



**RIVERDALE CITY PLANNING COMMISSION AGENDA
CIVIC CENTER - 4600 S. WEBER RIVER DR.
TUESDAY – APRIL 26, 2016**

6:00 p.m. – Planning Commission Work Session Meeting (City Offices)

The purpose of the work session is to review maps, plans, paperwork, etc. No motions or decisions will be considered during this session, which is open to the public.

Planning Commission Work Session Items -Planning Commission Training *to be determined*

6:30 p.m. – Planning Commission Meeting (Council Chambers)

A. Welcome & Roll Call

B. Open Communications

(This is an opportunity to address the Planning Commission regarding your concerns or ideas. Please try to limit your comments to three minutes.)

C. Presentations and Reports

D. Consent Items

1. Consideration of Meeting Minutes from:

April 12, 2016 Work Session

April 12, 2016 Regular Meeting

E. Action Items

1. Consideration of Final Site Plan Approval ARS Flood and Fire Clean-Up Parking Plan and Storm Water/Drainage System Improvements, 1708 West 4800 South, Riverdale, Utah 84405

2. Consideration of Final Site Plan Approval for H&P Investments Flex Space Building, 770 West River Park Drive, Riverdale, Utah 84405.

Presenter: All action items will be presented by Mike Eggett, Community Development

F. Discretionary Items

G. 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 22nd day of April, 2016 at the Riverdale City Hall Noticing Board and on the City website at <http://www.riverdalecity.com/>. A copy was also provided to the Standard-examiner on April 22, 2016.

Jackie Manning
Riverdale City Recorder

**RIVERDALE CITY
PLANNING COMMISSION AGENDA
April 26, 2016**

AGENDA ITEM: D

SUBJECT: Planning Commission Meeting Minutes

PETITIONER: Jackie Manning, City Recorder

ACTION REQUESTED: Consideration of approval.

INFORMATION: [April 12, 2016 Planning Commission Work Session](#)
[April 12, 2016 Planning Commission Regular Meeting](#)

[BACK TO AGENDA](#)

Minutes of the **Work Session** of the Riverdale City **Planning Commission** held Tuesday, April 12, 2016, at 6:03 PM, at the Civic Center in the Administrative Offices, 4600 S Weber River Dr., Riverdale City, Weber County, Utah.

Present: Commissioners: Steve Hilton, Chairman
Blair Jones, Commissioner
Kathy Eskelsen, Commissioner
David Gailey, Commissioner
Michael Roubinet, Commissioner
Robert Wingfield, Commissioner

Excused: Lori Fleming, Commissioner

City Employees: Mike Eggett, Community Development
Jackie Manning, City Recorder

Vice Chair Jones welcomed the Planning Commission members to the Work Session and stated for the record that all were in attendance with the exception of Commissioner Fleming. Commissioner Jones stated Chairman Hilton should arrive shortly.

Reports: Commissioner Jones turned the time over to Mr. Eggett who reported the following:

- Sweeto Burrito and Wendy's are moving forward with their construction.
- Reeve's Office Building/construction should be complete soon.
- There will be a site plan for ARS building to add an additional gymnasium. The site plan must provide additional parking.
- Preliminary Plan review for H&P Investment will return for a final approval on April 26, should the Planning Commission approve the Preliminary Plan tonight.
- Design Review Committee met regarding H&P Investments Preliminary Plan, and it was recommended for approval.
- Triathalon center now open for business.

Consent Items:

Commissioner Jones invited changes/corrections to the meeting minutes for the following Planning Commission Meetings held on: January 12, 2016 Work Session, January 12, 2016 Regular Meeting and March 8, 2016 Work Session. There were no requested changes. Commissioner Jones noted a spelling error in the packet regarding the action item.

Action Items:

Jones invited discussion regarding the first action item, consideration of Preliminary Site Plan approval for H&P Investments Flex Space Building, 4800 South River Park Drive, Riverdale, Utah 84405.

Mr. Eggett summarized the executive summary as seen in the packet. Mr. Eggett discussed the review comments as seen in the packet. He didn't feel any of the issues should prevent approval at this time. The site plan is on a flood plain, so the application will be required to provide an elevation certificate to the city.

Mr. Eggett stated the applicant is working diligently on resolving any outstanding matters from the Scott Nelson, the City Civil Engineer. Mr. Eggett noted the retention basins on site could have a dual usage for future projects. Mr. Eggett discussed water meters and culinary water.

At 6:19 PM Chairman Hilton arrived to the meeting. Mr. Eggett stated the landscaping of this project meets the requirements of the city.

Discretionary Items:

Commissioner Jones asked if there were any discretionary items. Commissioner Gailey informed the Commission that Riverdale Mobile Estates is under new management. They are making efforts in cleaning up the mobile home park.

Adjourn:

Having no further business to discuss the Planning Commission adjourned at 6:21 PM to convene into their Regular Planning Commission Meeting located in the Council Chambers.

Minutes of the Regular Meeting of the Riverdale City Planning Commission held Tuesday, April 12, 2016, at 6:30 PM, at the Civic Center, 4600 S Weber River Dr., Riverdale City, Weber County, Utah.

Present: Commissioners: Steve Hilton, Chairman
Blair Jones, Vice-Chair
Kathy Eskelsen, Commissioner
David Gailey, Commissioner
Michael Roubinet, Commissioner
Robert Wingfield, Commissioner

City Employees: Mike Eggett, Community Development
Jackie Manning, City Recorder

Excused: Lori Fleming, Commissioner

Visitors: Dave Pierson, Galloway
Wendy Miller Redd, Galloway
Roger Green, Roger Green Construction
Jim Rumpsa, H&P Inv.

A. Welcome & Roll Call

Chairman Hilton welcomed everyone to the meeting and stated for the record that all members of the Planning Commission were present, with the exception of Commissioner Fleming who is excused.

B. Open Communications

Chairman Hilton asked for any open communications and there were not any.

C. Presentations and Reports

Chairman Hilton turned the time over to Mr. Eggett who reported the following:

- Reeves and Associate office building almost complete.
- Sweeto Burrito and Wendy's continue to progress within their construction activities.
- Triathlon Center open for business
- Metro PC is open in the smaller building next to Subway
- Site Plan Review for ARS parking and storm drain plan – subletting a portion of their building for a gymnasium use which will need additional parking. They will be on next Planning Commission Meeting.
- Wal-Mart continues remodel.
- CVS Pharmacy has moved into Target

D. Consent Items

Chairman Hilton asked for changes or corrections to the Planning Commission meeting minutes for January 12, 2016 Work Session and Regular Meeting, and March 8, 2016 Work Session Meeting. There were not any corrections requested.

MOTION: Commissioner Jones moved to approve consent items, meeting minutes as written.
Commissioner Wingfield seconded the motion.

There was no discussion regarding this motion.

CALL THE QUESTION: The motion passed unanimously.

E. Action Items

1. Consideration for Preliminary Site Plan approval for H&P Investments Flex Space Building, 4800 South River Park Drive, Riverdale, Utah 84405.

Mr. Eggett summarized an executive summary which explained:

H&P Investments, as represented by Dave Pierson, have applied for a Preliminary Site Plan review of a Flex Building Site Plan that will operate as a business park/office located at approximately 4800 South River Park Drive in a Regional Commercial (C-3) zone. This site plan is being proposed for development on property currently owned by H&P Investments. A public hearing is not required to consider this Site Plan proposal. Following the presentation and discussion of the proposal, the Planning Commission may make a motion giving preliminary approval of the H&P Investments Flex Building site plan proposal, approval of the proposed site plan with any requested modifications, or not

69 giving preliminary approval of the H&P Investments Flex Building site plan. If preliminary approval was provided, then this
70 matter could move forward to a future Final Site Plan review process with the Planning Commission.

71
72 This Preliminary Site Plan review is regulated under City Code 10-25 "Development in All Zones", and is affected by
73 City Codes 10-10A "Regional Commercial Zones (C-1, C-2, C-3)", 10-14 "Regulations Applicable to All Zones", 10-15
74 "Parking, Loading Space; Vehicle Traffic and Access", and 10-16 "Sign Regulations".

75
76 The proposed development parcel is located on property currently owned by H&P Investments and is located directly
77 south of the Tony Divino Toyota site. The property is in a C-3 zone and all uses listed in this zone (whether permitted or
78 conditional) would be available for development and use on this lot. Per the applicant, the desired uses are professional
79 office, warehouse, and small business type uses.

80
81 Attached with this executive summary is a document entitled "Preliminary Site Plan Review – H&P Investments –
82 Flex Building 1"; this is a supplementary document addressing items on the Preliminary Site Plan application document.
83 Also attached, following this executive summary, are comments from the Public Works Director, the Fire Chief, the Police
84 Chief, the City Administrator, and contracted City Engineer. The Planning Commission should discuss any concerns
85 raised by these summaries.

86
87 In addition to the Preliminary Site Plan documentation, building elevation drawings have been provided. The
88 attached building renderings are set to be reviewed by the City's Design Review Committee on April 11, 2016 to discuss
89 landscaping, materials, and overall aesthetics of the proposed structure.

90
91 The Planning Commission is encouraged to briefly discuss signage plans with the petitioner to better understand how
92 signage will work in this area; signage is regulated per City Code 10-16 (specifically section 8.(b.) for Commercial
93 Districts); the applicant should be directed to adhere to this Code when contemplating signage.

94
95 Staff would encourage the Planning Commission to review this matter and then discuss with the petitioner concerns
96 raised by staff and/or the Planning Commission. Staff would then recommend that the Planning Commission may make a
97 motion giving preliminary approval of the H&P Investments Flex Building site plan proposal, approval of the proposed site
98 plan with any requested modifications, or not giving preliminary approval of the H&P Investments Flex Building site plan.
99 If preliminary approval was provided, then this matter could move forward to a future Final Site Plan review process with
100 the Planning Commission.

101
102 Mr. Eggett discussed dumpster requirements and locations. He briefly discussed water meters and site lighting
103 requirements. This project meets the landscaping ordinance. There is a lien on the property for past side walk
104 improvements, which is being resolved internally with the City Administration.

105
106 There was a brief discussion regarding food preparation requirements for food establishments.

107
108
109 **MOTION:** Commissioner Roubinet moved to approve the Preliminary Site Plan for H&P Investments
110 Flex Space Building, 4800 South River Park Drive, Riverdale, Utah, 84405 as proposed,
111 contingent upon addressing any staff concerns, the city codes, ordinances, laws.
112 Commissioner Gailey seconded the motion.

113
114 There was no discussion regarding this motion.

115
116 **CALL THE QUESTION:** The motion passed unanimously.

117
118 **F. Discretionary Items**

119
120 Chairman Hilton invited discussion. There were no discretionary items.

121
122 **G. Adjournment**

123
124 **MOTION:** There being no further business to discuss, Commissioner Jones moved to adjourn the
125 meeting. Commissioner Gailey seconded the motion; all voted in favor.

126
127 The meeting adjourned at 6:42 PM.

128
129
130 _____
131 Steve Hilton
132 Planning Commission Chair

130 _____
131 Jackie Manning
132 City Recorder

133
134 Date Approved: **April 26, 2016**
135

**RIVERDALE CITY
PLANNING COMMISSION AGENDA
April 26, 2016**

AGENDA ITEM: E1

- SUBJECT:** Final Site Plan Approval ARS
- PETITIONER:** Mike Eggett, Community Development
- ACTION REQUESTED:** Consideration of approval.
- INFORMATION:**
- a. [Executive Summary](#)
 - b. [Final Site Plan Review](#)
 - c. [Engineer Review Letter](#)
 - d. [Department Staff Reports](#)
 - e. [Application](#)
 - f. [Final Site Plan Improvement](#)
 - g. [Site Plan Check List](#)
 - h. [Storm Management Plan](#)
 - i. [Drainage Narrative and Calculation](#)

[BACK TO AGENDA](#)



Planning Commission Executive Summary

For the Commission meeting on: 04-26-2016

Petitioner: *ARS Flood and Fire Clean-Up*,
represented by Dave Loughton/Jim Flint

Summary of Proposed Action

ARS Flood and Fire Clean-Up have applied for a Final Site Plan review of a Parking Improvement Plan and Storm Water System/Drainage Improvements Plan for property they own located at 1708 W 4800 South in a Planned Regional Commercial (CP-3) zone. The reason for this site plan application, is the separation of the ARS building to accommodate a building lease for a recreational/gymnasium facility on site. Due to the proposed recreation facility use on site, the parking code requires a larger amount of parking stalls than can currently be facilitated on the site with the current parking field. A public hearing is not required to consider this site plan proposal. A Preliminary Site Plan was deemed to be not required for this application based upon the nature of the site plan submittal for only the addition of parking and drainage improvements development. Following the presentation and discussion of the proposal, the Planning Commission may make a motion recommending final site plan approval of the Parking Improvement Plan and Storm Water System/Drainage Improvements Plan proposal, recommending approval of the proposed site plan with any requested modifications, or not recommending site plan approval of the Parking Improvement Plan and Storm Water System/Drainage Improvements Plan proposal. If a favorable final site recommendation was provided, then this matter could move forward to a Final Site Plan review and consideration for approval by the City Council.

Title 10 Ordinance Guidelines (Code Reference)

This Final Site Plan review is regulated under City Code 10-25 "Development in All Zones", and is affected by City Codes 10-10B "Planned Commercial Zones (CP-1, CP-2, CP-3)", 10-14 "Regulations Applicable to All Zones", 10-15 "Parking, Loading Space; Vehicle Traffic and Access", and 10-16 "Sign Regulations".

The proposed development parcel is located on property currently owned ARS Flood and Fire and is located on the old Crown Bedroom warehouse site, an existing non-approved storage buildings area to the north of the warehouse building, and property located to the north of the storage buildings area. Historically, the non-approved storage buildings area had buildings constructed without the appropriate permitting or land use approvals for development on this site and, as a result, the current owners have opted to remove one of the buildings all together to accommodate more parking on the site. The desire to lease a portion of the building for use as a 10,000 sf recreational/gymnasium facility is the reason that this site plan proposal has been prepared. Due to the significant impacts to the parking area and based upon standards found in Title 10, Chapter 15 of the City Code, the applicant is required to establish more parking for the site at a ratio of 1 space per every 200 sf of recreation area. There is an opportunity for ARS to share parking stalls with the recreational center use as long as the business hours of operation do not overlap.

Based upon the improvements being made to the site for additional parking area and in order to resolve issues that currently exist on the site as a result of the non-approved storage buildings area, there is a need to establish and install storm water and drainage system improvements that better facilitate the storm water activity on the site and protect the area from negative environmental impacts due to the

change. The City Engineer's comments, the submitted "Storm Water Management" plan document, and the "Drainage Narrative and Calculations" document address this very matter and have been provided with this application for further discussion and review.

The property is located in a CP-3 zone and all uses listed in the C-3 zone (whether permitted or conditional) would be available for potential development and use on this lot. Per the applicant, the current uses are service based business, warehouse, and proposed recreational uses.

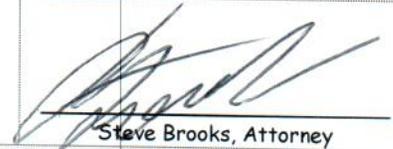
Attached with this executive summary is a document entitled "Final Site Plan Review - ARS Flood and Fire Clean-Up - Plan & Drainage Pond Improvements"; this is a supplementary document addressing items on the Final Site Plan application document. Also attached, following this executive summary, are comments from the Public Works Director, the Fire Chief, the Police Chief, the City Administrator, and contracted City Engineer. The Planning Commission should discuss any concerns raised by these summaries.

Staff would encourage the Planning Commission to review this matter and then discuss with the petitioner concerns raised by staff and/or the Planning Commission. Staff would then request that the Planning Commission may make a motion recommending final site plan approval of the Parking Improvement Plan and Storm Water System/Drainage Improvements Plan proposal, recommending approval of the proposed site plan with any requested modifications, or not recommending site plan approval of the Parking Improvement Plan and Storm Water System/Drainage Improvements Plan proposal. If a favorable final site recommendation was provided, then this matter could move forward to a Final Site Plan review and consideration for approval by the City Council.

General Plan Guidance (Section Reference)

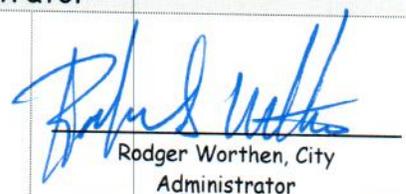
The General Plan use for this area is currently set as "Neighborhood Commercial - Low" and this proposed project would comply with this land use.

Legal Comments - City Attorney



Steve Brooks, Attorney

Administrative Comments - City Administrator



Rodger Worthen, City Administrator



Final Site Plan Review – ARS Flood and Fire Clean-Up – Striping Plan & Drainage Pond Improvements, 1708 West 4800 South

Completed by Mike Eggett, Community Dev. Director on 4/19/2016

Recommendation: City staff recommends that the Planning Commission examine and review items associated with this proposed final site plan review. Items of consideration or note have been highlighted in yellow for potential discussion purposes. City staff encourages the Planning Commission to act accordingly to recommend final site plan approval or not recommend approval for the proposed ARS Flood and Fire Clean-Up site plan with any additional comments or concerns to be addressed by the developer.

Date Plan Submitted to City: (Must be at least two weeks prior to Planning Commission meeting)	April 12, 2016
Date Application Submitted to City:	April 7, 2016
Date Fee Paid:	Paid on April 7, 2016 (see receipt for detail)
Site Plan – Preliminary Requirements	Departmental Review Comments
<i>COVER SHEET</i>	Provided
<u>Title Block</u>	
Project name and address	Project name and address location shown; address of site is 1708 West 4800 South
Property Owner’s name, address, and phone number	ARS, 1708 West 4800 South, Riverdale, Utah 84405, 801-458-0812
Developer’s name, address, and phone number	ARS, 1708 West 4800 South, Riverdale, Utah 84405, 801-458-0812
Approving agency’s name and address: Utility companies if applicable	Riverdale City, 4600 So. Weber River Drive, Riverdale, Utah 84405; all other utility agencies affected are identified as applicable
Consulting Engineer’s name, address, and phone number	Hansen and Associates, Inc. – Jim Flint, 538 N. Main St., Brigham City, Utah 84302, 435-723-3491
Licensed Land Surveyor’s name, address, phone number, signature, and seal	Hansen and Associates, Inc. – Greg Hansen, 538 N. Main St., Brigham City, Utah 84302, 435-723-3491
Date	Yes – April 7, 2016
Revision block with date and initials	Revision block shown
Sheet number and total sheets	Shown (4 total sheets)

<u>General</u>	
Street names	Shown – 4800 South and 1700 West
Layouts of lots with lot numbers	Yes, shown with tax ID numbers
Adjacent tract ownership and tax identification numbers	<u>Adjacent tract ownership names and tax ID not shown within packet</u>
Scale (minimum 1"=50' to 1"=10')	Yes, scale is shown
North arrow	Yes
Existing easements, structures, and utility lines: Approval to cross, use, or relocate	No known existing easements identified on lots by engineer; structures around site identified, existing utility lines, where applicable, shown in packet; based on cover sheet notes, approvals provided to cross, use, relocate
Space for notes	Yes
Contours	Yes, shown on sheet 2, 3, and 4
Public areas	Sidewalks shown; no other public areas exist
<u>Vicinity Map</u>	
Street names	Yes
Site location	Yes
North arrow	Yes
Scale	1' = 200'
<i>PLAT SHEET</i>	<u>No new platting necessary for this project (use cover sheet)</u>
<i>PLAN AND PROFILE SHEETS</i>	Site Plan and supporting sheets provided
<u>Title Block</u>	
Project name and address	Project name and address location shown; address of site is 1708 West 4800 South
Approving Agency's name and address	Riverdale City, 4600 So. Weber River Drive, Riverdale, Utah 84405
Consulting Engineer's name, address, and phone number	Hansen and Associates, Inc. – Jim Flint, 538 N. Main St., Brigham City, Utah 84302, 435-723-3491
Date	Yes – April 7, 2016
Scale	Yes, scale is shown
Revision block with date and initials	Revision block shown
Sheet number and total sheets	Shown (4 total sheets)

<u>General</u>	
North arrow	Yes
Street names	Shown – 4800 South and 1700 West
Lot numbers	Yes, shown with tax ID numbers
Reference to sheets showing adjacent areas	Not applicable
Center line stationing	Not applicable
Existing natural ground	Shown on sheet 1 and 2
<u>Signage</u>	Not applicable
Height	
Size	
Locations	
Colors	
Lighting	
<u>New and Existing Buildings</u>	
Height and Size	No new building; Existing buildings and other structures shown on all sheets
Location, setbacks, and all dimensions	No change to structures on site plan; original building internally separated for lease use
Type of construction	Metal Paneled Building
Type of occupancy and proposed uses	Commercial warehousing, service, and office uses; future gymnasium/recreational facility use
Show handicapped access	Three handicapped parking stalls shown; <u>other ADA access not identified</u>
<u>New and Existing Landscaping & Percentage</u>	Approx. 24% of already developed site
Number of trees	Unknown number but many native trees around site as seen on aerial on sheets 1 and 2
Landscape plan showing all planting, hardscaping, berming, and watering	No landscaping plan submitted, other than planting plan developed for drainage system and new retention area
Xeriscaping alternatives being considered	Not applicable other than already existing on site; some gravel and rock may be added to drainage system and new retention area
<u>New and Existing Walls and Fences</u>	
Location, design, and height	Location of existing walls and fences identified on sheet 1; no new fences proposed for site

Materials proposed for construction	No new fences proposed for site
<u>New and Existing Parking</u>	
Location, area, and layout of off-street parking (size of stalls, regular and handicapped)	There are 22 existing stalls on site and there is proposed 35 new stalls for a total of 57 parking stalls as shown on sheets 2, 3, and 4; handicapped parking space provided and shown; per code adequate parking for use with the understanding that spaces are shared – will need an outline of business operating hours on letterhead for file and records
Location of employees' parking, customer parking, and handicapped parking	Established as shown in drawings; <u>employee parking and customer parking not designated</u>
Internal circulation pattern	As noted on sheet 1
<u>New and Existing Ingress and Egress</u>	
Location and size of points of ingress and egress for motor vehicles and internal use	As noted on sheet 1
Circulation pattern	As noted on sheet 1
<u>New and Existing Streets</u>	
All access points	Existing shown
Center lines	Not applicable
Right-of-way lines	Existing shown
Face of curb lines	Not applicable
Centerline slope	Not applicable
Signing and striping	No new road signs; new parking area striping to be added on old storage unit building site and internally on site;
Light poles	Not applicable
Street lights	No existing street lights on site; <u>no new street lighting proposed</u>
Street name signs	Not applicable
Stop signs	Not applicable
UDOT approval (if required for project)	Not applicable
Sidewalk (4' side with 4" of road base or 6' side with 6" of road base through the approach)	Existing sidewalk already installed on site; Yes, shown on sheets 1 and 2
Planting Strip	Existing shown on sheet 2
<u>New and Existing Storm Drainage</u>	

