineered compacted fills. All unauthorized excavation below the specified structure subgrade shall be replaced with a concrete monolithic slab or with coarse gravel compacted into place.

Subgrade soil for all concrete structures, regardless of the type of location, shall be firm, dense, thoroughly compacted and consolidated; shall be free from mud and muck; and shall be sufficiently stable to remain firm and intact under the load of the equipment used by the workmen engaged in subgrade surfacing, laying reinforcing steel, and depositing concrete. Coarse gravel or crushed stone may be used for subsoil reinforcement if satisfactory results can be obtained thereby. Such material shall be applied in thin layers, twelve (12) inches in un-compacted thickness, each layer being embedded in the subsoil by thorough tamping. All excess soil shall be removed to compensate for the displacement of the gravel or crushed stone and the finished elevation of any subsoil reinforced in this manner shall not be above the specified subgrade elevation.

C. **Backfill Around Structures**. Backfill around structures shall be placed to the lines shown on the approved drawings, or as directed. After completion of foundation footings, walls, and other construction below the elevation of the final grades, and prior to backfilling, all forms shall be removed and the excavation shall be cleaned of all trash and debris. Material for backfilling shall consist of excavated material or borrow of sand, gravel, or other suitable material, and shall be placed in layers not exceeding twelve (12) inches in un-compacted thickness. Each layer shall be compacted by hand or machine tampers or by other suitable equipment to a density equal to 95% of maximum dry density as measured by AASHTO T-99.

D. **Construction of Embankments and Fills**. Unsuitable materials that occur in the foundations for embankments and fills shall be removed by clearing, stripping and/or grubbing. Where suitable materials occur, after stripping, the foundation shall be scarified to depth of not less than six (6) inches, and the loosened material shall be moistened and compacted as hereinafter specified for each layer. All materials in embankments and fills shall be placed, moistened, and compacted as provided in the following paragraphs.

When the embankment or fill exceeds the amount of excavation, sufficient additional material shall be obtained from borrow pits provided by the contractor. All material proposed to be imported shall be subject to the review and approval of the City Engineer prior to starting of hauling operations.

The materials used for embankment and fill construction shall be free from sod, grass, trash, rocks larger than six (6) inches in diameter and all other material unsuitable for construction of compacted fills.

Grading of completed embankments and fills shall bring the surfaces to a smooth, uniform condition with final grades being within 0.10 feet of design grade.

E. **Compacting Earth Materials**. The material shall be deposited in horizontal layers having a thickness of not more than twelve (12) inches in un-compacted thickness as hereinafter specified; provided, that when mechanical equipment is used for placing and compacting the material on a sloping foundation, the layers may be placed parallel to the foundations. The distribution of materials shall be such that the compacted material will be homogeneous and free from lenses, pockets, of other imperfections.

Prior to and during compaction operations, the material shall have the optimum moisture content required for the purpose of compaction and the moisture content shall be uniform throughout the layers, insofar as practicable. Moistening of the material shall be performed at the site of excavation, but such moistening shall be supplemented, as required by sprinkling at the site of construction. If the moisture content is less or greater than optimum form compaction, the compaction operations shall be delayed until such time as the material has been conditioned as herein before specified, the backfill or embankment shall be compacted as follows.

(1) **Under roadways** and extending one (1) foot beyond the proposed right-of-way line or embankment, material shall be compacted to a density equal to, but not less than 95% of maximum dry density as measured by AASHTO T-99.

(2) **Under sidewalks and driveways** the fill or embankment, material (to at least one (1) foot each side of the edge of the slab) shall be compacted to a density equal to, but not less than 95% of maximum dry density as measured by AASHTO T-99.

(3) **Structures**. Other fills and embankments not listed above shall be compacted to a density equal to, but not less than 95% percent of maximum dry density as measured by AASHTO T-99.

F. **Road Subgrade Preparation**. In both cut and fill areas, the paving subgrade shall be scarified to a depth of eight (8) inches and compacted to the equivalent of 95% of maximum dry density as measured by AASHTO T-99. No rocks larger than two (2) inches in diameter, organic material, soft clay, spongy material, or other deleterious material will be permitted in this scarified subgrade layer. Rough subgrades shall be shaped and graded to within a tolerance of 0.15 feet of design grade and drainage shall be maintained at all times.

During the rolling operation moisture content of the subgrade layer shall be maintained at not less than 97% or more than 105% of optimum moisture content. Rolling shall be continued until the entire road bed, (the edge of the right-of-way) is compacted to the specified density to a minimum depth of eight (8) inches.

G. **Recycled Asphalt.** Onsite recycled asphalt may only be used if said material is taken offsite and processed in a controlled environment. Said material shall be processed, grinded and shifted and mixed as directed from a geotechnical engineer report/requirements that specify a percentage of asphalt millings mixed with other materials approved by the geotechnical engineer (shall include gradation, percentage of asphalt millings, CBR requirements, structural fill material, etc.). Said geotechnical report would be required to be approved by the Public Works Director and/or the City Engineer prior to reuse of said material. The asphalt millings mixture shall only be used as a subgrade/subbase material beneath roadways and that are not located within any well protection zones, high water tables or waterways/rivers.

H. Density Testing. All in-place soil densities shall be tested in the presence of an Authorized City Representative by a qualified testing company. If densities do not comply with the required values, the contractor shall be required to correct any deficiencies as directed by the City Engineer. All costs associated with density testing as well as costs associated with obtaining the necessary soil proctors shall be the responsibility of the subdivider/developer. Testing shall be at the height and location per the Authorized City Representative and/or as required.

SECTION 3 - ASPHALT PAVING

A. **General.** This section covers the requirements for bituminous surface paving on roads. A Geotechnical Report shall be required for all new developments. Asphalt pavement shall only be applied between April 15 through October 15 with the temperatures of ground and/or air being 50 degrees and rising.

All roadways shall be classified and surfaced in accordance with the following minimum requirements:

(1) Road Class:

Class I: Includes maintenance mixes, bike paths, residential driveways.

Class II: Includes non-industrial parking lots, low volume collectors, residential streets low volume collectors.

Class III: Includes high volume collectors, arterials, industrial parking lots (primary load from 3-axle or greater vehicles).

(2) Eight (8) inch or ten (10) inch minimum crushed gravel base course over prepared subgrade and Ten (10) inch or twelve (12) for Road Class III (Subject to the recommendations of the Geotechnical Report).

(3) Three (3) inch minimum compacted thickness of plant mix, bituminous surface course asphalt on all streets (Subject to the recommendations of the Geotechnical Report).

(4) Bituminous and aggregate chip seal coat.

B. **Base Course**. Base for all streets shall consist of select material, either natural or crushed, and shall be graded as follows (Note: Recycled roadbase and or concrete is not approved for roadbase):

Percent Passing Sieves

Sieve Size	1" Maximum	3/4" Maximum
1"	100	
1/2"	79-91	100
3/8"	-	78-92
No. 4	49-61	55-67
No. 16	27-35	28-38
No. 200	7-11	7-11

Each layer shall be compacted for the full width and depth by rolling with a pneumatic roller. Alternate blading and rolling will be required to provide a smooth even and uniformly compacted course true to cross-section & grade. Places inaccessible to rolling shall be compacted with mechanically operated hand tampers.

The gravel base shall be compacted to not less than 95% maximum dry density as determined by AASHTO T-180. Surfaces shall be true to the established grade with a thickness being not less than one fourth (1/4) inch from the required layer thickness and with the surface elevation varying not more than three-eighths (3/8) inch in ten (10) feet from the true profile and cross-section.

C. **Bituminous Surface Course**. Over the dry, dust-free compacted base course, the contractor shall place and compact a bituminous surface course. The surface course shall consist of a mixture of mineral aggregate and binder. Gradation of aggregate shall conform to the following as required by the City Engineer:

(1) Asphalt Binder/Binder Content - Use the following binders, unless otherwise specified.

Road Class I & II: PG 58-28 or greater meeting UDOT Standard Specifications - Section 02745.

Road Class III: PG 64-28 or greater meeting UDOT Standard Specifications - Section 02745.

Road Class I: 11.5% (by volume) Effective Binder Content

Road Class II & III: 10.5% (by volume) Effective Binder Content

(2) Aggregated Gradation - Meet gradation requirements according to Road Class and as shown in Table 1 below. Use the following default gradations, unless otherwise specified.

Road Class I: ⅜ inch Gradation
Road Class II & III: ½ inch Gradation

Table 1. Aggregate Gradations

(Percent Passing by Dry Weight of Aggregate)				
Sieve Size		**¾ inch**	**½ inch**	**⅜ inch**
Control Sieves	**1½ inch**			
	1 inch	100.0		
	¾ inch	90.0 - 100.0	100.0	
	½ inch	<90	90.0 – 100.0	100.0
	⅜ inch		<90	90.0 - 100.0
	No. 4			< 90
	No. 8	23.0 - 49.0	28.0 - 58.0	32.0 - 67.0
	No. 200	2.0 - 8.0	2.0 – 10.0	2.0 – 10.0
NOTES 1. Gradation is expressed in percent passing by weight, ASTM C 136. Percentage of fines passing No. 200 sieve determined by washing, ASTM C 117.				

(3) Reclaimed/Recycled Asphalt Pavement (RAP): Mix design **shall contain 15% or less RAP** or recycled asphalt binder from RAP by total weight of binder, whichever is less. Do not adjust virgin binder grade when adding RAP.

The bituminous surface course shall be mixed at a mixing plant and spread and compacted on the prepared base in conformance with the lines and dimensions shown on the plans and in accordance with these specifications.

D. **Construction Methods and Equipment**. The methods employed in performing the work, all equipment, tools, machinery and other appliances used in handling the materials and executing the work shall be the responsibility of the contractor. The contractor shall make such changes in the methods employed and in the equipment used as are necessary whenever the bituminous surface course being produced does not meet the specifications herein established.

E. **Spreading and Compaction**. The bituminous mixtures shall be spread with self-propelled mechanical spreading and conditioning equipment capable of distributing at least a twelve (12) foot width. The mixture shall be spread and struck off in such a manner that the finished surface shall result in a uniform smooth surface. The longitudinal joints in succeeding courses shall be off-set at least twelve (12) inches transversely to avoid a vertical joint through more than one (1) course.

The temperature of the bituminous mix shall be between 275 degrees Fahrenheit and 325 degrees Fahrenheit when placing.

After the mixture has been spread, the surface shall be rolled in longitudinal direction commencing at the outside edge or lower side and preceding to the higher side. Each pass of the roller shall overlap the preceding pass at least one-half (1/2) the width of the roller. Rolling shall continue until 93.5% of the laboratory density has been obtained.

Rolling operations shall be conducted in such a manner that shoving or distortion will not develop beneath the roller.

The surface of the pavement, after compaction, shall be uniform and true to the established crown and grade. When tested with a ten (10) foot straight edge placed parallel to the center line of the pavement the surface of the pavement at any point shall not deviate from the lower edge of the straight edge by more than one-eighth of an inch.

All high and low spots shall be remedied immediately by removing the wearing course material over the affected areas and replacing it with fresh, hot wearing course and surface finish material and immediately compacting it to conform with surrounding area.

All traffic shall be kept off the completed surface for a minimum period of 24 hours.

F. **Bituminous Chip Seal and Bituminous Fog Coat.** The contractor shall not perform this item of work unless the air temperature is 70 degrees Fahrenheit or higher (measured in the shade) and as approved by the City Engineer.

All materials and workmanship shall conform to Section 405 of the Utah Department of Highways Standard Specifications. Cover material shall be the diameter & type as approved by City Engineer.

Bituminous chip seal and fog coat shall not be placed within ten (10) calendar days of the placement of the new bituminous surface course material.

Fog coat shall be placed within 3 to 7 days from placement of the chip seal material. Prior to the placement of the fog coat material, the roadway must be clean and free of loose chips and dirt. Side cast sweeping is not approved.

Chip Seal materials with fog coating shall not be installed in cul-de-sac's.

G. **Bituminous Seal Coat**. All materials and workmanship shall conform to Section 406 of the Utah Department of Highways Standard Specification.

Bituminous Seal Coat materials to be substituted in cul-de-sac's with (i.e. High Density Mineral Bonds, Mastics, HA5 Seals, Onyx Seals, Micro-surfacing, Slurry Seals and Others as approved).

The contractor shall not perform this item of work unless the air temperature is 70 degrees Fahrenheit or higher (measured in the shade) and as approved by the City Engineer.

H. **Weather Limitations**. No bituminous surface course shall be placed when the temperature of the air or road bed is 50 degrees Fahrenheit or below, during rainy weather, when the base is wet or during other unfavorable weather conditions as approved by the City Engineer. The air temperature shall be measured in the shade.

Asphalt/overlays shall be applied only between April 15 and October 15 and when stated temperatures are met.

Seal coats shall be applied only between June 1 and September 15 and when stated temperatures are met.

I. **Testing and Acceptance**. All in-place road base and asphalt pavement testing shall be performed in the presence of the City Engineer by a qualified testing company. If tests do not comply with the required values, the contractor shall be required to correct any deficiencies as directed by the City Engineer. All costs associated with testing, obtaining maximum densities, and/or asphalt extraction, shall be the responsibility of the sub-divider/developer/contractor.

Testing shall be done on a lot (lot = 1 day work paving) and/or sublot (sublot = 500 tons) bases. Acceptance of asphalt shall be based on the four (4) testing criteria contained below, i.e. Asphalt Binder Content, Aggregate Gradation, Maximum Density and Thickness Requirements.

(1) Asphalt Binder Content – Asphalt binder content shall be accepted when the binder content is within ±0.35% of the effective binder content per the Road Class (see above "Asphalt Binder/Binder Content"). Test samples for binder content shall be taken in the presence of the Engineer post paver or windrow once per lot. Samples shall be burned using ignition oven ASTM D6307.

(2) Aggregate Gradation – Aggregate gradation shall be accepted according to the Table 1- Aggregate Gradation (above) and Table 2 – Aggregate Gradation Acceptance Range (below).

Gradation tests shall be conducted using the same sample taken for the binder content test and using residue from the ignition oven once per lot ASTM C 117, ASTM C 136.

Table 2 -Aggregate Gradation Acceptance Range

Upper and Lower Limit Determination	
Parameter	**UL and LL**
¾ inch sieve for 1 inch HMA ½ inch sieve for ¾ inch HMA ⅜ inch sieve for ½ inch HMA No. 4 sieve for ⅜ inch HMA	Target Value ± 6.0%
No. 8 sieve	Target Value ± 5.0%
No. 50 sieve	Target Value ± 3.0%
No. 200 sieve	Target Value ± 2.0%

(3) Maximum Density – Density target for in-place density is 93.5 percent of Maximum Specific Gravity where overlay/placement thickness is 2 inches or greater. A lot is accepted for density when the lot average density and individual sublot average densities are greater than 93.5% with no densities recorded at less than 89.5%. At the discretion of the Engineer, the tester shall test 10 randomly located nuclear density tests per sublot (10 tests/sublot = 500 tons), using an average of two (2) 30 second counts at 90 degree or 180 degree offsets, for each nuclear density test. ASTM D 2950.

Maximum Density shall be obtained based on the following design gyrations:

Road Class I: 50 gyrations Ndesign

Road Class II & III: 75 gyrations Ndesign

(4) Thickness Requirements – Contractor to obtain thickness cores at utility collaring locations. A lot is accepted for thickness when the average thickness of all sublots is not more than ½ inch greater nor ¼ inch less than the total thickness specified. Extra thickness may be left in place at 50% compensation. This includes additional thickness required to place an additional lift over a lift that is too thin. Asphalt paving thicknesses shall not exceed 3-inches per lift.

(5) Reject Lots – Contractor must remove and replace reject lots or submit an Engineering analysis requesting it be left in place with appropriate pay adjustments. Analysis must be Engineering based and not reworked statistical review of original data.

SECTION 4 - PORTLAND CEMENT CONCRETE

A. **Scope**. This section of the specifications define materials to be used in all Portland Cement concrete work and requirements for mixing, placing, finishing, and curing.

B. **Materials**. Materials used in Portland Cement concrete and reinforcing of Portland Cement concrete shall meet the following requirements:

(1) C**ement**. Portland Cement shall be Type II and shall comply with the Standard Specification for Portland Cement, ASTM C-150.

(2) **Aggregates**. Concrete aggregates shall conform to Tentative Specification for Concrete aggregate, ASTM C-33.

(3) **Water**. Water used in mixing concrete shall be clean and free from oil, acid, salt, injurious amounts of alkali, organic matter, or other deleterious substances.

a. Water used in mixing concrete may be heated for use in cold weather as approved by the City Engineer.

(4) **Entraining Agent**. An air-entraining agent shall be used in all concrete exposed to the weather. The agent shall conform to ASTM Designations C-175 and C-260.

(5) **Admixtures.** No admixture (except calcium chloride) will be permitted to be used in Portland Cement unless such use is specifically authorized by the City Engineer.

a. Calcium chloride shall conform to ASTM Standard Specification D-98 and shall be incorporated into the mix only with the approval of the City Engineer.

(6) **High Early Strength Portland Cement - Concrete.** Concrete compressive strength of 3,000 psi minimum in four (4) hours. Cement content of mix shall be per the cement manufacturers' recommendations or approved mix design. Approval for use on any "High Early Strength" concrete shall be by the City Engineer.

(7) **Reinforcing Steel**. All bar material used for reinforcement of concrete shall be intermediate grade steel conforming to the requirements of ASTM Designation A-615 and shall be deformed in accordance with ASTM Designation A-305.

(8) **Welded Wire Fabric**. Welded wire fabric for concrete reinforcement shall conform to the requirements of ASTM A-185.

C. **Concrete Mix**. For the purpose of practical identification concrete has been divided into four (4) classes; Class A, B, C, and D. Basic requirements and use for each class are as defined below:

Class	Cement (bag / c.y.)	Compressive Strength (PSI / 28-day minimum)	Primary Uses
A	7.5	5,000	Reinforced structural concrete
B	6.5	4,000	Sidewalks, curbs & gutters, waterways, roadway pavements, foundations and non-reinforced footings.
C	5.5	3,000	Thrust blocks, anchors, mass concrete
D	7	3,000	High Early Strength Concrete

All concrete shall also comply with the following requirements:

(1) **Aggregates**. The maximum size of the aggregate shall be not larger than one-fifth (1/5) of the narrowest dimension between forms within which the concrete is to be cast, nor larger than three-fourths (3/4) of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms. From non reinforced concrete slabs the maximum size of aggregates shall not be larger than one-fourth (1/4) the slab thickness.

(2) **Water**. Sufficient water shall be added to the mix during production at the batch plant to produce concrete with the minimum practicable slump. The slump of mechanically vibrated concrete shall not exceed four (4) inches. No concrete shall be placed with a slump in excess of five (5) inches.

The maximum permissible water-cement ratio (including free moisture on aggregates) shall be 5 and 5-3/4 gallons per bag of cement respectively for Class A and B air entrained concrete.

(3) **Air Entraining**. Air content for air-entrained concrete shall comply with the following:

Course Aggregate

Size (in.)	Air Content (%)
1 ½ to 2 ½	5 ± 1
¾ or 1	6 ± 1
¾ or ½	7 ± 1

The air entraining agent shall be added as a liquid to the mixing water by means of mechanical equipment capable of accurate measurement and control.

(4) **Calcium Chloride**. Calcium Chloride may be added as an accelerator during cold weather with the maximum amount being two (2) pounds per sack of cement upon prior authorization by the City Engineer.

D. **Forms**. Forms shall be substantially built and adequately braced so as to withstand the liquid weight of concrete. All linings, studding, walling, and bracing shall be such as to prevent bulging, spreading, or loss of true alignment while pouring and displacement of concrete while setting. All concrete forms are to be inspected by an Authorized City Representative and approval given prior to the placement of any concrete.

Metal forms and/or automated equipment shall be used for curb and gutter work. All edge forms for sidewalk pavements, curbs and gutters shall be of sufficient rigidity and adequately braced to accurately maintain line and grade.

Forms or equipment used for curved sections shall be so constructed and placed that the finish surface of walls and edge of sidewalks, curbs and gutters will not deviate appreciably from the arc of the curve. Exposed vertical and horizontal edges of the concrete in structures shall be chamfered by the placing of moldings in the forms.

E. **Joints**. Joints shall be provided for sidewalk, curb and gutter as follows:

(1) **Sidewalks** shall have scribed joints at intervals of four (4) feet which joints shall be approximately three-sixteenth (3/16) inches wide and be approximately one-third (1/3) of the total slab thickness. In addition, one-half (1/2) inch expansion joints shall be provided at one-hundred (100) foot intervals and at locations where sidewalks adjoin curbs or existing sidewalks. Slabs shall be ruled at four (4) foot intervals.

(2) **Curb and Gutter** shall be cut into lengths of ten (10) feet by the use of one-eighth (1/8) inch steel division plates of the exact cross-section of the curb and gutter. Curb and gutter that is constructed using automated equipment shall also be cut into lengths of ten (10) feet by a three-eighth (3/8) inch wide scribed joint. In addition, one-half (1/2) inch expansion joints shall be provided at one-hundred (100) foot intervals and at locations where sidewalks adjoin curb and gutter radii, a solid object is abutted against and existing sidewalks unless otherwise specified by the City Engineer.

(3) **Materials** for one-half (1/2) inch expansion joints shall be as defined in ASSHTO M-33, and shall be installed with its top approximately one-fourth (1/4) inch below the concrete surface.

F. **Reinforcement and Embedded Items**. Reinforcing steel shall be clean and free from rust, scale, paint, grease, or other foreign matter which might impair the bond. It shall be accurately bent and shall be tied to prevent displacement when concrete is poured. Reinforcing steel shall be held in place by only metal or concrete ties, braces, and supports. No steel shall extend for or be visible on any finished surface. Steel shall be placed per the current Building Code adopted by the City.

The contractor shall use concrete chairs for holding the steel away from the subgrade, and spreader or other type bars for securing the steel in place. The spreader bars shall be not less than three-eighth (3/8) inch in diameter.

G. **Preparations**. Before batching and placing concrete, all equipment for mixing and transporting the concrete shall be cleaned, all debris and ice shall be removed from places that are occupied by the concrete. Forms

shall be thoroughly wet (except in freezing weather), or oiled, and masonry filler units that will be in contact with concrete shall be well drenched (except in freezing weather), and the reinforcement shall be thoroughly cleaned of ice or other coatings. Any ponding of water shall be removed immediately from spaces to receive concrete.

When placing concrete on earth surfaces, the surfaces shall be free from frost, ice, mud, and water. When the subgrade surface is dry soil and pervious material, it shall be sprayed with water immediately before placing of concrete or shall be covered with water-proof sheathing paper or a plastic membrane. No concrete shall be placed until the surfaces have been inspected and approved by the City Engineer.

H. **Concrete Mixing**. Ready mixed concrete shall be mixed and delivered in accordance with the requirements set forth in Tentative Specifications for Ready-Mixed concrete (ASTM C-94). Concrete shall be delivered and deposited in its final position within 60-minutes after adding the cement and water to the mixture. All concrete placed in the city right-of-way shall be ready-mixed plant concrete.

I. **Depositing**. Concrete shall be deposited as neatly and practical in its final position to avoid segregation due to re-handling or flowing. The concrete placing shall be carried on at such a rate that the concrete is at all times plastic and flows readily into the corners of forms and reinforcing bars. No concrete that has partially hardened or been contaminated by foreign material shall be deposited in the work, nor shall re-tempered concrete be used. No concrete shall be dropped more than three (3) feet.

All concrete in structures shall be vibrator compacted during the operation of placing and shall be thoroughly worked around reinforcement and embedded fixtures and into the corners of the forms.

J. **Placing Concrete in Cold Weather**. No concrete shall be poured where the air temperature is lower than 36 degrees Fahrenheit, at location where the concrete cannot be covered or protected from the surrounding weather and freezing air temperatures. No concrete shall be poured between December 1 and March 1. Approval for cold weather concrete will only be allowed with special permission from the City Public Works director and/or the City Engineer. If allowed to place concrete, additional heating and monitoring will be required.

When there is likelihood of freezing during the curing period, the concrete shall be protected by means of an insulating covering "blanket" and/or auxiliary heat for a period of not less than ten (10) days after placing the new concrete. When auxiliary heat is added under the insulating covering a thermometer which records the high/low, 24-hour temperature, must be placed under the insulating covering and checked and recorded daily by the Contractor. The City Inspectors and/or the City Engineer shall reset or witness the thermometer reset daily.

If the recording thermometer indicates temperatures below 36 degrees Fahrenheit, the new concrete may be rejected by the Public Works Director and/or the City Engineer.
Concrete shall not be placed on frozen soil.

All concrete that is poured when the air temperature is lower than 36 degrees Fahrenheit, must be covered with "concrete insulation blankets" designed specifically for use with concrete materials. The concrete blankets must be in good condition (not smashed, torn or warn-out from use). The use of other concrete

covering materials such as plastic, tarps, straw or hay is not approved for use.

When concrete is poured below a temperature of 36 degrees Fahrenheit, the ingredients of the concrete shall be heated so that the temperature of the mixture shall not be less than 50 degrees or more than 100 degrees Fahrenheit. Before mixing, the heated aggregates shall not exceed 125 degrees Fahrenheit and the temperature of the heated water shall not exceed 175 degrees Fahrenheit.

Cement shall not be added while the temperature of the mixed aggregates and water is greater than 100 degrees Fahrenheit.

Equipment for protecting concrete from freezing shall be available at the job site prior to placing concrete.

Particular care shall be exercised to protect edges and exposed corners from freezing. In the event heating is employed, care shall be taken to insure that no part of the concrete becomes dried out or is heated temperatures above 90 degrees Fahrenheit.

Any concrete that is determined to have frozen within ten (10) days after placing will be required to be removed and replaced.

K. **Finishing**. After the concrete for slabs have been brought to the established grade, it shall be worked with a magnesium float and then given a light broom finish only or as approved. In no case shall dry cement or a mixture of dry cement and sand be sprinkled on the surface to absorb moisture or hasten hardening. Surface edges of all slabs shall be rounded to a radium of one-half (1/2) inch.

After concrete has been poured in curb and gutter forms, it shall be spaded so as to insure a thorough mixture, eliminate air pockets, and create uniform and smooth sides. Before the concrete has thoroughly set and while the concrete is still green, the forms shall be removed and the front and top side shall be finished with a float or steel trowel to make a uniform finished surface. Wherever corners are to be rounded, special steel trowels shall be used while the concrete is workable and the corners constructed to the dimensions specified.

The top and face of the curb and also the top of the apron on combined curb and gutter must be finished true to line and grade without any irregularities of surface noticeable to the eye. The gutter shall not hold water to a depth of more than one-fourth (1/4) of an inch, nor shall any portion of the surface or face of the curb or gutter depart more than one-fourth (1/4) of an inch from a straight edge ten (10) feet in length, placed on the curb parallel to the center line of the street nor shall any part of the exposed surface present a wavy appearance.

Concrete roadways need to have the rake finish. The concrete pavement texture shall be longitudinal tining as follows:

1. Produce grooves of approximately 1/8 inch wide by 1/8 inch deep spaced ¾" apart and parallel to the longitudinal joint.
2. Keep tining devices clean and free from encrusted mortar and debris to provide uniform groove dimensions.

3. Time tining so that the grooves do not close up.

L. **Curing and Protection**. As soon as the concrete has hardened sufficiently to prevent damage, all finished surfaces shall be treated with a chemical curing agent applied in accordance with the manufacturer's specification.

Any new concrete vandalized, marked with graffiti or pitted by rain before it has sufficiently hardened shall be replaced at the City Engineer's discretion. The contractor shall provide and use, when necessary, sufficient tarpaulins to completely cover all sections that have been placed within the preceding twelve (12) hours.

The contractor shall erect and maintain suitable barriers to protect the finished surface. Any section damaged from traffic or other causes occurring prior to its official acceptance, shall be repaired or replaced by the contractor at his own expense in a manner satisfactory to the Engineer.

M. **Testing**. The contractor shall furnish to the City Engineer upon request the concrete mix design to be used prior to placement of concrete. The mix design may be modified if the City Engineer deems it necessary.

The contractor shall be responsible for testing costs associated with compressive strength and compliance testing ordered by an Authorized City Representative. Testing shall be in accordance with AASHTO T-22 and T-23.

SECTION 5 - EXCAVATION AND BACKFILL FOR PIPELINES

A. **General**. This section covers the requirements for trenching and backfilling for underground pipelines and appurtenances.

B. **Control of Ground Water**. All trenches shall be kept free from water during excavation, fine grading, pipe laying, jointing, and embedment operations. Where the trench bottom is mucky or otherwise unstable because of the presence of ground water, and in cases where the static ground water elevation is above the bottom of any trench or bell-hole excavation, such ground water shall be lowered to the extent necessary to keep the trench free from water and the trench bottom stable when the work within the trench is in progress.

Surface water shall be prevented from entering trenches.

C. **Excavation for Pipelines**. Excavation for pipelines shall follow lines parallel to and equidistant from the location of the pipe center line. Trenches shall be excavated to the depths and widths required to accommodate the construction of the pipelines, as follows:

(1) Except in ledge rock, cobble rock, stones or water-saturated earth, mechanical excavation of trenches shall not extend below an elevation of four (4) inches above the bottom of the pipe after placement in its final position. All additional excavation necessary for preparation of the trench bottom shall be made manually. Excavation shall not be carried below the grade shown on the approved drawings. Any unauthorized excavation made below grade for any reason shall be backfilled in accordance with these specifications.

(2) Excavation for trenches in ledge rock, cobble rock, stones, mud of other material unsatisfactory for pipe foundation, shall extend to a depth of at least six (6) inches below the bottom of the pipe. A bedding of special material shall be placed and thoroughly compacted with pneumatic tampers in six (6) inch lifts to provide a smooth, stable foundation. Special foundation material shall consist of suitable earth materials free from roots, sod, or vegetable matter. Trench bottoms shall be hand shaped as specified in paragraph 1 above.

Where unstable earth or muck is encountered in the excavation at the grade of the pipe, a minimum of twelve (12) inches below grade will be removed and backfilled with crushed rock or gravel to provide a stable subgrade.

(3) The maximum width of trench measured at the top of the pipe shall be as narrow as possible, but not wider than the pipe outside diameter plus eighteen (18) inches, unless approved otherwise by the City Engineer.

(4) The trench wall slope and all other trench safety requirements must comply with Utah State Industrial Commission and Federal OSHA regulations.

D. **Gravel Foundation for Pipe**. Wherever the subgrade material does not afford a sufficiently solid

foundation, as determined by the City Engineer, to support the pipe and superimposed load, and where water must be drained to maintain a dry bottom for pipe installation and at other locations as previously defined, the subgrade shall be excavated to the specified depth and replaced with crushed rock or gravel.

Gravel for pipe foundations shall be clean crushed rock or gravel conforming to the following gradation:

Screen	**Percent Passing**
1 ¼"	100
½"	5

The gravel material shall be deposited over the entire trench width in six (6) inch maximum layers. Each layer shall be compacted by tamping, rolling, vibrating, spading, slicing, rodding, or by a combination of one or more of these methods. In addition, the material shall be graded to produce a uniform and continuous support the installed pipe.

E. **Blasting**. Blasting will not be allowed except by permission from the City Engineer. The contractor shall comply with all laws, ordinances, and applicable safety code requirements and regulations relative to the handling, storage and use of explosives and protection of life and property. He shall be fully responsible for all damage attributable to his blasting operations. Excessive blasting or over-shooting will not be permitted. Any material outside the authorized cross-section which may be shattered or loosened by blasting shall be removed by the contractor.

F. **Sheeting, Bracing and Shoring of Excavations**. Excavation shall be sheeted, braced, and shored as required to support the walls of the excavations to eliminate sliding and settling; and as may be required to protect the workmen, the work in progress, and existing utilities and improvements. All such sheeting, bracing, and shoring shall comply with the requirements of the Utah State Industrial Commission and Federal OSHA Requirements.

All damage resulting from lack of adequate sheeting, bracing, and shoring shall be the responsibility of the contractor, and the contractor shall make all necessary repairs or reconstruction resulting from such damage.

G. **Bedding/Backfilling**. Backfill shall be carefully placed around and over pipes and shall not be permitted to fall directly on a pipe from such a height, or in such a manner as to cause damage. In these specifications the process of preparing the trench bottom to receive the pipe and the backfilling on each side of the pipe to a level over the top of the pipe is defined as bedding. Bedding requirements are defined in the specifications for each specific pipe material per the manufacturer's requirements.

Trench backfilling above the level of the pipe bedding shall normally be accomplished with native excavated materials and shall be free from rocks larger than four (4) inches in diameter and clay materials.

The backfill in all utility trenches shall be either compacted or consolidated according to the requirements of the materials being placed under the direction of the City Engineer. Under pavements or other surface improvements, the in-place density shall be a minimum of 95% of laboratory standard maximum dry density

as determined by AASHTO T-99. In shoulders and other areas the in-place density shall be a minimum of 90% of the maximum dry density as determined by the same laboratory method.

H. **Consolidation of Backfill**. Consolidation of backfill shall be accomplished by those methods in which water is used as the essential agent to produce the desired condition of density and stability. Water shall be applied by jetting unless flooding is specifically authorized by the City Engineer. All consolidation of backfill which uses water shall be approved in writing by the City Engineer prior to the work taking place.

Authorization by the City Engineer to use any consolidation method does not relieve the contractor of his responsibility to meet the specified density requirements. Water for consolidation shall be furnished by the contractor at his expense.

In the jetting procedure, the jets shall be inserted at not more than four (4) foot intervals (staggered) throughout the length of the backfilled area and shall be slowly forced down to the bottom of the trench or the top of the previously jetted lift and held until the trench backfill is completely saturated with water. Depth of jetted lift shall not exceed three (3) feet.

The minimum size of hose and equipment shall be such as to provide a minimum pressure of thirty-five (35) pounds per square inch at the discharge. The jet shall be a rigid iron pipe with a minimum diameter of one (1) inch.

After the water-settled trench has set for a minimum of seven (7) days, any depression in the trench shall be filled, and mounded over with the fill material and re-compacted.

All precautions necessary shall be taken by the contractor to prevent damage and movement (including floating) of the pipeline structures and existing adjacent improvements and utilities. The allowance of the use of consolidation methods shall not be construed as guaranteeing or implying that the use of such methods will not result in damage to adjacent ground. The contractor shall make his own determination in this regard, and shall assume all risks and liability for settlement or lateral movement of adjacent ground, or improvements, or utilities, either on the surface of the ground or underground.

I. **Compaction of Backfill**. Backfill shall be compacted by means of sheep-foot rollers, pneumatic tire rollers, vibrating rollers, or other mechanical tampers of a size and type approved by the City Engineer. All backfill methods shall be performed in strict compliance with the pipe manufacture requirements.

Where mechanical compaction methods are used, the material shall be placed at a moisture content such that after compaction the required relative densities will be produced. The materials shall also be placed in lifts which, prior to the compaction, shall not exceed twelve (12) inches.

Prior to compaction each layer shall be evenly spread, moistened, and worked by disk harrowing, or other means approved by the City Engineer.

If the required relative density is not attained, test sections will be required to determine any adjustments in compacting equipment, thickness of layers, moisture content and compactive effort necessary to attain the

specified minimum relative density.

Approval of equipment, thickness of layers, moisture content, and compactive effort shall not be deemed to relieve the contractor of the responsibility for attaining the specified minimum relative densities. The contractor in planning his work shall allow sufficient time to perform the work connected with test sections, and to permit the City Engineer to make tests for relative densities.

All relative density tests and soil "proctors" shall be made by the contractor at no expense to the City. All relative density testing shall be made in the presence of the City Engineer.

J. **On-Site Backfill Material.** In the event the Contractor wishes to use native materials obtained from on-the-site, those materials shall not contain "Clay, Peat, Organic Materials nor Silt". Prior to the use of on-site materials, those materials shall be inspected by a Geotechnical Engineer; and prior to their use the Contractor shall furnish the Engineer/Inspector with a written soil proctor (from an approved testing agency) of the materials he wishes to utilize.

K. **Imported Backfill Material**. In the event the native excavated material is not satisfactory for backfilling, the contractor shall provide imported granular material. This granular material shall pass a three (3) inch square sieve and shall not contain more than 15% of material passing a 200-mesh sieve, and shall be free from sod, vegetation and other organic or deleterious materials. The Contractor shall furnish the Engineer/Inspector a written soil proctor (from an approved testing agency) prior to the material being placed.

L. Asphalt Millings / Asphalt Material. Asphalt millings / asphalt materials are not allowed/permitted as backfill material as bedding, pipe zone and or trench fill materials unless approved by the Public Works Director and/or the City Engineer. If material is allowed it shall be required to meet a geotechnical report and mixed with other structural fill material as a percentage of the trench fill materials. Said geotechnical report would be required to be approved by the Public Works Director and/or the City Engineer prior to placement in the utility trench. The use of said asphalt millings would be subject to same requirements as specified in the Earthwork Section G. Recycled Asphalt.

M. **Disposal of Excess Materials**. All excess materials shall be hauled away from the construction site and disposed of by the contractor unless otherwise approved by the City Engineer.

N. **Soil Testing**. All in-place density testing of backfill shall be performed in the presence of the City Engineer by a qualified testing company. If densities do not comply with the required values, the contractor shall be required to correct any deficiencies as directed by the City Engineer. All costs associated with density testing and obtaining "Soil Proctors" shall be the responsibility of the subdivider/ developer.

SECTION 6 - CONCRETE PIPE

A. **General**. This section covers the requirements for concrete pipe materials and installation in sanitary sewer, storm drain, and land drain construction. All concrete pipe used for sanitary sewer construction shall be certified by the supplier as "Air Tested".

The minimum diameter of public storm drain pipes in Riverdale City shall be 15" in diameter and no corrugated hdpe will be approved for use for sanitary sewer or storm drain piping.

B. **Pipe**. Pipe used in sanitary sewer, storm drain, and land drain shall be either non-reinforced concrete pipe manufactured to meet ASTM C-14, or reinforced concrete pipe as manufactured according to ASTM C-76 as follows:

(1) Non-reinforced concrete pipe shall be used for all sanitary sewers and storm drains up to and including twelve (12) inch size on the approved drawings. Pipe shall be Class 3 as shown on Table 1 of the latest revision of ASTM C-14. The joint shall consist of a bell or groove on one end of the pipe and a spigot or tongue on the adjacent end of the pipe. All surfaces of the joint upon which the rubber gasket may bear shall be smooth and free of chips, spalls, fractures, and imperfections that would adversely affect the performance of the joint.

Pipe joints shall be designed as to provide for self-centering and when assembled to compress the gasket to form a water tight seal. The joint shall meet the requirements of ASTM C-443.

(2) Reinforced concrete pipe shall be used for all sanitary sewers and storm drains of a size larger than twelve (12) inches and/or all sanitary sewers and drain lines of a smaller size where installation does not provide a cover of at least three (3) feet over the top of the pipe. Reinforced concrete pipe shall conform to the requirements of ASTM C-76 and shall be Class III, IV, or V as designated on the plans. Joints shall be either rubber gasket conforming to ASTM C-443 or tongue and groove as indicated on the plans.

C. **Pipe Laying**. All concrete pipe installation shall proceed upgrade on a stable foundation with joints closely and accurately fitted. Gaskets shall be fitted properly in place and care shall be taken in joining the pipe units to avoid twisting of gaskets. Joints shall be clean and dry and a joint lubricant, as recommended by the pipe supplier, shall be applied uniformly to the mating joint surfaces to facilitate easy positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel with suitable excavations being made to receive pipe bells. Select material shall be compacted around the pipe to firmly bed the pipe in position.

If adjustment of position of a pipe length is required after being laid, it shall be removed and re-

jointed as for a new pipe. When laying is not in progress, the ends of the pipe shall be closed with a tight fitting stopper to prevent the entrance of foreign material. In addition to the above requirements, all pipe installation shall comply to the specific requirements of the pipe manufacturer.

D. **Gravel Foundation for Pipe**. Wherever the subgrade material does not afford a sufficiently solid foundation
to support the pipe and superimposed load, and where groundwater must be drained, the subgrade shall be excavated to such depth as may be necessary and replaced with crushed rock or gravel compacted into place. Gravel foundation material shall be as defined in Section 5 - Paragraph D, of these specifications.

E. **Installation Requirements for Line and Grade**. All piping shall be installed accurately to the defined line and grade within the following limits:

Variance from established line and grade shall not be greater than one thirty-second (1/32) of an inch per inch of pipe diameter in eight (8) feet and not to exceed one-half (1/2)inch in eight (8) feet, provided that such variation does not result in a level or reverse sloping invert; provided also that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one sixty-fourth (1/64) inch per inch of pipe diameter, or one-half (1/2) inch maximum.

F. **Pipe Bedding**. All piping shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded.

A groove shall be excavated in the bottom of the trench to receive the bottom quadrant of the pipe. Before preparing the groove, the trench bottom shall be excavated or filled and compacted to an elevation sufficiently above the grade of the pipe so that, when completed, the pipe will be true to line and grade. Bell holes shall be excavated so that only the barrel of the pipe receives bearing from the trench bottom.

Pipe bedding materials placed at any point below an elevation twelve (12) inches above the top of the pipe shall be deposited and compacted in layers not to exceed six (6) inches in un-compacted depth. Deposition and compaction of bedding materials shall be done simultaneously and uniformly on both sides of the pipe. Compaction shall be accomplished with hand or mechanical compactors. All bedding materials shall be placed in the trench with hand tools or other approved method in such a manner that they will be scattered alongside the pipe and not dropped into the trench in compact masses. Bedding materials shall be loose earth, free from lumps, sand or gravel free from rocks larger than two (2) inches in diameter; with all materials free from roots, sod, or other vegetable matter.

In the event trench materials are not satisfactory for pipe bedding, modified bedding will be required. Modified bedding shall consist of placing compacted granular material on each side of

and to the level of twelve (12) inches above the top of the pipe. Modified bedding material shall be graded as follows: 100% passing a one (1) inch screen and 5% passing a No. 4 sieve.

G. **Tests**. Tests for both displacement and leakage shall be conducted on the installed piping system. The residential or commercial service laterals shall be considered part of the main line and shall be tested with the mainline pipe. The contractor may choose test 3, 4, or 5 below, unless otherwise directed by the Engineer.

(1) **Inspection of Pipe Lines.** The contractor will be required to conduct an air test, the displacement test and a video recording of the complete pipe in the presence of the City Engineer. All sanitary sewer and storm water pipelines shall be video inspected and a copy of the recording submitted to the City for review and record keeping. Prior to the video inspection of the pipe interior, the completed pipeline shall be cleaned and a small amount of clear water shall be introduced at the top end (highest elevation) of the pipeline to assist with inspection for low spots (bellies) in the new pipeline.

If any of the performance tests fail, then repairs shall be performed by the contractor and any or all of the required tests shall again be conducted in the presence of the City Engineer.

(2) **Displacement Test**. The displacement test conducted shall be conducted by the City Engineer and shall consist of the following: A light will be flashed between manholes or, if the manholes have not as yet been constructed, between the locations of the manholes, by means of flashlight or by reflecting sunlight with a mirror.

If the illuminated interior of the pipe shows broken, a misaligned or displaced pipe, or other defects, the defects discovered by the City Engineer shall be remedied at the contractor's expense.

(3) **Exfiltration Test**. This test is allowed only where groundwater does not exist. The contractor shall test all sanitary sewer pipe by means of an exfiltration test. Length of the line tested at one time shall be limited to the length between adjacent manholes.

Each section of the pipe shall be tested between successive manholes by closing the lower end of the pipe to be tested and the inlet pipe of the upper manhole with stoppers. The pipe and manhole shall be filled with water to a point approximately four (4) feet above the invert of the pipe at the center of the upper manhole.

The allowable leakage will be computed by the formula:

E = 0.25 D divided by H. Where: E = is the allowable leakage in gallons per minute per 1000 feet of pipe tested.

D = is the internal diameter of the pipe in inches.

H is the difference in elevation in the water surface in the upper manhole and the invert of the pipe at the lower manhole (feet).

If the leakage for the pipe as shown by the test exceeds that allowed by the formula the contractor shall make the necessary corrections to reduce the exfiltration to within permissible limits.

Where the difference in elevation between inverts of adjacent manholes exceeds ten (10) feet, the exfiltration leakage test will be modified as directed by the City Engineer.

(4) **Infiltration Test**. The contractor shall furnish all labor, equipment and materials, including pumps. In the presence of the City Engineer, infiltration tests of the completed pipe shall be conducted before it can be placed into service. The contractor shall furnish and install the measuring weirs or other measuring devices.

The length of line to be tested at any time and shall be subject to the approval of the City Engineer. The maximum allowable infiltration shall not exceed fifty (50) gallons per mile per twenty-four (24) hours for all installed sanitary sewer pipe. If the quantity of infiltration is in excess of the maximum allowable, the leaking joints shall be repaired to the satisfaction of the City Engineer at the expense of the contractor.

(5) **Low Pressure Air Testing**. The contractor or a qualified firm or individual approved by the City Engineer shall furnish labor, equipment, and materials, including pumps and compressors, and shall perform in the presence of the City Engineer, air tests of the completed pipe before it can be placed in service. (As covered under ASTM C-924-84; standard practice for testing.) Each section of sanitary sewer pipe between manholes shall be tested after all the four (4) inch service laterals have been installed. For the purpose of stabilizing the air pressure in each test section, the 4.0 psi pressure shall be maintained for a two (2) minute period.

After the air pressure has stabilized for at least two (2) minutes, air introduction into the pipe should be stopped. After disconnection of the air supply, the pressure shall gradually decrease. When the air pressure decreases to 3.5 psi, start a stopwatch. The time for the pressure to decrease 2.5 should be noted in minutes and seconds with the stopwatch. The time noted for this pressure drop should not be less than the time shown on the following table:

TEST TIME (minutes : seconds)

Diameter	4"	6"	8"	10"	12"	15"
Length						
25	0:04	0:10	0:17	0:22	0:26	0:31
50	0:09	0:20	0:35	0:44	0:53	1:02
75	0:13	0:30	0:53	1:06	1:20	1:33
100	0:17	0:40	1:11	1:28	1:46	2:05
125	0:22	0:50	1:28	1:51	2:13	2:36
150	0:26	0:60	1:46	2:13	2:40	3:07
175	0:31	1:10	2:04	2:35	3:06	3:38
200	0:35	1:20	2:22	2:57	3:33	4:09
225	0:40	1:30	2:40	3:19	3:59	4:41
250	0:44	1:40	2:57	3:42	4:26	5:12
275	0:49	1:50	3:15	4:04	4:53	5:43
300	0:53	2:00	3:33	4:26	5:19	6:14
325	0:57	2:10	3:51	4:48	5:46	6:46
350	1:02	2:20	4:08	5:10	6:13	7:17
375	1:06	2:30	4:26	5:33	6:39	7:48
400	1:11	2:40	4:44	5:55	7:06	8:19
425	1:15	2:50	5:02	6:17	7:33	8:50

The test section of piping and laterals shall be accepted if the time noted on the stopwatch is greater than the time required on the above table.

Failure of the contractor's testing equipment to properly function shall render the test unacceptable. All faulty sections of pipeline shall be repaired and retested until the minimum air testing requirements have been met, at the expense of the contractor.

H. **Sewer Lateral Connections**. All sanitary sewer lateral piping connections, onto a new concrete/pvc/other material sanitary sewer main, shall be through preformed wyes fitting.

All sanitary sewer lateral connections onto an existing concrete/pvc/other material sanitary sewer pipelines shall be done with a sanitary sewer tapping machine using the appropriate type and size cutting bit. All lateral connections shall utilize an "InsertaTee" (or approved equal) connection fitting with stainless steel band connectors.

The location of all **NEWLY INSTALLED SEWER LATERIALS** must be documented and correctly measured immediately upon their installation. The laterals location, diameter, slope and materials with ties to permanent facilities, shall be drawn upon a "Red-line / As Constructed" improvement drawing and submitted to the Public Works Director for record keeping.

SECTION 7 - PVC PLASTIC SANITARY SEWER PIPE

A. **General.** This section covers the requirements for PVC plastic sanitary sewer pipe to be used in the sanitary sewer mains and laterals.

B. **Pipe**. The PVC plastic sanitary sewer pipe shall be made of compound conforming to ASTM D-1784 with a cell classification of 12454-A with a minimum tensile modular of 500,000 psi. The PVC sanitary sewer pipe must meet all the dimensional, chemical and physical requirements outlined in ASTM D-3034, shall have a SDR of 35.0 for diameters four (4) inch to fifteen (15) inch and ASTM F-679 for eighteen (18) inch and twenty-one (21) inch, and shall be supplied in twenty (20) foot laying lengths. Pipe shall carry the IAMPMO UPC Seal of Approval.

The PVC sanitary sewer pipe shall be installed according to the requirements of ASTM D-2321 and the manufacturer's requirements.

C. **Joints**. Joints for PVC plastic sanitary sewer pipe shall be of the rubber gasket bell and spigot type, and the rubber gaskets shall conform to ASTM F-477.

D. **Fittings**. Fittings shall be made of PVC plastic conforming to ASTM D-1784, have a cell classification as outlined in ASTM D-3034, and carry the IAPMO UPC "Seal of Approval" and shall have gasket joints.

E. **Pipe Laying**. All pipe installation shall proceed upgrade on a stable foundation with joints closely and accurately fitted. Installation requirements of the manufacturer shall be rigidly adhered to.

Rubber gaskets shall be fitted properly in place and care shall be taken in joining the pipe units to avoid twisting of gaskets. Joints shall be clean and dry and a joint lubricant, as recommended by the pipe supplier, shall be applied uniformly to the mating jointing surfaces to facilitate easy positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel, with suitable excavation being made to receive pipe bells.

Select material shall be compacted around the pipe to firmly bed the pipe in position. If adjustment of position of a pipe length is required after being laid, it shall be removed and re-jointed as for a new pipe. When laying is not in progress, the ends of the pipe shall be closed with a tight-fitting stopper to prevent the entrance of foreign material. In addition to the above requirements, all pipe installation shall comply with the specific requirements of the pipe manufacturer.

F. **Gravel Foundation**. Wherever the subgrade material does not afford a sufficiently solid foundation to support the pipe and superimposed load, it shall be excavated to such depth as may be necessary and replaced with crushed rock or gravel compacted into place. Gravel foundation material for pipe shall be placed only when, and to the depth, requested by the City Engineer or specified on the drawings.

Gravel for PVC pipe foundations shall be clean crushed rock or gravel with 100% passing a one (1) inch screen and maximum of 5% passing a No. 4 sieve.

G. **Installation Requirement for Line and Grade**. All sanitary sewer piping shall be installed accurately to the defined line and grade with the following limits:

Variance from established line and grade shall not be greater than one thirty-second (1/32) of an inch per inch of pipe diameter and not to exceed one-half (1/2) inch in eight (8) feet provided that such variation does not result in a level or reverse sloping invert; provided also, that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one sixty-fourth (1/64) inch per inch of pipe diameter, or one-half (1/2) inch maximum.

H. **Pipe Bedding**. All pipe shall be protected from lateral displacement and possible damage resulting from impact of unbalanced loading during backfilling operations by being adequately bedded in suitable embedment material.

The bottom of the trench shall be of stable materials. In general, coarse-grained soils, free of rocks and stones, such as grade crushed rock, gravel, sand and other granular materials are considered stable materials. A stable material shall be placed and compacted under the pipe haunches and up to the spring line in uniform layers not exceeding twelve (12) inches in depth. When bedding is required, the same material should be used for both bedding and haunching. Stable material, free of rocks and stones, shall be used to backfill the trench from the spring line of the pipe to a point at least twelve (12) inches above the top of the pipe. Each ten (10) inch layer of bedding, haunching and initial backfill shall be placed, and then carefully and uniformly compacted to a 95% of AASHTO T-99 density.