Top of curb elevations	See “Storm Water Management” plan document for more
Slope of gutter	See “Storm Water Management” plan document for more
Manholes	Not applicable
Invert elevations	See “Storm Water Management” plan document for more
Length, size, slope, and type of mains and laterals	See “Storm Water Management” plan document for more
Location of catch basins	Shown on sheets 1-4; see “Storm Water Management” plan document for more
Ditches, location and ownership	No ditches or waterways of note shown
Approval to pipe, reroute or use	Shown on sheets 1-4; see “Storm Water Management” plan document for more
Calculations for retention system	Outlined in “Drainage Narrative and Calculations” document; <u>defer to City Engineer</u>
Method of storm water clean-up	See “Storm Water Management” plan document for more
<u>New and Existing Sanitary Sewers</u>	
Manholes	No new manholes for site plan
Invert elevations	Not applicable
Length, size, type, and slope of mains and laterals	Not applicable
<u>New and Existing Water Lines</u>	
Length, size, type, and slope of mains and laterals	Reference note on sheet 1, <u>defer to City Engineer</u>
Location, size, and type of water meters, valves, and fire hydrants	Reference note on sheet 1, <u>defer to City Engineer</u>
<u>New and Existing Gas Lines</u>	
Size and type	Reference note on sheet 1
<u>New and Existing Electrical Lines</u>	
Size, location, and type	<u>Existing power line locations shown on sheets 2 and 4, but not clearly identified; size and type not shown;</u>
Location of power poles	<u>Existing power poles and overhead lines location shown on sheets 2 and 4, but not clearly identified;</u>
<u>New and Existing Telephone Lines</u>	
Location of poles, junction boxes, and manholes	Reference note on sheet 1; existing location of telephone boxes, poles, and associated manholes not shown if applicable

<u>New and Existing Cable TV Lines</u>	
Location of lines (if applicable)	Cable TV lines not shown and not applicable
<i>DETAILED DRAWINGS</i>	
Cross section of roadway (minimum 8" road base and 3" asphalt)	No new roadway improvements
Cross section of curb and gutter (standard 30" high back)	No new roadway improvements
Gutter inlet box with bicycle safe grate	No new inlet box improvements
Cleanout box	Likely not applicable; <u>defer to City Engineer</u>
Thrust blocking	Now new thrust blocking improvements
Special energy dissipating or drop manholes	None showing and may not be applicable
<i>ADDITIONAL INFORMATION</i>	
Soils report	Soils report/geotechnical report probably not required for this project; <u>defer to City Engineer</u>
Drainage and runoff calculations	Outlined in "Drainage Narrative and Calculations" and Storm Water Management" documents; <u>defer to City Engineer</u>
Water right transfer documentation	Not applicable
Copy of protective covenants, codes, and regulations for development	Not applicable
Eight (8) total 11" X 17" copies of plan drawings, one large full set of plan drawings, and one digital full set copy of plan drawings	Yes, provided as requested
Building elevation renderings	Not applicable
Corp of Engineers approval (if required)	Not applicable or required
Zoning compliance	Yes, Planned Regional Commercial (CP-3) meets intended uses for building
RDA compliance (if applicable)	Not applicable in this matter
Use compliance	Yes, Planned Regional Commercial (CP-3) uses anticipated for this development
Engineering comments and letter of approval recommendation	Engineering comments, along with Public Works, Police Department, Fire Department, and City Administrator comments have been provided
Traffic study	Not applicable
All Planning Commission and City Staff conditions for approval have been met	<u>Currently Final Submission being reviewed by Planning Commission for parking lot and drainage plan/retention facility</u>

15 April 2016

Riverdale City
4600 South Weber River Drive
Riverdale, Utah 84405

Attn: Mike Eggett, Community Development Director/RDA Deputy Executive Director
Proj: **ARS Site Plan**
Subj: Site Plan Improvement Drawings

Dear Mike,

Attached for consideration is the engineering review of the above referenced project. The noted items have also been reviewed with Shawn Douglas.

The following items will need to be considered and addressed prior to receiving recommended approval from our office.

Site Plan – Improvement Drawings

1. The storm water detention volume values for the 100 – year, 24 – hour storm event of 16,426 cubic feet will need to be used and not the 10,652 cubic feet design amounts as shown. Therefore, the retention basin will need to be upsized.
2. A Drainage Plan drawing showing the patterns of storm water run-off flow needs to be developed and submitted.
3. The drainage ditches along the East & West sides of the site and the drainage ditch from the retention basin should be armored with a 1” to 4” diameter angular rock placed upon a drainage fabric. The width should range from 2.5’ to 4’ wide with a depth of 4” +/- . The cross-sectional design needs to be submitted for review.
4. The retention pond should also be lined with angular rock and fabric. The design should be determined by the Developer’s Engineer and submitted for review. The rock diameter will need to be indicated on the drawings and the type of fabric.

5. The Maintenance Plan on page 1 of 4 needs to be reviewed and re-submitted with a greater in-depth plan along with a maintenance table. The maintenance table should be available so maintenance can be tracked and monitored and reviewed by the City as a part of the SWPPP programs in the City.
6. The drawings indicate the project consists of constructing an assisted living facility. The drawings should be proof-read for similar errors. All such errors should be corrected prior to re-submittal.
7. The dumpster location should be updated with wall enclosures which should be shown on the site drawings.

We would be happy to meet with the Developer and/or his Engineer to review the above items should they have any questions.

Sincerely,
CEC, Civil Engineering Consultants, PLLC.

A handwritten signature in black ink, appearing to read 'N. Scott Nelson', with a long, sweeping underline.

N. Scott Nelson, PE.
City Engineer

Cc. Shawn Douglas, Public Works Director
Jeff Woody, Building Official and Inspector

DEPARTMENTAL STAFF REPORTS – 4/18/2016 and 4/19/2016

From: Shawn Douglas
Sent: Monday, April 18, 2016 7:31 AM
To: Mike Eggett
Subject: Ars

Mike, I don't have any items to add to ARS review that weren't included in Scotts review. Thanks

Shawn Douglas

Public Works Director
801/394/5541 ext.1217
Sdouglas@rivedalecity.com

From: Rodger Worthen
Sent: Tuesday, April 19, 2016 12:51 PM
To: Mike Eggett
Subject: RE: ARS Submittal

Mike-

Sorry for the late response. I don't have concerns on the use...parking appears to be the concern. Just that it would be occurring on a hard surface.

RW

From: Jared Sholly
Sent: Tuesday, April 19, 2016 9:43 PM
To: Mike Eggett
Subject: RE: ARS Submittal

I went out and walked the site. I see no issues as per the Fire Department.

*Jared Sholly
Fire Chief
Riverdale City Fire Department
Cell: 801-628-6562
Office: 801-394-7481*

From: Randy Koger (Fire Inspector)
Sent: Tuesday, April 19, 2016 9:47 AM

To: Mike Eggett
Subject: RE: ARS Submittal

Mike

The only issue that I could see when I was on site was the speed bump at the top of the hill before the new parking. When I measured the slope it started at 10° then turned to 12°. As discussed in the meeting, it should be okay if the speed bump is removed.

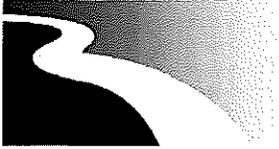
Randy S. Koger
Fire Inspector/Code Enforcement Officer
Riverdale City
801-436-1241

From: Scott Brenkman (Police Lieutenant)
Sent: Tuesday, April 19, 2016 9:50 AM
To: Mike Eggett
Subject: RE: ARS Submittal

I don't have any concerns with the plans.

Thanks,

Scott



Riverdale City

Community Development
4600 So. Weber River Drive
Riverdale, Utah 84405

RIVERDALE CITY PLANNING COMMISSION
APPLICATION FOR COMMERCIAL OR MANUFACTURING
SITE PLAN APPROVAL

CASE NO: 2016-02 DATE SUBMITTED: 4/7/2016

APPLICANT'S NAME: ARS FLOOD AND FIRE CLEANUP

ADDRESS: 1708 W. 4800 S. RIVERDALE, UT. 84405

PHONE: [REDACTED]

ADDRESS OF SITE: 1708 W. 4800 S. RIVERDALE, UT, 84405

APPLICANT'S INTEREST: BUILDING LEASE IMPROVEMENT

Application is hereby made to the Riverdale City Planning Commission requesting that the following permitted use, be approved on 2 ACRES of property in the CP3 zone in (sq. ft./acreage) accordance with the attached site plan.

[Signature]
Signature of Applicant

[Signature]
Signature of Property Owner

I authorize DAVE DOUGLTON to act as my representative in all matters relating to this application.

[Signature]
Signature of Property Owner

NOTE: A fee will be charged at the time the site plan is submitted for review - \$200 per acre or portion of
Fee: \$ 400.00 Date paid: 4/7/2016

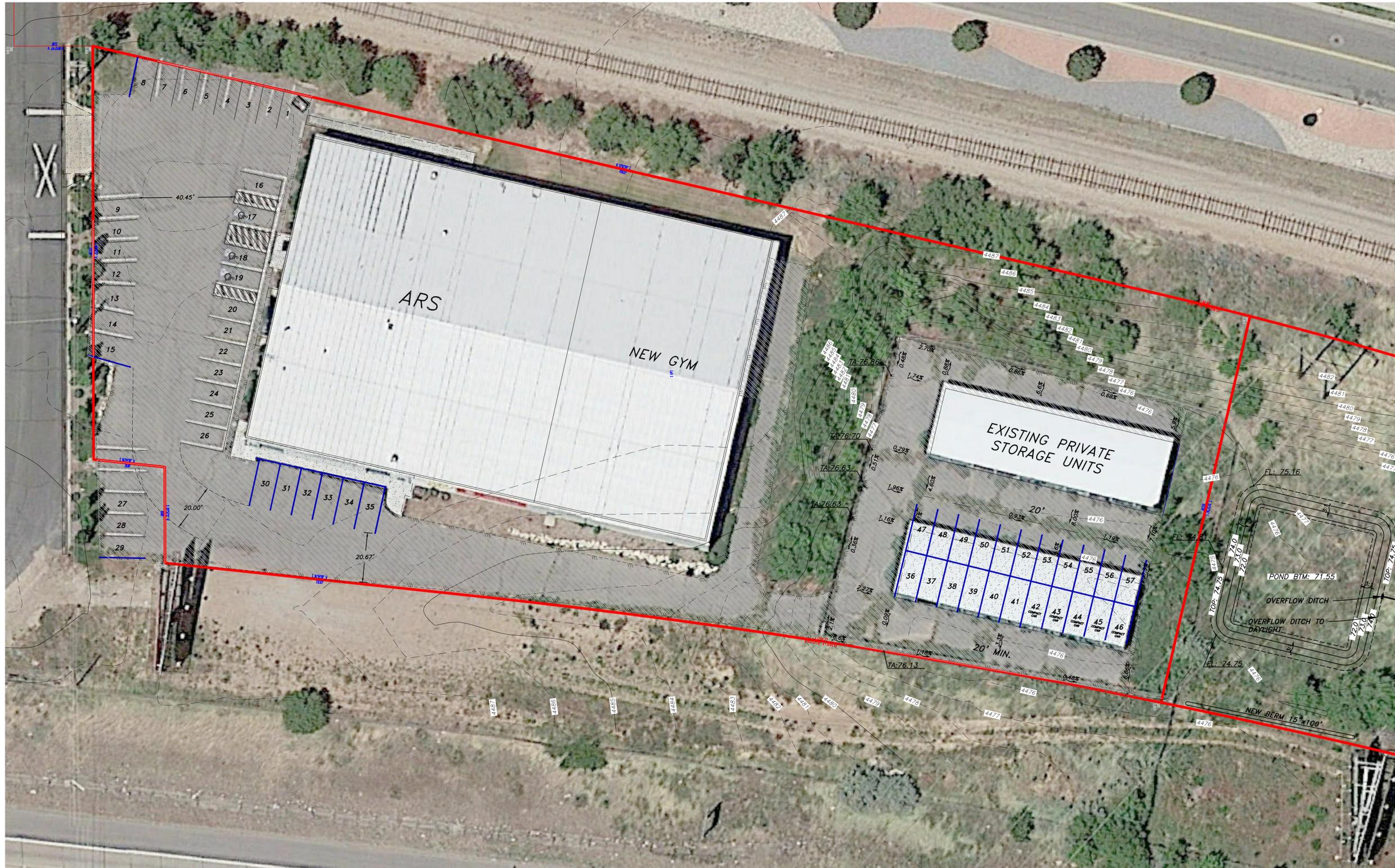
Planning Commission set public hearing: Yes No Date of Public Hearing: N/A

Planning Commission scheduled to hear this application for site plan approval on:
Date: 4/26/2016 Decision of Commission: _____

City Council set public hearing: Yes No Date of Public Hearing: _____

City Council scheduled to hear this application for site plan approval on:
Date: _____ Decision of Council: _____

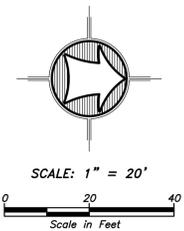
ARS
SITE PLAN



Engineer's Notice To Contractors

The existence and location of any underground utility pipes or structures shown on these plans were obtained from available information provided by others. The locations shown are approximate and shall be confirmed in the field by the contractor, so that any necessary adjustment can be made in alignment and/or grade of the proposed improvement. The contractor is required to contact the utility companies and take due precautionary measure to protect any utility lines shown, and any other lines obtained by the contractors research, and others not of record or not shown on these plans.

<p>NOTICE!</p> <p>EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.</p>	<p>AVOID CUTTING UNDERGROUND UTILITIES. IT'S COSTLY.</p> <p>Call DJs</p> <p>BEFORE YOU</p> <p>1-800-662-4111 UNDERGROUND SERVICE</p>
--	--



Drawn By: **DAWN** Date: 04/12/16

Designed By:

Checked By:

Approved By:

Scale: 1" = 20'

Drawing File: File

JOB NUMBER: 16-1-20

HANSEN & ASSOCIATES, INC.
Consulting Engineers and Land Surveyors
538 North Main Street, Brigham, Utah 84302
Visit us at www.haies.net
Logan Ogden
(801) 399-4905 (435) 352-8272



SITE PLAN FOR
ARS
1708 WEST 4800 SOUTH
RIVERDALE, UT

Sheet
2
of
4
Sheets

No.	Date	By	Revision

LOCATION:

LOCATION: WEBER COUNTY, UTAH
SECTION 12, TOWNSHIP 5 NORTH RANGE 2 WEST, SLB&M
LATITUDE: XX'XX'XX" LONGITUDE: XXX'XX'XX"
APPROXIMATE ELEVATION: 4476

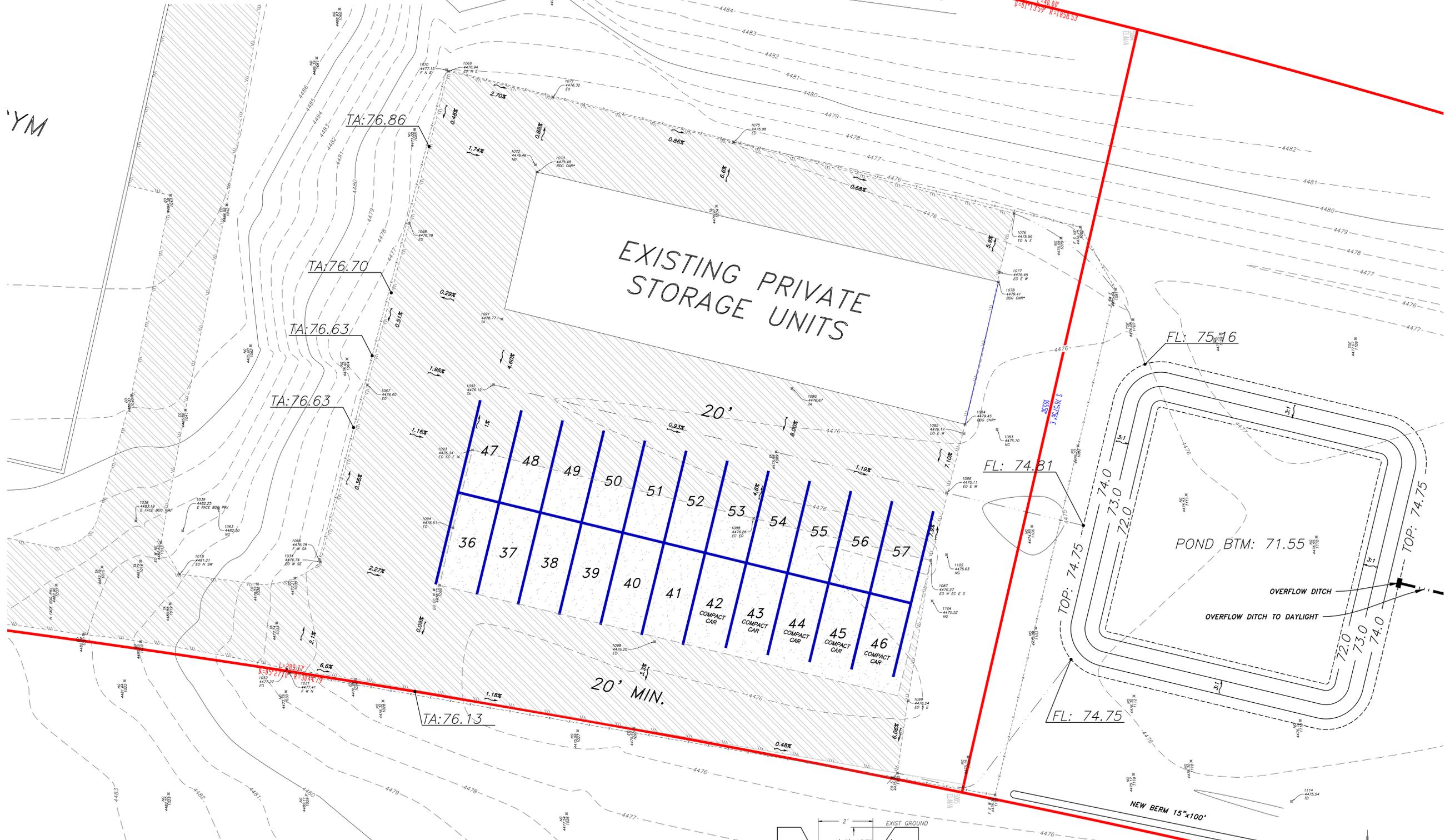
PROJECT DATA:

TAJ ID #: 08-087-0084
ACREAGE: 1.97 ACRES

ARS
DRAINAGE PLAN

OVERVIEW:

THE PROJECT CONSISTS OF CONSTRUCTING AN ASSISTED LIVING, INDEPENDENT LIVING, AND MEMORY CARE FACILITY WITH ACCOMPANYING BUILDINGS ON AN EXISTING FIELD. THIS SITE ACTS LARGELY AS A SELF-CONTAINED BASIN AS GRADIENTS SLOPE IN THE EAST AND SOUTH-EAST DIRECTIONS, AVERAGING A SLOPE OF 1%.



YM

Engineer's Notice To Contractors

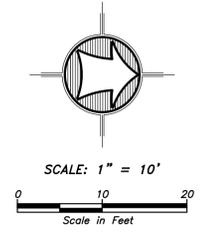
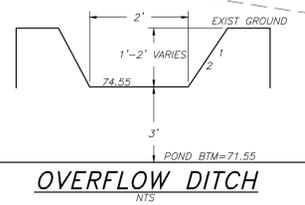
The existence and location of any underground utility pipes or structures shown on these plans were obtained from available information provided by others. The locations shown are approximate and shall be confirmed in the field by the contractor, so that any necessary adjustment can be made in alignment and/or grade of the proposed improvement. The contractor is required to contact the utility companies and take due precautionary measure to protect any utility lines shown, and any other lines obtained by the contractor's research, and others not of record or not shown on these plans.

NOTICE!

EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.

Call Djs BEFORE YOU

1-800-662-4111
UNDERGROUND SERVICE



No.	Date	By	Revision

HANSEN & ASSOCIATES, INC.
Consulting Engineers and Land Surveyors
538 North Main Street, Brigham, Utah 84302
Visit us at www.haies.net
Brigham City Ogden Logan
(435) 723-3491 (801) 399-4905 (435) 752-8272



Drawn By: Date: 04/12/16
Designed By:
Checked By:
Approved By:
Scale: 1" = 10'
Drawing File:
JOB NUMBER: 15-11-20

DRAINAGE PLAN FOR
ARS
1708 WEST 4800 SOUTH
RIVERDALE, UT

ARS
NORTHERLY PARCEL



Engineer's Notice To Contractors

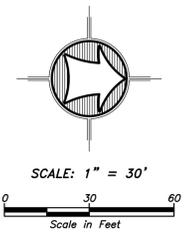
The existence and location of any underground utility pipes or structures shown on these plans were obtained from available information provided by others. The locations shown are approximate and shall be confirmed in the field by the contractor, so that any necessary adjustment can be made in alignment and/or grade of the proposed improvement. The contractor is required to contact the utility companies and take due precautionary measure to protect any utility lines shown, and any other lines obtained by the contractors research, and others not of record or not shown on these plans.

NOTICE!

EXISTING UTILITIES ARE SHOWN ON PLANS FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE ENGINEER BEARS NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR SHOWN INCORRECTLY.

Call Before You Dig

1-800-662-4111
UNDERGROUND SERVICE



Drawn By: Date: 04/12/16
 Designed By:
 Checked By:
 Approved By:
 Scale: 1" = 30'
 Drawing File: File
 JOB NUMBER: 16-1-70

NORTHERLY PARCEL
ARS
 1708 WEST 4800 SOUTH
 RIVERDALE, UT

Sheet
4
 of
4
 Sheets

HANSEN & ASSOCIATES, INC.
 Consulting Engineers and Land Surveyors
 538 North Main Street, Brigham, Utah 84302
 Visit us at www.haies.net
 Ogden Logan
 Brigham City (801) 399-4905 (435) 352-8272



No.	Date	By	Revision

RIVERDALE CITY SITE PLAN CHECKLIST

TITLE:

PROJECT/OWNER/DEVELOPER INFORMATION:

ARS

1708 WEST 4800 SOUTH

RIVERDALE, UTAH 84405

CONTACT: DAVE LOUGHTON: 801-458-0812

CONTACT: JUD EAVES: 435-881-5153

APPROVING AGENCY:

RIVERDALE CITY

COMMUNITY DEVELOPMENT

4600 SO. WEBER DRIVE

RIVERDALE, UTAH 84405

801-394-5541

CONSULTING ENGINEER:

HANSEN & ASSOCIATES, INC. – JIM FLINT

538 N. MAIN STREET

BRIGHAM CITY, UTAH 84302

435-723-3491

LAND SURVEYOR:

HANSEN & ASSOCIATES, INC. – GREG HANSEN

538 N. MAIN STREET

BRIGHAM CITY, UTAH 84302

435-723-3491

DATE: APRIL, 2016

NO REVISIONS TO DATE

SUBMITTAL ENCOMPASES FOUR SHEETS

GENERAL:

STREET NAMES: PROJECT ACCESSES FROM THE SOUTH FORM 4800 SOUTH STREET.

LOTS: TWO TAX ID PARCELS SHOWN ON PLANS (08-087-0084 – SOUTHERLY PARCEL) AND 08-087-0083 (NORTHERLY PARCEL).