Extra-fine sand, clay, silt, or large soil lumps shall not be allowed as bedding, haunching, or initial backfill material. The remaining backfill over the top of the initial backfill shall be placed in accordance with Section 2, "Earthwork".

No bedding material shall be used unless accepted by the City Engineer. Samples of the materials shall be submitted by the contractor a sufficient time in advance of intended use to enable its inspection and testing. Bedding material shall be one of the following, at the contractor's option:

(1) **Sand**. Sand bedding shall be a clean sand-gravel mixture free from organic matter and conforming to the following gradation when tested in accordance with ASTM D-422:

U.S. Standard Sieve Size	Percent Passing by Weight
3/4"	100
3/8"	70-100
#4	55-100
#10	35-95
#20	20-80
#40	10-55
#100	0-10
#200	0-3

(2) **Pea Gravel**. Pea gravel bedding shall be a clean mixture free from organic matter and conforming to the following gradation when tested in accordance with ASTM D-422:

U.S. Standard Sieve Size	Percent Passing by Weight
1-1/2"	100
3/4"	30-75
1/2"	15-55
1/4"	0-5

(3) **Gravel-Sand**.

U.S. Standard Sieve Size	Percent Passing by Weight
1-1/2"	100
3/4"	30-75
1/2"	15-55
1/4"	0-40
#200	0-3

(4) **Crushed Rock**. Crushed rock bedding shall be a clean mixture free from organic material and conforming to the following gradation when tested in accordance with ASTM D-422:

U.S. Standard Sieve Size	Percent Passing by Weight
5/8"	100
1/4"	50-65
#40	8-23
#200	0-10

I. **Tests**. The contractor will be required to conduct an air test, the displacement test and a video recording of the complete pipe in the presence of the City Engineer. All sanitary sewer and

storm water pipelines shall be video inspected and a copy of the recording submitted to the City for review and record keeping. Prior to the video inspection of the pipe interior, the completed pipeline shall be cleaned and a small amount of clear water shall be introduced at the top end (highest elevation) of the pipeline to assist with inspection for low spots (bellies) in the new pipeline.

Should the Engineer suspect the PVC piping has been over-compacted the Contractor shall be required to pull a pipe mandrel checking device through the PVC piping to check for deflection. Tests shall be performed as specified in Section 6, Paragraph G.

J. **Sewer Lateral Connections**. All sanitary sewer lateral piping connections onto a new concrete/pvc/other material, sanitary sewer main, shall be through preformed wyes fitting.

All sanitary sewer lateral connections onto an existing concrete/pvc/other material sanitary sewer pipelines shall be done with a sanitary sewer tapping machine using the appropriate type and size cutting bit. All lateral connections shall utilize an "InsertaTee" (or approved equal) connection fitting with stainless steel band connectors.

A. The location of all **NEWLY INSTALLED SEWER LATERALS** must be documented and correctly measured immediately upon their installation. The laterals location, diameter, slope and materials with ties to permanent facilities, shall be drawn upon a "Red-line / As Constructed" improvement drawing and submitted to the Public Works Director for record keeping. Warning tape shall be supplied and installed when installing laterals.

The sanitary sewer service lateral pipeline is considered as "private" from the main line connection to the point of use, and shall be the owner's responsibility for maintenance and repair including repair of all surface improvements.

The minimum pipe diameter for residential sanitary sewer lateral connections shall be 4" diameter and shall be properly connected along the main line and not into manholes.

The minimum pipe diameter for commercial sanitary sewer lateral connections shall be 6" diameter and may be properly connected into the sanitary sewer system manholes.

All new connections (residential & commercial) onto the City sanitary sewer system must be approved prior to any excavation in the roadway, and must be inspected by the Public Works Department prior to backfill of the trench.

SECTION 8 - MANHOLES

A. **General**. The contractor shall furnish and install water-tight concrete manholes at the locations shown on the drawings approved by the City Engineer. Manholes shall be furnished complete with cast iron rings, covers, and polypropylene coated steel steps and adjusted to finish grade with a concrete collar.

B. **Concrete Bases**. Manhole bases may be either monolithic precast or cast-in place unless otherwise specified. Cast-in-place must be approved by City Engineer prior to installation. Precast manhole bases shall have pipe inverts, a neoprene boot with strap for each pipe connecting to the manhole, and a minimum of six (6) inches of compacted gravel base under the manhole base.

Where pipelines enter manholes, the invert channels shall be smooth and semi-circular in cross-section, conforming to the details shown on the drawings. Changes of direction of flows within the manholes shall be made with a smooth curve with as long of a radius as possible. The floor of the manhole outside the channels shall be smooth and slope toward the channel at not less than one-half (1/2) inch per foot.

The connecting boots shall be made of neoprene compound meeting ASTM C-443 specifications. The boot shall have a wall thickness of three-eighths (3/8) inch. The boot shall either be "cast-in-place" in the precast base or attached to the precast base by means of an internal expanding band. When the boot is attached to the precast base, a watertight seal between the boot and the precast base must be accomplished.

An external band shall be supplied and used to clamp and seal the boot to the pipe. The band shall be made of 300 series nonmagnetic corrosion-resistant steel. After the band has been placed, it shall be completely coated with a bituminous material approved by the Engineer.

Manholes with three or more pipes entering the base or pipes larger than twenty-four (24) inches in diameter shall be sixty (60) inch inside diameter. All others shall be forty-eight (48) inch inside diameter concrete for manhole bases.

C. **Wall and Cone Sections**. All manhole sections shall be precast, sectional, reinforced concrete of either forty-eight (48) inch or sixty (60) inch, as specified. Both cylindrical and taper sections shall conform to all requirements of ASTM C-478 Designation.

(1) The taper section shall be of eccentric conical design, three feet in height, and shall taper uniformly from forty-eight (48) inches or sixty (60) inches to thirty (30) inches inside diameter.

(2) The pipe used in the wall section shall be furnished in section lengths of one (1), two (2), three (3), and four (4) feet as required.

(3) Reinforcing steel shall be placed per ASTM C-478 designation.

(4) The "D-Load" test will not be required on manhole sections.

(5) Rubber gasket joints shall be used between all manhole sections.

All joints surfaces of precast sections and the face of the manhole base shall be thoroughly cleaned and wet prior to setting precast sections. Joints shall be set in mortar consisting of one part cement and one and one-half (1-1/2) parts sand with sufficient water added to bring the mixture to workable consistency.

Bituminous jointing material may be used in lieu of cement mortar and shall be installed in accordance with manufacturer's recommendations. All joints shall be watertight and free from appreciable irregularities in the interior wall surface.

D. **Iron Castings**. All iron castings shall conform to the requirements of ASTM A-48 (Class 30) for grey iron castings.

Rings and covers shall be thirty (30) inch diameter as supplied by "D & L Supply" Model A-1181 or any approved equal. Each cover shall contain one pick hole and air vent holes. In addition to the foundry name and year of manufacture, the cover shall be marked "SEWER" or "STORM DRAIN," or "LAND DRAIN" as appropriate.

E. **Polypropylene Covered Steel Steps**. Steps shall be provided and installed at an interval of twelve (12) inches in both the base and cone sections. These steps shall be PSI-375, M.A. Industries, Inc. or an approved equal.

All manhole rings shall be accurately set to the grade shown on the approved drawings or as directed by the City Engineer.

F. **Concrete collars.** All manhole lids (ring & cover) to be raised within three-eighth (3/8) inches of the finish surface and have an eight (8) inch thick and twelve (12) inch wide concrete ring. The maximum height allowed for grade rings is twelve (12) inches.

SECTION 9 - DUCTILE IRON PRESSURE PIPE (CULINARY WATER PIPELINES)

A. **General**. This section covers the requirements for culinary water ductile iron pressure pipe, materials and installation.

B. **Materials**. Ductile iron pipe shall conform to all requirements of ANSI A-21.51, "Ductile Iron Pipe, centrifugally Cast in Metal Molds or Sand Lined Molds, for Water or Other liquids." Minimum thickness shall be Class 52.

C. **Joints**.

(1) **Mechanical Joints**. All mechanical joints shall meet requirements of ANSI A-21.6 and ANSI 21.11. All gasket surfaces shall be smooth and free from imperfections. Gaskets shall conform to tests in accordance with specifications and shall be new and less than one (1) year old.

Mechanical joint restraint fittings (e.g. Megalug, One-lok) shall be used on all valves, bends, caps & hydrants along with concrete thrust blocks.

Bolt and nut accessories shall be in accordance with ANSI/AWWA C111/A21.11 having a fluoropolymer coating that is VOC compliant, resin-bonded and thermally cured. (i.e. "Blue Bolts" or equal) and shall meet all requirements of these specifications, honoring all characteristics, tolerances, and tests.

(2) **Push-on Joints**. All push-on joints shall meet the requirements of ANSI 21.11. Gaskets shall be free from defects and not over one (1) year old.

Lubricants shall be non-toxic and have no deteriorating effects on gasket materials. It shall not impart taste to water in a pipe. It shall conform in every way to ANSI 21.11.

(3) **Flanged Joints**. Flanged joints shall be bolted firmly with machine stud or cap bolts of proper size. Flanges may be cast integrally with the pipe or may be screwed on threaded pipe. Flanges shall be faced and drilled and of proper dimensions for size and pressure required. All flanges shall meet requirements of ANSI A-21.10, "American Standard for Cast Iron Fittings."

Bolt and nut accessories shall be in accordance with ANSI/AWWA C111/A21.11 having a fluoropolymer coating that is VOC compliant, resin-bonded and thermally cured. (i.e. "Blue Bolts" or equal) and shall meet all requirements of these specifications, honoring all characteristics, tolerances, and tests.

a. The bolts shall meet or exceed ASTM A-588, Grade E, AWWA C-111 composition specifications. The material specifications of ASTM A-588 must meet or exceed ASTM

A-307 Grade A.

b. The nuts shall meet or exceed ASTM A-563, Grade C3, AWWA C-111 composite specifications. The material specifications of ASTM A-563, Grade 3 must meet ASTM A-563 Grade A.
c. Coating Used for the bolts and nuts shall be a VOC compliant, resin bonded, PTFE based coating formulated for use on fasteners to prevent corrosion and facilitate make up torque. Coating thickness 1.5 – 2.0 mils.
d. Base Coat shall be zinc plating having been degreased and grit blast.
e. Tensile Strength of 2,000 to 4,000 psi.
f. Service temperature up to 350 ºF.
g. Corrosion resistance shall be 1,000 hours in a salt fog per ASTM B-117.

Bolts will be provided with standard hexagonal nuts and standard hexagonal heads or T-bolts. Bolts shall be of the diameter required for each flange and, when installed, shall be of length so that no more than three-eighth (3/8) inch less than one-eighth (1/8) inch extends past face of nut.

Gaskets shall be one-sixteenth (1/16) inch thick, made of best quality sheet gasket material or equal. A gasket for each flanged joint of proper size, ring type or full face as shown on the drawings.

(4) **Compression Joints**. Compression joints shall be mechanical joint sleeve, Rockwell 441 or Flange adapter Rockwell 912 or approved equal.

D. **Fittings**.

(1) **Mechanical Joint Fittings**. Mechanical joint fittings shall conform to ANSI/AWWA C-153, "American Standard for Cast Iron Fittings."

(2) **Push-on fittings**. Push-on fittings shall conform to ANSI A-21.10 with bells, sockets, and plain ends per ANSI A-21.11.

(3) **Flanged Fittings**. Flanged fittings shall conform to ANSI/AWWA C-110, "American Standard for Cast Iron Fittings."

All flanges shall be faced and drilled. When cap screws or stud bolts are needed, flanges shall be tapped to support cap screws or stub bolts.

E. **Pipe Laying**. Cast iron pipe shall be laid as specified in AWWA Standard for "Installation of Cast Iron Water Mains" C-600, except as modified herein and in Special Conditions. Tee, elbows, crosses, and reducers shall be used for changes in direction and outlets, as shown on the drawings. Anchors and thrust blocks shall be placed at valves, elbows, tees, etc., as shown on the drawings and as directed by the City Engineer.

All ductile iron pipe installation shall proceed on a stable foundation, with joints closely and accurately fitted. Joints shall be clean and dry, and a joint lubricant, as recommended by the pipe supplier, shall be applied uniformly to the mating joint surfaces to facilitate easy, positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel with suitable excavations being made to receive pipe bells.

Select material shall be compacted around the pipe to firmly bed the pipe in position. If adjustment of position of a pipe length is required after being laid, it shall be removed and re-jointed as for new pipe. In addition to the above requirements, all pipe installation shall comply with the specific requirements of the pipe manufacturer.

Each pipe shall be laid true to line and grade and in such a manner as to form a close concentric joint with adjoining pipe and to prevent sudden offsets to the flow line. As work progresses, the interior of the pipe shall be cleared of dirt and superfluous materials of every description. Where cleaning after laying is difficult because of small pipe size, a suitable swab or drag shall be kept in the pipe and pulled forward past each joint immediately after jointing has set, and pipe shall not be laid when condition of the trench or weather is unsuitable for such work. At all times when work is not in progress, all open ends of the pipe and fittings shall be securely closed to the satisfaction of the City Engineer so that no water, earth, or other substance will enter the pipe or fittings.

F. **Gravel Foundation**. Wherever the subgrade material does not afford a sufficiently solid foundation to support the pipe and superimposed load, and where groundwater must be drained, the subgrade shall be excavated to such depth as may be necessary and replaced with crushed rock and gravel compacted into place.

Gravel for ductile iron pipe foundations shall be clean crushed rock or gravel with 100% passing one and one-half inch (1-1/2") screen and 5% passing a No. 4 sieve.

G. **Pipe Bedding**. All pipes shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded.

A groove shall be excavated in the bottom of the trench to receive the bottom quadrant of the pipe. Before preparing the groove, the trench bottom shall be excavated or filled and compacted to an elevation sufficiently above the grade of the pipe so that, when completed, the pipe will be true to line and grade. Bell holes shall be excavated so that only the barrel of the pipe receives bearing from the trench bottom.

Pipe bedding material placed at any point below the midpoint of the pipe shall be deposited and compacted in layers not to exceed six (6) inches in un-compacted depth. Deposition and compaction of bedding materials shall be done simultaneously and uniformly on both sides of

the pipe. Compaction shall be accomplished with hand or mechanical compactors. All bedding materials shall be placed in the trench with hand tools or other approved method in such a manner that they will be scattered alongside the pipe and not dropped into the trench in compact masses. Bedding materials shall be loose earth, free from lumps; sand materials free from roots, sod, or other vegetable matter.

In the event trench materials are not satisfactory for pipe bedding, modified bedding will be required. Modified bedding shall consist of placing compacted granular material on each side of and to the level of twelve (12) inches above the top of the pipe.

Modified bedding material shall be graded as follows: 100% passing a one (1) inch screen and 5% passing a No. 4 sieve or per Section 7, Paragraph H.

H. **Polyethylene Wrapping**. The pipeline materials, including all pipe, fittings and valves, shall be wrapped in protective polyethylene plastic material in accordance with the manufacturer's specifications as determined by the soil conditions and/or a geotechnical report. This shall be completed in order to provide the necessary cathodic protection as required by Engineer.

Polyethylene encasement wrap shall consist of one (1) or more wraps of sheet polyethylene plastic to produce a minimum thickness of eight (8) mils over all surfaces. The wrap shall be sufficiently loose so that it will contact all surfaces without tension after backfilling. The wrap shall extend one (1) foot over adjacent surfaces. The overlap at edges of the plastic shall be a minimum of one (1) foot, and the laps shall be secured in place. Ends of the wrap shall be secured by circumferential bands on one (1) inch wide polyethylene plastic tape applied under light tension.

Where polyethylene wrap is specified, all compression couplings, mechanical joints, flanged joints and valves exposed to soil shall be wrapped with eight (8) mil thick polyethylene film adhesive tape equal to Polyken No. 900 or Scotchrap No. 50. The tape shall be installed to adhere securely to both the pipe and polyethylene. All threaded connections and/or bolts shall be encased with a APWA approved lubricant grease. Enough film shall be used to overlap the adjoining pipe a minimum of one foot.

Valves shall be wrapped by bringing the wrap on the adjacent pipe over the bells or flanges of the valve and sealing with the adhesive tape. The valve bodies are then wrapped with a flat sheet of the film passed under the valve bottom and brought up around the body to the stem and fastened in place with the adhesive tape.

All fittings that require concrete blocking should be completely wrapped prior to pouring the concrete thrust block.

Polyethylene wrap shall be protected from the sun and weathering prior to use. Care shall be exercised during backfilling of the protected areas to prevent puncturing the film. The bottom of the trench shall be shaped to give substantially uniform circumferential support of the lower third (1/3) of each pipe.

I. **Pipe Sizes**. If the size of any piping is not clearly evident in the drawings, the contractor shall request instructions from the City Engineer as to the proper sizing. Any changes resulting from the contractor's failure to request clarification shall be at the contractor's expense.

J. **Cleaning and Flushing**. The contractor shall take every precaution to remove dirt, grease, and all other foreign matter from each length of piping before making connections in the field. After each section of piping is installed, it shall be thoroughly cleaned to remove rocks, dirt, and other foreign matter by washing, sweeping, scraping, or other method that will not harm the lining or pipe.

Water required for flushing shall be furnished by the contractor. All temporary connections for flushing and drainage shall be furnished, installed, and subsequently removed by the contractor.

All open ends of pipes shall be bulk headed or plugged when workmen are not on the job or in the immediate area to prevent rocks, water or other foreign matter from entering the pipe.

K. **Service Lateral Connections**. Service lateral connections onto ductile iron pressure pipe shall be through either tapped couplings (AWWA thread) with teflon tape to be spirally wrapped completely around the thread area prior to insertion of the corporation stop, or by brass service saddle with brass straps.

L. **Inspection.** Riverdale City shall inspect all culinary waterlines for alignment, grade, class of pipe.

SECTION 10 - PVC PRESSURE PIPE (CULINARY WATER PIPELINES)

A. **General.** This specification cover polyvinyl chloride (C-900) pipe and fittings made in standard thermoplastic pipe dimension ratio (SDR) and pressure rated for the pressurized transmission and distributions of culinary water (potable) for municipal service.

B. **Materials and Workmanship.** Pipe shall be extruded from clean, polyvinyl compounds (PVC 1120, PVC 1220, or CPVC 4120) conforming to ASTM Resin Specification D 1784. Pipe shall meet or exceed the requirements of ASTM D 2241, "Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR)."

The pipe shall be homogeneous throughout; and free from visible cracks, holes, foreign inclusions, or other defects. The pipe shall be as uniform as commercially practicable in color, opacity, density, and other physical properties. Pipe surfaces shall be free from nicks, scratches, gouges and other imperfections that might weaken the pipe wall or cause leakage at joints.

The PVC pipe shall bear the seal of approval of the National Sanitation Foundation for potable water service.

C. **Pressure Class.** Pressure class rated pipe shall provide not less than the following allowable working pressure, conforming to ASTM D 2241.

	Pressure Class	Allowable Working Pressure PSI	Minimum DR ratio
Pipe Diameter – 6-inch to 12-inch			
	C-900	235	18
	C-900	305	14
Pipe Diameter – 14-inch to 44-inch			
	C-905	235	18

D. **Dimensions.** The dimensions and tolerances of the pipe barrel and bell ends shall conform to the applicable requirement of ASTM D 2241 for the pressure-class specified.

E. **Fittings.** All fittings and accessories shall be a manufactured or recommended by the pipe manufacturer, or accepted equal, and have bell and spigot configuration identical to that of the pipe. The pipe fittings may be manufactured from PVC, cast iron, ductile iron, or welded steel, and shall have strength equal to or greater than the pipe which they attach. Fittings shall be installed as specified by the manufacturer.

F. **Flanged Joints**. Flanged joints shall be bolted firmly with machine stud or cap bolts of proper size. Flanges may be cast integrally with the pipe or may be screwed on threaded pipe. Flanges shall be faced and drilled and of proper dimensions for size and pressure required. All flanges shall meet requirements of ANSI A-21.10, "American Standard for Cast Iron Fittings."

Bolts and nuts, unless otherwise specified, shall be made of the best quality high strength, low-alloy / corrosion resistant steel. Bolts and Nuts shall be "Romac Industries, Inc.", R-Blue or approved equal.

a. The bolts shall meet or exceed ASTM A-588, Grade E, AWWA C-111 composition specifications. The material specifications of ASTM A-588 must meet or exceed ASTM A-307 Grade A.
b. The nuts shall meet or exceed ASTM A-563, Grade C3, AWWA C-111 composite specifications. The material specifications of ASTM A-563, Grade 3 must meet ASTM A-563 Grade A.
c. Coating Used for the bolts and nuts shall be a VOC compliant, resin bonded, PTFE based coating formulated for use on fasteners to prevent corrosion and facilitate make up torque. Coating thickness 1.5 – 2.0 mils.
d. Base Coat shall be zinc plating having been degreased and grit blast.
e. Tensile Strength of 2,000 to 4,000 psi.
f. Service temperature up to 350 ºF.
g. Corrosion resistance shall be 1,000 hours in a salt fog per ASTM B-117.

Bolts will be provided with standard hexagonal nuts and standard hexagonal heads or bolts. Bolts shall be of the diameter required for each flange and, when installed, shall be of length so that no more than three-eighth (3/8) inch less than one-eighth (1/8) inch extends past face of nut.

Gaskets shall be one-sixteenth (1/16) inch thick, made of best quality sheet gasket material or equal. A gasket for each flanged joint of proper size, ring type or full face as shown on the drawings.

G. **Joints.** The pipe and fittings shall be furnished with integrally thickened bell and spigot ends; for joining with a solid, uniform cross-sectional elastomeric gasket as the sealing element. Couplings will not be permitted. The gasket shall not be required to support the weight of the pipe when two sections are joined; but shall serve only as a seal, and shall conform to ASTM D 3139.

The critical sealing dimensions of the bell, spigot, and gasket shall be in accordance with the manufacturer's standard dimensions and tolerances.

The gasket shall provide an adequate compressive force against the sealing surfaces of the bell and spigot so as to affect a positive seal under all combinations of the joint tolerances. The gasket shall be the only element depended upon to make the joint flexible and watertight. Solvent welded joints will not be permitted unless written approval is obtained from the

Engineer prior to welding the joint.

H. **Pipe Tests.** The pipe manufacturer shall perform the inspection and testing as specified in ASTM D 2241 on a representative sample of the manufacturer's product and shall furnish to the City a certificate affirming their product meets the requirements of ASTM D 2241, and the additional requirements of the specification, including the drop impact test.

(1) Drop Impact Test. All sizes of the pipe and fittings shall be tested in accordance with ASTM D 2444; and shall with stand without failure. There shall be no visible evidence of shattering or splitting when the recommended energy is imposed.

(2) Field Tests. The Contractor shall perform the field tests required in Section of these specifications.

I. **Installing PVC Pipe.** The pipe manufacturer's written instructions and recommendations, and the requirements shall be followed in installing the pipe. The maximum width of the trench at the top of the pipe shall be as shown on the drawing "Trench Details".

J. **Inspection.** Riverdale City shall inspect all culinary waterlines for alignment, grade, class of pipe and installation.

K. **Special Requirements.**

(1) Certification. The pipe manufacturer shall furnish the City certificates of all test. The certificates and pipe shall be so marked that the test results can readily be identified with the pipe furnished. The "Certificates of Tests" shall be received by the City prior to the installation of any of the pipe covered by the certificate.

(2) Marking. Marking on the pipe shall include the nominal pipe size, ASTM D 2241, Class and dimension ration (DR), the NSF seal of approval, and the manufacturer's name or trademark. Marking intervals shall be not more than 5 feet.

(3) Polyethylene Wrap. Where directed by the City Engineer, ferrous fittings and valves shall be wrapped with 8-mil thick polyethylene film, tube or sheet. The film shall be held in pace by 2-inch wide plastic-backed adhesive tape equal to Polyken No. 900 or Scotchrap No. 50. The tape shall be installed to adhere securely to both the pipe and polyethylene.

All threaded connections and/or bolts shall be encased with a APWA approved lubricant grease. Enough film shall be used to overlap the adjoining pipe a minimum of 1 foot.

Polyethylene wrap shall be protected from the sun and weathering prior to use. Care shall be exercised during backfilling of the protected areas to prevent puncturing the film.

SECTION 11 - WATER LINE WARNING TAPE AND LOCATING WIRE

A. **General.** This section covers requirements for waterline and sanitary sewer warning tape and locating wire which shall be required with the construction of pipelines and services as shown in the standard detail drawings. The warning tape and locating wire shall be supplied and installed when installing waterline piping. The locating wire shall be taped and adhered to the top of the utility pipe that is to be traced. Warning tape (only) shall be supplied and installed along all piping.

B. **Specifications for Warning Tape.** A non-detectable, acid and alkali-resistant safety warning tape for the location and identification of underground culinary water and sanitary sewer pipelines shall be installed. The tape shall consists of a nominal 4-mil overall thickness, inert, 100% low density polyethylene plastic film, formulated for extended use underground. The tape is to be supplied in accordance with the APWA national color code and permanently imprinted with a black, environmentally safe ink with an appropriate legend to define the type of utility line it protects.

The warning tape shall be furnished and installed 12" above all concrete, pvc and/or ductile iron underground pipelines for location of the buried pipe.

Test Data

Property	Method	Value
Thickness	ASTM D 2103	4 – mils (nominal)
Tensile strength	ASTM D 882	10 lbs / in width
Elongation	ASTM D 882-88	600 %
Printability	ASTM 2578	>40 dynes / cm^2

C. **Specifications for Locating Wire.** A location wire shall be furnished and installed directly above all pvc underground waterlines for location of the buried water pipe. The location wire shall be installed continuous with **no splices.** The service wire to the main line shall not be spliced, the wire can be wrapped around the main line and brought into the water meter box. The wire should be zip tied to riser with 2 feet of excess wire. The location wire shall be extended to the top of all gate valves in the valve boxes and connected to all fire hydrants at the ground surface. Place at SNAKE PITS/GENERIC NAME; excess wire needs to be installed to allow a minimum of 6-inch prefer 12-inch. Locating wire shall also be installed on poly services. The wire shall be taped and adhered to the top of the utility pipe that is to be traced.

The insulation location wire shall be a 12 AWG, annealed conductor temper, copper grade – UNS C10200, tensile strength of 55,000psi., supplied with a "yellow" hdpe insulation cover color.

SECTION 12 - VALVES, HYDRANTS, AND MISCELLANEOUS ITEMS

A. **General.** This section covers requirements for gate valves, hydrants, and miscellaneous items required in the construction of culinary water lines and service lateral connection.

B. **Gate Valves**. Gate valves shall conform to AWWA C-509 specifications. Valves shall be of iron body, resilient seat gate with modified wedge disc, non-rising stem design with O-ring seats. Unless otherwise shown or specified, valves shall be of mechanical joint connection design for buried service, and flanged connection design for installation in structures. Gate valves shall be "Mueller" resilient seat gate valves unless approved otherwise by the City Engineer. Buried valves shall have a two (2) inch operating nut; valves in structures shall have hand wheels. All valves are required to include SCADA system and electronically controlled (NEEDS REWORDING)

C. **Valve Boxes.** All buried gate valves shall be installed complete with a cast iron, two (2) piece, slip-type, 5-1/4" shaft valve box. Valve boxes shall be "Tyler" 6855 series unless approved otherwise by the City Engineer.

D. **Fire Hydrants and Fire Service Pipeline**. Hydrants shall be designed, manufactured, and tested in compliance with the latest edition of AWWA C-502 "Standard for Dry Barrel Fire Hydrants" and shall be "Mueller" A-423 Centurion or Clow Medallion Fire Hydrant unless approved otherwise by the City Engineer.

The hydrant main valve shall be a minimum diameter of 5-1/4" with two (2) 2/1/2" NST hose nozzles, and one 4-1/2" NST pumper nozzle. The hydrant shall be supplied complete with a flanged by mechanical joint end, auxiliary gate valve connected by flange at the main line tee complete with box next to the main line and installed per drawings.

The fire service pipeline shall be separately tapped (used only as a fire line) to the City culinary water main pipeline. The fire service pipeline must have its own control gate valve located at the main connection. The fire service pipeline must be sized by the developer. From the connection gate valve the fire service pipeline is considered as "private" and shall be the owner's responsibility for maintenance and repair.

E. **Water Lateral Services**. Pipe for residential water services shall be three-fourth (3/4) inch CTS Blue poly DR 9 conforming to ASTM D2737. Larger water services, 1-inch, 1 1/2 – inch and 2-inch shall also be CTS Blue poly DR 9. The connection of the water service to the main lines shall be through a corporation type stop equal to Mueller H-15000. (A **horizontal gooseneck** shall be formed immediately adjacent the corporation stop).

The service lateral line shall be initially stubbed from the meter box to the property line. The service lateral line will be considered as "private" from the meter and shall be the owner's responsibility for maintenance and repair.

F. **Water Meter Box, Ring and Cover**. The standard residential meter box shall be round with a minimum of an eighteen (18) inch diameter pre-cast white ADS plastic or concrete box, thirty (30) inch in length, notched for service pipe. The ring and cover for the meter box shall be cast iron with a locking cover, operated by a pentagon head and shall have a twelve (12) inch minimum opening diameter.

Larger meters shall follow the following table:

Meter Size	Meter Box Size
¾"	18" diameter
1"	24" box
1 ½"	30" box with 30" diameter lid & grade rings
2"	36" box with 30" diameter lid & grade rings

The meter lids shall also have a recessed opening for an electronic/radio meter reading system. The top of the meter box shall be installed level with the finish grade having a two (2) inch hole for electronic/radio remote reading equipment.

SECTION 13 - TESTING AND DISINFECTION OF CULINARY WATER LINES

A. **General**. All culinary water lines shall be flushed, pressure tested and disinfected as outlined in this section.

B. **Testing**. Tests shall be made upon installation of a new culinary water pipeline system. Tests shall be made on smaller portions of newly installed culinary water pipelines, if the pipeline, is separated from the larger portion thereof. All required tests shall be made in the presence of Riverdale City Public Work Representatives or the City Engineer at the expense of the contractor.

Pipelines shall be slowly filled with culinary water venting off all air. If required, taps shall be provided at pipeline high points, to bleed off air. After the waterline testing these additional taps shall be plugged. A minimum pressure 200 psi shall be maintained on the portion being tested for a minimum period of two (2) hours. This pressure shall remain steady for a period of two (2) hours for waterline approval.

D. **Flushing**. After pressure testing, all pipelines shall be flushed. Flushing shall be accomplished through hydrants or, if a hydrant does not exist at the end of the line, the contractor shall install a tap sufficient size to provide for a 2.5 foot per second flushing velocity in the line. The following is the flow quantity required to provide a 2.5 foot per second flushing velocity:

Pipe Size (diameter)	Flow (gallon/minute)
4	100
6	220
8	390
10	610
12	880

D**. Chlorination**. After pipeline flushing, all culinary water pipelines shall be disinfected by chlorination. Chlorination shall provide a minimum of thirty-five (35) parts per million (ppm) residual after twenty-four (24) hours contact in the pipeline. This may be expected with an application of fifty (50) ppm although some conditions may require more. Chlorine, in the form of a 1% slurry of high test calcium hypochlorite shall be fed into the pipeline in such a manner as to mix with the water flowing in the pipeline.

The following table provides information as to the required quantity of slurry which may be used per one-hundred (100) feet of pipe to provide a chlorine concentration of approximately fifty (50) ppm:

Pipe Size (diameter – inches)	Volume of 100 Feet Length (gallon)	Required Amount Of Slurry (gallon)
4	65	0.47
6	147	1.05
8	261	1.87
10	408	2.92
12	588	4.20

During the process of chlorinating the pipeline, all valves and other pipeline appurtenances shall be operated several times to provide sufficient contact with the chlorinating agent. Following chlorination, the water line shall be drained and thoroughly flushed, and if necessary, re-chlorinated until a satisfactory bacteriological test is obtained.

E. **De-Chlorination of testing waste-water**. Any and all chlorinated waste-water used in the testing of new waterlines shall not be discharged into Riverdale City Storm Water System or Sanitary Sewer System until neutralized and approved for discharge by the Public Works Department.

The Contractor shall submit in writing to Riverdale City the method and products to be used for neutralizing and de-chlorination of chlorinated waste-water. All waste-water shall then be neutralized and de-chlorinated and then tested by the Contractor in the presence of the Riverdale City Public Works personnel. Upon approval by Riverdale City discharge of wastewater may occur.

F**. Clear Water Test**. Following chlorination and flushing of the water line a clear water test shall be taken in the presence of the City Engineer. A maximum of one (1) part per million (ppm) of chlorine will be allowed to be present in the new pipeline. Should a higher residual of chlorine be present the contractor shall be required to re-flush the water line and retest.

G. **Bacteriological Test**. There shall be a 24-hour waiting time period, following the completion of the clear water tests noted above. After the 24-hour waiting time period a water sample(s) (pending the pipeline length more than 1-sample may be required) shall be taken by the Contractor from the new waterline in the presence of Riverdale City personnel. The water sample shall then be taken by Riverdale City to an approved laboratory for a bacteriological test. The bacteriological test methods shall be approved by the Utah Department of Environmental Quality.

Riverdale City will supervise in the taking of two (2) bacteriological tests; with the second (2^{nd}) test being completed twenty-four (24) hours after the first (1^{st}) test was taken. The bacteriology test may be taken only Monday through Thursday and prior to 1:00 pm each day.

H. **Connection to City Water lines.** Upon successful completion of all the above noted tests the new culinary water pipeline may then be connected to the City's culinary water system and placed into service.

SECTION 14 - CONSTRUCTION AND PLACEMENT OF THRUST BLOCKS AND RESTRAINED JOINT CONNECTORS

A. **Scope**. This section of the specifications defines the placement and the construction of thrust blocks and restrained joint connectors that are required. This section also provides the concrete mix design requirements for the concrete required in the construction of the thrust blocks.

B. **Placement**. Thrust blocks and restrained joint connectors are required at points where the pipe changes direction such as: at all special fittings i.e., tees, elbows, wyes, caps, valves, hydrants, reducers, bends, etc.

Thrust blocks must be constructed so that the bearing surface is in direct line with the major force created in the pipe or fitting from the water. The earth bearing surface must be undisturbed. (See the standard drawings for typical thrust block details).

The bolts used with the restrained joint connector must be covered and protected from all concrete placed with the thrust block. The bolts used with the restrained joint connectors must not be imbedded in the thrust block concrete.

All bolts used with the special fittings i.e., tees, elbows, wyes, caps, valves, hydrants, reducers, bends, etc. must be covered and protected from all concrete placed with the thrust block. The bolts used with the special fittings must not be imbedded in the thrust block concrete.

Bolts and nuts, unless otherwise specified, shall be made of the best quality high strength, low-alloy / corrosion resistant steel. Bolts and Nuts shall be "Romac Industries, Inc.", R-Blue or approved equal.

a. The bolts shall meet or exceed ASTM A-588, Grade E, AWWA C-111 composition specifications. The material specifications of ASTM A-588 must meet or exceed ASTM A-307 Grade A.
b. The nuts shall meet or exceed ASTM A-563, Grade C3, AWWA C-111 composite specifications. The material specifications of ASTM A-563, Grade 3 must meet ASTM A-563 Grade A.
c. Coating Used for the bolts and nuts shall be a VOC compliant, resin bonded, PTFE based coating formulated for use on fasteners to prevent corrosion and facilitate make up torque. Coating thickness 1.5 – 2.0 mils.
d. Base Coat shall be zinc plating having been degreased and grit blast.
e. Tensile Strength of 2,000 to 4,000 psi.
f. Service temperature up to 350 ºF.
g. Corrosion resistance shall be 1,000 hours in a salt fog per ASTM B-117.

Bolts will be provided with standard hexagonal nuts and standard hexagonal heads or T-bolts. Bolts shall be of the diameter required for each flange and, when installed, shall be of length so that no more than three-eighth (3/8) inch less than one-eighth (1/8) inch extends past face of nut.

C. **Concrete Mix Design**. The Portland Cement Concrete mixture is given in Section 4 Paragraph C. The concrete mixture for thrust blocks shall have a minimum twenty-eight (28) day compressive strength of 3,000 pounds per square inch.

SECTION 15 - RESTORATION OF SURFACE IMPROVEMENTS

A. **General**. The contractor shall be responsible for the protection and the restoration or replacement of any improvements existing on public or private property at the start of work, or placed there during the progress of the work. Existing improvements shall include, but are not limited to, permanent surfacing, curbs, ditches, driveways, culverts, fences, landscaping and walls. All improvements shall be reconstructed to equal or better, in all respects, the existing damaged improvements removed and disposed properly.

B. **Road Base Surface**. Where trenches are excavated through road base surfaced areas such as roads and driveways, etc., the road base surface shall be restored and maintained as follows:

(1) The road base shall be placed deep enough to provide a minimum of eight (8) inches of material. The use of recycled concrete as a roadbase substitution is not approved.

(2) The road base shall be placed in the trench at the time it is backfilled. The surface shall be maintained by blading, sprinkling, rolling, adding gravel, etc., to maintain a safe uniform surface satisfactory to the City Engineer. Excess material shall be removed from the premises immediately.

(3) Material for use on road base surfaces shall consist of select material, either natural or crushed, and shall be graded as per Section 3 Paragraph B.

(4) All roadbase shall meet UDOT standards and specifications. Recycled concrete shall not be used as roadbase, it will NOT be permitted.

C. **Bituminous Surface**. Where trenches are excavated through bituminous surfaced roads, driveways, or parking areas, the surface shall be restored and maintained as follows:

(1) A temporary road base surface shall be placed and maintained as required in the paragraph above, after the required backfill and compaction of the trench has been accomplished.

(2) The road base shall be placed to such depth as to provide a minimum of eleven (11) inches below the pavement and shall be brought flush with the paved surface.

(3) The area over trenches to be resurfaced shall be graded and compacted. Mud or other soft or spongy material shall be removed and the space filled with gravel and rolled and compacted thoroughly in layers not exceeding twelve (12) inches in thickness. The edges of trenches which are broken during the preparation or installation of the subgrade shall be removed and trimmed straight before resurfacing.

(4) Before any permanent resurfacing is placed, the contractor shall trim or cut the existing paving to clean, straight lines as nearly parallel to the centerline of the trench as practicable. Said straight lines shall be thirty (30) feet minimum length and no deviations from such lines shall be made except as specifically permitted by the Engineer.

(5) The existing bituminous paving shall be cut back (T-Patching) a minimum of twelve (12) inches beyond the limits of any excavation or cave-in along the trench so that the edges of the new paving will rest on at least twelve (12) inches of undisturbed soil.

(6) Any cold mix paving used during cold weather months must be removed and replaced with the hot plant mix bituminous material once weather permits.

(7) As soon as is practical, weather permitting, the bituminous surface shall be restored by standard paving practices to a minimum thickness per the roadway classification, and/or existing depth of asphalt under the direction of an authorized City Representative or the City Engineer.

(8) Pavement restoration shall include tacking of pavement edges and subbase with a bituminous material, and placing and compacting a hot plant mix bituminous material to the level of the adjacent pavement surfaces.

(9) Any bituminous surface between the trench and existing lip of the curb and gutter must be a minimum of four (4) feet wide, any width less than 4 (four) feet wide shall be removed and replaced with new compacted bituminous asphalt.

(10) Any new bituminous asphalt surface material placed adjacent to the existing lip of the curb and gutter shall be placed and compacted to one-quarter inch (1/4 – inch) above the existing curb and gutter lip.

F. **Concrete Surfaces**. All concrete curbs, gutters, sidewalks, and driveways shall be removed and replaced to the next joint or scoring line beyond the actually damaged or broken sections; or in the event that joints or scoring lines do not exist or are three (3) or more feet from the removed or damaged section, the damaged portions shall be removed and reconstructed to neat, plane faces.

All new concrete shall match, as nearly as possible, the appearance of adjacent concrete improvements. Where necessary, lampblack or other pigments shall be added to the new concrete to obtain the desired results.

Any new concrete vandalized, marked with graffiti or pitted by rain before it has sufficiently hardened shall be replaced at the City Engineer's discretion. The contractor shall provide and use, when necessary, sufficient tarpaulins to completely cover all sections that have been placed within the preceding twelve (12) hours.

All concrete work shall conform to the requirements of Section 4 of these specifications.

SECTION 16 - SUBSURFACE DRAIN PIPE MATERIALS

A. **General**. Buried drain pipe with open joints or perforated pipe shall be provided for the drains in the locations shown on the drawings.

B. **Material**. Drain pipe may be perforated PVC pipe (ASTM D-1784) non-perforated or concrete pipe. Corrugated polyethylene piping (ASTM F-405-77) may also be used if installed with direct burial laser grade control equipment.

Non-perforated pipe shall be extra-strength non-reinforced concrete. The pipe may be furnished with either bell-and-spigot or tongue-and-groove joints. Laying lengths of the non-perforated pipe shall not exceed four (4) feet to insure open joints between lengths of pipe, spacer lugs approximately one-eighth (1/8) inch thick located on the one-third (1/3) or one-fourth (1/4) points around the perimeter shall be provided at each joint between lengths of drain pipe. The lugs may be cast on one (1) end of the pipe during manufacture and similar to the details shown on the drawings, or may be gasket-type lugs of plastic, metal, or other suitable material cemented to the pipe by the contractor and approved by the City Engineer.

Perforated pipe may be corrugated polyethylene pipe with one-fourth (1/4) inch diameter perforations, extra strength non-reinforced concrete pipe, or reinforced concrete pipe, and may be furnished with bell-and-spigot or tongue-and-groove joints.

C. **Laying Pipe**. Gravel backfill shall be placed under the pipe to the minimum depth as shown on the drawings. The pipe shall be laid carefully on the gravel in a workmanlike manner and to the lines and grade shown on the drawings or established by the City Engineer. The joints for non-perforated pipes shall be covered with an approved drainage fabric.

The finished bed for all pipes shall be made smooth, including removal of material under the bell, so that the full length of pipe will be evenly and uniformly supported. The pipe shall be laid and completed with adjacent ends closely abutted and with the bell ends upgrade. The water level in the trench area where the pipe is being laid shall be held to a minimum. The pipe shall not be covered with backfill until it has been inspected and approved by the City Engineer. After approval, the trench shall be backfilled as prescribed in Section 5.

The contractor shall keep the pipe drain and manholes free from deposits of mud, sand, gravel, or other foreign matter and in good working condition until the construction is complete and accepted. Upon completion of the drain piping, if a clear and unobstructed view of the pipe interior cannot be obtained by use of a light or sun reflector, a device approved by the City Engineer, having a diameter one (1) inch less than the drain pipe to be tested, shall be pulled through the pipe between manholes. Any obstruction found in the pipe shall be removed by the contractor without cost to the city.

Any methods used by the contractor to remove deposits of mud, sand, gravel, or other foreign matter from the pipe, such as use of water pressure, shall be subject to the approval of the City Engineer.

SECTION 17 - IRRIGATION WATER

A. **Special Note**. Riverdale City does not have a City wide Irrigation System. This section provides a minimum standard for all private irrigation systems that are/or will be located in the City right-of-way.

B. **Supply**. Each secondary water system shall originate from a reliable water source capable of delivering a minimum annual supply of three (3) acre-feet per acre of property to be irrigated. In the case where the supply is provided by a local irrigation company or a water conservancy district, the developer shall obtain a written agreement from the irrigation company or water district committing themselves to providing the required supply. This agreement shall be reviewed and approved by the City prior to recording of the subdivision.

C. **Distribution and Delivery**. Each secondary water system shall provide a complete pressure distribution system with minimum three-fourth (3/4) inch diameter service connections to the property line of each lot. Service connections larger than three-fourth (3/4) inches shall be required on service areas exceeding one-half (1/2) acre, as approved by the City Engineer. A pressure system shall be required, with pressure within the system ranging from 40 psi to 100 psi. All facilities including reservoirs, pump stations, distribution systems, and miscellaneous structures, shall be constructed in recorded easements, dedicated streets, or on property which has been conveyed to the water company or water district. The pressure distribution system shall be constructed at the standard location shown on the drawings. Distribution systems shall be complete with sufficient gate valves and drains.

D. **Material**. Secondary water systems shall comply with the following minimum material specifications.

(1) **Pipe**. The system may use any one of the following types of piping materials:

a. **Ductile Iron Pipe**. AWWA Spec. C-151-76 minimum thickness Class 50 with rubber gasket push-on joints.

b. **PVC PIPE**. ASTM D-2241-200 psi class with rubber gasket push-on joints.

c. **Polyethylene Pipe**. ASTM D-2239-SDR 7-PE 3408.

d. **C-900 Pipe**: AWWA C-900, Class 235, DR-18 with rubber gasket push-on joints.

(2) **Gate Valves**. Gate valves shall conform to AWWA Specification C-500. Valves shall be of cast iron body, resident seat with modified wedge disc, non-rising stem design, provided with O-ring packing. Valves shall be of flange or mechanical design and shall be of the non-rising stem design with a two (2) inch square operating nut.

(3) **Valve Boxes**. All buried valves shall be installed complete with two (2) piece, cast iron, slip type, 5- 1/4 inch shaft valve boxes.

(4) **Concrete**. All concrete used within the irrigation system shall conform to the requirements of Section 4.

(5) **Reinforcing Steel**. All reinforcing steel shall be deformed bars conforming to the requirements of ASTM A-615-68, Grade 40. Any welded wire fabric used shall conform to ASTM A-185. Bar chairs, spaces, and other supports as stipulated in ACI-315.

(6) **Special Valves**. Air/vacuum release valves shall be provided at high points in the distribution system and at all pump stations in accordance with City approved construction drawings. Drainage valves must be provided in the system to prevent freezing. Drain piping shall be constructed in accordance with city approved construction drawings.

(7) **Pump Stations**. Pump stations shall be constructed in accordance with city approved construction drawings and shall be capable of delivering sufficient flow and pressure to meet all peak demands on the system.

E. **Installation, Cleaning, Flushing, and Pressure Testing**. These items shall be in accordance with preceding sections on culinary water systems under the same headings. (Except chlorination and bacteriological testing).

F. **Approval and Acceptance**. Prior to construction of the secondary water system, all construction plans shall be approved by an authorized City Representative or the City Engineer. In the event that the secondary system will be an extension or a part of a local irrigation company or water district, the plans shall also be approved by these entities. The Secondary water system shall be considered as a required subdivision improvement and shall be under the same construction guarantees, release of funds procedures, and acceptance as the regular subdivision improvements.

The City shall not release funds or grant formal acceptance until both the City and the irrigation company or water district have conducted final inspections and can certify that the completed system conforms to plans and specifications. Following final approval and acceptance, ownership, operation and maintenance of the completed system shall be the responsibility of the irrigation company or water district.

SECTION 18 – STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. **Abbreviations.** Abbreviations that are used in this section include the following:

SWPPP -	Storm Water Pollution Prevention Plan
NOI -	Notice of Intent
NOT -	Notice of Termination
BMP -	Best Management Practices

B. **General.** Each site "Sponsor" (Owner/Developer) will be responsible for preparing a Storm Water Pollution Prevention Plan. The type of SWPPP is dependent on the size and type of the project site.

All Project Sites must comply with Municipal, State, and Federal Storm Water Regulations.

(1) Project sites less than 5,000 square feet and not located in a sensitive area or a site-demolition project, will not be required to obtain a Riverdale City SWPPP permit nor a State of Utah Permit.

(2) Project site greater than 5,000 square feet but less than one acre shall be required to obtain a Riverdale City SWPPP permit.

(3) Projects one acre (1 acre) or larger, part of a common plan development, and/or projects involving sensitive areas are required to obtain a Riverdale City and a State of Utah SWPPP permit.

a. The Project "Sponsor" must file the Notice of Intent (NOI) with the State of Utah Division of Water Quality (A few exceptions may apply for projects located in sensitive areas).

i. To begin a Project the Sponsor must obtain and complete a State SWPPP Booklet.

A Notice of Intent (NOI) must be filed within 14 days from beginning the Project. Failure to complete and submit a Notice of Intent (NOI), will be subject to the project being "Shut-Down" along with monitory fines.

The responsible party the "Sponsor" (Owner/Developer) must sign, certify and manage the SWPPP.

ii. To End a SWPPP Project the responsible party "the Sponsor" must file the Notice of Termination (NOT) to conclude the project and end the inspection requirements.

NOTE: Prior to filing a Notice of Termination (NOT) the Project Sponsor **must** schedule a final inspection of the site with the Riverdale City Public Works Department "Storm Water Manager".

C. **BMP's**. All Best Management Practices (BMPs) shall be properly selected, installed, and maintained in accordance with manufacturer specifications and good engineering practices.

D. **Stabilization.** Portions of the site where construction activity is temporarily or permanently ceased must be stabilized within 14 days; unless construction will resume within 21 days.

G. **Protection.** The Storm Water SWPPP Plan must be managed in order to not involve contact with litter, debris, chemicals and any and all pollutants.

F. **SWPPP Permit Requirements.** The following will be required when submitting for a SWPPP permit:

(1) General Site Plan shall include:

a. A description of the protocol for ensuring the following permit requirements will be met.
b. The identification of all potential sources of pollution which may affect the quality of storm water discharges from the project site.
c. Each contractor must have a qualified trained Inspector to conduct SWPPP inspections. The Inspector must meet all requirements of and be recognized as an Inspector by the State of Utah.
d. A list of all operators at the site in charge of meeting the permit requirements and the implementation of the SWPPP permit.

(2) Site Description shall include:

a. A general location map.
b. The total area of site to be disturbed.
    i. Include amount of pervious and impervious surface.
c. The runoff coefficient for pre-construction and post-construction.
d. A map identifying discharge locations near the site.
e. A description for measures to minimize off-site tracking of sediment.
    i. Include control measures for the generation of dust.
f. A description of construction materials to be stored on site.
    i. List measures to limit exposure, spill prevention, and response practices for operators on site.
g. Describe all measures/waste disposal practices which prevent discharge of solid material and building materials from entering Riverdale City Storm Sewers, or any nearby body of water.
h. Describe any post-construction storm water management controls being utilized on site.
    i. Identify reasons for utilization of these methods.

(3) The Structural Practices shall include:

a. Any technical explanations and practices utilized for the current project.
b. A description of structures used on site.
c. The controls used to minimize off-site tracking.
d. A description of materials to be stored on site.
e. A description of any post-construction controls.

(4) Site Map shall be complete and to scale, of the entire site. The site map shall be included with the approved set of drawings submitted to Riverdale City. A copy of this plan needs to remain on site at all

times and shall include:

a. A page showing the drainage patterns of the site.
    i. Include approximate slopes after major grading activities.
b. Any areas of soil disturbance and areas not being disturbed.
c. The locations of control measures.
d. Any Storm Water discharge locations.
    i. Show locations where storm water discharges from the site, and how it discharges.

(5) Stabilization Practices shall include:

a. A description of any temporary and/or permanent stabilization practices to be used for the development.
    ii. The practices shall make known the responsible party for the each practice.

(6) All Contractors must comply with the new construction State Permit that is currently in effect.

a. For a copy of the new construction State of Utah permit go to: waterquality.utah.gov

END OF TECHNICAL SPECIFICATIONS

Riverdale City

DRAWINGS

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G3

SUBJECT: Consideration of Resolution #2026-03 approving the purchase/trade of surplus backhoe for mini excavator

PRESENTER: Shawn Douglas, Public Works Director

INFORMATION:

a. Executive Summary
b. Resolution 2026-03
c. RDO Quote

BACK TO AGENDA

City Council Executive Summary

For the Council meeting on:	Petitioner:
February 3, 2026	Shawn Douglas, Public Works Director

Summary of Proposed Action

Consideration of Purchase/Trade of Backhoe for Mini Excavator with Breaker.