ADJACENT TRACTS: UPRR RAILROAD TO THE WEST; UPL INVESTMNETS LC (08-07-0020 TO THE EAST/NORTH); 4800 SOUTH STREET TO THE SOUTH.

SCALE AND NORTH ARROW PROVIDED ON PLANS

TWO PARCELS SHOWN ON PLANS ARE BOTH OWNED BY ARS –
INHERENT RIGHT TO CROSS BOUNDARY LINES FOR ACCESS,
DRAINAGE POND, ETC. NO KNOWN EASMENTS; BUILDINGS
DEPICTED ON AERIAL.

NOTES: STORMWATER MANAGEMENT NOTES PLACED ON PLANS;
PARKING DELINEATIONS SHOWN ON PLANS.

CONTOURS: PROVIDED ON PLANS

PUBLIC AREAS: NO ON-SITE PUBLIC AREAS.

VICINITY MAP:

STREET NAMES, SITE LOCATION, NORTH ARROW & SCALE PROVIDED.

PLAT:

NO PLAT NECESSARY FOR THIS PROJECT.

LAYOUT MATTERS:

LANDSCAPING: EXISTING SOUTH PARCEL IS 1.48 ACRES IMPERVIOUS
AND 0.48 ACRE LANDSCAPED (24%) – TO REMAIN UNCHANGED.

EXTERIOR LIGHTING: ADVANCED AS FROM NORTH WALL OF
EXISTING BUILDING FOR NEW NORTH PARKING AREA. TWO
HIGH BEAM HALOGENS PRESENT.

SIGNAGE: NO NEW SIGNAGE PROPOSED.

OUTDOOR ADVERTISING: NO CHNAGES/PROPOSALS.

UNDERGROUND TANKS: NONE

DUMPSTER: EXISTING DUMPSTER IS SOUTHEAST CORNER OF
SOUTHERLY PARCEL TO REMAIN.

PLAN & PROFILE SHEETS:

NO PLAN & PROFILE SHEETS NECESSARY – POND IMPROVEMENTS
ADEQUATELY DEPICTED ON PLAN SHEETS.

SIGNAGE:

NO NEW SIGNAGE PROPOSED.

BUILDINGS:

EXISTING BUILDINGS DEPICTED ON AERIAL; NO NEW BUILDINGS
PROPOSED – NEW USAGE DECLARED ON NORTH SID EOF
EXISTING BUILDING AS ‘NEW GYM.’

EXISTING BUILDING IS APPROX. 130’ X 200’ = 26,000 SF – NORTHERLY
74 FEET WILL BE USED FOR NEW RECREATIONAL ‘GYM’

PURPOSES (9,620 SF). THE FRONT PORTION WILL CONTINUE TO BE USED FOR WAREHOUSE/OFFICE PURPOSES FOR FLOOD AND FIRE CLEAN-UP COMPANY. THREE CURRENT HANDICAP STALLS ARE SUFFICIENT.

LANDSCAPING:

EXISTING LANDSCAPING OCCUPIES 24% OF SOUTHERLY PARCEL; WEST SIDE OF BUILDING CONSISTS OF GRASS; REMAINDER OF PROPERTY HAS VEGETATION AND TREES.

FENCING:

THERE ARE NO EXISTING BOUNDARY FENCES EXCEPT FOR EAST SIDE BARBED-WIRE FENCE ON NORTHERLY PARCEL. THE STORAGE UNIT/PARKING AREA HAS EXISTING BORDER FENCING – SOUTHEAST ENTRY WILL BE OPENED.

PARKING:

SITE HAS 22 EXISTING STALLS INCLUDING THREE HANDICAP STALLS. 35 NEW STALLS WILL BE ADDED BY STRIPING EXISTING ASPHALT/CONCRETE AREAS – SHOWN ON PLANS. THERE IS NO DEFINED DELINEATION FOR PARKING FOR DIFFERENT USES (FLOOD & FIRE CLEANUP AND RECREATIONAL USAGE) – THE TIMING IS SUCH THAT OVERLAPPING IS NOT ANTICIPATED TO BE A PROBLEM AS RECREATIONAL USAGE IS LATE AFTERNOON AFTER SCHOOL HOURS AND DURING EVENING HOURS.

INGRESS / EGRESS:

EXISTING 24-FOOT WIDE ACCESS LOCATION FROM 4800 SOUTH STREET TO CONTINUE TO BE UTILIZED FOR ALL INGRESS/EGRESS ASPECTS. CIRCULATION PATTERN INVOLVES TWO-WAY TRAFFIC ALLOWANCE ALONG SOUTH AND EAST SIDES OF BUILDING. ALL AISLEWAYS ARE 20-FOOT MINIMUM FOR FIRE PROTECTION ASPECTS.

NEW AND EXISTING STREETS:

NO PROPOSED CHANGES / ON-SITE STREETS.

NEW AND EXISTING STORM DRAINAGE:

SEE STORMWATER MANAGEMENT NARRATIVE WITH COMPREHENSIVE DOCUMENTATION OF METHODOLOGY.

SANITARY SEWER:

NO CHANGES EXTERNALLY – SEWERING IS SOUTHWARD TO PUBLIC SEWER IN 4800 SOUTH STREET.

WATER:

NO CHANGES EXTERNALLY – WATER SERVICE IS SOUTHWARD TO PUBLIC SEWER IN 4800 SOUTH STREET. NO ANTICIPATED NEED FOR UPGRADE AS PROPOSED USAGE IS MINIMAL.

GAS:

EXISTING SERVICE IS ADEQUATE – TO REMAIN.

ELECTRICAL LINES:

SITE HAS DISTRIBUTION SERVICE TO SOUTHERLY PARCEL; OVERHEAS TRANSMISSION LINES TRAVERSE AT A VERY HEALTHY HEIGHT ABOVE NORTHERLY PARCEL.

TELEPHONE & CABLE:

EXISTING SERVICE IS ADEQUATE – TO REMAIN.

DETAILED DRAWINGS:

PLAN SET SHOWS PROPOSED STRIPING AND POND IMPROVEMENTS.

ADDITIONAL INFORMATION:

SOILS REPORT: NOT APPLICABLE / NOT NECESSARY

DRAINAGE & RUNOFF CALCULATIONS: ENCOMPASSED IN
STORMWATER MANAGEMENT NARRATIVE.

WATER RIGHT TRANSFER: NO APPLICABLE

PROTECTIVE COVENANTS: NONE PROPOSED – NOTE: NO OWNERSHIP
TRANSFER OF LAND OR BUILDING WITH THIS PROJECT.

11 X 17: SUBMITTED

CORP OF ENGINEERS: NOT APPLICABLE

RDA COMPLIANCE: NO KNOWN ISSUES

USE COMPLIANCE: ALLOWED PER ZONING WITH APPROVAL

ENGINEERING LETTER: PER RIVERDALE CITY

TRAFFIC STUDY: NOT NECESSARY

CONDITIONS: FORTHCOMING AS DETERMINED

ARS – STORMWATER MANAGEMENT

PROJECT PURPOSE:

ARS OWNS TWO ADJACENT PROPERTIES KNOWN AS TAX ID PARCELS 08-087-0084 (SOUTHERLY 1.97 ACRE PARCEL) AND 08-087-0083 (NORTHERLY 2.00 ACRE PARCEL). ALL EXISTING BUILDINGS AND SITE IMPROVEMENTS ARE LOCATED ON THE SOUTHERLY PARCEL; THE NORTHERLY PARCEL IS VACANT. THE EXISTING GRADIENT IS NORTHERLY AT A MILD (2 – 3%) SLOPE ACROSS THE NORTHERLY PARCEL.

THE PROPOSED PROJECT CONSISTS OF INTERNAL BUILDING IMPROVEMENTS FOR A RECREATIONAL FACILITY – THERE ARE NO PROPOSED EXTERNAL SITE IMPERVIOUS IMPROVEMENTS. THE PRIMARY EXTERNAL IMPROVEMENTS CONSIST OF STRIPING EXISTING IMPERVIOUS SURFACES FOR PARKING PURPOSES. THE SITE NEEDS TO CONTAIN DRAINAGE WATER FOR ALL THE SITE IMPROVEMENTS ON THE SOUTHERLY LOT WHICH HAS A HEALTHY NORTHWARD GRADIENT.

THE PROPOSED DRAINAGE POND WILL BE LOCATED ON THE SOUTHERLY PORTION OF THE VACANT NORTH PARCEL.

STORMWATER STORAGE AMOUNT:

THE CURRENT SOUTHERLY PARCEL CONSISTS OF 1.48 ACRES OF BUILDINGS/ASPHALT/SITE IMPROVEMENTS ($C = 0.95$); THE PERVIOUS LANDSCAPED AREAS AMOUNT TO 0.49 ACRE ($C = 0.15$). THE WEIGHTED RUNOFF COEFFICIENT IS $C = 0.75$ FOR THE 1.97 ACRE PARCEL (85,886 SF).

THERE ARE THREE PARTICULAR ASPECTS TO CONSIDER IN REGARDS TO STORMWATER STORAGE VOLUME:

- (1) STORMWATER QUALITY RETENTION: NEW REGULATIONS MANDATE 0.6 INCHES OF ON-SITE RETENTION – THIS AMOUNT WOULD BE 4,294 CUBIC FEET.
- (2) STORMWATER DETENTION: THE STANDARD WAY OF CALCULATING DETENTION AMOUNTS IN UTAH IS TO ALLOW A DISCHARGE RATE OF 0.1 CFS/ACRE WHICH IS TO BE

REPRESENTATIVE OF THE PRE-DEVELOPMENT RUNOFF CONDITION. APPLYING SUCH A FACTOR, THE DETAINED STORAGE AMOUNT IS 8,962 CUBIC FEET.

- (3) RETENTION: THIS IS THE TOTAL AMOUNT OF RUNOFF FROM A SITE WITH NO DISCHARGE. THE 100-YEAR 24-HOUR AMOUNT OF RUNOFF IS 16,426 CUBIC FEET. MANY COMMUNITIES BASE STORAGE ON THE ACCUMULATED RAINFALL FOR 100-YEAR CONDITIONS FOR A TIME PERIOD OF THREE HOURS – FOR THIS SITE, SUCH WOULD BE 10,652 CUBIC FEET.

STORAGE APPROACH:

EVERY SITE HAS DIFFERING OUTLET CONDITIONS WHICH AFFECT STORMWATER STORAGE. AS NOTED MATHEMATICALLY ABOVE, THE DETENTION AND RETENTION AMOUNTS ARE GREATER THAN THE STORMWATER QUALITY RETENTION AMOUNT. ALTHOUGH THE NORTHERLY PARCEL DOES NOT DISCHARGE INTO A MUNICIPAL UNDERGROUND STORMWATER SYSTEM, IT NONETHELESS HAS AN HISTORICAL DRAINAGE GRADIENT NORTHWARD.

THE PROJECT APPROACH AS ADVANCED RETAINS THE 100 YEAR-3 HOUR EVENT OF 10,652 CUBIC FEET. THERE IS TO BE A SMALL OVERFLOW WEIR THAT ALLOWS WATER TO SPILL OVER AT THE 0.1 CFS/ACRE (0.197 CFS) AMOUNT – THIS ACTS AS AN ‘ELEVATED’ DISCHARGE. THE WEIR IS VERY MINOR – 2 INCHES DEEP BY 2 FEET WIDE. THE POND ITSELF IS 68’ BY 68’ WITH AN EFFECTIVE DEPTH BELOW INCOMING SURFACE FLOWLINES OF 3 FEET. THE DISCHARGE ‘WEIR’ ABOVE THE 3-FOOT POND DEPTH IS ACTUALLY A DITCH THAT TRAVERSES A DISTANCE TO CATCH THE DOWNSTREAM CONTOUR ELEVATION OF 4474. THE ON-SITE DISTANCE BELOW THE POND TRAVERSES FOR A VERY HEALTHY 500 FEET AT A MILD SLOPE – IT IS FELT THAT SUCH ACTS WELL AS A NATURAL DETENTIONARY ELEMENT AS WELL AS FOR STORMWATER QUALITY PURPOSES. THE PRIMARY PURPOSE FOR STORMWATER QUALITY IS TO NOT AFFECT DOWNSTREAM PROPERTIES WITH POOR, DEGRADED RUNOFF – THE LONG LINEAR NORTH PARCEL ACTS AS AN EXCELLENT GRASSY BUFFER STRIP. SUCH IS ADMITTINGLY DOWNSTREAM FROM THE POND BUT IS NONETHELESS VERY EFFECTIVE. THERE IS NO KNOWN, INHERENT GROUNDWATER PROXIMTY ISSUE CONCERNING THE BOTTOM OF THE POND DISTANCE TO GROUNDWATER. TYPICALLY RETENTION PONDS ARE EXCELLENT FOR LOCALIZING STORMWATER

QUALITY MATTERS. IN THIS PARTICULAR CASE, ALTHOUGH THERE IS NO APPARENT POND ‘PRE-TREATMENT,’ THE POND ITSELF ACTS AS AN EXCELLENT SILTATION MANAGEMENT BMP AND THE LONG NORTHWARD ON-SITE GRASSY TRAVERSEMENT ACTS AS AN EFFECTIVE POST-POND BMP.

SITE PARAMETERS:

THE SOUTHERLY PARCEL HAS A SUBSTANTIAL NORTHWARD GRADIENT. A SITE SURVEY HAS BEEN PERFORMED ON THE EXISTING STORAGE AREA – GRADES SURFACE FLOW TO THE NORTH. THERE ARE THREE LOW POINTS THAT DISCHARGE FROM THE STORAGE UNITS SITE THAT WILL BE DITCHED TO THE PROPOSED DRAINAGE POND.

SWPPP:

OVERVIEW:

THE PROJECT INVOLVES STORMWATER QUALITY AND QUANTITY MANAGEMENT FOR EXISTING BUILDING AND SITE IMPROVEMENTS. THERE ARE NO EXTERNAL BUILDING IMPROVEMENTS AT THIS TIME – THE DRAINAGE POND BASICALLY BRINGS THE EXISTING SITE INTO CONFORMANCE WITH STORMWATER MANAGEMENT PRACTICES BY EMPLOYING A DRAINAGE POND.

LOCATION:

LOCATION: CITY OF RIVERDALE, WEBER COUNTY, STATE OF UTAH
SECTION 12, TOWNSHIP 5 NORTH, RANGE 2 WEST, SLBM
LATITUDE: 41-10’39” NORTH (41.177555 DECIMAL)
LONGITUDE: 112-01’10” WEST (112.019522 DECIMAL)
APPROXIMATE ELEVATION: 4475

DISTURBED AREAS:

TOTAL PARCELS: 3.97 ACRES
NO IMPERVIOUS IMPROVEMENTS PER THIS PROJECT
NEW POND AND MINOR CONTRIBUTARY DITCHES ARE APPROXIMATELY 5,500 SF (0.13 ACRE).
EXISTING SOUTHERLY PARCEL: 1.97 ACRES
EXISTING SOUTHERLY PARCEL IMPERVIOUSNESS: 1.49 ACRES
EXISTING SOUTHERLY PARCEL PERVIOUS AREAS: 0.48 ACRE

NEW NORTHERLY PARCEL POND AREA: 0.13 ACRE
SITE HAS EMBEDDED LENGTHY INTERNAL ASPHALT TRACKING
PADS.

PROJECT DATA:

SOUTHERLY PARCEL: TAX ID#: 08-087-0084

NORTHERLY PARCEL: TAX ID#: 08-087-0083

ARS

1708 WEST 4800 SOUTH

RIVERDALE, UTAH 84405

CONTACT: DAVE LOUGHTON: 801-458-0812

CONTACT: JUD EAVES: 435-881-5153

SWPPP PHASING – ORDER OF WORK

AS NECESSARY CONSTRUCT 15-INCH BERM ALONG EAST BOUNDARY
OF NORTHERLY PARCEL OPPOSITE PROPOSED POND FOR
APPROXIMATELY 100 LF PRIOR TO COMMENCING POND
CONSTRUCTION.

CONSTRUCT SHALLOW POND WITH MINOR OVERFLOW WEIR PER
PLAN.

PLANT POND WITH NATIVE GRASSES.

NOTE: THERE ARE NO CONCRETE IMPROVEMENTS – NO NEED FOR A
CONCRETE WASHOUT AREA.

MAINTENANCE / RECORD KEEPING:

SITE IMPROVEMENTS ARE LESS THAN 1 ACRE. THE ENFORCING
AGENCY IS THE CITY OF RIVERDALE – THE CONTACT PERSON IS
SHAWN DOUGLAS AT 801-394-5541 EXT. 1217. KEEP INSPECTION
REPORTS / FORMS AS MANDATED BY RIVERDALE CITY. A
THOROUGH INSPECTION OF THE SWPPP MUST BE CONDUCTED AT
LEAST EVERY 14 DAYS AND AFTER ANY PRECIPITATION OR
SNOWMELT THAT CAUSES SURFACE EROSION. MAINTENANCE
AND/OR MODIFICATIONS TO EROSION CONTROL MEASURES MUST BE
COMPLETED IN A TIMELY MANNER BUT IN NO CASE MORE THAN 7
DAYS AFTER THE EVENT INSPECTION. THE ENFORCING AGENCY IS
RIVERDALE CITY WHO ADMINISTERS AND ENFORCES STORMWATER

POLLUTION PREVENTION PLANS LOCALLY. STORMWATER MANAGEMENT ASPECTS MAY BE MODIFIED BY PERMITTEE WITH APPROVAL OF RIVERDALE CITY REPRESENTATIVE.

ON-GOING MAINTENANCE: THERE ARE THREE DRAINAGE DITCHES THAT CONDUCT WATER FROM THE STORAGE SHEDS / PARKING AREAS A SHORT TO THE DRAINAGE POND. ALTHOUGH THESE ARE AT A MINOR SLOPE (NOT INHERENTLY EROSION-INDUCING), THEY MUST BE INSPECTED AFTER STORM EVENTS. IT IS PREFERRED THAT THESE DITCHES BE IN COMPACTED ROADBASE IF ANY ON-GOING EROSION IS ENCOUNTERED.

THE EAST SIDE 15-INCH BERMING MAY BE REMOVED AFTER POND CONSTRUCTION.

THE PRIMARY ASPECT OF THE POND IS TO ASSURE THAT NATIVE GRASSES GERMINATE AND ARE THEN KEPT TO A REASONABLE HEIGHT (LESS THAN 12 INCHES). THE POND GRASSES SHOULD BE TRIMMED IN APRIL AND OCTOBER EVERY YEAR (AND MORE OFTEN IF THEY EXCEED 12 INCHES).

THE DOWNSTREAM DISCHARGE OF THE POND IS TO BE INSPECTED BI-ANNUALLY TO ASSURE THAT NO RAPID CONDUCTANCE IS OCCURRING TO OFF-SITE DOWNSTREAM PARCELS. IF SUCH HAPPENS, EROSION CONTROL LOGS ('WADDLES') CAN BE PLACED IN GENERAL PATHWAY DOWNSTREAM OF POND.

ARS – STORMWATER MANAGEMENT

PROJECT PURPOSE:

ARS OWNS TWO ADJACENT PROPERTIES KNOWN AS TAX ID PARCELS 08-087-0084 (SOUTHERLY 1.97 ACRE PARCEL) AND 08-087-0083 (NORTHERLY 2.00 ACRE PARCEL). ALL EXISTING BUILDINGS AND SITE IMPROVEMENTS ARE LOCATED ON THE SOUTHERLY PARCEL; THE NORTHERLY PARCEL IS VACANT. THE EXISTING GRADIENT IS NORTHERLY AT A MILD (2 – 3%) SLOPE ACROSS THE NORTHERLY PARCEL.

THE PROPOSED PROJECT CONSISTS OF INTERNAL BUILDING IMPROVEMENTS FOR A RECREATIONAL FACILITY – THERE ARE NO PROPOSED EXTERNAL SITE IMPERVIOUS IMPROVEMENTS. THE PRIMARY EXTERNAL IMPROVEMENTS CONSIST OF STRIPING EXISTING IMPERVIOUS SURFACES FOR PARKING PURPOSES. THE SITE NEEDS TO CONTAIN DRAINAGE WATER FOR ALL THE SITE IMPROVEMENTS ON THE SOUTHERLY LOT WHICH HAS A HEALTHY NORTHWARD GRADIENT.

THE PROPOSED DRAINAGE POND WILL BE LOCATED ON THE SOUTHERLY PORTION OF THE VACANT NORTH PARCEL.

STORMWATER STORAGE AMOUNT:

THE CURRENT SOUTHERLY PARCEL CONSISTS OF 1.48 ACRES OF BUILDINGS/ASPHALT/SITE IMPROVEMENTS ($C = 0.95$); THE PERVIOUS LANDSCAPED AREAS AMOUNT TO 0.49 ACRE ($C = 0.15$). THE WEIGHTED RUNOFF COEFFICIENT IS $C = 0.75$ FOR THE 1.97 ACRE PARCEL (85,886 SF).

THERE ARE THREE PARTICULAR ASPECTS TO CONSIDER IN REGARDS TO STORMWATER STORAGE VOLUME:

- (1) STORMWATER QUALITY RETENTION: NEW REGULATIONS MANDATE 0.6 INCHES OF ON-SITE RETENTION – THIS AMOUNT WOULD BE 4,294 CUBIC FEET.
- (2) STORMWATER DETENTION: THE STANDARD WAY OF CALCULATING DETENTION AMOUNTS IN UTAH IS TO ALLOW A DISCHARGE RATE OF 0.1 CFS/ACRE WHICH IS TO BE

REPRESENTATIVE OF THE PRE-DEVELOPMENT RUNOFF CONDITION. APPLYING SUCH A FACTOR, THE DETAINED STORAGE AMOUNT IS 8,962 CUBIC FEET.

- (3) RETENTION: THIS IS THE TOTAL AMOUNT OF RUNOFF FROM A SITE WITH NO DISCHARGE. THE 100-YEAR 24-HOUR AMOUNT OF RUNOFF IS 16,426 CUBIC FEET. MANY COMMUNITIES BASE STORAGE ON THE ACCUMULATED RAINFALL FOR 100-YEAR CONDITIONS FOR A TIME PERIOD OF THREE HOURS – FOR THIS SITE, SUCH WOULD BE 10,652 CUBIC FEET.

STORAGE APPROACH:

EVERY SITE HAS DIFFERING OUTLET CONDITIONS WHICH AFFECT STORMWATER STORAGE. AS NOTED MATHEMATICALLY ABOVE, THE DETENTION AND RETENTION AMOUNTS ARE GREATER THAN THE STORMWATER QUALITY RETENTION AMOUNT. ALTHOUGH THE NORTHERLY PARCEL DOES NOT DISCHARGE INTO A MUNICIPAL UNDERGROUND STORMWATER SYSTEM, IT NONETHELESS HAS AN HISTORICAL DRAINAGE GRADIENT NORTHWARD.

THE PROJECT APPROACH AS ADVANCED RETAINS THE 100 YEAR-3 HOUR EVENT OF 10,652 CUBIC FEET. THERE IS TO BE A SMALL OVERFLOW WEIR THAT ALLOWS WATER TO SPILL OVER AT THE 0.1 CFS/ACRE (0.197 CFS) AMOUNT – THIS ACTS AS AN ‘ELEVATED’ DISCHARGE. THE WEIR IS VERY MINOR – 2 INCHES DEEP BY 2 FEET WIDE. THE POND ITSELF IS 68’ BY 68’ WITH AN EFFECTIVE DEPTH BELOW INCOMING SURFACE FLOWLINES OF 3 FEET. THE DISCHARGE ‘WEIR’ ABOVE THE 3-FOOT POND DEPTH IS ACTUALLY A DITCH THAT TRAVERSES A DISTANCE TO CATCH THE DOWNSTREAM CONTOUR ELEVATION OF 4474. THE ON-SITE DISTANCE BELOW THE POND TRAVERSES FOR A VERY HEALTHY 500 FEET AT A MILD SLOPE – IT IS FELT THAT SUCH ACTS WELL AS A NATURAL DETENTIONARY ELEMENT AS WELL AS FOR STORMWATER QUALITY PURPOSES. THE PRIMARY PURPOSE FOR STORMWATER QUALITY IS TO NOT AFFECT DOWNSTREAM PROPERTIES WITH POOR, DEGRADED RUNOFF – THE LONG LINEAR NORTH PARCEL ACTS AS AN EXCELLENT GRASSY BUFFER STRIP. SUCH IS ADMITTINGLY DOWNSTREAM FROM THE POND BUT IS NONETHELESS VERY EFFECTIVE. THERE IS NO KNOWN, INHERENT GROUNDWATER PROXIMTY ISSUE CONCERNING THE BOTTOM OF THE POND DISTANCE TO GROUNDWATER. TYPICALLY RETENTION PONDS ARE EXCELLENT FOR LOCALIZING STORMWATER

QUALITY MATTERS. IN THIS PARTICULAR CASE, ALTHOUGH THERE IS NO APPARENT POND 'PRE-TREATMENT,' THE POND ITSELF ACTS AS AN EXCELLENT SILTATION MANAGEMENT BMP AND THE LONG NORTHWARD ON-SITE GRASSY TRAVERSEMENT ACTS AS AN EFFECTIVE POST-POND BMP.

SITE PARAMETERS:

THE SOUTHERLY PARCEL HAS A SUBSTANTIAL NORTHWARD GRADIENT. A SITE SURVEY HAS BEEN PERFORMED ON THE EXISTING STORAGE AREA – GRADES SURFACE FLOW TO THE NORTH. THERE ARE THREE LOW POINTS THAT DISCHARGE FROM THE STORAGE UNITS SITE THAT WILL BE DITCHED TO THE PROPOSED DRAINAGE POND.

SWPPP:

OVERVIEW:

THE PROJECT INVOLVES STORMWATER QUALITY AND QUANTITY MANAGEMENT FOR EXISTING BUILDING AND SITE IMPROVEMENTS. THERE ARE NO EXTERNAL BUILDING IMPROVEMENTS AT THIS TIME – THE DRAINAGE POND BASICALLY BRINGS THE EXISTING SITE INTO CONFORMANCE WITH STORMWATER MANAGEMENT PRACTICES BY EMPLOYING A DRAINAGE POND.

LOCATION:

LOCATION: CITY OF RIVERDALE, WEBER COUNTY, STATE OF UTAH
SECTION 12, TOWNSHIP 5 NORTH, RANGE 2 WEST, SLBM
LATITUDE: 41-10'39" NORTH (41.177555 DECIMAL)
LONGITUDE: 112-01'10" WEST (112.019522 DECIMAL)
APPROXIMATE ELEVATION: 4475

DISTURBED AREAS:

TOTAL PARCELS: 3.97 ACRES
NO IMPERVIOUS IMPROVEMENTS PER THIS PROJECT
NEW POND AND MINOR CONTRIBUTARY DITCHES ARE APPROXIMATELY 5,500 SF (0.13 ACRE).
EXISTING SOUTHERLY PARCEL: 1.97 ACRES
EXISTING SOUTHERLY PARCEL IMPERVIOUSNESS: 1.49 ACRES
EXISTING SOUTHERLY PARCEL PERVIOUS AREAS: 0.48 ACRE

NEW NORTHERLY PARCEL POND AREA: 0.13 ACRE
SITE HAS EMBEDDED LENGTHY INTERNAL ASPHALT TRACKING
PADS.

PROJECT DATA:

SOUTHERLY PARCEL: TAX ID#: 08-087-0084

NORTHERLY PARCEL: TAX ID#: 08-087-0083

ARS

1708 WEST 4800 SOUTH

RIVERDALE, UTAH 84405

CONTACT: DAVE LOUGHTON: 801-458-0812

CONTACT: JUD EAVES: 435-881-5153

SWPPP PHASING – ORDER OF WORK

AS NECESSARY CONSTRUCT 15-INCH BERM ALONG EAST BOUNDARY
OF NORTHERLY PARCEL OPPOSITE PROPOSED POND FOR
APPROXIMATELY 100 LF PRIOR TO COMMENCING POND
CONSTRUCTION.

CONSTRUCT SHALLOW POND WITH MINOR OVERFLOW WEIR PER
PLAN.

PLANT POND WITH NATIVE GRASSES.

NOTE: THERE ARE NO CONCRETE IMPROVEMENTS – NO NEED FOR A
CONCRETE WASHOUT AREA.

MAINTENANCE / RECORD KEEPING:

SITE IMPROVEMENTS ARE LESS THAN 1 ACRE. THE ENFORCING
AGENCY IS THE CITY OF RIVERDALE – THE CONTACT PERSON IS
SHAWN DOUGLAS AT 801-394-5541 EXT. 1217. KEEP INSPECTION
REPORTS / FORMS AS MANDATED BY RIVERDALE CITY. A
THOROUGH INSPECTION OF THE SWPPP MUST BE CONDUCTED AT
LEAST EVERY 14 DAYS AND AFTER ANY PRECIPITATION OR
SNOWMELT THAT CAUSES SURFACE EROSION. MAINTENANCE
AND/OR MODIFICATIONS TO EROSION CONTROL MEASURES MUST BE
COMPLETED IN A TIMELY MANNER BUT IN NO CASE MORE THAN 7
DAYS AFTER THE EVENT INSPECTION. THE ENFORCING AGENCY IS
RIVERDALE CITY WHO ADMINISTERS AND ENFORCES STORMWATER

POLLUTION PREVENTION PLANS LOCALLY. STORMWATER MANAGEMENT ASPECTS MAY BE MODIFIED BY PERMITTEE WITH APPROVAL OF RIVERDALE CITY REPRESENTATIVE.

ON-GOING MAINTENANCE: THERE ARE THREE DRAINAGE DITCHES THAT CONDUCT WATER FROM THE STORAGE SHEDS / PARKING AREAS A SHORT TO THE DRAINAGE POND. ALTHOUGH THESE ARE AT A MINOR SLOPE (NOT INHERENTLY EROSION-INDUCING), THEY MUST BE INSPECTED AFTER STORM EVENTS. IT IS PREFERRED THAT THESE DITCHES BE IN COMPACTED ROADBASE IF ANY ON-GOING EROSION IS ENCOUNTERED.

THE EAST SIDE 15-INCH BERMING MAY BE REMOVED AFTER POND CONSTRUCTION.

THE PRIMARY ASPECT OF THE POND IS TO ASSURE THAT NATIVE GRASSES GERMINATE AND ARE THEN KEPT TO A REASONABLE HEIGHT (LESS THAN 12 INCHES). THE POND GRASSES SHOULD BE TRIMMED IN APRIL AND OCTOBER EVERY YEAR (AND MORE OFTEN IF THEY EXCEED 12 INCHES).

THE DOWNSTREAM DISCHARGE OF THE POND IS TO BE INSPECTED BI-ANNUALLY TO ASSURE THAT NO RAPID CONDUCTANCE IS OCCURRING TO OFF-SITE DOWNSTREAM PARCELS. IF SUCH HAPPENS, EROSION CONTROL LOGS ('WADDLES') CAN BE PLACED IN GENERAL PATHWAY DOWNSTREAM OF POND.



NOAA Atlas 14, Volume 1, Version 5
Location name: Ogden, Utah, US*
Coordinates: 41.1936, -112.0097
Elevation: 4439 ft* *Air Port*
* source: Google Maps



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF_tabular](#) | [PF_graphical](#) | [Maps & aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.131 (0.114-0.152)	0.165 (0.146-0.192)	0.225 (0.197-0.261)	0.282 (0.245-0.327)	0.374 (0.317-0.437)	0.460 (0.377-0.544)	0.562 (0.446-0.673)	0.684 (0.522-0.836)	0.882 (0.634-1.11)	1.07 (0.730-1.38)
10-min	0.200 (0.174-0.232)	0.251 (0.222-0.292)	0.343 (0.300-0.397)	0.429 (0.372-0.498)	0.569 (0.482-0.665)	0.699 (0.573-0.828)	0.856 (0.678-1.02)	1.04 (0.794-1.27)	1.34 (0.966-1.69)	1.62 (1.11-2.10)
15-min	0.248 (0.215-0.287)	0.311 (0.275-0.362)	0.425 (0.372-0.493)	0.532 (0.461-0.618)	0.706 (0.598-0.825)	0.867 (0.711-1.03)	1.06 (0.840-1.27)	1.29 (0.984-1.58)	1.67 (1.20-2.10)	2.01 (1.38-2.60)
30-min	0.334 (0.290-0.387)	0.419 (0.370-0.487)	0.572 (0.501-0.663)	0.716 (0.621-0.832)	0.950 (0.805-1.11)	1.17 (0.957-1.38)	1.43 (1.13-1.71)	1.74 (1.33-2.13)	2.24 (1.61-2.83)	2.71 (1.85-3.50)
60-min	0.413 (0.359-0.479)	0.518 (0.458-0.603)	0.708 (0.620-0.821)	0.886 (0.769-1.03)	1.18 (0.996-1.38)	1.45 (1.19-1.71)	1.77 (1.40-2.12)	2.15 (1.64-2.63)	2.77 (2.00-3.50)	3.35 (2.29-4.33)
2-hr	0.525 (0.465-0.601)	0.657 (0.583-0.752)	0.847 (0.749-0.971)	1.03 (0.899-1.18)	1.34 (1.14-1.55)	1.61 (1.35-1.90)	1.95 (1.57-2.33)	2.35 (1.82-2.86)	2.99 (2.18-3.76)	3.58 (2.49-4.61)
3-hr	0.614 (0.551-0.689)	0.755 (0.678-0.852)	0.942 (0.843-1.06)	1.12 (0.993-1.26)	1.40 (1.22-1.60)	1.67 (1.42-1.93)	2.00 (1.66-2.35)	2.40 (1.92-2.87)	3.04 (2.32-3.79)	3.63 (2.66-4.65)
6-hr	0.831 (0.761-0.914)	1.01 (0.924-1.12)	1.22 (1.11-1.35)	1.41 (1.27-1.57)	1.70 (1.52-1.90)	1.95 (1.71-2.19)	2.22 (1.92-2.54)	2.54 (2.14-2.94)	3.18 (2.59-3.83)	3.76 (2.98-4.70)
12-hr	1.06 (0.979-1.16)	1.30 (1.20-1.42)	1.57 (1.44-1.72)	1.80 (1.64-1.97)	2.15 (1.94-2.38)	2.44 (2.17-2.72)	2.75 (2.40-3.11)	3.09 (2.64-3.55)	3.61 (2.99-4.24)	4.04 (3.26-4.84)
24-hr	1.31 (1.21-1.40)	1.60 (1.49-1.72)	1.91 (1.78-2.05)	2.16 (2.02-2.32)	2.51 (2.33-2.70)	2.78 (2.58-2.99)	3.06 (2.82-3.29)	3.34 (3.06-3.60)	3.72 (3.38-4.29)	4.08 (3.62-4.89)
2-day	1.52 (1.42-1.63)	1.86 (1.74-2.00)	2.21 (2.06-2.37)	2.50 (2.33-2.68)	2.89 (2.69-3.09)	3.18 (2.95-3.41)	3.48 (3.22-3.74)	3.79 (3.48-4.07)	4.18 (3.81-4.51)	4.48 (4.06-4.94)
3-day	1.65 (1.54-1.77)	2.02 (1.89-2.18)	2.41 (2.25-2.58)	2.73 (2.55-2.93)	3.17 (2.95-3.39)	3.50 (3.25-3.76)	3.85 (3.56-4.13)	4.19 (3.85-4.51)	4.65 (4.24-5.03)	5.00 (4.53-5.47)
4-day	1.79 (1.67-1.92)	2.19 (2.05-2.35)	2.61 (2.44-2.80)	2.97 (2.77-3.18)	3.45 (3.22-3.69)	3.83 (3.55-4.10)	4.21 (3.89-4.52)	4.60 (4.23-4.96)	5.12 (4.67-5.55)	5.52 (4.99-6.01)
7-day	2.13 (1.98-2.28)	2.60 (2.43-2.80)	3.10 (2.90-3.33)	3.51 (3.28-3.76)	4.07 (3.79-4.35)	4.50 (4.18-4.81)	4.93 (4.56-5.29)	5.36 (4.93-5.78)	5.93 (5.42-6.43)	6.37 (5.78-6.94)
10-day	2.42 (2.25-2.59)	2.96 (2.76-3.18)	3.52 (3.28-3.76)	3.96 (3.70-4.23)	4.53 (4.23-4.84)	4.96 (4.61-5.30)	5.38 (4.99-5.76)	5.78 (5.34-6.21)	6.30 (5.79-6.80)	6.68 (6.11-7.24)
20-day	3.13 (2.92-3.33)	3.84 (3.59-4.10)	4.52 (4.24-4.83)	5.05 (4.73-5.39)	5.72 (5.35-6.09)	6.19 (5.79-6.60)	6.65 (6.21-7.10)	7.08 (6.59-7.57)	7.60 (7.05-8.16)	7.96 (7.37-8.57)
30-day	3.76 (3.53-4.01)	4.60 (4.32-4.91)	5.40 (5.07-5.75)	6.01 (5.64-6.39)	6.78 (6.36-7.20)	7.32 (6.85-7.79)	7.85 (7.32-8.36)	8.34 (7.76-8.90)	8.93 (8.28-9.56)	9.34 (8.63-10.0)
45-day	4.64 (4.34-4.95)	5.66 (5.31-6.05)	6.62 (6.21-7.06)	7.37 (6.92-7.84)	8.32 (7.80-8.84)	9.00 (8.41-9.56)	9.64 (8.99-10.3)	10.2 (9.53-10.9)	11.0 (10.2-11.7)	11.4 (10.6-12.2)
60-day	5.50 (5.16-5.85)	6.71 (6.31-7.17)	7.85 (7.39-8.37)	8.73 (8.21-9.28)	9.83 (9.24-10.5)	10.6 (9.96-11.3)	11.3 (10.6-12.1)	12.0 (11.2-12.8)	12.8 (12.0-13.7)	13.4 (12.4-14.4)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

[Back to Top](#)

PF graphical

ARS

Drainage Calculations - Detention

April 12, 2016

BASIN A:

RAINFALL: 100-YR, 1-HOUR	1.77	INCHES	STORAGE REQUIREMENT FROM ENTITY
BASIN AREA (SF):	85,886	SF	
BASIN AREA (AC):	1.97	AC	
100% IMPERVIOUSNESS	1.00		
BASIN WEIGHTED 'C':	0.75		
RAINFALL ON BASIN (100%):	12,668	CF	100% RAINFALL FOR STORAGE EVENT
RUNOFF FROM ON BASIN (PER 'C')	9,501	CF	100% RUNOFF FOR STORAGE EVENT
RAINFALL PER IDF:			
INTENSITY AT 24 HRS:	0.128	IN/HR	24-HR RATE FOR CHOSEN EVENT
VOLUME = I*(T=24 HRS)*A*C	16,426	CF	24-HR RUNOFF - MIGHT NOT BE APPLIC.
PREC. VS. IDF COMPARSON	-6925	CF	ONLY APPLIC. IF COMPARING 24-HR. EVENT
BASIN A (AREA):	85,886	SF	
SUMP ROCK PERIMETER (LF)	0	LF	
SUMP ROCK HEIGHT	0	LF	
SUMP PERC SF	0	SF	
PERCOLATION RATE (IN/HR)	0.00	IN/HR	
PERCOLATION (CFS)	0.0000	CFS	
PERCOLATION PER 5 MINUTES	0.0	CF	
NUMBER OF SUMPS	0		

Duration	Storm Intensity	Weighted "C"	Subbasin Area	Stormwater Flow	Accumulated inflow	MH / Rock Storage	Metered Outflow Rate	Total Outflow	Metered Outflow	Other Outflow	Required Storage	Available Storage
(min)	(in/hr)		(sq.ft.)	(cfs)	(cf)	(cf)	(cfs)	(cf)	(cfs)	(cf)	(cf)	(cf)
5	6.74	0.75	85,886	9.97	2,990	-	0.1970	59	0.000	-	2,931	-
10	5.14	0.75	85,886	7.59	4,557	-	0.1970	118	0.000	-	4,439	-
15	4.24	0.75	85,886	6.27	5,643	-	0.1970	177	0.000	-	5,466	-
30	2.86	0.75	85,886	4.23	7,613	-	0.1970	355	0.000	-	7,258	-
60	1.77	0.75	85,886	2.62	9,423	-	0.1970	709	0.000	-	8,713	-
120	0.98	0.75	85,886	1.44	10,381	-	0.1970	1,418	0.000	-	8,962	-
180	0.67	0.75	85,886	0.99	10,652	-	0.1970	2,128	0.000	-	8,525	-
360	0.37	0.75	85,886	0.55	11,818	-	0.1970	4,255	0.000	-	7,563	-
720	0.23	0.75	85,886	0.34	14,629	-	0.1970	8,510	0.000	-	6,119	-
1440	0.128	0.75	85,886	0.189	16,426	-	0.1970	17,021	0.000	-	(595)	-

ARS

Drainage Calculations - Retention

April 12, 2016

BASIN A:

RAINFALL: 100-YR, 1-HOUR	1.77	INCHES	STORAGE REQUIREMENT FROM ENTITY
BASIN AREA (SF):	85,886	SF	
BASIN AREA (AC):	1.97	AC	
100% IMPERVIOUSNESS	1.00		
BASIN WEIGHTED 'C':	0.75		
RAINFALL ON BASIN (100%):	12,668	CF	100% RAINFALL FOR STORAGE EVENT
RUNOFF FROM ON BASIN (PER 'C')	9,501	CF	100% RUNOFF FOR STORAGE EVENT
RAINFALL PER IDF:			
INTENSITY AT 24 HRS:	0.128	IN/HR	24-HR RATE FOR CHOSEN EVENT
VOLUME = I*(T=24 HRS)*A*C	16,426	CF	24-HR RUNOFF - MIGHT NOT BE APPLIC.
PREC. VS. IDF COMPARSON	-6925	CF	ONLY APPLIC. IF COMPARING 24-HR. EVENT
BASIN A (AREA):	85,886	SF	
SUMP ROCK PERIMETER (LF)	0	LF	
SUMP ROCK HEIGHT	0	LF	
SUMP PERC SF	0	SF	
PERCOLATION RATE (IN/HR)	0.00	IN/HR	
PERCOLATION (CFS)	0.0000	CFS	
PERCOLATION PER 5 MINUTES	0.0	CF	
NUMBER OF SUMPS	0		

Duration	Storm Intensity	Weighted "C"	Subbasin Area	Stormwater Flow	Accumulated inflow	MH / Rock Storage	Metered Outflow Rate	Total Outflow	Metered Outflow	Other Outflow	Required Storage	Available Storage
(min)	(in/hr)		(sq.ft.)	(cfs)	(cf)	(cf)	(cfs)	(cf)	(cfs)	(cf)	(cf)	(cf)
5	6.74	0.75	85,886	9.97	2,990	-	0.0000	-	0.000	-	2,990	-
10	5.14	0.75	85,886	7.59	4,557	-	0.0000	-	0.000	-	4,557	-
15	4.24	0.75	85,886	6.27	5,643	-	0.0000	-	0.000	-	5,643	-
30	2.86	0.75	85,886	4.23	7,613	-	0.0000	-	0.000	-	7,613	-
60	1.77	0.75	85,886	2.62	9,423	-	0.0000	-	0.000	-	9,423	-
120	0.98	0.75	85,886	1.44	10,381	-	0.0000	-	0.000	-	10,381	-
180	0.67	0.75	85,886	0.99	10,652	-	0.0000	-	0.000	-	10,652	-
360	0.37	0.75	85,886	0.55	11,818	-	0.0000	-	0.000	-	11,818	-
720	0.23	0.75	85,886	0.34	14,629	-	0.0000	-	0.000	-	14,629	-
1440	0.128	0.75	85,886	0.189	16,426	-	0.0000	-	0.000	-	16,426	-

**RIVERDALE CITY
PLANNING COMMISSION AGENDA
April 26, 2016**

AGENDA ITEM: E2

SUBJECT: Final Site Plan Approval H&P Investment

PETITIONER: Mike Eggett, Community Development

ACTION REQUESTED: Consideration of approval.

INFORMATION:

- a. [Executive Summary](#)
- b. [Final Site Plan Review](#)
- c. [Engineer Review Letter](#)
- d. [Department Staff Reports](#)
- e. [Application](#)
- f. [Weber County Plat Map](#)
- g. [Response to Comments/Resubmittal](#)
- h. [Flex Space](#)
- i. [Site Plan Addendum](#)

[BACK TO AGENDA](#)



Planning Commission Executive Summary

For the Commission meeting on: 04-26-2016

Petitioner: *H&P Investments*,
represented by Dave Pierson with *Galloway, Inc.*

Summary of Proposed Action

H&P Investments, as represented by Dave Pierson, have applied for a Preliminary Site Plan review of a Flex Building Site Plan that will operate as a business park/office located at approximately 4800 South River Park Drive in a Regional Commercial (C-3) zone. This site plan is being proposed for development on property currently owned by H&P Investments. A public hearing is not required to consider this Site Plan proposal. The Preliminary Site Plan was approved by the Planning Commission on April 12, 2016 with the understanding that any outstanding staff concerns be resolved. This matter is now before the Planning Commission for Final Site Consideration and Recommendation to the City Council. Following the presentation and discussion of the proposal, the Planning Commission may make a motion recommending final site plan approval of the H&P Investments Flex Building proposal, recommending approval of the proposed site plan with any requested modifications, or not recommending site plan approval of the H&P Investments Flex Building proposal. If a favorable final site recommendation was provided, then this matter could move forward to a Final Site Plan review and consideration for approval by the City Council.

Title 10 Ordinance Guidelines (Code Reference)

This Preliminary/Final Site Plan review is regulated under City Code 10-25 "Development in All Zones", and is affected by City Codes 10-10A "Regional Commercial Zones (C-1, C-2, C-3)", 10-14 "Regulations Applicable to All Zones", 10-15 "Parking, Loading Space; Vehicle Traffic and Access", and 10-16 "Sign Regulations".