Summary of Supporting Facts & Options

Currently we have a backhoe that was surplused by the council after we purchased the new backhoe. During the last six months we have tried to make an outright sale on the backhoe with the hope of a better return. We currently have not had any reasonable offers. We went back to the vendor who we purchased the new backhoe from and asked for options. They are still willing to do a trade in towards equipment. We are asking the council to approve trading the old backhoe in for a Mini Excavator. During the time that we have had two backhoes there have been numerous projects with both pieces of equipment being in use at different sites which proved to be beneficial. The mini would allow us to work in areas we currently are not able to access with the backhoe. And work in landscaped areas with less damage. It would also allow us to have a concrete breaker attached so we are able to remove concrete in a more efficient manner. Currently we use a manually operated jack hammer for removal. With all of Riverdale Road being concrete and having both water and sewer lines under it, removal is a problem during emergency repairs. The trade in value on the backhoe would be $50,000.00 and the remaining residual to complete the purchase would be $21,438.14. We can make the purchase within the current budget. I would recommend the approval of the Mini Ex Purchase in the amount $21,438.14 with the trade in.

Legal Comments – City Attorney

_____
Steve Brooks, Attorney

Fiscal Comments – Business Administrator/Budget Officer

_____
Cody Cardon,
Business Administrator

Administrative Comments – City Administrator

_____
Steve Brooks,
City Administrator

RESOLUTION NO. 2026-03

A RESOLUTION OF THE CITY COUNCIL OF RIVERDALE CITY, UTAH, RATIFYING A REVISED PROCUREMENT APPROACH FOR THE PURCHASE OF A MINI EXCAVATOR, APPROVING THE USE OF A PREVIOUSLY SURPLUSED BACKHOE AS A TRADE-IN, AND AUTHORIZING PAYMENT OF THE REMAINING PURCHASE PRICE FROM THE PUBLIC WORKS BUDGET

WHEREAS, the City Council previously declared a City-owned backhoe to be surplus Property in accordance with City policy and applicable law; and

WHEREAS, following the surplus declaration, the City made reasonable efforts to dispose of the backhoe, but no acceptable bids were received; and

WHEREAS, City staff has determined that applying the previously surplused backhoe as a trade-in toward the purchase of a new mini excavator is in the best interest of the City and represents the most efficient and cost-effective disposition of the surplus equipment; and

WHEREAS, the acquisition of a mini excavator is necessary for Public Works operations and supports the ongoing maintenance and service needs of the City; and

WHEREAS, the use of the backhoe as a trade-in results in a remaining balance of $21,438.14 due and owing toward the purchase of the mini excavator; and

WHEREAS, the remaining balance can be fully paid from the current fiscal year budget, and sufficient appropriated funds are available for that purpose; and

WHEREAS, the payment of the remaining balance requires a revised procurement approach that differs from the method previously approved by the City Council; and

WHEREAS, the City Council finds that the revised approach, including the trade-in and payment of the remaining balance, serves the City's operational needs, and is fiscally responsible.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF RIVERDALE CITY, UTAH, THAT:

1. **Ratification of Revised Approach.**
   The City Council hereby ratifies and approves the revised procurement approach for the purchase of a mini excavator, including the use of the previously surplused backhoe as a trade-in.

2. **Authorization of Payment.**
   The City Council authorizes payment of the remaining purchase price in the amount of $21,438.14 from the budget for the current fiscal year.

3. **Best Interest Finding.**
   The City Council expressly finds that the trade-in of the previously surplused backhoe and the revised procurement approach are in the best interest of the City and consistent with City procurement requirements.

4. **Administrative Authority.**
   The Mayor, City Recorder, and City staff are authorized to take all actions and execute all documents necessary to complete the purchase consistent with this Resolution.

This resolution shall take effect immediately upon its adoption and passage.

PASSED AND ADOPTED this ____ day of February, 2026

_____
Braden Mitchell, Mayor

Attest:

_____
Michelle Marigoni, City Recorder

VOTE:

Alan Arnold	___Yea	_____ Nay	____Absent
Bart Stevens	___ Yea	___ Nay	___ Absent
Michael Ritchter	___ Yea	___ Nay	___ Absent
Anne Hansen	___ Yea	___ Nay	___ Absent
Kent Anderson	___ Yea	___ Nay	___ Absent

Investment Proposal (Quote)

JOHN DEERE

RDO Equipment Co.
3400 South Midland Dr.
Ogden UT, 84401
Phone: (701) 371-6692 - Fax:

Proposal for:
RIVERDALE CITY
4600 SOUTH WEBER RIVER DR
RIVERDALE, UT, 84405
WEBER

Investment Proposal Date:	11/11/2025
Pricing Valid Until:	11/25/2025
Deal Number:	1963144
Customer Account#:	55410002
Sales Professional:	Nick Doyle
Phone:	1 (385) 364-3277
Fax:	
Email:	ndoyle@rdoequipment.com

Equipment Information

Quantity	Serial Number Stock Number	Hours (approx.)	Status / Year / Make / Model Additional Items	Cash Price
1	1FF035PAVRK005169 Z182151	2	New 2025 JOHN DEERE 35P	$59,339.21
			Warranty -John Deere Comprehensive-60 Months, 2000 Hours,Deductible: 0, Exp Date: 11/10/2030	
1	809159 Z189221	0	Attachment - New 2025 JOHN DEERE 35HD18	
1	WG156902 Z149898		New 2025 NPK PH2	$12,098.93

Equipment Subtotal: **$71,438.14**

Trade Information

Serial Number	Year / Make / Model	Payoff Information	Trade In Hours	Trade In Value
1T0310SLTHF321672	2018 JOHN DEERE 310SL	$0.00	1349	($50,000.00)

Total Trade In Value:	**($50,000.00)**
Trade Balance Owed:	**$0.00**
Net Difference:	**($50,000.00)**

Purchase Order Totals

Balance:	$21,438.14
Total Taxable Amount:	$0.00
UT STATE TAX:	$0.00
UT COUNTY TAX:	$0.00
UT CITY TAX:	$0.00
UT SPECIAL TAX:	$0.00
Sales Tax Total:	$0.00
Sub Total:	$21,438.14
Cash with Order:	$0.00
Balance Due:	**$21,438.14**

Equipment Options

Qty	Serial Number	Year / Make / Model	Description
1	1FF035PAVRK005169	2025 JOHN DEERE 35P	0406 CONFIGURATION 6 - CAB, RUBBER TRACKS, SUSPENSION SEAT, LONG ARM + EXTRA COUNTER WEIGHT
1	809159	2025 JOHN DEERE 35HD18	None
1	WG156902	2025 NPK PH2	None

NPK

Hydraulic Hammers

Hardest Hitting, Most Productive Hammers in the Industry

Full Range of Hammers with Proven Design, Suited for All Applications and Ranges of Carriers

All Models Backed by NPK's 3-Year Limited Warranty

Comprehensive Dealer Network Providing Sales, Parts and Service, and Backed by the Industry's Best Support!

NPK ATTACHMENTS DESIGNED, BUILT & BACKED BY NPK

35 P

Compact Excavator

JOHN DEERE

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G4

SUBJECT: Discussion and consideration of Resolution #2026-04 approving the Weber County Pre-Disaster Mitigation Plan

PRESENTER: Chief Hennessy and Steve Brooks

INFORMATION:

a. Executive Summary
b. Resolution 2026-04
c. Pre-Disaster Mitigation Plan - Riverdale

d. Weber County Pre-Disaster Mitigation Plan_Final_2025.pdf - Google Drive (full plan - opens as a separate document)

BACK TO AGENDA

City Council Executive Summary

For the meeting on: February 3, 2026

Summary of Proposed Action

(X)	Review	Requesting a review and approval of the Weber County Pre-disaster Mitigation Plan
(X)	Action	

Requested By

Petitioner(s):	Chief Hennessy/Steve Brooks

Summary of Supporting Facts & Options

It is time for us to Re-new our review and approval of the Weber County Pre-emergency disaster mitigation plan. We are supposed to do these every 5 years under FEMA guidelines. This is an extremely big document so rather than including it in your packet, we will send this to you in a separate link. I have included in the packet the pages in the plan that specifically apply to Riverdale City.

By approving this, we become eligible for certain grants from the federal government after disaster strikes, that we would otherwise not be eligible for, so it is important that we get this done.

Legal Comments –

Steve Brooks, Attorney

Fiscal Comments – Treasurer/Budget Officer

Cody Cardon, Treasurer

Administrative Comments –

Steve Brooks, Administrator

RESOLUTION NO. 2026-04

A RESOLUTION OF THE RIVERDALE CITY COUNCIL ADOPTING THE WEBER COUNTY PRE-DISASTER MITIGATION PLAN

WHEREAS, the health, safety, and welfare of the citizens of Riverdale City are matters of paramount importance to the City Council; and

WHEREAS the Riverdale City Council recognizes the threat that natural hazards pose to people and property within their jurisdiction; and

WHEREAS, the Federal Emergency Management Agency ("FEMA") has required that municipalities review and revise their local multi-hazard mitigation plan every five years to reflect changes in development, progress in local hazard mitigation efforts, and changes in mitigation priorities and submit their revised multi-hazard mitigation plan for review and approval by FEMA to remain eligible for pre-disaster mitigation grant funding; and

WHEREAS, the Riverdale City Council (the "City") met in regular meeting on February 3, 2026, to consider, among other items, the adoption of the Weber County Pre-Disaster Mitigation Plan (2022) (the "Plan"); and

WHEREAS, employees of the City have participated as a partner entity with Weber County in the development of the plan and,

WHEREAS, the Disaster Mitigation Act of 2000, Public Law 106-390 was enacted to establish a national disaster hazard mitigation program to reduce the loss of life and property, human suffering, economic disruption, and disaster assistance costs, resulting from natural disasters, and to assist state, local, and Indian tribal governments in implementing effective hazard mitigation measures designed to ensure the continuations of critical services and facilities after a natural disaster in to law on October 30, 2000; and

WHEREAS, the Disaster Mitigation Act of 2000 and 44 C.F.R 201.6 (and subsequent updates) requires , among other things, that the plan has been formally adopted by the governing bodies of the jurisdictions requesting approval of the plan; and

WHEREAS, the plan has been prepared in accordance with F.E.M.A. requirements; and

NOW, THEREFORE, BE IT RESOLVED that the plan sent out by separate link to the City Council members and titled the "Weber County, Utah, Pre-Disaster Mitigation Plan" (2022 - 1208 pages) and incorporated herein by reference, is hereby adopted by Riverdale City and that the Mayor is authorized and directed to execute any related documents on behalf of the City and shall take effect immediately on passage and acceptance as provided herein.

PASSED AND ADOPTED this _____ day of February, 2026

_____
Braden Mitchell, Mayor

Attest:

_____
Michelle Marigoni, City Recorder

VOTE:

Alan Arnold	___Yea	___ Nay	___Absent
Bart Stevens	___ Yea	___ Nay	___ Absent
Michael Ritchter	___ Yea	___ Nay	___ Absent
Anne Hansen	___ Yea	___ Nay	___ Absent
Kent Anderson	___ Yea	___ Nay	___ Absent

Table 190: Planning Capabilities of the City of Riverdale

Plan	Do you have this plan?	How does it relate to mitigation or hazard risk?	When was it last updated?	When is the next update?
General Plan	Emergency Management Fund	Prepares employees and the Community Emergency Response Team (CERT).	2025 Budget Year	July 1, 2024
Capital Improvement Plan	Yes	Purchase of Emergency Response Equipment.	July 1, 2023	July 1, 2024
Climate Change Adaptation Plan	No	N/A	N/A	N/A
Community Wildfire Protection Plan	No	N/A	N/A	N/A
Economic Development Plan	No	N/A	N/A	N/A
Land Use Plan	Yes	Flood plan mitigation for development	September 20, 2011	Unknown
Local Emergency Operations Plan	Yes	Working emergency management document	February 7, 2023	
Stormwater Management Plan	Yes	Managing storm system to control runoff, protect property, and prevent polluted waters.	March 7, 2017	Unknown
Annexation Policy Plan	Yes	Unknown	December 5, 2023	

Plan	Do you have this plan?	How does it relate to mitigation or hazard risk?	When was it last updated?	When is the next update?
Transportation Plan	Yes	Unknown	August 8, 2001	Unknown
Housing Plan	Yes	Unknown	April 19, 2011	Unknown
Regional Transportation Plan	No	N/A	N/A	N/A
Substantial Damage Plan	No	N/A	N/A	N/A
Other? (Describe)				

Table 408: 2024 Mitigation Action Plan of the City of Riverdale

#	Action Title	Description	Hazard Addressed	Responsible Staff	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
1	Familiarize staff with WebEOC	The hazards would include response to an earthquake, chemical release on rails or freeways, plane crash incidents, windstorm, tornado, winter storms	Thunderstorm, Wildfire, Winter Storm, Problem Soils, Tornado, Dam Failure, Flood, Earthquake	Riverdale City Fire Chief*/ Emergency Manager		BRIC, HMGP, HMGP-PF, FMA	None	1 year	Safety and Security	High
2	Reduce flood risk in River Glen neighborhood – Parker Trail Improvement	Raise the River Trail from about 3880 S. 575 W. to the Parker Trailhead to prevent early flooding in the River Glen neighborhood and the backflow of river water into the storm drain system. The improvements would include increasing the riverbank height and replacing the existing trail in the selected area	Dam Failure, Flood, Thunderstorms	Public Works Director		BRIC, HMGP, FMA	$500,000	1 year	Safety and Security	Low
3	Reduce flood risk in River Glen neighborhood	Trail way construction of boardwalk to allow overbank flows and build offset levee protection for City subdivisions along the Weber River	Dam Failure, Flood, Thunderstorms	Public Works Director*		FEMA PDM, CDBG-NDRC, BRIC, HMGP, FMA	$300,000	1 year	Safety and Security	Low

#	Action Title	Description	Hazard Addressed	Responsible Staff	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
4	Evaluate effectiveness of newly implemented drought ordinances (such as... city codes, enforcement, and water use)		Drought	Public Works Director		FEMA PDM, CDBG-NDRC, BRIC, HMGP	$300,000	1 year	Safety and Security	Low
5	Repair and prevent riverbank erosion that would damage trails at several locations	Riverdale's geography along the river puts it at a low point relative to the surrounding cities. Slopes bound Riverdale on the east, west, and south. This year, there has been erosion along riverbanks throughout the city. City must support the sides of the rivers for the public's safety and prevent further erosion that would damage trails.	Landslides, Flood, Problem Soils, Thunderstorms	Public Works Director		BRIC, HMGP, FMA	$100,000	1 year	Safety and Security	Low
6	Map and assess vulnerability to landslides to improve data and predict future threats	Mapping and understanding the Riverdale City bench. A landslide has occurred in the area to be evaluated. This will help determine the extent of further threats to infrastructure and residential structures.	Landslides	Public Works Director		BRIC, HMGP	$25,000	1 year	Safety and Security	Medium

#	Action Title	Description	Hazard Addressed	Responsible Staff	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
7	Extreme Heat/Extreme Cold Public Education and Public Awareness Campaign	Increase awareness of extreme temperature risks and safety to the public and have an adequate response and location for people to get out of the heat. The impacts of extreme temperatures on public health can be lessened if citizens know how to prepare and protect themselves. Ideas for increasing awareness include: 1. Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur. 2. Develop a location where the special needs population can go for shelter and relief from extreme heat.	Extreme Heat, Extreme Cold, Winter Storms	Riverdale City Fire Chief*/ Emergency Manager		BRIC, HMGP	$50,000	1 year	Safety and Security	Low
8	Wildfire Public Education Campaign	The city has a small area of wildland interface. Residents there should be informed as to actions they could take to prevent their	Wildfire, Invasive Species	Riverdale City Fire Department		BRIC, HMGP, HMGP-PF	$10K	1 year	Safety and Security	Medium

#	Action Title	Description	Hazard Addressed	Responsible Staff	Potential Partners	Potential Funding	Cost Estimate	Timeframe	Community Lifelines	Priority
		property from being affected by wildfire.								
9	EOC Structural Improvements to IT Systems	City EOC is currently not functional. Phone lines need to be updated, including new phones and computer cabling	Thunderstorm, Wildfire, Winter Storm, Tornado, Dam Failure, Flood, Earthquake	IT Management		BRIC, HMGP, HMGP-PF, FMA	$10k	1 year	Safety and security, food, hydration, water, health and medical, energy, transportation, communications, hazardous materials	Medium
10	EOC Structural Improvements to Operations	Study needs for sustaining long-term EOC operations. Retrofit building to make it more resilient to the hazards addressed such as through weatherization, wind-resistant building materials, HVAC upgrades, defensible space, flood mitigation, non-seismic and seismic retrofits as needed) which will make the EOC more	Thunderstorm, Wildfire, Winter Storm, Tornado, Dam Failure, Flood, Earthquake	EOC Director		BRIC, HMGP, HMGP-PF, FMA	$1000	1 year	Safety and security, food, hydration, water, health and medical, energy, transportation, communications, hazardous materials	High

*Note: CDBG = Community Development Block Grant

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G5

SUBJECT: Consideration of Ordinance #1002 notifying the public of a pending ordinance regarding a temporary land use regulation to remove cluster subdivisions from the R-1-6 zone.

PRESENTER: Brandon Cooper, Community Development Director

INFORMATION:
a. Ordinance #1002
b. Executive Summary/Transmittal

BACK TO AGENDA

RIVERDALE CITY ORDINANCE NO. 1002

AN ORDINANCE NOTIFYING THE PUBLIC OF A PENDING ORDINANCE REGARDING AN AMENDMENT TO THE R-1-6 (SINGLE FAMILY RESIDENTIAL) ZONING DISTRICT TO REVISE THE PERMITTED USES AND SITE DEVELOPMENT STANDARDS, WHICH MAY INCLUDE BUT NOT BE LIMITED TO, REMOVING CLUSTER SUBDIVISIONS AS A PERMITTED USE AND REVISING YARD REQUIREMENTS

WHEREAS, Utah Code Ann.§10-20-504 authorizes a municipality, upon finding a compelling, countervailing public interest, to enact a temporary land use regulation for a limited period while considering amendments to its existing land use regulations for any part of a municipality; and

WHEREAS, the Riverdale City Council (the "**Council**") desires to initiate proceedings to amend the text of the R-1-6 (Single-Family Residential) zoning district to clarify and update applicable development standards and permitted uses; and

WHEREAS, City staff have recommended that the City evaluate potential amendments to the R-1-6 zoning regulations to ensure consistency with the City's General Plan, neighborhood compatibility objectives, and the protection of public health, safety, which may include, but is not limited to, removing cluster subdivisions as a permitted use in the R-1-6 Single Family Residential Zoning Districts; and

WHEREAS, the Council is authorized by Utah Code Ann.§10-20-902(1)(a)(ii)(B) to initiate proceedings to amend its ordinances in a manner provided by local ordinance and before an application is submitted: and

WHEREAS, Utah Code Ann.§10-20-902(1)(b) provides that the City shall process an application without regard to proceedings initiated to amend the municipality's ordinances as provided in Utah Code Ann.§10-20-902(1)(a)(ii)(B) if 180 days have passed since the proceedings were initiated and the proceedings have not resulted in an enactment that prohibits approval of the application; and

WHEREAS, the Council finds that allowing development applications to proceed under the existing R-1-6 zoning text, while amendments are under active consideration, could undermine the City's ability to effectively implement sound land use policy and could result in inconsistent or incompatible development outcomes; and

WHEREAS, the Council finds that a temporary land use regulation, limited in scope and duration, is necessary while the City conducts public review, Planning Commission consideration, and legislative deliberation on proposed text amendments to the R-1-6 zoning district, and

WHEREAS, the period needed to review and implement an ordinance establishing changes to the R-1-6 Residential Zone is within a period of one hundred eighty (180) days; and

WHEREAS the Council finds that this Ordinance constitutes formally initiated proceedings that satisfies the requirements Utah Code Ann. §10-20-902(1)(a)(ii)(B) and further finds that this Ordinance is in the best interest of the health, safety, and welfare of the City's residents.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RIVERDALE, UTAH, AS FOLLLOWS:

Section 1. Initiation of Text Amendment Proceedings.

The Council hereby formally initiates proceedings to amend the text of the R-1-6 Single-Family Residential zoning district of the Riverdale City Code. City staff and Planning Commission are directed to review, evaluate, and propose text amendments for Council consideration related to permitted uses and development standards in accordance with applicable local and state laws.

Section 2. **Temporary Land Use Regulation**

Pursuant to Utah Code § 10-20-504, and for the limited purpose of preserving the status quo during the pendency of the proposed text amendments:

A. The City hereby enacts a temporary land use regulation applicable to property zoned R-1-6.

B. During the effective period of this Ordinance, the City may withhold approval of land use applications, permits, or other development approvals that would be inconsistent with the potential amendments under consideration.

C. This temporary regulation shall apply only to the extent authorized by Utah law and shall not affect applications that are entitled to vesting under applicable statutes.

Section 3. **Duration**

This temporary land use regulation shall remain in effect for a period not to exceed one hundred eighty (180) days from the effective date of this Ordinance, unless sooner terminated or replaced by adoption of permanent zoning text amendments.

Section 4. Legislative Discretion Preserved

Nothing in this Ordinance shall be construed to require the City Council to adopt any particular zoning text amendment, nor to limit the Council's full legislative discretion to approve, modify, or deny any proposed amendment following completion of the required public process.

Section 5. Severability

If any provision of this Ordinance is held invalid or unenforceable, such invalidity shall not affect the remaining provisions, which shall remain in full force and effect.

Section 6. Effective Date

This Ordinance shall take effect immediately upon adoption and posting, or as otherwise provided by law**.**

PASSED AND APPROVED this 3rd day of February, 2026.

RIVERDALE CITY

By: _____
Braden Mitchell, Mayor

ATTEST:

_____
Michelle Marigoni, City Recorder

VOTE:

Alan Arnold	___Yea	_____ Nay	____Absent
Bart Stevens	___ Yea	___ Nay	___ Absent
Michael Ritchter	___ Yea	___ Nay	___ Absent
Anne Hansen	___ Yea	___ Nay	___ Absent
Kent Anderson	___ Yea	___ Nay	___ Absent

TRANSMITTAL

Body:	City Council
Topic:	**Temporary Zoning Regulation** R-1-6 Single-Family Residential Zones
Department:	Community Development
Director:	Brandon Cooper
Staff/Presenter:	Brandon Cooper
Contact:	bcooper@riverdalecity.com

Executive Summary

A **temporary zoning ordinance**, also known as a temporary land use regulation or moratorium, is a zoning regulation that can be adopted by a local municipality for a limited time. These regulations can be put in place for a number of reasons, including emergency situations, compelling public interest, unregulated areas, and environmental impact studies.

Temporary regulations can prohibit all development or temporarily prohibit certain types of land uses or development. They can also regulate the construction, reconstruction, or alteration of any building or structure, or any subdivision approval. Temporary regulations can remain in effect for up to six months (180 days). In consideration of a temporary zoning regulation, the City Council is not required to have a recommendation from the Planning Commission or to hold a public hearing. *See Utah Code Ann.§10-20-504.*

Background

At its January 20, 2026 regular meeting, the City Council considered and ultimately denied a proposed amendment to the Riverdale City General Plan Future Land Use Map affecting property along Ritter Drive. The Council's decision was based on findings that the proposed amendment was not in harmony with the surrounding neighborhood, would adversely affect adjacent property owners, and raised safety concerns related to traffic and neighborhood impacts, as documented in the public record and resident testimony.

As a result of that action, staff has begun to reevaluate the existing development framework within the R-1-6 (Single-Family Residential) zoning district to ensure that permitted uses and development standards are consistent with the City's General Plan, neighborhood character objectives, and public health and safety considerations. In response, staff has prepared a

temporary land use ordinance pursuant to Utah Code § 10-20-504 to initiate text amendment proceedings for the R-1-6 zone and to preserve the status quo while those amendments are evaluated through the public process.

The proposed ordinance formally initiates proceedings to amend the R-1-6 zoning text and establishes a temporary land use regulation, limited in scope and duration, to prevent development applications that could conflict with amendments under active consideration. This action allows the City Council, Planning Commission, and staff adequate time (no longer than 180 days) to review potential changes in a transparent and orderly manner while protecting the legislative intent expressed by the Council at the January 20 meeting.

Fiscal Impact

None

Requested Timeline:

City Council Meeting – February 3, 2026

Potential Actions:

Following the presentation and discussion of the **temporary zoning ordinance** proposal, the City Council may make:

1) a motion to **approve**
2) a motion to **table** the matter to a later date
3) a motion to **deny**

Staff Recommendation

Staff recommends approval of the temporary land use regulation to allow time for review and consideration of potential amendments to the R-1-6 zoning text.

Attachments

Temporary Land Use Regulation – R-1-6

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G6

SUBJECT: Council Rules and Procedures Update

PRESENTER: Steve Brooks, City Administrator

INFORMATION: a. Council Rules and Procedures

BACK TO AGENDA

COUNCIL RULES AND PROCEDURES

As adopted January 16th, 2024 by Resolution #2024-01

TABLE OF CONTENTS

Section 1 - POWERS AND CONDUCT

1.1 Authority.

The City of Riverdale, Utah, provides for open meetings of the City Council at which reasonable opportunity shall be given for citizens to be heard under such rules as the council may provide and that the public is able to see the business of the city conducted in a public forum. These Rules and Procedures establish guidelines to be followed by the Mayor, City Council members and all persons attending a City Council meeting, including members of the City Council, administrative staff, news media, and visitors.

The City Council of the City of Riverdale shall determine and provide its own rules of order of business, rules and procedures for meetings. These shall be in effect upon adoption by the City Council and until such time as amended, suspended or new rules are adopted in the manner provided.