The proposed development parcel is located on property currently owned by H&P Investments and is located directly south of the Tony Divino Toyota site. The property is in a C-3 zone and all uses listed in this zone (whether permitted or conditional) would be available for development and use on this lot. Per the applicant, the desired uses are professional office, warehouse, and small business type uses.

Attached with this executive summary is a document entitled "Final Site Plan Review - H&P Investments - Flex Building 1"; this is a supplementary document addressing items on the Preliminary/Final Site Plan application document. Also attached, following this executive summary, are comments from the Public Works Director, the Fire Chief, the Police Chief, the City Administrator, and contracted City Engineer. The Planning Commission should discuss any concerns raised by these summaries.

Staff would encourage the Planning Commission to review this matter and then discuss with the petitioner concerns raised by staff and/or the Planning Commission. Staff would then request that the Planning Commission may make a motion recommending final site plan approval of the H&P Investments Flex Building proposal, recommending approval of the proposed site plan with any requested modifications, or not recommending site plan approval of the H&P Investments Flex Building proposal. If a favorable final site recommendation was provided, then this matter could move forward to a Final Site Plan review and consideration for approval by the City Council.

General Plan Guidance (Section Reference)

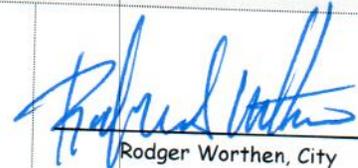
The General Plan use for this area is currently set as "Planned Commercial - High" and this proposed project would comply with this land use.

Legal Comments - City Attorney



Steve Brooks, Attorney

Administrative Comments - City Administrator



Rodger Worthen, City Administrator



Final Site Plan Review – H&P Investments – Flex Building 1, 770 West River Park Drive

Completed by Mike Eggett, Community Dev. Director on 4/18/2016

Recommendation: City staff recommends that the Planning Commission examine and review items associated with this proposed final site plan review. Items of consideration or note have been highlighted in yellow for potential discussion purposes. City staff encourages the Planning Commission to act accordingly to recommend final site plan approval or not recommend approval for the proposed H&P Investments Flex Building site plan with any additional comments or concerns to be addressed by the developer.

Date Plan Submitted to City: (Must be at least two weeks prior to Planning Commission meeting)	March 28, 2016; updated on April 13, 2016
Date Application Submitted to City:	March 28, 2016
Date Fee Paid:	Paid on March 28, 2016 (see receipt for detail)
Site Plan – Preliminary Requirements	Departmental Review Comments
<i>COVER SHEET</i>	Provided
<u>Title Block</u>	
Project name and address	Project name and address location shown, <u>project address needs to be corrected; lot address will be 770 West River Park Drive</u>
Property Owner’s name, address, and phone number	H&P Investments, 894 West Riverdale Rd., Riverdale, Utah 84405, 801-337-2257
Developer’s name, address, and phone number	H&P Investments, 894 West Riverdale Rd., Riverdale, Utah 84405, 801-337-2257
Approving agency’s name and address: Utility companies if applicable	Riverdale City, 4600 So. Weber River Drive, Riverdale, Utah 84405; all other utility agencies affected are listed on cover sheet
Consulting Engineer’s name, address, and phone number	Galloway & Company, Inc. – Dave Pierson, 515 S. 700 E., Suite 3F, Salt Lake City, Utah 84102, 801-549-7563
Licensed Land Surveyor’s name, address, phone number, signature, and seal	Great Basin Engineering – Andy Hubbard, PLS, 5746 S. 1475 E., Ogden, Utah 84403; seal and signatures shown on ALTA survey sheet submitted with the final design plans

Date	Yes – March 28, 2016; updated on April 13, 2016
Revision block with date and initials	Revision block shown with initials
Sheet number and total sheets	Shown (24 total sheets)
<u>General</u>	
Street names	Shown – River Park Drive (700 West)
Layouts of lots with lot numbers	Yes, shown as Flex Space Phase 1 and Flex Space Phase 2 (future) on one building lot
Adjacent tract ownership and tax identification numbers	Tract ownership names and tax ID shown internally within packet
Scale (minimum 1"=50' to 1"=10')	Yes, scale is shown
North arrow	Yes
Existing easements, structures, and utility lines: Approval to cross, use, or relocate	Existing easements identified on sheet 5; structures around site identified, existing utility lines shown in packet; <u>unknown if approvals provided to cross, use, relocate</u>
Space for notes	Yes, notes and legend sheets provided
Contours	Yes, shown on sheets 3, 9, 10 and 15
Public areas	Sidewalks, park strips shown and identified on sheets 5 and 6
<u>Vicinity Map</u>	
Street names	Yes
Site location	Yes
North arrow	Yes
Scale	Note of "Not to Scale"
<i>PLAT SHEET</i>	<u>No new platting necessary for this project (use cover sheet)</u>
<u>Title Block</u>	
Project name and address	Project name and address location shown, <u>project address needs to be corrected; lot address will be 770 West River Park Drive</u>
Approving Agency's name and address	Riverdale City, 4600 So. Weber River Drive, Riverdale, Utah 84405
Consulting Engineer's name, address, and phone number	Galloway & Company, Inc. – Dave Pierson, 515 S. 700 E., Suite 3F, Salt Lake City, Utah 84102, 801-549-7563
Date	Yes – March 28, 2016; updated on April 13, 2016

Names of approving agents with titles, stamps, signatures, and license expiration dates	<u>Names of approving agents, titles, stamps, signatures, and expiration dates anticipated as applicable to proposal</u>
Names of approving departments (Attorney, Planning Commission, Mayor, Recorder)	Not applicable
Consulting Engineer's stamp, signature, and license expiration date	Yes – Engineer agency's logo and contact information showing, <u>stamp and signatures anticipated with final documents submittal</u>
<u>Layout</u>	
Street Names	Shown – River Park Drive (700 West)
Layouts of lots with lot numbers	Yes, shown as Flex Space Phase 1 and Flex Space Phase 2 (future) on one building lot
Bearings and distances for all property lines and section ties	Yes, shown; Defer to City Engineer review
Legal description	Yes, shown; Defer to City Engineer review
Adjacent tract ownership and tax identification numbers	Tract ownership names and tax ID shown internally within packet
Scale (minimum 1"=50')	Yes, scale is showing
North arrow	Yes
Owner's dedication certificate for subdivision (Notary Acknowledgement)	Not applicable
Landscaping (location and type with area calculations)	Yes, provided on sheets 22 and 23
Location of exterior lighting devices, signs, and outdoor advertising	Site lighting shown on sheets 5, 9, and 18, <u>building lighting unknown</u> ; location of exterior directional signs shown on sheet 5; <u>outdoor advertising signs location unknown at this time</u> ;
Location of underground tanks, dumpsters, etc	No underground tanks appear to be needed; <u>no dumpster or dumpster enclosure location is shown – for response, reference page 6 of response to comments packet</u>
<u>Additional Information</u>	
Benchmark	Shown
Basis of bearings	Shown
Legend	Not applicable
<i>PLAN AND PROFILE SHEETS</i>	Site Plan and supporting sheets provided
<u>Title Block</u>	

Project name and address	Project name and address location shown, <u>project address needs to be corrected; lot address will be 770 West River Park Drive</u>
Approving Agency's name and address	Riverdale City, 4600 So. Weber River Drive, Riverdale, Utah 84405
Consulting Engineer's name, address, and phone number	Galloway & Company, Inc. – Dave Pierson, 515 S. 700 E., Suite 3F, Salt Lake City, Utah 84102, 801-549-7563
Date	Yes – March 28, 2016
Scale	Yes, scale is showing
Revision block with date and initials	Revision block shown with initials
Sheet number and total sheets	Shown (24 total sheets)
<u>General</u>	
North arrow	Yes
Street names	Shown – River Park Drive (700 West)
Lot numbers	Yes, shown as Flex Space Phase 1 and Flex Space Phase 2 (future) on one building lot
Reference to sheets showing adjacent areas	Not applicable
Center line stationing	Shown on plans
Existing natural ground	Shown on ALTA Survey – sheet 3
<u>Signage</u>	Building signage not shown and unknown; <u>may inquire regarding future signage intent</u>
Height	<i>Not available</i>
Size	<i>Not available</i>
Locations	<i>Not available</i>
Colors	<i>Not available</i>
Lighting	<i>Not available</i>
<u>New and Existing Buildings</u>	
Height and Size	New building - Height = 22'; Building size = approx. 17,933 sq. ft.; Existing building, fences, and utility structures shown on sheets 3 and 5
Location, setbacks, and all dimensions	Yes, shown on proposed site plan (Sheet 5); front setback - minimum 36 feet at nearest point; rear setback – minimum 22 feet at nearest point; west side setback – minimum 59 feet at nearest point; east side setback – minimum 76 feet at nearest point

Type of construction	Metal Paneling Building; Exterior composed of block, rock, stucco, metal, and ornamental features; see attached elevation drawings
Type of occupancy and proposed uses	Commercial flex building and office uses; business park type uses likely to use building
Show handicapped access	ADA accessible ramp and access areas shown and handicapped parking stall shown
<u>New and Existing Landscaping & Percentage</u>	Approx. 30.23% of site
Number of trees	16 trees, 10 shrubs, 110 decorative grasses shown
Landscape plan showing all planting, hardscaping, berming, and watering	Planting, hardscaping shown; gentle berming notes found along the road as shown on sheet 23; general irrigation notes and plan on sheet 24 and subject to design-build and as-built processes
Xeriscaping alternatives being considered	Yes, xeriscaping seems to be applied in the mulch areas of building as well as some of the plantings; for more, inquire of the developer
<u>New and Existing Walls and Fences</u>	
Location, design, and height	Location of existing walls and fences shown; location of new fences shown, 6' chain link fence to remain and be installed as noted on sheet 5
Materials proposed for construction	6' chain link fence to remain and be installed as noted on sheet 5 under "Site Schedule" in multiple items; existing 8' block wall on west line also to remain as noted on sheet 5 under "Site Schedule" item 35; 6'galvanized steel fence to be installed as noted on sheet 5 under "Site Schedule" item 40
<u>New and Existing Parking</u>	
Location, area, and layout of off-street parking (size of stalls, regular and handicapped)	38 stalls are provided and shown; handicapped parking space provided and shown; size meets city requirements; per code adequate parking for use
Location of employees' parking, customer parking, and handicapped parking	Established as shown in drawings; <u>employee parking and customer parking not designated</u>
Internal circulation pattern	Yes, shown with arrows; <u>inquire more if desired</u>
<u>New and Existing Ingress and Egress</u>	
Location and size of points of ingress and egress for motor vehicles and internal use	Yes, shown
Circulation pattern	Yes, shown with arrows; <u>inquire more if desired</u>
<u>New and Existing Streets</u>	
All access points	Yes, this is shown
Center lines	Yes, this is shown

Right-of-way lines	Yes, this is identified on sheet 5 under "Site Schedule" item 38
Face of curb lines	Yes, this is shown
Centerline slope	Shown on drawings and established per previous road development
Signing and striping	<u>Signing installation should be coordinated with public works dept and paid for by applicant; roadway striping should be coordinated with public works if applicable;</u>
Light poles	Site lighting shown on sheets 5, 9, and 18, <u>building lighting unknown;</u>
Street lights	No existing street lights on site; <u>no new street lighting proposed</u>
Street name signs	<u>Signing installation should be coordinated with public works dept and paid for by applicant;</u>
Stop signs	<u>Signing installation should be coordinated with public works dept and paid for by applicant;</u>
UDOT approval (if required for project)	Not applicable for this application
Sidewalk (4' side with 4" of road base or 6' side with 6" of road base through the approach)	Existing sidewalk already installed on site; Yes, shown and defined on sheets 6 and 7
Planting Strip	Yes, this is identified on sheet 5 under "Site Schedule" item 39
<u>New and Existing Storm Drainage</u>	
Top of curb elevations	Shown on sheets 10 and 18, and detail drawing on sheet 12
Slope of gutter	Shown on sheet 10 and 18, and detail drawing on sheet 12
Manholes	Existing and new shown on multiple sheets
Invert elevations	Shown on sheets 10, 12, and 18, <u>defer to City Engineer</u>
Length, size, slope, and type of mains and laterals	Shown on sheets 18-21, <u>defer to City Engineer</u>
Location of catch basins	Shown on multiple sheets of plans
Ditches, location and ownership	No ditches or waterways of note shown
Approval to pipe, reroute or use	Other than future City approval, no other approval required, <u>defer to City Engineer</u>
Calculations for retention system	Shown on drainage plan (sheet 10)
Method of storm water clean-up	Shown on sheets 14-17 (Erosion Control Plan)
<u>New and Existing Sanitary Sewers</u>	
Manholes	Shown on multiple sheets of plans

Invert elevations	Shown on sheets 10, 12, and 18, <u>defer to City Engineer</u>
Length, size, type, and slope of mains and laterals	Shown on sheets 18-21, <u>defer to City Engineer</u>
<u>New and Existing Water Lines</u>	
Length, size, type, and slope of mains and laterals	Shown on sheets 18-21, <u>defer to City Engineer</u>
Location, size, and type of water meters, valves, and fire hydrants	Water meter location shown, size as noted on sheet 18 under "Utility Notes", <u>type per public works</u> ; Location of new and existing valves shown; Existing fire hydrant shown, two new hydrants proposed, <u>type and size unknown</u>
<u>New and Existing Gas Lines</u>	
Size and type	Existing and new gas lines shown, <u>size and type not shown</u>
<u>New and Existing Electrical Lines</u>	
Size, location, and type	Existing power box locations shown; existing and new power lines locations shown, <u>size and type not shown</u> ;
Location of power poles	Existing power poles and overhead lines location shown on sheet 18
<u>New and Existing Telephone Lines</u>	
Location of poles, junction boxes, and manholes	Existing location of telephone boxes and new telephone utility lines shown, <u>poles and associated manholes not shown if applicable</u>
<u>New and Existing Cable TV Lines</u>	
Location of lines (if applicable)	Cable TV lines not shown and may not be applicable
<i>DETAILED DRAWINGS</i>	
Cross section of roadway (minimum 8" road base and 3" asphalt)	Shown on sheet 7 relative to access connection to road right-of-way
Cross section of curb and gutter (standard 30" high back)	Shown on sheet 7, <u>defer to City Engineer</u>
Gutter inlet box with bicycle safe grate	Detail shown on sheet 19, locations identified on multiple sheets; bicycle safe grates noted on sheet 18 under "Utility Notes" item 38; <u>defer to City Engineer</u>
Cleanout box	Detail shown on sheet 21, locations identified on multiple sheets; <u>defer to City Engineer</u>
Thrust blocking	Detail shown on sheet 21; <u>defer to City Engineer</u>
Special energy dissipating or drop manholes	None showing and may not be applicable; precast manholes detail shown on sheet 19, locations identified on multiple sheets

<i>ADDITIONAL INFORMATION</i>	
Soils report	Yes, a geotechnical report was provided on April 12, there is also a soil preparation note on sheet 9
Drainage and runoff calculations	Yes, outlined on sheets 9 and (Grading Plan and Drainage Plan)
Water right transfer documentation	Review with Public Works if needed
Copy of protective covenants, codes, and regulations for development	None provided or anticipated with this project
Eight (8) total 11" X 17" copies of plan drawings, one large full set of plan drawings, and one digital full set copy of plan drawings	Yes, provided as requested
Building elevation renderings	Attached to packet and provided
Corp of Engineers approval (if required)	Not applicable or required; located in Floodplain Zone X and elevation certificate has been provided
Zoning compliance	Yes, Regional Commercial (C-3) meets intended uses for building
RDA compliance (if applicable)	Not applicable in this matter
Use compliance	Yes, Regional Commercial (C-3) uses anticipated for this development
Engineering comments and letter of approval recommendation	Engineering comments, along with Public Works, Police Department, and Fire Department comments have been provided
Traffic study	Not currently provided; <u>likely not needed to provide any analysis unless otherwise requested</u>
All Planning Commission and City Staff conditions for approval have been met	<u>Currently Final Submission being reviewed by Planning Commission</u>

- **Please note that an Engineer's Cost Estimate for escrow/performance bond activities (landscaping, right-of-way improvements, etc.) is required prior to any City Council review**

15 April 2016

Riverdale City
4600 South Weber River Drive
Riverdale, Utah 84405

Attn: Mike Eggett, Community Development Director/RDA Deputy Executive Director
Proj: **H & P Investments – Cutrubus Redevelopment – Flex Space 1**
Subj: Site Plan Improvement Drawings

Dear Mike,

I reviewed the response written comments from the Developer's Design Engineer and reviewed the changes as completed on the site drawings. I also reviewed the updated comments and drawings with Mr. Shawn Douglas, and in my opinion the drawings now reflect the Standards of Riverdale City.

I herewith recommend approval of the drawings as submitted.

Should you have any questions feel free to contact me at my office.

Sincerely,
CEC, Civil Engineering Consultants, PLLC.



N. Scott Nelson, PE.
City Engineer

Cc. Shawn Douglas, Public Works Director
Jeff Woody, Building Official and Inspector

DEPARTMENTAL STAFF REPORTS – 4/5/2016, 4/14/2016 and 4/19/2016

From: Shawn Douglas
Sent: Tuesday, April 19, 2016 8:18 AM
To: Mike Eggett
Subject: RE: H&P Investments – Final Site Plan Docs for Flex Building

Mike, I only have two items that still need to be addressed they are listed below.

- 1-They need to include the O&M manual for the storm water system, so that it is approved as part of the approval process.
- 2- The water valves at the south end of the project appear to be in the curb and gutter, if the valves are in the curb they will need to be moved.

Shawn Douglas

Public Works Director
801/394/5541 ext.1217
Sdouglas@rivedalecity.com

From: Rodger Worthen
Sent: Thursday, April 14, 2016 5:14 PM
To: Mike Eggett
Subject: RE: H&P Investments – Final Site Plan Docs for Flex Building

Mike-

I have no further comments.

Rodger W.

From: Jared Sholly
Sent: Tuesday, April 5, 2016 1:40 PM
To: Mike Eggett
Subject: RE: H&P Investments Site Plan for Business Park (Flex) buildings

The Fire Department has no issues.

Thanks,

Jared Sholly
Fire Chief
Riverdale City Fire Department

Cell: 801-628-6562
Office: 801-394-7481

From: Scott Brenkman (Police Lieutenant)
Sent: Thursday, April 14, 2016 11:49 AM
To: Mike Eggett
Subject: RE: H&P Investments – Final Site Plan Docs for Flex Building

Mike,

We do not have any further concerns with this and I have also spoken with the Chief as well.

Thanks,

Scott



Riverdale City

Community Development
4600 So. Weber River Drive
Riverdale, Utah 84405

RIVERDALE CITY PLANNING COMMISSION APPLICATION FOR COMMERCIAL OR MANUFACTURING SITE PLAN APPROVAL

CASE NO: 2016-01 DATE SUBMITTED: 3-28-2016

APPLICANT'S NAME: DAVE PIERSON, GALLOWAY & CO.

ADDRESS: [REDACTED]

PHONE: [REDACTED]

ADDRESS OF SITE: TBD / AKA COTRUBUS PARCEL 7 RIVER PARK DR. (FLEX #1)

APPLICANT'S INTEREST: REPRESENTING/CONSULTING ENGINEER

Application is hereby made to the Riverdale City Planning Commission requesting that the following permitted use, be approved on 2.05AC of property in the C-3 zone in (sq. ft./acreage)

accordance with the attached site plan.

[Signature]

Signature of Applicant

[Signature]

Signature of Property Owner

I authorize DAVE PIERSON-GALLOWAY to act as my representative in all matters relating to this application.

[Signature]

Signature of Property Owner

NOTE: A fee will be charged at the time the site plan is submitted for review - \$200 per acre or portion of

Fee: \$ 400.00 Date paid: 03-28-16
(MAYOR'S OFFICE EMAIL 3-28-16)

Planning Commission set public hearing: Yes No Date of Public Hearing: _____

Planning Commission scheduled to hear this application for site plan approval on:

Date: 4/12/2016 Decision of Commission: _____

City Council set public hearing: Yes No Date of Public Hearing: _____

City Council scheduled to hear this application for site plan approval on:

Date: _____ Decision of Council: _____

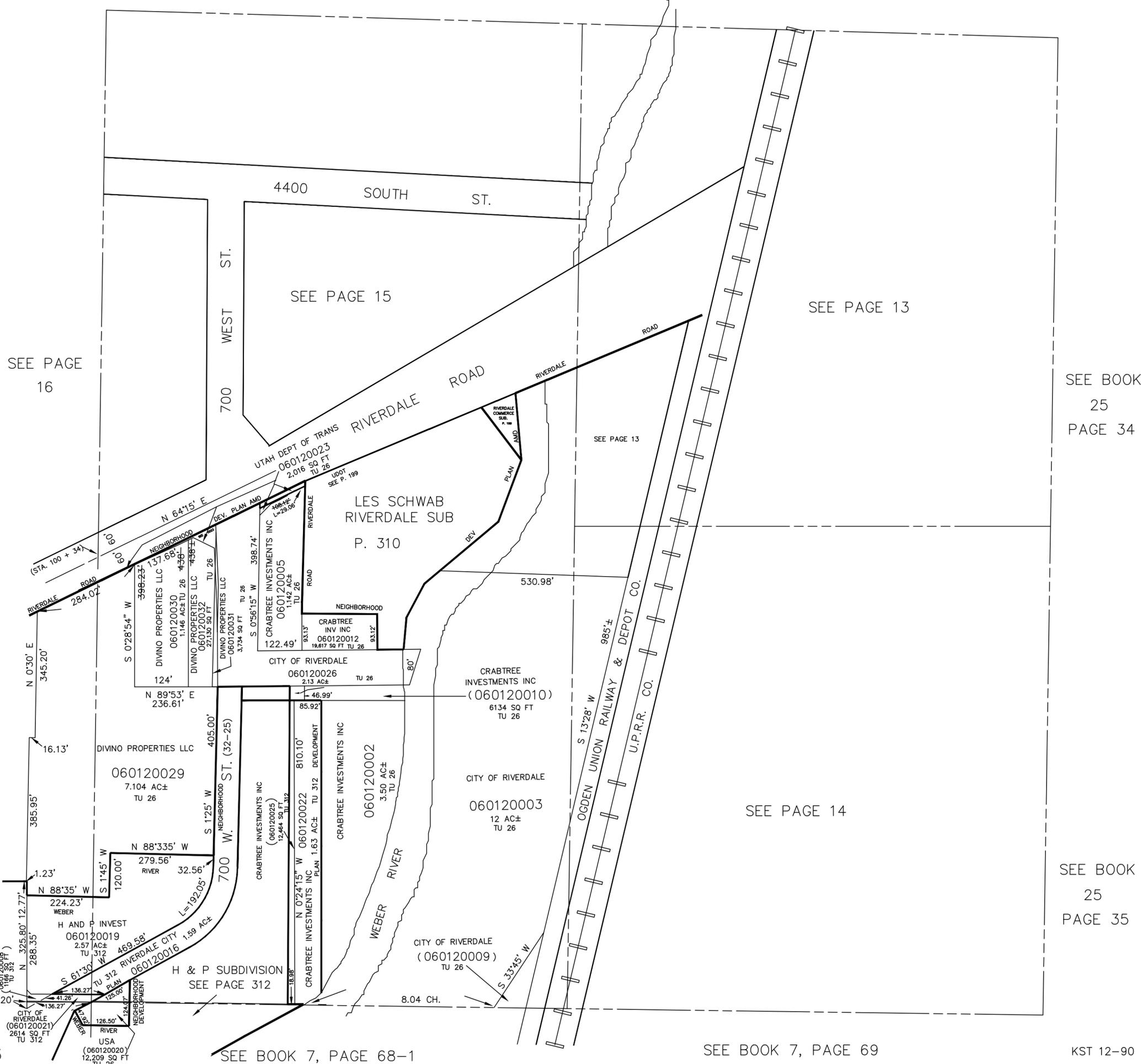
S.E. 1/4
SECTION 7, T.5N., R.1W., S.L.B. & M.

IN RIVERDALE CITY

TAXING UNIT: 26, 312, 264

SCALE 1" = 200'

SEE PAGE 2



SEE PAGE 16

SEE PAGE 13

SEE BOOK 25
PAGE 34

SEE PAGE 14

SEE BOOK 25
PAGE 35

SEE BOOK 7, PAGE 69

KST 12-90

6 SEE BOOK 7, PAGE 68-1

Comments from - N. Scott Nelson, PE. City Engineer

General Note:

1. An electronic copy of the Site Plan drawings and details must be submitted to the Public Work Department via our office for record keeping upon design completion and prior to approval of the Site Plan drawings from our office.

Site Plan – Improvement Drawings

1. Notes need to be placed on the Site Plan improvement drawings indicating all deteriorated, damaged or missing surface improvements surrounding the perimeter of the development and on-site be replaced or installed; i.e., curb and gutter, sidewalk, landscaping park strip improvements, asphalt patching, landscaping replacement, concrete improvement, etc.

A note has been added. Additionally, the General Notes on C0.10 (Site Plan General Notes #6) speak to the 'break-it-buy-it' directives.

2. A Geotechnical Report will need to be submitted for review.

A geotechnical report has been submitted to Planning Director

3. The site Storm Water calculations and drawings will need to be further reviewed by our office and Public Works for compliance with the new State of Utah storm water requirements.

- The storm water basins should be considered as “Retention Basin”. There are several notes declaring both retention and detention basins. The notes need to be corrected to read the same.
Notes indicating “detention pond” have been changed to “retention basin”
- A 12” freeboard berm needs to be shown in the site plan drawings on all basins.
All highwater elevations used in calculations take into account a 12” freeboard, where necessary on plans, a berm is shown
- An over flow spillway needs to be incorporated into the design.
The Public Works Director has indicated that what is on the plans is sufficient
- The vertical walls in the retention basins will need to be modified or railings added to protect the public from a fall into the basin.
Railings have been added to plans (C1.00; C2.91, Detail A, B & C)
- The storm water outlet/orifice structure needs to be shown in detail. The orifice structures need to be designed in order for the orifice to be cleaned without a person having to reach under water in the basin or structure to unplug debris from the orifice.
Clarification of outlet/orifice structure has been shown on plans
- The roof rain gutters should be tied into the underground storm water collection system.
Rain runoff from roofs will be diverted to rain gutters on the building and will be discharged into the landscape areas and/or diverted away from the buildings to prevent flooding
- A storm water collection waterway is needed for the West driveway to direct all on-site storm water into the retention basins and stop on-site drainage from flowing onto “River Park Drive”.

Response to comments from Riverdale City regarding the submittal of plans for Flex Space 1 of the Cutrubus Redevelopment project Dated March 28, 2016

The design shows water being diverted across the driveway to the Retention Basin (C2.10)

- Storm water grates should be placed on all inlets & outlets into the retention basins to keep animals out of the storm water collection system.
Grates have been added to plans (C4.10; C4.90, Detail E; C4.91, Detail E)
- The storm water vane grates will need to be bicycle safe grates.
Notes have been added to plans and details indicating bicycle safe grates shall be used (C4.10; C4.90, Detail B)
- There is a reference to Basin “C” and Basin “2” which appear to be the same basin – this conflict needs to be corrected.
This conflict has been corrected
- A note needs to be placed on the drawings indicating the capacity of the storm water treatment manhole vs. the discharge capacity from the retention basins into the treatment manhole for both present and future site expansion.
A note has been added to plans
- The Developer’s Engineer will be required to survey the constructed storm water retention basins and verify the storm water storage is provided.
A note has been added to the plans indicating that the contractor shall provide as-built (C0.01, Storm Drain Plan Notes #11)

4. A dumpster(s) with wall enclosure needs to be shown on the site drawings.

The office portion will be the only occupied space at opening day, and refuse will be disposed of by their cleaning company at off-site facilities owned by the owner. The owner will provide for dumpster facilities as the spaces lease-out.

5. There are references to “Loves” site which may be from a prior project. This should be corrected.

These notes have been corrected

6. The location of the irrigation connection and backflow device (RP) will need to be shown on the drawings.

The irrigation connection has been added to the plans (C4.10)

7. The water meters should be placed in the park strip.

Water meters have been placed in the parkstrip (C4.10)

8. The location of all site lighting and business signs should be shown on the drawings.

It is anticipated that H&P investments will occupy the buildings and at this time they do not anticipate placing any business signage on the building or on the site. There are no other potential occupants at this time. If other occupants desire to place signs on the building or on the site they will be expected to gain approval through the city according to city ordinances.

Comments from: Shawn Douglas Public Works Director

1-Drain system operations maintenance plan BMPS listed and recorded.

An O&M manual will be created for the site

2-Show free board and overflow on retention ponds.

The retention basins have be designed with a minimum of 12” freeboard and the Public Works Director has indicated that what is shown on drawings is sufficient

3-Show connection detail on storm drain connection to city main.

The Public Works Director has indicated that what is shown on drawings is sufficient

4-Note to certify retention pond size and elevation upon completion.

A note has been added to the plans requiring the contractor to provide an as-built survey to verify the capacity of the retention basins. (C0.01, Storm Drain Plan Notes #11)

5-BMPS on how storm water would be cleaned up before entering ground water in retention ponds.

Trickle channels between inlets and outlets are designed with emergent vegetation to act as bioswale to provide biofiltration.

6-Include city specifications for city owned utilities and improvements.

City specification details have been added to the plans (C4.93)

7-Sidewalk and approaches need to be six inch thick concrete.

Notes have been added to the plans to specify this thickness (C1.10, Note 3)

8-Water meter box should reference city specifications.

City specifications have been referenced (C4.93)

9-Fire line should be noted as private.

The fire line has been noted as private (C4.10, Notes 16 & 17)

10-Provide proposed water usage peak demand in thousands of gallons per day.

A utility matrix will be added to the plans (C4.10)

11-Grease trap/separator if required for intended future uses.

Response to comments from Riverdale City regarding the submittal of plans for Flex Space 1 of the Cutrubus Redevelopment project Dated March 28, 2016

The intended use of these buildings do not require grease trap/separator

12-Show manhole detail and pipe type per city specifications for sanitary sewer connection.

A detail has been added (C4.93)

13-Note requiring all missing, nonfunctioning, and or damage improvements shall be replaced.

A note has been added (C0.01, Site Plan Notes #6)

14-How are you going to control storm water and tracking between build out on building 1 and completion of building 2.

A site fence is shown between the Flex Space 1 and future Flex Space 2 which will block tracking between sites until the future building is constructed

Comments from - Dave Hansen - Police Department

Mike, the only concerns the Police Department has is that it would be nice if they could place a couple of wall pack lights on the exterior. The lighting would allow an officer to drive by and see if someone is hanging out during the night that should not be.

Lighting on the building will be a part of the architectural plans

Comments from - Rodger Worthen - City Administrator

I like the proposed buildings, no concerns there only that the exposed metal should appear as an architectural feature/design rather than a main component.

Also:

-Landscape trees on River Park drive should match existing tree species along with the slight berming in the street park strips to match existing landscape design currently installed along River Park dr.

Trees should not be placed in the existing park strip, since as they mature they will begin to break out the walks and curbs because there is insufficient space (4'). A slight berm in 4' wide parkstrip will be scalped by mowing, thus we suggest only sodding or if a berm is a must, then do it with rock mulch or cobbles.

-Detention basins probably should read as retention basins.

Notes indicating "detention pond" has been changed to "retention basin"

-Previously the city installed sidewalk fronting this property and liened it accordingly, now the lien should be cleared...City sidewalk installation cost as per applied lien should be cleared prior to approval of building permit. The walk would be a cost that Mr. Cutrubus would normally have to install as part of his development, hence the lien should be cleared accordingly at this time. -Cody could find the lien amount or Lynette via county records.

Suggested that the amount be placed in the bond document.

Comments from Jared Sholly – Fire Chief

The Fire Department has no issues.

Comments from - Preliminary Site Plan Review

Requirement	Departmental Review Comments
Licensed Land Surveyor's name, address, phone number, signature, and seal	Great Basin Engineering – Andy Hubbard, PLS, 5746 S. 1475 E., Ogden, Utah 84403; seal and signatures not shown at current
	Signed and stamped ALTA survey will be submitted with plans
Existing easements, structures, and utility lines: Approval to cross, use, or relocate	Existing easements not clearly identified, structures around site identified, existing utility lines shown in packet; unknown if approvals provided to cross, use, relocate
	Easements have been more clearly identified on plans (C1.10)
Consulting Engineer's stamp, signature, and license expiration date	Yes – Engineer agency's logo and contact information showing, stamp and signatures not shown at this time
	Stamp and signatures will be added to plans for final Planning Commission hearing submittal
Location of underground tanks, dumpsters, etc	No underground tanks appear to be needed; no dumpster or dumpster enclosure location is shown
	The Office portion will be the only occupied space at opening day, and refuse will be disposed of by their cleaning company at off-site facilities owned by the owner. The owner will provide for dumpster facilities as the spaces lease-out.
Landscape plan showing all planting, hardscaping, berming, and watering	Planting, hardscaping shown; gentle berming along the road, as required in 10-14-12 (B.)(2.) not shown; irrigation plan not identified
	Berming in the existing site plan has been shown on the plans as part of the landscaping of the site (L1.00)
Location, design, and height	Location of existing walls and fences shown; location of new fences shown, the height and design of fence placement is unknown
	Has been noted on plans (C1.10)
Materials proposed for construction	Materials of fence are unknown
	Has been noted on plans (C1.10)
Right-of-way lines	Not shown and identified as r-o-w
	Have been noted on plans (C1.10)
Planting Strip	Not identified on drawings
	Has been noted on plans (C1.10)
Location, size, and type of water meters, valves, and fire hydrants	Water meter location shown, size of water meter not identified, type per public works; Location of new and existing valves shown; Existing fire hydrant shown, two new hydrants proposed, type and size unknown

Response to comments from Riverdale City regarding the submittal of plans for Flex Space 1 of the Cutrubus Redevelopment project Dated March 28, 2016

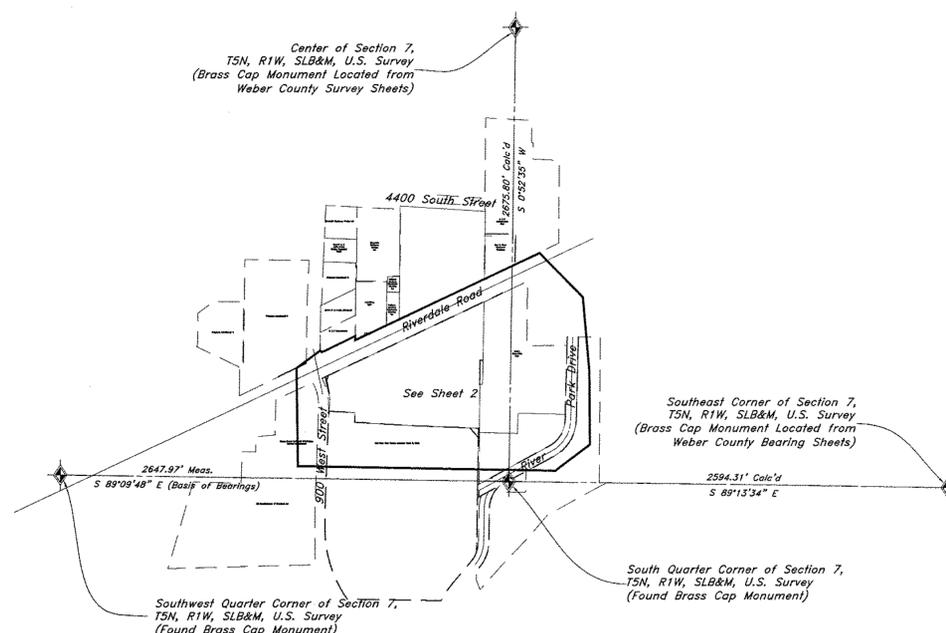
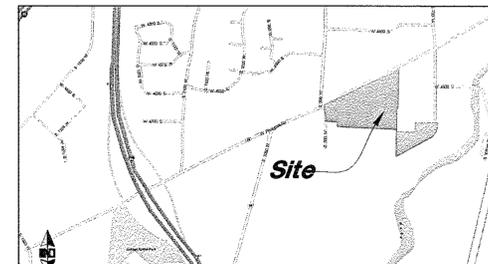
	Has been noted on plans (C4.10)
Gutter inlet box with bicycle safe grate	Detail shown on sheet 19, locations identified on multiple sheets; unknown if bicycle safe grates; defer to City Engineer
	A note specifying bicycle safe grates has been added to the plans (C4.10, Detail A)
Soils report	No geotechnical report has been provided for this site; there is a soil preparation note on sheet 9, but no geotechnical engineer appears to have been selected at this time for this project
	GeoReport has been delivered to City Planner

Title Information

This survey was completed using Commitment for Title Insurance Issued by Stewart Title Insurance Agency of Utah, Inc, under File No. 01459-14490 2nd Amendment dated December 09, 2015 @ 8:00 A.M.

The following survey related items are listed from Schedule B - Section 2 of the title report.

- EXCEPTIONS NO 1-13; 36; 44-47: Not Survey Related Matters
EXCEPTION NO 14 (NOT PLOTTED, DOCUMENT WAS NOT LEGIBLE TO BE ABLE TO DEPICT LOCATION OF EASEMENT): Subject to a 14 foot Right-of-Way as reserved in that certain Warranty Deed Recorded August 23, 1911 in Book 67, Page 278 of Official Records. (Parcel 5)
EXCEPTION NO 15 (PLOTTED, AFFECTS RIVERDALE ROAD): Possible irrigation ditches along the State Highway as permission was granted in Deed to State Road Commission of Utah, Recorded March 15, 1944, as Entry No. 82195, in Book 189, Page 212, and reRecorded April 17, 1944 as Entry No. 83115, in Book 192, Page 213 of Official Records, to relocate outside the Right-of-Way, all irrigation ditches existing within the limits of said Right-of-Way.
EXCEPTION NO 16 (PLOTTED, AFFECTS RIVERDALE ROAD): Possible irrigation ditches along the State Highway as permission was granted in Deed to State Road Commission of Utah, Recorded April 17, 1944, as Entry No. 82805, in Book 192, Page 5, of Official Records, to relocate outside the Right-of-Way, all irrigation ditches existing within the limits of said Right-of-Way.
EXCEPTION NO 18 (PLOTTED, AFFECTS SOUTH OF THE OVERALL BOUNDARY LINE): Deed of Easement upon the terms and conditions therein provided, in favor of Weber Basin Water Conservancy District, Recorded March 7, 1958 as Entry No. 290077, in Book 573, Page 219, of Official Records.
EXCEPTION NO 19 (PLOTTED, AFFECTS THE NORTH LINE OF PARCELS 1): A Right-of-Way and easement for electrical transmission and incidental purposes as created in favor of Utah Power & Light Company Recorded January 4, 1963 as Entry No. 394174, in Book 731, Page 125, of Official Records.
EXCEPTION NO 20 (PLOTTED, AFFECTS THE NORTH LINE OF PARCEL 1): A Right-of-Way and easement for electrical transmission and incidental purposes as created in favor of Utah Power & Light Company Recorded January 4, 1963 as Entry No. 394175, in Book 731, Page 126, of Official Records.
EXCEPTION NO 21 (PLOTTED, AFFECT THE PROPERTIES TO THE EAST OF THIS SITE): A Right-of-Way easement for Communication Facilities and incidental purposes as created in favor of Mountain States Telephone and Telegraph Company and/or Qwest Communications Recorded October 30, 1972 as Entry No. 581430, in Book 1008, Page 174, of Official Records. (Per Title Report Documents, should affect Parcels 4 & 5; Description is in error)
EXCEPTION NO 22 (PLOTTED, AFFECTS PROPERTIES TO THE EAST OF THIS SITE): A Right-of-Way easement for Communication Facilities and incidental purposes as created in favor of Mountain States Telephone and Telegraph Company and/or Qwest Communications Recorded August 6, 1974 as Entry No. 620548, in Book 1061, Page 91, of Official Records. (Parcel 2)
EXCEPTION NO 23 (PLOTTED, AFFECTS THE NORTH AND CENTER OF PARCEL 1): A Right-of-Way easement for Communication Facilities and incidental purposes as created in favor of Mountain States Telephone and Telegraph Company and/or Qwest Communications Recorded August 30, 1982 as Entry No. 863199, in Book 1408, Page 820, of Official Records.
EXCEPTION NO 24 (PLOTTED, AFFECTS THE EAST PORTION OF PARCEL 1): A Right-of-Way easement for Communication Facilities and incidental purposes as created in favor of Mountain States Telephone and Telegraph Company and/or Qwest Communications Recorded August 30, 1982 as Entry No. 863200, in Book 1408, Page 822, of Official Records.
EXCEPTION NO 25 (PLOTTED, AFFECTS THE EAST SIDE OF THE OVERALL BOUNDARY): A Right-of-Way and easement for electrical transmission and incidental purposes as created in favor of Utah Power & Light Company Recorded August 8, 1989 as Entry No. 1085654, in Book 1565, Page 1738, of Official Records.
EXCEPTION NO 26 (PLOTTED AFFECTS THE EAST PORTION OF THE PARCEL 1): 7' Utility and Drainage Easement as shown on the 700 West Street Dedication Plat Recorded February 18, 1990 as Entry No. 1101023 of Official Records.
EXCEPTION NO 27 (PLOTTED, AFFECTS THE EAST SIDE OF THE OVERALL BOUNDARY): Agreement and Grant of Easement, upon the terms and conditions therein provided, Recorded September 13, 1991, as Entry No. 1152051, in Book 1607, Page 2529, of Official Records.
EXCEPTION NO 28 (PLOTTED, AFFECTS THE PROPERTY TO THE SOUTH): Declaration of Covenants, Conditions and Restrictions, upon the terms and conditions therein provided, Recorded July 17, 1996, as Entry No. 1418383, in Book 1816, Page 1307, of Official Records.
EXCEPTION NO 29 (PLOTTED, AFFECTS THE WEST PORTION OF PARCEL 1): Agreement of Easement and Restrictive Covenants, upon the terms and conditions therein provided, Recorded September 7, 2001, as Entry No. 1794066, in Book 2166, Page 533, of Official Records.
EXCEPTION NO 30 (PLOTTED, BLANKETS THE ENTIRE PROPERTY): Cross-Access and Easement Agreement, upon the terms and conditions therein provided, Recorded September 7, 2001, as Entry No. 1794068, in Book 2166, Page 564 of Official Records.
EXCEPTION NO 31 (PLOTTED, AFFECTS THE SOUTH BOUNDARY LINE): Storm Sewer Easement Agreement, upon the terms and conditions therein provided, Recorded September 7, 2001, as Entry No. 1794070, in Book 2166, Page 598, of Official Records.
EXCEPTION NO 32 (PLOTTED, AFFECTS THE WEST PORTION OF PARCEL 1): Easement and Right-of-Way upon the terms and conditions therein provided, in favor of Utah Department of Transportation, Recorded September 7, 2001, as Entry No. 1794071, in Book 2166, Page 609, of Official Records.
EXCEPTION NO 33 (PLOTTED, AFFECTS THE NORTH LINE OF PARCEL 1): Easement and Right-of-Way upon the terms and conditions therein provided, in favor of Utah Department of Transportation, Recorded September 11, 2008 as Entry No.'s 2364317, 2364324 & 2364336, of Official Records.
EXCEPTION NO 34 (PLOTTED, AFFECTS THE NORTH LINE OF PARCEL 1): Easement and Right-of-Way upon the terms and conditions therein provided, in favor of Utah Department of Transportation, Recorded September 11, 2008 as Entry No. 2364326, of Official Records.
EXCEPTION NO 35 (PLOTTED, AFFECTS THE NORTH LINE OF PARCEL 1): Easement and Right-of-Way upon the terms and conditions therein provided, in favor of Utah Department of Transportation, Recorded September 11, 2008 as Entry No. 2364329, of Official Records.
EXCEPTION NO 38 (NOT PLOTTED, NO DOCUMENTS FOR EXCEPTION WERE PROVIDED AT THE TIME OF SURVEY): Rights of way for canals, laterals, ditches, roads and utilities, if any, over, under or across said land including, but not limited to, the following: Riverdale Road, 900 West & 700 West.
EXCEPTION NO 40 (NOT PLOTTED, NO DOCUMENTS FOR EXCEPTION WERE PROVIDED AT THE TIME OF SURVEY): Any existing easements for utilities which may have been constructed through, over or under that portion of the herein described premises shown as being a portion of vacated streets and alleys.
EXCEPTION NO 41 (NOT PLOTTED, NO DOCUMENTS FOR EXCEPTION WERE PROVIDED AT THE TIME OF SURVEY): Easements and rights of way of record or enforceable in law and equity for any existing roads, streets, alleys, ditches, reservoirs, utilities, canals, pipelines, power, telephone, sewer, gas or water lines now existing over, under or across subject property.
EXCEPTION NO 42 (PLOTTED, AFFECTS THE EASTERN PORTION OF THE SITE): Legal description contained herein contains gaps and/or overlaps as disclosed by mathematical comparison of adjoining property.
EXCEPTION NO 43 (PLOTTED): Matters disclosed by ALTA Survey dated August 25, 2015 by Great Basin Engineering Inc., which among other things include the following: Deed description gaps, flood zone, and existing utility lines.



Section Corner Information 1''-500'

Narrative

This Survey update was requested by Mr. James Rumsa of Cutrubus for the purpose of showing the current conditions of this site, as well as Title Purposes. A line between monuments found for the South Quarter Corner and the Southwest Corner of Section 7 was assigned the bearing of S 89°09'48" East as the Basis of Bearings. Property Corners were set as depicted on this Survey.

Notes

- 1. Utilities shown are from observed evidence on the site and records available at the time of the survey, and confirmed with information provided by utility companies at the time the survey was completed.
2. There is no observed evidence of current earth moving work, building construction, or building additions.
3. No information was available from Riverdale City regarding proposed changes in Street Right-of-Way. No observed evidence of streets or sidewalk construction or repairs.
4. No encroachments were found other than what is shown on the drawing.