These rules are adopted to expedite and facilitate the transaction of the business of the City Council in an orderly fashion and shall be deemed to be procedural only, and the failure to strictly observe any such rules shall not affect the jurisdiction of, or invalidate any action taken by, the City Council.

These Council Rules and Procedures may be amended by a majority vote of the entire Council at any regular meeting of the Council after having been read at one previous regular Council meeting. Any of the foregoing rules may be temporarily suspended for the meeting then in session by a majority vote of the members of Council then present, unless such waiver is in conflict with the City or State law.

These Council Rules and Procedures shall be reviewed within six months after newly elected officials are sworn in, every two years.

No rule or procedure within this document is valid that would remove or limit the powers and responsibilities given to the City Council that is given to them by state or federal law.

1.2 General Code of Conduct

A. Our current form of government is a six-member Council with the Mayor presiding as the Chairman of the Council. The City Council body functions as a group/committee. Each member of the group has only one vote, with the Mayor voting only in the event of a tie vote unless otherwise prohibited by statute. No one member of the City Council or the Mayor can make decisions for the group nor should any member of the group, knowingly or otherwise, give the perception to an organization or individual citizen that they represent the full body of the council without the Councils vote and approval.

B. Council members must represent unconflicted loyalty to the interests of the citizens of Riverdale City. Council members should consider the interests of all of the citizens of Riverdale City and vote accordingly.

C. Council members should not attempt to exercise individual authority or influence over the City, its enterprises or city employees.
D Council members will respect the confidentiality appropriate to issues of a sensitive or legal nature. Any Councilmember who discusses confidential matters publicly will be subject to censure by the majority of Council.
E. Council members and supporting staff will come on time and be properly prepared for Council Meetings. If a quorum of a City Council has not arrived at a Council meeting within 15 minutes after the scheduled starting time of the meeting, the Mayor may cancel the meeting.
F. Council members who miss meetings without being excused by the mayor in advance of the meeting shall have their monthly pay reduced accordingly.
G. Council members could be expelled by a 2/3 majority vote for acts for cause.

1.3 Adherence To Procedures

During City Council discussions, deliberations and proceedings, the Mayor has been delegated the primary responsibility to ensure that the City Council, staff and members of the public adhere to the Council's adopted procedures.

1.4. Procedure In Absence Of Rule

In the absence of a rule to govern a point of procedure or rule, the Mayor, as chair, or in his absence, the Mayor pro tempore shall temporarily rule on the issue until a meeting an d discussion of the full Council can consider the issue. Only a full vote made by the Council may override this decision.

Section 2 - MEETINGS

2.1. Regular Meetings. The City Council will meet at 6:00 p.m. on the first and third Tuesday of each and every month, except for a special, emergency or posted meeting, or in the event a meeting has been postponed or canceled for valid reasons and according to these rules. Regular meetings are each preceded by a 30-minute planning session. In order to cancel a scheduled meeting, a poll of the Councilmembers will be held. If two Councilmembers oppose the cancellation of the meeting, the meeting will be held as scheduled.

2.2. Special Meetings. The City Recorder shall call special meetings upon written request of the Mayor, the City Administrator, or two members of the Council.

2.3. Telephonic Appearance. Council Members may appear at a council meeting via telephone or other electronic means as is outlined in the Riverdale City Code. Telephonic appearances are for the benefit of the City of Riverdale and not for the benefit of an individual Council member. Any Council member participating electronically in a closed meeting must certify to the other Council members that the said meeting can be held privately, and that Council member (upon return) shall submit an affidavit verifying the same. If the Council member cannot ensure the privacy of the meeting, then that Council member may not participate electronically in the closed meeting.

2.4. Public Notice. The agenda for all regular meetings and the notice listing items to be considered shall be posted by the City Recorder on the State's Public Notice website in accordance with the Utah Open Meetings Act and on the City's official website.

2.5. Quorum. Three members constitute a quorum. A quorum of the City Council must be present to conduct a City Council meeting, except that a quorum is not required to hear proclamations and special recognitions.

2.6. Compelling Attendance. A lesser number than a quorum may adjourn from time to time and compel the attendance of absent members as allowed under Utah State Code.

2.7. City Administrator Participation. The City Administrator, or designee, shall attend all meetings of the City Council unless excused. The City Administrator may make recommendations to the City Council and shall have the right to take part in all discussions but shall have no vote.

2.8. City Attorney Participation. The City Attorney, or designee shall attend all meetings of the City Council unless excused and shall, upon request, give an opinion, either written or oral, on questions of law. The City Attorney shall act as the City Council's parliamentarian.

2.9. City Recorder Participation. The City Recorder or designee shall attend all meetings of the City Council and shall keep accurate records of all actions taken by the City Council.

2.10. City Department Heads Participation. The City Department Heads or designated assistants shall be available during all City Council meetings to respond to inquiries made by the City Council unless excused.

2.11. Executive Sessions. The City Council may meet in executive session when it is scheduled by the Mayor, upon request by the Mayor, the City Attorney, City Administrator, or any member of the City Council and when it is in compliance with the Utah Open Meetings Act. No vote shall be taken in an executive session on any matter under consideration, nor shall any City Council member enter into a commitment with anyone, respecting a vote to be taken subsequently in a public meeting of the City Council. Closed executive sessions shall be kept to a minimum. Council Members shall keep confidential all written materials and verbal information provided to them during Executive Sessions to ensure that the City's position is not compromised, and to comply with state and local law or policy relating to disclosure of confidential information. See 2.3 above concerning electronic participation.

2.12. Planning Session Meetings. Planning session meetings may occur 30 minutes before a regularly scheduled meeting. All Planning meetings shall be noticed and open to the public. No official action shall be taken during the Planning session. During Planning session meetings, City Council members shall refrain from calling on members of the public to speak unless arrangements with the Mayor are made in advance of the meeting.

A planning session meeting is a meeting to cover topics listed on the meeting agenda and provide an opportunity for the Council to ask questions or to ask for clarification from staff, the mayor or each other about an agenda item. The intent of the planning meeting is to use this time in a manner that will be most helpful to the council to better understand general meeting topics and eliminate or shorten the formal meeting time by addressing trivial matters in this meeting prior to the formal meeting.

2.13. Cautions. Council members should be diligent in always enforcing these rules and all state provisions and the spirit of open meetings. Members should be cognizant of the fact that even casual conversations among themselves give public perception of closed-door communications and members should take all necessary measures to ensure that they conduct the public business in public and on record. Personal communication amongst themselves should be avoided whenever possible and only when necessary to complete a needed public function.

Section 3 - CODE OF CONDUCT

3.1. City Council Members.

(a) During City Council meetings, City Council members shall assist in preserving order and decorum and shall, neither by conversation or otherwise, delay or interrupt the proceedings nor refuse to obey the orders of the chair or the rules of the City Council.

(b) A City Council member desiring to speak shall address the chair and, upon recognition by the chair, shall confine discussion to the question under debate, avoid discussion of personalities and indecorous language, and refrain from personal attacks and verbal abuse, sidebar discussions, or political partisan rhetoric.

(c) A City Council member desiring to question the administrative staff shall address questions to the City Administrator who shall be entitled either to answer the inquiries or to designate some member of city staff for that purpose. City council members shall not berate or admonish staff members. Nor is it appropriate for anyone to berate or admonish the mayor, council members or staff, in public meetings.

(d) A City Council member, once recognized, shall not be interrupted while speaking unless called to order by the chair, unless a point of order is raised by another member, or unless the speaker chooses to yield to questions from another member if recognized by the chair. If a City Council member is called to order while speaking, that member shall cease speaking immediately until the question of order is determined. If ruled to be in order, the member shall be permitted to proceed. If ruled to be not in order, the member shall remain silent or make additional remarks to comply with rules of the City Council.

(e) City council members shall confine their questions to the particular matters before the council and in debate shall confine their remarks to the issues before the City Council.

(f) When there is more than one speaker on the same subject, City Council members will delay their comments until after all speakers on the subject have been heard.

3.2 Administrative Staff.

(a) Members of the administrative staff and employees of the City shall observe the same rules of procedures and decorum applicable to members of the City Council.

(b) Although the chair has the authority to preserve decorum in meetings, the City Administrator is also responsible for the orderly conduct and decorum of all city employees under the City Administrator's direction and control.

(c) The City Administrator shall take such disciplinary action as may be necessary to ensure that decorum is preserved at all times by city employees in City Council meetings.

(d) All persons addressing the City Council, including the City Administrator, other staff members, or members of the public shall be recognized by the chair and shall limit their remarks to the matter under discussion.

(e) All remarks and questions addressed to the City Council shall be addressed to the City Council as a whole and not to any individual member.
(f) No staff member, other than the staff member having the floor, shall enter into any discussion either directly or indirectly without the permission of the chair.

3.3 Citizens and Other Visitors.
(a) Citizens and other visitors are welcome to attend all public meetings of the City Council and will be admitted to the City Council chamber or other room in which the City Council is meeting up to the fire safety capacity of the room.
(b) Everyone attending the meeting will refrain from private conversations while the City Council is in session.
(c) Citizens and other visitors attending City Council meetings shall observe the same rules of propriety, decorum, and good conduct applicable to members of the City Council. Any person making personal, impertinent, profane, or slanderous remarks or who becomes boisterous while addressing the City Council or while attending the City Council meeting shall be removed from the room if the police chief, or his designee, is so directed by the chair, and the person shall be barred from further audience before the City Council during that session of the City Council. If the chair fails to act, any member of the City Council may move to require enforcement of the rules, and the affirmative vote of a majority of the City Council shall require the chair to act.
(d) Unauthorized remarks from the audience, stamping of feet, whistles, yells, and similar demonstrations shall not be permitted by the chair, who may direct the police chief, or his designee, to remove offenders from the room. Aggravated cases shall be prosecuted on appropriate complaint signed by the chair. In case the chair fails to act, any member of the City Council may move to require enforcement of the rules, and the affirmative vote of the majority of the City Council shall require the chair to act.
(e) No placards, banners, or signs will be permitted in the City Council chamber or in any other room in which the City Council is meeting. Exhibits, displays, and visual aids used in connection with presentations to the City Council, however, are permitted.

3.4 Enforcement. The city police chief, or his designee, as chief law enforcement officer, shall be present at all Council meetings, unless excused by the mayor, and act as sergeant-at-arms for the City Council and shall furnish whatever assistance is needed to enforce the rules of the City Council.

Section 4 - DUTIES AND PRIVILEGES OF MEMBERS

4.1. Right of Floor. A City Council member who desires to speak must first be recognized by the chair. No member shall address the chair or demand the floor while a vote is being taken.

4.2. Conflict of Interest. Council members with a conflict of interest shall verbally declare the conflict immediately upon realizing the conflict and shall comply with the state law concerning conflicts of interest.

4.3. Right of Appeal. Any member may appeal to the City Council from a ruling of the chair. If the appeal is seconded, the member making the appeal may briefly explain the ruling; but there shall be no debate on the appeal, and no other member shall participate in the discussion. The

chair shall then put the question, "Shall the decision of the chair be sustained?" If a majority of the members present vote " Yes," the ruling of the chair is sustained; otherwise, it is overruled.

4.4. Voting.
(a) Every member present when a question is called shall vote either "Yes" or "No" except on matters involving a conflict of interest or the consideration of the member's own official conduct.
(b) After the result of a vote is announced, a member may not change a vote unless, before the adjournment of that meeting, permission is given to change the vote by a majority vote of the members present.
(c) Tie votes. In case of a tie vote on any proposal, the Mayor shall vote to break the tie unless otherwise prohibited by statute.

4.5. Demand for Roll Call. Upon demand of any member for roll call vote, made before the result is announced, the roll shall be called for yes and no votes upon any question before the City Council. It shall not be in order for members to explain their vote during the roll call.

4.6. Personal Privilege. The right of a member to address the City Council on a question of personal privilege shall be limited to cases in which the member's integrity, character, or motives are assailed, questioned, or impugned.

4.7. Dissents and Protests. Any member shall have the right to express dissent from or protest against any ordinance, resolution, or other action of the City Council and have the reason for the dissent or protest entered in the minutes. Such dissent or protest may be filed in writing and presented to the City Recorder for placement in the minutes not later than the next regular agenda meeting following the date of the City Council's action on the matter.

4.8. Excusal from Attendance. City council members are expected to attend meetings and stay in attendance during each meeting. No member shall be excused from attendance at a City Council meeting except for good and valid reasons. The chair shall excuse members from a meeting when a good and valid reason is presented.

4.9. Absence Because of Official City Business. If a City Council member is absent from an entire regular City Council meeting because he or she is on official city business at the direction of the City Council, the member shall request that the City Recorder record in the minutes for that meeting that the member was absent because of official city business. The City Recorder shall maintain a record of these absences on official city business so that such absences will not count against the City Council member.

Section 5 - CHAIR AND DUTIES

5.1. Chair. The Mayor, if present, shall preside as chair at all meetings of the City Council. In the absence of the Mayor, the Mayor pro tempore shall preside. In the absence of both the Mayor and Mayor pro tempore, the council shall elect a chair.

5.2. Call to Order. The meetings of the City Council shall be called to order by the Mayor or, in the Mayor's absence, by the Mayor pro tempore or, in the Mayor pro tempore's absence, by the appointed chair.

5.3. Preservation of Order. The chair shall preserve order and decorum, call upon the sergeant-at-arms or the parliamentarian as necessary to enforce compliance with the rules, and confine members in debate to the question under discussion.

5.4. Questions to be Stated. The chair shall state all questions submitted for a vote and announce the result. A roll call vote shall be taken when requested by a member in accordance with Subsection 4.5.

5.5. Call for Recess. The chair may call for a recess at appropriate points in the meeting agenda.

Section 6 - ORDER OF BUSINESS

6.1. Agenda & Packet.

(a) Preparation and Distribution. A written agenda for each regular meeting shall be prepared under the direction of the Mayor with assistance from the City Administrator. The order of business of each meeting shall be as contained in the agenda prepared as follows:

(1) The agenda shall be a listing by topic of subjects to be considered by the City Council, and shall be delivered to members of the City Council in advance of each meeting as early as practicable but normally no later than close of business the Friday prior to the meeting.

(2) The Mayor shall determine the contents of the agenda. The Mayor shall transmit these items to the City Administrator in time for distribution to the City Council at the same time operational items are distributed.

(3) In the event that any member of the governing body desires to add an item or items to any prepared agenda, then consent must be obtained from the Mayor and one City Council Member or two City Council Members. Upon receiving the request from the Mayor and one City Council Member or two City Council Members, the City Administrator shall add items to prepared agendas as requested. Once posted, amendments may be made to the agenda in the same manner, up to 24 hours prior to the meeting or as prescribed by state law.

(4) A packet of information supporting the agenda items that should be reviewed or considered by the Council, including but not limited to the documents identified in Section 7, agreements, minutes, etc. At the second meeting of the month, the packet shall include a current Treasurer's Report and updated budget report. The packet will be provided in advance of each meeting as early as practicable, but normally no later than close of business the Friday prior to the meeting.

(b) Briefing – Planning session meetings.

(1) Prior to all regularly scheduled meetings, the City Council may hold a briefing/planning meeting. At a planning meeting, the chair shall present any and all orders of business for the regularly scheduled meeting. A council member may speak no more than two times on any briefing item, and each time will be limited to three minutes.

(2) Voting items will not be scheduled during planning meetings except for emergencies and in accordance with applicable rules established in these Rules and by state law.

6.2. Presentations by Members of Council.

(a) The Mayor shall prepare and designate all meeting agendas and shall include on an agenda any item requested by two City Council members to be brought before the City Council. Unless the request is withdrawn by either of the requesting members, the item must be placed on:

(1) The first regularly scheduled meeting agenda after receipt of the request by the Mayor and the City Administrator, so long as lawful legal notice can be provided.

(b) The Mayor shall not place on an agenda any item that has been voted on by the City Council within the previous six-month time period preceding the date requested for placement of the item on the agenda unless otherwise allowed under these rules (Proper Motion to Reconsider (See 7.4 below) or a tabled item).

6.3. Citizen Speakers (Public Comment).
At City Council meetings, a person may address the City Council concerning any item or may present a subject for the City Council's consideration during the public comment period~~s~~ in accordance with the following rules:

(a) Speakers to Register or sign-in. A person wishing to address the City Council should first register or sign-in with the City Recorder and provide the following information: Name, city of residence, telephone number, the subject matter to be presented, and whether the subject is on the current City Council meeting agenda. A person may register either in person, by telephone or at the meeting.

(b) Speaker Rules. In order that the City Council may properly consider each matter brought to it by citizens, speakers are asked to observe the following rules:

(1) Only one person may approach the microphone at any one time unless approved by the chair, and only the person at the microphone will be allowed to speak. Speakers must identify themselves at the beginning of any comments.

(2) In an effort to reduce replication and to save time, pooling of speakers is encouraged wherein one person may speak for and on behalf of a group of individuals. Nothing in the foregoing precludes submission of comments to the City Council in writing, for such action or non-action as the Council, in its discretion, may deem appropriate.

(3) Speakers shall address their comments to the governing body.

(4) Speakers may file copies of their remarks or supporting information with the City Recorder. The City Recorder will make the information available to the City Council and City Administrator if requested.

(5) A person who addresses the City Council during a public hearing must limit remarks to the specific subject matter being considered by the City Council in that public hearing.

(c) Time Limits on Items. The length of time a person will be allowed to speak on items at City Council meetings will be determined according to the following rules:

(1) Speakers will have approximately three minutes to speak regardless of the number of items they wish to address unless the Mayor grants longer periods of time. The Mayor may also shorten the amount of time if there are high numbers of individuals wishing to speak. The Mayor may determine the order in which speakers are called. The order in which speakers are called is not required to be in the order that items appear on the agenda, nor are all speakers on a particular item required to be called at the same time.

(d) During designated speaker times, City Council members may ask factual questions or make a brief acknowledgement of speakers, if recognized by the Chair. Speakers will have one minute to respond. More time may be granted to the speaker for a response at the discretion of the Chair. Council members will refrain from debate on any item during time allotted to speakers unless a specific time is granted by the Chair or by a nondebatable motion approved by the City Council.

6.4. Communications to City Council.

The Mayor through the City Administrator shall provide the City Council with an analysis of major items to be acted upon by the City Council at its meetings. The analysis shall be delivered to the City Council members preceding the meeting at which the item is to be discussed. To avoid ex parte communications and ensure that all City Councilmembers are privileged to deliberate and act upon the same guidance, opinions regarding agenda items should be reserved for the City Council meeting itself and not requested of the City Administration outside the official open meeting. If two Councilmembers feel more information is needed, they may request it from the administration.

6.5. Oral Presentations.

Matters requiring the City Council's attention or action may be presented orally by the Mayor or City Administrator. If matters have developed since the deadline for delivery of the agenda, the Mayor, City Administrator, or any City Council member, may make an oral report to the City Council, but formal action, if required, shall be delayed until the next meeting, unless said matter is deemed an emergency and immediate action is required and state law is complied with.

6.6. Public Hearings.

(a) The Mayor shall schedule public hearings on the City Council's agenda in accordance with state law.

(b) The City Council may schedule public hearings at times other than its regular meetings when it determines that the matter to be heard is a significant issue that requires more time than is

available at regular meetings. The Mayor may call an advertised public hearing at a specified time on any matter.

(c) The Staff may schedule public hearings as authorized by a majority vote of the Council.

Section 7 - CONSIDERATION OF ORDINANCES, RESOLUTIONS, AND MOTIONS

7.1. Printed Form. All ordinances and resolutions shall be presented to the City Council in electronic or printed form.

7.2. Distribution of Ordinances. The City Administrator shall prepare copies of all proposed ordinances to be available for distribution to all members of the City Council at the meeting at which the ordinance is introduced, or at such earlier time as is appropriate, as outlined in Section 6.

7.3. Rules of Order. The most recent edition of Roberts Rules of Order Revised shall govern the proceedings of the City Council in all cases unless they are in conflict with these rules.

7.4. Reconsideration.
(a) A motion to reconsider an action of the City Council may only be made by a member who voted with the prevailing side. It can be seconded by any member.

7.5. Motions to table.
(a) Whenever a motion is made and approved by the City Council to lay a question or item of business on the table (without a time certain), said question or item will remain on the recorders report for a period of 90 days. If the item is not removed from the table by the Council within the 90 days, said question or item will then be removed from the report and will no longer be considered for action by the Council unless done so by a completely new action.
Amd. 03-2011

Section 8 - VOTES REQUIRED

Approval of every ordinance, resolution, or motion shall require on final passage the affirmative vote of a majority of the quorum present unless state statutes impose other voting requirements on various questions.

Section 9 - MISCELLANEOUS

9.1. Complaint. Personal complaints, especially those of a derogatory nature against any official or employee of the City shall not be discussed at a Council meeting. Citizens wishing to make such complaints shall be instructed that the same should be first processed and handled through the Mayor's office. Then, if the citizen feels appropriate action has not been taken, it shall be proper for the complaint to be communicated in writing to the members of the Council. The City Attorney should be consulted regarding confidentiality, rights to privacy and other legal concerns.

9.2 Councilmember investigations. Whenever a verbal or written communication is received by other Council members, Appointees, or employees stating allegations of misconduct about a Council member, the Council shall schedule a Closed Executive Session to discuss the matter. If deemed merited by the Council, an independent third-party investigation may be requested and work under the direction of the City Attorney or may be handled by the Council. In order to summarily deal with untruthful complaints, the independent third-party investigator shall commence an investigation. If the complaint is without merit, the independent third-party investigator shall close and seal the file and report that the matter has been investigated without any finding of merit to Council. If the complaint merits further investigation, the third-party investigator shall make a report and request authorization for further investigation. All investigative work shall be considered work product and may be otherwise privileged. Completed final investigation reports shall be made to the Council.

9.3 MID-TERM VACANCIES

A. In accordance with Utah Code Annotated section 20A-1-510, if any vacancy occurs in the office of mayor or city council, the legislative body shall appoint a registered voter in the city who meets the qualifications for office to fill the unexpired term of the vacated office.

1. Qualifications
   a. Must be at least 18 years of age, a United States citizen and a registered voter in Riverdale City;
   b. Must have resided within the boundaries of Riverdale City for at least twelve (12) consecutive months immediately preceding the date of appointment;
   c. Must not be a convicted felon; must not have been convicted of treason or of an election crime; must not have been declared mentally incompetent; and must not have had the right to hold public office restricted pursuant to Article IV, Section 6, of the Utah Constitution and U.C.A. 20A-2-101.5.

2. Procedure

   a. Public notice of the vacancy will be given at least two weeks before the council meets to fill the vacancy. Notice will include the date, time, and place where the interview will be conducted, the person responsible for distributing and collection of applications, and the deadline for application submission.
   b. The City will accept applications for a period of no less than two weeks. Applications will include a number of pre-interview questions.
   c. Applicants meeting the position requirements will be notified of the date and time of the interview, to be held during a regular city council meeting.
   d. During the regularly scheduled open meeting, applicants will be interviewed by council members. This will consist of Council members rotating and taking turns in asking Applicants up to two of their own questions. All questions will be directed to and answered by all applicants.

Applicants will be interviewed in a rotating order determined at or just prior to the meeting (Candidate A answers question 1 first, then Candidate B, then Candidate C, etc. until all candidates have answered question 1. Candidate B then answers question 2 first , then Candidate C, then Candidate D, etc., until all candidates have answered question 2. This same rotation will continue until all questions are answered.

Responses will be limited to two minutes per question. Additional follow-up clarifying questions from Council members will be limited to a one-minute response time. Each participant will have two minutes for a closing statement. City staff shall keep time for answers.

Council members will then consider the answers to the interview questions and the information provided on the Application(s) to make their voting decision.

e. First vote: Each Council member ~~s~~ shall choose their first choice as documented by a ballot sheet provided by city staff.
f. Second vote: If no candidate receives a majority vote from the Council body in the initial vote, the two candidates that received the most votes in the initial vote shall appear before the Council, who shall vote again as documented by a ballot sheet provided by the city staff. In a tie for second place on the first vote, the candidates tied for second place shall be reduced to one by a coin toss as outlined in section g below.
If neither candidate receives a majority vote of the legislative body on the second vote, the mayor may vote to break a tie. If the mayor chooses not to break the tie, a coin toss will be used between the two candidates that remain to determine the selection (20A-1-510 (c)). (Ballot sheets on both the first and second votes shall be kept by the City Recorder for 60 days after the vote and are considered to be open records and subject to disclosure.
g. Coin toss: A coin toss required under this section shall be conducted by the City Recorder in the presence of the elected municipal body. When more than two candidates are flipping a coin, all candidates will flip and let the coin land on the ground. The lone odd person on the toss is eliminated and the process is repeated until the final two candidates or when only two candidates exist, at which point the recorder will call heads or tails prior to the coin toss and follow this process until only one person flips the head/tail called by the recorder and is declared the winner.
h. The applicant selected in the meeting by this process shall be sworn in at the same meeting, followed by a signed resolution appointing the applicant to fill the vacancy.

(Res. 2021-28, Amd. Res. 2024-01)

Section 10 - PENALTY

Willful or intentional disruption of a Riverdale City Council meeting is declared to be a class B misdemeanor subject to penalty of up to six (6) months in jail and/or a fine of $1,000, or both.

RIVERDALE CITY
CITY COUNCIL AGENDA
February 3, 2026

AGENDA ITEM: G7

SUBJECT: PRUD Zoning Text Amendment Discussion

PRESENTER: Brandon Cooper, Community Development Director

INFORMATION: a. PRUD Transmittal

BACK TO AGENDA

TRANSMITTAL

Body:	City Council
Topic:	Zoning Text Amendment **Consideration to amend Riverdale City Code 10-22: Planned Residential Unit Development (PRUD)**
Department:	Community Development
Director:	Brandon Cooper
Staff/Presenter:	Brandon Cooper
Contact:	bcooper@riverdaleutah.gov

Proposed Timeline:

Planning Commission Meeting/Public Hearing – December 23, 2025
City Council Meeting – January 6, 2026 – TABLED
City Council Meeting – January 20, 2026 – TABLED
City Council Meeting – Discussion Only - February 3, 2026
City Council Work Session – Additional Discussion – OPTIONAL – February 10, 2026
City Council Meeting – Action – February 17, 2026

Request:

The Community Development Department is transmitting a proposed text amendment to **Title 10, Chapter 22 - Planned Residential Unit Development (PRUD)** for City Council review and approval. The proposed amendment replaces and modernizes the City's existing Planned Residential Unit Development (PRUD) framework with a comprehensive Planned Development (PD) ordinance that accommodates residential, commercial, and mixed-use development, while aligning with current Utah land use law and statewide development practices.

Applicable Ordinances

Riverdale City Zoning Ordinance Title 10 Chapter 22: Planned Residential Unit Development (PRUD)
https://library.municode.com/ut/riverdale_city/codes/city_code?nodeId=TIT10ZOSURE_CH22PLREUNDEPR

Executive Summary

Riverdale City's existing PRUD ordinance was drafted in 2007 and amended in 2009 and 2012 primarily for residential-only projects and reflects development standards and regulatory approaches that are no longer well aligned with modern master-planned communities, mixed-

use development patterns, or current Utah Code (LUDMA) requirements. The proposed PD ordinance:

- Modernizes and consolidates planned development regulations into a single, flexible framework;
- Expands applicability to residential, commercial, and mixed-use development;
- Establishes objective, enforceable standards for private streets, utilities, landscaping, materials, parking, and design;
- Clarifies administrative review authority, approval criteria, and amendment procedures;
- Aligns density and phasing standards with transportation capacity and infrastructure impacts; and
- Provides clearer long-term maintenance and ownership requirements for common facilities, private roads, and utilities.

Collectively, these changes improve predictability, clarity, and legal defensibility, while supporting high-quality development consistent with the Riverdale City General Plan and the economic needs of the city.

The proposed amendment is necessary for the following reasons:

- **Outdated PRUD Framework:** The existing ordinance is narrowly tailored to residential development and does not adequately address contemporary mixed-use or phased master-planned projects.
- **Alignment with Utah State Law**: Utah Code Title 10, Chapter 20 requires land use regulations to rely on objective standards, administrative approval where appropriate, and clear maintenance responsibilities. The revised PD ordinance better reflects these statutory expectations.
- **Private Infrastructure and Streets**: Increasingly, planned developments include private streets and utilities. The proposed ordinance establishes clear standards for approval, ownership, maintenance, and enforcement.
- **Consistency with Ongoing Title 10 Updates:** This amendment is designed to integrate with Riverdale City's broader comprehensive update to Title 10, ensuring consistency across zoning, subdivision, and development regulations.

Utah municipalities commonly adopt PD/PUD ordinances that:

- Allow flexibility from base zoning standards while maintaining overall density and intensity caps;
- Tie density and phasing to transportation impacts and infrastructure capacity;
- Permit private streets and utilities subject to recorded maintenance agreements;
- Require integrated design standards for parking, loading, signage, landscaping, and architecture; and
- Ensure long-term maintenance of common facilities through legally enforceable mechanisms.

The proposed ordinance reflects these established practices.

Analysis and Draft Code Language

See attached draft code language, proposing Red Text as new language and ~~Strike Through Text~~ to be eliminated.

Procedural Standards

Under Utah Code Title 10, Chapter 20, the City Council shall evaluate text amendments based on the following procedural standards:

1. **Legislative Authority**
    - The City Council is the municipal legislative body authorized to adopt, amend, or repeal land use ordinance text.
2. **Planning Commission Review**
    - The proposed text amendment was referred to the Planning Commission for review.
    - The Planning Commission provided required public notice, held a public hearing, and forwarded a recommendation to the City Council.
3. **Notice Requirements**
    - Notice of the proposed amendment and City Council consideration was provided in accordance with Utah Code and applicable local notice provisions.
4. **Public Participation**
    - The Planning Commission conducted a public hearing on the proposed amendment.
    - The City Council considered the amendment at a public meeting and received public input.
5. **Consideration of Recommendation**

- The City Council considered the Planning Commission's recommendation prior to taking legislative action.

Planning Commission Recommendation

The General Plan is a resident-driven vision for the City and its future. The Planning Commission considered, among other things, whether the proposed PD ordinance is in conformance with the Riverdale City General Plan based on the following criteria:

1. **Land Use Compatibility**
   The ordinance supports compatible transitions between residential, commercial, and mixed-use areas and promotes cohesive site design.
2. **Efficient Use of Land and Infrastructure**
   The PD framework encourages compact, coordinated development patterns that maximize infrastructure efficiency and open space preservation.
3. **Transportation and Mobility Goals**
   Density and phasing standards are tied to transportation capacity, traffic safety, and multimodal circulation, consistent with General Plan transportation objectives.
4. **Quality Design and Community Character**
   The ordinance emphasizes architectural quality, integrated site design, landscaping, and placemaking consistent with Riverdale's desired community character.
5. **Implementation Tool**
   The PD ordinance functions as an implementation mechanism for the General Plan by translating policy direction into enforceable development standards.

Based on its review and a public hearing held on December 23, 2025, the Planning Commission forwards a positive recommendation to the City Council for adoption of the proposed amendments, subject to modifications requiring that specified amenities be installed during the first phase of any phased development and clarifying that the minimum site area is three (3) acres for residential development and five (5) acres for commercial development, as set forth in Section 2.b of the proposed amendment.

Following the presentation and discussion of the proposal, the City Council may make:

1) a motion to **APPROVE** the amendments to RCC 10-22 as presented
2) a motion to **APPROVE WITH MODIFICATIONS** the amendments to RCC 10-22

3) a motion to **DENY** the amendments to RCC 10-22
4) a motion to **TABLE** the matter to a later date

Staff Recommendation

Staff recommends the City Council adopt the proposed amendments.

Attachments:
Original Code
Redlined Code Amendments

~~CHAPTER 22 PLANNED RESIDENTIAL UNIT DEVELOPMENT (PRUD)~~

~~10-22-1: PURPOSE:~~

~~A. To provide the city with flexibility in the approval of residential development projects by tailoring development standards and requirements to the unique features of a particular development site. To this end, the development should be planned as one complex land use rather than an aggregation of individual, unrelated buildings located on separate lots.~~

~~(Ord. 677, 3-6-2007)~~

~~10-22-2: ELIGIBILITY:~~

~~Persons with a legal or equitable interest in the property that is being considered for development in site specific areas of the city as depicted on the Riverdale City land use master plan map.~~

~~(Ord. 677, 3-6-2007)~~

~~10-22-3: PRUD DEFINED:~~

~~A "PRUD" is a conditional use master planned, architecturally designed development in which the regulations of the underlying zone, where the development is proposed, may be negotiated and modified to allow flexibility and initiative in site and building design and location, in accordance with an approved PRUD plan and requirements of this chapter.~~

~~(Ord. 677, 3-6-2007)~~

~~10-22-4: GENERAL REQUIREMENTS:~~

~~All PRUD developments are a conditional use. All agreements and exhibits shall be reviewed by the planning commission and approved by the city council and shall be specific and contain in the overall development plan, the following:~~

~~A. Time Limit: Time limit for completion of development.~~

~~B. Description: Description of the property.~~

~~C. Allowed Uses:~~

~~Parks/maintainable, usable open space.~~

~~Recreation facilities (clubhouse).~~

~~Single-family dwelling.~~

~~Swimming pool.~~

~~Other uses which provide a service only to the residents of the PRUD.~~

~~D. Welfare: Public health, safety and general welfare shall be observed.~~

1. Emergency vehicle access must be provided during all phases of the project from inception through completion.

E. Density: Per acre density of dwelling units.

F. Construction Requirements:

1. City engineering standards shall apply for the following infrastructure and when completed shall be dedicated to Riverdale City:

a. Streets: The street width along with sidewalk and park strip requirements will be reviewed by the public works and fire departments for their recommendation to the planning commission. The minimum width of all dedicated streets within the PRUD shall be no less than fifty feet (50'); this includes the asphalt driving surface, curbs and gutters, landscaped park strips, sidewalks and a one foot (1') strip of land on the private property side of the sidewalks.

b. Sewer: Sewer main trunk lines and manholes shall be dedicated to and maintained by Riverdale City. All service lateral lines are owned and maintained by the PRUD association or each individual property owner in the PRUD.

c. Water: All water meters, water main lines, service lines on the street side of the meters and fire hydrants will be owned and maintained by Riverdale City.

d. Stormwater: All stormwater lines and inlet boxes in the street right-of-way.

2. Information provided to Riverdale City to include, but not be limited to:

a. Geotech report.

b. Traffic study, as required by the city engineer and public works director when the scope, location, and density of the development or other factors deem it necessary.

c. Sensitive land study (wetlands).

G. Setbacks: No rear yard setback of any dwelling within the PRUD shall be closer than twenty feet (20') to the adjacent zone boundary or property outside of the PRUD. All other building setbacks shall comply with the minimum requirements of the building code unless it is the determination of the planning commission that greater setbacks are necessary to provide for open space areas or for access or aesthetic reasons.

All building setbacks shall be reviewed and approved by the planning commission.

H. Landscaping: All landscaping shall visually enhance and complement the overall development and be installed and maintained in conformance with a landscape plan, which has been approved by the planning commission and city council. A minimum of fifty percent (50%) of the entire development shall be open green space/landscaping.

I. Screening:

1. Requirement for fencing/screening shall be reviewed by the planning commission for view and safety.

J. Usable Open Space: Open space, apart from sensitive areas.

1. Usable Open Green Space: A planned open area suitable for relaxation, recreation or landscaping which may be held in common or private ownership, provided that all residents of the development shall have a right to enter and use the open space. It should be unoccupied and unobstructed by buildings and hard surfaces such as asphalt or concrete, except that such open

green spaces may include walkways, patios, recreational activity areas, picnic pavilions, gazebos and water features.

K. Parking: The minimum length of individual driveways from front property line to the wall of the dwelling or garage shall be no less than twenty-four feet (24'). There shall be a minimum of two (2) exterior parking spaces per unit. Visitor parking will be evaluated and requirements imposed by the planning commission for all detached dwelling types within a PRUD. For attached townhouse or condominium type development there shall be one visitor parking stall for every two (2) units or fraction thereof.

L. Architectural Design:

1. Square footage (lots and homes); if individual dwelling lots are common area, the site plan must represent all common areas that are owned by the PRUD homeowners' association.

2. Parking area, enclosed or open.

3. Exterior coverings: There shall be a minimum of forty percent (40%) of brick or rock, and painting of an exterior building element is prohibited.

M. Layout: Development layout on site plan identifying the location and arrangement of all allowed uses and improvements.

1. Provide information and identify why it is suitable as a PRUD.

N. Financial Ability:

1. Provide ability to financially carry out the proposed project within the time limit established.

2. Provide an escrow for all the city improvements and no escrow will be released until the project is completed.

3. An independent finance person or company shall be responsible for the association dues assessed by the association for maintenance and improvements to common areas.

4. All PRUDs will be licensed yearly by the city with the PRUD's balance sheet and income statement provided with yearly application.

O. Schedule: Phasing schedule and timing for the provisions of all features, dedications and improvements:

1. If project is approved to be done in phases, each phase will be completed before the next phase is started.

2. Clubhouse and amenities will be completed in first phase.

P. Review: Review and approval of association's CC&Rs (conditions, covenants and restrictions).

Q. Other: Other conditions, terms, restrictions and requirements for subsequent actions and approvals as stipulated during the review or public hearing process.

(Ord. 733, 5-5-2009)

10-22-5: SPECIFIC REQUIREMENTS:

A. Ownership: The development may be in single or corporate ownership or the application filed jointly by the owners of the property.

B. Yard Requirements: The property adjacent to the planned residential unit development shall not be adversely affected and to this end, the planning commission may require, in the absence of appropriate

physical boundaries, that uses of least intensity or greatest compatibility be arranged around the boundaries of the project. Yard requirements for setbacks and spacing distances between dwellings shall be approved by the planning commission and subject to the review and requirements of fire department and building department and shall comply with the following:

1. No rear yard setback of any dwelling within the PRUD shall be closer than twenty feet (20') to adjacent zone boundary or property outside of the PRUD.

C. Site Development Standards; Signs: Site development standards and sign regulations shall be determined by approval of the site development plan.

D. Open Space: The city council, upon recommendation of the planning commission, may require the preservation, maintenance and ownership of open space utilizing, at the city's option, one of the following methods:

1. Dedicating the land as a public park or parkway system; or

2. Granting to the city a permanent open space easement on and over the said private open spaces to guarantee that the open spaces remain perpetually in recreational use, with ownership and maintenance being the responsibility of a homeowners' association established with articles of association and bylaws which are satisfactory to the city; or

3. Complying with the provisions of the condominium ownership act of 1953, Utah Code Annotated title 57, chapter 8, which provides for the payment of common expenses for the upkeep of common areas and facilities. Recreation uses and facilities may be developed within the common open space areas in compliance with a recreation and landscaping plan approved as part of the approved final development plan of the planned residential unit development.

4. If the second or third method, as set forth above, is utilized to maintain the open spaces, but the organization established fails to maintain the open spaces in reasonable order and condition, the city may, at its option, do or contract to have done the required maintenance and shall assess ratably the open space and individually owned properties within the planned residential unit development. Such assessment shall be a lien against property and shall be filed with the county recorder, or the city may initiate appropriate legal action to collect the maintenance fees, together with reasonable attorney fees and costs.

E. Guarantee: The developer shall be required to provide an escrow in an amount determined by the community development director guaranteeing the completion of the development of the open space, or a phase thereof. When completed in accordance with the approved plan, the bond shall be released. If uncompleted at the end of two (2) years, the community development director will review the progress and may proceed to use the escrow to complete required improvements.

F. Subdivisions: If the planned residential unit development is to be subsequently divided either as a "subdivision" into a phase development parcel or into separately owned and operated units, such division boundaries shall be indicated in the development plan and preliminary subdivision approval concurrently obtained in the case of a "subdivision".

G. Applicability of Subdivision Regulations: The subdivision ordinance, chapter 21 of this title, as it now or hereafter may exist applies to all developments.

H. Adaptable Area: The area shall be adaptable to a unit type development and shall not contain within or through it any ownership or physical barrier which would tend to impair the unit cohesiveness.

I. Accessory Amenity Uses: Accessory amenity uses may be included in planned residential unit developments as a necessary service to residents of the development as determined by the planning commission, provided agreements and restrictive covenants controlling the proposed uses, ownership, operational characteristics

and physical design to the city's satisfaction are filed by and entered into by the developer to ensure that the approved necessary service is maintained.

J. Changes; Alterations: Once the overall development plan showing details of buildings, structures and uses has been approved by the city council after recommendations of the planning commission, no changes or alterations to such development plans or uses shall be made without first obtaining approval of the community development director. The community development director may require changes to be approved by the planning commission and council.

(Ord. 677, 3-6-2007; Ord. 815, 9-25-2012)

10-22-6: PUBLIC HEARINGS:

A public hearing shall be held to receive input regarding the PRUD proposal by the planning commission and a recommendation forwarded to the city council. The required notice shall be the notice required by the regular planning commission meeting.

(Ord. 677, 3-6-2007)

10-22-7: FORM AND CONSISTENCY:

A PRUD application may be approved by the city council by ordinance following the receipt of the planning commission recommendation with a finding that the development is consistent with the goals of the city.

(Ord. 677, 3-6-2007)

10-22-8: APPLICABLE PROVISIONS, REGULATIONS AND POLICIES:

Unless otherwise modified by written agreement by the city council all provisions, regulations and policies governing the uses of the land, density, design and improvements and construction standards and specifications and all other requirements and regulations of the zone in effect at the time of the execution of the PRUD application shall apply. A PRUD application shall not prevent the city from subsequent actions applicable to the property that is the subject of a PRUD application from applying any new provisions or regulations that do not conflict with those contained within the PRUD application.

A. Substantial compliance with zone regulations and other provisions of this title in requiring adequate standards related to the public health, safety and general welfare shall be observed, without unduly inhibiting the advantages of large scale site planning for residential and related purposes.

(Ord. 677, 3-6-2007)

10-22-9: AMENDMENTS OR CANCELLATIONS:

A PRUD application may be amended or canceled in whole or in part by mutual consent of the parties or their successors.

(Ord. 677, 3-6-2007)

~~10-22-10: RECORDING OF A PRUD SUBDIVISION:~~

~~After the city council approves a PRUD application, the city recorder shall record the PRUD subdivision as approved in the office of the Weber County recorder. The recorded copy of the PRUD subdivision shall be considered the official copy. The benefits, rights and obligations of the PRUD subdivision shall be binding upon all successors to the original parties.~~

~~(Ord. 677, 3-6-2007)~~

~~10-22-11: MODIFICATIONS OR SUSPENSION TO COMPLY WITH STATE OR FEDERAL LAWS:~~

~~In the event that federal or state laws or regulations, enacted after the adoption of a PRUD subdivision, prevent or preclude compliance with one or more provisions of the subdivision, such provisions of the subdivision shall be modified or suspended as may be necessary to comply with such federal and state laws or regulations.~~

~~(Ord. 677, 3-6-2007)~~

Title 10 – Chapter 22: Planned Development (PD)

This section calls for substantial compliance with the intent of the General Plan and regulations of this title and other provisions of this code related to the public health, safety, and general welfare, but also offers the advantages of large-scale planning for residential, commercial, and mixed-use development in order to encourage innovative, efficient, and high-quality development and use of land.

(1) ***Purpose.*** The purpose of the planned development is:

a. To encourage a quality environment and unique sense of place through greater flexibility of design than is possible solely through the typical application of base zoning regulations.

b. To encourage a more efficient use of the land and the preservation of greater proportions of open space for recreation and visual use than is otherwise provided for in the base zoning regulations.

c. To encourage good architectural design and placemaking measures by utilizing a variety of building types and site arrangement plans to give imagination, uniqueness, and variety in the physical pattern of the development.

(2) ***Applicability.***

a. Eligible Zones. Planned developments may be applied to property located in the following zoning districts: R-1-8, R-1-10, R-2, R-3, C-1, C-2, C-3, CP-1, CP-2, CP-3, M-U.

b. Minimum Site Area.

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1. Residential or predominantly residential PDs shall contain a minimum of three (3) contiguous acres under unified ownership or control.

2. Commercial, mixed-use, or predominantly nonresidential PDs shall contain a minimum of five (5) contiguous acres under unified ownership or control.

3. The Administrative Land Use Authority may waive the minimum acreage requirement for sites that demonstrate exceptional urban design, connectivity, or redevelopment merit.

c. Approval Authority. All planned developments require:

1. 1. Planning Commission review, public hearing, and recommendation; and

2. 2. City Council legislative approval and adoption by ordinance.

d. Relationship to Base Zoning. Upon approval, the PD ordinance and recorded PD development plan and associated agreements supersede conflicting base zoning standards for the subject property. Where the PD is silent, base zoning standards apply.

(3) ***Design Objectives for Planned Developments****.* Every planned development shall be designed to achieve the following design objectives:

a. Provide for a comprehensive and harmonious arrangement of buildings, open spaces, circulation ways, parking, connections, and development amenities.

b. Be related to existing and proposed land use and circulation plans of the community and not constitute a disrupting element in the neighborhood.

c. The internal street system and pedestrian connections should be designed for the efficient and safe movement of vehicles without disrupting pedestrian circulation, activities, functions of the common areas and open space.

d. Open space and recreation areas and facilities should be located adjacent to dwelling units or be easily accessible therefrom.

e. Architectural features, connections, open space and recreational areas should be the focal point for the overall design of the development.

(4) ***Development Requirements***. To be approved, a planned development project must show a high commitment to excellence, ensuring better quality of life for future visitors, employees, or tenants and be compatible with adjacent developed areas. The following are required for all planned development projects:

a. ***Ownership***. At the time of application, the subject property shall be owned by the applicant, or the application shall include a duly executed owner's affidavit authorizing the applicant to act as the owner's representative for purposes of submitting and processing the application. If the property is held in multiple ownership, the application shall be filed jointly by all owners or shall include an owner's affidavit from each owner granting such authorization.

b. ***Open Space***. Unless otherwise approved by the Administrative Land Use Authority, common and private open space shall be provided and shall not cover less than 20 percent of the gross site area. The required open space shall be land areas that are not occupied by buildings, structures, parking areas, street right-of-way, or alleys and shall be accessible by the residents. Said open space shall be devoted to landscaping, preservation of natural features, trails, patios, and recreational areas. Private open space (that provide for a dwelling unit for personal use) shall be located immediately adjacent to, attached to, or within the dwelling unit it is designed to serve and shall be for the exclusive use of the residents of the dwelling unit. Common open space must constitute at least one quarter of the required open space. It may be distributed throughout the planned development and need not be in a single large area. Landscaped roof areas or decks attached to individual units may not be calculated as part of required common open space. Open space within a hillside or slope area may only be included as open space when they have been designed as an integral part of the project, as enumerated in subsection 10-22-3 above.

c. ***Interior Streets***. The design of public streets within a planned development shall follow City standards for width of right-of-way and construction. Private streets within a planned development may be approved under alternative street standards, as approved by the City Engineer, Public Works Director, and the Administrative Land Use Authority. Such alternative street standards may include reduced street widths, modified cross-sections, and alternative sidewalk or park strip configurations, in lieu of standards subdivision requirements. Alternative street standards may only be approved for private streets and access drives with internal circulation serving the planned development. Alternative street standards shall not apply to public streets. Alternative street standards shall be approved if the applicant demonstrates, through objective evidence, that:

1. The proposed street design will safely accommodate anticipated traffic volumes; and
2. Emergency vehicle access and operations comply with adopted fire and building codes, as verified by written approval from the fire chief, fire marshal, or the authority having jurisdiction; and
3. The proposed design does not impair public safety or access to the development or adjacent properties; and
4. The alternative standards are consistent with the purpose and intent of the PD.
5. If conflicts arise between reviewing authorities regarding alternative street standards, the most restrictive standard shall apply unless the City Manager determines otherwise in writing with specific findings.

The interior street system in a planned development project shall be dedicated to the City as a utility easement. All private streets shall be conveyed to a private home-owner's association. The original developer/builder will also be required to establish a city-approved road maintenance fund for all private streets. This provision will be required in the CC&Rs for all projects with a private street system.

All streets approved as part of an original or amended planned development plan shall remain open and accessible at all times and shall not be gated, barricaded, or otherwise closed, except as

temporarily required for construction, maintenance, or emergency purposes as approved by the City.

d. ***Parking.*** The minimum parking requirements outlined in this Code shall be adhered to except as allowed below:

1. All parking areas, covered or open, shall have a landscaped buffer adjacent to any public right-of-way.

2. The Administrative Land Use Authority may consider the following criteria in determining whether or not the number of garages/carports/parking stalls should be increased or reduced:

(i) The topography of the proposed site.

(ii) To enhance and protect local property values of adjacent developments and neighborhoods.

(iii) To improve the overall appearance of the development or the density of units.

(iv) Review the location of all garages/carports/parking stalls and may require that they be attached or underground for any multifamily units. All covered parking shall be placed in locations adjacent and convenient to the buildings that they are intended to serve.

(v) To assist the project in reaching affordable rent levels for low- and moderate-income individuals as determined by the U.S. Department of Housing and Urban Development.

e. ***Building Materials and Design Standards***. Building materials, roofing materials, and overall building design shall be reviewed for compliance with the objective standards of this section by the Community Development Director. The Administrative Land Use Authority shall approve or deny building materials based on compliance with the standards set forth in this chapter.

1. Primary Building Materials: Primary exterior building materials shall be limited to materials that meet recognized durability, fire resistance, and weather performance standards, including masonry materials such as:

(i) brick, stone, split-faced or honed-face block;

(ii) architectural metal panels with factory applied corrosion resistant finishes;

(iii) large-format glazing or storefront;

(iv) architectural concrete; and

(iv) composite and cementitious materials.

Primary materials shall constitute a minimum of sixty percent (60%) of each building façade visible from a public right of way or common open space.

2. Secondary Building Materials: Secondary or accent exterior materials may be used in combination with primary materials and may include:

(i) exterior grade wood or engineered wood products treated or finished for exterior exposure;

(ii) stucco systems;

(iii) non-structural metal elements.

Secondary materials shall not exceed forty percent (40%) of any individual building façade and shall not be used as the dominant exterior finish.

3. Prohibited Materials: The following materials are prohibited as primary or secondary exterior finishes on buildings visible from public rights-of-way or common open space:

(i) vinyl siding;

(ii) plywood;

(iii) reflective or mirror-finish panels or glass;

(iv) exterior insulation and finish systems (EIFS) without a drainage plane and ASTM-compliant impact resistance; and

(v) standard CMU concrete block.

Roofing materials shall comply with the International Building Code (IBC**)** and applicable ASTM standards for asphalt shingles and metal roofing, or equivalent performance standards.

4. Illustrative Façade Standards: To ensure building elevations incorporate material variation, articulation, and human-scale design, consistent with the objective material requirements of this chapter, all commercial, multi-family residential, and mixed-use building façades visible from a public right-of-way, private street, or common open space shall comply with the following standards. Compliance with these façade standards shall be determined through elevation drawings submitted with the development application:

(i) Horizontal Articulation: a visible change in plane, material, or architectural feature shall occur at intervals not exceeding 40 feet along the façade. Acceptable articulation methods include recesses or projections with a minimum depth of 18 inches, material changes meeting the primary/secondary materials standards, balconies, bay windows, or architectural offsets.

(ii) Vertical Articulation: building exceeding 2-stories shall incorporate a visual break between the ground floor and upper floors through a change of material, horizontal band, cornice, or belt course, or a minimum 12-inch horizontal offset.

(iii) Base-Middle-Cap Composition: building facades shall be designed using a base-middle-cap composition. The Base (ground floor) shall consist primarily of primary exterior building materials, shall include increased transparency, texture, and architectural detailing, and parking podiums or exposed foundations shall be clad with approved primary materials. The Middle (upper floors) may include a combination of primary and secondary materials and shall align vertically with openings and structural bays where feasible. The Cap (roofline/upper termination) shall include a parapet, cornice, stepped massing, or material transition to visually terminate the structure, with flat roof parapets having a minimum height of 24 inches.