Certification

To H & P Investments who also acquired title as H & P Investment and H & P Inv. LLC and Stewart Title Insurance Agency of Utah, Inc.:

This is to certify that this map or plot and the survey on which it is based were made in accordance with "Minimum Standard Detail Requirements for ALTA/ACSM Land Title Surveys," jointly established and adopted by ALTA, and NSPS in 2005, and includes Items 1, 2, 4, 5, 7(a), 8, 11(b), 13, 14 and 16 of Table A thereof. Pursuant to the Accuracy Standards as adopted by ALTA, NSPS, and in effect on the date of this certification, undersigned further certifies that in my professional opinion, as a land surveyor in the State of Utah, the Relative Positional Accuracy of this survey does not exceed that which is specified therein.

Date of Survey: January 13, 2016
Fieldwork Completed: September 11, 2015

Signature and stamp of Andy Hubbard, Surveyor, dated Jan 13, 2016, No. 6242920.

Description

Parcel 1: A part of the South Half of Section 7 and part of the Northwest Quarter of Section 18, Township 5 North, Range 1 West, Salt Lake Base & Meridian: Beginning the intersection of the East boundary line of River Park Drive Wal-Mart Subdivision, in Riverdale City, Weber County, Utah, and the Northwesterly right of way line of River Park Drive, said point being 183.64 feet North 89°09'48" West along the Section line (Basis of Bearings) to said East boundary line and 22.67 feet South 00°49'59" West along said East boundary line from the South Quarter corner of said Section 7, to the true point of beginning and running; thence six (6) courses along said East boundary and the North boundary of said Subdivision as follows: (1) North 00°49'59" East 334.61 feet; (2) North 87°43'50" West 353.44 feet; (3) South 00°47'34" West 1.39 feet; (4) North 86°33'05" West 377.76 feet; (5) North 00°28'05" East 56.91 feet; and (6) North 87°00'00" West 151.03 feet to the East right of way line of 900 West Street; thence six (6) courses along said East right of way line as follows: (1) North 04°0'37" East 30.57 feet to the point of a non-langent curve, of which the radius point lies North 84°15'28" West; (2) Northerly along the arc of a 235.60 foot radius curve to the left a distance of 72.53 feet (Delta Angle equals 17°38'23" and Long Chord bears North 03°04'40" West 72.25 feet); (3) North 13°00'05" West 4.36 feet; (4) North 78°20'44" East 2.00 feet; (5) North 11°43'32" West 76.76 feet; and (6) North 19°44'26" East 30.36 feet to the Southerly right of way line of Riverdale Road (SR-26 based on Right of way maps for project SP-0026(4)0, Sheets 22 & 23); thence North 64°44'34" East 1,016.23 feet along said Southerly right of way line to the West line of property described by that Judgment and Quiet Title Decree recorded January 18, 1994 as Entry No. 1269338, in Book 1698, Page 2567; thence six (6) courses along the said West and South line of property as follows: (1) South 01°00'35" West 486.44 feet; (2) North 88°03'25" West 15.63 feet; (3) South 00°30'47" West 283.66 feet; (4) South 88°33'19" East 224.23 feet; (5) North 01°26'41" East 120.00 feet; (6) South 88°33'19" East 279.47 feet to said Northwesterly right of way line of River Park Drive; thence three (3) courses along said Northwesterly right of way line as follows: (1) South 01°26'41" West 32.56 feet to the point of a non-langent curve, of which the radius point lies North 88°33'17" West; (2) Southwesterly along the arc of a 183.15 foot radius curve to the right a distance of 192.06 feet (Delta Angle equals 60°04'56" and Long Chord bears South 31°29'11" West 183.38 feet); and (3) South 61°31'41" West 478.70 feet to the point of beginning.

Parcel 1-A: A right of way created by that dedication plat of River Park Drive Wal-Mart Subdivision recorded September 7, 2001 as Entry No. 1794108 over and across that portion shown as "H&P Investments access easement".

Containing 565,167.26 square feet or 12.9745 acres, more or less.

Flood Plain

Property is located in Zone "X" (No Shading and Zone X (Shading): Areas determined to be outside of the 0.2% annual chance flood plane" (No Shading), and "Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood" according to:

- Flood Insurance Rate Map No. 49057C0436F
- Effective Date of June 2, 2015.

And Property is located in Zone "X" (No Shading and Zone X (Shading): Areas determined to be outside of the 0.2% annual chance flood plane" (No Shading) according to

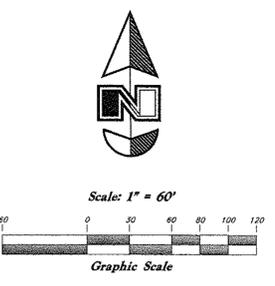
- Flood Insurance Rate Map No. 49057C0417F
-Effective Date of June 2, 2015

Vertical sidebar containing Great Basin Engineering logo, contact information (574.450.1475), and project details (ALTA/ACSM Survey, Cutrubus - Riverdale, Survey No. 6242920, Date 13 Jan, 2016, Sheet No. 1 of 2).

- LEGEND**
- Centerline
 - UGT Buried Telephone line
 - OHT Overhead Telephone line
 - OPG Overhead Power line
 - SP Power line
 - S Sanitary Sewer line
 - W Culinary Water line
 - G Gas line
 - SD Storm Drain line
 - DIT Secondary Waterline
 - LD Land Drain line
 - IW Irrigation Waterline
 - F Fence
 - Power Pole
 - Post
 - Water Meter
 - Gas Meter
 - Telephone Box
 - Sewer Manhole
 - Drain Manhole
 - Water Manhole
 - Cleanout Box
 - Set Rebar & Cap
- TA Top of Asphalt
EA Edge of Asphalt
NG Natural Ground
LG Lip of Gutter
SP Service Pole
LP Light Pole
TP Telephone Pole
FH Fire Hydrant
DIT Flowline of Ditch
LOS Line of Slope
TOE Top of Slope
CO Cleanout
DMH Drain Manhole
FL Flowline
SE Spot Elevation
Contour
- CM.P Corrugated Metal Pipe
R.C.P. Reinforced Concrete Pipe
CONC Edge of Concrete
R.WALL Retaining Wall
SMH Sewer Manhole
WV Water Valve
CB Catch Basin
DB Diversion Box
TC Top of Curb
SW Sidewalk
GAS Gas line Marker
GUY Guy Wire
B.D.G. Building Corner
NG Natural Ground
FH Fire Hydrant
WV Water Valve
LP Light Pole
Power Pole w/guy
Deciduous Tree
Coniferous Tree

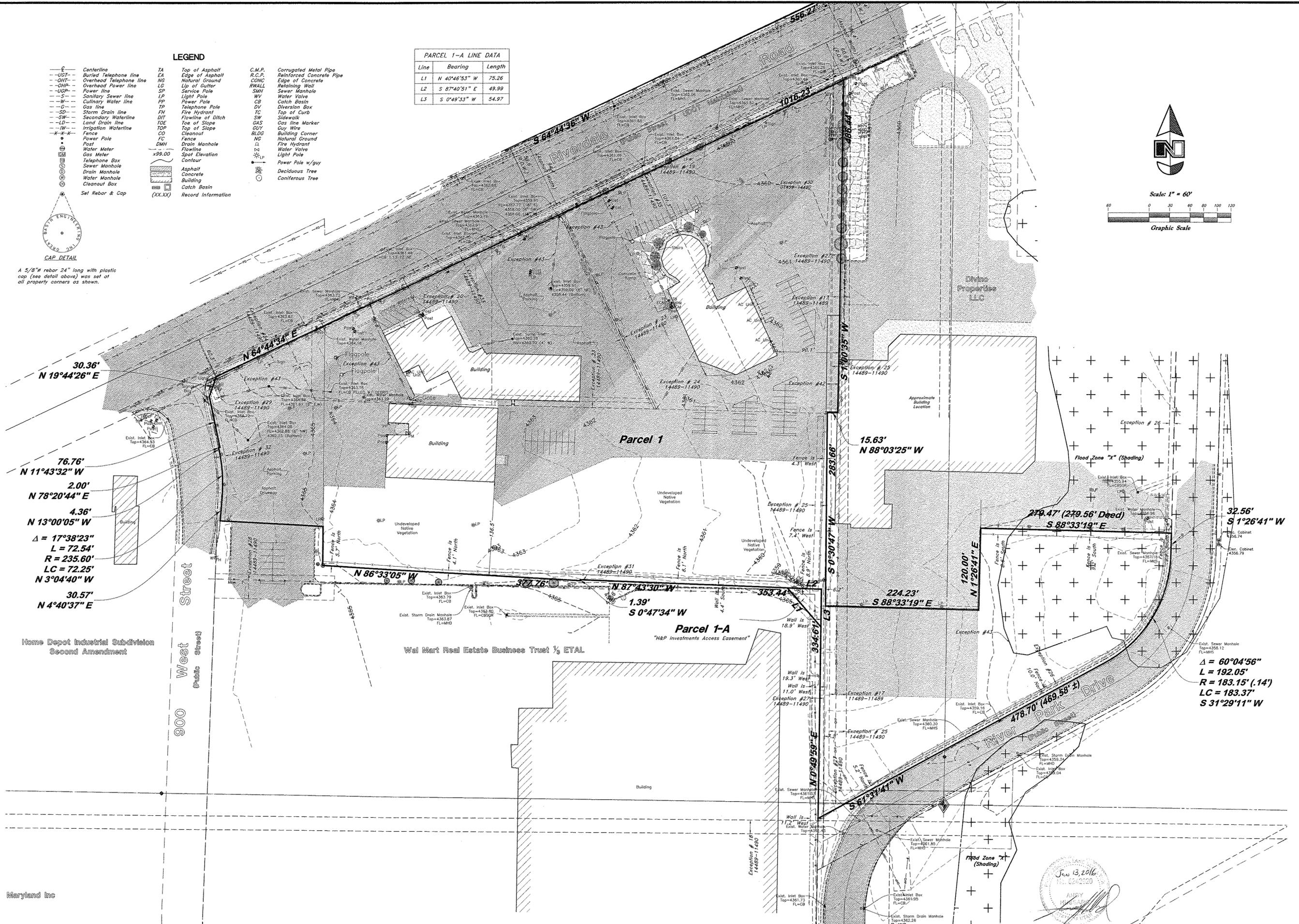
PARCEL 1-A LINE DATA

Line	Bearing	Length
L1	N 40°46'53" W	75.26
L2	S 87°40'51" E	49.99
L3	S 0°49'53" W	54.97



CAP DETAIL

A 5/8" rebar 24" long with plastic cap (see detail above) was set at all property corners as shown.



$\Delta = 60^{\circ}04'56''$
 $L = 192.05'$
 $R = 183.15' (.14')$
 $LC = 183.37'$
 $S 31^{\circ}29'11'' W$

Jan 13, 2016
 10:02:20
 ANDY HERRMAN
 Surveyor

GREAT BASIN ENGINEERING

5746 SOUTH 1475 EAST OGDEN, UTAH 84403
 MAIN (801)399-4451 SLLC (801)521-0222 FAX (801)392-7544
 WWW.GREATBASINENGINEERING.COM

ALTA/ACSM Survey
Cutrubus - Riverdale
 Approx. 850 West Riverdale Road
 Riverdale City, Weber County, Utah
 A part of Section 7, T5N, R1W, S18&M, U.S. Survey

13 Jan, 2016
 SHEET NO. **2**
 of 2
 15N234

JURISDICTIONAL REVIEW DRAFT.
PLANS WILL RECEIVE ELECTRONIC
STAMP OF LICENSED
PROFESSIONAL WHEN ITERATIVE
REVIEW PROCESS HAS CONCLUDED
AND PLANS ARE READY TO RECEIVE
FINAL APPROVALS OF THE
AFFECTING JURISDICTION.

THESE PLANS ARE AN INSTRUMENT OF
SERVICE AND ARE THE PROPERTY OF
GALLOWAY, AND MAY NOT BE DUPLICATED,
DISCLOSED, OR REPRODUCED WITHOUT
THE WRITTEN CONSENT OF THE
ARCHITECT. COPYRIGHTS AND
INFRINGEMENTS WILL BE ENFORCED AND
PROSECUTED.

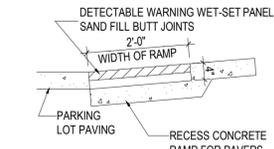
**H & P INVESTMENTS
CUTRUBUS REDEVELOPMENT
FLEX SPACE 1**
**4560 S RIVER PARK DRIVE
RIVERDALE UTAH 84405**

#	Date	Issue / Description	Init.
A	03-28-16	PRELIM AHJ S.P. SUBM	DRP
B	04-13-16	PRELIM AHJ S.P. SUBM	DRP

Project No: HPI000001.00
Drawn By: WLMR
Checked By: DP
Date: MARCH 2016

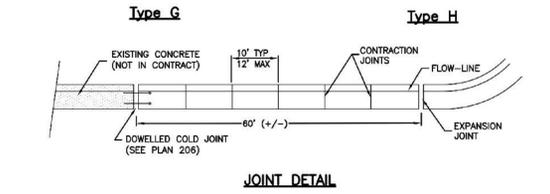
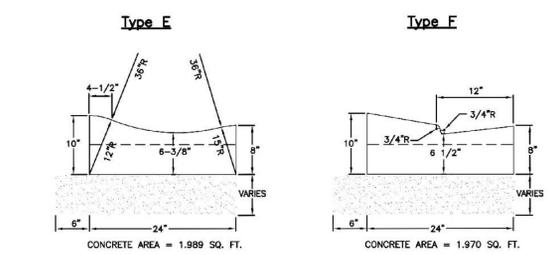
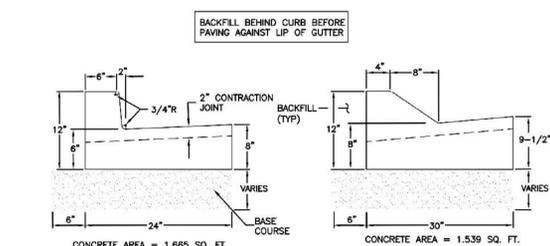
SITE DETAILS

C1.90
Sheet 7 of 24

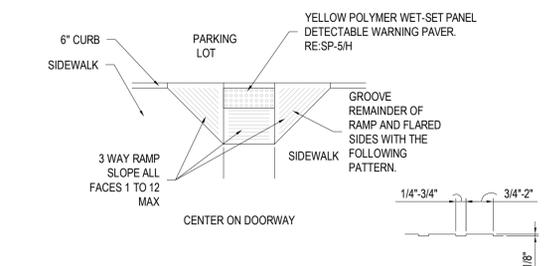


DETECTABLE WARNING SURFACE (B)
NOT TO SCALE

- Curb and gutter**
- GENERAL**
 - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER'S discretion.
 - B. Additional requirements are specified in APWA Section 32 16 13.
 - PRODUCTS**
 - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
 - D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
 - EXECUTION**
 - A. Base Course Placement: APWA Section 32 05 10. Thickness is 6-inches if flow-line grade is 0.5 percent (s=0.005) or greater. If slope is less, provide 8-inches. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - B. Concrete Placement: APWA Section 03 30 10.
 - 1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
 - 2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
 - 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
 - C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.

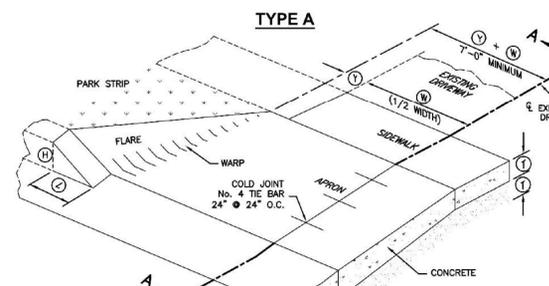


Curb and gutter (A)
NOT TO SCALE

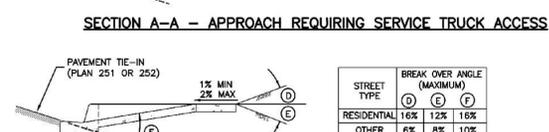
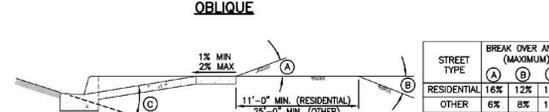


PEDESTRIAN RAMP (D)
NOT TO SCALE

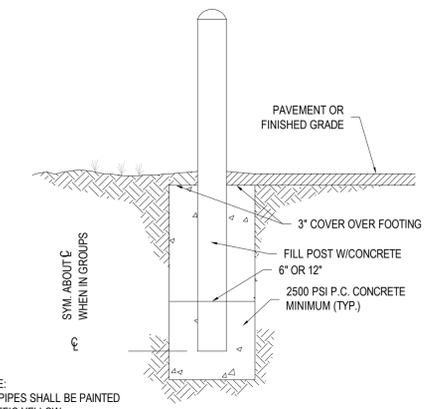
- Flare driveway approach**
- GENERAL**
 - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER'S discretion.
 - B. Field Changes to Slope Requirements:
 - 1) Grades may have a 6 percent change in slope over a 11 feet wheel base run for both crest or sag vertical curves.
 - 2) Where heavy truck use and fire truck access applies, or to improve design speed, design grades should be cut in half.
 - 3) Specific uses or site conditions may require profile design submittal for review and acceptance.
 - C. Additional requirements are specified in APWA Section 32 16 13.
 - PRODUCTS**
 - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
 - D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A 615.
 - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
 - EXECUTION**
 - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - B. Reinforcement: Not required if driveway apron is constructed without a cold joint.
 - C. Concrete Placement: APWA Section 03 30 10.
 - 1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
 - 2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
 - 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
 - D. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.



IS THE PARK STRIP A PEDESTRIAN ACCESS ROUTE?	RATIO	STREET TYPE	LENGTH
YES	H : L	RESIDENTIAL	6" x 6"
NO	1 : 6	OTHER	24" x 8"

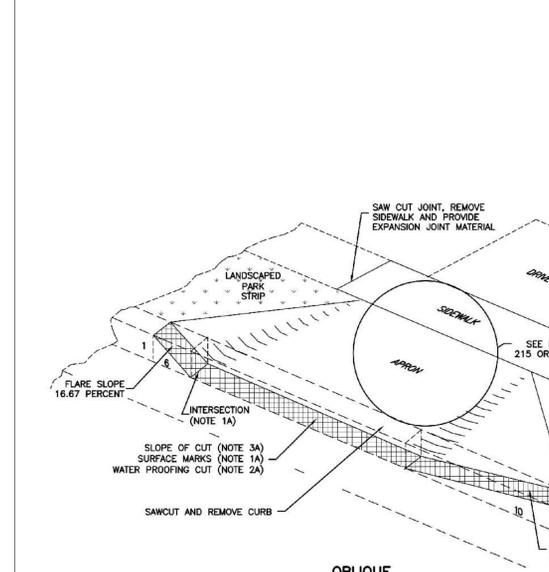


Flare driveway approach (C)
NOT TO SCALE



PIPE BOLLARD (F)
NOT TO SCALE

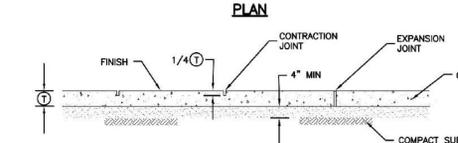
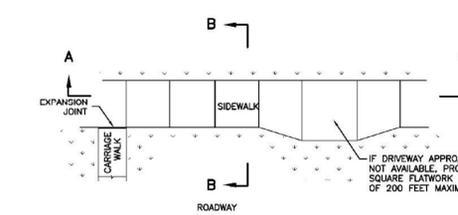
- Saw-cut driveway approach**
- GENERAL**
 - A. The drawing shows sawing off and removing a curb for the construction of a new driveway approach. Additional requirements are specified in Plan 215 or Plan 221 for constructing driveway approach after curb is removed.
 - B. The slope of the right flare is required if a pedestrian access route abuts the curb. The slope of the left flare is required if a pedestrian access route DOES NOT abut the curb.
 - C. Variance from specified slopes must be acceptable to the ENGINEER.
 - PRODUCT**
 - A. Water repellent: Penetrating compound, APWA Section 07 19 00.
 - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - EXECUTION**
 - A. At the apron, cut the curb off so the slope of the curb cut as measured perpendicular to the flow line is 16.67 percent (1:6). Unless specified otherwise, make the curb cut intersect the flow line.
 - B. At the flare, cut the curb off so the slope of curb cut as measured parallel to the flow line is as follows:
 - 1) 8.33 percent (1:12) if curb borders a surface used by pedestrians.
 - 2) 16.67 percent (1:6) if curb does not border a surface used by pedestrians.
 - C. No over-cutting where cuts merge. Grind sawed surface so no blade marks remain.
 - D. Water proofing: Apply full coverage water repellent over cut concrete.
 - E. Expansion Joint: Vertical, full depth, with top of filler set flush with concrete surface.



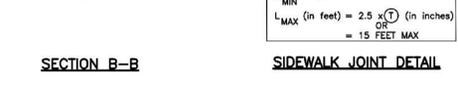
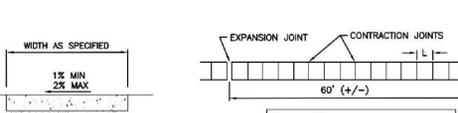
Saw-cut driveway approach (E)
NOT TO SCALE

Sidewalk

- GENERAL**
 - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER'S discretion.
 - B. Additional requirements are specified in APWA Section 32 16 13.
- PRODUCTS**
 - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - B. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
 - D. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
- EXECUTION**
 - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - B. Concrete Placement: APWA Section 03 30 10.
 - 1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
 - 2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
 - 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.



STREET TYPE	CONTRACTION JOINT
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	6"
OTHER	MATCH EXISTING (4" MIN.)



Sidewalk (G)
NOT TO SCALE

JURISDICTIONAL REVIEW DRAFT.
 PLANS WILL RECEIVE ELECTRONIC
 STAMP OF LICENSED
 PROFESSIONAL WHEN ITERATIVE
 REVIEW PROCESS HAS CONCLUDED
 AND PLANS ARE READY TO RECEIVE
 FINAL APPROVALS OF THE
 AFFECTING JURISDICTION.

THESE PLANS ARE AN INSTRUMENT OF
 SERVICE AND ARE THE PROPERTY OF
 GALLOWAY, AND MAY NOT BE DUPLICATED,
 DISCLOSED, OR REPRODUCED WITHOUT
 THE WRITTEN CONSENT OF THE
 ARCHITECT. COPYRIGHTS AND
 INFRINGEMENTS WILL BE ENFORCED AND
 PROSECUTED.

**H & P INVESTMENTS
 CUTRUBUS REDEVELOPMENT
 FLEX SPACE 1**

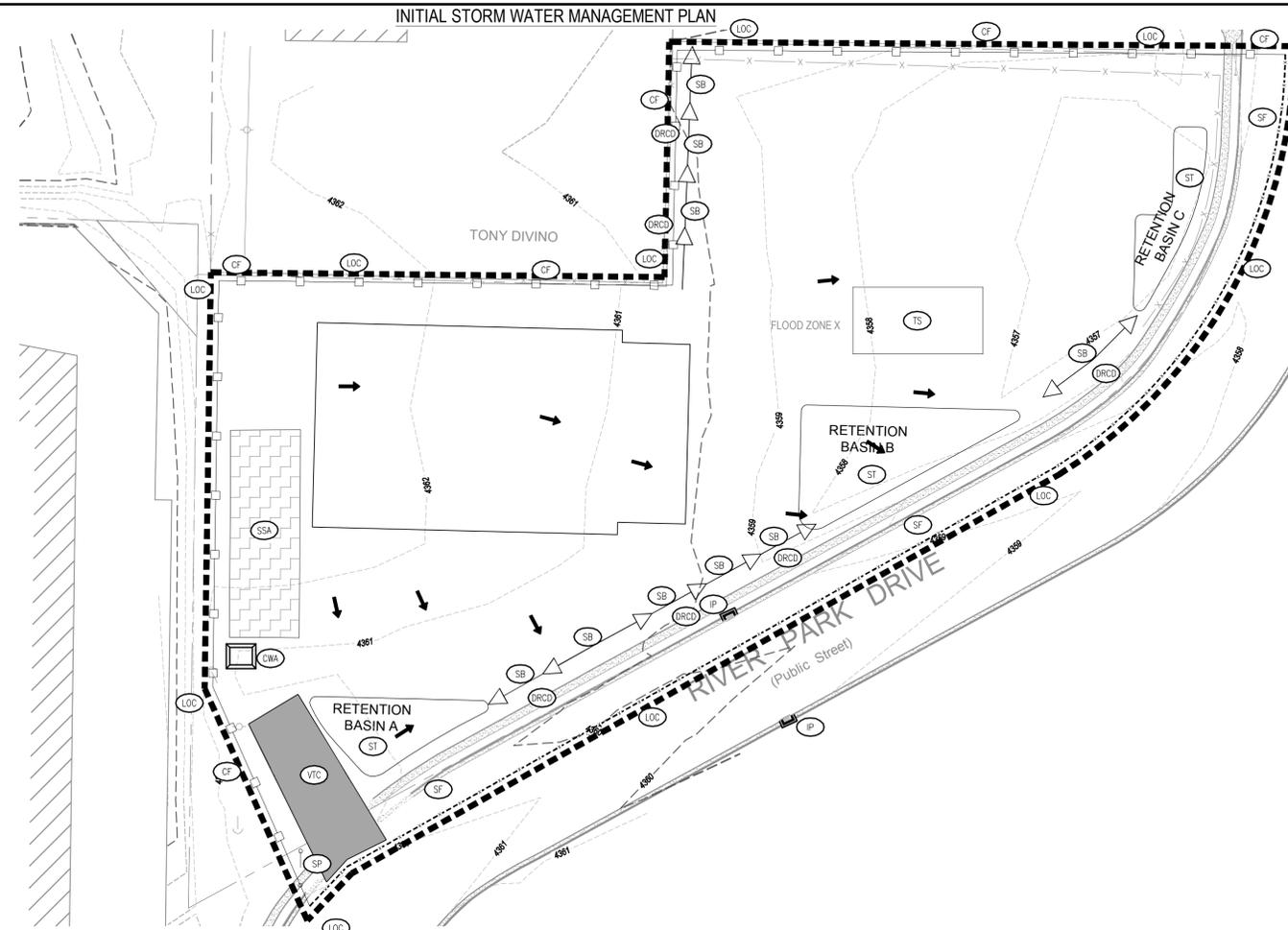
**4560 S RIVER PARK DRIVE
 RIVERDALE UTAH 84405**

#	Date	Issue / Description	Init.
A	03-28-16	PRELIM AHJ S.P. SUBM	DRP
B	04-13-16	PRELIM AHJ S.P. SUBM	DRP

Project No:	HPI000001.00
Drawn By:	JGW
Checked By:	JAT
Date:	MARCH 2016

EROSION CONTROL PLAN

C3.10
 Sheet 15 of 24



EROSION CONTROL LEGEND

- LIMITS OF CONSTRUCTION
- 24- EXISTING CONTOUR
- 24- PROPOSED CONTOUR
- EXISTING STORM SEWER
- PROPOSED SOTRM SEWER
- STORM SEWER PROPOSED BY OTHERS
- FLOW ARROW
- TS TEMPORARY STOCKPILE
- VTC VEHICLE TRACKING CONTROL CONSTRUCTION ENTRANCE
- SF SILT FENCE
- IP INLET PROTECTION
- GS GRAVEL SOCK INLET PROTECTION
- CWA CONCRETE WASHOUT AREA
- SSA CONSTRUCTION STAGING AREA (APPROXIMATE)
- SCL SEDIMENT CONTROL LOG
- SM SEEDING AND MULCHING
- PT PORTABLE TOILET
- SP SITE POSTING (CONTACTS AND PERMITS)
- +++ FLOODPLAIN AREA INUNDED BY 1% AND 0.2% ANNUAL CHANGE FLOODING
- EROSION CONTROL BLANKET
- DRCD DITCH ROCK CHECK DAM, INSTALL PER RIVERDALE CITY DETAIL
- SB DIVERSION SWALE/BERM, PER RIVERDALE DETAIL
- CF CONSTRUCTION FENCE

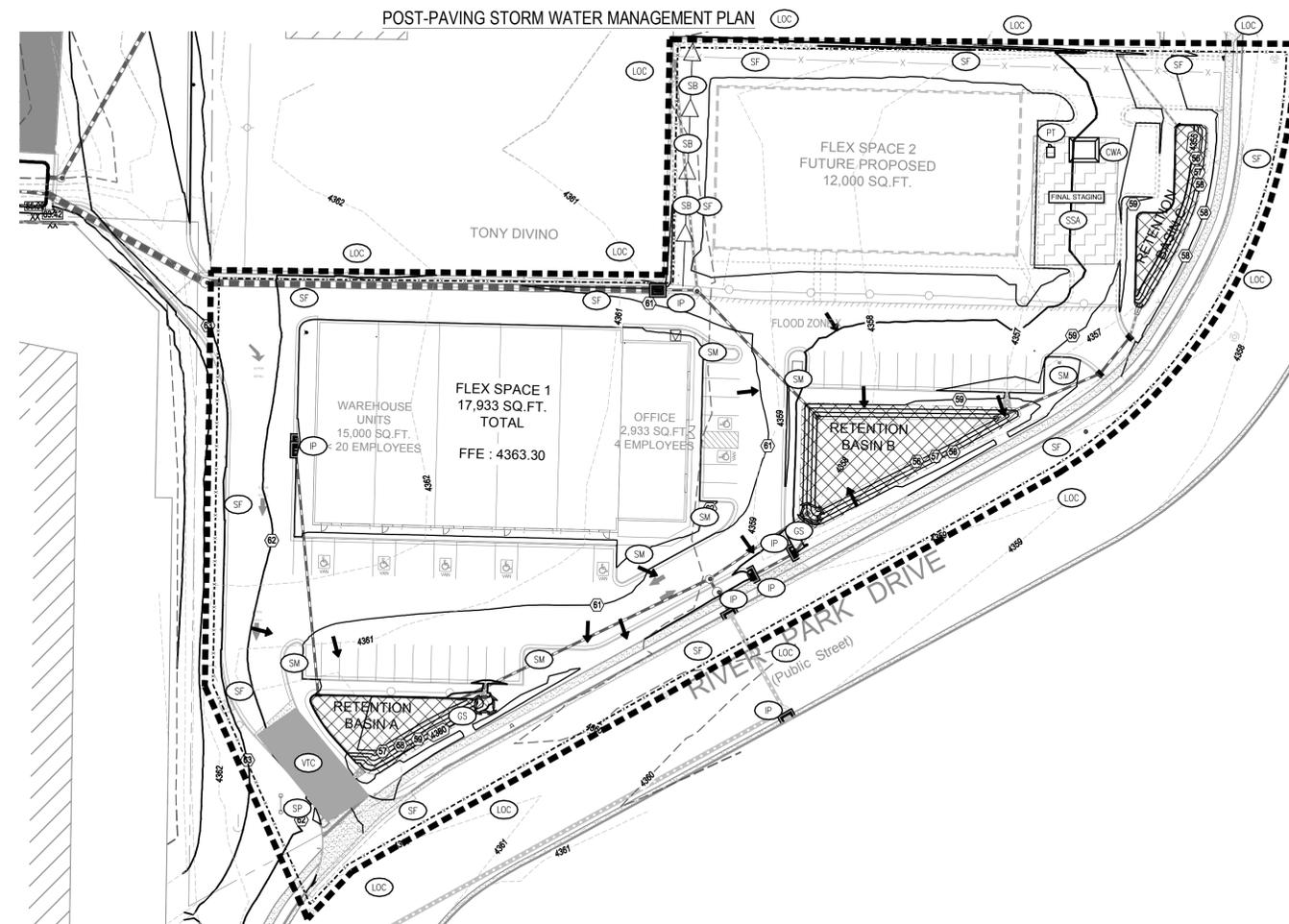
DUST CONTROL NOTES

- LARGE AREAS OF SOIL THAT ARE DENuded OF VEGETATION AND HAVE NO PROTECTION FROM PARTICLES BEING PICKED UP AND CARRIED BY WIND SHOULD BE PROTECTED WITH A TEMPORARY COVER OR KEPT UNDER CONTROL WITH WATER OR OTHER SOIL ADHERING PRODUCTS TO PREVENT SOIL PARTICLES FROM BECOMING AIRBORNE, AND FROM EXITING THE SITE PERIMETER.
- WATER TRUCKS OR OTHER DUST CONTROL AGENTS SHALL BE USED AS NEEDED DURING CONSTRUCTION TO MINIMIZE DUST GENERATED ON THE SITE. TACKIFIERS MAY BE USED TO HOLD SOIL IN PLACE AND PREVENT DUST. MANUFACTURER RECOMMENDATIONS FOR APPLICATION LOCATIONS AND RATES MUST BE USED FOR DUST CONTROL APPLICATIONS.
- DUST CONTROL MUST BE PROVIDED BY THE GC TO A DEGREE THAT IS IN COMPLIANCE WITH APPLICABLE FEDERAL, LOCAL AND STATE DUST CONTROL REGULATIONS.
- THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- IN ADDITION TO BMPs, GC SHALL PERFORM GRADING PRACTICES AND PROCEDURES WHICH MINIMIZE AND PREVENT AIRBORNE DUST OR OTHER PARTICLES FROM OCCURRING.

NOTE: REFER TO SHEET C3.20 FOR EROSION CONTROL DETAILS

FINAL EROSION CONTROL PLAN

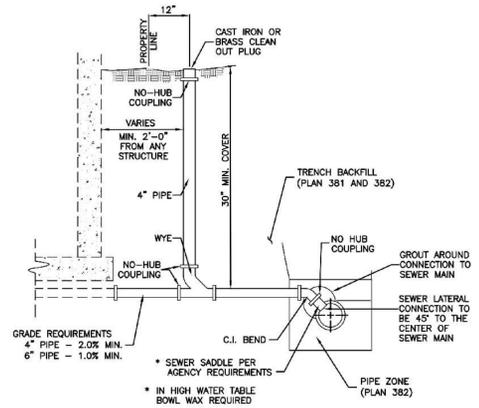
PERMANENT LANDSCAPE MATERIALS PER THE ACCOMPANYING PLAN WILL BE USED TO STABILIZE ALL ON-SITE OPEN SPACE. ALL OTHER ON-SITE AREAS WILL BE STABILIZED WITH HARDSCAPE OR BUILDING CONSTRUCTION. DISTURBED OFF-SITE AREAS WILL BE PROVIDED WITH REPLACEMENT LANDSCAPE, HARDSCAPE OR FULLY ESTABLISHED NATIVE SEED REVEGETATION AS INDICATED ON THE INTERIM & FINAL EROSION CONTROL PLAN THIS SHEET.



SCALE: 1"=40'

Sewer lateral connection

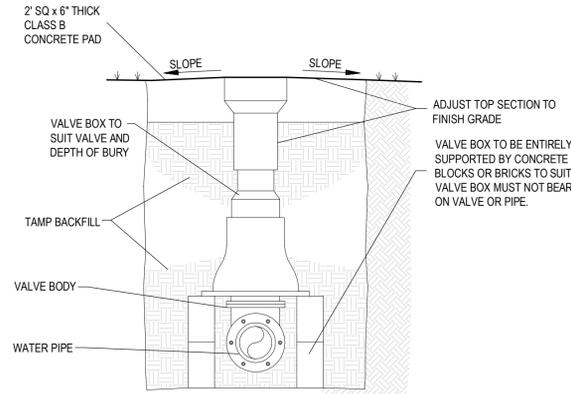
- GENERAL**
 - Before installation, secure acceptance by ENGINEER for all pipe, fittings, and couplings to be used.
 - Before backfilling, secure inspection of installation by ENGINEER. Give at least 24 hours notice.
 - Verify if CONTRACTOR or agency is to install the wye.
- PRODUCTS**
 - Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
 - Provide agency approved wye or tee with appropriate donut.
 - Stainless steel straps required.
- EXECUTION**
 - Tape wrap pipe as required by soil conditions.
 - Remove core plug from sewer main. Do not break into sewer main to make connection.
 - Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.



Sewer lateral connection

Plan 431

CLEAN OUT (E)
NOT TO SCALE



GATE VALVE (C)
NOT TO SCALE

218

January 2011

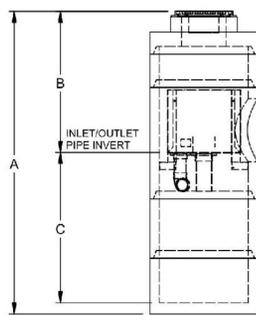
219

This CADD file is for the purpose of specifying stormwater treatment equipment to be furnished by CONTECH Stormwater Solutions and may only be transferred to other documents exactly as provided by CONTECH Stormwater Solutions. Title block information, excluding the CONTECH Stormwater Solutions logo and the VortSentry HS Stormwater Treatment System designation and patent number, may be deleted if necessary. Revisions to any part of this CADD file without prior coordination with CONTECH Stormwater Solutions shall be considered unauthorized use of proprietary information.

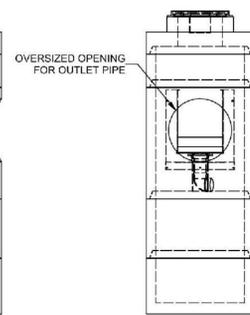
THE VORTSENTRY HS CONTROL SECTION SHALL BE STENCILED WITH THE CONTECH STORMWATER SOLUTIONS NAME AND LOGO. PIPE OPENINGS SHALL BE STENCILED "INLET" OR "OUTLET" AS APPROPRIATE.



PLAN



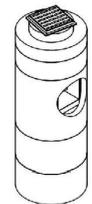
ELEVATION



RIGHT SIDE

NOTES:

- STORMWATER TREATMENT SYSTEM (SWTS) SHALL REMOVE 80% OF A SEDIMENT GRADATION WITH AN AVERAGE PARTICLE SIZE OF 240 MICRONS AT THE DESIGNATED TREATMENT FLOW RATE LISTED IN THE TABLE FOR EACH CORRESPONDING MODEL.
- SWTS REMOVAL EFFICIENCY CLAIM SHALL BE CORROBORATED BY FULL SCALE LABORATORY TEST PERFORMANCE DATA.
- SWTS MAINTENANCE RECOMMENDATION SHALL BE SUPPORTED BY FULL SCALE WASH-OUT TESTING.
- SWTS SHALL PROVIDE INTERNAL BYPASS OF FLOWS THAT EXCEED THE TREATMENT FLOW RATE.
- SWTS MAXIMUM HYDRAULIC CAPACITY MAY VARY DEPENDING UPON THE DEPTH OF FLOW OVER THE GRATE.
- IF THE SWTS INCORPORATES THE OPTIONAL INLET PIPE, INVERTS IN AND OUT SHALL BE AT THE SAME ELEVATION AND 180° FROM EACH OTHER.
- MINIMUM RIM TO INVERT DISTANCE MAY BE REDUCED DEPENDING UPON ACTUAL PIPE DIAMETER. CONTACT CONTECH STORMWATER SOLUTIONS FOR SITE SPECIFIC INFORMATION.
- PIPE SIZE MAY BE SMALLER THAN THE MAXIMUM PIPE SHOWN ON THE TABLE; SEE SITE PLAN FOR PIPE SIZE.
- PURCHASER SHALL NOT BE RESPONSIBLE FOR ASSEMBLY OF INTERNAL COMPONENTS.
- ACCESS FRAME AND GRATED COVER SUPPLIED WITH SYSTEM, NOT INSTALLED. SWTS MAY ALSO HAVE A SOLID COVER AND INLET PIPE (NOT SHOWN).
- PURCHASER TO PREPARE EXCAVATION AND PROVIDE LIFTING EQUIPMENT.
- VORTSENTRY HS BY CONTECH STORMWATER SOLUTIONS, PORTLAND, OR (800) 548-4667, SCARBOROUGH, ME (877) 907-8876, LINTHICUM, MD (866) 740-3318.



ASSEMBLED VIEW

VortSentry Model	Manhole Diameter (ID)		Total Treatment Flow Rate		Typical Total Distance Rim to Outside Bottom		Typical Distance Rim to Invert		Typical Depth Below Invert (Inside)		Approximate Minimum Distance Rim to Invert (See Note 7)		Maximum Pipe Diameter (ID)	
	ft	mm	cfs	l/s	ft	m	ft	m	ft	m	ft	m	in	mm
HS36	3	900	0.55	15.6	10.16	3.10	4.08	1.24	5.5833	1702	3.00	0.91	18	450
HS48	4	1200	1.20	34.0	13.25	4.04	6.00	1.83	6.75	2057	4.00	1.22	24	600
HS60	5	1500	2.20	62.3	16.38	4.99	6.50	1.98	9.21	2807	4.82	1.47	30	750
HS72	6	1800	3.70	104.8	16.55	5.05	6.75	2.06	9.15	2788	5.59	1.70	36	900
HS84	7	2100	5.60	158.6	18.85	5.75	7.75	2.36	10.35	3156	4.77	1.45	42	1050
HS96	8	2400	8.10	229.4	20.87	6.36	8.50	2.59	11.54	3518	6.91	2.11	48	1200

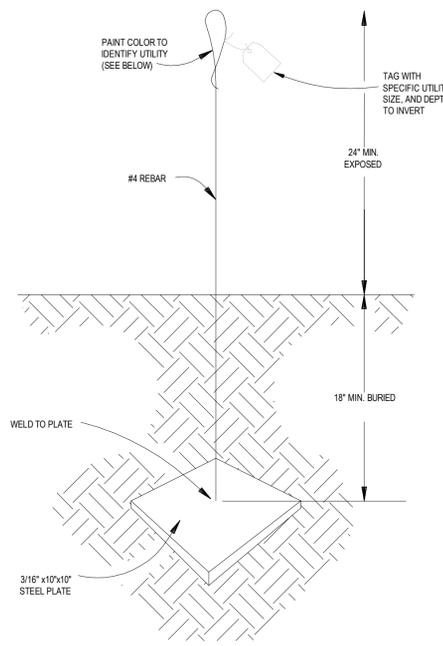
FOR INFORMATIONAL PURPOSES ONLY - NOT INTENDED FOR CONSTRUCTION

TYPICAL DETAIL WITH SIZING TABLE
STORMWATER TREATMENT SYSTEM
VORTSENTRY[®] HS GRATE INLET US PATENT PENDING



SCALE:
DRAWN: NOG
CHECKED: GWB
FILE NAME: VSHS-G TYPTBL
DATE: 8/17/07

AREA INLET (D)
NOT TO SCALE



USE AT CAPPED END OF ALL UTILITY SERVICE CONNECTIONS.

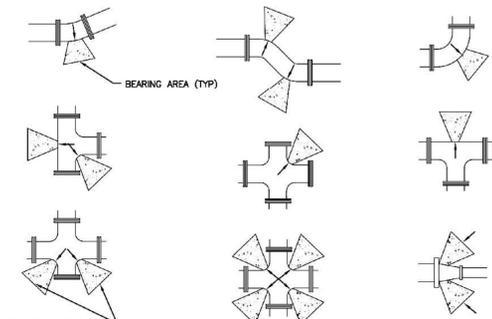
UTILITY	COLOR
SEWER	GREEN
WATER	BLUE
STORM DRAIN	WHITE
ELECTRICAL	RED
GAS	YELLOW
TELECOM/TV	ORANGE
FUTURE SITE LIGHTING	PINK
FIBER OPTIC (GAS STATION)	PURPLE

NOTE:
REBAR IS TO BE CUT OFF 6\"/>

UTILITY MARKER (B)
NOT TO SCALE

Direct bearing thrust block

- GENERAL**
 - Thrust design for pipe sizes or configurations not shown require special design.
 - Bearing areas, volumes, and special thrust blocking details shown on Drawings take precedence over this plan.
 - Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength will require special design.
 - Before backfilling around thrust block, secure inspection of installation by ENGINEER.
- PRODUCTS**
 - Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
 - Thrust Blocks: Concrete Class 4000, APWA Section 03 30 04.
 - Grease: Non-oxide poly-FM.
- EXECUTION**
 - Pour concrete against undisturbed soil.
 - Pipe Joints: Do not cover with concrete. Leave completely accessible.
 - Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
 - Locking restraint devices may be used in conjunction with concrete thrust blocking (at discretion of ENGINEER).
 - Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.



THE AREA OF BEARING PER THRUST BLOCK TO EQUAL 1/2 THE AREA SPECIFIED FOR THE LARGEST PIPE OR FITTING SIZE

SIZE OF PIPE (FEET)	MINIMUM BEARING AREA IN SQ. FT.					
	1/2\"/>					
4"	2	3	2	2	2	2
6"	4	5.5	3	1.5	1	1
8"	6.5	9.5	5	2.75	1.5	1
12"	14	20	11	5.5	3	3
14"	19	26.5	14.5	7.5	4	4
16"	24	34	18.5	9.5	6	6
20"	27	52	28.5	14.5	16	16
24"	53	74	41	21	53	53
30"	81	114	62	32	16	16

Direct bearing thrust block

August 2010

267

THRUST BLOCKS (A)
NOT TO SCALE

JURISDICTIONAL REVIEW DRAFT. PLANS WILL RECEIVE ELECTRONIC STAMP OF LICENSED PROFESSIONAL WHEN ITERATIVE REVIEW PROCESS HAS CONCLUDED AND PLANS ARE READY TO RECEIVE FINAL APPROVALS OF THE AFFECTING JURISDICTION.

THESE PLANS ARE AN INSTRUMENT OF SERVICE AND ARE THE PROPERTY OF GALLOWAY, AND MAY NOT BE DUPLICATED, DISCLOSED, OR REPRODUCED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. COPYRIGHTS AND INFRINGEMENTS WILL BE ENFORCED AND PROSECUTED.

H & P INVESTMENTS
CUTRUBUS REDEVELOPMENT
FLEX SPACE 1
4560 S RIVER PARK DRIVE
RIVERDALE UTAH 84405

#	Date	Issue / Description	Init.
A	03-28-16	PRELIM AHJ S.P. SUBM	DRP
B	04-13-16	PRELIM AHJ S.P. SUBM	DRP

Project No: HPI000001.00
Drawn By: WLMR
Checked By: DP
Date: MARCH 2016

UTILITY DETAILS

Plan 561
C4.92
Sheet 21 of 24