(iv) Fenestration Standards: In commercial and multi-family buildings, a minimum of 25% of the ground -floor façade area facing the public right-of-way or common open space shall consist of windows or glazed doors. Windows shall be vertically proportioned or grouped to create consistent spacing.

(v) Mechanical and Service Screening: Rooftop equipment shall be screened from view using parapets or architectural screening integrated with the building design. Ground-mounted equipment shall be screened using materials consistent with the building façade or approved landscape screening.

f. ***Landscaping and Coverage Requirement.*** Where a planned development abuts a public right-of-way, a permanent landscaped area with a minimum width of twelve (12) feet shall be provided along the property line adjacent to the right-of-way. In addition, all required landscaped areas located on public and private property within the planned development shall be subject to the standards of this section and the landscaping regulations of the Riverdale City Code, as amended. All such landscaped areas shall be kept free of buildings and structures, except for fences, walls, or similar features expressly permitted by this title or otherwise approved by the Administrative Land Use Authority. Landscaped areas shall be permanently maintained and planted with a

combination of street trees, shrubs, groundcover, and other approved plant materials, and may be screened or protected by natural features where appropriate. At maturity, a minimum of seventy-five percent (75%) of the total required landscaped area shall be covered by living plant material, including tree canopy, shrubs, and groundcover, as demonstrated on an approved landscape plan. Decorative hardscape, gravel, or non-living materials may be used as accent features but shall not exceed twenty-five percent (25%) of the landscaped area. All landscaping shall be installed prior to issuance of a certificate of occupancy, or secured through an approved financial guarantee, and shall be maintained in a healthy, growing condition in perpetuity in accordance with this code.

g. ***Exterior Fencing***. Exterior fencing shall be provided as approved by the Administrative Land Use Authority. Acceptable fencing materials include architecturally designed brick or block fences, wrought iron fences, post and rail fences, vinyl fences, pre-cast concrete, or structural wood fences with square metal posts with tongue-in-groove redwood siding and redwood for all other wood members. Chain link fencing is prohibited.

h. ***Streetlights***. Appropriate street lighting is required. If the streets are to be dedicated to the public, the lights shall comply with the city's street light standards and specification. If the streets are private, the lights may be altered but must be approved by the Administrative Land Use Authority. The applicant shall submit a plan which indicates the type and location of streetlights in relation to the proposed site landscaping.

i. ***Utilities***. Within an approved PD, the following privately owned utility systems may be permitted, provided they are located wholly within the PD and comply with this title:

1. Water systems, including distribution mains and service laterals;
2. Sanitary sewer systems, including collection mains, laterals, and appurtenances;
3. Storm drainage systems, including pipes, inlets, detention or retention facilities;
4. Natural gas systems;
5. Electrical power systems
6. Communications systems, including telephone, cable, and data infrastructure
7. Private utility systems within a PUD may be approved by the Administrative Land Use Authority upon finding that:
    (i) The utilities are designed and constructed in accordance with city engineering standards, applicable state and federal regulations, and requirements of the applicable utility service provider;
    (ii) The utilities will not adversely affect public systems or properties outside the PD;
    (iii) Adequate easements (minimum 15-foot width for water/sewer, 10-foot width for storm drainage) are provided to ensure access for operation, inspection, emergency response, and maintenance;
    (iv) Ownership and long-term maintenance responsibility are legally secured through CC&R's, HOA documents, or similar instruments approved by the City Attorney in accordance with state law; and
    (v) An improvement guarantee acceptable to the City Engineer and City Attorney is posted in the amount equal to 110% of the estimated replacement cost of the private utility infrastructure, to be held for a minimum of two (2) years following completion and final acceptance by the City.
8. Future Public Connection Capability. All private utility systems shall be designed to allow future connection to public utility systems. Connection costs shall be borne by the property

owner(s) or HOA if public systems become available or if the private system fails to meet performance standards.

9. Maintenance Failure Remedy. If the HOA or property owner fails to adequately maintain private utilities resulting in public health, safety, or environmental violations, the City may, at its sole discretion and in accordance with Riverdale City Code and Utah state law:

    (i) Perform necessary maintenance and assess costs proportionally against benefited properties; or

    (ii) Require connection to public systems at property owner(s) expense; or

    (iii) Initiate foreclosure on recorded covenants or liens securing maintenance obligations.

Private utility systems connected to Riverdale City infrastructure shall be maintained, cleaned, and serviced at a frequency and to a standard equivalent to those applied to comparable City-owned utility systems, unless otherwise approved by the Public Works Director in accordance with adopted operation and maintenance standards.

All backflow prevention devices located within the planned development shall be maintained by the responsible association and shall be inspected annually by a certified tester. Inspection reports shall be submitted to Riverdale City in accordance with City standards.

All privately owned fire hydrants within the planned development shall be tested and inspected annually in accordance with Fire Department and adopted fire code standards. Documentation of such testing shall be provided to Riverdale City upon request.

(4) ***Development Standards.***

a. ***Required Elements.*** Planned developments shall be guided by a comprehensive design plan in which the following development standards may be varied to allow flexibility and creativity in site design, building design, and location. The Administrative Land Use Authority may require such arrangements of structures, open spaces, landscaping, buffering, and access within the site development plan as they determine appropriate. The Administrative Land Use Authority may require specific setbacks, a higher or lower residential density, and a height limitation. These criteria shall be used by the Administrative Land Use Authority principally to ensure the design objectives in this section of this chapter are met.

1. ***Feasible Development.*** A planned development shall be of sufficient size, composition, and arrangement to enable its feasibility as a complete development, in accordance with the minimum site area set forth in this chapter.

2. ***Density***. Within a planned development, development may occur in one or more phases. The density of any individual phase, whether residential, commercial, or mixed-use, shall be permitted to vary from the base zoning standards applicable to the site, provided that the overall density and intensity of the entire planned development do not exceed the maximum density, floor area, or trip generation assumed or permitted by this title or approved PD development plan. Residential density within any single phase may exceed or be less than the base zoning density, and commercial or mixed-use phases may be developed at varying intensities, so long as the cumulative development across all phases remains in compliance with the approved PD density calculations, transportation assumptions, and public utility capacity. Density transfers between phases may be permitted where such transfer does not increase net trip generation beyond approved limits listed on the approved PD plan and supported by adequate infrastructure and access.

3. ***Site Calculations.*** Specific calculations addressing the percentage of open space (common and private), impervious versus pervious coverage, and site improvements must be submitted with all project applications.

4. ***Lot Requirements.*** No specific yard, setback, or lot size requirement shall be imposed in the planned development. However, the purpose and objectives of this chapter must be complied with in the final development plan. The Administrative Land Use Authority may require certain setbacks within all or a portion of the planned development.

5. ***Building Height.*** No residential structure shall exceed a maximum of thirty-five (35) feet to the peak of roof from average finished grade. No commercial, multi-family, or mixed-use structure shall exceed a maximum of fifty (50) feet to the peak of roof from average finished grade.

6. ***Traffic Circulation.*** Points of primary vehicular access to the planned development shall be designed to provide smooth traffic flow with controlled turning movements and minimum hazards to vehicular, pedestrian, and bicycle traffic. Minor streets within the planned development shall not be connected to streets outside the development in such a manner as to encourage their use by through traffic. Adequate emergency vehicle access shall be provided.

7. ***Driveways and Alleys.*** A private driveway or alley must comply with all established standards in this code.

8. ***Privacy.*** Each planned development shall provide reasonable visual and acoustical privacy for dwelling units. Fences, insulation, walks, barriers, landscaping, and sound-reducing construction techniques shall be used as appropriate for the aesthetic enhancement of the property, the privacy of its occupants, the screening of objectionable views or uses, and the reduction of noise.

9. ***Noise Attenuation.*** When, in the opinion of the community development director, a proposed planned development may be situated in a noisy environment which will adversely affect the peace, tranquility, and privacy of its inhabitants or surrounding inhabitants, an acoustical analysis may be required. Said analysis shall be conducted by a qualified acoustical engineer and include a description of the noise environment and the construction or other methods necessary to attenuate the noise to the required level according to the noise standards of this code.

10. ***Security.*** The development shall be designed to support security services and measures, taking into account public safety recommendations from the Riverdale City Police Department.

11. ***Pedestrian and Bicycle Paths.*** Where appropriate, the internal circulation system shall provide pedestrian and bicycle paths which may be physically separated from vehicular traffic to serve residential, nonresidential, and recreational facilities in or adjacent to the development. The Administrative Land Use Authority may require connections to regional trail systems, activity centers, pedestrian and/or bicycle overpasses, underpasses, or traffic signalization in the vicinity of schools, playgrounds, parks, shopping areas, or other uses that will receive considerable pedestrian and/or recreational trails use from the development.

b. ***Desirable Amenities.*** The following are desirable amenities or design options which may be required by the Administrative Land Use Authority depending on the size, scale, impacts, and nature of each individual planned development project:

1. Increase in common or private open space above the 20 percent minimum, particularly when the project contains significant non-buildable open space.

2. Creation of significant public or private recreation or site amenities, including, but not limited to, clubhouse, pool, sport courts, playgrounds, play fields, trails, and nature areas.

3. Additional project landscaping and open space may be deemed appropriate.

c. ***Construction of Private Amenities in Phase 1.*** All public and private amenities proposed, required, or relied upon as part of the planned development approval shall be fully constructed,

completed, and ready for use no later than the completion of Phase 1 of the development, as defined in the approved phasing plan, and prior to issuance of any certificate of occupancy for Phase 1, expect as provided for in this chapter.

d. ***Improvement Completion Assurance in Lieu of Phase 1 Construction.*** The City may approve deferral of construction of one or more public/private amenities beyond Phase 1 only if the applicant provides an improvement completion assurance in compliance with Utah Code Title 10, Chapter 20 and this code. The improvement completion assurance shall secure the full and timely construction of the deferred private amenities in accordance with the approved plans and phasing schedule. The improvement completion assurance shall be in an amount equal to one hundred ten percent (110%) of the estimated cost to fully construct the deferred public/private amenities, including labor, materials, mobilization, contingency, and all improvements necessary for the amenities to function as approved. Cost estimates shall be prepared by the applicant's licensed engineer or supported by qualified contractor bids and are subject to review and approval by the City Engineer or designee. The improvement completion assurance shall be provided in a form authorized by Utah law and acceptable to the City, which may include a surety bond, letter of credit, bank escrow, or other equivalent security. If public/private amenities are not fully constructed and accepted prior to Phase 1 occupancy, the required improvement completion assurance shall be submitted and approved before issuance of the first building permit within Phase 1, or at an earlier time specified in the approved phasing plan or development agreement. Failure to comply with this section may result in withholding of building permits or certificates of occupancy, to the extent authorized by law and consistent with the approved phasing plan

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e. ***Partial Release.*** The City shall maintain a system for partial release or reduction of the improvement completion assurance as public/private amenities, or separable components thereof, are completed, inspected, and verified for compliance with the approved plans. If the applicant fails to complete the deferred public/private amenities within the approved timeframe, the City may draw upon the improvement completion assurance to complete the improvements or cause them to be completed, including reasonable administrative costs.

Nothing in this section shall be construed to require dedication of private amenities to the City or acceptance of ownership or maintenance responsibility by the City.

(5) ***Nonresidential Uses.***

a. Noncommercial, nonresidential uses of a religious, educational, or recreational nature shall be designed primarily for the use of the residents of the proposed planned development. The applicant shall submit as part of the preliminary development plan such evidence to substantiate the request for such use as the community development director may require.

b. Nonresidential, commercial, and mixed-use uses may be permitted within a planned development where such uses are designed to function as an integrated component of the overall development and are compatible with surrounding residential and nonresidential uses. Such uses may serve residents of the planned development, the surrounding community, or both, as identified in the approved PD development plan. The location, scale, and design of nonresidential and mixed-use development shall be arranged to minimize conflicts with residential uses and shall address potential impacts related to traffic circulation, access, loading, noise, lighting, and other operational characteristics. Loading areas, service functions, and refuse storage shall be screened and oriented away from residential uses and public view to the extent practicable and designed to avoid safety hazards or operational conflicts. Nonresidential and mixed-use development shall be located and accessed in a manner that does not create traffic congestion or safety hazards within or adjacent to the planned development. Vehicular, pedestrian, and bicycle circulation shall be coordinated to promote safe and efficient movement, including shared access points and internal connections where appropriate.

d. Parking, signage, lighting, landscaping, service areas, buffers, entrances, and exits shall be designed as integrated elements of the planned development and shall be compatible in scale,

materials, and placement with the overall character and design of the project. Shared parking arrangements may be permitted where supported by documented demand analysis and internal circulation design.

e. The architectural character, site layout, and design features of nonresidential and mixed-use development shall be consistent with the approved PD development plan and shall contribute to a cohesive, high-quality development pattern, while allowing variation in use and intensity appropriate to the planned development context.

(6) ***Maintenance of Common Facilities.***

a. A planned development shall be approved subject to the submission and approval of legal instruments setting forth a plan or manner of permanent care and maintenance of all common open space and other facilities provided in the approved development plan. No such instrument shall be acceptable until approved by the City Attorney as to legal form and effect, and the Administrative Land Use Authority as to suitability for the proposed use of the common open space and subject facilities.

b. The common open space and other facilities provided may be conveyed to a public agency or private association. The common open space, private utilities, recreational facilities, and private streets (including a road maintenance fund established by the original developer/builder) conveyed to a private association shall include, as part of the aforementioned instruments, a declaration of covenants and restrictions that will govern the association and shall require maintenance of any common facilities. The provisions shall include, but not be limited to, the following:

1. The private association must be established prior to the sale or rental of any unit.
2. Membership must be mandatory for the original buyer and any successive buyers of a unit in a planned development, whether or not the unit is owner occupied or rented.
3. The private association must be responsible for liability insurance, local taxes (if any), the maintenance of common open space and other facilities, rules and regulations outlining the powers, enforcement authority, and limitations of the association.
4. Each member of the association shall be assessed a pro rata share of the costs incurred by the association, and the association shall have the power to collect those costs.

c. The Administrative Land Use Authority may also require dedication of scenic easements to ensure open space shall be maintained. In the event the common open space and other facilities are not maintained in a manner consistent with the approved final development plan, the City may, at its option, cause such maintenance to be performed and assess the costs to the affected property owners or responsible association.

d. Long-term Storm Water Maintenance Agreements are required according to requirements identified in Riverdale City Standards and Specifications.

e. In addition to any required road maintenance fund, the developer shall establish and fund a maintenance reserve for private water, sanitary sewer, and storm water facilities sufficient to ensure long-term repair, replacement, and maintenance of such facilities. All road and utility maintenance funds shall be funded based on a reserve study or engineer’s estimate acceptable to the City.

f. All snow removal operations for private streets and facilities shall be contained entirely within the boundaries of the planned development. Any on-site storage of salt, sand, or de-icing materials shall be located within a permanently covered and contained facility designed to prevent runoff or drainage beyond the containment area. Such facilities shall be subject to review and approval by the Riverdale City Public Works Department based on adopted City standards.

g. Prior to the sale of any lot or unit, the association shall provide a City-approved disclosure document to each initial and subsequent purchaser stating that streets, water, sanitary sewer, and storm water utilities within the planned development are privately owned and maintained, and that the purchaser is responsible for their proportionate share of maintenance and replacement costs. Such disclosure shall be acknowledged in writing by the purchaser and provided to the City as requested.

h. The association shall provide to Riverdale City, on an annual basis, a copy of a current, executed contract with a qualified and reputable contractor for emergency repair of private streets and utility systems connected to City infrastructure.

(7) ***Review Process.***

a. ***Development Review.***

1. To help expedite review of a development proposal, prior to submitting an application for planned development, persons interested in undertaking development may meet informally with a member of the Community Development Department to become acquainted with the substantive and procedural requirements of this title. This meeting is sometimes referred to as the Pre-Application Review Meeting.

2. If requested by staff, they shall attend a meeting at which representatives from various departments involved in review of developments are generally present, including the Community Development Department, Public Works Department, Public Utilities Department, City Attorney's Office, Building Department, Fire Department, Police Department, and other departments as necessary. This meeting is sometimes referred to as the Development Review Meeting.

3. At the meeting, the various departments will initially assess the development proposal and information submitted and make suggestions to the prospective developer with respect to the proposal's compliance with the provisions of the appropriate regulations of this title, the International Building Code, and any other applicable ordinances or codes of Riverdale City and provide information concerning the City's review requirements and procedures.

4. Staff members may request that additional studies or information, such as Geotechnical Studies, Traffic Impact Analyses, Market Feasibility Analyses, or Water Needs Analyses, be submitted, together with the application for site plan review.

b. ***Application.*** An application for a planned development must be submitted to the Community Development Department and must contain the information and, if the project is to be subdivided, be in the format required by the subdivision review procedure in accordance with Title 10 Chapter 21. The application must include the following:

1. General Development Application Form.

2. Preliminary plat, if the property is to be subdivided, including project size (acres), proposed lot lines, and plot designs.

3. Landscaping Plan. A Landscape Plan, prepared under the direction of a licensed landscape architect or other qualified professional, shall be required for all open space required or provided in a planned development. Said Landscaping Plan shall indicate the spacing, sizes, and specific types of landscaping material. All open space provided shall be irrigated. The only exception shall be where the Administrative Land Use Authority determines an area, because of its natural beauty or uniqueness, would be most beneficial to the project and the community if left in its natural or existing condition. Existing mature trees shall be preserved where appropriate. The location of trees must be considered when planning common open space, location of buildings, underground services, walls, paved areas, playgrounds, and parking areas.

4. Architectural building elevations. The location and floor area size of all existing and proposed buildings, structures, and other improvements including maximum heights, types

of dwelling units, density per types, nonresidential structures including commercial facilities, preliminary elevations and architectural renderings of typical structures, and improvements.

5. Storm Water Analysis and Drainage Plans shall meet requirements in Riverdale City Standards and Specifications.

6. Utility Plan. The existing and proposed utility systems (e.g., sanitary sewers, storm sewers and water, electric, gas, telephone lines, and cable).

7. Road Plan and profiles.

8. The existing and proposed circulation system of arterial, collector, and local streets including off-street parking areas and other major points of access to public rights-of-way to the development including identification of jurisdictional control (including major points of ingress and egress to the development). Notations of proposed ownership, public and private, should be included where appropriate.

9. The existing and proposed pedestrian and bicycle circulation system including its interrelationship with the vehicular circulation system indicating proposed treatment of points of conflict.

10. Other studies and analyses requested by staff or the Administrative Land Use Authority, which may include geotechnical studies, traffic impact analysis, market feasibility analysis, water needs analysis, etc.

11. Adjacent property information. Enough information on land areas adjacent to the proposed development to indicate the relationships between the proposed development and existing and proposed adjacent areas including land uses, zoning classifications, densities, traffic and pedestrian circulation systems, public facilities, and unique natural features of the landscape.

12. The proposed treatment of the perimeter of the development including materials and techniques used such as berming, landscaping, screens, fences, and walls.

13. Names and addresses of property owners within 300 feet of the proposed project on mailing labels from the Weber County Recorder's Office (when required by staff).

14. Property plat from the Weber County Recorder's Office showing the area to be developed.

15. Fees as established by City Council.

16. The following written documents shall be submitted with the application:

    (i) A legal description of the total site proposal for development including a statement of present and proposed ownership and present land use or phasing plan.

    (ii) A statement of planning objectives to be achieved by the planned development through the particular approach prepared by the applicant. The statement should include a description of the character of the proposed development and the rationale behind the assumptions and choices made by the applicant.

    (iii) Quantitative data for the following: unit types, total number of units, parcel size, proposed lot coverage of buildings and structures, approximate gross and net residential densities, total amount of open space (including a separate figure for usable open space), total amount of nonresidential construction including a separate figure for commercial, public, quasi-public, or private facilities, if applicable, fiscal impact studies, where necessary, environmental assessments, where necessary, and other studies as required by the community development director.

17. Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) are required according to the requirements identified in Riverdale City Standards and Specifications.

c. ***Preliminary Review.***

1. If, prior to submitting the application for review, it is determined that the applicant has not attended a Development Review Meeting, staff may request that the applicant do so in order to expedite the orderly review of the proposal before proceeding to the subsequent stages of review.

2. Upon submittal of an application and supporting information and attendance at a Development Review Meeting, if necessary, the site plan and subdivision plat shall be forwarded to the reviewing departments and agencies who shall review it preliminarily to determine if the plan, together with all supporting information, is complete and complies with all the requirements of this title and other applicable City and agencies' standards.

(i) If the departments' and agencies' reviews determine that all required, necessary, and requested information has not been submitted or that some of the specifics of the plan or information do not comply with the requirements of this title, the applicant shall be notified in writing and/or on the plans of any deficiencies, comments, corrections, and requirements (including additional information and/or studies) to be addressed. The revised plan and all required, necessary and requested supporting information must be resubmitted after the appropriate additions and/or corrections are made in order to complete the application.

(ii) Upon resubmittal, the site plan and subdivision plat will again be forwarded to the reviewing departments and agencies, and to the Administrative Land Use Authority, if required. The applicant shall be required to resubmit the plan and supporting documents to the City until all departments and agencies determine it is complete and complies with the requirements of this title and other applicable City and agencies' standards. Failure to submit complete information will result in written notification to the applicant that the review cannot proceed further until all required, necessary, and requested information is submitted.

(8) ***Administrative Land Use Authority Review.***

a. When preliminary review of the site plan and subdivision plat has been determined to be complete and in compliance with all requirements, the plan, together with all supporting information, will be forwarded to the Administrative Land Use Authority for review, if required. If the property is to be subdivided, the subdivision review requirements shall be complied with, including notice and hearing requirements.

b. The Administrative Land Use Authority shall review the plan, including all supporting information, to determine if all appropriate impacts have been addressed and to receive public input, when required, concerning impacts and mitigation. The Administrative Land Use Authority may require additional studies/analyses to enable it to determine what impacts should be addressed and may establish additional requirements to address those anticipated impacts.

(9) ***Validity of Preliminary Review.***

a. Once the Administrative Land Use Authority determines that preliminary review is complete, the preliminary plat is valid for 12 months. The Administrative Land Use Authority may grant a one-year extension of the preliminary plat, provided the plat still complies with all applicable ordinances. No person or entity obtains a vested right to develop the property by reason of obtaining preliminary plat approval.

b. If a final plat which covers only a portion of the approved preliminary plat is recorded within the one-year time limit or extension thereof, the validity of the unrecorded portion of the

preliminary plat may be extended by the Administrative Land Use Authority for one year from the date of recording that final plat.

c. If the developer desires to change the grade or location of streets within the subdivision, or desires to increase the number of lots in the subdivision, or substantially alters the original subdivision design, the developer must apply for an amendment of the originally approved preliminary plat.

d. The community development director may, in his discretion, approve changes to the preliminary plat to decrease the number of lots in the subdivision, to make minor lot boundary changes, or to make other minor changes without requiring that it be reviewed by the Administrative Land Use Authority.

(10) ***Final Review.*** After review by the departments, agencies, and Administrative Land Use Authority, the applicant shall submit a final site plan and subdivision plat, together with all supporting documents, which comply with all requirements, corrections, additions, etc., required by the departments, agencies, and Administrative Land Use Authority to the Community Development Department.

a. The Community Development Department, along with the other reviewing departments and agencies, shall review the site plan and subdivision plat and supporting information to determine compliance with all requirements, corrections, additions, etc.

b. After such determination, the item may be scheduled for review by the Administrative Land Use Authority upon referral by the community development director or upon the request of the Administrative Land Use Authority. The final development plan shall be reviewed to determine substantial compliance of the final development plan with the preliminary development plan requirements. Said review shall also determine the final development plan's quality and compliance with the purpose and design objectives of a planned development. The final development plan shall include all of the information required in the preliminary development plan in its finalized detailed form. In addition, any new items not submitted with the preliminary development plan, any final plats, any required dedication documents, and/or guarantee of improvements shall be submitted at this time.

(11) ***Amendments to the Final Development Plan.***

a. Minor changes in the location, siting, or character of buildings and structures may be authorized by the community development director if required by engineering or other circumstances not foreseen at the time the final development plan was approved. No change authorized under this subsection may cause any of the following:

1. A change in the use and/or character of the development.
2. An increase in the overall density and/or intensity of use.
3. An increase in overall coverage of structures.
4. A reduction or change in character of approved open space.
5. A reduction of required off-street parking.
6. A detrimental alteration to the pedestrian, vehicular, bicycle, circulation, and utility networks.
7. A reduction in required street pavement widths.
8. Changes in storm drains, under drains, and/or irrigation.

b. Any major changes in use or rearrangement of lots, blocks, building tracts or groupings, or any changes in the provision of open space and significant changes as noted above, must be made by the Administrative Land Use Authority after receipt of such a recommendation by staff. Such amendments may be made only if they are shown to be required by changes in conditions that have occurred since the final development plan was approved. Generally speaking, any major

changes must be recorded as amendments in accordance with the procedure established for adopting the final development plan.

(12) ***Failure to Begin Development.*** If no substantial construction has occurred in the planned development pursuant to the final development plan within 12 months from final approval, the approved plan shall become null and void and a new development plan shall be required for any development on the subject property. The Administrative Land Use Authority, upon showing good cause by the developer, may extend the time for beginning construction a maximum period of 6 months for one time only.

(13) ***Phased Planned Developments.*** If the sequence of construction of various portions of the final development plan is to occur in stages, then the open space shall be developed in proportion to the number of units intended to be developed during any given stage of construction. A Phasing Plan, including size and order of phases, may be approved by the Administrative Land Use Authority. Such Phasing Plan shall have the written approval of all property owners. In addition, the approved Phasing Plan shall be submitted to the City Recorder for recordation with the County Recorder's Office as a covenant to run with the land.